

NUNAVUT WILDLIFE MANAGEMENT BOARD
Agenda: Regular Meeting No. RM 001-2019
March 7, 2019 (9:00 AM - 5:00 PM)
Iqaluit, Nunavut

	No:	Item:	Tab:	Presenter:	Time Limit
9:00 AM - 9:05 AM	1	Call to Order / Opening Prayer		Chairperson	5 minutes
9:05 AM - 9:10 AM	2	Approval of Agenda	1	Chairperson	5 minutes
9:10 AM - 9:15 AM	3	Declaration of Conflict of Interest		Chairperson	5 minutes
Department of Environment-GN (DOE-NU): Issues/Decisions					
9:15 AM - 10:00 AM	4	Adjusting Polar Bear Total Allowable Harvests to a 1:1 Male to Female Sex Ratio along with a simpler credit calculation system	2	Government of Nunavut	45 Minutes
BREAK		BREAK			15 Minutes
10:15 AM - 11:00 AM	5	Baffin Island Caribou Consultations with Hunters and Trappers Organizations	3	Government of Nunavut	45 Minutes
Fisheries and Oceans Canada (DFO): Issues/Decisions					
11:00 AM - 11:30 AM	6	Total Allowable Catch levels for Northern (<i>Pandalus borealis</i>) and Striped (<i>Pandalus montagui</i>) Shrimp for the 2019-2020 season	4	Fisheries and Oceans Canada	30 Minutes
11:30 AM - 12:00 PM	7	Operational Updates	5	Fisheries and Oceans Canada	30 Minutes
BREAK		BREAK			1 Hr - 15 Min.
Environment Canada (EC): Issues/Decisions					
1:15 PM - 2:00 PM	8	Proposed Listing of Barren-Ground Caribou as a Threatened Species under the Federal Species at Risk Act	6	Environment and Climate Change Canada	45 Minutes
Parks Canada Agency: Issues/Decisions					
2:00 PM - 2:30 PM	9	Tallurutiup Imanga National Marine Conservation Areas Establishment	7	Parks Canada Agency	30 Minutes
Nunavut Fisheries Association					

2:30 PM - 3:00 PM	10	Proposed Sharing Agreement on 0A/0B Turbot Increase	8	Nunavut Fisheries Association	30 Minutes
BREAK		BREAK			15 Minutes
		Cumberland Sound Fisheries Ltd./Pangnirtung Fisheries Ltd.			
3:15 PM - 3:55 PM	11	Cumberland Sound Fisheries Ltd./Pangnirtung Fisheries Ltd. Request to Increase the Turbot Total Allowable Catch from 500 t to 800 t in the Cumberland Sound Turbot Management Area	9	CSFL/PFL	40 Minutes
		Kitikmeot Regional Wildlife Board Updates			
3:55 PM - 4:25 PM	12	Updates from the Kitikmeot Regional Wildlife Board		KRWB	30 Minutes
		Ikaluktutiak Hunters and Trappers Organization Updates			
4:25 PM - 4:55 PM	13	Updates from the Ikaluktutiak Hunters and Trappers Organizations		Ikaluktutiak HTO	30 Minutes
4:55 PM - 5:00 PM	14	Adjournment		Chairperson	5 Minutes



SUBMISSION TO THE

NUNAVUT WILDLIFE MANAGEMENT BOARD

FOR

Information:

Decision: X

Issue: Adjusting Polar Bear Total Allowable Harvests to a 1:1 Male to Female Sex Ratio along with a simpler credit calculation system.

Background:

- The main objective of the Nunavut polar bear management system has been to increase or maintain polar bear subpopulations. However, over the past several years communities have been raising concerns over the increased abundance of polar bears. In particular, community members voiced their concerns about public safety. There has been a shift in community support for increased populations and most Nunavummiut would rather see a properly managed decrease in polar bear numbers in order to address public safety concerns.
- During the consultations for the existing polar bear Memoranda of Understanding (MOUs) the issue of non-sex-selective harvesting was discussed as an option.
- All communities agreed to harvest sex-selectively with the signing of the last Polar Bear MOUs in 2005 as it allowed for a higher Total Allowable Harvest (TAH) while still allowing for a sustainable harvest level. The issue was discussed during the consultations.

Current Status:

- The Department of Environment (DOE) participated in the Nunavut Wildlife Management Board (NWMB) public hearing for the Nunavut Polar Bear Co-Management Plan in Iqaluit from November 13-16, 2018.
- The participants in the public hearing, mostly comprised of representatives from Nunavut communities and Hunters and Trappers Organizations (HTOs), were very clear and consistent in conveying the message that the current management of polar bear needs to be improved to reflect community values and Inuit Qaujimajatuqangit (IQ).

- The specific components of polar bear management that was criticized the most was the current practice, for all but one subpopulation, of a 2:1 harvest sex ratio (two males harvested for every female) and the flexible quota system.
 - Communities have concerns that too many males being harvested due to the sex ratio will cause an imbalance in the population.
 - Communities feel that the current flexible quota system is overly punitive and communities that experience a high number of problem bears are at an extreme disadvantage. Many people have expressed that the calculation process for the flexible quota system is difficult to understand.
- The Baffin Bay polar bear subpopulation currently has a 1:1 harvest sex ratio. This was recommended based on the data collected during the most recent population assessment, which indicated that the proportion of males in the population was low and could lead to a conservation concern.
- Even if the final decision is to remove the sex-selective component of the management system at this time, we would note that the use of sex selectivity as a polar bear management tool remains an option for the future. Following the collection of updated subpopulation information (e.g. population inventories, harvest risk assessments, etc.), the use of sex-selectivity could be included as part of management recommendations to address conservation concerns going forward.
- As a change to the sex-selectivity of the polar bear harvest is not a change to the TAH, the current accumulated credits in each community would not be zeroed.

Consultations:

The GN held several rounds of consultations between 2014 and 2016 during the process of developing the polar bear management plan. In addition, the topic was also discussed during NWMB public hearing held in Iqaluit from November 13-16, 2018.

Recommendations:

1. DOE recommends that for all polar bear subpopulations in Nunavut, a harvest sex ratio of up to 50% females should be adopted; communities can use up to 50% of their allocated tags to harvest female bears.
2. DOE recommends that the credit system will be based on a one bear reduction for one bear over-harvest basis:
 - a. An overharvest of one female, over 50% of the tag allocation in one year, would reduce a community tag allocation by one tag in the following year.
 - b. Males can be harvested up to the limit of the tag allocation. An overharvest of males, over the tag allocation, would result in a reduction of the same amount of tags the following year.

- c. Accumulated credits can continue to be used to offset an overharvest, instead of a reduction in the following years tag allocation.
 - d. Cubs will be considered as one-half male tag.
- 3. DOE recommends that the changes to harvest sex-selectivity and the credit system be implemented effective in the current harvest season (2018-19).



SUBMISSION TO THE

NUNAVUT WILDLIFE MANAGEMENT BOARD

FOR

Information: X

Decision:

Issue: Baffin Island Caribou Consultations with Hunters and Trappers Organizations

Background:

- The first island-wide survey of Baffin Island caribou occurred in March 2014, and the results indicated there are currently very few caribou on Baffin Island. The population was estimated to be 4,652 caribou (3,462–6,250 with a 95% Confidence Interval).
- In August 2015, the Minister of Environment accepted the Nunavut Wildlife Management Board's (NWMB's) decision to allow a Total Allowable Harvest (TAH) of 250 male caribou, thereby ending an 8 month harvest moratorium that started in January 2015.
- The Baffin Island Caribou Management Plan, initiated in December 2014 with input from ten affected Hunters and Trappers Organizations, Qikiqtaaluk Wildlife Board, Nunavut Tunngavik Inc., and Parks Canada, was submitted to the NWMB for decision in March 2016. Suggested revisions were to be followed up on with further consultations. This plan reviews the current status of Baffin Island caribou management and outlines a sustainable harvest management and research plan for Baffin Island caribou for the next 5 years.
- Consultations on the draft Management Plan occurred March 16–April 7, 2015 and included discussions on caribou collaring under the research and monitoring component of the Plan. While there was caribou collaring support from several of the communities initially, that support appeared to later collapse given opposition from two communities in particular, late in the consultation process.
- Potential for spatially separated and geographically discrete subpopulations of caribou on Baffin Island are suggested through Inuit Qaujimagatuqangit and past scientific analyses, supporting the potential benefits of telemetry research and monitoring.

Current Status:

- Results from composition surveys done in 2015 and 2016 indicated good numbers of calves were being produced but there was low over-winter calf survival. The 2017 and 2018 spring composition surveys, for north, south and central Baffin, were completed and suggested good overwinter calf survival for the survey areas in north central and south Baffin, except Prince Charles Island.
- A final summary report of the results from 2015-2018 caribou composition surveys was distributed to co-management partners and Hunters and Trappers Organizations (HTOs) in September 2018. No comments have been received to date.
- Following the 2014 abundance survey it was estimated that Prince Charles Island had over 1/3 of the population of caribou on Baffin Island. Prince Charles Island has likely experienced a second winter die-off in 2018. At this time it is unknown how extensive the die-off was and how it has impacted the overall abundance of caribou on Baffin. The number of caribou observed on the island in the spring of 2018 was much less than the 2014 estimate and observed individuals in 2018 was 302 compared to 690 in 2016.
- Telemetry research through satellite collars on caribou, at this time in the population cycle, could identify important caribou critical habitats. Identification of key over-wintering habitats, as a potential limiting factor in Baffin Island caribou survival, is of particular importance.
- Male harvesting is problematic for some communities, but sex-selective harvesting was not supported by board members at the June 2016 NWMB regular meeting. Sex-selective harvest management options were discussed with communities during consultations.

Consultations:

- Community consultations were held with HTO representatives from Kimmirut, Qikiqtarjuaq, Pangnirtung, Iqaluit, Cape Dorset, Hall Beach, Igloolik, Arctic Bay and Pond Inlet. Unfortunately, during this consultation tour, weather prevented us from meeting with Clyde River but the DOE is currently planning to meet with that HTO in February 2019.
- The HTO members expressed their interest in the logistics of composition and abundance surveys, the recent suspected die-offs on Prince Charles Island, the presence and speculated abundance of wolves on Baffin, changes to the TAH and male-only harvest, concerns regarding development, HTO participation and how IQ could be incorporated into research.
- The majority of HTOs expressed interest in some form of a telemetry collaring program in the future for Baffin Island. The Iqaluit, Pangnirtung and Arctic Bay HTOs had the most outspoken members in support of a collaring program but all HTOs indicated that they planned to discuss this internally prior to making a commitment. An email

stating support for a collaring program was received from the Mayukalik HTO on January 24, 2019.

Recommendations:

1. N/A

Report Summary

Baffin Island Caribou Composition Summary Report 2015- 2018

Local hunters, trappers, and community members began identifying a suspected decline in the caribou population on the island in the mid to late 1990s. In 2014 the Government of Nunavut, Department of Environment (DOE) conducted aerial surveys on Baffin Island, Melville Peninsula and surrounding islands to estimate the abundance. It was estimated that 4,652 caribou, inhabited the Baffin Island and ancillary islands. As a result of the reduced number of caribou on Baffin Island, an eight-month moratorium was put in place on January 1, 2015 followed by a Total Allowable Harvest (TAH) of 250 bull caribou. As a result of the TAH allocation and low abundance the DOE has conducted fall and/or spring aerial composition surveys from 2015-2018.

The objectives were; 1) Determine the vigor of the population based on productivity and demographic composition; i.e. what proportion of the population are young bulls, old bulls, cows, yearlings, and calves. 2) Determine the trajectory of productivity of the population based on the demographic composition; and with spring composition results, determine if an index of calf productivity and overwinter survival suggests an increasing or decreasing trend. 3) Monitor bull ratios to insure that the bull only harvest is not reducing bulls to a proportion that could interfere with rutting success. 4) Build a database with which to estimate the current population trend through demographic modeling, utilizing all demographic composition data to project a trend from the 2014 population estimate. 5) Inform on management discussions regarding current TAH levels.

We observed 911 total caribou (bulls, cows, yearlings, and calves) in the fall of 2015, 1,266 in the spring and 901 in the fall of 2016, 1,514 in the spring and 316 in the fall of 2017 and 1,433 in the spring of 2018.

In North Baffin calf to cow ratios were variable in the fall from 2015 to 2017. The spring calf to cow ratio increased from 2017 to 2018. A reduction in the number of bulls was observed between the fall of 2016 and 2017 which suggests a potential impact on bulls within the North Baffin as a result of the bull only harvest allocation.

In Central Baffin the calf ratio in the spring increased from 2016 to 2018. The ratio of bulls to cows in the fall of 2015 was 74bulls:100 Cows.

A decrease in fall calf ratio was observed in South Baffin between 2015 and 2016. An increase in calf ratios was observed in spring from 2016 to 2018. The ratio of bulls to cows in South Baffin in fall declined from 2015 to 2016.

A notable observation was the decrease in caribou observations on Prince Charles Island from 655 in the spring of 2017 to a total of 302 in the spring of 2018. In addition to the reduced number of observed caribou in 2018, many caribou were observed in poor body condition and in a few instances dead caribou were observed. This follows similar die-offs observed in the winter of 2015/2016 where 47 dead caribou were discovered.

**Consultations with Hunting and Trapping Organizations on the Baffin Island
Caribou Composition Survey Results, Future Research Recommendations, and
Draft Management Plan**

January 7-18, 2019



Department of Environment, Government of Nunavut, Iqaluit, Nunavut

Executive Summary

Government of Nunavut (GN), Department of Environment (DOE) representatives conducted consultations with Hunters and Trappers Organizations (HTOs) in the Baffin region from January 7-18, 2019.

The intent of this round of consultations was to ensure HTOs were informed on the results of caribou abundance and composition surveys from 2014 to present on Baffin Island. DOE presented options for future research on Baffin Island including a telemetry-based collaring program. The feedback collected during this round of consultations will aid the GN in future research planning and monitoring for Baffin Island caribou.

This report attempts to summarize the comments made by participants during the round of consultations.

Preface

This report represents the Department of Environment's best efforts to accurately capture all of the information that was shared during consultation meetings with the Hunters and Trappers Organizations of Kimmirut, Qikiqtarjuaq, Pagnirtung, Iqaluit, Cape Dorset, Hall Beach, Igloolik, Arctic Bay and Pond Inlet. Unfortunately during this consultation tour weather prevented us from meeting with Clyde River but the DOE is currently planning to meet with the HTO in February 2019.

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

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1.0 Report Purpose and Structure

This report is intended to collate and summarize comments, questions, concerns and suggestions provided by the HTOs in response to the summarized 2015-2018 composition survey results, caribou monitoring methods, and the draft Baffin Island Caribou Management Plan. The following communities were consulted from January 7-18, 2019:

- Kimmirut, January 7, 2019
- Clyde River, Postponed due to weather
- Qikiqtarjuaq, January 8, 2019
- Pangnirtung, January 10, 2019
- Iqaluit, January 11, 2019
- Cape Dorset, January 14, 2018
- Hall Beach, January 15, 2019
- Igloolik, January 16, 2019
- Arctic Bay, January 17, 2019
- Pond Inlet, January 18, 2019

Representatives from the DOE, the Nunavut Wildlife Management Board (NWMB), Nunavut Tunngavik Inc. (NTI), and the Qikiqtaaluk Wildlife Board (QWB) attended each of the consultations.

2.0 Purpose of Consultations

The preliminary consultations were to discuss the newest information regarding the Baffin Island Caribou and allow HTOs to voice questions, comments and concerns regarding future research programs.

2.1 Format of Meetings

The meetings were held in the evening and ran between 3 to 4.5 hours depending on HTO engagement. Meetings were facilitated and led by the Baffin Regional Wildlife Biologist, John Ringrose, and the Kivalliq Regional Wildlife Biologist, Mitch Campbell. Each consultation started with a presentation by John Ringrose on the two survey methods used by the GN since 2014 for monitoring caribou; aerial abundance surveys and composition surveys (Appendix 1). The participants were invited to ask questions, raise concerns, or provide advice during the presentation but were advised there would be breaks for questions. The presentation then provided the HTOs with survey results from 2015-2018 composition surveys across Baffin Island. Mr. Campbell then presented on the caribou monitoring program in the Kivalliq region including, aerial surveys (abundance), composition surveys and telemetry. After this presentation there was a break for questions. Mr. Ringrose then provided a brief description of the draft Baffin Island caribou management plan and asked for comments, concerns and questions from HTOs regarding the plan. After the presentations, questions/discussion continued until no further questions were raised. DOE asked HTOs to internally discuss the

addition of a telemetry collaring program on Baffin Island and provide letters of support for collaring work in their region.

3.0 Summary by Community

The objectives of the consultations were made clear to the HTO members prior to and at the start of each meeting. There were many similar questions, concerns and suggestions raised by HTO Board members in all the communities consulted.

3.1 Kimmirut

Date: January 7, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, Acting South Baffin Manager: Alden Williams
- NTI, Resource Management Advisor: Cheryl Wray
- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Mayukalik HTA Board members
 - Sandy Akavak
 - Mikidjuk Kolola
 - Jeannie Padluq
 - Kapik Ikkidluak
 - Palanga Lyta
 - Pitsiulala Akavak
 - Kamikee Akavak
 - Dustin Joanas

Comments and questions:

The HTO members expressed their interest in the logistics of composition surveys and the recent suspected die-offs on Prince Charles Island. The HTO members wondered if collaring would be done in the future and if the consultations were regarding changes to the Total Allowable Harvest (TAH). They also raised concerns regarding development activities and how elder information and Inuit Qaujimajatuqangit (IQ) would be incorporated into future research.

HTO members indicated that ongoing monitoring needed to more accurately detect changes in the population and lead to more responsive management actions such as TAH changes. Mikidjuk Kolola asked that if an increase was observed in south Baffin but not in north Baffin would an adjustment to the TAH be considered in south Baffin only. The DOE explained how the use of telemetry may be able to separate different subpopulations and allow abundance surveys to occur on smaller scales and be more reactive to changes. The HTO asked about the detailed logistics of collar deployment and what the effects would be on caribou. HTO members

were curious if there was ongoing monitoring of wolf abundance. There was concern with the Bull-only harvest and the effect it may be having on the population.

There was some confusion about the ongoing federal listing process and the recent round of consultations by the federal government. DOE, QWB and NWMB provided clarification of the differences between the federal consultations and the current meeting.

No comments were provided regarding the draft management plan during the meeting. The HTO said they will discuss this internally at an upcoming board meeting and provide input to the GN in writing.

3.2 Qikiqtarjuaq

Date: January 9, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, Acting South Baffin Manager: Alden Williams
- NTI, Resource Management Advisor: Cheryl Wray
- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Translator, Titus Arnakallak
- Nativak HTO Board members
 - Alison Kopalie
 - Juelie Kuksiak
 - Loasie Alikatuktuk
 - Jacopie Audlakiak
 - Jonah Keeyookta
 - Jaypatee Newkinguak
 - Uriah Newkinguak

Comments and questions:

The HTO members discussed the population decline that they observed in the early 2000s. There was concern over the number of wolves spotted during the surveys and low number of caribou in their area. DOE clarified that they had observed very few wolves during surveys from 2012 to present and they believe the impact of wolves at this time is relatively low. The HTO provided information regarding caribou locations in the mountainous areas surrounding Qikiqtarjuaq as well as historical hunting areas.

The HTO commented on the historical movement patterns of caribou on Baffin. The QWB provided input of historical information from discussions with elders. QWB identified that Inuit believe there are different types (subpopulations) of caribou on the island that display different behavioural patterns and utilize different habitats. Additional survey methods, such as including cameras or video cameras with composition surveys, was discussed but determined that using

them at this time would likely increase survey time and negative effects on the caribou. There was interest expressed in the Nunavut Harvesters Support Program (NHSP) offered by NTI and a commitment was made by NTI to provide further information after the meetings.

No comments were provided regarding the draft management plan during the meeting. The HTO said they will discuss this internally at an upcoming board meeting and provide input to the GN in writing.

3.3 Pangnirtung

Date: January 10, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, Acting South Baffin Manager: Alden Williams
- NTI, Resource Management Advisor: Cheryl Wray
- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Translator, Titus Arnakallak
- Pangnirtung HTA Board members
 - Davidee Nowyuq
 - Johnny Mike
 - Mark Kilabuk
 - George Qaqqasiq
 - Billy Etooangat
 - Kelly Qaapik
 - Patrick Kilabuk

Comments and questions:

The HTO members expressed their interest in the population estimates from 2014, the estimated trend in productivity based on composition and the desire to take part in GN led surveys. The HTO was interested in the overall productivity of the herd and the number of bulls that are likely required to ensure cows are bred. The QWB provided insight to the movement of caribou between Baffin Island and the mainland on Melville Peninsula. The QWB stated that they do not believe that movement between the peninsula and Baffin Island makes a large impact on the numbers of caribou on Baffin Island.

The HTO members expressed they believe there is a small group of caribou present to the east of Pangnirtung and expressed that if another abundance survey was to be conducted, this area should be discussed. DOE clarified how the 2014 abundance survey results supported decisions regarding TAH and which areas are included in the TAH for Baffin Island. GN, QWB and the HTO

discussed estimated wolf numbers on the island and the numbers observed during surveys since 2014 but all parties agreed that the current impact from wolves on caribou was likely low.

The HTO showed interest in the telemetry collaring process including field logistics and collar application. DOE indicated that if collars were to be supported by the HTO and applied to caribou on Baffin Island it would likely be mature cows that received collars. The QWB provided insight as to collaring methods that were done in the 1990s and field measurements that will ensure only mature adults are being collared. The HTO expressed a need for better management of caribou on Baffin as well as the need for additional movement and distribution information to support the current IQ. Billy Etoangat stated that he saw the value in collaring caribou so they could know where they are going and allow DOE to conduct surveys of the areas where caribou are found. The HTO mentioned the DeBeers diamond mine on Hall Peninsula and they are concerned about the effects of this project on caribou in their hunting area. They believe that a telemetry program may be beneficial to assess the impacts.

The community of Pangnirtung has a hard time hunting caribou right now because caribou don't seem to be migrating where they used to and access to these areas is difficult due to thin ice.

No comments were provided regarding the draft management plan during the meeting. The HTO said they will discuss this internally at an upcoming board meeting and provide input to the GN. Many members said this was their first time seeing this management plan so they wanted an opportunity to review it internally.

3.4 Iqaluit

Date: January 11, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, Acting South Baffin Manager: Alden Williams
- NTI, Resource Management Advisor: Cheryl Wray
- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Amaruq HTO Board members
 - Jerry Ell
 - David Alexander
 - Martha Kunuk
 - Ben Kovic
 - Manasie Mark

Comments and questions:

The meeting in Iqaluit discussed the merging of survey results and IQ, the number of bulls needed in a population, and the need for additional tools, such as a telemetry program, to support IQ.

The HTO expressed their concern regarding the bull-only harvest and the issues that would arise if the number of bulls were reduced. DOE representatives agreed that harvesting too many bulls will limit productivity of the population but monitoring to date has suggested there are currently enough bulls in the population in south Baffin. The QWB expressed that during previous conversations with elders it was identified that the quality of bulls is important.

The HTO asked whether there is any current technology available that can be used to better understand caribou movements across the island and if the GN has considered collaring any caribou.

After the GN presented about the telemetry program in the Kivalliq region there was support from the HTO for a similar program on Baffin. The HTO stated that they needed a telemetry collar program on South Baffin to address the concerns with TAH. Discussions followed regarding application of collar data, how many collars would be needed and if collaring would be done on bulls or cows. The HTO emphasized the need for new tools in the Baffin region including a telemetry collaring program. Jerry Ell expressed the desire of the HTO for a collaring program to the QWB representative, Mike Ferguson, and said that they wanted QWB to “make it happen”.

No comments were provided regarding the draft management plan during the meeting. The HTO said they will discuss this internally at an upcoming board meeting and provide input to the GN. There is a desire to have the TAH removed but there was no discussion at this meeting regarding increased abundance in south Baffin or objection to 2014 estimates. The HTO mentioned the need for additional resources to facilitate discussions with other HTOs.

3.5 Cape Dorset

Date: January 14, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, North Baffin Manager: Scott Johnson
- NTI, Resource Management Advisor: Cheryl Wray
- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Translator, Titus Arnakallak
- Aiviq HTO Board members
 - Annie Suvega
 - Adamie Nuna
 - Dana Pootoogook
 - Simiga Suvega
 - Ejeeseak Peter
 - Tagialuk Nuna

- Ningeoseak Etidloi

Comments and questions:

The majority of discussion with the Aiviq HTO included concerns over the bull-only harvest, how the composition surveys allow monitoring the herd productivity, Baffinland Iron Mines in North Baffin, concerns about development, and movement patterns of caribou on the Island.

QWB questioned the validity of calf:cow and bull:cow ratios and referred to a paper from the 1990s where there were 42 calves:100 cows but this is based on a limited sample size. Mike Ferguson stated that he believes the ratios being used need further refinement.

The HTO asked if there were more bulls or cows based on previous survey results and was under the impression that the bull-only TAH was because there were more males in the population. The GN clarified that composition surveys are designed to be incorporated with IQ to detect changes in productivity. The HTO was unsure if harvesting on Prince Charles Island was allowed and the GN clarified that harvesting can occur but it is likely there has been a reduction in the number of caribou in this area because of several die-offs in 2016 and 2018. The HTO asked whether there will be female harvest in the future and the QWB responded stating that a private discussion between QWB and the HTO would commence after the meeting to discuss TAH issues. However, the GN explained that in order to maintain productivity of the population, the number of tags would need to be reduced if female harvest is accommodated.

The HTO asks about caribou in north Baffin, relative to Mary River, and identified the need for additional information in the future to help reduce the problems associated with development. DOE identified the likely effects of roads and developments on caribou and what impact this may have on caribou in North Baffin.

A desire to have caribou or reindeer introduced to the 3 small islands south of Cape Dorset was mentioned by the HTO. Movement patterns of caribou were also mentioned by the HTO and addressed suspected movement to Northern Quebec and within Baffin between areas south of Nettling Lake and the southern peninsulas.

Similar to previous meetings there were no comments provided regarding the draft management plan during the meeting. The HTO said they will discuss this internally at an upcoming board meeting and provide input to the GN.

3.6 Hall Beach

Date: January 15, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, North Baffin Manager: Scott Johnson
- NTI, Resource Management Advisor: Cheryl Wray

- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Translator, Titus Arnakallak
- Hall Beach HTA Board members
 - Jaypeetee Audlakiak
 - Jopie Kaernerck
 - Cain Pikuyak
 - Zillah Pialiaq
 - Inokie Irgittuq (elder)
 - Abraham Ullalaa
 - Sam Arnardjuak
 - George Innuksuk
 - Joyce Arnarojuak

Comments and questions:

Discussions with the Hall Beach HTO included bull-only harvest, the TAH system and allocations between communities, composition survey methods, and telemetry collar information.

The HTO expressed their interest in taking part in surveys in the future and the incorporation of IQ into design, management and future plans. DOE representatives clarified that the composition survey results are incorporated with IQ and hunter observations: they are not mutually exclusive. The QWB states that they are responsible for the allocation of tags between the 10 HTOs and that if Hall Beach wants tags this year they will have to ask another HTO or discuss with QWB for the future.

Discussions surrounded identification of males and females from the helicopter and use of composition data to determine the productivity and the number of bulls able to breed. The HTO identified that large die-offs may not have occurred on Prince Charles Island in 2018 because caribou could move off of the island. The DOE representatives provided insight into the number of dead caribou observed, the ice conditions between Air Force Island and Baffin Island, and that they do not have evidence to support a large scale movement but stated it was possible. The HTO asked about movements of caribou on Melville Peninsula and historical information was provided by QWB. Mike Ferguson stated that in 1982 they conducted a reconnaissance survey in June of the area west of Hall Beach and observed areas where calving occurred.

The HTO wanted additional information on how telemetry collars are applied in the field and which sex they are applied to. The DOE representatives provided insight into how the telemetry program is conducted in the Kivalliq region including field logistics and HTO participation. There was concern from HTOs regarding collars that were left on polar bears and caused mortality but DOE and QWB assured those concerned that technological advances have reduced the size and weight of collars and the drop-away system performs very well and only requires a single handling event of caribou. The HTO was concerned about a caribou that was collared from

2008-2011 that had a collar improperly applied that caused damage to the animal. The GN responded that this incident was because of improper installation and this example is being used to train current collaring teams. The QWB identified the desire to have a private meeting with the HTO after the consultation to discuss female harvest and future tag allocations.

The HTO expressed the desire to discuss the management plan internally at an upcoming board meeting. There were no comments provided regarding the draft management plan during the consultation.

3.7 Igloodik

Date: January 16, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, North Baffin Manager: Scott Johnson
- NTI, Resource Management Advisor: Cheryl Wray
- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Translator, Titus Arnakallak
- QIA, Charlie Inuarak
- Igloodik HTO Board members
 - Simonie Issigaitok
 - Gideon Tugaoqak
 - Natalino Piuguttuk
 - Daniel Akittirq
 - Michelline Ammaaq
 - David Aqqiaruq
 - Edward Attagutaluk
 - Jacob Malliki

Comments and questions:

Discussions with the Igloodik HTO included the perceived die-offs on Prince Charles Island, HTO participation in surveys, telemetry collaring program for Baffin Island, and combining IQ with survey results.

The HTO expressed interest in the 2018 composition survey on Prince Charles Island where dead, skinny and weak caribou were observed. All parties agreed that in the future, if possible, samples should be taken when large scale die-offs are observed. The HTO were interested in taking part in surveys where possible and increasing the number of Inuit that take part in DOE surveys during field and planning phases.

As with other meetings there was discussion regarding the number of wolves observed during the surveys since 2014. DOE was able to provide some insight into this issue and stated that very few wolves have been observed since 2012 and it is unlikely that the wolf population at this time is having a significant impact on the caribou on Baffin.

After the presentation on the Kivalliq caribou monitoring program, there was discussion surrounding the logistics of collaring on Baffin. The HTO stated their interest in the information that collaring was able to provide but there was hesitation about the size of the collars shown during the presentation. The GN clarified that the collars shown in the presentation were older models and due to airline restrictions they couldn't bring one for the meeting. QWB, Mike Ferguson, stated that dummy collars may be an option to show the size and weight to HTOs and issues with roads were well known in Norway. The GN mentioned that the information from a collaring program would be a useful tool for HTOs to incorporate with IQ and utilize during land use discussions.

DOE then led discussions regarding accidental female harvest.

The HTO stated they wanted to discuss the management plan internally at an upcoming board meeting. There were no comments provided regarding the draft management plan during the meeting.

3.8 Arctic Bay

Date: January 17, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, North Baffin Manager: Scott Johnson
- GN-DOE, Wildlife Officer; Matthew Akikulu
- NTI, Resource Management Advisor: Cheryl Wray
- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Translator, Titus Arnakallak
- Ikajutit HTO Board members
 - Valerie Qaunaq
 - Joeli Qamanirq
 - Kunnak Enoogoo
 - Roland Taqtu
 - Paul Ejangiaq
 - Jonah Oyukuluk
 - Jennifer Pauloosie

Comments and questions:

The discussions with the Ikajutit HTO included survey logistics, male-only harvest, HTO participation in surveys, telemetry collaring program for Baffin, and combining IQ with survey results.

The HTO expressed interest in participating in upcoming survey work during the field and planning aspects. There was discussion regarding field logistics and how DOE deals with weather and mechanical issues and how these affect survey results. There was a lengthy conversation about female harvest with the HTO and the process for the GN, QWB and NWMB to adjust quotas and remove restrictions on female harvest.

The HTO expressed interest in a telemetry collaring program in response to effects of Baffinland Iron Mines on caribou in North Baffin. One member asked if a telemetry program could be initiated by DOE prior to the establishment of the railway south of Mary River to see what the effects were. There was also concern from the HTO about helicopters chasing caribou and flying very low. The DOE representatives advised the HTO that if aircraft are observed chasing caribou, the observer should be documenting the tail sign, the location and colour of the aircraft, the time of the incident, and report it to the GN. The HTO planned to discuss a collaring program at their next internal board meeting.

There were no comments provided regarding the draft management plan during the meeting. The HTO stated they wanted to discuss the management plan internally at an upcoming board meeting.

3.9 Pond Inlet

Date: January 18, 2019

Representatives:

- GN-DOE, Baffin Regional Wildlife Biologist: John Ringrose
- GN-DOE, Kivalliq Regional Wildlife Biologist: Mitch Campbell
- GN-DOE, North Baffin Manager: Scott Johnson
- NTI, Resource Management Advisor: Cheryl Wray
- NWMB, Wildlife Management Biologist: Kyle Ritchie
- QWB, Senior Wildlife Advisor: Michael Ferguson
- Translator, Abraham Kublu
- Mittimatalik HTO Board members
 - Amy Killiktee
 - David Qaminiq
 - Elijah Nashook
 - Eric Ootoova
 - Daniel Quasa
 - Phaniel Enoagah
 - Enookie Inuarak

Comments and questions:

The discussions with the Mittimatalik HTO included survey logistics, telemetry collaring in North Baffin, and effects from the Mary River project.

The HTO was concerned about the competence of the volunteer provided in 2018 and their inexperience in hunting or caribou identification. The parties discussed survey heights and different methods to ensure effective identification of males and females during composition surveys.

The HTO in Pond Inlet expressed concern over the effects of Baffinland and stated that since they are in the Mary River area they need the most help dealing with mining. There was also anger about the approved production increase and approval by the minister. The HTO expressed interest in splitting North and South Baffin as separate management areas.

After the presentation of the DOE Kivalliq caribou monitoring program there was discussion regarding collaring logistics and how collars are applied in the field. There was concern about collared animals losing weight due to the collars. The GN responded in saying that in general caribou wear the collars well and for the life of the collar. The GN explained 2 cases where caribou have been injured directly by collars and how these situations were included in future training to ensure it does not happen again. There was also concern that if a caribou died as a direct result of the collar, that caribou would come off the quota.

There were no comments provided regarding the draft management plan during the meeting. The board was unaware of earlier version of the management plan and even members that were not new did not remember discussions from 2015 with the HTO. The HTO stated they wanted to discuss the management plan internally. There seemed to be interest in the idea of a management plan by a few new members but no comments were made during the meeting.

4.0 Summary

All nine HTOs sought clarification on abundance and composition survey methodology. All HTOs expressed interest in a greater involvement in GN led surveys including field aspects and pre-planning. The majority of HTOs expressed interest in some form of a telemetry collaring program in the future for Baffin Island. The Iqaluit, Pagnirtung and Arctic Bay HTOs had the most outspoken members in support of a collaring program but all HTOs indicated that they planned to discuss this internally prior to making a commitment. Many of the HTOs expressed their interest for modifying or adjusting the current TAH to include an aspect of female harvest. QWB had internal discussion with all of HTOs after the GN consultations to discuss the current TAH.

There were no comments from any HTO consulted regarding the draft management plan and all HTOs said they wanted to have internal discussions prior to submitting anything to the GN.

Baffin Island Caribou HTO Consultations

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Outline

Introduction

Survey Types

Composition Survey
2015-2018 results
2019 spring survey

Monitoring Caribou

Draft Management Plan
Comments



Introduction



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John Ringrose

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Regional Wildlife Biologist
Baffin Region
Department of Environment
Government of Nunavut

Avikturvianni Huradjanut Quayihaiyi
Qiqitaaiauk
Avatliqiyitkut
Nunavut Kavamanga



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Survey types and methods

Two Main Types of Caribou Surveys

Abundance- The number of caribou

Composition- The ratio of bulls, cows, calves and calf survival

Fall surveys are best for Bull:cow ratio and a benchmark for over-winter calf survival trends

Spring Surveys are for calf over-winter survival

Baffin Island Caribou **Abundance** last completed in 2014

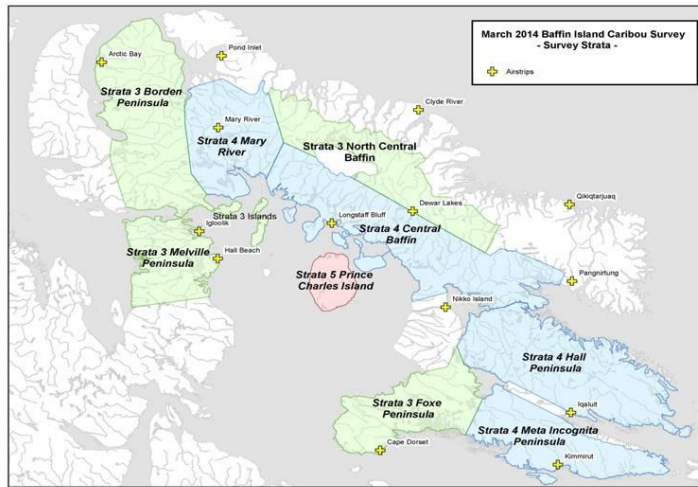
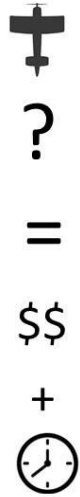
Composition Surveys completed 2015 -2018.

Next survey being completed March/April 2019

How do we determine how many caribou there are?

1) Pick where to fly on Baffin Island

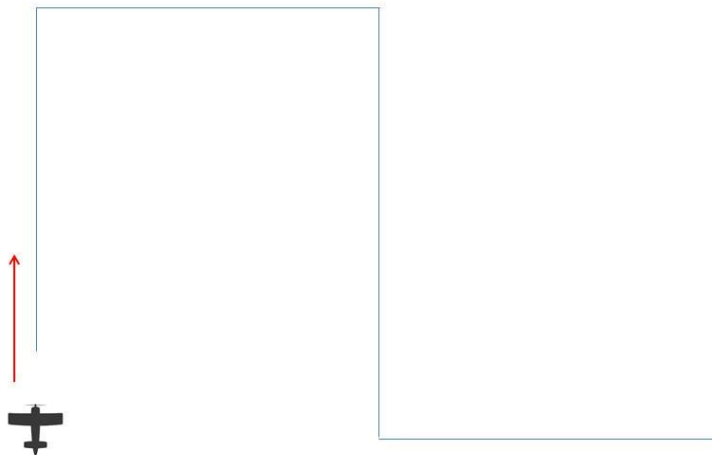
ABUNDANCE**



How do we determine how many caribou there are?

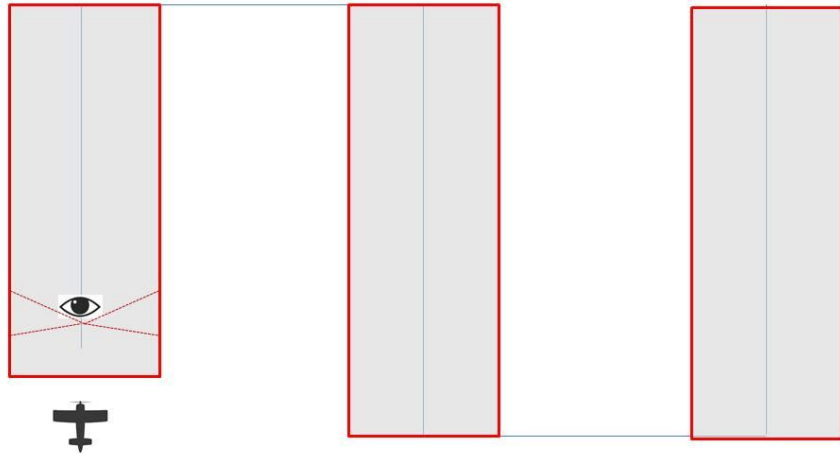
ABUNDANCE**

2) Place lines on the island and fly along them



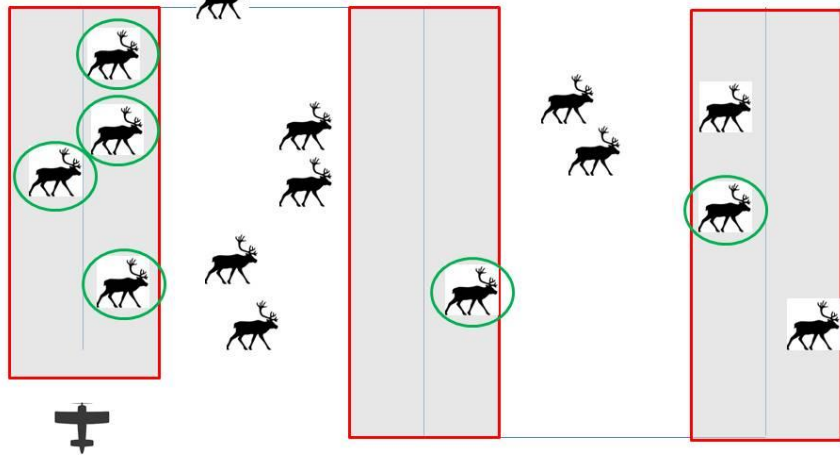
How do we determine how many caribou there are?

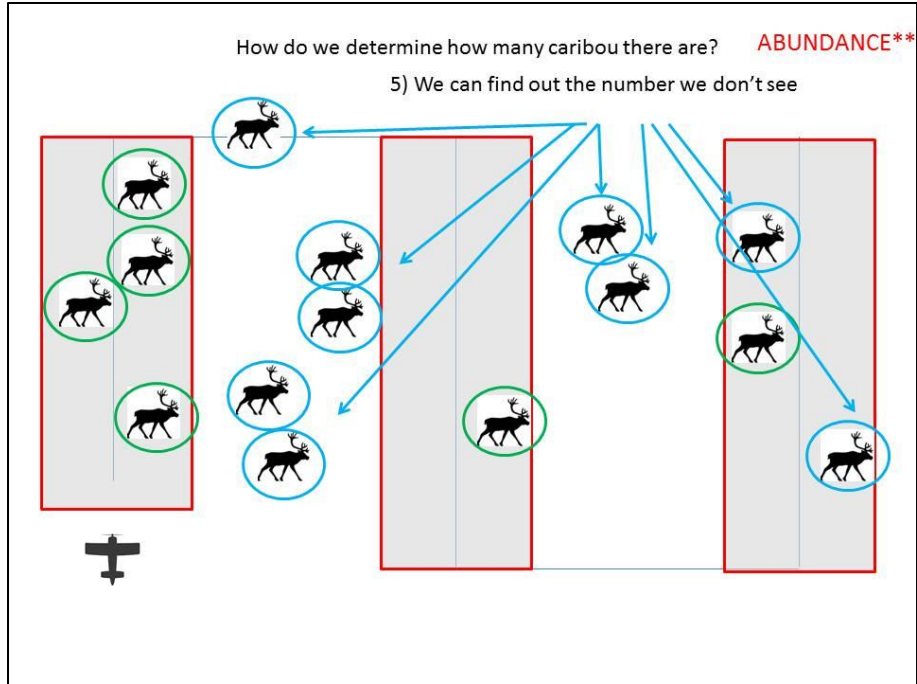
3) Look out the windows for caribou **ABUNDANCE****



How do we determine how many caribou there are?

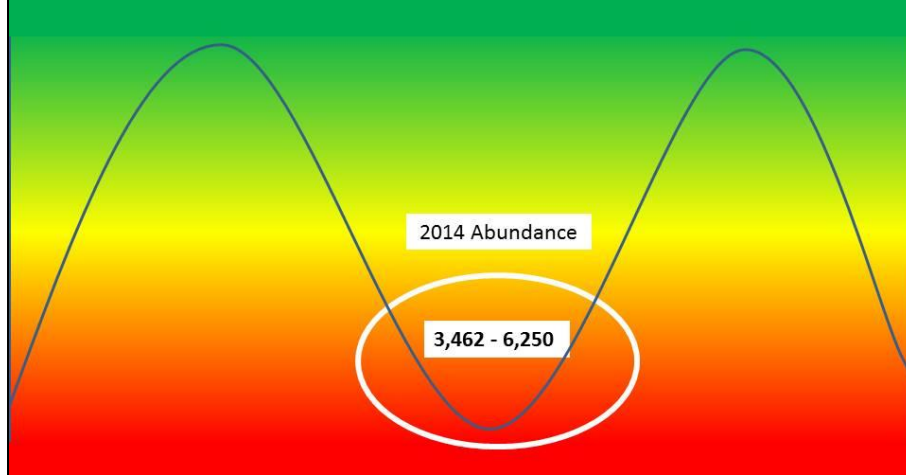
4) Count the caribou you see **ABUNDANCE****





2014 Survey Number of caribou	Subpopulation	Individuals Observed	We are 95% certain the actual number of Caribou lay between these two values	ABUNDANCE**
	North Baffin			
	Borden Peninsula	1	1 - 30	
	Mary River	49	96 - 521	
	North Central Baffin	13	31 - 230	
	Total	63	159 - 622	
	South Baffin			
	Central Baffin	197	662 - 1,798	
	Foxe Peninsula	20	48 - 972	
	Hall Peninsula	176	467 - 1,686	
	Meta Incognita Peninsula	91	256 - 1,138	
	Prince Charles Island	557	1,158 - 2,220	
	Total	824	3,169 - 5,935	
	Total (-Prince Charles Island)	267	1,777 - 4,207	
	Other areas			
	Melville Peninsula	26	88 - 551	
	Baffin Island + Melville P.	1,130	3,661 - 6,484	
	Baffin Island Total	1,104	3,462 - 6,250	

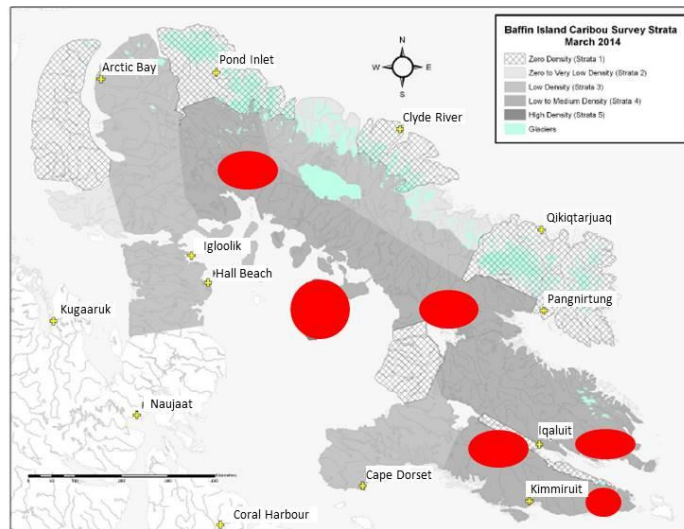
Where are we now?



We know how many caribou there are. (ABUNDANCE)
How many bulls (Immature, Mature), cows, calves, etc?

COMPOSITION**

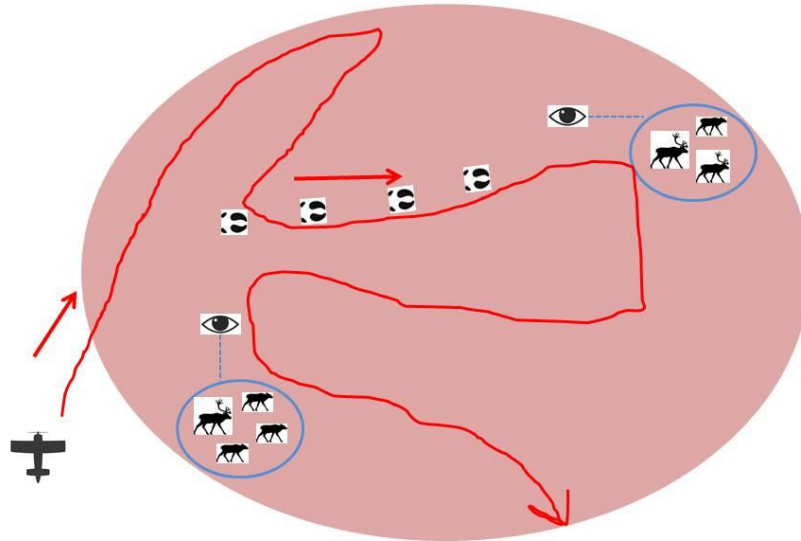
1) Locate main groups of caribou (HTO direction)



How many bulls (Immature, Mature), cows, calves, etc?

COMPOSITION**

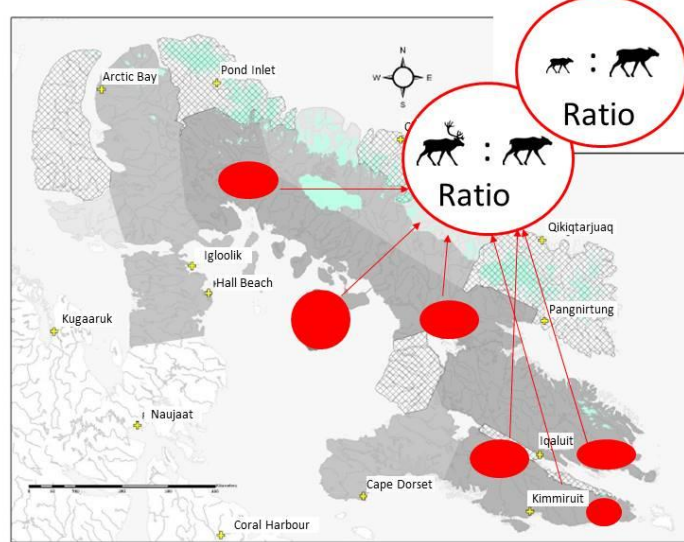
2) Fly to the area and search for tracks or caribou



How many bulls (Immature, Mature), cows, calves, etc?

COMPOSITION**

3) Incorporate ratios from all areas represents the overall population



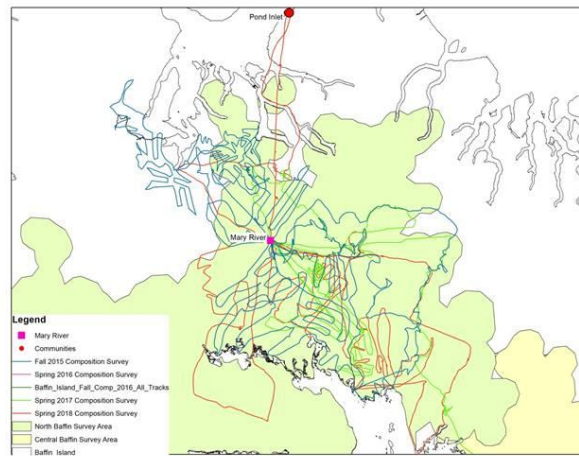
Composition Surveys 2015-2018

Objectives

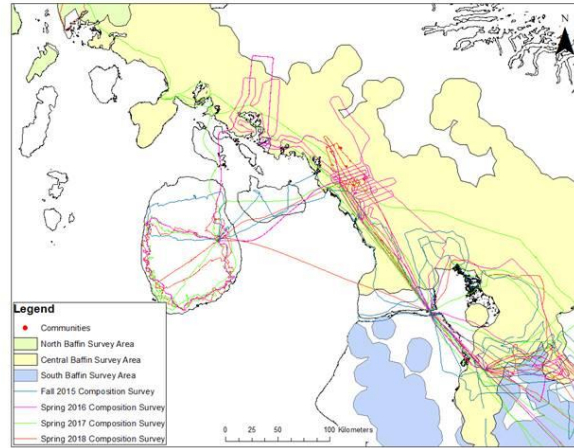
- 1) Determine the vigor of the population based on productivity and demographic composition; i.e. what proportion of the population are young bulls, mature bulls, cows, yearlings, and calves.
- 2) Determine the trajectory of productivity of the population based on the demographic composition; and with spring composition results, determine if an index of calf productivity and overwinter survival suggests an increasing or decreasing trend.
- 3) Monitor bull ratios to insure that the bull only harvest is not reducing bulls to a proportion that could interfere with rutting success.
- 4) Build a database with which to estimate the current population trend through demographic modeling, utilizing all demographic composition data to project a trend from the 2014 population estimate. **
- 5) Inform on management discussions regarding current TAH levels.

**with multiple years of data and cow survival and calf over winter survival

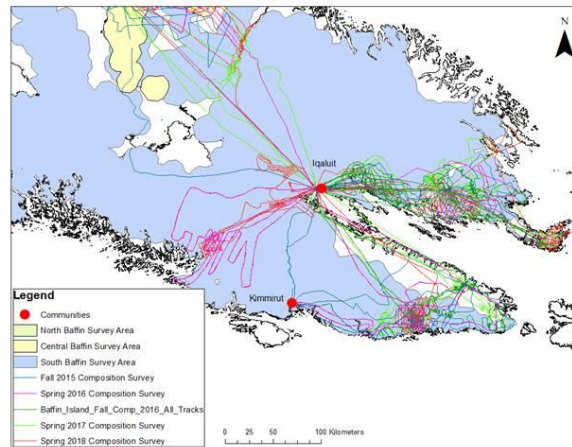
Composition Surveys North Baffin



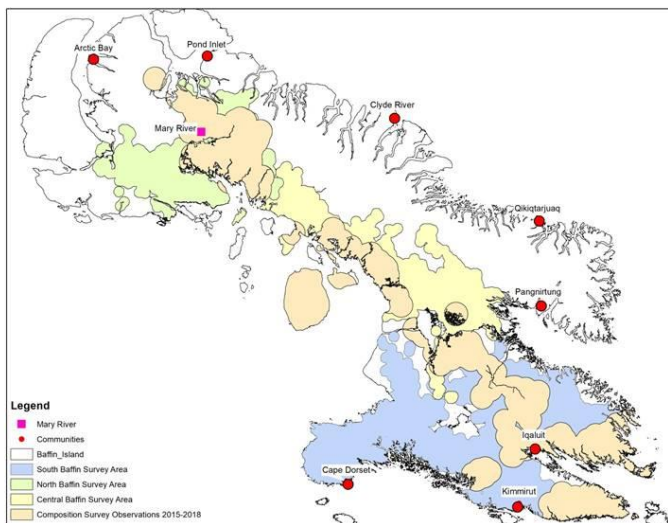
Composition Surveys Central Baffin



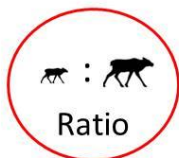
Composition Surveys South Baffin



Composition Surveys



Composition Surveys Results



Suggested calf:cow ratios in NWT for stable or increasing populations:

- 70-90 at calving
- 50-70 in the fall
- 30-50 following winter



40 bulls:100 cows is suggested as a benchmark for the number of bulls required in a population to ensure all cows are bred successfully (Tobey 2001).

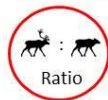
These are just indices

Composition Surveys Results- North

Fall

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018					
	Fall				Spring				Fall				Spring				Fall				Spring					
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island		
Calves Observed	55	28	133	49	23	82	49	54	81	47	1	114	92	86	21	18	31	155	21	18	31	155	21	18	31	155
Cows Observed	77	39	189	64	67	328	222	94	196	120	1	351	249	139	36	33	161	401	36	33	161	401	36	33	161	401
Calves/100 Cows	71	72	70	77	34	25	22	57	41	39	100	32	37	62	58	55	19	39	58	55	19	39	58	55	19	39
Yearlings Observed	N/A	N/A	N/A	N/A	10	76	29	N/A	42	23	0	57	75	17	5	7	37	100	5	7	37	100	5	7	37	100
Bulls Observed	76	29	126	46	25	204	151	54	126	64	6	133	181	74	38	40	73	277	38	40	73	277	38	40	73	277
Bulls/100 Cows	99	74	67	72	37	62	68	57	64	53	600	38	73	53	106	121	45	69	106	121	45	69	106	121	45	69
Bull + Cows	153	68	315	110	Not completed	92	532	373	148	322	184	7	484	430	213	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	
Adults + Yearlings Observed	153	68	315	110	Not completed	102	608	402	148	Not completed	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	
Total Observed (Calves, Yearlings and Adults)	208	96	448	159	Not completed	125	690	451	202	Not completed	Not completed	445	254	8	655	597	316	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	



40 bulls:100 cows

40 bulls:100 cows

40 bulls:100 cows

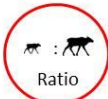
Suggests enough bulls to breed cows

Composition Surveys Results- North

Spring

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018					
	Fall				Spring				Fall				Spring				Fall				Spring					
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island		
Calves Observed	55	28	133	49	23	82	49	54	81	47	1	114	92	86	21	18	31	155	21	18	31	155	21	18	31	155
Cows Observed	77	39	189	64	67	328	222	94	196	120	1	351	249	139	36	33	161	401	36	33	161	401	36	33	161	401
Calves/100 Cows	71	72	70	77	34	25	22	57	41	39	100	32	37	62	58	55	19	39	58	55	19	39	58	55	19	39
Yearlings Observed	N/A	N/A	N/A	N/A	10	76	29	N/A	42	23	0	57	75	17	5	7	37	100	5	7	37	100	5	7	37	100
Bulls Observed	76	29	126	46	25	204	151	54	126	64	6	133	181	74	38	40	73	277	38	40	73	277	38	40	73	277
Bulls/100 Cows	99	74	67	72	37	62	68	57	64	53	600	38	73	53	106	121	45	69	106	121	45	69	106	121	45	69
Bull + Cows	153	68	315	110	Not completed	92	532	373	148	322	184	7	484	430	213	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	
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Total Observed (Calves, Yearlings and Adults)	208	96	448	159	Not completed	125	690	451	202	Not completed	Not completed	445	254	8	655	597	316	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	



? Calves:100 cows

30-50 calves:100 cows

30-50 calves:100 cows

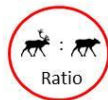
Suggests good calf over-winter survival

Composition Surveys Results- Central

Fall

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018					
	Fall				Spring				Fall				Spring				Fall				Spring					
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island		
	Calves Observed	55	28	133	49	23	82	49	54	81	47	1	114	92	86	21	18	31	155	36	33	161	401	58	55	19
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Calves/100 Cows	71	72	70	77	34	25	22	57	41	39	100	32	37	62	106	121	45	69	106	121	45	69	106	121	45	69
Yearlings Observed	N/A	N/A	N/A	N/A	10	76	29	N/A	42	23	0	57	75	17	5	7	37	100	5	7	37	100	5	7	37	100
Bulls Observed	76	29	126	46	25	204	151	54	126	64	6	133	181	74	38	40	73	277	38	40	73	277	38	40	73	277
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Adults + Yearlings Observed	153	68	315	110	Not completed	102	608	402	148	364	207	7	541	505	230	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed		
Total Observed (Calves, Yearlings and Adults)	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933	100	98	302	933	100	98	302	933



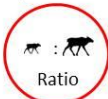
↑ 40 bulls:100 cows ? bulls:100 cows ? bulls:100 cows
2015 suggests enough bulls to breed cows

Composition Surveys Results- Central

Spring

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018					
	Fall				Spring				Fall				Spring				Fall				Spring					
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island		
	Calves Observed	55	28	133	49	23	82	49	54	81	47	1	114	92	86	21	18	31	155	36	33	161	401	58	55	19
Cows Observed	77	39	189	64	67	328	222	94	196	120	1	351	249	139	36	33	161	401	74	73	324	678	106	121	45	69
Calves/100 Cows	71	72	70	77	34	25	22	57	41	39	100	32	37	62	106	121	45	69	106	121	45	69	106	121	45	69
Yearlings Observed	N/A	N/A	N/A	N/A	10	76	29	N/A	42	23	0	57	75	17	5	7	37	100	5	7	37	100	5	7	37	100
Bulls Observed	76	29	126	46	25	204	151	54	126	64	6	133	181	74	38	40	73	277	38	40	73	277	38	40	73	277
Bulls/100 Cows	99	74	67	72	37	62	68	57	53	600	38	73	53	53	106	121	45	69	106	121	45	69	106	121	45	69
Bull + Cows	153	68	315	110	Not completed	102	608	402	148	322	184	7	484	430	213	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	
Adults + Yearlings Observed	153	68	315	110	Not completed	102	608	402	148	364	207	7	541	505	230	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed	Not completed		
Total Observed (Calves, Yearlings and Adults)	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933	100	98	302	933	100	98	302	933



↑ 30-50 calves:100 cows ↑ 30-50 calves:100 cows ↑ 30-50 calves:100 cows
Suggests good calf over-winter survival

Composition Surveys Results- PCI

Fall

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018																
	Fall				Spring				Fall				Spring				Fall				Spring																
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island													
Calves Observed	55	28	133	49	23	82	49	54	81	47	1	114	92	86	21	18	31	155	77	39	189	64	67	328	222	94	41	39	100	32	37	62	36	33	161	401	
Cows Observed	71	72	70	77	34	25	22	57	196	120	1	351	249	139	58	55	19	39	153	68	315	110	102	608	402	148	364	207	7	541	505	230	79	80	271	778	
Yearlings Observed	N/A	N/A	N/A	N/A	Not completed	25	204	151	54	126	64	6	133	181	74	5	7	37	100	76	29	126	46	37	62	68	57	42	23	0	57	75	17	38	40	73	277
Bulls Observed	99	74	67	72	92	532	373	148	6	6	600	38	73	53	Not completed	Not completed	Not completed	121	45	69	153	68	315	110	322	184	7	484	430	213	74	73	234	678			
Bull + Cows	153	68	315	110	Not completed	102	608	402	148	Not completed	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	153	68	315	110	364	207	7	541	505	230	79	80	271	778			
Adults + Yearlings Observed	153	68	315	110	Not completed	102	608	402	148	Not completed	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	153	68	315	110	364	207	7	541	505	230	79	80	271	778			
Total Observed (Calves, Yearlings and Adults)	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933	



↑ 40 bulls:100 cows

? bulls:100 cows

? bulls:100 cows

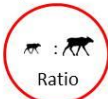
2015 suggests enough bulls to breed cows

Composition Surveys Results- PCI

Spring

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018																
	Fall				Spring				Fall				Spring				Fall				Spring																
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island													
Calves Observed	55	28	133	49	23	82	49	54	81	47	1	114	92	86	21	18	31	155	77	39	189	64	67	328	222	94	41	39	100	32	37	62	36	33	161	401	
Cows Observed	71	72	70	77	34	25	22	57	196	120	1	351	249	139	58	55	19	39	153	68	315	110	102	608	402	148	364	207	7	541	505	230	79	80	271	778	
Yearlings Observed	N/A	N/A	N/A	N/A	Not completed	25	204	151	54	126	64	6	133	181	74	5	7	37	100	76	29	126	46	37	62	68	57	42	23	0	57	75	17	38	40	73	277
Bulls Observed	99	74	67	72	92	532	373	148	6	6	600	38	73	53	Not completed	Not completed	Not completed	121	45	69	153	68	315	110	322	184	7	484	430	213	74	73	234	678			
Bull + Cows	153	68	315	110	Not completed	102	608	402	148	Not completed	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	153	68	315	110	364	207	7	541	505	230	79	80	271	778			
Adults + Yearlings Observed	153	68	315	110	Not completed	102	608	402	148	Not completed	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	153	68	315	110	364	207	7	541	505	230	79	80	271	778			
Total Observed (Calves, Yearlings and Adults)	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933	



↓ 30-50 calves:100 cows

↑ 30-50 calves:100 cows

↓ 80-50 calves:100 cows

Suggests poor calf over-winter survival

Composition Surveys Results- South

Fall

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018																			
	Fall				Spring				Fall				Spring				Fall				Spring																			
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island																
Calves Observed	55	28	133	49	23	82	49	54	81	47	1	114	92	86	21	18	31	155	77	39	189	64	67	328	222	94	196	120	1	351	249	139	36	33	161	401				
Cows Observed	71	72	70	77	34	25	22	57	41	39	100	32	37	42	23	0	57	75	17	41	39	100	32	37	58	55	19	39	41	39	100	32	37	62	62	62	62			
Calves/100 Cows																																								
Yearlings Observed	N/A	N/A	N/A	N/A	10	76	29	N/A	42	23	0	57	75	17	5	7	37	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	42	23	0	57	75	17	5	7	37	100				
Bulls Observed	76	29	126	46	25	204	151	54	126	64	6	133	181	74	38	40	73	277	76	29	126	46	25	204	151	54	126	64	6	133	181	74	38	40	73	277				
Bulls/100 Cows	99	74	67	72	73	62	68	57	64	64	7	484	430	213	74	73	234	678	99	74	67	72	73	62	68	57	64	64	7	484	430	213	74	73	234	678				
Bull + Cows	153	68	315	110	Not completed	92	532	373	148	322	184	7	484	430	213	74	73	234	678	153	68	315	110	Not completed	92	532	373	148	322	184	7	484	430	213	74	73	234	678		
Adults + Yearlings Observed	153	68	315	110	Not completed	102	608	402	148	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	Not completed	153	68	315	110	Not completed	102	608	402	148	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	Not completed
Total Observed (Calves, Yearlings and Adults)	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933				



↑ 40 bulls:100 cows ↑ 40 bulls:100 cows ? bulls:100 cows

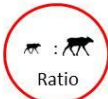
2015 and 2016 suggests enough bulls to breed cows

Composition Surveys Results- South

Spring

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018																			
	Fall				Spring				Fall				Spring				Fall				Spring																			
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island																
Calves Observed	55	28	133	49	23	82	49	54	81	47	1	114	92	86	21	18	31	155	77	39	189	64	67	328	222	94	196	120	1	351	249	139	36	33	161	401				
Cows Observed	71	72	70	77	34	25	22	57	41	39	100	32	37	42	23	0	57	75	17	41	39	100	32	37	58	55	19	39	41	39	100	32	37	62	62	62	62			
Calves/100 Cows																																								
Yearlings Observed	N/A	N/A	N/A	N/A	10	76	29	N/A	42	23	0	57	75	17	5	7	37	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	42	23	0	57	75	17	5	7	37	100				
Bulls Observed	76	29	126	46	25	204	151	54	126	64	6	133	181	74	38	40	73	277	76	29	126	46	25	204	151	54	126	64	6	133	181	74	38	40	73	277				
Bulls/100 Cows	99	74	67	72	73	62	68	57	64	64	7	484	430	213	74	73	234	678	99	74	67	72	73	62	68	57	64	64	7	484	430	213	74	73	234	678				
Bull + Cows	153	68	315	110	Not completed	92	532	373	148	322	184	7	484	430	213	74	73	234	678	153	68	315	110	Not completed	92	532	373	148	322	184	7	484	430	213	74	73	234	678		
Adults + Yearlings Observed	153	68	315	110	Not completed	102	608	402	148	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	Not completed	153	68	315	110	Not completed	102	608	402	148	Not completed	364	207	7	541	505	230	Not completed	Not completed	Not completed	Not completed
Total Observed (Calves, Yearlings and Adults)	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933	208	96	448	159	125	690	451	202	445	254	8	655	597	316	100	98	302	933				



↓ 30-50 calves:100 cows ↑ 30-50 calves:100 cows ↑ 30-50 calves:100 cows

Suggests good calf over-winter survival

Composition Surveys 2019 Spring

Currently planning logistics for spring surveys in March/April 2019

Planning for south and central Baffin

In discussions with Baffinland regarding support for north Baffin

Working Together to Monitor Caribou on Baffin Island

– Planning For Recovery

Aerial Surveys

- Offer the most unobstructed viewing of caribou.
- Can cover large areas.
- Can be used to determine population trend.
- Can be used to estimate populations.
- Can be used to document large distributional shifts.

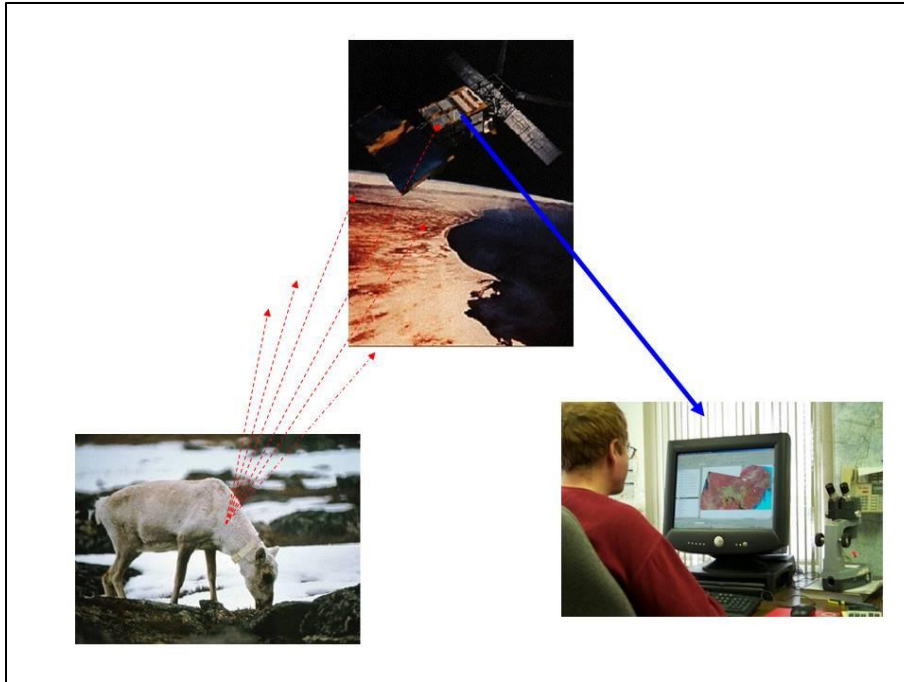
Composition Surveys

- Can be expensive
- Can be used as an index of population trend.
- Can be used to trigger more costly aerial surveys.
- Monitors changes in gender related survival.
- Provides an index of productivity.

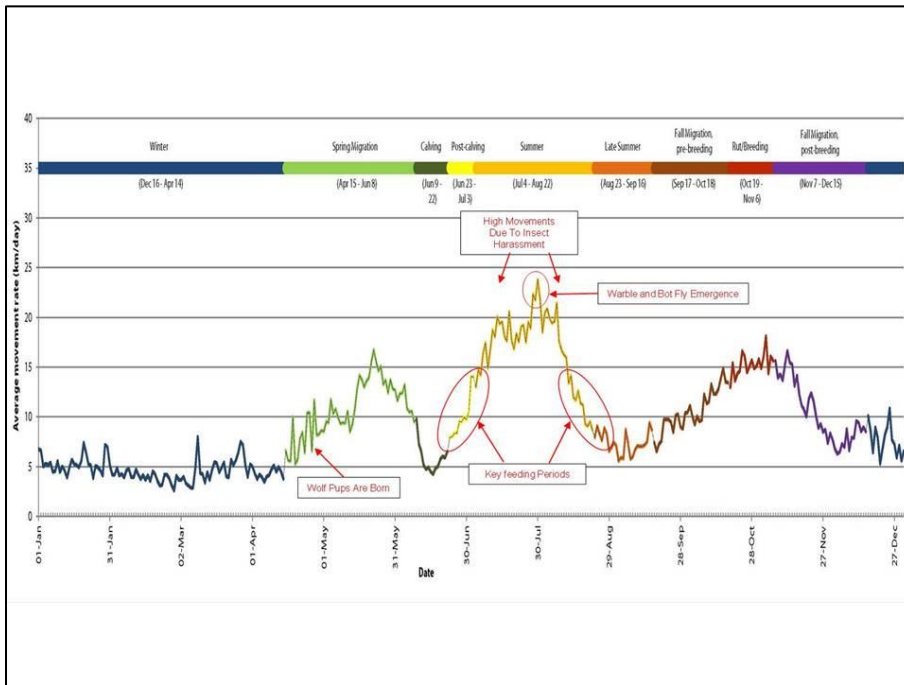
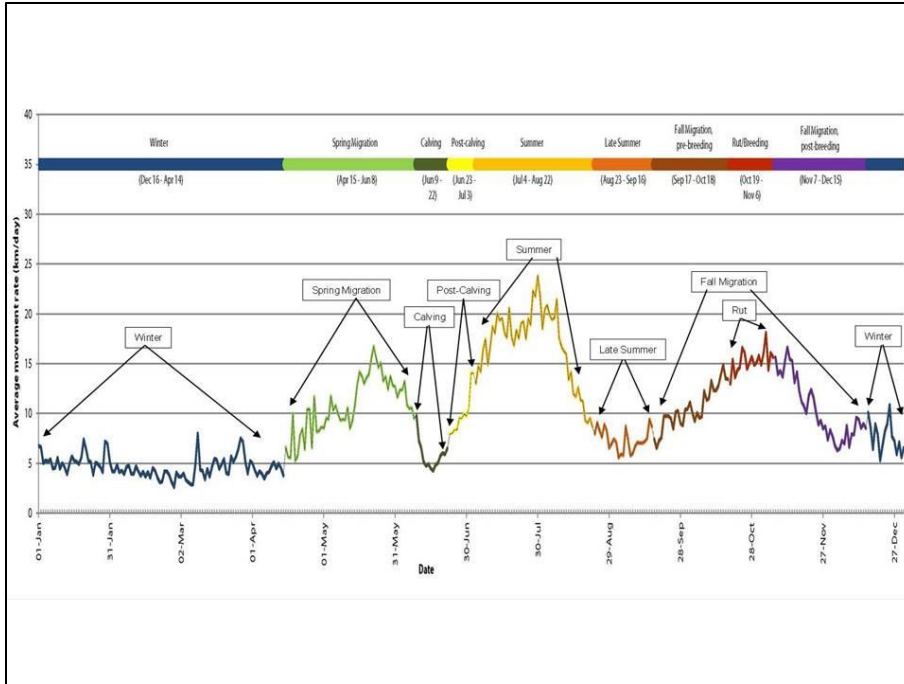
Telemetry Studies

- Cost Effective.
- Dramatically lowers the cost of aerial and composition surveys.
- Can be used to determine herd annual range.
- Can be used to determine seasonal range.
- Can be used to guide aerial survey efforts.
- Can be used to determine critical habitat.
- Can be used to protect critical habitat.

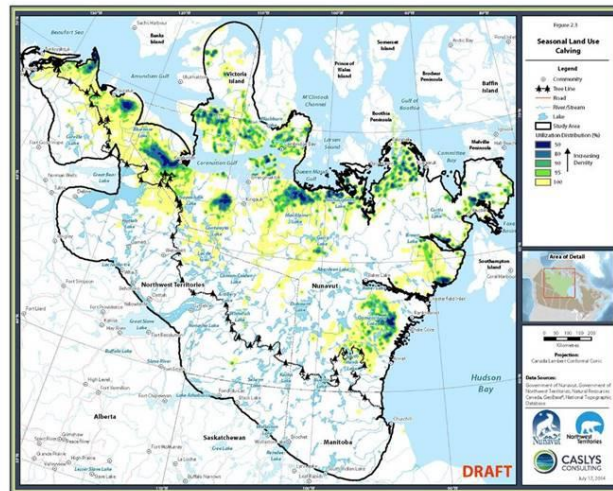


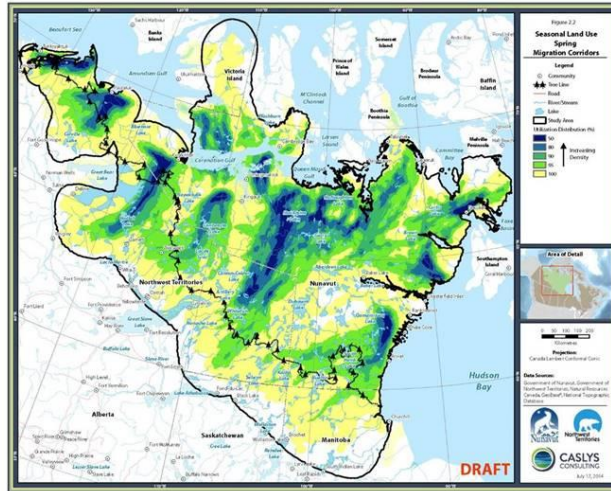


How Telemetry is being used

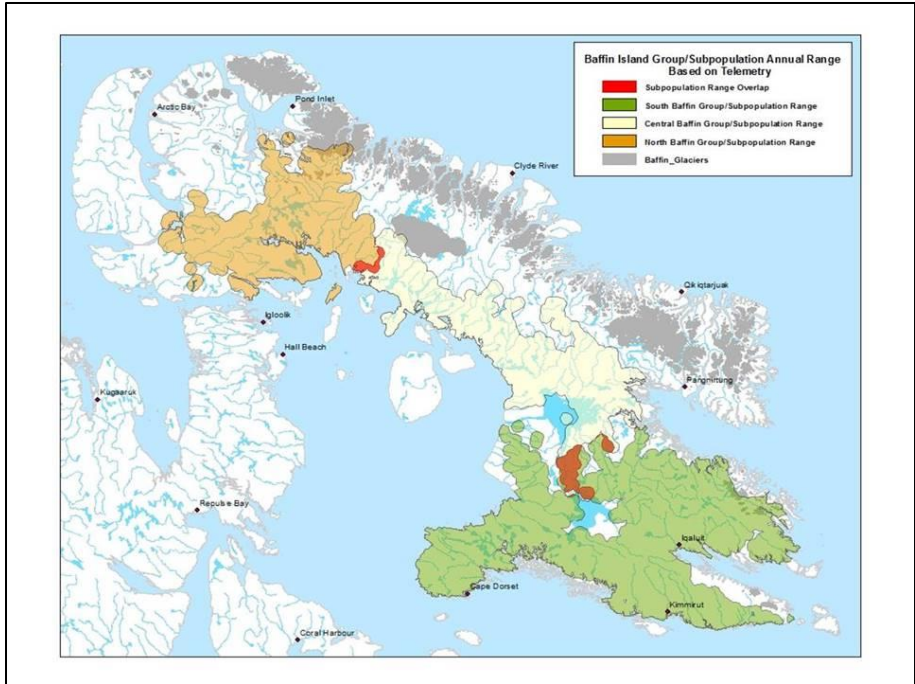


Determining Seasonal Range

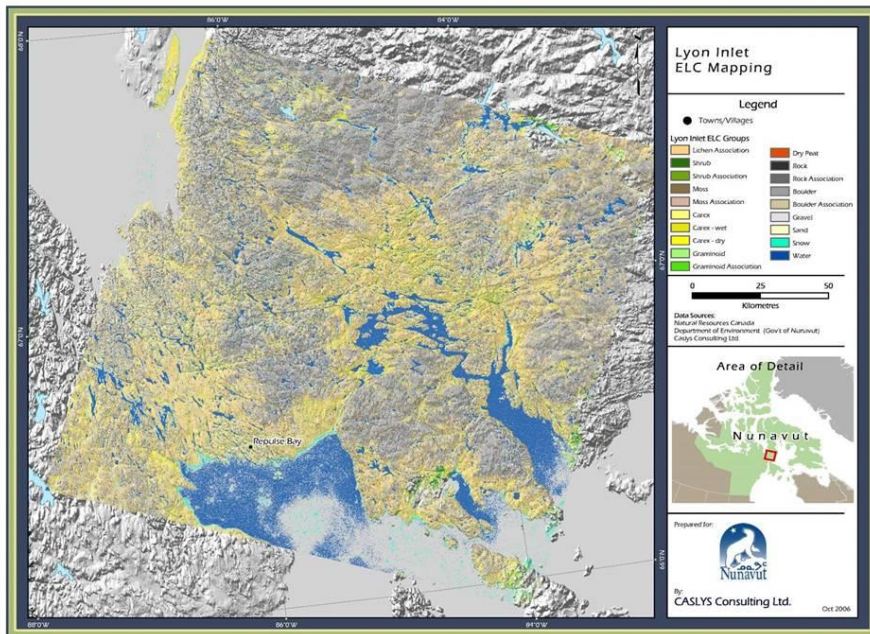
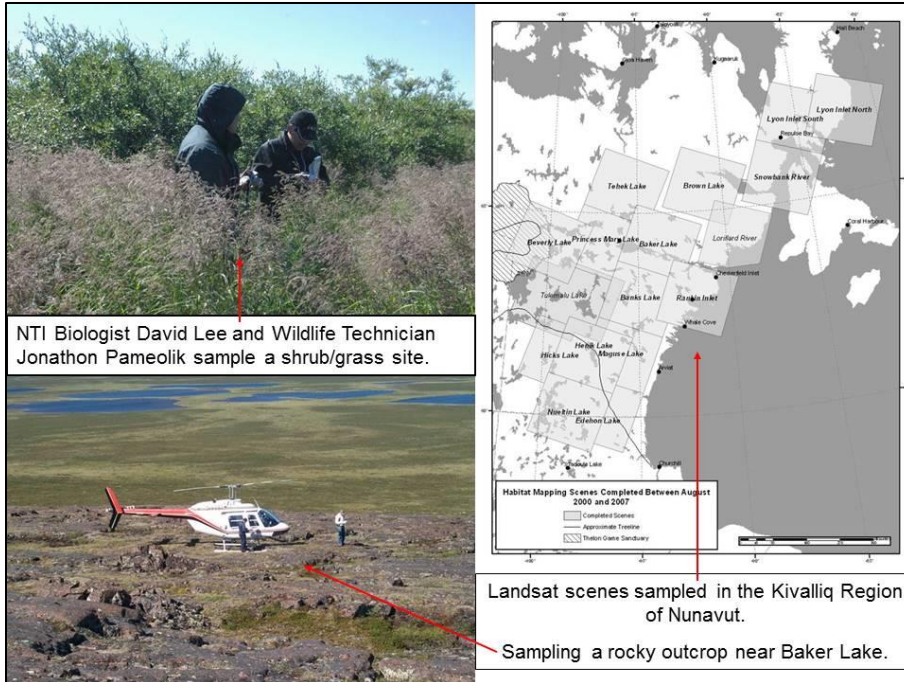


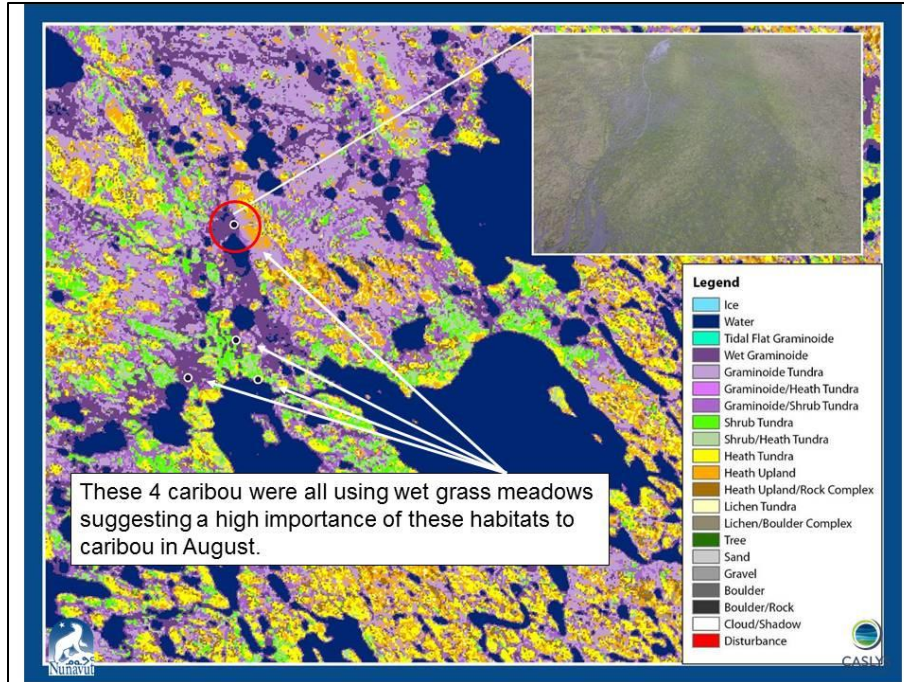


Herd Delineation



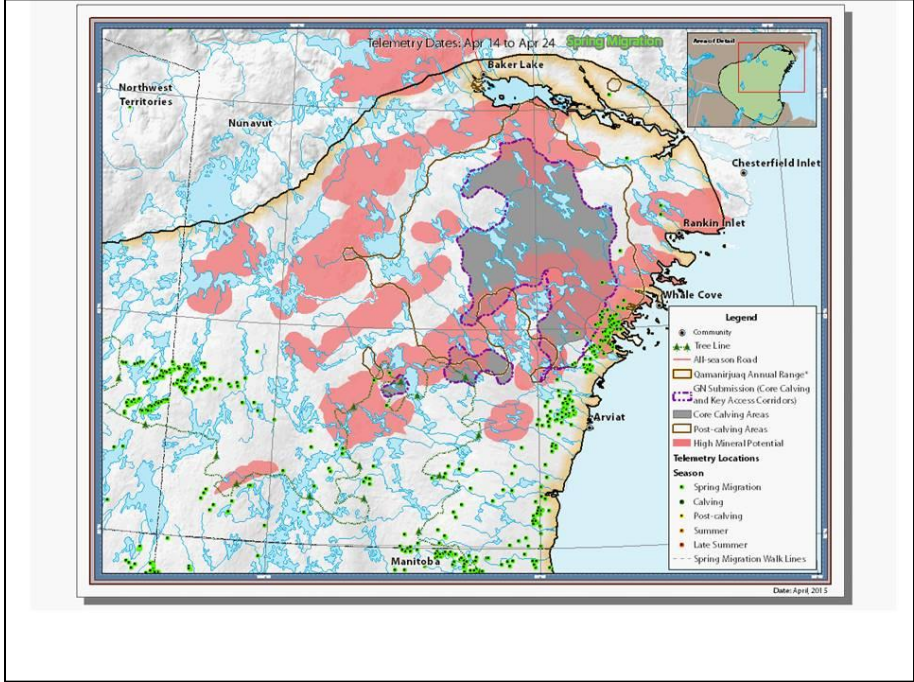
Ecological Studies



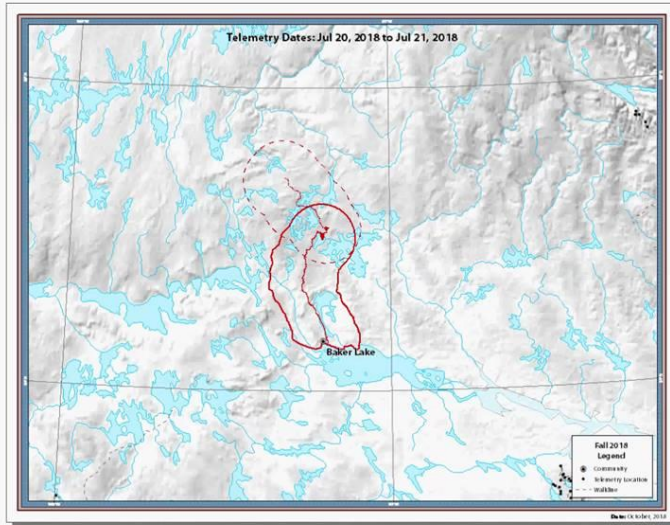


Protecting Caribou From Development

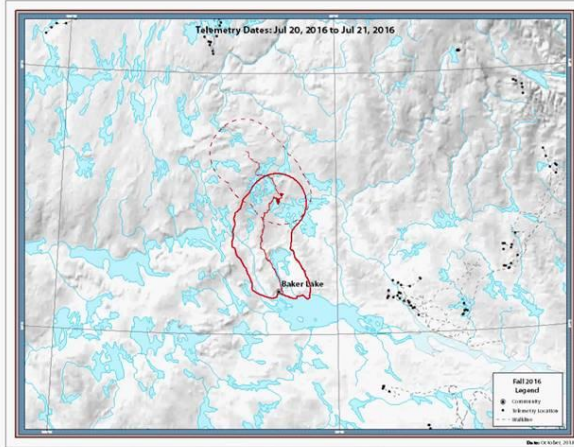


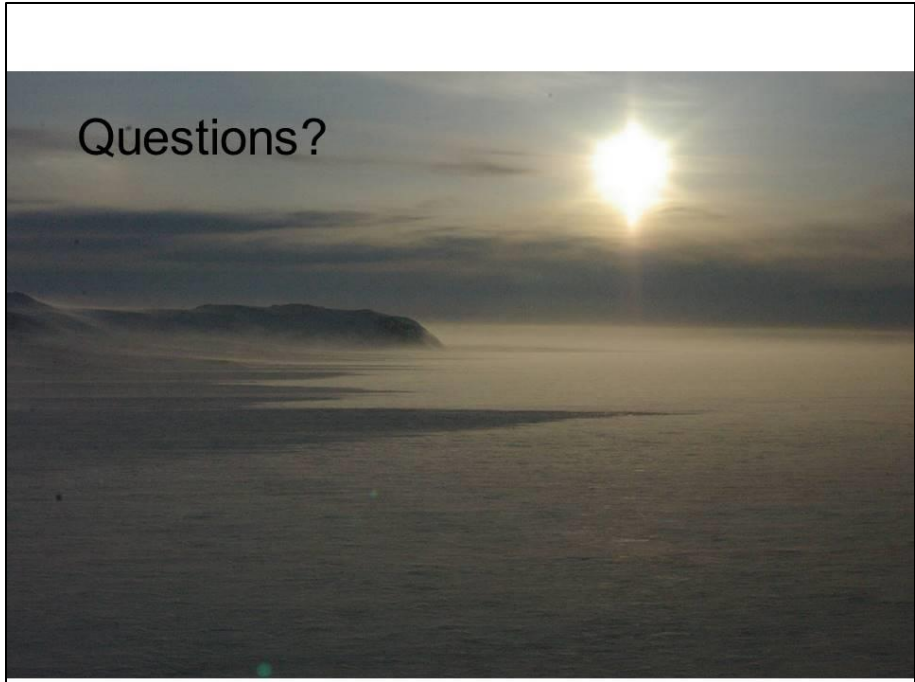


2018



2016





Questions?

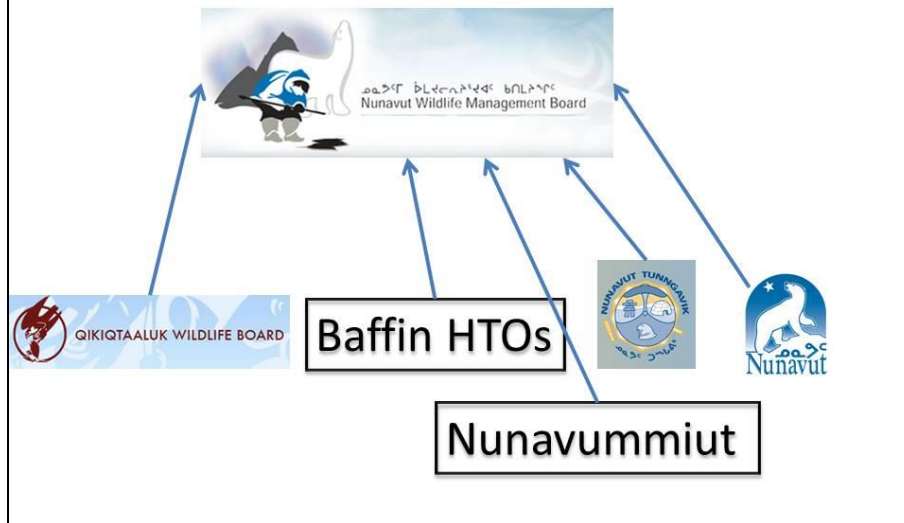
Draft Management Plan

Sent to HTO in September 2018

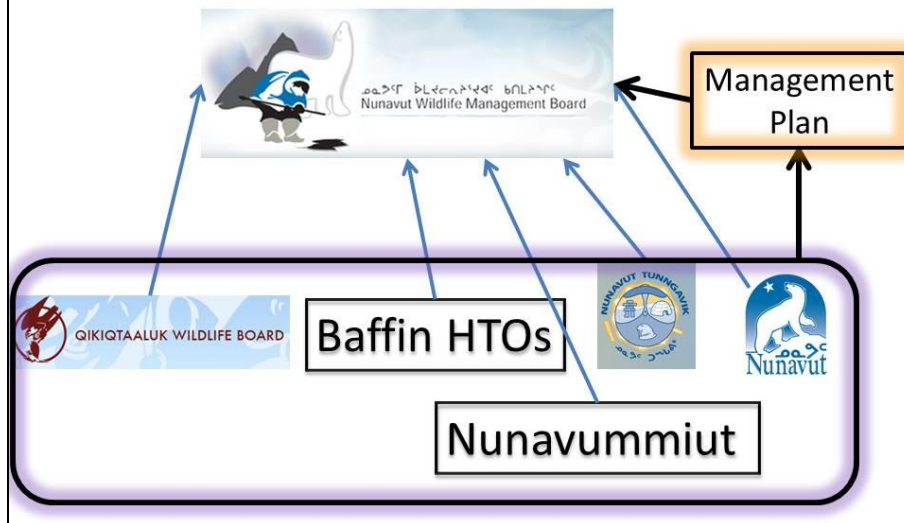
We want to know community concerns, questions and comments



Department of Environment Role



Department of Environment Role



What if something changes?

- Plan updated if there is new information
 - Status of caribou
 - Status of harvest management
 - Status of monitoring
- Complete review every 10 years
 - Next major revision (2028)

Questions



Baffin Island Caribou Composition Summary Report 2015-2018

John Ringrose¹

¹ Regional Wildlife Biologist, Department of Environment, Government of Nunavut,

P.O. Box 400, Pond Inlet, NU X0A 0S0

August 2018



Introduction

Caribou on Baffin Island are of the barren-ground subspecies, *Rangifer tarandus groenlandicus*. This subspecies is further divided into two separate groups; the taiga wintering and tundra wintering; Baffin Island caribou being the latter. As the name suggests, tundra wintering caribou differ in that they spend the entire within tundra habitats. Tundra wintering caribou generally occur in small groups and vary widely in their migratory behaviour. This can make surveying more difficult as the animals tend to be distributed unevenly across the landscape and in smaller groups than taiga ecotypes.

Due to the large size of the region, there has been limited scientific research conducted on Baffin Island caribou. However, there is a wealth of Inuit Qaujimatuaqangit (IQ) that depicts the long-term population and distributional trends for the region. Due to the lack of quantitative data available the exact number of caribou on the island historically is largely speculative. Recent telemetry studies (2008-2011) in North Baffin along with past survey findings and an Island-wide collaring program from the late 80's to early 90's have suggested potential sub-populations on the Island. However, further research will need to be conducted prior to delineating specific groupings and/or subpopulations across Baffin Island.

Local hunters, trappers, and community members began identifying a suspected decline in the caribou population on the island in the mid to late 1990s (Jenkins et al. 2012). In Feb/March 2014 the Government of Nunavut, Department of Environment (DOE) conducted aerial surveys across Baffin Island, Melville Peninsula and surrounding islands to estimate the abundance and general distribution of caribou Island wide (Campbell et al, 2015). Aerial surveys were conducted in February and March of 2014 using the double observer pair and distance sampling method. The survey identified the estimated number of caribou within different geographic locations including; North and South Baffin Island, Baffin Island as a whole, Baffin Island and its ancillary islands, and Baffin Island and northern Melville Peninsula. A total of 1,157 Caribou were observed during the survey, 50 caribou in 8 groups in North Baffin, 347 in 104 groups in South Baffin, 557 caribou in 164 groups on Prince Charles Island and 31 caribou in 7 groups on Melville Peninsula (Campbell et al. 2015). From these results it was estimated that 315 (95% CI=159-622; SE=109; CV=0.35) caribou were in North Baffin, 2,734 (95% CI=1,777-4,207; SE=607; CV=0.22) caribou in South Baffin, 1,603 (95% CI=1,158-2,220; SE=250; CV=0.16) caribou on Prince Charles Island and 220 (95% CI=88-551; SE=101; CV=0.46) caribou within northern Melville Peninsula yielding a total estimate of 4,872 (95% CI=3,462-6,484; SE=712.23; CV=0.15) caribou. Campbell et al. (2015) also re-analyzed results from surveys flown in North Baffin in April 2009 and South Baffin in 2012 and found no statistically significant change in abundance between these and the 2014 surveys.

As a result of the confirmed decline in abundance of caribou on Baffin Island, an eight-month moratorium was put in place on January 1 2015. Following this moratorium, a Total Allowable Harvest (TAH) and a non-quota bull only limitation (NQL) was put in place by the Nunavut Wildlife Management Board (NWMB) in 2015. The total number of bull-only tags allocated to the communities of Baffin Island was 170 in 2015/16 and 250 in 2016/17 and 2017/18 to present. However, allocations per community and region have differed yearly (Table 1).

Table 1 Bull-only tag allocation by community and number of individuals harvested from 2015/2016 to 2018/2019 on Baffin Island.

Year	TAH	Harvest Allocation			Caribou Harvested			Total Caribou Harvested	Females Harvested*
		North Baffin ¹	Central Baffin ²	South Baffin ³	North Baffin ¹	Central Baffin ²	South Baffin ³		
2015/16	170	50	60	60	42	71	74	187	19***
2016/17	250	67	92	91	56	87	90	233	10
2017/18	250	66	90	94	52	88	92	233	14
2018/19	250	66	90	94	1**	0**	9**	10**	0**

* Females harvested are included in the "Total Caribou Harvested"

**total harvest to date (July 1-August 31,2018)

*** 5 of the females harvested are suspected and not confirmed

¹North Baffin allocation divided between communities of Pond Inlet, Igloodik, Arctic Bay and Hall Beach. Hall Beach had an allocation of zero for 2015-2018.

²Central Baffin allocation divided between communities of Clyde River, Pangnirtung and Qikiqtarjuaq.

³South Baffin allocation divided between communities of Iqaluit, Kimmirut and Cape Dorset.

As a result of the non-quota limitation and TAH allocation due to the low caribou abundance on Baffin Island, the DOE has conducted fall and/or spring aerial composition surveys from 2015-2018 as a means to monitor productivity and relative densities of caribou across Baffin Island. The objectives of these surveys were:

- 1) Determine the vigor of the population based on productivity and demographic composition; i.e. what proportion of the population are young bulls, old bulls, cows, yearlings, and calves.
- 2) Determine the trajectory of productivity of the population based on the demographic composition; and with spring composition results, determine if an index of calf productivity and overwinter survival suggests an increasing or decreasing trend.
- 3) Monitor bull ratios to insure that the bull only harvest is not reducing bulls to a proportion that could interfere with rutting success.
- 4) Build a database with which to estimate the current population trend through demographic modeling, utilizing all demographic composition data to project a trend from the 2014 population estimate.
- 5) Inform on management discussions regarding current TAH levels.

Methods

Surveys were conducted in spring and/or fall from 2015 to 2018 on Baffin Island, Nunavut (Table 2). Weather and logistical constraints limited the extent of surveying to key areas where a greater chance of caribou encounters were suspected in North, Central and South Baffin for both the spring and fall seasons (Table 2, Figures 2-4). Surveys were conducted using rotary wing aircraft with 2 observers and a pilot (3 observers were used in in South Baffin in 2018). Cross sectional routes were flown through areas

of known caribou distribution. Study areas were selected based on previous aerial surveys and telemetry programs, and information gathered from hunters from each of the 12 Baffin communities during consultations conducted in 2012, 2013, 2014, and 2015 (DOE 2013, 2014, 2015a, 2015b; Jenkins and Goorts 2013). Refinement of survey locations was completed based on advice from the Hunters and Trappers Organization (HTO) observers prior to and during the survey flights. Caribou were generally located in the areas consistent with previous findings both scientifically and locally based (Figure 5). In order to reduce the inherent biases of a clumped distribution, the largest feasible area was surveyed. For logistical reasons Baffin Island was divided into three survey areas; North, Central and South (Figure 1).

When caribou were located, quick, low flights, using image stabilizing 14X binoculars to reduce approach distances were initiated to document the number of individuals in the group and their sex and age class. Caribou were classified into 5 categories; 1) Cow, 2) Calf, 3) Yearling, 4) Mature Bull and 5) Young Bull. Tracks were used as the primary indicator of caribou presence within a survey area. When tracks were encountered they were followed until the caribou were located and identified, with very few instances where caribou could not be located. In cases where groups could not be located due to fuel and/or weather related issues, and where time allowed, tracking was resumed the following day or after refuelling.

Table 2 Yearly Baffin Island caribou composition survey flight dates by sample area.

Year	Season	Survey Dates			Total Survey Days
		North	Central	South	
2015	Fall	Sept. 17, 21 & 22	Oct. 4 - 7	Oct. 11,12,14 & 15	11
2016	Spring	Not completed	April 17-19 &23	April 4, 5 & 8	7
2016	Fall	Sept. 18, 21 & 22	Not Completed	October 17-20, 22 & 23	9
2017	Spring	Apr. 15 - 16	Mar. 31, Apr. 4 - 6	Mar. 26 - 29	10
2017	Fall	Sept. 30, Oct. 1 & 4	Not Completed	Not Completed	3
2018	Spring	Apr. 26 - 27	Apr. 12 - 14	Mar. 30, Apr. 4, 5, 9, 10, 16, 19	12

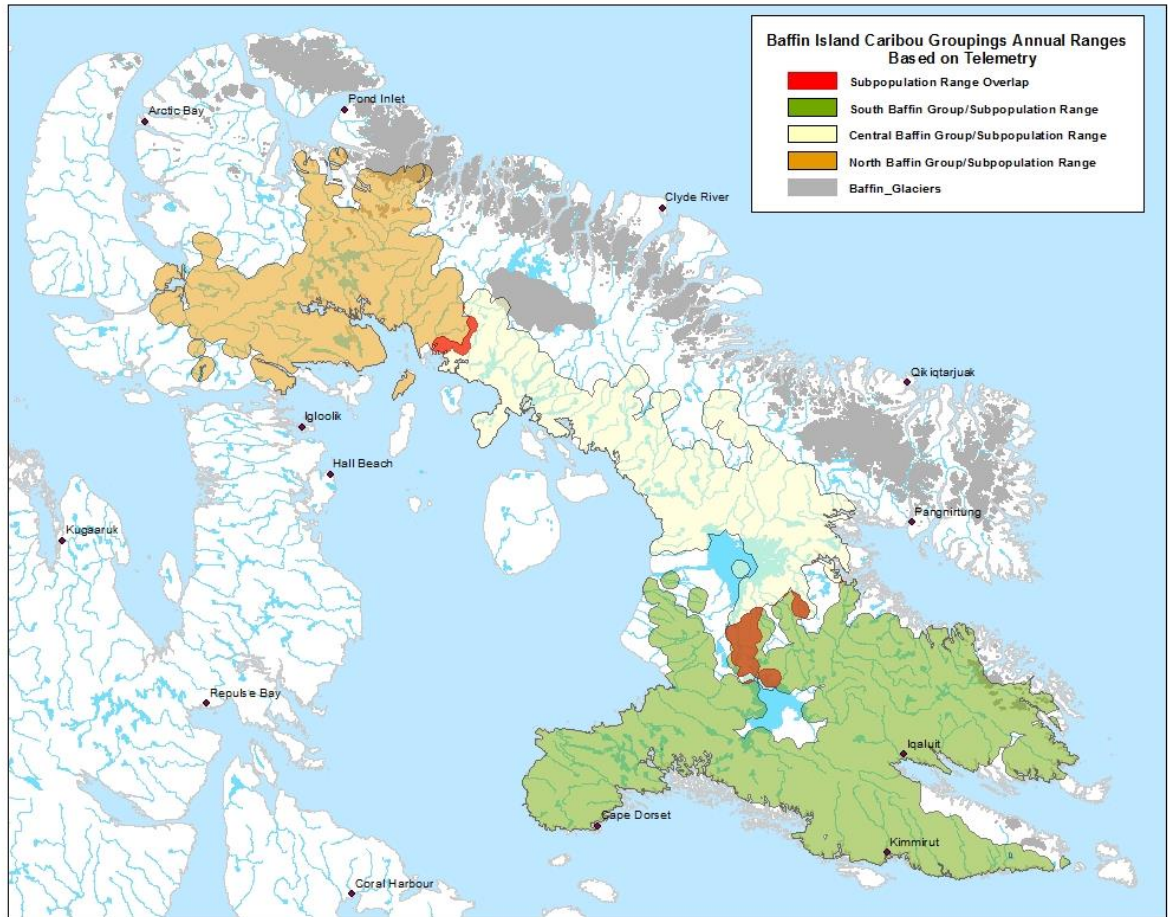


Figure 1. Caribou grouping annual range delineation based on telemetry studies from 1987 to 1994 (primarily South Baffin), and 2008 to 2011 (North Baffin). Polygons created utilizing a kernel analysis (See methods) of telemetry point data collected for 107 collars (North=35; Central = 17; South = 55). Excerpt from Campbell et al. 2015. Used to identify survey area during 2015-2018 composition studies.

Results

In the fall of 2015 we flew a total of 96.4 hours (28.6 hours in North Baffin, 38.5 hours in Central Baffin and 29.3 hours in South Baffin). In the spring of 2016 we flew a combined total of 86.3 hours in Central and South Baffin. In the fall of 2016 we flew a total of 67.4 hours (19.6 hours in North Baffin and 47.8 hours in South Baffin). In the spring of 2017 we flew a total of 104.6 hours (26.2 hours in North Baffin, 41.6 hours in Central Baffin and 36.8 hours in South Baffin). In the fall of 2017 we flew a total of 14.6 hours in North Baffin. In the spring of 2018 we flew a total of 102.5 hours (18.9 hours in North Baffin, 29.1 hours in Central Baffin and 54.5 hours in South Baffin) (Table 3).

Table 3 Survey Flight hours by survey region 2015-2018.

Year	Season	Survey Flight Hours		
		North Baffin	Central Baffin	South Baffin
2015	Fall	28.6	38.5	29.3
2016	Spring	Not completed	86.3**	86.3**
2016	Fall	19.6	Not completed	47.8
2017	Spring	26.2	41.6	36.8
2017	Fall	14.6	Not completed	Not completed
2018	Spring	18.9	29.1	54.5

** a combined total of 86.3 hours was flown for Central and South Baffin.

In the fall of 2015 we observed a total of 911 (646 adults) caribou (bulls, cows, yearlings, and calves). In the spring and fall of 2016 we observed 1,266 and 901 (1,112 and 512 adults) caribou respectively. In the spring and fall of 2017 we observed 1,514 and 316 (1,260 and 230 adults) caribou respectively, and in the spring of 2018 we observed 1,433 (1,208 adults) caribou bulls, cows, yearlings, and calves (Table 4).

Based on the 2014 population estimate of 4,652 on Baffin and ancillary islands (Campbell et al. 2015) we observed 14% of the island-wide population in fall of 2015, 24% in the spring and 11% in the fall of 2016, 27% in the spring and 5% in the fall of 2017, and 26% in the spring of 2018. As a result of only surveying North Baffin in fall of 2016 and 2017 (Figure 2) the percentage of individuals of the entire population was lower than other survey years and seasons due to North Baffin having disproportionately lower caribou densities than central or south Baffin. When comparing our observations to the 2014 estimate of 315 caribou on North Baffin (Campbell et al. 2015) we observed 47% in the fall of 2016 and 73% in the fall of 2017 of the caribou estimated in this area. Considering the high proportions of caribou observed within each of the north, central and south Baffin groupings, we suggest the number of caribou observed is sufficient to address our main objectives. With increased sample effort and spatial coverage, more individuals may have been observed, however the current method of high-grading areas with high encounter rate probability seems to be effective and we suggest continued use of the method.

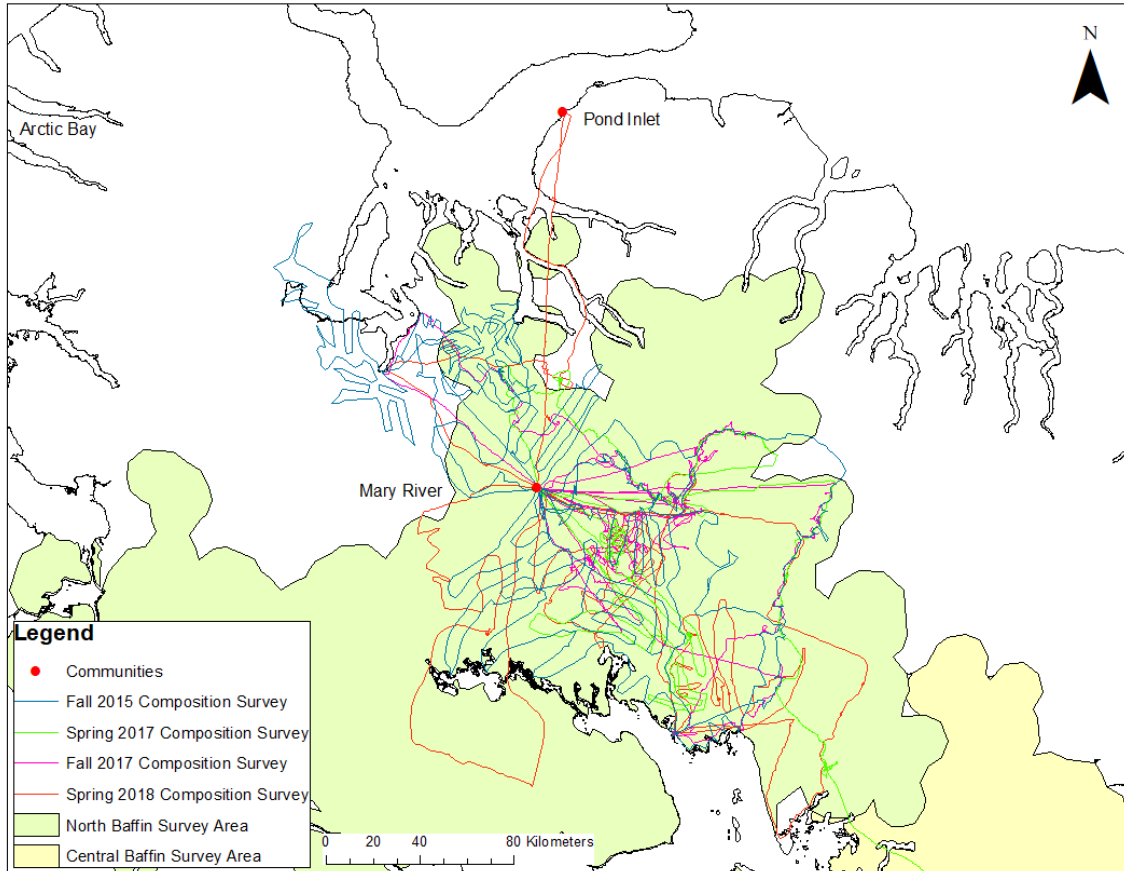


Figure 2 Baffin Island Composition Survey flight lines 2015-2018 in the North Baffin survey area. Search areas based on “high grading” historically and recently known areas with seasonally high to moderate densities of caribou.

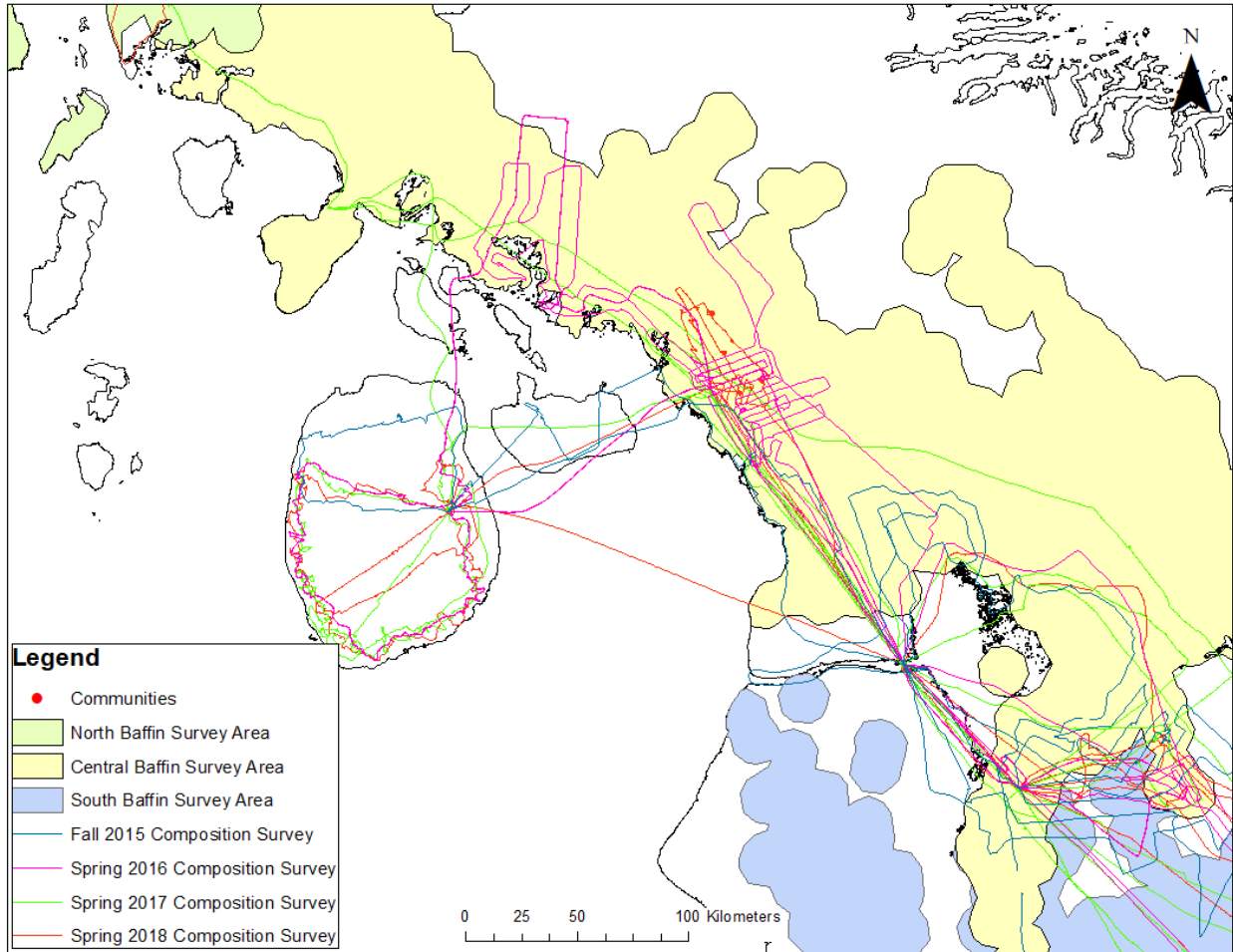


Figure 3 Baffin Island Composition Survey flight lines 2015-2018 in the Central Baffin survey area. Search areas based on “high grading” historically and recently known areas with seasonally high to moderate densities of caribou.

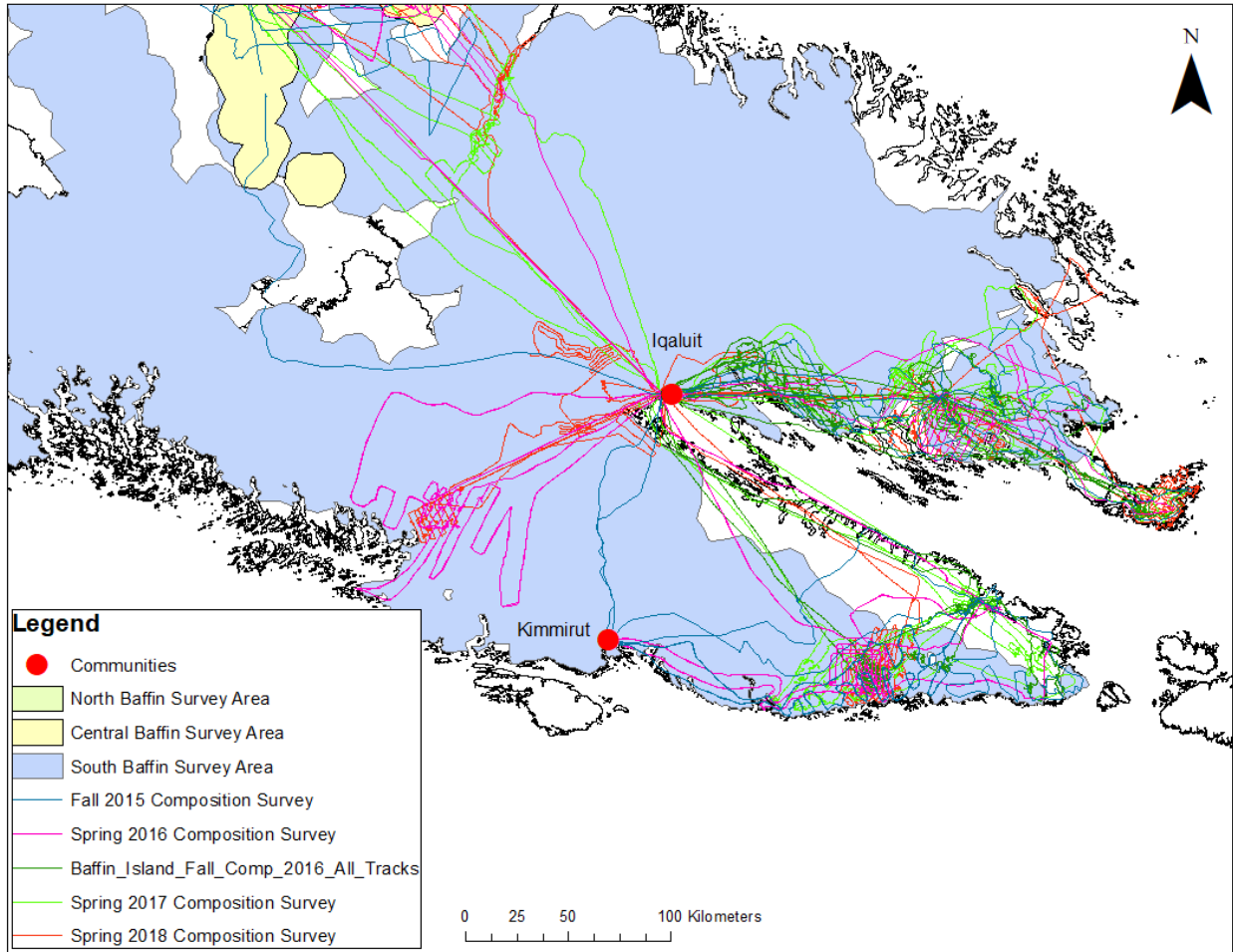


Figure 4 Baffin Island Composition Survey flight lines 2015-2018 in the South Baffin survey area. Search areas based on “high grading” historically and recently known areas with seasonally high to moderate densities of caribou.

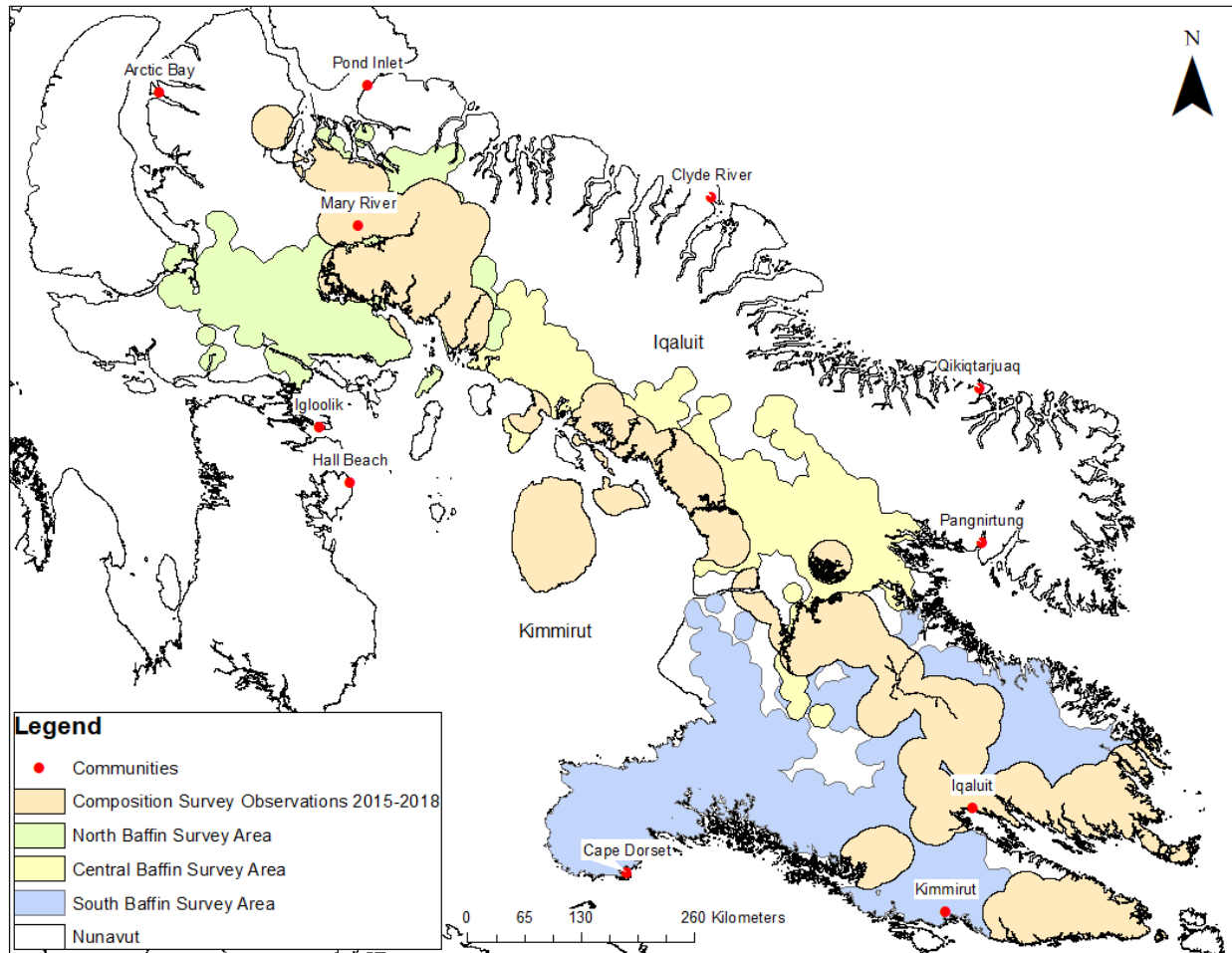


Figure 5 Baffin Island Composition Survey caribou observations 2015-2018, all years combined buffered by 25 km.

Fall composition surveys were conducted to determine bull ratios and calf productivity in an effort to insure the bull only NQL was not impacting productivity through the reduction of mature bulls, as well as to index the growth potential within the three study areas; North, Central and South Baffin Island. Spring composition surveys were completed with the main objective of determining over-winter calf survival (recruitment) as an index of population growth.

When populations are low there is an increased risk of local extirpation caused by severe winter weather events. Severe weather in the winter of 2015/2016 is the suspected cause of a spring die off of caribou found on Prince Charles Island, based on the initial discovery of 47 dead caribou in the vicinity of a remote landing strip. Samples taken from the caribou confirmed the animals had low fat reserves and likely died from starvation.

Calf to Cow Ratios

In North Baffin calf to cow ratios in the fall varied from 71 calves:100 cows in 2015, 57 calves:100 cows in 2016 and 62 calves:100 cows in 2017 (Table 4). The spring calf to cow ratio increased from 39 calves:100 cows in 2017 to 58 calves:100 cows in 2018. In Central Baffin the calf to cow ratio in the spring increased from 34 calves:100 cows in 2016 to 55 calves:100 cows in 2018 (Table 4). The observed ratio of 100 calves:100 cows in the spring of 2017 can be attributed to the low sample size of only 1 cow and 1 calf observed. Limited survey effort has been applied within Central Baffin, other than Prince Charles Island, over the past 4 years due to logistical constraints.

A decrease in fall calf ratio was observed in South Baffin between 2015 (77 calves:100 cows) and 2016 (41 calves:100 cows). Contrastingly, an increase in calf ratios was observed in spring from 2016 to 2018 (2016 - 22 calves:100 cows, 2017 - 37 calves:100 cows, 2018 - 39 calves:100 cows) suggesting varying impacts on productivity (such as weather, predation, disease, etc) had been in play between years making overall trend predictions difficult with the current 4 years of data (Table 4).

On Prince Charles Island the Spring calf ratio fluctuated from 25 calves:100 cows in 2016 to 32 calves:100 cows in 2017 and 19:100 cows in 2018 (Table 4). Additionally, caribou in very poor condition were observed as well as several dead individuals on Prince Charles Island in the spring of 2018 suggesting a population trajectory that differs from the study areas on Baffin Island itself. Only one survey was completed in the fall of 2015 and the observed ratio was 70 calves:100 cows.

Bull to Cow Ratios

To effectively determine bull:cow ratio only fall survey results should be evaluated. The reduced sightability of bulls in our survey areas in spring and summer, due to differences in bull and cow distribution, can lead to inaccurate results if large groups of bulls are missed or included.

The ratio of bulls to cows in North Baffin in the fall declined from 2015 to 2017 (2015- 99:100 cows, 2016 - 57:100 cows, 2017- 53:100 cows) (Table 4), which could be a result of increased harvest pressure on one sex. The ratio of bulls to cows in central Baffin in fall 2015 was 74:100 Cows. Only a single survey was conducted in central Baffin (Table 4). Therefore, no trend in bull ratios can be predicted in Central Baffin. The ratios should instead be considered a one-time evaluation based on the reduced spatial and temporal coverage. The ratio of Bulls to cows in South Baffin in fall declined from 72 bulls:100 cows in 2015 to 64 bulls:100 cows in 2016 (Table 4). A baseline ratio of 62 bulls:100 cows was observed on Prince Charles Island in the fall of 2015 (Table 4). Only one survey of the island was completed in the fall on Prince Charles Island so no trend can be identified.

Table 4 Number of observed caribou by demographic group during Baffin Island composition surveys 2015-2018.

Year Season	2015				2016				2016				2017				2017				2018			
	Fall				Spring				Fall				Spring				Fall				Spring			
Location	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island	North Baffin Island	Central Baffin Island	Prince Charles Island	South Baffin Island
Calves Observed	55	28	133	49	Not completed	23	82	49	54	Not completed	Not completed	81	47	1	114	92	86	Not completed	Not completed	Not completed	21	18	31	155
Cows Observed	77	39	189	64		67	328	222	94			196	120	1	351	249	139				36	33	161	401
Calves/100 Cows	71	72	70	77		34	25	22	57			41	39	100	32	37	62				58	55	19	39
Yearlings Observed	N/A	N/A	N/A	N/A		10	76	29	N/A			42	23	0	57	75	17				5	7	37	100
Bulls Observed	76	29	126	46		25	204	151	54			126	64	6	133	181	74				38	40	73	277
Bulls/100 Cows	99	74	67	72		37	62	68	57			64	53	600	38	73	53				106	121	45	69
Bull + Cows	153	68	315	110		92	532	373	148			322	184	7	484	430	213				74	73	234	678
Adults + Yearlings Observed	153	68	315	110		102	608	402	148			364	207	7	541	505	230				79	80	271	778
Total Observed (Calves, Yearlings and Adults)	208	96	448	159		125	690	451	202			445	254	8	655	597	316				100	98	302	933

Discussion

Calf to Cow Ratio

Calf ratios can be used to indicate population trend and help ensure effective management actions are used during population increases or declines. Calf recruitment is an important factor in the rate and success of population growth (Boulanger and Adamczewski 2015). It is important to compare the observed calf ratios to baseline values to determine the population trajectory. There has been little research conducted on tundra wintering caribou and as a result there is no baseline value that exists for either calf:cow ratio or bull:cow ratio for this ecotype. However, we believe until such a baseline is developed for Baffin Island caribou it is reasonable to use the baselines for taiga wintering barren-ground caribou. It has been suggested that calf:cow ratios in barren-ground caribou in the Northwest Territories can be as high 70-90 at calving, 50-70 in the fall and 30-50 following winter when populations are stable or increasing (Adamczewski et al. 2009; Tobey 2001; Gunn et al 2005). There is an inherent amount of risk associated with using baselines values from a different population and therefore these composition baselines, when used with Baffin Island caribou, should be used with caution.

The observed calf:cow ratios across Baffin Island in fall of 2015 are all within the suggested 50-70 percent baselines indicating a likely stable or increasing population. The calf:cow ratio in North Baffin in the fall from 2015-2017 suggests a stable or increasing population as these ratios are above the suggested 50 calves:100 cows baseline indicated for the more southern ecotypes. The calf:cow ratio in the spring in North Baffin in 2017 and 2018 also suggests a stable or increasing population. Over winter calf survival appears to have improved in 2018 (62 calves:100 cows in fall and 58 calves:100 cows in spring) compared to 2017 (57calves:100 cows in fall and 39:100 cows in spring). This suggests that the winter in 2017/2018 may have been relatively easy on calves in North Baffin and many calves survived. These findings could also be the result of a decreased sample size in 2018. Without an updated population estimate, accurate hunter harvest numbers, and confirmation of the spatial use of caribou in North Baffin, it is unwise to base management decisions on a single metric.

Surveys were not completed in Central or South Baffin in the fall of 2016 or 2017 and therefore estimating the overwinter survival compared to fall ratios is not possible. The calf ratio in 2015 in Central and South Baffin were lower than the suggested baseline of 30-50 calves in a stable or increasing population which suggested a decline in over winter calf survival in these regions. Spring calf ratios in 2017 and 2018 were within the suggested 30-50 percent baseline which may indicate either stable or increasing populations in Central Baffin. Relatively low sample effort was completed in Central Baffin and therefore it is unlikely that the observed ratios are accurate due to the small sample size.

Southern Baffin Island had the lowest ratio of calves in the spring of 2016 (22 calves:100 cows) following the highest fall ratio for any region surveyed over the 4-year period in the fall of 2015 (77 calves:100 cows). This reduced overwinter survival was worrisome as it suggested a substantial impact on productivity over the winter of 2015/2016 in South Baffin, the region with the largest population of caribou on Baffin Island. This low ratio of calves to cows in spring 2016 was followed by a ratio of 41 calves:100 cows in the fall of 2016, less than the suggested ratio for a stable or increasing population.

Many calves seemed to survive the 2016/2017 winter, however, and calf ratios of 37 calves:100 cows were observed in the spring of 2017, within the suggested baseline ratio of 30-50 for a stable or increasing population. The highest spring calf ratio was observed in 2018 (39 calves:100 cows) supporting earlier trends of a stable or increasing population in South Baffin.

Although most calf ratios suggest a stable or increasing population on Prince Charles Island between 2015 and 2018, general observations on the island suggest that fairly substantial die-offs have occurred over the 2016/2017 and 2017/2018 winter. A total of 655 caribou were observed on the island in the spring of 2017 compared to a total of 302 in the spring of 2018 given near identical survey effort. Similar spatial coverage was achieved both in 2017 and 2018 with the majority of the island surveyed. Sightability of caribou on Prince Charles is very high due to the flat near 100% snow covered terrain. Little to no tracking is required as animals can generally be seen from greater than 2 km away. In addition to the reduced number of observed caribou in 2018, many caribou were observed in poor body condition, including some so weak they were unable to stand. In a few instances dead caribou were observed, even though fresh snow had fallen recently on the island just prior to the composition. This follows similar die-offs observed in the winter of 2015/2016 where 47 dead caribou were discovered. It is not uncommon for severe winter weather events to cause localized die-offs of caribou on smaller islands. It is unclear if these suspected die-offs were localized to Prince Charles Island or if the reduced numbers are a combination of die-offs and migration off of the island to Baffin.

It is important that the calf:cow ratios not be taken out of context and applied to the population in its entirety until a second abundance survey helps verify the observed trends and the usefulness of the taiga baseline values. To limit seasonal and sampling variability, trend indices require long term data sets and therefore caution should be taken until more years of data have been collected.

Bull to cow Ratio

Since the current harvest regime on Baffin Island is sex-specific and targets bulls only, it is important to monitor the number of bulls within the population and the resulting trends in bull to cow ratio to ensure productivity is not impacted. The current use of a bull-only harvest regime on Baffin Island creates the possibility of a skewed sex ratio which may limit future population growth. This will need to be monitored in the future to ensure a sufficient number of mature bulls exist within the population to impregnate the cows. Ultimately, this ratio ensures that there are sufficient bulls within the population to impregnate all receptive females. Tag allocations have varied each year but generally are evenly allocated to all Baffin Island communities regardless of caribou grouping (Table 1). Bull to cow ratios will be inherently variable based on survey timing and seasonality. If surveys are completed too early in the fall, when mature bulls are either alone or in small groups, observability might be reduced and animals may be missed. At this time, larger groups of females and young bulls may be observed more easily which will result in a female dominated sex ratio. The ratio of 40 bulls:100 cows is suggested as a benchmark for the number of bulls required in a population to ensure all cows are bred successfully (Tobey 2001).

Although, all of the current bull:100 cow ratios within North Baffin are greater than the suggested minimum ratios of 40 bulls:100 cows, the trend in fall ratios suggests a slight decline. A reduction in the number of bulls was observed between the fall of 2016 and 2017 which suggests a possible impact on bulls within the North Baffin as a result of the bull only harvest allocation (although some illegal harvest of females has occurred). These ratios should be continually monitored to determine any longer term effects on the number of bulls in North Baffin that may result in a loss in productivity from continual harvest of bulls only (Table 1).

The bull ratio in the fall of 2015 in Central Baffin (74 bulls:100 cows) is greater than the suggested ratio of 40 bulls:100 cows, however, based on the relatively low sample size of 68 adults this ratio should not be taken out of context and likely reflects the ratio of a small geographic area and not Central Baffin in its entirety. Since the current tag allocation system does not dictate a specific management area within Baffin Island where tags must be used, it is likely that the majority of tags allocated to Central Baffin communities are harvested in Southern Baffin Island. Therefore, due to logistical constraints and reduced hunting pressure with Central Baffin, long-term trends in bull to cow ratios are likely less important than the other regions. The decrease in bull to cow ratio in the fall in South Baffin from 2015 to 2016 may be due to a low sample size in the fall of 2015 (110 caribou). Alternately, surveying in the fall of 2015 may have occurred too early when the majority of bulls were still migrating in small groups prior to the Rut. As mentioned above, this can be problematic as sightability of mature bulls at this time might be less than the larger groups of cows.

The population decline on Prince Charles Island between 2016 and 2018 was clearly evident. Observing the die-offs on Prince Charles Island in two consecutive seasons shows how relying on a single metric to diagnose population growth or decline can be problematic. Movement of caribou between Baffin Island and Prince Charles Island is currently unknown. Ice conditions are regarded by local hunters as unpredictable and dangerous suggesting little movement over the long-term. Understanding this dynamic will aid in the overall management of caribou on Baffin and ancillary islands.

Current literature suggests that when populations are low, percent harvest should be as low as 0 or 3% to allow a quick population recovery (Alaska Department of Fish and Game 2001; Porcupine Caribou Management Board 2010). Based on the 2014 population estimate of 4,652 caribou the current tag allocation of 250 bulls only represents a 5.4% harvest. In order to reduce the rapid decline of the Bluenose-West herd in 2006-2007 harvest levels of bulls only were reduced to 4% (Boulanger et al 2014) suggesting a higher percent hunt than this when populations are already low will limit recovery potential. There are many possible negative effects from overharvesting when populations are low including, slower population recovery, local depletion and/or extirpation events and further population decline. The effects of this harvest management method are unknown and will need to be verified by another population estimate. There is also the issue of illegal and undocumented harvest of caribou on Baffin Island. The current 5.4% harvest is based strictly on allocation and not necessarily the number of caribou that are actually being harvested annually. There has been indication that illegal harvest of both bulls and cows is occurring but the extent is currently unknown (Table 1). This additional undocumented harvest will undoubtedly further reduce the possibility of a timely recovery.

Limitations of the data

All types of wildlife surveys have limitations in their power to predict changes to abundance or long-term trends. Composition surveys are limited in their ability to predict short-term trends when multiple factors, such as increases in disease or overharvesting, are influencing the population structure. These same surveys, over the longer term can provide a useful index of population trend, offering a useful tool with which to determine the most effective timing of abundance estimates. Composition surveys on Baffin Island were separated by survey region (possible subpopulations), and without definitive delineations of subpopulations, it is unwise to manage populations or base management decisions on trends at this scale. Instead, long-term trends should be used as an index to advise abundance survey frequency and timing. Trend assumptions must be taken with caution as sampling is completed within a relatively small geographic area. There are many factors that contribute to population growth and decline in addition to calf survival and demographics. Therefore, in order to accurately predict population growth or decline, it is important to use results from these surveys in conjunction with other sources of data, such as local knowledge, IQ and regular reconnaissance and abundance surveys.

Consultation progress

Community consultations are being planned for the fall of 2018 to inform on the results from the last 4 years of composition surveys on Baffin Island. These discussions will summarize the information provided in this report and include open discussions regarding future management and monitoring of caribou populations on Baffin Island. A final consultation report will be completed by the DOE summarizing discussions at the consultations.

Management Actions/Implications

Next Steps

There has been relatively limited research on Baffin Island caribou so there are many areas where additional information could be collected through IQ or scientific studies. One limitation to effective caribou management on Baffin Island is the spatial extent of the island. There has been some indication that Baffin Island caribou form distinct herds or subpopulations but this delineation has not been effectively verified. If in fact there are distinct caribou herds on Baffin, survey efforts could more efficiently focus on smaller spatial scales and herds of caribou that exhibit the greatest risk of population decline, ultimately increasing survey effectiveness and decreasing cost. The most effective method to delineate herds would be to utilize GPS tracking collars. This method would also allow us to identify seasonal movement patterns at the same time and aid in identifying key migration corridors, calving and post-calving areas, and fall rut locations. Disturbance during calving of cows and calves by development has been well documented (Wolfe et al 2000). Identification of specific key use areas such as calving or migration corridors will also identify risks associated with development activities. Continual monitoring of movement rates and locations prior to and during surveys will also increase the effectiveness of surveys and confidence in the results. For example, if the intent is to survey during calving, movement rates can be monitored to determine when peak calving is occurring, reducing the error associated with double counting or surveying too early or late.

Successful delineation of caribou groups on Baffin Island will also allow the use of different management techniques specific to the group/subpopulation being identified. If the suggested delineations are confirmed, harvesting pressure could be allocated proportionally with higher allocations to populations with greater abundance, providing groups with lower populations some relief from harvesting pressure. Shifting harvest pressure will allow faster recovery of groups with low abundance.

Calf productivity, recruitment (over-winter survival), and adult sex ratios can vary by season, and sampling region. Therefore continued Island wide sampling is essential to determine long-term trends and population trajectory. In the absence of a multiyear collaring program or second abundance estimate, continued composition surveys should be completed to determine the long term trends of Baffin caribou. Regular reconnaissance surveys should also be considered as a best practice; however, in the absence of a collaring program these surveys would be excessively expensive, and possibly ineffective.

There are many key pieces of information required to ensure the successful recovery of caribou on Baffin Island. These include; 1) The total harvest between the 2014 population estimate and the 2018 spring composition survey (legal and illegal), 2) Multiple year estimates of recruitment (over winter calf survival) , 3) Productivity and sex ratio trends for the different sampling areas, and 4) Overall health of caribou within the different survey regions. The results of the past 4 years of composition surveys have been extremely helpful in allowing us to begin to understand the basic population dynamics of the Baffin Island caribou groups, however much more needs to be done if we are to effectively steer harvest management into recovery.

Financial and Logistical support provided

Many organizations contributed to the success of the Baffin Island caribou compositions surveys from 2015 to 2018. Financial and logistical support provided by Baffinland Iron Mines Corporation, Canadian Wildlife Service (CWS), Nunavut Wildlife Management Board (NWMB) and Peregrine Diamonds Ltd. Hunters and Trappers Organizations (HTOs) provided valuable local knowledge and locational information that contributed to the success of the surveys. A special thanks to volunteer observers; Elijah Panipakoocho, Jetaloo Kakee, Denise Baikie Palanga Lyta, Methusalah Kunuk, Tim Soucie, Chris Wex, Robert Aglak, Jerry Ell, Ezra Arreak, Mario Asselin, Matthew Fredlund, Jason Aliqatuqtuq, Craig Barber, David Kelly and Joanasie Mucktar.

Literature Cited

Alaska Department of Fish and Game. 2001. Caribou management report of survey-inventory activities 1 July 1998-30 June 2000. C. Healy, editor. Project 3.0. Juneau, Alaska.

Boulanger, J. Croft, B and Adamczewski, J. 2014. An Estimate of Breeding Females and Analyses of Demographics for the Bluenose-East Herd of Barren-ground Caribou:2013 Calving Ground Photographic Survey. Department of Environment and Natural Resources Government of the Northwest Territories. File Report No. 143. 90pp.

Boulanger, J. and Adamczewski, J. 2015. Simulations of Harvest and Recovery for the Bathurst Caribou Herd, with Annual Variation. Department of Environment and Natural Resources Government of the Northwest Territories. File Report No. 145. 53pp.

Campbell, M., Goorts, J., Lee, D.S., Boulanger, J. and Pretzlaw, T. 2015. Aerial Abundance Estimates, Seasonal Range Use, and Demographic affiliations of the Barren-Ground Caribou (*Rangifer tarandus groenlandicus*) on Baffin Island – March 2014. Government of Nunavut Department of Environment Technical Report Series – No: 01-2015. Government of Nunavut, Department of Environment, Iqaluit, NU. 196pp.

Department of Environment (DOE). 2013. Working Together for Baffin Island Caribou. Workshop Report (August 2013). Government of Nunavut, Department of Environment, Iqaluit, NU. 17pp.

Department of Environment (DOE). 2014. Working Together for Baffin Island Caribou. Workshop Report (November 2014). Government of Nunavut, Department of Environment, Iqaluit, NU. 34pp.

Department of Environment (DOE). 2015a. Community and Hunter and Trapper Organization Consultations on Baffin Island Caribou (December 2013 - January 2014). Government of Nunavut, Department of Environment, Iqaluit, NU. 42pp.

Department of Environment (DOE). 2015b. HTO Consultations on Baffin Island Caribou Management Plan. March and April 2015. Government of Nunavut, Department of Environment, Iqaluit, NU. 24pp.

Department of Environment (DOE). 2016. Baffin Island Caribou Draft Management Plan. Government of Nunavut, Department of Environment, Iqaluit, NU. 24pp.

Gunn, A., Boulanger, J. and Williams, J. 2005. Calf survival and adult sex ratio in the Bathurst herd of barren-ground caribou 2001-2004. Department of Environment and Natural Resources Government of the Northwest Territories. Manuscript Report No.163. 99pp.

Jenkins, D. A., J. Goorts and N. Lecomte. 2012. Estimating the Abundance of South Baffin Caribou. Summary Report 2012. Nunavut Department of Environment. 33 pp

Jenkins, D., and Goorts, J. 2013. Baffin Island Caribou Consultations, 2012. Consultation Report, Government of Nunavut, Department of Environment, Pond Inlet, NU, 86pp.

Porcupine Caribou Management Board (PCMP). 2010. Harvest management plan for the Porcupine caribou herd in Canada. PCMB. Whitehorse, YT. 45p.

Tobey, B. 2001. Caribou Management Report Game Management Unit 13 and 14B. Pages 90-105. In C. Healy, editor. Alaska Department of Fish and Game, Project 3.0. Juneau, Alaska.

Wolfe, S., Griffith, B. and Gray Wolfe, C. A. 2000. Response of reindeer and caribou to human activities. *Polar Research*. **19**(1), 63-73.

SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD AND NUNAVIK MARINE
REGION WILDLIFE BOARD

FOR

Information:

Decision: X

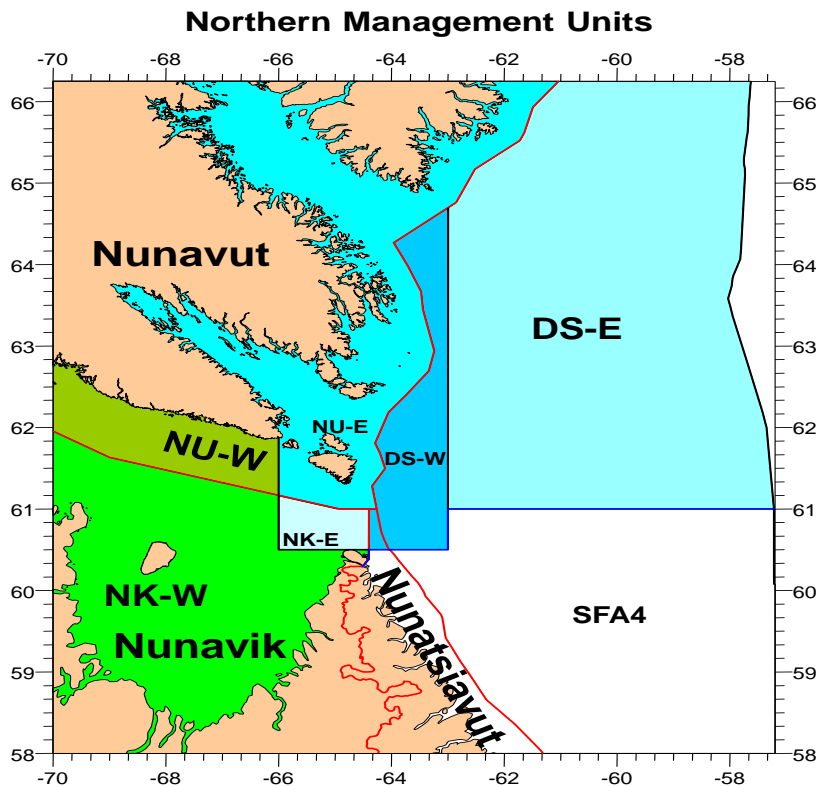
Recommendation: X

Issue: Total Allowable Catch levels for Northern (*Pandalus Borealis*) and Striped (*Pandalus Montagu*) Shrimp for the 2019/20 season

Map:

Blue areas – Eastern Assessment Zone

Green areas – Western Assessment Zone



Total Allowable Catch levels for Northern (*Pandalus Borealis*) and Striped (*Pandalus Montagu*) Shrimp for the 2019/20 season

Background

Two shrimp species (*Pandalus Montagu* and *Pandalus Borealis*) occur in the Northern shrimp fishery that takes place in the Davis Strait and eastern Hudson Strait which includes parts of the Nunavut Settlement Area (NSA) and the Nunavik Marine Region (NMR). Total Allowable Catch (TAC) for each species is set for two distinct science

assessment zones (East and West), then distributed into management units as per defined sharing arrangements.

In the Eastern Assessment Zone (EAZ), the Minister's decisions for the 2018/19 TACs incorporated science advice, which in turn considered the 2017 and 2016 survey data, the decisions and recommendations of the NWMB and the NMRWB, and consultations with the Northern Shrimp Advisory Committee (NSAC). The 840t Montagu TAC was maintained, while the Borealis TAC was reduced by 17.36% to 7,840t to achieve a 20% exploitation rate (ER).

Science conducts full stock assessments on a two-year cycle, with the next full assessment (dated 2018) scheduled for February 2019. This full stock assessment will inform the TAC decisions for the 2019/20 season.

Decisions and recommendations on TAC levels in the Western Assessment Zone (WAZ) and EAZ respectively for each species of shrimp for the 2019/20 season are required from both Boards.

However, as has occurred in the past, the timing of consultative and co-management processes and the availability of new science information to inform decision making will again present a challenge this season. Science results from the 2018 survey are expected by mid to late February, 2019. Consultation with NSAC is planned for early March. The NWMB and NMRWB regular meetings are typically held mid-March and the opening of the shrimp fisheries is April 1.

Therefore, to better position the 2019/20 fishery and avoid delays insofar as possible, the Department is seeking decisions and advice from the Boards on pre-agreed methodology on TACs in the WAZ and the EAZ.

Western Assessment Zone – For Decision

The WAZ falls entirely within the NSA/NMR. Beginning in 2014, the science survey in the WAZ was undertaken by the Northern Shrimp Research Foundation (NSRF) and the Department. As such, the vessel and gear used to complete the survey changed, as well as the time of year the survey is conducted. Consequently, the time series for this assessment zone was reset with 2014 as year one; the 2018 survey provides the fifth data point. Science advises that at least 3 – 5 reliable points on the time series are required to responsibly make any decisions to modify the TAC. In the WAZ since the survey began, changes in fishable biomass greater than 25% (considered precipitous) have occurred every year for Montagu, and 50% of the time for Borealis. The survey last year (2017) indicated a biomass decline (20%) for the second consecutive year for Borealis (-54% in 2016) and an increase for Montagu (42%). The rollover of the Borealis (2,080t) and Montagu (6,138t) TACs in 2018 resulted in ERs of 19.8% and 13.7% respectively. Prior to the 2016 fishing season, the ERs were below 10% in most cases.

It is important to note that the Borealis fishable biomass has declined for two consecutive years. A decline greater than 1% would result in an ER of 20% with a TAC rollover. Given the uncertainties surrounding the status of the stock in the context of a PA framework (Healthy, Cautious, or Critical Zone), should the fishable biomass decline occur again this year, attention must be given to an appropriate ER and TAC level.

Implicit in quota and Total Allowable Take (TAT) decisions by the Boards for 2018/19, which the Minister accepted, was the continuation of the 50/50 split of the overall TAC between Nunavut and Nunavik.

The Department is seeking the respective Board decisions on harvest levels for NU/NK West (i.e. overall TAC), and confirmation of the split of the overall TAC between Nunavut and Nunavik Inuit.

Given that the most recent 2018 survey represents the fifth data point for both species in the WAZ, the plan is for Science to establish Limit Reference Points (LRPs) in early 2020. Following Science approval of these LRPs, Resource Management will work with the Nunavut and Nunavik Boards and their industries to develop Upper Stock Reference Points (USRs). The reference points will be applied to TACs resulting from the next full stock assessment (2021/22).

Recommendation for the WAZ:

Given 1) that Science will have five data points in the time series; 2) the often precipitous changes in fishable biomass for both species in recent years; and 3) the pending reference points that would delineate the Healthy, Cautious and Critical Zones, a reasonable approach to ensure that shrimp harvesting inside the settlement areas remains within sustainable catch levels is to rollover the Montagui TAC. Borealis, however, requires additional consideration to establish harvest levels should there be any level of continued fishable biomass decline.

TACs:

1) Montagui:

- a) Regardless of increase or decrease of fishable biomass, rollover the current TAC of 6,138t.
- b) If the fishable biomass increases, increase the TAC by 15% to a maximum 20% ER.

2) Borealis:

- a) Borealis: if the fishable biomass increases, rollover the current TAC of 2,080t (results in a decrease of the ER).
- b) If the fishable biomass declines by greater than 1%, the Boards could establish the TAC at a level and ER they feel is appropriate.
- c) If the fishable biomass declines, establish the TAC based on a rollover the current ER (19.8%). However, this level of ER would be perceived as high given the third year of decline and the accepted maximum ER is 20% for those stocks identified as being in the Healthy Zone.

The Eastern Assessment Zone – For Recommendation and Decision

The EAZ falls both within and outside the NSA/NMR. This stock has been managed in the order of 15% with the exception of 2018 (20%). While the Borealis stock is in the Healthy Zone of the Department's PA Framework, there is continued uncertainty associated with the Montagui stock.

In the EAZ, TACs for the 2018/19 fishing season were reduced by 17.36% for Borealis to 7,840t (20% ER) in response to the 2017 survey that showed a precipitous 40.2% decline of fishable biomass. 20% is the maximum ER accepted by the Marine Stewardship Council for stocks in the Healthy Zone. The Borealis fishable biomass also declined by 17% in 2016. The Montagu fishable biomass has fluctuated significantly since at least the 2012 survey, and increased for the second consecutive year (44% in 2017, 124.7% in 2016). The Montagu TAC was maintained at 840t (ER 3.4%). Implied through the quota and TAT decisions by the Boards since the 2015/16 fishery, which were accepted by the Minister, was the continuation of the split between Nunavut and Nunavik Inuit in NU/NK East, as well as the distribution between the NU/NK East and Davis Strait management units.

In the EAZ, Montagu is the directed fishery and Borealis is taken as a bycatch species in the NU/NK East management units, while the reverse is true in the offshore Davis Strait management units.

The Department is seeking the recommendations of the Boards on the TAC for both species in the EAZ. The Boards' advice on TAC could imply confirmation the distribution between the offshore area (Davis Strait) and the NSA/NMR (NU/NK East management units). In addition, the Department is seeking the decisions of the Boards on the harvest level for the NU/NK East management units.

TACs:

Montagu

- a) Should the fishable biomass increase, increase the TAC by 15%.
- b) Rollover the current TAC of 840t.

Borealis:

- a) Should the fishable biomass increase, rollover the TAC of 7,840t
- b) Should the fishable biomass increase, increase the TAC by a maximum of 15% as long as the ER remains below 20%
- c) If the stock further declines but remains in the Healthy Zone, establish the TAC based on a 20% ER

As per usual practice, should the science assessment identify a 'precipitous change in biomass' (up or down, greater than 25%) for either species in the WAZ or EAZ, DFO will provide an addendum for the Boards to reconsider decisions and recommendations.

Summary of Request

Considering this, the Department is seeking from the Board, for the 2019/20 fishery:

- 1) TAC Decisions for both species in the WAZ
- 2) A recommendation on TACs for both species in the EAZ
- 3) Sharing decisions, which can be implied through TAC and harvest levels:
 - a. Decision on sharing arrangements for Nunavut and Nunavik in the WAZ
 - b. Decision on sharing arrangements for NU/NK East management units
 - c. Recommendations on distribution of EAZ TAC between the NU/NK East and offshore Davis Strait management units

Prepared by: Ecosystems and Fisheries Management, Fisheries and Oceans Canada

Date: January, 2019

SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD AND NUNAVIK MARINE
REGION WILDLIFE BOARD
FOR

Information:

Decision: X

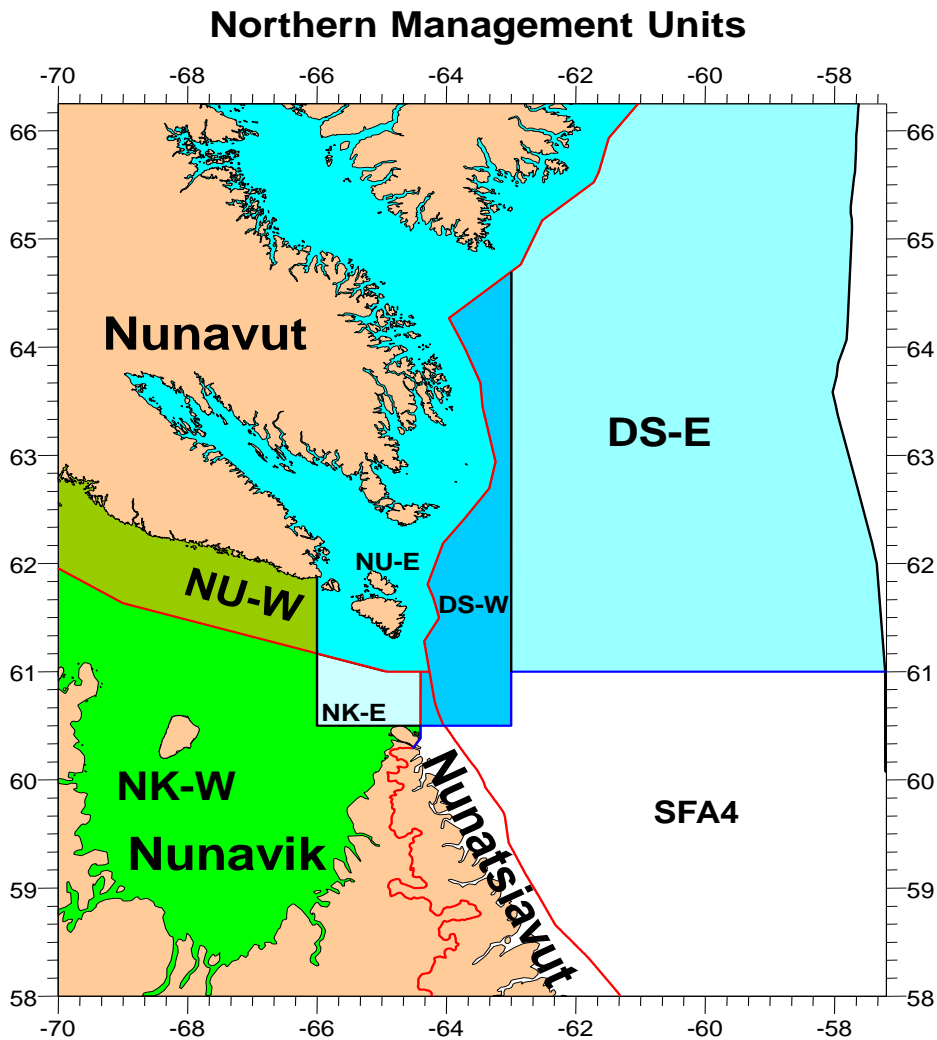
Recommendation:

Issue: Revisiting 2019/20 Total Allowable Catch levels for Northern (*Pandalus borealis*) and Striped (*Pandalus montagui*) Shrimp in the Western Assessment Zone

Map:

Blue areas – Eastern Assessment Zone.

Green areas – Western Assessment Zone.



Background

The Department submitted a Briefing Note to the Nunavut Wildlife Management Board and the Nunavik Marine Region Wildlife Board (i.e. the Boards) in January 2019 for their joint decisions and recommendations on two species of shrimp in the Western Assessment Zone (WAZ) and Eastern Assessment Zone (EAZ). The Science results from the 2018 multi species survey that will inform the 2019/20 Total Allowable Catches (TACs) were not available at the time of submission.

The Department indicated it would return to the Boards should the Science results indicate a precipitous change in fishable biomass for either species in either zone. The Boards agreed that any change greater than 25% would be considered precipitous. The results of the 2018 Science survey have been received and indicate precipitous changes (increases) in fishable biomass in the WAZ for montagui (+77.7%) and for borealis (+101.1%). The results of the 2018 Science survey do not indicate a precipitous change in fishable biomass for either species in the EAZ.

The results of the full stock assessments submitted through this Addendum (summary at ANNEX A) will provide the Boards with additional information relevant to their recommendations and decisions for the Minister for the 2019/20 fishery.

Western Assessment Zone – For Decision

Key Background Points

A new science survey in the WAZ was undertaken beginning in 2014. Consequently, the time series for this assessment zone is reset with the most recent 2018 survey representing year five.

Since the beginning of the new survey, the Boards agreed to rollover the TACs for both species in the WAZ, resulting in a range of exploitation rates (ERs) of 8% - 19.3% for Montagu, and 7.3% - 19.8% for Borealis (ANNEX B).

There is currently no Precautionary Approach framework for either stock in the WAZ, however a Science peer-reviewed process will be undertaken in 2019/20 to develop a Limit Reference Point (LRP) for each stock. The establishment of the LRP is undertaken unilaterally by Science. Resource Management will then work with Science, the Boards' staff and Nunavut and Nunavik industries to establish an Upper Stock Reference point (USR) for each stock that will then go to the Boards for approval. These reference points will delineate the Healthy, Cautious and Critical Zones, which can guide management actions to maintain or promote sustainable harvest levels. It is anticipated that the reference points could be applied to the TAC setting process in 2021/22, which coincides with the next full stock assessment for this area.

WAZ Borealis

- The 2018/19 TAC was 2,080t and the ER was 19.8%.
- The 2018 survey indicated a stock increase of 101.1%, following two years of stock decreases (20% in the 2017 survey and 54% in 2016).
- A rollover of the current TAC would result in an ER of 9.9%

WAZ Montagui

- The 2018/19 TAC was 6,138t and the ER was 13.7%.
- The 2018 survey indicated a 77.7% increase of fishable biomass, following a stock increase (42%) in the 2017 survey, and a decrease of 42.5% in 2016.
- A rollover of the current TAC would result in an ER of 7.7%

Primary Considerations for the Boards' Decisions

- Five data points in the Science survey time series have now been established, however Science cannot detect trends for either stock at this time
- Precipitous increases have occurred for both species as per the 2018 survey
- A rollover of the current TACs would result in ERs less than 10%
- The WAZ has generally been managed in the order of a 10% ER, however ERs for both stocks have been above this general level since the 2017/18 fishery
- Past ERs have been as high as ~19% with no detectable impact on the stocks since the new survey began
- There is no PA for either stock in the WAZ, i.e. the stock statuses are unknown
- The accepted rule in other areas for stocks in the Healthy Zone is for a 15% maximum change to the TAC, unless there has been a precipitous change in fishable biomass
- A 20% ER for stocks in the Healthy Zone is the accepted maximum rate to maintain Marine Stewardship Council certification;

Recommendation for the WAZ:

The Department requests that the Boards take into account the primary considerations as noted above in their decisions for TACs in the WAZ. The Department is of the view that the Boards' could reasonably consider increasing the TACs to an ER that falls within the previous ER range since 2015/16 (7.3% - 19.8% ER for Borealis, 8% - 19.3% ER for Montagui) for each species without impacting the sustainability of the stocks. A table is included at ANNEX B to illustrate possible scenarios for each species.

Interim Allocations

Moving forward, should a final decision on TACs in the WAZ and EAZ not be made by the opening of the fishery on April 1st, the Department requests that the Boards authorize the release of interim Nunavut / Nunavik allocations in the settlement areas at 50% of the previous year's levels. This will allow fishing activity to begin in a timely manner to ensure a successful shrimp fishing season while the decision making process is underway. This decision could be made independently of the decision on TACs.

Summary of Request

The Department is seeking the following decision from the Boards for the 2019/20 fishery:

- 1) A decision on TACs and allocations for both species in the WAZ at levels the Boards deem to be reasonable and sustainable.

- 2) By way of reminder and for ease of reference, as per the January, 2019 Briefing Note to the Boards, the Department also requests for the EAZ:
 - a) A recommendation on TACs for both species
 - b) A decision on harvest levels and sharing arrangements for Nunavut /Nunavik East management units
 - c) Recommendations on distribution of TAC between the Nunavut /Nunavik East and offshore Davis Strait management units
- 3) Moving forward, agreement to release interim quotas in the settlement areas at 50% of the previous year's levels

Prepared by: Ecosystems and Fisheries Management, Fisheries and Oceans Canada

Date: February 27, 2019

ANNEX A SUMMARY: ASSESSMENT OF NORTHERN SHRIMP, *Pandalus borealis*, AND STRIPED SHRIMP, *Pandalus montagui*, IN THE EASTERN AND WESTERN ASSESSMENT ZONES, FEBRUARY 2019

The assessment includes 2018 survey biomass, fishery data, and fishery exploitation rate indices for Northern Shrimp (*Pandalus borealis*) and Striped Shrimp (*Pandalus montagui*) from the Eastern and Western Assessment Zones (EAZ and WAZ).

Eastern Assessment Zone *Pandalus borealis*

- Total catch varied without trend around 6,000 t from 1997 through 2018/19.
- The fishable biomass index was below the long term mean (62,412 \pm 13,735 t) in both 2017 and 2018. It increased by 19.6% (from 39,198 t in 2017), to 46,900 t in 2018.
- The female spawning stock biomass (SSB) index was below the long term mean (38,592 \pm 9,688 t) in both 2017 and 2018. It increased by 32.4% (from 24,800 t in 2017), to 32,842 t in 2018.
- The reported exploitation rate index has varied without trend since 2007/08 and in 2018/19 was slightly above the long-term mean of 10.4 \pm 2.7% with 64% of the TAC taken. Based on the 2018/19 TAC of 7,840 t, the potential exploitation rate index was 16.7%.
- The resource is currently in the Healthy Zone within the IFMP Precautionary Approach (PA) framework.

Eastern Assessment Zone *Pandalus montagui*

- Total catch in 2018/19 was 150 t, 18% of the 840 t TAC.
- The fishable biomass index was above the long term mean (13,952 \pm 6,677 t). It decreased by 16.3% (from 24,957 t in 2017) to 20,895 t in 2018.
- The female spawning stock biomass (SSB) index was above the long term mean (9,787 \pm 6,062 t). It decreased by 16.5% (from 16,537 t in 2017) to 13,806 t in 2018.
- The reported exploitation rate index for 2018/19 was 0.7% with 18% of the TAC taken. Based on the 2018/19 TAC of 840 t, the potential exploitation rate index was 4.0%. Over the last three years, the resource remained in the healthy zone. Previously the resource has shown wide fluctuations year to year in the female SSB index. As a result, caution is advised when setting the TAC.

Western Assessment Zone *Pandalus borealis*

- Total catch was 1,307 t in 2018/19, which is 63% of the 2,080 t TAC.
- The fishable biomass index increased in 2018 to the level above the long term mean (18,462 \pm 6,476 t). It increased by 101.0% (from 10,487 t in 2017) to 21,088 t in 2018.
- The female SSB index increased in 2018 to the level above the long term mean (10,063 \pm 3,484 t). It increased by 147% (from 5,216 t in 2017) to 12,884 t in 2018.
- The reported exploitation rate index for 2018/19 was 6.2% with 63% of the TAC taken. Based on the 2018/19 TAC of 2,080 t, the potential exploitation rate index was 9.9%.
- The resource is currently not assessed with a Precautionary Approach (PA) framework.

Western Assessment Zone *Pandalus montagui*

- Total catch was 5,530 t in 2018/19, which is 90% of the 6,138 t TAC.
- The fishable biomass index was above the long term mean (52,228 \pm 18,493t). It increased by 77.7% (from 44,915 t) to 79,835 t in 2018.
- The SSB index was above the long term mean (28,799 \pm 9,980 t). It increased by 57.8% (from 30,305 t in 2017) to 47,834 t in 2018.
- The reported exploitation rate index for 2018/19 was 6.9% with 90% of the TAC taken. Based on the 2018/19 TAC of 6,138 t, the potential exploitation rate index was 7.7%.
- The resource is currently not assessed with a Precautionary Approach (PA) framework.

ANNEX B

Past Total Allowable Catches, Fishable Biomass and Exploitation Rates in the Western Assessment Zone by Fishing Year Since the New Survey

WAZ		2019/20	2018/19	2017/18	2016/17	2015/16
Montagui	FB (t)	79,834	44,915	31,724	55,194	77,078
	TAC (t)		6,138	6,138	6,138	6,138
	ER		13.7%	19.3%	11.1%	8%
Borealis	FB (t)	21,088	10,487	13,116	28,532	21,713
	TAC (t)		2,080	2,080	2,080	2,080
	ER		19.8%	15.9%	7.3%	9.6%

FB – Fishable Biomass

TAC – Total Allowable Catch

ER – Exploitation Rate

Possible Scenarios

	Montagui				Borealis			
	TAC	Addition al quota	Increase in TAC	ER	TAC	Addition al quota	Increase in TAC	ER
Rollover TAC	6,138t			7.7%	2,080t			9.9%
10% ER	7,983t	1,855t	30%	10%	2,109t	29t	1.4%	10%
15% ER	11,975t	5,837t	95.1%	15%	3,163t	1,083t	52%	15%
19% ER	15,168t	9,030t	147%	19%	4,007t	1,927t	92.6%	19%
↑TAC by 15%	7,059t	921t		8.8%	2,392t	312t		11.3%
↑TAC by 25%	7,673t	1,535t		9.6%	2,600t	520t		12.3%

SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD
March 2019

FOR

Information: X

Decision:

Issue: Department of Fisheries and Oceans Canada Updates

Updates:

Marine Mammals:

1) Narwhal:

- The results of the narwhal summering stock connectivity between Admiralty Inlet and Eclipse Sound from the recent tagging research will be presented to the National Marine Mammal Peer Review Committee in February 2019.
- As discussed in early October 2018 at a Narwhal and Walrus Management meeting all co-management partners appeared to be in agreement to defer the narwhal Integrated Fisheries Management Plan (IFMP) review until new science advice is published regarding Admiralty Inlet and Eclipse Sound connectivity and possible change in allocation model.

2) Walrus:

- Fisheries and Oceans Canada (DFO) met with co-management partners on October 3, 2018 in Iqaluit to discuss ongoing walrus management and hosted a follow-up conference call on December 3, 2018. Based on feedback, there is support for community-based monitoring with harvest reporting for walrus in Nunavut.
- DFO is planning a meeting with Nunavut co-management partners in April 2019 in Iqaluit to start developing a harvest monitoring and reporting framework with phased implementation from 2019 onwards.
- DFO will not be submitting a Request for Decision to the NWMB in 2019 to establish Total Allowable Harvest (TAH) levels for management units in Nunavut.
- The community-based monitoring program for walrus in Hall Beach led by the Hall Beach Hunters and Trappers Organization (HTO), DFO, and the Qikiqtaaluk Wildlife Board is ongoing and is expected to continue through 2019.

3) Cumberland Sound Beluga:

- The results of the 2017 aerial survey of Cumberland Sound Beluga will be presented to the National Marine Mammal Peer Review Committee in February 2019.
- At the request of the Pangnirtung HTO; DFO attended their 2019 Annual General Meeting where Beluga was the main topic of discussion that included biological sample collection; quota; hunting bylaws; potential future research options and other beluga stocks within Cumberland Sound.

4) Bowhead:

- A Bowhead Working Group meeting was held in Ottawa on December 14-15, 2018 and the main discussion points included: draft terms of reference; review of the bowhead licence conditions (i.e., primary killing method of penthrite grenade vs. harpoon; size restrictions); and carry over of unused strikes.
- Amendments to Marine Mammal Regulations were also discussed, along with the marine mammal response program. A workshop in Yellowknife is to be held this fiscal year.
- DFO is currently determining what is involved to amend licence conditions before a draft IFMP can be completed.

Arctic Char:

1) Cambridge Bay:

- Post-Season and IFMP Review/Update Meeting Jan 29th 2019:
 - Review of the 2018 commercial harvest in accordance with the Cambridge Bay Commercial Arctic Char IFMP that has been in place since 2014.
 - Discussion will include the 2018 harvest of Lauchlan River (first time since 2010) using a conservative quota previously supported by the Nunavut Wildlife Management Board (NWMB) and IFMP Working Group; also the proposal of a Conservation Harvest Plan (CHP) for Lauchlan River to assist with the sustainable management of the fishery. The CHP would include the same features of the IFMP and could easily be added to the IFMP in the future. Short-term objectives for the CHP will focus on collecting fishery-dependent and independent data.
 - Year 1 of DFO science plant-independent sampling at Lauchlan River, data will primarily be used in a stock assessment for this fishery (2023). DFO Science is also looking at char diet, food web and contaminants.
 - IFMP five year review (2019) will be discussed to update:
 - licence conditions,
 - include more information on Lauchlan River,
 - remove reference of NGMP since the project (and funding) was completed in 2017,
 - update new science for the region, and
 - update DFO policies on sustainable fisheries management.

2) Kivalliq Region:

- DFO is hosting a Kivalliq Arctic Char Workshop in Rankin Inlet Feb 20 and 21.
- Purpose of this workshop is to collaborate with each of the communities and co-management partners to prioritize community interests for Arctic Char commercial and emerging fisheries, which will assist DFO Fisheries Management and Science in developing multi-year work plans.
- Future meetings and workshops with communities is anticipated in 2019 and future years, as collaborative science plans and fisheries management initiatives are initiated in the Kivalliq Region.

Greenland Halibut (Turbot):

1) Cumberland Sound Turbot Fishery:

- DFO met with Pangnirtung Turbot fishers on January 18th 2019 to officially open the winter Turbot Fishery.
- A science meeting is planned for May 2019 examining the stock status; movement patterns and habitat use and connectivity to the offshore.

2) 2018 Offshore Fishery:

- A total of 8260 mt was harvested in Northwest Atlantic Fisheries Organization (NAFO) Division 0A.
- A total of 3327 mt was harvested in NAFO Division 0B.
- A total of 835 mt was harvested in the NAFO Division 0B Competitive Fishery.
- On January 24th, DFO notified fishers that the Canadian Total Allowable Catch (TAC) for the NAFO Subarea 0 Greenland Halibut (Turbot) fishery would increase by 2,035t for 2019 and 2020. The increase will be divided 50/50 between NAFO Divisions 0A and 0B.
- The TAC for Division 0A will increase from 8,575 tonnes to 9,592.5 tonnes (1,017.5 tonnes) and Nunavut will receive 100% (1,017.5 tonnes) of the increase.
- The TAC for Division 0B will increase from 7,575 tonnes to 8,592.5 tonnes (1,017.5 tonnes). Of this increase, Nunavut will receive 90% (915.75 tonnes) and Inuit fishers in Nunavik will receive 10% (101.75 tonnes).

Northern Shrimp:

For Nunavut fishing industry in shrimp fishing areas adjacent to Nunavut (2018/19):

- A total of 413 mt was harvested in Davis Strait East.
- A total of 1291 mt was harvested in Davis Strait West.
- A total of 281 mt was harvested in Shrimp Fishing Area 1.
- A total of 78 mt was harvested in the Eastern Assessment Zone.
- A total of 2364 mt was harvested in the Western Assessment Zone.

Iqaluit Coastal Environmental Baseline Program:

- DFO, Amaruq Hunters and Trappers Association, Government of Nunavut, universities, non-government organizations and community field assistants have been working together to setup a Coastal Environmental Baseline Program in Iqaluit.
- The data collected as part of this program will help us better detect changes in the environment and help improve our understanding of how human activities impact marine ecosystems over time.
- In 2018, data was collected by 9 different projects that supported this initiative.
- In summary, projects focused on biodiversity, contaminants, health, oceanographic characteristics, habitat use, and food web structure.

- We are expecting an additional 4 projects to start in 2019.
- A face-to-face meeting with project leaders and co-management partners is planned for April 30 and May 1, 2019 in Iqaluit.

Prepared by: Central and Arctic Region – Fisheries and Oceans Canada

Date: January 25, 2019



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FOR

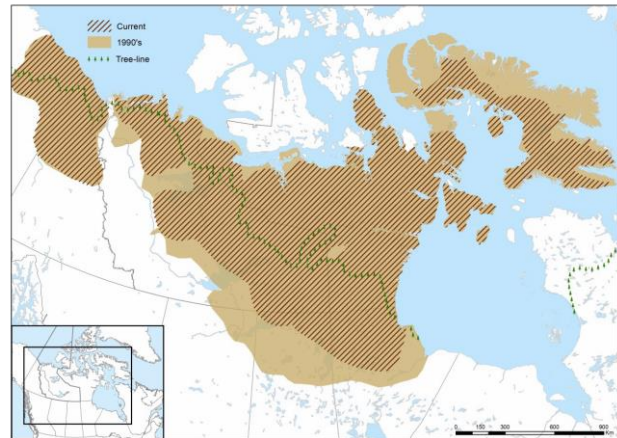
Information: X

Decision:

Issue: Update on consultations in Nunavut on the proposed listing of **Barren-Ground Caribou** as a threatened species under the federal *Species at Risk Act*



Barren-Ground Caribou



Current and historical range of Barren-Ground Caribou

Background

Designatable Unit

- COSEWIC divides caribou in Canada into 12 types or “Designatable Units” based on distribution, genetics, appearance, movements, and behavior and life history strategies.
- The range of Barren-ground caribou in Canada extends from the Yukon to Baffin Island, and south into Saskatchewan and Manitoba.
- Barren-ground caribou includes 14-15 populations or herds including the following herds found in Nunavut: Bluenose-East, Bathurst, Beverly, Qamanirjuaq, Lorillard, Ahik, Boothia Peninsula, Wager Bay, Southampton Island, and Baffin Island herds.

Assessment & Threats:

- The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assessed Barren-Ground Caribou as a threatened species in November 2016.
- A threatened species is likely to become endangered if limiting factors are not reversed.

- Most Barren-Ground Caribou herds have shown large declines since 1990, only 2 herds are increasing. Across Canada, Barren-ground caribou have declined from around 2 million individuals in the early 1990s to about 800,000 in 2016. The decline is estimated at 56% over three generations (between 1989 and 2016).
- Evidence from both local Indigenous people and scientific studies suggests that most herds have undergone natural fluctuations in numbers in the past; however, available data does not indicate any sign of rapid recovery at this time.
- Barren-ground caribou meets criteria for *Endangered* status because of a reduction in numbers of $\geq 50\%$, but the lower risk category of *Threatened* was recommended because, overall, this population does not appear to be facing imminent extinction at this time.
- Potential threats include:
 - Climate and weather changes affecting forage availability, predation, parasites and diseases.
 - Industrial exploration and development.
 - Fragmentation of habitat in winter range from forest fires and increasing human presence.
 - Contaminants
 - Subsistence and sport harvest can be significant causes of mortality.

Herds of the Nunavut Territory:

Herds	Bluenose -East	Bathurst	Beverly/ Ahiak ¹	Qamanirjuaq	Lorillard /Wager Bay	Boothia Penins.	Southa mpton Island ²	Baffin Island ³
Increase/ Decrease rate:	- 89%	-96%	Decline	-4%	NA	NA	+113%	-98%
Last Survey reported in COSEWIC report	38,592 (2015)	19,769 (2015)	195,529 (2011)	264,661 (2014)	41,000 (2002)	6,658 (1995)	12,297 (2015)	4,856 (2014)
Maximum observed in surveys	114,472 (2010)	472,000 (1986)	Bev (1995): 276,000 Ahiak (1996): 200,000	495,000 (1994)	41,000 (2002)	6,658 (1995)	30,381 (1997)	235,000 (1991)

1. Beverly and Ahiak herds were merged into one in 2011.

2. One of the only two herds that are increasing across Canada.

3. There is considerable uncertainty in the population estimates and resulting trend.

Implications of proposed listing:

- If Barren-Ground Caribou are listed under the federal *Species at Risk Act* a national recovery strategy will be written. The needs of each herd could be considered separately within the national recovery strategy.
- Critical habitat will be identified to the extent possible and CWS will work with partners to find the best method to protect it from activities that would destroy it. Critical habitat could be used to protect calving areas, migration routes or other important habitat for caribou.
- Prohibitions against killing or harming Barren-Ground caribou will automatically come into force in National Parks, Wildlife Bird Sanctuaries and Wildlife Management Areas. These prohibitions do not apply to Inuit harvest under the Nunavut agreement.
- Federal funding programs such as the Aboriginal Fund for Species at Risk (AFSAR) are available to provide support for projects that can help species that are listed under the federal *Species at Risk Act*.

Consultations on the proposed listing:

- Consultation packages were sent by email and mail to 22 Nunavut communities within the range of the species in January 2018. The packages included: a letter, a factsheet, a PowerPoint presentation, and a questionnaire in English and Inuktitut.
- Follow-up phone calls were made to Hunter & Trapper Organizations between January and April 2018.
- In person consultations on the proposed listing were conducted starting in February 2018.

Meeting Location	Public Meeting	Separate HTO Board Meeting	Meeting Group	Staff from other organizations in attendance			Meeting Date
				NWMB	GN	Others	
Cambridge Bay	Y	Y	Ekaluktutiak HTO, Omingmaktok HTO, Burnside HTO	N	N	KRWB	February 26, 2018
Kugluktuk	N	Y	Kugluktuk HTO	N	Y	KRWB	Feb 27, 2018
Gjoa Haven	N	Y	Gjoa Haven HTO	N	N		March 1, 2018
Kugaaruk	N	Y	Kurairojuark HTO	N	N		March 2, 2018
Rankin Inlet	N	Y	Kangiqliniq HTO	N	N	NTI	March 5, 2018
Arviat	N	Y	Arviat HTO	N	Y		March 7, 2018
Whale Cove	N	Y	Issatik HTO	N	N		March 6, 2018
Taloyoak			Spence Bay HTO				TBC
Baker Lake	N	Y	Baker Lake HTO	N	Y		March 8, 2018
Chesterfield Inlet	N	Y	Aqigiq HTO	N	Y		March 9, 2018
Qikiqtarjuaq	Y	Y	Nattivak HTO	Y	N		Oct. 23-24, 2018
Pangnirtung	Y	Y	Pangirtung HTO	N	N		Dec 3, 2018
Iqaluit	N	Y	Amaruq HTO	Y	N		Oct 22, 2018
Igloolik	Y	N	Igloolik HTO	N	Y		Sept 25, 2018
Hall Beach	Y	Y	Hall Beach HTO	N	N		Sept 26, 2018
Repulse Bay	Y	N	Arviq HTO	N	Y		Sept 27, 2018
Coral Harbour	Y	Y	Aiviit HTO	Y	N		Jan 22, 2019
Cape Dorset	Y	Y	Aiviq HTO	Y	N		Jan 23, 2019
Kimmirut	Y	Y	Mayukalik HTO	Y	N		Jan 24, 2019
Arctic Bay	Y	N	Arctic Bay HTO	Y	N		Oct 16, 2018
Pond Inlet	Y	N	Mattimatalik HTO	Y	Y		Oct 17, 2018
Clyde River	Y	Y	Nangmautaq HTO	Y	N		Oct 18, 2018

Highlights from meetings:

Many communities and HTOs expressed concerns about the lack of Inuit Qaujimagatuqangit in the status assessment, and they want more involvement in the COSEWIC assessment stage of the process. CWS has asked COSEWIC to include HTOs in reviews of draft status assessments, so that IQ and local knowledge can be included in the assessment instead of waiting for the listing stage of the process.

People are extremely worried about the possible impact that listing could have on harvest and food security. If Barren-ground caribou are listed it would not require any change to how harvest is regulated

for Inuit hunters in Nunavut. Harvest would continue to be regulated through the co-management process which already takes conservation into account. The only automatic prohibitions would be for non-indigenous people in National Parks, National Wildlife Areas and Migratory Bird Sanctuaries. It is possible that in the future a protection order could be put in place that could impact Inuit harvest, this is known as the “federal safety net”. Any such order would require a separate consultation process.

People would have preferred that the Barren-ground caribou herds were not combined together in one assessment. Nevertheless, they would like to see locally developed assessments and plans for each herd. The Barren-ground caribou were grouped together in COSEWIC’s assessment because all these herds are similar in terms of their appearance, behaviour, and genetics. ECCC presents the original COSEWIC assessment during the consultations, however the different herds can be treated separately in the recovery strategy later on in the recovery planning process.

Some questioned whether the decline was a real cause for concern, suggesting that the caribou population will naturally cycle back up or that the caribou have moved to another area and will come back in the future. The COSEWIC assessment recognized the cyclical nature of the caribou populations, and it is possible that the caribou populations will recover naturally. However, caribou are facing many new threats so COSEWIC was uncertain that what happened in the past will happen again.

Most communities also mentioned the wolf population increasing as one of the important causes of the Caribou decline. Information on threats such as wolf predation can be used in the recovery strategy.

Detailed notes from community meetings can be found in the appendix. The following is a brief summary of the feedback received in each community.

Cambridge Bay [Bathurst and Beverly herds]:

- HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process. They also want to be involved in the drafting of the recovery strategy.
- They would appreciate a herd-by-herd assessment as they are in the opinion that their herd is doing fine.
- Increased predation: would like to see an incentive for hunters to harvest wolves.
- They are worried about their income (subsistence and income hunting).

Kugluktuk [Bluenose-East and Bathurst herds]:

- HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process.

- They would appreciate a herd-by-herd assessment, and worry about the flexibility in prohibitions and how it will be applied to local management.
- They noticed an increase in wolf and wolverine populations.

Gjoa Haven [Ahiak, Beverly and Boothia Peninsula Herd]:

- HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process.
- They are worried about the Caribou declining, the species is critical for their way of life and food security. They are interested in collaborating to help the species recover.
- They mentioned various reasons why they see less Caribou than before :
 - Increased predation (wolves, wolverines and grizzlies)
 - They are seeing a lot more Muskox than before
 - Climate Change: Caribou are vulnerable to migration on thin ice.
- They would like to improve youth education regarding hunting practices.

Kugaaruk [Ahiak, Boothia Peninsula, and Wager Bay herds]:

- HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process.
- They would appreciate a herd-by-herd assessment, they never heard of any studies done in their region.
- They are worried about harvest restrictions and food security.
- They mentioned various reasons why they see less Caribou than before :
 - Increased predation (wolves)
 - They are seeing a lot more Muskox than before
 - Mining (chemicals, plane/helicopters flying low)
 - Climate Change : They noticed a lot of rain on snow event making the foraging harder for the species.
 - Natural cycle of caribou population
 - Diseases

Rankin Inlet [Qamanirjuaq and Lorillard herds]:

- HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process. They would like to see an Inuit representative on COSEWIC committee.
- They would appreciate a herd-by-herd assessment, they never heard of any studies done in their region.
- Increased predation: They are seeing more wolves and grizzlies than before.
- They want to be involved in drafting the recovery strategy. Management plans already in place in some regions should be recognized.

- Some agreed to the listing of the barren-ground caribou.

Whale Cove [Qamanirjuaq and Lorillard herds]:

- HTO members expressed some worries about their harvest rights.
- They mentioned various reasons why they see less Caribou than before :
 - Increased predation (eagles, wolverines)
 - They are seeing a lot more Muskox than before
 - Natural cycle of caribou population
 - Diseases: They noticed swollen hooves (brucellosis)
 - Mining

Arviat [Qamanirjuaq herd]:

- HTO members would like to see a herd-by-herd assessment as they think their herd is stable.
- They mentioned various reasons why they see less Caribou than before :
 - Sport hunting happening south of Arviat
 - Migration routes have changed
 - Increased predation (wolves, grizzlies, wolverines)
 - Moose habitat range has recently extended to their region
 - Hunting ways have changed (bullet type, transportation)

Baker Lake [Ahiak, Lorillard, and Qamanirjuaq herds]:

- HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process. They would like to see an Inuit representative on COSEWIC committee.
- They are worried about their harvest rights and food security.
- They haven't seen the Qamanirjuaq herd for a long time, and mentioned potential causes of the caribou decline, i.e. changing migration routes, natural cycle of the caribou population, forest fires, and increased predation.
- They want to see the recovery strategy being elaborated cooperatively with all territories and provinces sharing the herds. Attention to the migration routes and its protection should be emphasized.

Chesterfield Inlet [Qamanirjuaq and Lorillard herds]:

- HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process.
- The caribou have other predators, like wolves, grizzlies and wolverines that are also responsible for their decrease.
- They are worried about their harvest rights.
- Some noticed the caribou have recently started to increase in the area.

Igloodik [Wager Bay and Baffin Island herds]:

- Community and HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process.
- They are worried about their harvest rights and food security; they see this proposed listing as an additional hardship done to their community and traditional way of life.
- Most of them believed the caribou population is going through a natural cycle and will eventually come back on its own. Some people mentioned the population numbers were not trustworthy.
- They want more responsibility in regards to managing their own herd, instead of having outsiders getting involved. They also didn't appreciate all the herds being merged together for the listing assessment.

Hall Beach [Wager Bay and Baffin Island herds]:

- Community and HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process.
- Most of them believed the caribou population is going through a natural cycle and will eventually come back on its own.
- The caribou have other predators, like wolves that are also responsible for their decrease.
- They are worried about their harvest rights and food security. Some of them thought animals should not be surveyed and didn't like outsiders coming to interfere with their wildlife management.

Naujaat [Wager Bay and Lorillard herds]:

- Community members wanted to see local management of the herd. They didn't like having their caribou lumped in with other herds across Canada as part of the assessment of Barren-ground caribou or in future recovery plans. Some of them mentioned the survey methodology was not trustworthy.
- Most of them believed the caribou population is going through a natural cycle and will eventually come back on its own.
- They are worried about their harvest rights being affected after the listing.

Arctic Bay [Baffin Island herd]:

- There were strong concerns about the lack of Inuit participation in the assessment of the caribou and decision-making regarding the wildlife management. They would like to see more traditional knowledge involved throughout the process.

- Community members mentioned the cause of decline is most likely due to wolf predation and natural cycle of the caribou population. They strongly believe the caribou will come back on their own.
- Community members were also worried about their harvest right and food security.

Pond Inlet [Baffin Island herd]:

- Community and HTO members expressed strong concerns about the lack of Inuit participation in the assessment of Barren-ground caribou and decision-making. They would like to see more local management and are concerned about their harvest rights.
- There were some doubts regarding the numbers of caribou and the survey methodology.
- Most of them believed the caribou population is going through a natural cycle and will eventually come back on its own.
- One person asked for a further investigation on the actual causes of decline of the Baffin herd.

Clyde River [Baffin Island herd]:

- Community and HTO members expressed strong concerns about the lack of Inuit participation in the assessment of Barren-ground caribou and decision-making. They would like to see more local management and are concerned about their harvest rights.
- One member mentioned there was a generational conflict where the younger hunters want to try new wildlife management methods, but the elders disagree. The Inuit's profound respect for elders makes the younger generation hesitant to talk about it.
- Community members also mentioned potential causes of the caribou decline, i.e. the natural cycle of the caribou population, the predation by wolves, female-male ratio allowed for hunting, and the new technology (snowmobiles scare caribou away).

Iqaluit [Baffin Island herd]:

- Community and HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process.
- They would also like to be involved in the scientific research. The survey methodology is not clear to them, and they believe a herd-by-herd assessment would be much more relevant.
- They believe the caribou populations are going through natural cycle and will eventually come back up on their own.
- Many were worried about their harvest rights and would like to see investigation on other threats like predation, industry and impact of research.

Qikiqtarjuaq [Baffin Island herd]:

- HTO board members expressed their concerns about the harvest restrictions and mentioned they want to collaborate to see the caribou population increase again.
- HTO and community members mentioned the helicopters from mining companies were an important threat to the caribou (scaring them away).
- The wolf population is also an important threat to consider.
- Some of them strongly believed the caribou will come back on their own. They migrate long distance and undergo natural cycles of population density.

Coral Harbour:

- Community members were concerned about the mining activity and identified industry as one of the main threats to caribou.
- Community members identified climate change as an on-going threat to caribou.
- Several community members believe caribou undergo natural cycles of population density. When populations are too abundant the numbers drop, but increase again when vegetation grows back.
- Community members expressed interest in knowing current local caribou numbers, particularly on Coats Island.
- The lag time between caribou surveys and results is too long. The community members would like to be informed of the health of the herds more quickly, so they can better manage their harvest.
- Community members expressed interest in knowing how caribou herds across Canada were doing, and how they were being managed.

Cape Dorset:

- Community members questioned the accuracy of the range of Barren-ground caribou herds shown on the maps
- Community members weren't sure that caribou populations will cycle up and down as they have in the past because of all the things that have changes
- Community members were concerned about the affect of the mines on caribou and want to find ways to protect the caribou from mining. Critical habitat is one way to protect habitat for caribou.
- Community members were concerned about predation from wolves, and suggested wolf control
- Community members were concerned about harassment of caribou by helicopters and airplanes
- Some community members though that caribou are not threatened, and have just moved to another area
- Community members were concerned that caribou are not surveyed often enough
- Community members spoke about the importance of using Inuit Qaujimagungit
- Community members were concerned about the possible impact that listing caribou might have on harvesting

Kimmirut:

- HTO members expressed strong concern regarding the listing of all Barren-ground caribou herds as one. They believe South Baffin and North Baffin populations should be considered separately.
- Several HTO and community members do not believe the South Baffin population is in decline.
- Several HTO and community members believe caribou undergo natural cycles of population density. When populations are too abundant the numbers drop, but increase again when vegetation grows back.
- Some community members do believe caribou populations on South Baffin Island are in decline, support the listing, and believe more survey efforts are required.
- Community members expressed concern related to methods used to survey caribou (e.g. helicopter use), and suggest using less intrusive methods.
- Community members identified parasites and wolves as threats, and expressed an interest in better understanding how parasites (e.g. ticks) have arrived and how they impact the caribou.
- HTO and community members expressed concern about their harvest rights and the lack of Inuit participation in the listing process.



This map shows the different herds that make up the Barren-ground caribou.

Appendix 1

Community Consultation Package



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Consultation Package sent by email and mail in January, 2018

- Consultation packages were sent by email and mail to 22 Nunavut communities within the range of the species in January 2018. The packages included: a letter, a factsheet, a PowerPoint presentation, and a questionnaire in English and Inuktitut.
- Follow-up phone calls were made to Hunter & Trapper Organizations between January and April 2018.

List of organizations to whom package was sent:

- Aiviit Hunters and Trappers Organization
- Aiviq Hunters and Trappers Organization
- Amaruq Hunters and Trappers Organization
- Aqigiq Hunters and Trappers Organization
- Arviat Hunters and Trappers Organization
- Arviq Hunters and Trappers Organization
- Baker Lake Hunters and Trappers Organization
- Bathurst Hunters and Trappers Organization
- Ekaluktutiak Hunters and Trappers Organization
- Gjoa Haven Hunters and Trappers Organization
- Government of Nunavut - Department of Environment
- Hall Beach Hunters and Trappers Organization
- Hamlet Council of Whale Cove
- Hamlet of Baker Lake
- Hamlet of Pond Inlet
- Igloolik Hunters and Trappers Organization
- Ikajutit Hunters and Trappers Organization
- Issatik Hunters and Trappers Organization
- Kangiqliniq Hunters and Trappers Organization
- Kitikmeot Inuit Association
- Kitikmeot Regional Wildlife Board
- Kivalliq Inuit Association
- Kivalliq Wildlife Board
- Kugluktuk Hunters and Trappers Organization
- Kurtairojuark Hunters and Trappers Organization
- Mayukalik Hunters and Trappers Organization
- Mittimatalik Hunters and Trappers Organization
- Municipality of Rankin Inlet
- Municipality of Taloyoak
- Nangmoutaq Hunters and Trappers Organization
- Nattivak Hunters and Trappers Organization
- Nunavut Tunngavik Incorporated
- Nunavut Wildlife Management Board
- Omingmaktok Hunters and Trappers Organization
- Pangnirtung Hunters and Trappers Organization
- Qikiqtaaluk Wildlife Board
- Qiqiqtani Inuit Association
- Spence Bay Hunters and Trappers Organization
- Umingmaktok Hunters and Trappers Organization



Canadian Wildlife Service
Environment and Climate Change Canada
PO Box 2310 – 5019 – 52nd Street
Yellowknife, NT X1A 2P7

22 January 2018

RE: Proposed Listing of **Barren-ground Caribou** under the federal Species at Risk Act as a Threatened species

The purpose of this package is to share information and get your feedback on the proposed listing of **Barren-ground Caribou** as a Threatened species under the federal *Species at Risk Act* (SARA).

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) completed the assessment of Barren-ground Caribou in November 2016 as a Threatened species. The assessment report was released in January 2018.

You are invited to submit comments on the potential impacts of amending the List of Wildlife Species at Risk according to this COSEWIC status assessment. Your comments will be considered and will inform the federal Minister of the Environment's recommendation on whether to add Barren-ground Caribou to the list of Species at Risk as a Threatened species.

We are sending you a narrated PowerPoint presentation, fact sheet and questionnaire about the proposed listing of Barren-ground Caribou. Please review these items and complete the questionnaire with input from your board / group members.

The COSEWIC status and assessment report is available for download at: http://sararegistry.gc.ca/document/default_e.cfm?documentID=3189

We hope you will review the information in this package. If you have any additional questions, concerns or information that you feel should be considered in the listing decision, please let us know and we will follow up with you as needed. If you feel this package provides enough information for you to make a decision, please respond in writing to the Canadian Wildlife Service telling us your formal position on the proposed listing of Barren-ground Caribou as a Threatened species. You can either send us a letter or you can fill in the attached questionnaire.

There will also be an opportunity to provide comments during the 30-day public consultation period associated with pre-publication in Canada Gazette Part I.



If you would like to request a call-in or a face to face presentation of this material, please let us know by **April 13th, 2018**. Otherwise, we request your response by **October 22, 2018**.

If you have any questions about this process, please contact:

Amy Ganton, Species at Risk Biologist
Canadian Wildlife Service
P.O. Box 2310
Yellowknife, NT X1A 2P7
Phone: 867-669-4710
Fax: 867-873-6776
Email: ec.sarnt-lepnt.ec@canada.ca

Yours sincerely,

Christian Bertelsen
A/Regional Director | A/Directeur regional
Canadian Wildlife Service | Service canadien de la faune
Northern Region | Région du Nord
Environment and Climate Change Canada | Environnement et Changement
climatique Canada
5019 - 52nd Street, 4th Floor | 5019 - 52^e rue, 4^e étage
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Government of Canada | Gouvernement du Canada
Website | Site Web: www.ec.gc.ca

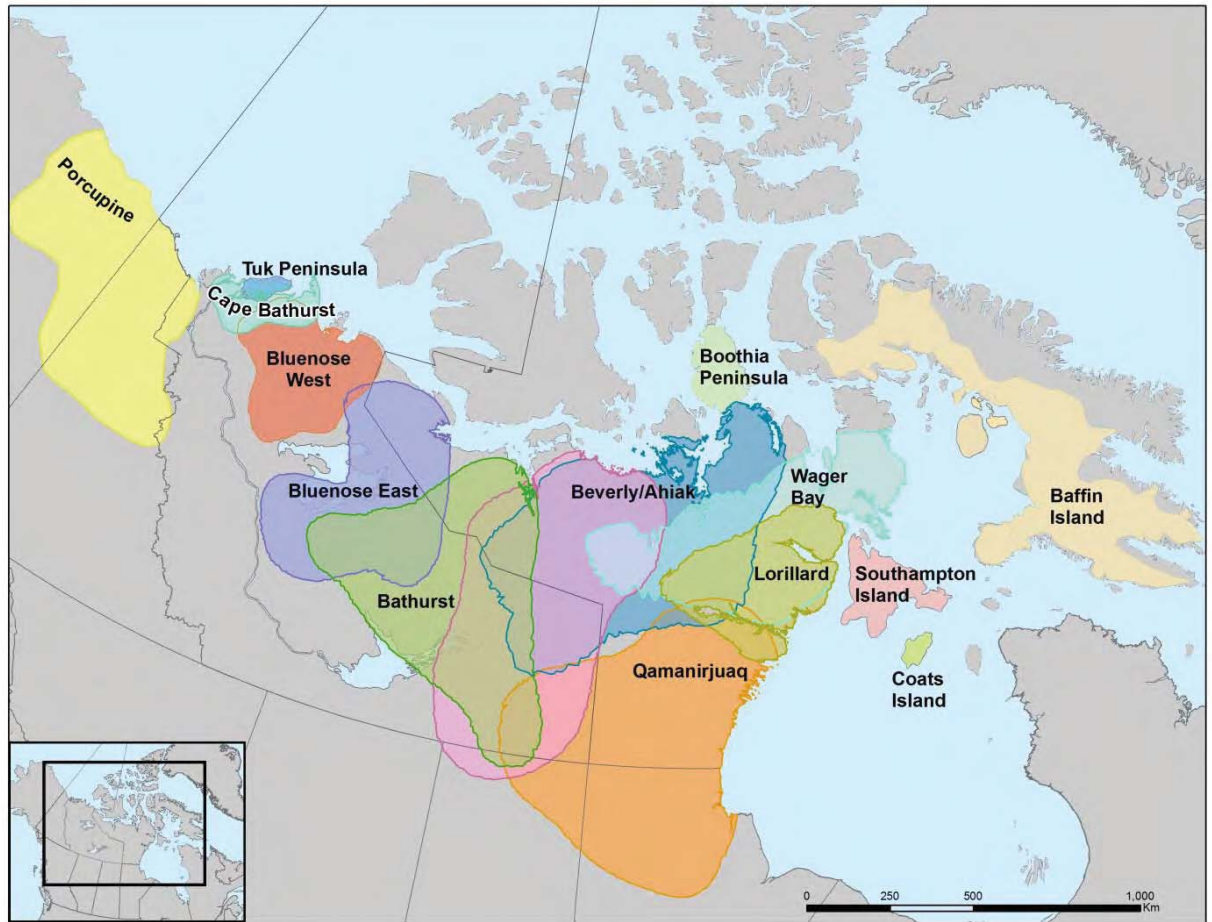


Figure 1. Distribution of Barren-ground Caribou subpopulations. Map by Bonnie Fournier, GNWT.

COSEWIC Wildlife Species Assessments, November 2016

<https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife.html>

Barren-ground Caribou | *Rangifer tarandus*

Status: Threatened

Last Examination and Change: Not applicable

Canadian Occurrence: YT, NT, NU



Reason for Designation: Members of this population give birth on the open arctic tundra, and most subpopulations (herds) winter in vast subarctic forests. Well-known for its large aggregations, lengthy migrations, and significant cultural and social value to northern Aboriginal Peoples and other Canadians, its 14-15 subpopulations range from northeastern Alaska to western Hudson Bay and Baffin Island. Numbering more than 2 million individuals in the early 1990s, the current population is estimated at about 800,000. Most subpopulations have declined dramatically, but two are increasing, including the Porcupine Caribou Herd. For 70% of the population with sufficient data to quantify trends, the decline is estimated at 56% over the past three generations (since 1989), with several of the largest herds having declined by >80% from peak numbers. Available survey data for an additional 25% of the total population also indicate declines. Evidence from both local Aboriginal people and scientific studies suggests that most herds have undergone natural fluctuations in numbers in the past; however, available demographic data indicate no sign of rapid recovery at this time and cumulative threats are without historical precedent. Status meets criteria for Endangered because of a reduction in numbers of $\geq 50\%$, but Threatened is recommended because, overall, this population does not appear to be facing imminent extinction at this time. Despite worrisome declines across most of the range, the current numerical abundance of the Porcupine Caribou Herd and the initiation of numerous management actions by governments, wildlife management boards, and communities support Threatened as a more appropriate conservation status. The status of these subpopulations will have to be carefully monitored and may warrant re-assessment within five years.

Status History: Designated Threatened in November 2016



BARREN-GROUND CARIBOU IN CANADA Proposed Listing as Threatened under the federal *Species at Risk Act*

Should Barren-ground caribou be added to the Federal List of Species at Risk as a Threatened species?

Scientific Name: *Rangifer tarandus*

Description:

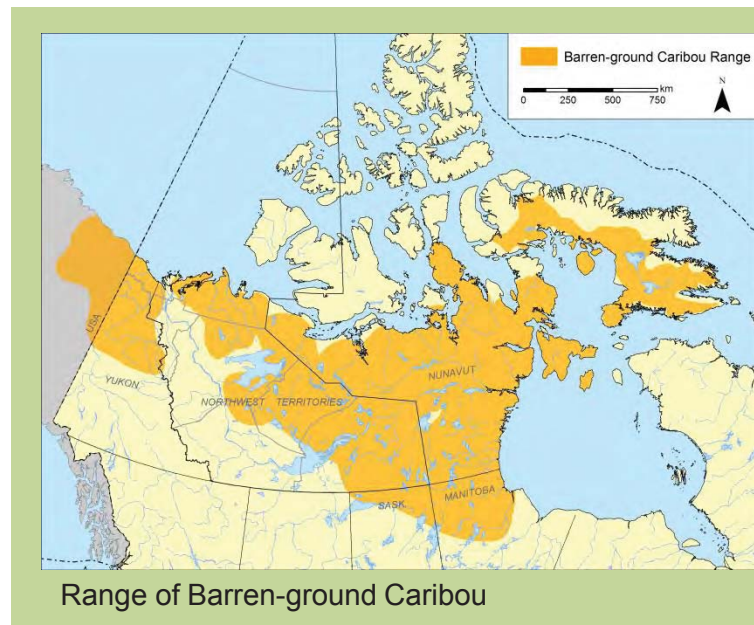
Barren-ground caribou are a medium sized caribou with dark brown legs and backs. They have a distinctive brown and white coat pattern in the fall. They are shorter than Boreal caribou and have longer legs than Peary caribou or Dolphin and Union caribou.



Photo © A. Gunn

Barren-ground caribou travel in huge groups and require large annual ranges to accommodate their long seasonal migrations.

Barren-ground caribou are widespread across northern Canada and into Alaska.



Assessment:

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assessed Barren-ground caribou as Threatened in November 2016. A Threatened species is a wildlife species that is likely to become endangered if limiting factors are not reversed.

Most of the Barren-ground caribou herds have declined dramatically. Overall, the decline is estimated at 56% over the past three generations. The Porcupine and Southampton caribou herds are some of few exceptions to this trend and are increasing. There are currently around 800,000 Barren-ground caribou, down from over 2 million in the early 1990s.

Four of the seven subpopulations (Cape Bathurst, Bluenose-East, Bluenose-West and Bathurst) have declined by > 80% in the past 3 generations. Available information for the Tuktoyaktuk Peninsula, Baffin and Beverly-Ahiak herds also indicate declines. The overall decline of the species is so drastic that it could have been assessed as Endangered. However, COSEWIC has recommended the Threatened status.

Threats:

A number of threats are thought to be causing the decline of Barren-ground caribou:

- Climate and weather changes affecting forage availability, predation, parasites and diseases
- Industrial exploration and development
- Fragmentation of habitat in winter range from forest fires and increasing human presence
- Subsistence and sport harvest can be significant causes of mortality

What Happens if Barren-ground Caribou are Listed as Threatened?

If Barren-ground caribou are listed under the federal *Species at Risk Act* a national recovery strategy will be written that identifies the threats to the species and its habitat, and sets population and distribution objectives for the survival and recovery of the species. The national recovery strategy will identify critical habitat to the extent possible. After critical habitat is identified, CWS will work with partners to find the best method to protect the habitat from activities that would destroy it. Prohibitions against killing or harming Barren-ground caribou will automatically come into force if the species is listed. In the territories, these automatic prohibitions only apply on federal lands that are under the authority of

the Minister of the Environment or the Parks Canada Agency, such as National Parks and National Wildlife Areas. As well, these automatic prohibitions do not apply to people engaging in activities in accordance with conservation measures under a land claims agreement.

We want to hear from you!

- Should Barren-ground caribou be added to the federal list of Species at Risk as a Threatened species? Why or why not?
- How do Barren-ground caribou benefit you or the environment? (this can include economic, cultural, spiritual, and environmental benefits)
- Do any of your current or planned activities have the potential to kill, harm or harass Barren-ground caribou?
- What are you currently doing or what could you do to avoid killing, harming or harassing Barren-ground caribou?
- What impact do you think that listing Barren-ground caribou as a wildlife species at risk would have on your activities?
- What impact do you think that listing Barren-ground caribou as a wildlife species at risk would have on the species?
- Do you have any other information or concerns that the federal Minister of the Environment should consider before making a decision on the listing of the species?

To tell us your views or for more information, please contact:

Species at Risk
 Canadian Wildlife Service, Northern Region
 Environment and Climate Change Canada
 PO Box 2310
 Yellowknife, NT X1A 2P7
 Tel: 867-669-4710 Fax: 867-873-6776
 Email: ec.sarnt-lepnt.ec@canada.ca

Cover photos:

Ross' Gull © Environment Canada, photo: Mark Mallroy
 Baikal Sedge © Environment Canada, photo: Syd Cannings
 Peary Caribou © Environment Canada, photo: Charles Francis



Barren-ground Caribou Proposed listing as Threatened

The following questions are intended to assist you in providing comments. They are not limiting and any other comments you may have are welcome. We also encourage you to share descriptions and estimates of costs and benefits where possible.

Questionnaire filled out by:

(Print name / title)

Organization:

Date questionnaire completed:

Have you seen Barren-ground Caribou in your area? Yes No

Do you have enough information to make a decision on your position/opinion on the proposed listing of Barren-ground Caribou as Threatened under the federal *Species at Risk Act*?

Yes No

If you need more information, someone will contact you to see how best to provide this information

What is your organization's position/opinion on the proposed listing of Barren-ground Caribou as Threatened?

- Support the proposed listing of Barren-ground Caribou as Threatened
- Do not support the proposed listing of Barren-ground Caribou as Threatened
- Indifferent to the proposed listing of Barren-ground Caribou as Threatened

What are your reasons for this position?





Do you have any additional comments?

Some points to consider:

- How do Barren-ground Caribou benefit you or the environment? (this can include economic, cultural, spiritual, and environmental benefits)
- Do any of your current or planned activities have the potential to kill, harm or harass Barren-ground Caribou?
- What are you currently doing or what could you do to avoid killing, harming or harassing Barren-ground Caribou?
- What impact do you think that listing Barren-ground Caribou as a wildlife species at risk would have on your activities?
- What impact do you think that listing Barren-ground Caribou as a wildlife species at risk would have on the species?
- Do you have any other information or concerns that the federal Minister of the Environment should consider before making a decision on the listing of the species?





CONSULTATION ON AMENDING THE LIST OF
SPECIES UNDER THE *SPECIES AT RISK ACT*
TERRESTRIAL SPECIES – JANUARY 2018

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CONSULTATION ON AMENDING
THE LIST OF SPECIES UNDER
THE ***SPECIES AT RISK ACT***
TERRESTRIAL SPECIES

JANUARY 2018

Please submit your comments by

May 22, 2018, for terrestrial species undergoing **normal** consultations

and by

October 22, 2018, for terrestrial species undergoing **extended** consultations.

For a description of the consultation paths these species will undergo, please see:

www.registrelep-sararegistry.gc.ca/default.asp?lang=En&n=8CF7461F-1

Please email your comments to the Species at Risk Public Registry at:

ec.registrelep-sararegistry.ec@canada.ca

Comments may also be mailed to:

Director General, Assessment and Regulatory Affairs

Canadian Wildlife Service

Environment and Climate Change Canada

Ottawa ON K1A 0H3

For more information on the *Species at Risk Act*, please visit the Species at Risk Public Registry at:

www.registrelep-sararegistry.gc.ca

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ADDITION OF SPECIES TO THE *SPECIES AT RISK ACT*

Questions to guide your comments

The following questions are intended to assist you in providing comments on the proposed amendments to the List of Wildlife Species at Risk (see Table 1 for the list of species under consultation). They are not limiting, and any other comments you may have are welcome. We also encourage you to share descriptions and estimates of costs or benefits to you or your organization where possible, as well as to propose actions that could be taken for the conservation of these species.

Respondent information

- 1) Are you responding as
 - a) an individual, or
 - b) representing a community, business or organization (please specify)?

Species benefits to people or to the ecosystem

- 2) Do any or all of the species provide benefits to you or Canada's ecosystems? If so, please describe these benefits. If possible, please provide a monetary or quantitative estimate of their values to you.

For example:

- Do any or all of the species provide benefits by supporting your livelihood, for example, through harvesting, subsistence or medicine? If yes, can you estimate the extent of these benefits, for example, how often the harvest takes place, the quantity harvested, and the uses of the harvested species (e.g., medicine, food, clothes, etc.)?
- Do any or all of the species provide cultural or spiritual benefits, for example, recreation, sense of place or tradition? If yes, how?
- Do any or all of the species provide environmental benefits, for example, pollination, pest control or flood control? If yes, how?

Impacts of species listing on your activities and the ecosystem

- 3) Based on what you know about SARA and the information presented in this document, do you think that amending the List of Wildlife Species at Risk with the proposed listing (Table 1) would have:

- a) no impact on your activities or the species;
- b) a positive impact on your activities or the species; or
- c) a negative impact on your activities or the species.

Please explain your choice above, specifically:

- 4) Do you think that listing the species would result in cultural, social, or economic costs or benefits to you, your community or your organization?
- 5) Do you think that listing the species would result in any costs or benefits to the environment or Canada's ecosystems?
- 6) Based on the maps provided in this document, do any of your current or planned activities overlap with any of the species ranges or occurrences?
- 7) Do any current or planned activities that you are aware of (e.g., land conversion for natural resource, industrial, commercial, or residential development) have the potential to kill, harm, or harass the species and/or destroy any part of its habitat?
 - If yes, what are these activities, how would they affect the species, and/or destroy any part of its habitat?
 - If yes, what is being done, planned to be done, or could be done to avoid killing, harming, or harassing the species, or destroying its habitat? Please describe what implications and/or costs may be involved (qualitative or quantitative). Would you personally have to adjust or cease any activities?

Additional information for small businesses

If you are responding for a **small business**, please provide the following details to help Environment and Climate Change Canada gather information to contribute to the required Small Business Lens analysis that forms part of the Regulatory Impact Analysis Statement that will accompany any future listing recommendation.

1. Are you an enterprise that operates in Canada?
2. Do you engage in commercial activities related to the supply of services or property (which includes goods)?

3. Are you an organization that engages in activities for a public purpose (e.g., social welfare or civic improvement), such as a provincial or municipal government, school, college/university, hospital or charity?
4. Is your enterprise owned by a First Nations community?
5. How many employees do you have?
 - a) 0–99
 - b) 100 or more
6. What was your annual gross revenue in the last year?
 - a) Less than \$30,000
 - b) Between \$30,000 and \$5 million
 - c) More than \$5 million

To ensure that your comments are considered in time, they should be submitted before the following deadlines.

For terrestrial species undergoing normal consultations, comments should be submitted by **May 22, 2018**.

For terrestrial species undergoing extended consultations, comments should be submitted by **October 22, 2018**.

To find out which consultation paths these species will undergo (extended or normal), please see: www.registrelp-sararegistry.gc.ca/default.asp?lang=En&n=8CF7461F-1

Comments received by these deadlines will be considered in the development of the listing proposal.

Please email your comments to the Species at Risk Public Registry at: ec.registrelp-sararegistry.ec@canada.ca

By regular mail, please address your comments to:

Director General, Assessment and
Regulatory Affairs
Canadian Wildlife Service
Environment and Climate Change Canada
Ottawa ON K1A 0H3

The *Species at Risk Act* and the List of Wildlife Species at Risk

The Government of Canada is committed to preventing the disappearance of wildlife species at risk from our lands. As part of its strategy for realizing that commitment, on June 5, 2003, the Government of Canada proclaimed the *Species at*

Risk Act (SARA). Attached to the Act is Schedule 1, the list of the species provided for under SARA, also called the List of Wildlife Species at Risk. Extirpated, Endangered and Threatened species on Schedule 1 benefit from the protection afforded by the prohibitions and from recovery planning requirements under SARA. Special Concern species benefit from its management planning requirements. Schedule 1 has grown from the original 233 to 555 wildlife species at risk. In 2017, final listing decisions were made for 44 terrestrial species and 15 aquatic species. Of these 59 species, 35 were new additions, sixteen were reclassifications, three had a change made to how they are defined, two were removed from Schedule 1, one was referred back to COSEWIC for further evaluation and two were the object of ‘do not list’ decisions. In 2017, on the recommendation of the Minister of the Environment, the Governor in Council approved listing proposals for 45 wildlife species. It is proposed that 21 species be added to Schedule 1, 11 be reclassified, 12 would have a change made to how they are defined and one would be referred back to COSEWIC for further evaluation. The listing proposals were published in *Canada Gazette*, part I for a 30-day public comment period and final listing decisions for all 45 species are expected by August of 2018.

The complete list of species currently on Schedule 1 can be viewed at: www.registrelp-sararegistry.gc.ca/species/schedules_e.cfm?id=1

Species become eligible for addition to Schedule 1 once they have been assessed as being at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The decision to add a species to Schedule 1 is made by the Governor in Council further to a recommendation from the Minister of the Environment. The Governor in Council is the formal executive body that gives legal effect to decisions that then have the force of law.

COSEWIC and the assessment process for identifying species at risk

COSEWIC is recognized under SARA as the authority for assessing the status of wildlife species at risk. COSEWIC comprises experts on wildlife species at risk. Its members have backgrounds in the fields of biology, ecology, genetics, Indigenous traditional knowledge and other relevant fields. They come from various communities, including academia, Indigenous organizations, governments and non-governmental organizations.

COSEWIC gives priority to those species more likely to become extinct, and then commissions a status report for the evaluation of the species' status. To be accepted, status reports must be peer-reviewed and approved by a subcommittee of species specialists. In special circumstances, assessments can be done on an emergency basis. When the status report is complete, COSEWIC meets to examine it and discuss the species. COSEWIC then determines whether the species is at risk, and, if so, it then assesses the level of risk and assigns a conservation status.

Terms used to define the degree of risk to a species

The conservation status defines the degree of risk to a species. The terms used under SARA are Extirpated, Endangered, Threatened and Special Concern. Extirpated species are wildlife species that no longer occur in the wild in Canada but still exist elsewhere. Endangered species are wildlife species that are likely to soon become Extirpated or extinct. Threatened species are likely to become Endangered if nothing is done to reverse the factors leading to their extirpation or extinction. The term Special Concern is used for wildlife species that may become Threatened or Endangered due to a combination of biological characteristics and threats. Once COSEWIC has assessed a species as Extirpated, Endangered, Threatened or Special Concern, it is eligible for inclusion on Schedule 1.

For more information on COSEWIC, visit: www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife.html

On October 24, 2017, COSEWIC sent to the Minister of the Environment its newest assessments of species at risk. Environment and Climate Change Canada is now consulting on changes to Schedule 1 to reflect these new designations for these terrestrial species. To see the list of the terrestrial species and their status, please refer to tables 1 and 2.

Terrestrial and aquatic species eligible for Schedule 1 amendments

The Minister of Fisheries and Oceans conducts separate consultations for the aquatic species. For more information on the consultations for aquatic species, visit the Fisheries and Oceans Canada website at www.dfo-mpo.gc.ca.

The Minister of the Environment is conducting the consultations for all other species at risk.

Approximately 67% of the recently assessed terrestrial species at risk also occur in national parks or other lands administered by Parks Canada; Parks Canada shares responsibility for these species with Environment and Climate Change Canada.

Comments solicited on the proposed amendment of Schedule 1

The conservation of wildlife is a joint legal responsibility: one that is shared among the governments of Canada. But biodiversity will not be conserved by governments that act alone. The best way to secure the survival of species at risk and their habitats is through the active participation of all those concerned. SARA recognizes this, and that all Indigenous peoples and Canadians have a role to play in preventing the disappearance of wildlife species from our lands. The Government of Canada is inviting and encouraging you to become involved. One way that you can do so is by sharing your comments concerning the addition or reclassification of these terrestrial species.

Your comments are considered in relation to the potential consequences of whether or not a species is included on Schedule 1, and they are then used to inform the drafting of the Minister's proposed listing recommendations for each of these species.

Questions to guide your comments are included at the beginning of the document.

THE SPECIES AT RISK ACT LISTING PROCESS AND CONSULTATION

The addition of a wildlife species at risk to Schedule 1 of SARA facilitates providing for its protection and conservation. To be effective, the listing process must be transparent and open. The species listing process under SARA is summarized in Figure 1.

The purpose of consultations on amendments to the List

When COSEWIC assesses a wildlife species, it does so solely on the basis of the best available information relevant to the biological status of the species. COSEWIC then submits the assessment to the Minister of the Environment, who considers it when making the listing recommendation to

Figure 1 : The species listing process under SARA



the Governor in Council. The purpose of these consultations is to provide the Minister with a better understanding of the potential social and economic impacts of the proposed change to the List of Wildlife Species at Risk, and of the potential consequences of not adding a species to the List.

Legislative context of the consultations: the Minister's recommendation to the Governor in Council

The comments collected during the consultations inform the Governor in Council's consideration of the Minister's recommendations for listing species at risk. The Minister must recommend one of three courses of action. These are for the Governor in Council to accept the species assessment and modify Schedule 1 accordingly, not to add the species to Schedule 1, or to refer the species assessment back to COSEWIC for its further consideration (Figure 1).

The Minister of the Environment's response to the COSEWIC assessment: the response statement

After COSEWIC has completed its assessment of a species, it provides it to the Minister of the Environment. The Minister of the Environment then has 90 days to post a response on the Species at Risk Public Registry, known as the response statement. The response statement provides information on the scope of any consultations and the timelines for action, to the extent possible. It identifies how long the consultations will be (whether they are "normal" or "extended") by stating when the Minister will forward the assessment to the Governor in Council. Consultations for a group of species are launched with the posting of their response statements.

Normal and extended consultation periods

Normal consultations meet the consultation needs for the listing of most species at risk. They usually take two to three months to complete, while extended consultations may take one year or more.

The extent of consultations needs to be proportional to the expected impact of a listing decision and the time that may be needed to consult. Under some

circumstances, whether or not a species will be included on Schedule 1 could have significant and widespread impacts on the activities of some groups of people. It is essential that such stakeholders have the opportunity to inform the pending decision and, to the extent possible, to provide input on its potential consequences and to share ideas on how best to approach threats to the species. A longer period may also be required to consult appropriately with some groups. For example, consultations can take longer for groups that meet infrequently but that must be engaged on several occasions. For such reasons, extended consultations may be undertaken.

For both normal and extended consultations, once they are complete, the Minister of the Environment forwards the species assessments to the Governor in Council for the government's formal receipt of the assessment. The Governor in Council then has nine months to come to a listing decision.

The consultation paths (normal or extended) for the terrestrial species listed in Table 1 will be announced when the Minister publishes the response statements. These will be posted by **January 22, 2018**, on the Species at Risk Public Registry at: www.registrelep-sararegistry.gc.ca/default.asp?lang=En&n=8CF7461F-1

No consultations will be undertaken for those species already on Schedule 1 and for which no change in status is being proposed (Table 2).

Who is consulted, and how

It is most important to consult with those who would be most affected by the proposed changes. There is protection that is immediately in place when a species that is Extirpated, Endangered or Threatened is added to Schedule 1 (for more details, see below, "Protection for listed Extirpated, Endangered and Threatened species"). This immediate protection does not apply to species of Special Concern. The nature of protection depends on the type of species, its conservation status, and where the species is found. Environment and Climate Change Canada takes this into account during the consultations; those who may be affected by the impacts of the automatic protections are contacted directly, others are encouraged to contribute through a variety of approaches.

Indigenous peoples known to have species at risk on their lands, for which changes to Schedule 1 are being considered, will be contacted. Their engagement is of particular significance, acknowledging their role in the management of the extensive traditional territories and the reserve and settlement lands.

A Wildlife Management Board is a group that has been established under a land claims agreement and is authorized by the agreement to perform functions in respect of wildlife species. Some eligible species at risk are found on lands where existing land claims agreements apply that give specific authority to a Wildlife Management Board. In such cases, the Minister of the Environment will consult with the relevant board.

To encourage others to contribute and make the necessary information readily available, this document is distributed to known stakeholders and posted on the Species at Risk Public Registry. More extensive consultations may also be done through regional or community meetings or through a more targeted approach.

Environment and Climate Change Canada also sends notice of this consultation to identified concerned groups and individuals who have made their interests known. These include, but are not limited to, industries, resource users, landowners and environmental non-governmental organizations.

In most cases, it is difficult for Environment and Climate Change Canada to fully examine the potential impacts of recovery actions when species are being considered for listing. Recovery actions for terrestrial species usually have not yet been comprehensively defined at the time of listing, so their impact cannot be fully understood. Once they are better understood, efforts are made to minimize adverse social and economic impacts of listing and to maximize the benefits. SARA requires that recovery measures be prepared in consultation with those considered to be directly affected by them.

In addition to the public, Environment and Climate Change Canada consults on listing with the governments of the provinces and territories with lead responsibility for the conservation and management of these wildlife species. Environment and Climate Change Canada also consults with other federal departments and agencies.

Role and impact of public consultations in the listing process

The results of the public consultations are of great significance to informing the process of listing species at risk. Environment and Climate Change Canada carefully reviews the comments it receives to gain a better understanding of the benefits and costs of changing the List.

The comments are then used to inform the Regulatory Impact Analysis Statement (RIAS). The RIAS is a report that summarizes the impact of a proposed regulatory change. It includes a description of the proposed change and an analysis of its expected impact, which takes into account the results of the public consultations. In developing the RIAS, the Government of Canada recognizes that Canada's natural heritage is an integral part of our national identity and history and that wildlife in all its forms has value in and of itself. The Government of Canada also recognizes that the absence of full scientific certainty is not a reason to postpone decisions to protect the environment.

A draft Order (see Glossary) is then prepared, providing notice that a decision is being taken by the Governor in Council. The draft Order proposing to list all or some of the species under consideration is then published, along with the RIAS, in the *Canada Gazette*, Part I, for a comment period of 30 days.

The Minister of the Environment will take into consideration comments and any additional information received following publication of the draft Order and the RIAS in the *Canada Gazette*, Part I. The Minister then makes a final listing recommendation for each species to the Governor in Council. The Governor in Council next decides either to accept the species assessment and amend Schedule 1 accordingly; or not to add the species to Schedule 1; or to refer the species assessment back to COSEWIC for further information or consideration. The final decision is published in the *Canada Gazette*, Part II, and on the Species at Risk Public Registry. If the Governor in Council decides to list a species, it is at this point that it becomes legally included on Schedule 1.

SIGNIFICANCE OF THE ADDITION OF A SPECIES TO SCHEDULE 1

The protection that comes into effect following the addition of a species to Schedule 1 depends upon a number of factors. These include the species' status under SARA, the type of species and where it occurs.

Protection for listed Extirpated, Endangered and Threatened species

Responsibility for the conservation of wildlife is shared among the governments of Canada. SARA establishes legal protection for individuals as soon as a species is listed as Threatened, Endangered or Extirpated, and, in the case of Threatened and Endangered species, for their residences. This applies to species considered federal species or if they are found on federal land.

Federal species include migratory birds, as defined by the *Migratory Birds Convention Act, 1994*, and aquatic species covered by the *Fisheries Act*. Federal land means land that belongs to the federal government, and the internal waters and territorial sea of Canada. It also means land set apart for the use and benefit of a band under the *Indian Act* (such as reserves). In the territories, the protection for species at risk on federal lands applies only where they are on lands under the authority of the Minister of the Environment or the Parks Canada Agency.

Migratory birds are protected by the *Migratory Birds Regulations*, under the *Migratory Birds Convention Act, 1994*, which strictly prohibits the harming of migratory birds and the disturbance or destruction of their nests and eggs.

SARA's protection for individuals makes it an offence to kill, harm, harass, capture or take an individual of a species listed as Extirpated, Endangered or Threatened. It is also an offence to damage or destroy the residence of one or more individuals of an Endangered or Threatened species or an Extirpated species whose reintroduction has been recommended by a recovery strategy. The Act also makes it an offence to possess, collect, buy, sell or trade an individual of a species that is Extirpated, Endangered or Threatened.

Species at risk that are neither aquatic nor protected under the *Migratory Birds Convention Act, 1994*, nor on federal lands, do not receive immediate protection upon listing under SARA. Instead, in most cases, the protection of terrestrial species on non-federal lands is the responsibility of the provinces and territories where they are found. The application of protections under SARA to a species at risk on non-federal lands requires that the Governor in Council make an order defining those lands. This can only occur when the Minister is of the opinion that the laws of the province or territory do not effectively protect the species. To put such an order in place, the Minister would then need to recommend the order be made to the Governor in Council. If the Governor in Council agrees to make the order, the prohibitions of SARA would then apply to the provincial or territorial lands specified by the order. The federal government would consult before making such an order.

Recovery strategies and action plans for Extirpated, Endangered and Threatened species

Recovery planning results in the development of recovery strategies and action plans for Extirpated, Endangered or Threatened species. It involves the different levels of government responsible for the management of the species, depending on what type of species it is and where it occurs. These include federal, provincial and territorial governments as well as Wildlife Management Boards. Recovery strategies and action plans are also prepared in cooperation with directly affected Indigenous organizations. Landowners and other stakeholders directly affected by the recovery strategy are consulted to the extent possible.

Recovery strategies must be prepared for all Extirpated, Endangered and Threatened species. They include measures to mitigate the known threats to the species and its habitat and set the population and distribution objectives. Other objectives can be included, such as stewardship, to conserve the species, or education, to increase public awareness. Recovery strategies must include a statement of the time frame for the development of one or more action plans that will state the measures necessary to implement the recovery strategy. To the extent

possible, recovery strategies must also identify the critical habitat of the species, which is the habitat necessary for the survival or recovery of the species. If there is not enough information available to identify critical habitat, the recovery strategy includes a schedule of studies required for its identification. This schedule outlines what must be done to obtain the necessary information and by when it needs to be done. In such cases, critical habitat can be identified in a subsequent action plan.

Proposed recovery strategies for newly listed species are posted on the Species at Risk Public Registry to provide for public review and comment. For Endangered species, proposed recovery strategies are posted within one year of their addition to Schedule 1, and for Threatened or Extirpated species, within two years.

Once a recovery strategy has been posted as final, one or more action plans based on the recovery strategy must then be prepared. These include measures to address threats and achieve the population and distribution objectives. Action plans also complete the identification of the critical habitat where necessary and, to the extent possible, state measures that are proposed to protect it.

Permits and agreements

For terrestrial species listed on SARA Schedule 1 as Extirpated, Endangered or Threatened, the Minister of the Environment may authorize exceptions to the Act's prohibitions, when and where they apply. The Minister can enter into agreements or issue permits only for one of three purposes: for research, for conservation activities, or if the effects to the species are incidental to the activity. Research must relate to the conservation of a species and be conducted by qualified scientists. Conservation activities must benefit a listed species or be required to enhance its chances of survival. All activities, including those that incidentally affect a listed species, its individuals, residences or critical habitat must also meet certain conditions. First, it must be established that all reasonable alternatives to the activity have been considered and the best solution has been adopted.

Second, it must also be established that all feasible measures will be taken to minimize the impact of the activity on the listed species. And finally, it must be established that the activity will not jeopardize the survival or recovery of the species. Having issued a permit or agreement, the Minister must then include an explanation on the Species at Risk Public Registry of why the permit or agreement was issued.

Protection for listed species of Special Concern

While immediate protection under SARA for species listed as Extirpated, Endangered and Threatened does not apply to species listed as Special Concern, any existing protections and prohibitions, such as those provided by the *Migratory Birds Convention Act, 1994* or the *Canada National Parks Act*, continue to be in force.

Management plans for species of Special Concern

For species of Special Concern, management plans are to be prepared and made available on the Species at Risk Public Registry within three years of a species' addition to Schedule 1, allowing for public review and comment. Management plans include appropriate conservation measures for the species and for its habitat. They are prepared in cooperation with the jurisdictions responsible for the management of the species, including directly affected Wildlife Management Boards and Indigenous organizations. Landowners, lessees and others directly affected by a management plan will also be consulted to the extent possible.

THE LIST OF SPECIES ELIGIBLE FOR AN AMENDMENT TO SCHEDULE 1

Status of the recently assessed species and consultation paths

On October 24, 2017, COSEWIC submitted 28 assessments of species at risk to the Minister of the Environment for species that are eligible to be added to Schedule 1 of SARA. Thirteen of these are terrestrial species, and 15 are aquatic species. COSEWIC also reviewed the classification of species already on Schedule 1, in some cases changing their status. Four terrestrial species are now being considered for down-listing on SARA (to a lower risk status) and 3 terrestrial species are now being considered for a higher risk status on SARA. One species, the Sonora Skipper, is being considered for removal from the list, as it was found to be not at risk in its latest assessment. In all, 21 terrestrial species that are eligible to be added to Schedule 1, to be removed from Schedule 1, or to have their current status on Schedule 1 changed are included in this consultation (Table 1).

COSEWIC also submitted the reviews of species already on Schedule 1, confirming their classification. Twelve of these reviews were for terrestrial species. These species are not included in the consultations because there is no regulatory change being proposed (Table 2).

For more information on the consultations for aquatic species, visit the Fisheries and Oceans Canada website at www.dfo-mpo.gc.ca.

Providing comments

The involvement of Canadians is integral to the listing process, as it is to the ultimate protection of Canadian wildlife. Your comments matter and are given serious consideration. Environment and Climate Change Canada will review all the comments that it receives by the deadlines provided below.

Comments for terrestrial species undergoing normal consultations must be received by **May 22, 2018**.

Comments for terrestrial species undergoing extended consultations must be received by **October 22, 2018**.

Most species will be undergoing normal consultations. For the final consultation paths, please see www.registrelep-sararegistry.gc.ca/default.asp?lang=En&n=8CF7461F-1 after **January 22, 2018**.

For more details on submitting comments, see the section “Comments solicited on the proposed amendment of Schedule 1” of this document.

Table 1: Terrestrial species recently assessed by COSEWIC eligible for addition to Schedule 1 or reclassification

Taxon	Species	Scientific Name	Range
Species eligible for addition to Schedule 1 (13)			
Endangered (4)			
Lichens	Golden-eye Lichen (Great Lakes population)	<i>Teloschistes chrysophthalmus</i>	ON
Mammals	Caribou (Eastern Migratory population)	<i>Rangifer tarandus</i>	MB ON QC NL
Mammals	Caribou (Torngat Mountains population)	<i>Rangifer tarandus</i>	NU QC NL
Molluscs	Eastern Banded Tigersnail	<i>Anguispira kochi kochi</i>	ON
Threatened (2)			
Birds	Lark Bunting	<i>Calamospiza melanocorys</i>	AB SK MB
Mammals	Caribou (Barren-ground population)	<i>Rangifer tarandus</i>	YT NT NU AB SK MB
Special Concern (7)			
Arthropods	Magdalen Islands Grasshopper	<i>Melanoplus madeleineae</i>	QC
Arthropods	Transverse Lady Beetle	<i>Coccinella transversoguttata</i>	YT NT NU BC AB SK MB ON QC NB PE NS NL
Birds	Evening Grosbeak	<i>Coccothraustes vespertinus</i>	YT NT BC AB SK MB ON QC NB PE NS NL
Birds	Harris's Sparrow	<i>Zonotrichia querula</i>	NT NU AB SK MB ON
Lichens	Golden-eye Lichen (Prairie / Boreal population)	<i>Teloschistes chrysophthalmus</i>	MB ON
Reptiles	Bullsnake	<i>Pituophis catenifer sayi</i>	AB SK
Vascular Plants	Long's Bulrush	<i>Scirpus longii</i>	NS
Reclassifications: Up-list (3)			
From Threatened to Endangered (2)			
Birds	Pink-footed Shearwater	<i>Ardenna creatopus</i>	BC Pacific Ocean
Reptiles	Blanding's Turtle (Great Lakes / St. Lawrence population)	<i>Emydoidea blandingii</i>	ON QC
From Special Concern to Endangered (1)			
Arthropods	Monarch	<i>Danaus plexippus</i>	NT BC AB SK MB ON QC NB PE NS NL
Reclassifications: Down-list or Delist (5)			
From Endangered to Threatened (2)			
Reptiles	Western Painted Turtle (Pacific Coast population)	<i>Chrysemys picta bellii</i>	BC
Vascular Plants	Spotted Wintergreen	<i>Chimaphila maculata</i>	ON QC
From Threatened to Special Concern (1)			
Vascular Plants	Anticosti Aster	<i>Symphotrichum anticostense</i>	QC NB
From Endangered to Special Concern (1)			
Mosses	Rusty Cord-moss	<i>Entosthodon rubiginosus</i>	BC SK
From Special Concern to Not at Risk (1)			
Arthropods	Sonora Skipper	<i>Polites sonora</i>	BC

**Table 2: Terrestrial species recently reassessed by COSEWIC
(no consultations – species status confirmation)**

Taxon	Species	Scientific Name	Range
Status Confirmations (12)			
Endangered (8)			
Arthropods	Gold-edged Gem	<i>Schinia avemensis</i>	AB SK MB
Birds	Burrowing Owl	<i>Athene cunicularia</i>	BC AB SK MB
Birds	Prothonotary Warbler	<i>Protonotaria citrea</i>	ON
Mammals	Ord's Kangaroo Rat	<i>Dipodomys ordii</i>	AB SK
Mosses	Nugget Moss	<i>Microbryum vlassovii</i>	BC
Reptiles	Blanding's Turtle (Nova Scotia population)	<i>Emydoidea blandingii</i>	NS
Vascular Plants	Butternut	<i>Juglans cinerea</i>	ON QC NB
Vascular Plants	Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	MB
Special Concern (4)			
Birds	Rusty Blackbird	<i>Euphagus carolinus</i>	YT NT NU BC AB SK MB ON QC NB PE NS NL
Mammals	Nuttall's Cottontail <i>nuttallii</i> subspecies	<i>Sylvilagus nuttallii nuttallii</i>	BC
Reptiles	Western Painted Turtle (Intermountain - Rocky Mountain population)	<i>Chrysemys picta bellii</i>	BC
Vascular Plants	American Hart's-tongue Fern	<i>Asplenium scolopendrium</i> var. <i>americanum</i>	ON

THE COSEWIC SUMMARIES OF TERRESTRIAL SPECIES ELIGIBLE FOR ADDITION OR RECLASSIFICATION ON SCHEDULE 1

For a brief summary of the reasons for the COSEWIC status designation of individual species, and their biology, threats, distribution and other information, please consult:

http://registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=3200

For a more comprehensive explanation of the conservation status of an individual species, please refer to the COSEWIC status report for that species, also available on the Species at Risk Public Registry at:

www.sararegistry.gc.ca

or contact:

COSEWIC Secretariat
c/o Canadian Wildlife Service
Environment and Climate Change Canada
Ottawa ON K1A 0H3

GLOSSARY

Aquatic species: A wildlife species that is a fish as defined in section 2 of the *Fisheries Act* or a marine plant as defined in section 47 of the Act. The term includes marine mammals.

Canada Gazette: The *Canada Gazette* is one of the vehicles that Canadians can use to access laws and regulations. It has been the “official newspaper” of the Government of Canada since 1841. Government departments and agencies as well as the private sector are required by law to publish certain information in the *Canada Gazette*. Notices and proposed regulations are published in the *Canada Gazette*, Part I, and official regulations are published in the *Canada Gazette*, Part II. For more information, please visit canadagazette.gc.ca.

Canadian Endangered Species Conservation Council: The Council is made up of federal, provincial and territorial ministers with responsibilities for wildlife species. The Council’s mandate is to provide national leadership and coordination for the protection of species at risk.

COSEWIC: The Committee on the Status of Endangered Wildlife in Canada. The Committee comprises experts on wildlife species at risk. Their backgrounds are in the fields of biology, ecology, genetics, Indigenous traditional knowledge and other relevant fields. These experts come from various communities, including, among others, government and academia.

COSEWIC assessment: COSEWIC’s assessment or re-assessment of the status of a wildlife species, based on a status report on the species that COSEWIC either has had prepared or has received with an application.

Down-listing: A revision of the status of a species on Schedule 1 to a status of lower risk. A revision of the status of a Schedule 1 species to a higher risk status would be up-listing.

Federal land: Any land owned by the federal government, the internal waters and territorial sea of Canada, and reserves and other land set apart for the use and benefit of a band under the *Indian Act*.

Governor in Council: The Governor General of Canada acting on the advice of the Queen’s Privy Council for Canada, the formal executive body that gives legal effect to those decisions of Cabinet that are to have the force of law.

Individual: An individual of a wildlife species, whether living or dead, at any developmental stage, and includes larvae, embryos, eggs, sperm, seeds, pollen, spores and asexual propagules.

Order: An order issued by the Governor in Council, either on the basis of authority delegated by legislation or by virtue of the prerogative powers of the Crown.

Response statement: A document in which the Minister of the Environment indicates how he or she intends to respond to the COSEWIC assessment of a wildlife species. A response statement is posted on the Species at Risk Public Registry within 90 days of receipt of the assessment by the Minister, and provides timelines for action to the extent possible.

RIAS: Regulatory Impact Analysis Statement. A document that provides an analysis of the expected impact of a regulatory initiative and which accompanies an Order in Council.

Species at Risk Public Registry: Developed as an online service, the Species at Risk Public Registry has been accessible to the public since proclamation of the *Species at Risk Act* (SARA). The website gives users easy access to documents and information related to SARA at any time and location with Internet access. It can be found at www.registrelep-sararegistry.gc.ca.

Schedule 1: A schedule of SARA, also known as the List of Wildlife Species at Risk, which presents the list of species protected under SARA.

Up-listing: A revision of the status of a species on Schedule 1 to a status of higher risk. A revision of the status of a Schedule 1 species to a lower risk status would be down-listing.

Wildlife Management Board: Established under the land claims agreements in northern Quebec, Newfoundland and Labrador, Yukon, Northwest Territories, British Columbia, and Nunavut, Wildlife Management Boards are the “main instruments of wildlife management” within their settlement areas. In this role, Wildlife Management Boards not only establish, modify and remove levels of total allowable harvest of a variety of wildlife species, but also participate in research activities, including annual harvest studies, and approve the designation of species at risk in their settlement areas.

Wildlife species: Under SARA, a species, subspecies, variety, or geographically or genetically distinct population of animal, plant or other organism, other than a bacterium or virus. To be eligible for inclusion under SARA, a wildlife species must be wild by nature and native to Canada. Non-native species that have been here for 50 years or more can be considered eligible if they came without human intervention.



Caribou (Barren-ground population)

Photo: © Anne Gunn



Scientific name
Rangifer tarandus

Taxon
Mammals

COSEWIC Status
Threatened

Canadian range
Yukon, Northwest Territories, Nunavut, Alberta,
Saskatchewan, Manitoba

Reason for Designation

Members of this population give birth on the open arctic tundra, and most subpopulations (herds) winter in vast subarctic forests. Well-known for its large aggregations, lengthy migrations, and significant cultural and social value to northern Aboriginal Peoples and other Canadians, its 14-15 subpopulations range from northeastern Alaska to western Hudson Bay and Baffin Island. Numbering more than 2 million individuals in the early 1990s, the current population is estimated at about 800,000. Most subpopulations have declined dramatically, but two are increasing, including the Porcupine Caribou Herd. For 70% of the population with sufficient data to quantify trends, the decline is estimated at 56% over the past three generations (since 1989), with several of the largest herds having declined by >80% from peak numbers. Available survey data for an additional 25% of the total population also indicate

declines. Evidence from both local Aboriginal people and scientific studies suggests that most herds have undergone natural fluctuations in numbers in the past; however, available demographic data indicate no sign of rapid recovery at this time and cumulative threats are without historical precedent. Status meets criteria for Endangered because of a reduction in numbers of $\geq 50\%$, but Threatened is recommended because, overall, this population does not appear to be facing imminent extinction at this time. Despite worrisome declines across most of the range, the current numerical abundance of the Porcupine Caribou Herd and the initiation of numerous management actions by governments, wildlife management boards, and communities support Threatened as a more appropriate conservation status. The status of these subpopulations will have to be carefully monitored and may warrant re-assessment within five years.

Wildlife Species Description and Significance

All the world's caribou and reindeer belong to a single cervid species, *Rangifer tarandus*, and are found in arctic and subarctic regions as well as in northern forests. Barren-ground Caribou are characterized by long migrations and highly gregarious behaviour, often travelling in groups of hundreds or thousands. As a relatively large herbivore with an extensive distribution and high numbers, Barren-ground Caribou is a keystone species, playing a key ecological and cultural role in northern ecosystems.

The significance of Barren-ground Caribou to the peopling of northern Canada is evident from archaeological findings tracking the distribution of people and Barren-ground Caribou relative to the retreating glaciers some 8,000 years ago in the central barrens and as long as 12-15,000 years ago in the central range of the Porcupine subpopulation. Barren-ground Caribou have been and continue to be a key resource for people in northern Canada; in some cases these animals have such importance that families would follow their migration. They have significant direct economic value from harvest, primarily for subsistence use. They also contribute to the northern economy through wildlife tourism and recreational hunting; beyond this, they have incalculable cultural value for people throughout the subpopulation ranges.

Distribution

The global range of Barren-ground Caribou extends from Alaska to western Greenland, and is continuous across northern continental mainland Canada, from northwestern Yukon to Baffin Island. The northern extent is the Arctic mainland coast; the southern extent is northern Saskatchewan, Alberta and Manitoba. Sampling efforts and methods have varied among subpopulations, leading to differences in interpreting subpopulation structure; 14-15 are recognized in this report. Some are combined for the purposes of generating population abundance and trend estimates, for a total of 13 units. Ten subpopulations have been consistently identified for the past several decades, mainly through fidelity to calving areas.

Fluctuating abundance of individual subpopulations affects distribution; as Barren-ground Caribou decline in abundance their distribution (especially during winter) changes, reducing the length of fall and pre-calving migration. Mainland subpopulations of Barren-ground Caribou generally migrate toward the Arctic coast to calve, and occur during summer and fall on the tundra of the Southern Arctic ecozone. Western and central mainland subpopulations usually winter in the boreal forests of the Taiga Cordillera, Taiga Plains or Taiga Shield ecozones.



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Habitat

Habitat requirements are partly driven by the need for forage, which depends on the timing of the caribou's annual breeding cycle and its nutritional costs relative to the brief plant growing season and long winters of the sub-arctic and arctic regions. Caribou are generalist foragers, especially in summer, and select among grasses, sedges, shrubs and forbs for nutrient content according to the stage of plant growth rather than plant species. Barren-ground Caribou require large annual ranges (several hundred thousand square kilometres in size) to enable selection of alternative habitats in response to annual variations in the environment, such as snow cover, plant growth, and/or predation or parasite risk. Habitat attributes that are important for calving include those that reduce predation risk and maximize nutrition intake; these vary among calving grounds. Forage requirements depend on the timing of the annual breeding cycle relative to the brief plant growing season and long winter that is characteristic of the sub-arctic and arctic regions. On summer ranges, caribou seek habitats that reduce exposure to insect harassment, while obtaining high-quality forage. While most subpopulations winter in the boreal forest, several remain in tundra habitats at that time.

Within the previous three generations, there has been some reduction in habitat as a consequence of the natural fragmentation of the winter ranges caused by forest fires and increasing human presence (i.e., infrastructure) on the caribou ranges. However, habitat outside the forested winter range is still largely intact at the landscape scale. The generally increasing trends in human population will increase economic development (industrial development, roads and traffic) within Barren-ground Caribou ranges in the future.

Biology

Caribou usually first calve at three years of age, although they can calve at two years when conditions are favourable. Females give birth to a single calf and may breed every year, although if nutritionally stressed they do not conceive every year. Calving is highly synchronized, generally occurring over a 2-week period in June. The breeding system is polygynous. Annual migrations and gregarious behaviour are the most conspicuous characteristics of most Barren-ground Caribou subpopulations. They are adapted to a long winter season when

cold temperatures, wind chill and snow impose high energetic costs. Those costs are met through reducing their maintenance energy requirements and mobilizing fat and protein reserves.

Predation is an important factor affecting many facets of caribou ecology, as caribou movements and habitat choices are often made to minimize exposure to predators. An array of predators and scavengers depend on Barren-ground Caribou: Grizzly Bears (*Ursus arctos*) are effective predators on newborn calves, while Gray Wolves (*Canis lupus*, hereafter referred as Wolves) are predators of all sex and age classes throughout the year. Pathogens (including viruses, bacteria, helminths and protozoa) together with insects, play an important role in caribou ecology with effects ranging from subtle effects on reproduction through to clinical disease and death.

Population Sizes and Trends

The current population of Barren-ground Caribou is estimated at about 800,000 individuals. Between 1986 and mid-1990s, the overall trend was an increase to > two million, followed by a decline, which has persisted through today. Of 13 subpopulation units used to derive abundance estimates, eight are declining, two are increasing, and three are unknown. The median three-generation percentage decline in the total number of Barren-ground Caribou was 56.8% (range = -50.8 – -59.0%), based on the summed population change for seven subpopulations with sufficient survey data, which comprise almost 70% of the total current population. Four of these seven subpopulations declined by >80% during this period, one had a median decline of -39%, characterized by marked variability, whereas the remaining two increased. Available survey data for three additional subpopulations, representing about 25% of the total population, also suggest declines; the current trajectories of another three subpopulations are unknown, due to lack of recent surveys.

Evidence from ATK and scientific study suggests that Barren-ground Caribou subpopulations undergo periods of high and low numbers (fluctuations) that might resemble population cycles. The evidence is, however, insufficient to consistently infer a naturally occurring cyclic increase across the full range of subpopulations. Available demographic data, cumulative changes to the environment, habitats, and harvest regimes for many of these subpopulations are without historical precedent, such that it would

be risky to assume there will be a naturally occurring recovery, at least to numbers recorded in the 1990s, for many of the subpopulations.

Threats and Limiting Factors

Climate and weather influence other limiting factors important for Barren-ground Caribou, including forage availability, predation, parasites and diseases – in complex non-linear and cascading ways. So many aspects of caribou ecology are affected by weather that a warmer climate could have a significant but complicated suite of positive and negative effects.

Industrial exploration and development in Barren-ground Caribou ranges has increased over the past several decades, such that there are several new mines and hundreds of prospecting permits, mineral claims and mineral leases on several subpopulation ranges. Subsistence and sport harvest can be significant causes of mortality that can increase the rate of decline and lead to a lower population size after populations have been reduced for other reasons. Chemical contaminant levels in tissues are generally low at present. The changing conditions on the caribou ranges also include the administrative and political complexity of a mix of settled and unsettled land claims, with changes in jurisdictional boundaries and mandates. The implementation of management actions is challenged by the inter-jurisdictional complexity between political, land management and wildlife management agencies, combined with the migratory nature of caribou and their use of extensive seasonal ranges.

Protection, Status, and Ranks

Protection of Barren-ground Caribou subpopulations by territorial and provincial jurisdictions is through harvest regulation and habitat protection. The co-management regime is a shared management responsibility among governments and bodies established through land claim legislation and through renewable multi-jurisdictional agreements among public governments (for the Porcupine, Beverly and Qamanirjuaq subpopulations). The Porcupine Caribou subpopulation is the only subpopulation of Barren-ground Caribou covered by an international agreement signed between Canada and the United States in 1987. The Barren-ground Caribou designatable unit (DU) was assessed for the first time by COSEWIC as Threatened in November 2016. It is currently not scheduled under the federal Species at Risk Act (SARA). The 2015 national general

status for Caribou in Canada will not be available until the 2015 General Status Report is published August 2017. This Canada-wide rank will apply to all DUs of Caribou combined, with nothing specific to Barren-ground Caribou. The 2015 territorial rank for Yukon for Barren-ground Caribou is Vulnerable to Apparently Secure, and for Northwest Territories is Sensitive. At present, there is no specific rank for Barren-ground Caribou for Nunavut; however, for all DUs combined, the territory-specific general status rank for Caribou in Nunavut is Apparently Secure. Federal protected areas that exclude industrial land uses but allow continued subsistence hunting cover about 6% of Barren-ground Caribou ranges, including eight national parks.

Source: Status Assessment Report for the Caribou Range in the Arctic and Subarctic Regions of Canada. Status Report for the Caribou Range in the Arctic and Subarctic Regions of Canada. Status Report for the Caribou Range in the Arctic and Subarctic Regions of Canada. Status Report for the Caribou Range in the Arctic and Subarctic Regions of Canada.

For more information, please visit
www.sararegistry.gc.ca.

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Community meeting presentation. A version of this presentation or the presentation sent in the initial consultation package (previous section) was used in the community meetings. Presentation varied somewhat from community to community as it was updated to improve clarity and to highlight local information.

Appendix 2

Community Consultation Meetings in Nunavut on the proposed listing of the Barren-Ground Caribou as a Threatened species under the federal *Species at Risk Act*

March 2018 – February 2019



Environment and
Climate Change Canada

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23. Minutes of Meeting in Taloyoak

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Questions? Comments?

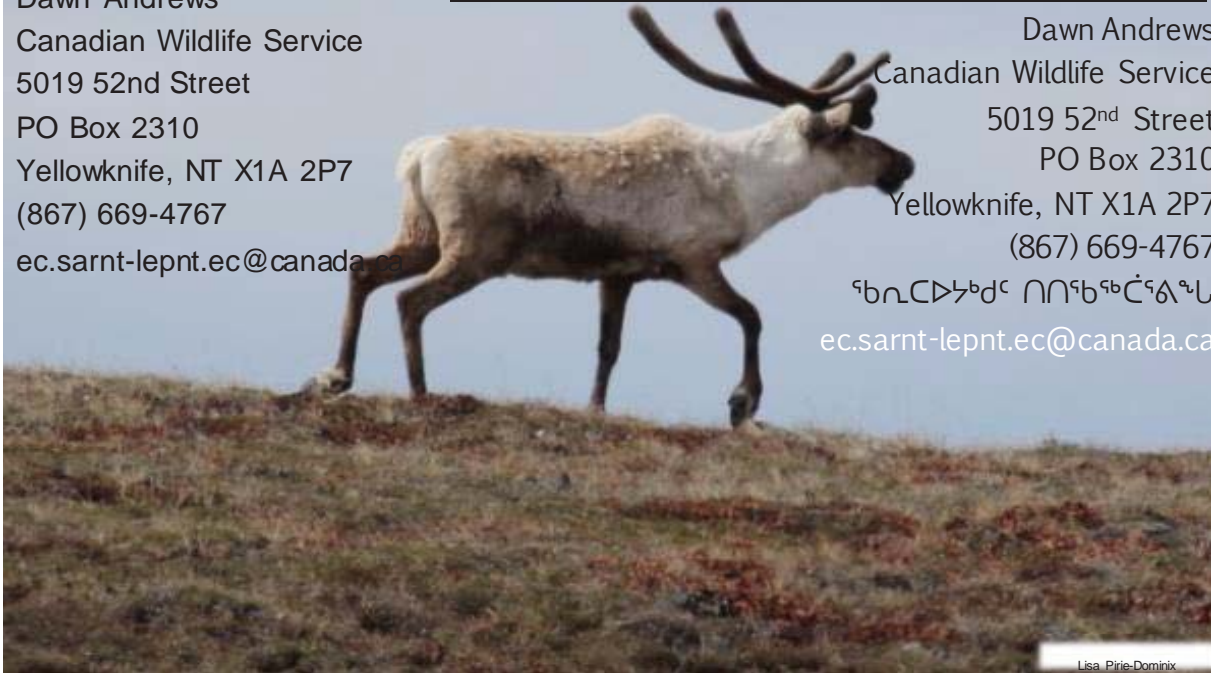
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Lisa Prie-Dominix

5	<p>Peary caribou is in recovery strategy phase, Dolphin and Union Caribou is also in the same cycle as Peary Caribou. Management plan for Dolphin-Union caribou?</p> <p>We will be back to talk about Dolphin-Union caribou</p>	DUCA
6	Bob – EHTO. Southampton has increased. Any samples taken to see whether they are related to the Baffin Island herd? Any migration occurring?	Genetics
7	<p>Beverly – they haven't done many studies?</p> <p>COSEWIC considers anything available, cutoff of early 2016. New data available will be passed along and considered.</p>	COSEWIC
8	Predation is an issue with the decline in the caribou? We have been saying predation is an issue up here (wolves and grizzly bear), is this what we are saying in our list of threats?	Predation
9	Predation is a larger threat than sport hunting. Wolves can follow a herd and drop one a day or so. Sport hunting is managed very closely.	Predation
10	Add to Peter's comments: Predators during the spring when calving, most vulnerable at this time. Predators are always following because of the calves. Have heard from Dene people that they have lots of predation also, not just in the North.	Predation
11	Happy to see that predation is finally getting some attention from the Federal government	Predation
12	Does the Federal government recognize that other species, other than predation, such as snow geese, can be harmful to the environment that barren-ground caribou need to survive? Eg. bird sanctuaries are protected. We know that our land is being decimated by Snow geese. And they are invading new places to forage. They are harmful to species that are already here in the North. We use the QMGMB. It is a protected area. If we wanted to shoot a snow goose, we can.	Threats
13	If we have a recovery strategy for Dolphin-Union caribou and one of the herd is bringing numbers down but the rest are okay, what happens? For example if Bathurst herd is increasing but Beverly is declining, how can identify how they are doing individually with a Canada wide range?	Designatable unit
14	<p>Not clear. If one is dropping off and one is increasing, the entire pop is still considered as a whole? Seems like all herds will need to increase for them to not be listed. TAH would be wrong in that case. It will be hard for us to get tags if all classed as a Barren-ground threatened. When all are submitted as a whole it's hard to argue when overall there is a decline but our herds are doing okay.</p> <p>E.g. Porcupine caribou is increasing.</p>	Designatable unit
15	Need a strategy put in place for each specific herd? Find it difficult to accept the submission as a whole.	Designatable unit

	It is possible that the recovery strategy could be written on a herd by herd basis	
16	What could a recovery strategy look like? Could it mean suggesting we should stop harvesting? Harvest would continue to be managed through the NWMB	Recovery
17	Peter: Say we are putting comments together for NWMB. Are they the ones to decide whether to list? NWMB decides whether they support listing, final decision on whether to list is by the federal cabinet.	NWMB
18	Concern is that generalizing and listing the species as a whole is not appropriate. Each herd is specific to a certain region. Concern about one herd bringing down the listing, no way to address each herd species. Herd specific.	Designatable unit
19	COSEWIC – how does it operate? Why do they not come to these meetings face to face? Why not come up to do their own assessment? Picking numbers out of the air instead of consulting.	COSEWIC
20	If we submit a letter to NWMB trying to prevent something that would affect our herd, will COSEWIC hold this against us?	COSEWIC
21	HTO members wanted to be consulted by COSEWIC at the status assessment stage. ECCC contacted COSEWIC to relay this request, and provided contact information for the HTOs.	COSEWIC
22	COSEWIC still needs to come up north to see us face to face.	COSEWIC
23	Doesn't take just one meeting, it takes multiple trips to understand if this is a Canada wide decision. People need to understand that we are not talking about local/specific herds.	COSEWIC Designatable unit
24	They should have thought about predation before this came out. Grizzly bears and wolves.	Predation
25	NWT did incentive for hunters for wolves. We have asked for incentive to hunters. More incentive to help control predation (wolves). Can they give us information about this from around Yellowknife?	Predation
26	Why doesn't ECCC have jurisdiction for incentives or harvest of wolves?	Predation
27	Does not only affect how we live. Some people that are land people, they are the ones that have incomes based on hunting. Will affect people all across Canada. It is their income across the country. No restrictions under the land claim, does that affect subsistence or my income hunting?	Way of life
28	Shane: what is the track record of the recovery plans and strategies actually doing something?	Recovery
29	Dolphin-Union caribou had sent a form but never received confirmation that it was received.	DUCA
30	When will Dolphin-Union process start?	DUCA

Community Meeting Comments/Questions:

	Questions / Comments	Topic
1	Two GN representatives are chosen to attend the COSEWIC meetings, does the minister select them? Q by HTO head A: not sure how representatives are chosen	COSEWIC
2	Which herds are contributing to the drastic declines that are driving this listing? Q by HTO head A: all herds in Nunavut except Southhampton Island are declining	COSEWIC
3	Difference between populations in these prohibitions? Population based management would be appropriate because different herds are behaving differently (increasing or decreasing). It was decided not to look at subpopulations like they did for polar bear? A: We cannot decide how the species is assessed.	Designatable unit / Management
4	What is the status of the DUCA herd?	DUCA
5	When ECCC presents to NWMB, is that a public hearing?	Process
6	It all being classified as a whole. But the GN studies BGCA herd specifically.	Designatable unit
7	SAR applies to Federal Land, what is the relationship between the Federal government and the land claim. Can they agree with the listing but have different prohibitions?	Process
8	When say going to list BGCA, takes into account all the herds in the North. How is this going to affect harvesting rights of beneficiaries? It will affect harvesting rights in some way or another. I can see how it would affect sport hunting. Bit of a concern to not look at it from a herd specific perspective.	Designatable unit
9	Porcupine herd is increasing, increasing human presence but also forest fire. What do you see as the reason why this herd is then increasing if it has so many threats affecting it?	Threats
10	Usually when a forest fire occurs, vegetation grows back more healthy, maybe that is why the Porcupine herd is doing better. Q by HTO head	Threats
11	Predation – increases of wolves and grizzly bears. We have reduced our sport hunting. Q by HTO head - Bobby	Predation
12	Interaction between invasive species such as moose and caribou. How the caribou interact with them? Have there been any studies on how invasive species have altered species movement/migration and pattern? Moose or bison maybe.	Threats
13	Snow geese – overtaking certain areas	Threats
14	If we had numbers on subsistence and guided take? To get at the effectiveness of prohibitions	Hunting
15	ECCC: Have you noticed any changes in the populations here? Had to travel further west to harvest Caribou, 30 mile river area last fall with ATV. Took a long time to find them, used to see them 10 or so miles. We travel 20 miles south before we saw caribou. Some of the DUCA are hanging	Trends

	around Bay Chimo area. Still hanging out there. Have had to travel further west in the last couple of years.	
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	the central location where info is stored. Most complete database and records are with KIA. Other records scattered here and there with smaller/other organizations.	
5	KIA trying to hire a wildlife biologist/technician to work with caribou. Western coordinator position trying to be filled here in Kugluktuk with KRWB	JOB
6	Porcupine herd: tell the board how much of a comeback has the porcupine herd had. A: Highest numbers ever recorded for Porcupine caribou last year	Designatable unit
7	Larry: Sport hunt here stopped in 2007 and the community commercial caribou harvests. There will be a meeting here later this week to talk about sport harvest in another community.	Hunting
8	Matthew: I'm sure that is a relief for people to hear. That it won't apply to beneficiaries. Am wondering about NWA, that would include QMGMB, need to recognize that a few Barren-ground caribou herds that are doing okay or are not in a steep decline. Ahiak herd is decline but still pretty good numbers, would compare it to the Porcupine herd. Beverly is not too bad. Wondering how much flexibility there is in that blanket prohibition for the species as a whole when some herds are doing okay. And how that would affect local management. The idea of caribou at the federal, territorial level. Loss of a herd could be recovered but for the lifespan of people, would be a catastrophe. Management is at the herd level. Why would a herd be restricted if it is doing okay? It is possible that the recovery strategy could be written on a herd by herd basis.	Prohibitions
9	If one or two herds are doing bad but all the other herds are doing well. Concerning if putting a blanket restriction on all of Canada if herds are behaving differently.	Prohibitions / Designatable unit
10	Larry: Co-Management boards. Two years ago submitted management plan for Bluenose east management. Tried to submit a plan for Bathurst caribou but did not have time to make a presentation to NWMB, so did not fully make an action plan, But KIA office was here so we could make a plan for Bluenose East. Did not have time to submit a plan for Bathurst.	Management
11	Matthew: Provision that prohibition would not apply to people engaging in activities in accordance with the Land Claims agreement. Hunting left to GN: Business as usual, if a herd has no conservation issue, no TAH as per land claim process, harvest would be basically unregulated. Then maybe some restriction for non-beneficiaries. But in terms for beneficiaries, no change.	Prohibitions
12	Larry: How close is Dolphin-Union to Banks Island? With the sudden spike in Peary caribou.	DUCA

	<p>Matthew: Dolphin-Union seem to gather a few caribou here and there in the north and south. Mainland caribou were responsible for the migration. We observe during survey a few darker coat caribou. On NW Victoria island, identified as Peary, some stay some of them started to join (usually come down to coast a bit later), but keep joining regularly. Always some level of mixing.</p> <p>Colin: Been to Victoria Island every summer. Population is up, when was a young boy, no island caribou in those days, had to go to mainland. Now they are all over it seems to me. I don't understand what the different between island caribou and Peary caribou. Seems to me a few years been slacking, not too many caribou migrate there. Because few years back there was lots. Mainland caribou do cross to Victoria island. There was a bull by himself. Wasn't afraid of us. He looked different, short legs long snout, big antlers. He shot it, skin it, noticed something about his ear. It had a v on its ear. After got back, phoned a reindeer elder. That caribou survived all predators and ended up at reed island. He was fat.</p>	
13	<p>Cost of living is harder to hunt for wolves now than it was in the past. Sales are down for wolves. Not like 20 years ago, had a lot of people going out for wolves and wolverines. Now don't have that luxury, people getting old, cost of living. Caribou are further out some season. Our problem is we don't have a younger generation coming up to follow our path. Getting hard to keep value of hunting and trapping. People want to go work in the mine or sit at home. Having trouble with one of our outpost camps, running short on money from funding. Harder to hunt and trap. Don't have tag system for Grizzly bear. Having security of having son take your place as a hunter, don't have that luxury anymore. Limited number of people that now go out and do it. Fortunate for GN. Don't have a season now for wolves or wolverines.</p>	Predation Way of Life
14	<p>Colin: Many years back 1966, the herd came from east side of Kugluktuk, another herd came from, Bluenose herd from the west side. All came together around Kugluktuk area, across the river. How they know who they belong to. Smaller population then. Has this happened anywhere?</p>	TK
15	<p>Matthew: Part of the Recovery strategy: critical habitat component. Just to mention that NU is probably the most complex jurisdiction for anything that touch the land. Every species they need a type of habitat to survive, there is a minimum requirement. In terms of management, NWMP, 80% of land is crown and the remainder is management by Inuit land. Middle of devolution negotiations where the NWT used to be. Maybe too early, but keep in mind that anything that touches land will be a complex endeavor in NU. Maybe it will be simplified after Devolution.</p>	Recovery
16	<p>Matthew: Is the recommendation by ECCC, is it to accept the COSEWIC recommendation, this will go to consultation first? This will be submitted to NWMB for review. It happened before that NWMB refused it. Think it happened for wolverine. If this is done, they say no we don't agree with the status of it, what happens next?</p>	Process

17	Larry: From KIA side, they invited the HTO to have to sit on Grise Bay TK advisory committee, myself as a chairman, Bobby, we will be sitting on the advisory committee. That sits on Bathurst caribou range. But we never have the proper representation. Have to say what I can to represent NU. It all boils down to money. Always want to represent the best we can for beneficiaries. NWT has more gold mines. Looking ahead, we will be hit hard when all weather road goes ahead, we will have industry in our backyard. We have to do what we can to mitigate right from wrong.	TK
18	Does the legislation or process identify specific or ranges of amounts to provide funding to conserve species listed? Helps with leverage to beg for funding, is there a budget identified to assist with the national plan.	Funding
19	We do not read syllabics. Need additional translation	Translation
20	P.8 map. Instead of Barren-ground caribou as one, maybe divide them into 3 or 4 groups. E.g. Porcupine, Bluenose west, cape Bathurst = west. Central. And then the other herds can be Eastern. Some herds gather together, keep ones that are close together grouped.	Designatable unit
21	GNWT is planning a survey for Bluenose and Bathurst (calving ground survey) this coming June. And also the Western herds. This might either confirm or changes things depending on the results. Might be tight to have a herd estimate by end of fall.	Research
22	Bathurst Management plan meetings later this week.	

4	James – Boothia Peninsula herd should be included with Ahiak. The caribou migrate and that's the only way they can go. This should all be one herd.	Designatable unit
5	So often in the fall they walk on thin ice, fall through and die. In springtime when the ice is melting, they go in the crack, in the river and they die there, they don't come up. So often there are more and more wolves coming and that is their main source of food. So they are often killed by wolves. First of all, wolves would kill caribou and then grizzly would take over. Once they are dead on the ground, grizzly likes to take over	Predation / Threats
6	Close to 10,000 caribou died in one spot, one river in Quebec, when was that?	
7	We have frequently asked for a cull on wolves.	Predation
8	Everybody has got their own perspective. His thought is that the Barren-ground caribou the nutrition that they eat is going somewhere else, with the forest fire they are going somewhere else. There are different reasons. Icing conditions	Threats
9	Even the muskox is moving. They are getting closer then moving on. Muskox are moving in and grizzlies are moving out.	Predation / Threats
10	So often we see funny spots on the caribou on the body, infection or some kind of a sickness, often thinks that when they go to rivers, so often he thinks that infection comes from the rivers. So often we see no only caribou, but birds laying dead on the shore on the land. He knows that it's coming in from the sickness. Are you noticing that more often now than in the past? Yes he noticed that last summer and last fall. Lots of birds dead on the shore. – Snow geese. Noticing more infection on the caribou. More cysts in the meat than normal. Seeing an increase in that. Even with the muskox they can get infected pretty badly. So many people leave the bad meat because they don't know what to do. So often they don't even take a piece home. Recently this happened to the char and lake trout. He often thinks it's coming in from the development, mines, etc. Even seals, beginning to notice more infection.	Threats
11	James – point out biggest issue here is threats on the caribou. So we should really focus on the threats. Saying that, going back to the effect of wolves on the caribou. We don't want reductions in harvest. So we want to work together to manage the species. We have been telling the government for years we need a wolf cull, but if we are dealing with SARA I think that the wolves should be looked at as well.	Threats / Predation

12	<p>How many pups does a wolf have? They can have up to 11. That's how fast they grow. And the caribou have only 1 at a time. There are too many that the government doesn't see. Wolves and grizzlies. Couple times I gone out on the land and a muskox has been killed by a grizzly.</p> <p>James - Wolves can reproduce much faster than caribou. He is sure that they would bounce back faster than the caribou would. They should really consider a cull. Wolves are the main predator. If we are going to talk caribou we need to talk wolves. Up here we are being overrun with wolves. We are noticing an increase in wolves.</p>	Predation
13	<p>One time I was hunting caribou in back river. I got 4. When went to retrieve it, one was already eaten by wolves. That's how fast they are.</p>	Predation
14	<p>We are having to travel further. In spring come to king William Island. Fall time we are hunting. In March they are all gone so we have to go towards Baker Lake to hunt.</p>	TK
15	<p>Even wolverines are great hunters. They could kill a caribou.</p>	Predation
16	<p>Not every hunt is successful. This time of year waiting for main herd to come. Main herd right now is about halfway to Baker Lake. So this time of year we have to go pretty far. Most people are waiting until they get a bit closer. In the spring they come right to the island. Some of them stay on the island. If you're lucky you can find them. Certain areas there are caribou year round, Franklin lake. As it gets later in the spring, that's when they get closer to town. Main harvest is in the fall.</p>	Way of Life
17	<p>Simon - Elders from years ago would say the same thing that the elders are saying now. Caribou migrate from one place to another. Some years there are lots sometimes less. They migrate all the time. Like humans, they get sick etc. and eventually start dying and the population gets lower and then higher same thing with the caribou. Like he didn't see it as much as a child. Lately he sees a lot more dead caribou. Could be from wolves or grizzlies or other animals. Often he sees caribous that have sickness in them. He sees that a lot more now. It's not just one thing that is bringing the population down, its multiple things. Also eagles. He noticed that there is a lot more mining exploration in NU, last summer was the first he saw a big rock stuck on a hindquarter, was skinny and sick. The climate change, part of the caribou as a species is going down. Climate change is one of the biggest causes, we understand this. Caribou early fall when it snows, so often if freezes to ice and then the caribou can't eat. That is one part. Another part, even in the summertime, the water is so cold, before they reach the other side they would freeze to death. Elders always say: try to catch what you can take home. It is not right for people to hunt caribou here and there and leave them, it's not good for the population, catch only what you need. So often when people catch fish in the fall time, they catch too much more than they can take home. They are catching them in a pile. Have to look at that more as an HTO board. Young people have fun fishing for the first time, need to be</p>	TK

	reminded not to overharvest. Let the younger generation know about proper hunting practices.	
18	Does the younger generation have an interest in hunting? Mainly in spring and summer they will hunt. In winter only real hunters go out.	TK
19	Muskox, are they part of this species too?	
20	There is a big gap between muskox and caribou, they will never stay together, not sure why	TK
21	There is a big gap between muskox and caribou. Used to be more caribou and less muskox. Now there is a lot of muskox. Not sure where they are coming from, More muskox and less caribou. They are eating the same thing, but they will not eat together.	TK
22	Very important dealing with caribou. We want to be involved in the process. Caribou is critical for us. We can't live without it. We are starting to see increase in sales of meat. Seeing an increase in sales in meat on Baffin (listen to recording for this). Rankin does a lot of harvesting. They are starting to sell caribou in Baffin. In the past we have had bad experience with government with polar bear. Now things are different. We need more transparency. We pray for honesty, truth and transparency in information between parties. We want to work and not see a decline. Younger generations can't usually tell the difference between the herds.	Meat Sales?
23	Not sure which are our caribou, because they are so mixed. They are not on the island, they are on the mainland. Best that we are part of it. Caribou are a big issue for Gjoa Haven. We also like to hear what other regions are talking about it.	Designatable unit
24	Best if form a committee that people could go to and talk about it. Recovery strategy committee	Process

Comments/Questions:

	Questions / Comments	Topic
1	For each step from blue to red (of the status pyramid), what actions would you take?	Process
2	In NU, caribou it's less now? Than it used to be? Where is Southampton Island?	Status
3	How do you know, we are in the blue area. When did they do the studies? I don't ever recall studies being done in our area before.	Research
4	3 years ago he heard in Yellowknife they were going to do some studies, but it never happened.	Research
5	This coming year NU wants to do some collaring? I rather see an aerial survey being done. Being an Inuk, when they are collaring an animal, following them where they are going. I think they won't follow or stay with the herd as they did before. Other animals can smell the collar. They are not doing what they should be. I don't like seeing collars. Harming the animal. They say don't harm the animal but, that's when they harm the animal, when they collar them. See their own animal being harmed like that, it hurts them. Inuit hunt for food. Even if they see 10 or whatever, they will kill only 1 or 2. That is the traditional knowledge to harvest animals.	Research, TK
6	We only get what we need. (meaning harvest) There have not been any studies.	TK
7	Late 60s, wildlife management from Ottawa met with Inuit in town saying our caribou are becoming extinct. An elder told a person from Ottawa saying they are wrong. Maybe when you and I are gone they will come back. They went to feed somewhere else. And they were right. The animals travel. Certainly after 20 years, they knew when the caribou were here. Some caribou even go between houses in 1992.	TK
8	The animals move around, maybe after a few years. They are not in the same place every year.	TK
9	I recall when I was a young fellow, my parents, they would go out caribou hunting for days. Come back with 4 or 6 caribou. Sometimes up to a week they'd be out. Today just out a couple of hours. I remember 1992, I got a video they were just standing around with the dogs. Even today in the spring you go out and there are caribou here and there. In the winter some will stay back and then the rest go south. This year we were seeing more than usual.	TK
10	I heard a story elders say there will be hardly any caribou coming here. Maybe a couple years later, they will come back. I believe the elders. The elders tell us.	TK
11	What time of the month you put a collar? When they put collars, we don't like it. The collar can bother the caribou. One of the guys that came in one time. I heard that they found a dead caribou with a collar once before. The collar can cause death.	Research
12	We hunt for our family.	TK
13	When we shoot a caribou, if it's sick. We just don't try and leave them out there. Because otherwise the carcass can cause damage to the environment.	TK

	Or the other animals can get sick when they eat it. We try to take care of the sick caribou, we bury them. We try and bury the carcass.	
14	<p>Would the board like to be part of the COSEWIC process?</p> <p>I would really like to be part of that. In NU, I would like to see everyone across NU be a part of it, when they are talking about our animal.</p> <p>ECCC staff will ask COSEWIC to consult HTOs in addition on NWMB.</p>	COSEWIC
15	Have they ever seen caribou that are mixed with other kinds of caribou?	
16	When we do the surveys, do we go with local people or just on our own?	Research
17	Some of the graphs are both NWT and NU?	
18	Where is the Quaminiriah herd? Around Baker Lake? That's where our caribou go, around next month they will be coming back from that area (listen to recording for more place names and timeline of where they go). I have seen caribou in the small Harrison islands, the two little islands. Have seen caribou there in the month of May.	
19	The other thing from Inuit knowledge, in our area before I was born there used to be lots of muskox. There was lots of people hunting muskox. They are coming back this way now: from TK. Where there is lots of muskox you will not find many caribou. When they were telling the people that they couldn't hunt the muskox anymore. They did not consult like we are doing now. There used to be lots of polar bears, but when the mine was operating it smells bad and they went somewhere else.	TK
20	<p>There are too many wolves now. That is a problem for the caribou.</p> <p>Sometimes we hardly see the caribou coming. I shot one with a collar, sometimes they have skinny fur, caught it in November he was really skinny. I cut the collar off and gave it to the wildlife officer, but nobody will eat it.</p>	Predation / Research
21	Peoples were finding diseases on the meat. Are they studying about the disease? Are they finding anything?	Threats
22	Mining companies, what about them?	Prohibitions
23	Wolves – do we look at wolves also? Wolf packs are near caribou, near the young ones.	Predation
24	When there are too many wolves, they kill the caribou. Government should look at the wolves.	Predation
25	Even the wolverine can kill a caribou. Could chase and kill a calf. Could even kill a muskox.	Predation
26	Do we get a report from the mining companies, when caribou are moving through?	Threats
27	I have been in meetings with mining companies. One company is set to open a mine south of Cambridge Bay. They had done research on caribou migration, they were having trouble opening the mine because of the caribou migration. Mining does a lot of damage on our lands. When a mine opens it impacts a lot of animals on our land. We are always concerned about opening a mine. Animals are more valuable to us. If they disappear we will never get it back.	Threats

28	I've been working for the mine before, but in a way I was working with drillers, who drill a core out on the land somewhere. Looking for minerals, gold, etc. What happens is when they do drilling, they put all sorts of chemicals there. It drains down to the creek and everywhere, even to the lakes. It can do a lot of damage on the environment and caribou can eat grass that can be dangerous for them and the species.	Threats
29	Plane/helicopter can bring workers anywhere. When its cloudy skies, they have to do low level flight, they scare off the caribou.	Threats
30	Helicopters, are much louder when they are 10 miles away than when they are landing. Can be several minutes before you even see them.	Threats
31	When we were growing up we had no snow machine, would travel by dog team. If someone saw a caribou 10 or 12 miles out, they stop and then walk. Until they are close enough to shoot. But nowadays, they are so used to hearing planes and all that. They are harming the caribou. Traditionally when see any animal that is sick or injured they'd have to kill it. TK= if you see an injured animal, kill it don't leave it there to suffer. Inuit have strong laws, they are just not written down.	Threats
32	Hearing this and working together. Anything that includes a Nunavut animal we want the Inuit knowledge in there.	TK
33	Are we trying to get comments from each community? The government is going to be ...If we never commented or never met with you, they would have a harder time getting them listed or getting tags?	Process
34	The government, if I go caribou hunting, if I find a dead caribou and I have a tag, do I report it to the wildlife office or the government	Process
35	We only have so much time here (Oct 2018). I don't recall studies being done before in our area. How do they know if our population is healthy or not? To really study an animal in the north, takes 5 years. We don't even know if our caribou are healthy or not.	Process
36	They do a lot of studies on the west side, but I've never known for many years if they have done any studies. How far do they come from in the south? We have no reports or proof. This is very short notice to make a decision.	Research
37	I brought that up at 2 meetings, one in Yellowknife and another in Cambridge Bay. They do no studies in our area. Never had anything come of it. For maybe 20 years.	Research
38	York university? Sampling kit?	
39	It'd be nice if they did a caribou survey. Get a recording from the government to our secretary. We never hear anything about surveys here. It would be really nice to hear.	Research
40	When we were younger, my parents used to walk miles and miles to hunt caribou for clothing. But nowadays when we are boating, we can see caribou close to the sea. Drones? I don't want to see any community, that they are not supposed to hunt caribou anymore. This is very short notice to make a decision.	TK
41	Climate change is making recovery hard.	Threats

42	Bernaby – COSEWIC - Where was this study done? Like I said we haven't done caribou studies in many years. They migrate south to Naujuaat and Rankin. Have they done studies in that region? Really interested in migration from South to North. We don't have any info, any reports, nothing. Short notice.	COSEWIC
43	How would we know that there is more caribou from 2017 and 2018? They used to always tell us, there is going to be more coming. I believe the elders. We eat the caribou meat. I'm scared they are going further away when they are tagging or scaring them by the helicopter. I don't understand the surveys and studies.	Research
44	Bernaby – Graphs of herd numbers. Where were these studies done, on the map?	Research
45	Threats – we don't do much harvesting of wolves and foxes as we used to 40 years ago. When the price went down, we hardly hunt wolves like we used to. When wolves increase, the caribou can decrease. Also, insects, there are new ones incoming from the south. There are bugs that we've never seen up north before. Are they going to be a threat to our animals? Even spiders that we've never seen up north.	Threats
46	Our caribou migrate north from the Qamaniriahq herd. I think that we have more caribou now than we used to have.	Designatable unit / TK
47	The public might have more info on what the population is doing?	
48	Do they have cameras to take pictures of the caribou during the surveys?	Research
49	After it snowed, it had heavy rain. That will put the caribou at risk because they won't be able to dig through the snow and the ice. If you go to Kugluktuk they come in in big herds. We've seen it too in the fall time. There will be a large herd sometimes. If they have a large herd they eat a lot more food. The caribou fat when they are really healthy, is seen when we have fewer herds in one area.	Threats
50	Our caribou. Sometimes they migrate around but after they calf they go down. That's what I know. Sometimes they get lots of calves. I asked for the study to be done to make sure that the wildlife officer knows what is going on. He only asked us about the caribou. It will be better if the GN goes and does a study themselves.	TK
51	We see Peary caribou.	PECA

5	Are their numbers really low for the Southampton Island population?	Designatable unit
6	What were some of the threats that were not here in the past? Effects of climate change, increasing development	Threats
7	The herds that are shown on the map, all of these would be getting the listing status? What about the herds in northern Quebec and Labrador? All herds of Barren-ground caribou are being considered together for listing	Designatable unit
8	So only if they are endangered would there be prohibitions? General prohibitions would apply to Inuit in Nunavut only if the minister makes an order, which would be a separate process.	Prohibitions
9	If the population crashed, they would be endangered? If they crashed they would have to go through all this process again to list them as endangered?	Process / Prohibitions
10	What are the reasons for the decline, do you know?	Threats
11	The reason I wanted to ask is because there are lots of wolves now that eat the population. Wolves are catching more caribou, in my opinion we have to deal with it. And not to point the finger at Inuit only. Traditional knowledge needs to be used, wolves sometimes they leave behind parts of the meat that Inuit would not leave behind. TK would benefit the caribou in my opinion. Can you answer that question?	Threats/ Predation
12	Related to that, can part of the management plan be a wolf management plan?	Recovery
13	I can say right now, why the caribou are migrating this way I know they are moving from Nauyuaat because they are running out of food source up north. They have to move to a different area to make sure they have a good food source. People think that they're being lost but they're not, they are just looking for a good foraging area.	Threats
14	Do they catch caribou as well, the eagles? Calves	Predation
15	We get a lot more grizzlies and more muskox. They take over. They are a dominant species	Predation
16	Caribou are afraid of muskox, they eat the food. Wolverines can catch caribou as well. We can monitor ourselves, but they can't do that.	Predation / Competition
17	Critical habitat: what the species needs to recover = calving grounds. Critical habitat can only be on Crown land right? What about Inuit owned land? Everyone needs to be at the table, we need KIA in on this. Critical habitat could be identified anywhere it occurs.	Recovery
18	Same with other provinces for Barren-ground caribou? They would be at the table?	Recovery
19	Process: Consultation period, something will be submitted to the NWMB? What will that be?	Process
20	Preparing a recovery plan: Bluenose East – they were doing their own Community plan, has that come up at all in discussion for the species? The reason I bring it up, the Beverly Qamaniriah management plan we are also in the process draft of nu land use plan. Agreements with the mining companies, Southampton Island there are also initiatives going on there for management. What the board should be aware of is, is there a possibility to recognize community initiatives in the larger picture?	Recovery

21	Have they started anything for Manitoba, the Beverly Qamaniriac management board – has representatives from the government of MB, SK and NU. It depends on what the communities and regions do. There would be expectation from the community, that if they have done this work, it would be incorporated into the regional or larger scale plan.	Recovery
22	<p>The Island caribou (Dolphin & Union and Baffin Herds) go to Southampton island I wonder which way they went to make it to the island. This year they have noticed Island caribou on the island. The last of the Island caribou close to Naujuaat, quite a few went to Southampton but they never went back up north. I wonder where they came from. My in-law, caught one on the island and it was quite fat.</p> <p>In the past went to Iqaluit for a meeting. Told if we saw if an Island caribou to kill it very quickly, why because it may give the other caribou other diseases they are not used to. They moved 45 caribou from Coates island to Southampton Island. For 10 years not allowed to harvest any. They are still there.</p>	DUCA
23	I want to know why they went to Southampton, why they went from Baffin to Southampton. Because it is close to the mainland, I talked to someone on the island said they went across on an ice bridge. I have noticed twice quite a few caribou that crossed onto the island last year.	Migration
24	<p>Can you explain the rationale for a blanket Barren-ground caribou listing? So there is no way to differentiate mainland and island caribou?</p> <p>It is possible that the recovery strategy could be written on a herd by herd basis.</p>	Designatable unit
25	<p>That unit was determined in a 2011 report by COSEWIC?</p> <p>Any Inuit or indigenous knowledge included when they did those groupings?</p>	Designatable unit
26	The caribou that are increasing in size because they are going back to where they were before. They moved to one area and they are moving back to an area. That is why there are more caribou in that area. They will go for a few years, they are just going back to where they used to be.	TK
27	Our father at the time, when he was young there used to be a lot of polar bears and now they say that they are declining., I know there are a few, not as many as there used to be. That's why we wanted it to be a national park. In our lifetime the polar bears have left the area. My father said there will be another time when they will return, now it is a park and they are back. They will not be gone, but the polar bear will go away again. There is no good food source in that area so they will have to move now. (Note: the individual who made this comment grew up in Wager Bay, where when he was growing up, bears were not as abundant as they are now because of population cycles)	TK
28	For the response from the board, support and not support and comments on what should be considered during the deliberations?	Questionnaire
29	But we have to consider that we are basing Barren-ground caribou across all herds. We can only base it on what we know in our area.	Designatable unit
30	That is the problem with a blanket listing, herds are doing different things.	Designatable unit

31	If a submission is made much earlier than October 22, if we want to change our decision or add comments, can we do that?	Questionnaire
32	If this does go through, does this mean that there will be more research going on in the area?	Research
33	There is a big difference in opinion between us and the GN	Research
	I was reminded, if too much in abundance they die off, they get diseases they get injured, foxes, wolves that's how they are, we have to list them as threatened and then manage them as well. They can be threatened if there are too many	Threats
34	Concerns were brought up that not enough research (surveys) are going into the north eastern mainland herds (Lorillard and Wager Bay) along with the Ahiak	Research - GN

	recognize the difference in the caribou. Even without translation he knows what we are talking about.	
3	GN: New May survey of the Southampton Island herd now indicates a population decline.	Research
4	<p>About the declining of caribou, there are natural causes. What we call the big river, back in the 1980s he has noticed there has been a lot of caribou crossing the river, but some caribou did not make it and they drowned. That could be a causing a natural decline in caribou.</p> <p>Sport hunting that is happening south of Arviat where they are only trying to take the bulls. Hennik Lake. That is his question. (He is one of the guides)</p> <p>GN: Asked what was the specific question is the harvest of bulls having an effect on the decline?</p> <p>The population is too large right now for bull harvest to have an effect. Hennic lake sport hunts are likely not having an effect. Can only say that any harvest in excess can have an effect on the population.</p>	Harvest
5	Elder: He knows that at times there are declining of caribou, way back and now where there are grizzly bears, wolves, those have a main source of caribou and it could be the habitat itself, could be too wet or a forest fire, or there could be activities. Back then the main source was caribou, no towns they were in the settlements, they were way far ahead from each other and they harvested a lot of caribou because it's the main source and right now he can say that people started working earning for a living and we could buy some store bought and other food items. He thinks people nowadays aren't catching as many as when he was a kid. As he grew up nomadically, when these declining occurs He knows that this big herd of caribou has moved somewhere else. Could be for years and year, 5 years or more. People here, some of them even used to starve to death. Even the rabbit, fox, and sik siks (ground squirrels) was even hard to catch when there is a declining caribou going on, it could be years and years before the herd comes back. When he was young he has seen it before and it is not new to him.	TK
6	<p>Talking about caribou, which caribou are we talking about?</p> <p>A: All caribou across Canada lumped into Barren-ground caribou by COSEWIC</p>	Designatable unit
7	Elder: when he was a nomad, they used to move around in villages and settlements for a long time until today. There are differences between herds of caribou. Where the southern herd of caribous they have big bulls, way up north their bulls are like the size of a cow. He has noticed this long long ago when he was young. Also the people back then noticed these differences in caribou between herds.	TK
8	<p>Have people around town noticed that caribou have declined?</p> <p>Elder: He has noticed the herd of caribou has moved somewhere else. There are also predators (wolves and grizzlies) who eat the caribou and that causes</p>	TK

	<p>the herd to move elsewhere for the time being. Way back when he was young it was so cold that the land was hoarfrost and foggy because it is too cold and he has seen wolves freeze to death because they have starved to death lacking of food. Because it was too cold, and when caribou have moved somewhere else, the wolves starve to death.</p> <p>Elder: When he was a wolf hunter he noticed there were thousands and thousands of caribou. All day it took them a long long line, they walked all day without no breaks, just lines of caribous all day. Around 1970s when he was out hunting wolves, during the month of May he has seen lots of caribou where their groups are in different paths in the vast land of the tundra. This big herd was moving north, some had cows, when they got close to Arviat. Within a few miles of Arviat there was this huge migration going on. And he knows that in the herd of caribou, the first ones are the mothers and cows, mid-herd are mostly young bulls or yearlings and the last of the herd is the bulls and big bulls.</p> <p>Another board member: Keep in mind this was 60 years ago.</p> <p>Elder: He talks about what he has experienced back then because he is not that active today, he doesn't know what is happening much today. He hasn't seen any aerial surveys of the herds of caribou.</p>	
9	<p>Has anyone noticed the caribou going down since the 1990s?</p> <p>Elder: He says that it's been stable condition but he can say this herd of caribou is in two groups: migrating and having winter grounds. Wolves and muskox could be the cause. People are now seeing muskox closer to Arviat and the Hudson's Bay. The caribou and the muskox don't share the land. Muskox tend to attack caribou. Maybe that's why the herd is having a different path or migration route. Causes: predators like wolves, grizzlies and muskox. This can cause the caribou to migrate differently. Even the wolverines and polar bears can attack caribou. He also thinks that there are more polar bears nowadays.</p>	Population Trends
10	<p>He has seen that muskox are to caribou and because of the forest fires that's been going on yearly he has noticed more grizzlies close to the town and coast of Hudson's bay. There used to be less wolverines, back then. Now there are lots of wolverines also. He is sure that the cause global warming because he has seen many animals: muskrat and marten, animals from the south are coming further north.</p>	Threats
11	<p>Last year, there used to be no moose around, nothing. Last year we saw a moose not too far from town. Around 20 miles. They are being sighted more and more.</p>	Threats
12	<p>I believe this elder that the migration routes can change, affected by the predators, and I have heard that from an elder before that if you see this hoof of caribou, there are 2 vents (little sac?), when they migrate they make a route. Caribou have followed this path. That's what I heard from another</p>	Threats; Migration

	elder. They have a little thing on the hoof, it has a scent that the caribou use to get its sense of following the path.	
13	Elder: When there is a migration the caribous have also have a scent, that is when we see a caribou sniffing, because the route or migration path. The last herds of caribou tend to sniff the surface to find the path of migration. The last herd of caribou often have to smell the scent to follow the path of caribou.	TK
14	I am a hunter, in the early 90s this time of month we go up wolf hunting. I know that at that time. I was to go to Anada (?) lake area, there would be a whole bunch of caribou in that area in March/April but nowadays they aren't like that anymore. But when we go to Baker Lake area, there is a big pack of caribou for wolf hunting. We have a road going up now, they have changed their migration route now. We have to go pretty far up now. But still I cannot say that they are declining. In the wintertime the lower south of Arviat we could see many hundred there. They are not together now, they are scattered all over the place now.	Population Trends; Migration
15	<p>Within the herd there is also groupings of caribou. This road to Maguse, people have access to this road and it is a lot faster now, the way of hunting nowadays is agility. When we go hunting we speeding very fast, trying to outrun the caribou. During the fall, it feel s liker there is a frontline where the crossing line of caribou are being affected more and more. That is why the migration route is further west now. Because of this road and people having access. Speed is a factor. They can also try to outrun the caribou. People here and there having access to a caribou, it doesn't know where to turn. Before the road, people travelled nice and slow taking their time. They tried not to pitch their tent where the caribou crossing path is. I think there is more cabins along the Maguse road. That is why I think the route has changed.</p> <p>Where is Maguse Road? 32 miles West of us, we travel northwards first and then straight west. Maintained gravel road, is 80 km from start to finish. At end of it, mini Arviat up there, 50-60 cabins. In August long weekend the population is larger than Whale Cove. There are ATVs, trucks, cars etc.</p>	Threats
16	<p>When they find out that caribou are there, do a lot of people go out?</p> <p>Yes, using the radio people listen and hear when people go. Sometimes people go out 2 days before the caribou get there. That scares the caribou and changes their migration path</p>	Hunting
17	Elder: He is familiar with this migrating caribou. Sometimes this group migrates this path. There are some small herds crossing by. When there is a migration going on, it can be not all the big herd at once there can be many smaller herds.	Migration
18	There is a noticeable change in climate, but there is also new species coming up and muskox are closer to town than they were 10 years ago. There is also more grizzlies and more wolverine. At the same time more hunters are harvesting grizzlies and wolverines. When we had our presentation, the last	Threats

	survey 2014 close to the time when a lot of grizzlies were being caught and the # calves went up so that is outdated already. My feeling is that the # of caribou is not a noticeable decline there is still a lot out there.	
19	GN: We finished a survey in June. From 2014-2017 no noticeable decline. Stable. Haven't changed much between periods.	Research
20	Why is the herd around Hudson Bay, being lumped with all the other herds that are in a big decline. When the Inuit here don't think there is a large difference. We know people in Saskatchewan are harvesting too. At the same time the number of caribou is still stable. Why are they included in the overall threatened status?	Designatable unit
21	GN: Why is this group included: the 1994 estimate was high compared to the more recent estimates. That drop is the reason. It's showing the beginning of the decline. It is doing better than many of the others but still shows signs of decline.	Trend
22	Elder: one thing he knows for sure, this group has migrated way way south. They have to come back to their calving grounds. Some of this group doesn't make it to the calving grounds. The migration starts this cycle again. During migration it could be they don't reach it again then migrate south again. Could be using the same migration route but calving grounds are shifting. This could be affecting them also. Not only caribou have this affect, the weather could affect them seasonally. If there is a long winter one year and the caribou or snow geese for e.g. when the snow is just right and when there is less snow they tend to lay eggs earlier or calve earlier. Weather could play a part in this cycle. If long winter they have less time to have their calves. If short winter the geese and caribou have more time	Threats
23	I can say one thing: right now, even way back before in Arviat we have this culture, the elders and the young they pass on their knowledge. The elders tell them not to waste any caribou. It's still used today. The type of bullet we use, some people don't know the type of bullet, when they are out hunting when they use the hard point bullet in one shot we can accidentally shoot another caribou without knowing it, and this caribou keeps walking and dies without us knowing it. We respect our elders. The type of hunting is changing. We have more speed, more types of bullets. I try to share this knowledge to the younger generations. At my age, I think we are the last generation to have the mutual respect of the elders. It is a fast growing community, changing more and more, this traditional lifestyle has been going on and we have changed quite a bit.	Way of life
24	Elder: By boat or the land, we have changed. We can travel faster during the hunts.	Hunting

4	Who puts the collars on the caribou? It's not harmful to the caribou to have collars? Some polar bears have collars and look like they are starving.	Research - GN
5	Trend graphs end at 2013. From 2013 to now, how can we find out how they are doing? A: new info will be added when the Recovery Strategy is developed	Research
6	More wolverine here and eagles. We see a lot of eagles around here now. Wolves.	Threats - Predation
7	Muskox and caribou herds don't mix. They don't like each other. Where we have our cabin, we rarely used to see muskox and now we see a lot of muskox and less caribou. We do see the muskox more now than we used to.	Threats - Competition
8	Late grandfather's story: Used to tell me 70 years ago lots of muskox hardly any caribou, Then the opposite, 70 years later muskox are coming, caribou are going somewhere.	Threats - Competition
9	An elder from Rankin said animals disappear for a while and then a few years later, they will come back again, That is how it has always been. Since their time. By looking at the trend graphs, I think that's just how it is with animals.	Population cycling
10	I was here when elders have talked about their knowledge and skills and I was listening to this elder last night too, he doesn't think that the weather is warming up Maybe it is on the other side of the world, but not here. It sure was cold here this year.	Threats - Climate Change
11	I was down in Montreal for climate change summit: northern Quebec, James Bay they have been hit pretty hard with climate change, Our lakes are getting shallower and shallower, rivers same thing	Threats - Climate Change
12	1.5 years ago went caribou hunting with my dad, 300 caribou there, but there was lots of bot flies	Threats - Insects
13	There are always bot flies on the caribou.	Threats - Insects
14	1.5 years ago in the fall, noticed the hooves were swollen. Brucellosis. There is brucellosis everywhere.	Threats - Parasites
15	Been here my whole life and hardly ever seen that.	Threats
16	Elders were saying that the swollen hooves were from walking around too much. Wonder if it could be from the mines too. Crates: there are lots of different kinds of bugs coming in with the crates from the south. Wasps, yellowjackets we see them a lot now, they are coming in from the barge.	Threats
17	Would insects cause all of that in the caribou, would they cause the diseases? If they were living with a wound, would it grow in the body?	Threats
18	I wonder if it has something to do with the water.	Threats
19	We were on water advisory for the last 4 years. Water supply is from reservoir. We got landlocked fish. When it was going to be a reservoir they tried to fish it out, but it got worse. Tried to do a contract to fish out. But they are trying to save them so we can have less water. They were saying not enough fish.	Threats
20	I wonder if it has anything to do with the sea	Threats
21	Caribou here eat seaweed. Naujuuat caribou tasted awful. Repulse Bay doesn't have seaweed. Coral Harbour caribou eat lots of seaweed.	TK

22	Recovery strategies: Does it also mean that we are not trying to stop us from hunting?	Recovery
23	From now until October this year, are we getting information in regards to that more or is this it? A: This is it.	Process
25	Who was telling us about the Rob Harmer and Mitch and Keenan, they were talking about the caribou. They had concerns of caribou not getting pregnant; they said that was because of some disease or something.	Research
26	There are 2 types of caribou species mixing together, Lorillard?? Near Repulse Bay The Lorillard herd is one of the herds included in Barren-ground caribou.	Designatable unit
27	If there is a public hearing with NWMB, maybe that is where they can provide comments and suggestions and options.	Process

3	<p>Listing the BGCA, is this for all the caribou herds in Canada? Is the BQCMB part of this COSEWIC review or no? The reason I ask is because I am sitting on the BQCMB board as a Kivalliq rep and we haven't seen this kind of information yet. GNWT wants to list caribou as threatened.</p> <p>A: We will be having a meeting with BQCMB later this year. The GNWT's Species at Risk Act</p>	Designatable unit
4	<p>Has the caribou gone through the special concern stage already?</p> <p>A: A species does not necessarily have to work its way through each stage of risk. For example DUCA were assessed and listed as Special Concern, but then were reassessed and listed as Endangered. They skipped the Threatened step.</p>	COSEWIC
5	<p>I would like to suggest, you know under the species selected stage. Capacity building at this stage. That is something that a lot of us would like to see and hear. I don't know how far back there was consultations/community meetings etc.</p>	COSEWIC
6	<p>Where does COSEWIC get their list of species? And when was caribou put on the list?</p> <p>A: Any Canadian can propose that a species be assessed by COSEWIC.</p>	COSEWIC
7	<p>Curious, if any of the IQ was included or considered in these steps. Some of us here feel that IQ should be taken more seriously. They are the eyes and ears of our area. It is what is happening at the actual time and collection of data.</p> <p>A: NWMB is included in the COSEWIC process. Part of why we are here is to learn what discussions the board would like to be included in.</p>	COSEWIC
8	<p>For the listing, are they all lumped together?</p> <p>A: All BGCA herds in Canada are considered together.</p>	Designatable unit
9	<p>I wonder as well if it would not be more democratic if you had an option from COSEWIC for these guys to get one more kick at the can before it goes to the final report stage. Because then these people would have all the comments on the draft report stage. Curious wondering if the government has ever thought of adding a loop to ensure that these guys (partners) have another opportunity.</p>	COSEWIC
10	<p>Just wondering if there would be multiple chances to throw around ideas before final decisions are made. Multiple kicks at the can so to speak</p> <p>A: The COSEWIC process is the first of many steps. There are other opportunities in the listing and recovery document writing stage that provide an opportunity to provide comments.</p>	Process
11	<p>Mayor: How many people sit on the COSEWIC committee?</p> <p>A: This depends on the subcommittee</p>	COSEWIC

12	<p>Chair: The Terrestrial subcommittee, are they the same type of subcommittee that decided to list the western HB polar bears. Western science and IQ don't match up at all. Western HB Polar Bears are not declining at all, they are all just moving elsewhere. So to come onto our land and say that they are declining as well. Not well received. We are inland, we don't have the luxury of having whales and seals, we depend on caribou as our main source of diet.</p> <p>A: This is why we are here, to learn whether the board agrees or disagrees with the decision COSEWIC came to, based on the information available to them. If you disagree with the status of the caribou population, we would like to know.</p>	TK vs. Western Science
13	<p>Do you have any other staff sit on COSEWIC group? Elders? Because these elders are considered IQ scientists by many communities, they have a lot of knowledge. To not allow them to sit at the table I think we just want proper representation.</p>	COSEWIC
14	<p>Are ECCC or COSEWIC, are they going to be the one responsibility to develop a management plan?</p> <p>A: ECCC will write the plan in cooperation with any and all communities / people that will be impacted by the listing.</p>	Recovery
15	<p>Once the process starts, we have to go through the whole thing? We can't get out of it at any point?</p>	Process
16	<p>Do we have a timeline how long this cycle will take? Where you will have to do another assessment?</p> <p>A: Species listed as Threatened, we have 2 years to write the Recovery Strategy. So it depends on the status of the species how long the recovery planning stage will take. We need to include a lot of HTOs and groups in the recovery plan, so we anticipate this will take some extra time for BGCA.</p>	Process
	<p>Who decides what is involved in the planning?</p> <p>A: A lot of decisions about what this document looks like it is made by ECCC in cooperation with everyone at the table.</p>	Recovery
17	<p>I see the Porcupine herd going into Alaska, how are they included?</p> <p>A: there is an international committee to manage Porcupine caribou</p>	Recovery
18	<p>Southampton caribou were imported caribou in the 1970s. They are from the mainland. They imported the caribou before from the mainland.</p>	Designatable unit
19	<p>COSEWIC, how many subcommittees are there?</p> <p>A: Their website lists all of the committees and who is sitting on each committee. There is a nomination process.</p>	COSEWIC

	<p>Follow up note: see https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife/organizational-structure.html</p>	
20	<p>Do we have a graph for each herd? (like the 6 in our presentation)</p> <p>A: These graphs represent 67% of BGCA, we can send along graphs for the other herds if they are published in the report</p> <p>Follow up note: See Table 6 in https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife/organizational-structure.html</p> <p>Did this information come from the GN?</p> <p>A: Yes, from the GN and anyone else who has conducted BGCA surveys</p>	Trends
21	<p>Would heritage rivers qualify?</p>	Prohibitions
22	<p>I just read an article about a study done about the BGCA, they found that aboriginal subsistence harvest plays a very very minimal role in the decline of BGCA. So there are other things that are affecting the decline more so than harvest.</p> <p>A: I think this was Woodland caribou in the NWT. But you are right, that is what they found.</p>	Harvest
23	<p>Critical habitat: Could be calving grounds, migration routes, stuff like that?</p> <p>A: Yes, exactly. These decisions happen later in the process</p>	Recovery
24	<p>In the Recovery strategy stage, is there any type of funding or grants that can be associated with the strategy or for education purposes?</p> <p>A: Not sure, we would be trying to bring people into meetings and travel to communities. We are hoping that these sessions will let people know what is in the document and that local concerns are included. Will give additional changes for communities to add more local perspectives.</p> <p>As per my experience with PECA and DUCA, no.</p>	Recovery
25	<p>BGCA proposed listed as Threatened. Have you met or consulted with leaders in NWT?</p> <p>A: NWT had a different set of rules to differentiate herds. Assessed Porcupine as Not at Risk and the rest as Threatened. We spoke with them in the fall. We will be in the Sahtu next week. NWT still has until Oct 22nd to provide feedback.</p>	Consultation
26	<p>Where do we find or see the Recovery plan?</p>	Recovery

	<p>A: Would only happen if the species is listed.</p> <p>Follow up note: When it is written, the plan will be posted at http://www.registrelep.gc.ca/species/speciesDetails_e.cfm?sid=1341</p>	
27	<p>You have a lot of area and a big job ahead of you. We share a number of herds with our provincial and territorial neighbors. So I think if we want to start protecting our herds, first off we need to see what is in their migration corridors in the spring and fall. I realize it is a large area, but just to make sure they aren't being stopped by exploration camps or whatever else. The other thing is we need is to see more traditional knowledge and hunting practices. We need to start educating our own people now. There are lots of young people now starting to learn, They are trying to survive in a different world. We need to teach them the traditional hunting skills. That should be considered. The practice has always been to preserve the animal, we are a part of the animal and land cycle. Take what you need, things like that.</p> <p>A: Both PECA and DUCA recovery strategies have discussed hunting practices.</p>	TK
28	<p>Another thing the federal government has to do is revisit their northern policy. They should look at more closely at building capacity. What if we had stations across their winter areas? I think it is overdue and badly needed. If we learn these things we can start helping other people.</p> <p>A: We will put this recommendation forward to our management</p>	Consultation
29	<p>Especially today, Baker Lake being the center of all this restricted hunting. Yellowknife, restricted also Baffin and Southampton. This will have a toll on our caribou.</p>	Prohibitions
30	<p>Not only that but also our food source. Food security issue as well.</p>	Prohibitions
31	<p>Because I know a lot of caribou are being shipped over to Baffin.</p>	**
32	<p>About monitoring the caribou, especially in the migration corridors. We haven't seen the Q herd reach the Sealon river in over 60 years, it's been a while. Something is happening, something is stopping them, and they don't reach us anymore. We have seen the effect of activities here in the community.</p>	Migration
33	<p>Do you think that the caribou have declined?</p> <p>Changes in migration routes and stuff like that. Hard to say, sometimes they seem to disappear but then they reappear, Up in the air for me personally</p> <p>Can't say they are declining, because they go in natural cycles. Our ancestors never saw them for a long time then they came back. I think their food source is changing, their migration routes are changing, forest fires. (Provided an example of the Ahiak). When I first joined the board, most were elders. Back</p>	Decline

	in the 1970s was rare to see wolverines, now we see them in town. The environment is changing on them.	
34	<p>Are you seeing more predators?</p> <p>We are seeing some weird animals. Wolves, wolverine, etc.</p> <p>A lot of caribou being caught with brucellosis. Is there a # our there with how many caribou are affected with brucellosis? What are the causes of caribou mortality: disease, predation, exploration? Can you provide the numbers of known cause mortalities?</p> <p>We can ask the GN</p>	Threats
35	One thing about TK, the approach is holistic. That is why I think we want to see what other data there is about caribou fatalities.	TK
36	Any technical or monetary support for us? Equipment etc. We can ask the GN if there is technical support available	Support
37	Please ensure IQ has proper representation at the different tables.	Consultation
38	Elder (James): Thank you for coming. But he has concern that at this stage in the process that you come here to talk as it had already happened. We didn't have a chance to be involved in the beginning. If Canada is going to do this kind of work, then they should come to us right up from so that aboriginal communities are involved right from the start instead of halfway through the process.	Process
39	Elder (James): There are a lot of elders with a lot of knowledge on all kinds of animals, if you were to look at an unhealthy or healthy animal, they know which one is healthy. I myself used to hunt, I know which is healthy and which is not. Today the knowledge is passed down to younger generations. They know which ones are sick and healthy. The knowledge is passed on.	COSEWIC / ECCC
40	<p>I agree with what James has said. There is some concern with the process. You think that the community would want to be involved in the COSEWIC report. It feels like it is take it or leave it, we are not included. Before we get to the stages. Feels like decisions are being made from afar. There are some concerns here that we need to be involved in the drafting of the report. What our concerns are about the caribou. How they get involved in the process, in the timing.</p> <p>They are engaging with WMBs, they are meant to be representative of their region. It is supposed to be a high level look at the species.</p>	COSEWIC / ECCC process
41	We should have been involved before it became a draft report. There needs to be a window for early involvement before it becomes a draft.	COSEWIC
42	It would have been nice to be involved right at the get go. We want to know what kind of data is going in to the draft report.	COSEWIC

	about 5 years ago? I don't know if they did any tests. Right now the caribou seem pretty good and that's not around very often.	
7	<p>ECCC: Have people noticed changes/ increases in predators in the area?</p> <p>We seem to have much more muskox coming in and more wolves and wolverines. Wolverines didn't used to be around very much but now they are. Grizzly bears too. There were 2 wolves harvested this week. Last year 2 grizzly bears were harvested close to town. Grizzlies are coming close too.</p> <p>Maybe it's because there is more muskox coming into our area here. Based on the IQ, muskox and caribou cannot mix together because they get diseases easier. Maybe that's why the caribou had gotten diseases. Some elders thought maybe they were eating grass close to wolf droppings on the land.</p>	Threats– Predators, Competition
8	So if Barren-ground caribou are listed, we will be managed like Baffin is?	Prohibitions
9	<p>Would like to include: Before when caribou were migrating from Rankin area. For so many year they were caught coming from Rankin. Elders always said to leave the first herd, there will be a second and third herd. A lot of people weren't listening though, and the caribou stopped coming. But now, last fall lots came around here. It's better now. And now finally they are migrating back this way. 5 years ago it was worse and now it's better. They might say the caribou are at risk but they are just not coming back to the same areas. It can be climate change, maybe some of the changes are due to climate change but it's also people catching them. In my opinion, the population is healthy. They weren't around but now they're back. That is the reason why there are more wolves, grizzly bears and wolverines around. Because this is their main source of food, the caribou.</p>	Trends
10	It's a small community with more caribou hanging around this winter. We think they are increasing. We haven't had that in 4 or 5 years. This is the first time we've had caribou around in this area in the winter. We have seen them walking on the road and across on the bay in the winter.	Trends
11	Who are we visiting? What communities? Is it likely that there will be a regional meeting held?	Process
12	<p>Do we just do this with the HTO or do we have public meetings? Should meet with the public in the evening if you have time.</p> <p>I agree, because elders have a lot of concerns. I always remember what elders say when they share information. Last year it was a lot of mice and lemmings, but next year it might decline. The year before that it was a lot of ground squirrel. This year it seems like a lot of caribou. Each year is a new animal. In some years polar bears decline and some years there are more. It's like a balance. There are a lot of hunters and elders out there who have good information.</p>	Consultation
13	I think there will be a regular meeting on this material. So we will probably have a decision then, when we have a full board. I think there will be a lot of concern about predators like wolves, wolverines and grizzly bears. They are	Predators

	the major cause of decline in caribou. People will probably say, let's try and get the population of wolves down.	
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Qikiqtarjuaq

Consultation meetings on the proposed listing of the barren ground Caribou as a threatened species under the federal *Species at Risk Act*.

October 22nd - 24th, 2018

Number of attendees (HTO meeting): 7 board members

Number of attendees (community meeting): 17

Environment and Climate Change Canada (ECCC) Representatives: Syd Cannings and Nute Arnauyumayuq

NWMB representative: Kyle Ritchie

Summary:

- ECCC met with the HTO board members in the afternoon of October 22nd for a discussion on what was going to be presented at the community meeting. HTO board members expressed their concerns about the harvesting restrictions and mentioned they want to collaborate to see the caribou population increase again.
- A joint public and HTO consultation meeting was held in the evening of October 24th. ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- HTO and community members mentioned the helicopters from mining companies were an important threat to the caribou. The wolf population are also an important threat to consider.
- Some strongly believe the caribou will come back on their own. They migrate long distance and undergo natural cycles of population density.

HTO Meeting Questions/Comments:

Chairperson: Any question or comments to Syd?

Luuasie: Referring to when they were monitoring the polar bear using helicopter and the mining company traveling with helicopters looking for minerals they are scaring caribou away, therefore the caribou has move on to another location.

Jaypeetee: Are caribou in Baffin Island in the SAR now?

ECCC: No, they have been assessed as *Threatened*; we are now asking you if they should be added to the species at risk list? After visiting the impacted communities we will be handed our finding to the Minister. The consultation part of the process will continue until March.

Jaypeetee: The caribou moved from Wager Bay area to Baffin Island. They migrate back from Baffin we can see in the old Dew-line site the old tracks were heading back to Wager Bay. Near Fox 2 dew-line site the helicopter was traveling back and forth 3 times a day. I travelled from Iqaluit to Qikiqtajuaq by land and when we got closer to Qikiqtarjuaq area there were no more caribou tracks.

According to the elders' knowledge, the caribou move on to other locations when they have eaten all the vegetation in one spot. Also, before the helicopters were flying around in the area the caribou were more relax in that area. It is known mining companies were chasing the caribou to scare the caribou off from the area 3 years later there were no more caribou.

One person from this community moved to Hall Beach, and when he ate a caribou meat he noticed the taste was from the Baffin Island caribou. They migrate, so they will come back. How are we going to increase the caribou populations? We can use funding to transfer caribou from Southampton to Baffin Island to increase the population. Bring back the caribou and monitor them for a few years.

ECCC: There is funding available for listed species, and from all the species at risk in Canada the Caribou is in high priority.

John: Have you heard efforts done by Baffinland mining company to mitigate their impact on the Caribou? The mine road, from Pond Inlet all the way to the mine, may have cut-off the caribou migrating trail.

ECCC: I assume they have biologists working on the different issues related to the mine, but I'm not totally aware of what is being done.

Chairperson: our ancestor's hunting grounds are still visible, the caribou hunting ground landmarks are within the migrating caribou trail, and when the caribou has eaten-off the vegetation they move on to another area and will be back to the same area. In addition, they do have a good sense of smelling to a certain extent, if they hear a loud noise they intend to run away from it. Northern Quebec has caribou and Inuit from there could go caribou hunting by helicopter or airplane. These could also cause problems for the caribou. In some area there used to be many caribou but now they have moved on to other area because the polar bear population is growing and scared the caribou away. We'd like to help you find out how to bring back the caribou population. Our total allowable harvest is only 27 caribou for the whole community this gives us concerns.

ECCC: HTO concerns and recommendation will be presented in our report to the NWMB for their meeting in March 2019.

Chairperson: I think there will be more input given to you from the Public meeting. But be aware some individuals may not want to understand. In addition, the wolves are scaring them away and hunt the caribou for their food also, when the wolves do not have food they also move on to other area.

Community Meeting Comments / Questions:

Community member: Is it Government of Nunavut who asked to do the consultation?

ECCC: No, the Canadian Wildlife Service is responsible for the consultation process.

Community member: Why the consultation is not directed first to the Government of Nunavut?

ECCC: The government of Nunavut will be involved at some point in the process; they are kept informed of our consultations.

Community member: I understand you are here to inform us that caribou population are decreasing. It has been expressed that the caribou move away from the area but will be back to the same area later on. The caribou population are not decreasing. With Inuit knowledge they are not decreasing.

ECCC: Thank you, and yes we heard that with the HTO as well. The analysis was done with limited surveys, and we know they migrate so it is possible that the caribou will come back.

Community member: According to Inuit knowledge every animals do decreasing in population. Nowadays helicopters are flying around and we have heard from fellow Inuit the helicopters are scaring away caribou. Therefore, we Inuit do not know what we think about the cause of this decline.

ECCC: The traditional knowledge is supposed to be included in the COSEWIC report. I don't know to what extend it was included for the Baffin Island region, but I know in the NWT it was included for other herds. All the information that you give us today will be noted and could be use when the re-assessment comes.

Community member: The NWMB should hire a researcher to monitor the helicopter movements.

ECCC: I do not know the regulation up here but in the Yukon they have regulations to follow.

NWMB: I do not know but I can check when I am back to Iqaluit.

Chairperson: We have seen the declining caribou in the area also but, we do not know about other communities.

ECCC: One of the concerns is climate change; it is affecting other area as well. With the climate change it is hard to predict what is going to happen to the northern ecosystems, and other species at risk.

Community member: when I was a child we were told not to hunt caribou because the caribou population was declining but years later the caribou came back and we were able to hunt the caribou as much as we want that happened when I became a man. In the past, hunters would say the caribou are preparing to move away to other area, and yet they started migrate back to other area.

ECCC: Thank you, we would be really happy to see them back and we certainly hope so. In the future, we'll see what happens with their populations. Thank you for the Inuit Qujimajatuqangit (IQ).

Community member: I participated once in the survey of the caribou, I flew and counted the caribou in the area that needed to be counted, but there were no caribou. We couldn't go where the caribou were to count them, because we had to follow only identified area.

ECCC: Like I said, the COSEWIC report did his recommendation based on the best available information. I agree that the surveys were very limited, mainly because it's vast area and it is very expensive to do.

Chairperson: Any more questions? Comments?

Meeting adjourn: 8:35

Pangnirtung

HTO and Public meetings on the proposed listing of Barren-ground caribou as a threatened species under the federal *Species at Risk Act*

December 3rd 2018

Environment and Climate Change Canada (ECCC) representatives: Syd Cannings, Miriame Giroux-Paniloo

Summary:

- ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- Individuals shared their interest in ensuring the conservation and continued opportunity to harvest barren ground caribou.
- The community highlighted the need for continued communication and engagement. A feeling of being disengaged was shared.
- Interest in having GN caribou biologist was emphasized to better inform the consultations.
- Community members expressed the need for Inuit knowledge to be valued in making decisions about caribou.
- Some community members indicated that they don't necessarily believe the population numbers, and that the caribou aren't threatened. Some issues with the population numbers included the possibility of caribou moving or not returning to the same calving grounds and therefore being missed by the surveys, or being scared away by the survey planes and helicopters.
- People were concerned about predation from wolves, and noted seeing increasing wolf numbers. A bounty on wolves was suggested.
- There were concerns raised about the possibility of some communities not respecting quotas when multiple communities are harvesting from the same herd. There were also concerns about selling caribou meat and about the male/female ratio of quotas.
- General consensus from HTO that they are willing to work with the government to protect the caribou.

HTO Meeting Comments/Questions:

HTO member: We don't speak for them, we don't speak for the caribou.

HTO member: Some people think we don't see the difference in the population.

HTO member: You shouldn't be not leaving them alone, you have to keep on doing your job. Every year, keep watching them. We would have more information. You can't just leave them sometimes.

HTO member: The people we are trying to work, NIT we are trying to work with them. We want to respect their powers. We don't want to see or hear that these caribou are endangered.

HTO member: Maybe there should be someone (in the consultations) who is familiar with the area or from Nunavut; Inuit staff or Wildlife Conservation officer.

HTO member: The committee that assess these caribou who are they?

HTO member: I always support that, I don't want to see caribou go.

HTO member: There are a total of caribou we can hunt. We are trusted as HTO to listen to the quotas. Then we are told there's no more to hunt. There is a quota of 31 in Pangnirtung

HTO member: My friend is a hunter and I asked if he is still hunting caribou. He said, yes I hunt caribou. Do you have a quota? Yes

HTO member: With the help of environment Canada, Those communities need to be assessed. The communities that don't have quotas. It needs to be the same in all the communities. It's not their fault, and if they don't have an HTO

HTO member: You have to be aware of these communities. That don't have quotas or do not respect them

HTO member: Work with them. We don't want the decline of caribou. Everyone has to listen to the HTOs.

HTO member: One community a man spoke out openly about that he wants a different HTO that will lead and guide them. So that it's better.

HTO member: Where are our notes going?

ECCC: Notes will be shared with NWMB and the Minister.

HTO member: The over harvesting in Kitikmeot and Kivalliq should stop. They sell lots of caribou meat. There should be a quota for them too. Their caribou might go in decline if they keep overharvesting. Talk to the government about it.

HTO member: If one community is overharvesting and other communities follow the quotas, it if not okay and it messes up the process.

HTO member: To support or keep the decline from getting too low. We are told we are only to hunt the male caribou, in the past, in the winter, I didn't know this, in the winter time if it's a male or female caribou I didn't know.

HTO member: We need to train more people to know if it's a male or female. Many people don't know the difference maybe they need to develop something, like they do for polar bear. Put posters up? We can identify them to help with this.

HTO member: Why they didn't ask a wildlife officer to come along, so they will be able to answer the questions.

HTO member: General consensus are that they are willing to work with the government to protect caribou.

Community Meeting Comments/Questions:

Speaker1: Since Baffin Island had less caribou. How is it today?

ECCC: There is poor information on Baffin, at the moment.

Speaker 2: But us, following our ways or our culture. Today we have more caribou. There is more sightings

and foot prints. We do not always believe the numbers that are taken of the caribou. There always moving. The qalludnaats and the Inuit knowledge, which one do you believe? We have been here for thousands of years. We feel that the caribou are not threatened. He knows that he cannot say that they are threatened. When he was young, there was less caribou then now. If there are too much caribou, they won't be good to eat. One time there was lots (of caribou) here and they started dying on their own.

Elder 1: We were expecting you to come in October, but you did not come. As I am a hunter like them. Since I was a kid, there were less caribou sightings. My grandparents would hunt here in the summer, they would be hunting. Where this building is, right here where we are. The wolves are here too. The wolves have to be taken care of too. We ask the scientist to shoot the wolves when they are in the helicopters but they say no even though there are too many wolves. Sometimes I track caribou, I follow the tracks and see that the wolves have gotten there first.

The caribou are being lead away by helicopters, into different directions and just away from them. The caribou hated the helicopters. We all know that caribou walks a long distance. Our ancestors were caribou hunters. That's why I don't believe that caribou are going extinct. There has been more tracks and I'm very happy about that.

Elder 1: You say that they are threatened, in Inuktitut if you say the word threatened, it as if someone is going to throw a rock at you face or you might die, that is what it means in Inuktitut, and for that I do not think that the caribou are threatened.

ECCC: There has been a lost in translation but we do not mean like that.

Speaker 2: Quota should be changed regarding the rules of harvesting in certain amounts of females and males. Different things should be heard from the communities and things could be adapted to be understand what the hunters go through.

Speaker 1: It seems we can't really go much further. We might be treated like criminals by the RCMP. I encourage you to speak up now so that we have a say. If we don't speak up now. It might be made for us. The decision, laws and quotas imposed on us without our permission because we did not speak up now.

Elder 2: During the 1950's the caribou went away from this region. Talk about the region between Clyde River and Pangnirtung. Talk of Netsilik Lake. The RCMP would come to count the people and the animals, along with their other information. My mother would hide our caribou calve skins in fear of the RCMP. Those were our clothes.

My father would go really far, a long ways up from we were to look for the caribou. Sometimes the caribou would move around and we would move around with them. The bull caribou were fattening up at this place and they were waiting for the females.

Speaker 3: The wolves can have 7-8 pups. They used to have bounties for wolves. Maybe they can apply for funding so that the hunters will be paid for getting wolves because there are so many in this area now. He went to Netsilik Lake, and there were many wolves. You have to look after the wolves because there are too many.

Speaker 4: I believe what the other man was saying. In Inuit Qaujimagatuqangit, we don't believe that the caribou is declining. Right now the male caribou aren't doing good. We must just take what we need. We don't want the caribou to be disturbed by scientists. When these things come up, Inuit knowledge should be valued. IQ knows the tuktu(caribou) won't go away. The white people are taught to dominate the Inuit.

Speaker 5: It's too far and in between, too many years from when the research is reported and when they come back next. They need to come more often to make sure the studies and readings are accurate. Maybe there should be a shorter intervals between research. We need better communication when they come in. When they come in to do research they need to listen to the Inuit and scientists together. One half of the population was not counted from here to Pond Inlet. The other year when there was little snow, you can see the land more. The caribou change colour with the land. So they are hard to see. From helicopters and planes. Maybe the scientist missed some for this reason. Maybe Inuit can be the researchers. Can count or help scientist find the caribou and use Inuit Qaujimagatuqangit.

ECCC: There are funds available for this kind of thing. Inuit doing programs.

Speaker 6: We all believe that wolves are part of the picture. You said you were from the Yukon and we used to see the decline of caribou from there on TV and hear about it. Now they are doing better. What was done there to help the porcupine herd? We are the same here, our caribou are going down. We watched the movie about wolves about there too. How did the wolf control affect the caribou?

ECCC: There was wolf control there but I don't think that it helped.

Speaker 7: And the government also says that the caribou are also struggling. When the Pangnirtung quotas were done, we didn't touch the caribou. Communities that hunt the same herd don't have quotas, how does that work? Some other communities don't listen to their quotas and it affects us all. Even though we don't have a wildlife officer in Pangnirtung, we listened to the quotas. Those communities need to be monitored and put quotas onto them if it's the same herds that aren't doing so well.

Speaker 8: There was a few caribou dead. In 1990, 2 million. Right now eight thousand?

Speaker 9: When caribou are on Kugluktuk or in the Yukon. Maybe the caribou are going that way.

Speaker 10: There was a lot of land mass that was missed.

ECCC: Yes there are gaps. Yes where the females have their calves are the only places that they count them.

Speaker 2: I just want to add again. Ever since there was research done, anything that researchers do research on, they are all declining. All the animals that they are researching seem to be declining. That's how much they believe in their research. Even though they are not here all the time and haven't been. Inuit have been here for a long time.

Some animals, like caribou are scared easily and the helicopters and planes might make them go away and hide from them. They might not go somewhere where there are planes or helicopters that go there often. There should be more funding for Inuit to do programs and research, because we never get funding. The

scientist and research always gets funding but we don't.

Speaker 5: Is it a little too fast? There are blind spots. (The research)

Speaker 11: The caribou that have been put in collars, where do they go the farthest or did they go through water? I only ask because I am wondering if they go to the Québec side or the Kivalliq side.

Previous speaker: How many calving grounds are there in Baffin Island?

The caribou don't always go to the same calving grounds, even along the coast they can have calving grounds. We see them with their babies. They have their calves anywhere and everywhere.

Speaker 11: To add also. The Baffin Island and up North, it's not an area for caribou in the middle of Baffin Island. The rocks are sharp. The qamutiqs and snowmobiles can break, the skis or runners wear out there. So if you go counting there you must know that. That is not an area for caribou, so there probably won't be lots around there.

Speaker 2: Also wanted to add. We are talking about caribou December 2018. You might come back or the caribou might come back. Maybe the caribou will be back December 2028. We might have another meeting like this and say the Inuit were right.

Previous Speaker: You said that there are funds/money available for us Inuit, to apply to for research or programs. Where are these funds?

ECCC: There are several funds available. The Aboriginal Funds for Species at Risk. It is available for Aboriginal groups. There are a lot more money pots. New protected areas. Dawn can tell you more about the funds because she is in charge of the funds. There will also be more new funds in the next few years.

*An idea was brought up of regions sharing the caribou meat, wondering about something to have other regions send some to Baffin Island, kind of like a food subsidy program. Speaker said: I just wanted to put that forward to be inputted in the future.

Previous speaker: But the people who work on this are not here tonight. They should be here.

We want a healthy caribou population. We don't want too much caribou. It is unsightly when there are too many. They die everywhere. We want a big population but not too many.

Elder 1: Are you going community to community on Baffin Island?

ECCC: We are going to most communities in Nunavut.

Elder 1: We don't want to see or hear that the caribou are threatened or extinct. Thank you.

Iqaluit

Amaruq HTO Meeting on the proposed listing of Barren-ground caribou as a threatened species under the federal *Species at Risk Act*.

October 22nd, 2018

Number of attendees (HTO meeting): 7 board members

Number of attendees (community meeting): 24

Environment and Climate Change Canada (ECCC) representatives: Syd Cannings, Miriame Giroux-Paniloo and Susanne Emond

GN representative: Alden Williams

NWMB representative: Kyle Ritchie

PCA representative: Peter Kydd

NTI representative: Paul Irngaut

Summary:

- ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- Community and HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou and the decision-making process.
- They would also like to be involved in the scientific research. The survey methodology is not clear to them, and they believe a herd-by-herd assessment would be much more relevant. They believe the caribou populations are going through natural cycle and will eventually go back up on their own.
- Many were worried about their harvest rights and would like to see investigation on other threats like predation, industry and impact of research.

Comments/Questions:

- Defining Barren Ground Caribou. Because there are so many different kinds of Barren Ground Caribou. People say that you shouldn't put them all in the same category. Maybe putting them into different categories would be a better solution.
- Questions how SARA counted all the caribou, with different regions. More information should be given about the details of how the different regions are calculated. Explanation with the map would be helpful.
- Each herd should be looked at separately.
- "What are the impacts on Inuit and what are the benefits?" is a question that should be researched and answered in the presentation.
- Point: Kivalliq and Kitikmeot regions are not threatened, general consensus on that point.
- Will Inuit economic gain be affected by this act? Explanation in presentation recommended.
- Emphasis on the long term cycles of caribou that SARA might not be aware of that elders are.
- Knowledge from elders is important and essential in this consultation. They have more knowledge of the land than all of us and they will not be here forever. When they are gone they are gone. The scientist will still be here with their knowledge, but the elders will not be here forever and need to be documented and their opinions and knowledge held to importance and highly considered in reports and decisions.

- Adamie's uncle, who is 100 years old, went through two cycles of caribou and he has knowledge that none of us know. His knowledge and opinion should be highly valued. Consult elders.
- The elders brought us here, where we are today and we wouldn't be here without them. Not environment policies. Ask the government to perfect the qajaq, igloo or qamaq. We survived through culture learned protocols.
- Research about how the other predators are affecting the caribou as well. The full story is not there.
- What else is affecting the caribou? Industry and climate change? Is industry the problem? Should SARA lobby for stop of destruction of land through industry instead of putting a restriction on Inuit?
- Weather has varied over the years. There was a time where only the little inlets were frozen says Adamie. Are the changes over magnified? Says Adamie.
- How would they monitor hunting and such? Non-inuit, and Inuit quotas.
- Susanne (ECCC) suggested Guardianship Programs. Great programs to look into. Funding from SARA? etc. Inuit should have a say on how it is monitored.
- Funding that is available could help research caribou and give Inuit opportunities and jobs. This would be a giant step for resources and funding. The universities and different government agencies would need Inuit to do these researches. Working with HTOs together.
- 'This is our land we need to be listened to.'
- Quota for Baffin of 250 is too small and also restrictive says elder. When setting quotas we need to remember the needs of Inuit too.
- Are the surveys done the best way, are they done like before? An HTO member says that before they used to go everywhere and now do only a small section of Frobisher Island. And the caribou going north weren't counted.
- How will caribou calving grounds be protected?
- Human activities such as mining, research with helicopters and industry disturbing caribou the most? 'Perfect assault' says Adamie, with helicopters, people, mining, blasting and pollution is what is impacting the most, not Inuit.
- Caribou experts are needed to these consultation meetings and reports.
- SARA should give examples of when these acts have worked. Would help the HTOs and Inuit know that it can work because they are given facts?
- How much do non-Inuit or commercialization affect the caribou?
- When there was the mad cow disease, farmers got compensated. Inuit should get compensation when there is a restriction or a band, because they lose a source of food and income in some cases. They are harvesters, and they suffer from not being able to hunt or eat their food, the caribou.
- Closing comments from HTO member, I want to acknowledge and thank the elders and everyone that came and spoke. We have to work together on these subjects and keep our boat sailing straight.

Igloolik

Joint Public and HTO Meeting on the proposed listing of Barren-ground caribou as a threatened species under the federal *Species at Risk Act*.

September 25th, 2018

Number of attendees: 52

Environment and Climate Change Canada (ECCC) representatives: Dawn Andrews, Saleem Dar and Carine Cote-Germain

Summary:

- ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- Community members spoke about the importance of caribou to Inuit. They talked about how caribou is their main source of food, that they depend on caribou for food, clothing, tradition, and survival. They spoke of the hardship they suffer when they cannot harvest enough caribou.
- Community and HTO members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou.
- Many community members believed that the caribou population is going through a natural cycle and will eventually come back on its own. ECCC acknowledges this possibility, but because caribou are facing so many new threats now we can't be sure that caribou will recover on their own as they have in the past.
- People were worried about their harvest rights and food security; they see this proposed listing as an additional hardship for their community and traditional way of life. ECCC recognizes the importance of caribou to Inuit, and listing caribou as a species at risk is a step towards ensuring that caribou are available for future generations. Listing caribou as threatened will not cause any changes to how Inuit harvest is regulated.
- Some people believed that the population numbers were not trustworthy. People also commented that the scientific information does not go back far enough.
- Mining was brought up as a problem for caribou. Information on threats will be used in the recovery strategy if the caribou are listed.
- People objected to all the herds being merged together for the assessment, and to caribou being managed as one group. The Barren-ground caribou were grouped together in the assessment because all these herds are similar in terms of their appearance, behaviour, and genetics. The different herds can be treated separately in the recovery strategy later on in the recovery planning process.
- People indicated that Inuit know about the land and the caribou, and expressed concern about outsiders interfering with their wildlife management. People want the herd to be managed locally, instead of having outsiders getting involved.
- One community member talked about how, according to traditional knowledge, it is not good for animals when people talk about the animals too much.
- Concerns were raised about female only harvests, noting that males are needed to make calves.

Comments/Questions:

Community member: Can we see the map with critical habitat?

ECCC: That has not been identified yet. It will have to be identified only if the species is listed, then we would

work with the communities and NWMB and identify where the critical habitats could be according to the species needs.

Community member: Have you ever driving a snowmobile before? Have you ever chased a caribou? You have put over-harvest in threats. That means we won't be able to harvest anymore.

ECCC: We are not saying that species is being over-harvested right now, we're just saying that harvest could be a threat if it is not managed appropriately. Listing caribou will not cause any changes to how Inuit harvest is regulated.

Community member: In the 1960s, there was a lot of caribou, but 40 years earlier there was a famine, then it went back up. It has fluctuated for many years.

ECCC: Unfortunately the graph don't show a time frame long enough to see any of these fluctuations. But it is a possibility that the caribou population goes back on its own. We're here to show what COSEWIC has reported, and hear your comments.

Community member: Any of you on the COSEWIC committee [to audience]?

ECCC: COSEWIC doesn't do consultations, consultations occur in the listing phase (what we are doing now). COSEWIC gathers the facts and writes a report based on the based on the best available information at the time. ECCC is here now to take your comments, feedback, etc. You don't have to agree with the assessment and that's okay. We just want to make sure you're being heard and that we know what you're seeing here.

Community member: You have not given us benefit to survive on our food, or to our HTO, we have nothing in this community, no big boats, we survive on our own. We depend on our HTO, on our harvests but they cannot help us because they have nothing. If we were to have caribou quotas, should we report to HTO and then report to you, you have not given them benefit. Within my family, we have not harvested caribou for a whole year. If he harvests he shares with the family, we are not out there destroying the herd. Because you know what, the transportation makes food very expensive (few examples). To go get the caribou is also very expensive (gas, oils, etc). More hardship are being given, how much more hardship do we have to bear. We don't kill animals to destroy we kill for our tradition, to be together, to be ourselves.

ECCC: Thank you. I think we could have said in the beginning. Caribou is obviously so important for your culture, your way of life, culture, food, clothing and everything. I think it's very important to understand that with this listing, nothing changes for Inuit harvest. We are not saying that we are going to change anything of your way of life. Your harvest is a lot higher in priority than the species at risk act. You survived here for many years, I respect that. This is not about affecting aboriginal rights. Protecting the animals is a shared responsibility. The NWMB, HTO, your rights, all that stays. No one is here to tell you, you can or cannot do something. We want you to live of the land. We are not proposing to change that. Your management takes priority. We can't disregard the land claim.

Community member: I don't like the approach that the government takes. Certain species experience a decrease of certain % and then goes into SARA. You're trying to put caribou herd national. Why are you trying to merge our population [of caribou] with them, I don't know nothing about their caribou. You're not taking a realistic approach, I don't like it. 2nd point: you're only searching present, or a few years ago. I have lived here all my life, and yet in your report it does not mention us. We've lived here for so many years, without consulting us; it's too late to consult us now. Approaching this the way you're doing, mentioning that the Inuits have been

consulted. I have not seen anything in the report about that. Put down where an Inuit say something about caribou? Nothing. You don't have enough data to say something. Lastly, I want to ask, originally a species that go to SARA receive funding. So if caribou goes to SARA, what kind of funding do you get?

ECCC: We have different programs like the Habitat stewardship program. For instance, with the Peary Caribou, the GN received money to do surveys. We also have the AFSAR (Aboriginal Fund for Species at Risk) program that is directed to community projects, for instance Resolute Bay has used this fund to collect more traditional knowledge.

Community member: Documents are very thick, you're just guessing numbers and you're saying that this is concrete numbers that are not true. Although, people will get upset at me, white person will never like you... because I'm going to use my knowledge in Inuktitut as an Inuit. There are some adults in Igloodik that would like to have caribou meat. If you would tell us true numbers, not just guessed. Climate change, I heard that there's global warming, this idea from the south... it's not getting warmer. I'm not trying to be against the white person, I just want to say what my father knows and his father knew. Don't think I'm angry, I'm glad I have the chance to speak. (Translated.)

ECCC: Assessments are based on the best information available, and all the TK is very much valued and appreciated. We know it goes back further than what we have in the scientific data, that's why we have the surveys. Regarding your comments on climate change and how it affects the caribou, the global warming is not just a rising of temperature, but a series of complex changes in the climate and we're not entirely sure of how it will affect the caribou population.

Community member: Thank you to notify our community of Igloodik. You probably heard that Caribou is important for us, that we have ancestors that we're living on caribou, and that we know about wildlife. We have ancestors that used to tell us take only what you need so there will always be some available. Don't take more than what you need. Now that you're here to talk about the caribou, in the 1960s (?) there was a lot less than what used to be [they came back up]. I just want to say that even if you say they're declining, we know the caribou fluctuates. Us Inuit, we don't want the caribou to become extinct but right now it's better if it's not put at risk. Like you said earlier, you don't really know how many they are but still you're talking about the caribou and the people in the community, I'm just saying that they should not be put at risk yet.

Community member: There was an assessment done in November 2016 from COSEWIC that was to put the Caribou in special concern, why do you put it into step 2 (threatened). Why don't you start at the first step of the pyramid?

ECCC: There has been only one assessment for the barren-ground caribou and it was proposed to be listed as threatened. Species don't necessarily progress through all the levels of risk status shown in the pyramid.

Community member: Why not start at special concern and start at step 2 already?

ECCC: Assessments don't happen very frequently, we don't always catch it when the species is at special concern.

Community member: Two herds are increasing. Is it natural or is it from migration from other herds?

ECCC: The Southampton herd originated from other herds migrating, but the Porcupine is isolated so it's not from other herds joining, but rather from having more calves.

Community member: There's a meat plant in Rankin Inlet where they process Caribou, what will happen with

that? Who will be allowed to harvest?

ECCC: I can't speak to that meat plant. But the listing is not going to change Inuit harvest rights, we're not here to talk about quotas or harvest restrictions.

Community member: When you say that the land claim agreement takes precedence, what does that mean?

ECCC: It means that your right to harvest remains, all the mechanisms, managing species still remain in place, the species at risk act doesn't change that.

Community member: I saw you want our comments by next month, what if we have comments after deadline?

ECCC: If you have comments that you want to submit after that date you can still provide them and they will be considered at a later stage of the process.

Community member: We don't seem to have a leader at the moment. Our chairman isn't here at the moment. So it's not convenient, but still I want to say, right now we see that people are upset. I'm going to talk as a HTO member and person representative. For example, TK although we cannot use that, if you were using TK, it would be in a bad situation because we're not supposed to talk bad about caribou. We used to be told if animal are caught they don't go to waste. Catching animals is okay but talking about them is the worst thing because of that we have to use TK. Caribou are reported as declining, on Baffin island, since they were imposed a quota... I think that's probably why they're declining. Igloodik, we would be happier if we could do our own management.

Community member: I want to say what I'm thinking about. No wonder people are saying caribou is declining. The female caribou are the only ones that are being harvested. We cannot get pregnant by ourselves. We need a male to get the baby, the animal is the same. No wonder they are declining. And thus talking about animal makes them declining, that's what we were told by elders. I don't go to meetings usually but I heard about the declining of caribou and I wanted to come. We need males to get calves. Animals are always moving. Sometimes they come back more and sometimes they're less. I don't think they are declining but they always have to go where there's food. So they're moving in herds. I've seen herds before when I was a kid. I haven't seen any since I'm an adult. It's the first time I've spoke in a public meeting.

Community member: First, the animals are surveyed and then put at SARA. In Nunavut, have you heard concerns? Who have you heard from in Nunavut?

ECCC: We have met with communities in Kitikmeot and Kivalliq regions. We spoke with communities that were concerned about the caribou. Communities on Baffin Island will be visited in the next few weeks.

Community member: looking at the SARA triangle, the first one, "special concern", I don't think it will be affecting too much in special concern and it will go directly to threatened. Other communities probably heard that special concern, I don't think it went right to extirpated. I think you have to hear from the herd before you put them in extirpated. I heard from our elders that sometime they decline, sometime they increase. But elders were saying that they will be returning. Because elders know. And they came back. It seems that you identified the caribou as threatened, while in fact no one from Nunavut was consulted. Going directly to threatened without going through special concern. In Igloodik, we harvested 10 from a population of 2000. I just want to point the fact that we are capable of making our own decision; we don't need Ottawa, Yellowknife, or outsiders. We should be the ones to make the decisions, not SARA, not Ottawa.

Community member: Elders, aboriginal, being an Inuit, I don't really believe SARA. My father was a hunter, and those of us raised here saw some declines and some increase, it's been like that forever. They migrate so they end up somewhere else, but it's been like that forever. The animals are our way of life. We cannot survive on food alone. When people talk about the animals too much, it's not good for them.

Community member: I'm glad you came here to talk to us about the caribou. I have to say that the government and Inuit have different beliefs. The animals don't stay in one place. They follow food. Back then, there used to be caribou around here and some people said the caribou will return and they did return. They were long gone, the Inuit believe that animals, especially caribou are always moving. And the government believes the researchers that the animals are declining. But we as Inuit we know that caribou get calves every year. The people are not the only to die, animals die too. And since we have an HTO in each community, they should be recognized more and the government should deal with them, using more TK. HTO can work, they can make rules and regulations.

Community member: Thank you for coming. First point, you mentioned that Nunavut agreement takes precedence on SARA, and that people will be notified and the Inuit will be more involved. This meeting is part of it, but it has to go further. We need to be involved through the whole process and continuing, we should take priority. Second point, you said the minister will also consider socio-economic impacts. Well, with the polar bears but that was very unimpressive. You did the same thing and you made a report, it was very economic, it was only talking about money. This time with the Caribou, it has to be more about the people, how it will affect our life. When you were doing this same process with the Polar Bear, you asked Alberta, and BC residents: "what's the value of the PB for you?" I am not being asked what I think of the species down south, so I hope that with the Barren-Ground Caribou you will consider the people who are being affected by this listing and how it will impact our way of life, and that whatever the people from the South say, they won't take precedence over ourselves. According to a great report made by the GoC (not sure what report) I hope you will keep in mind and in consideration what we think is an acceptable protection level from risk. Last point, you said earlier that SARA will help avoid the BGCA from disappearing but won't affect the harvesting. Well, even without putting harvest restrictions, as soon as it gets in the news, just like it did with the Polar Bear, it will have an impact.

Community member: First of all, I heard earlier that plants are at risk and the caribou declining having no food. Deal with the miners so the caribou will have food. Are the miners treated the same?

ECCC: Mining and exploration has been identified as one of the main threats. If the caribou are listed, critical habitat will be identified. The habitat will then be protected for the caribou's needs.

Community member: There are different kinds of caribou. Depending on the place they caught the animal, it taste different. Caribou hunters are only allowed to catch 2 caribou, although we crave caribou meat. I haven't had caribou since my husband died and I crave caribou. The caribou he caught from Baffin Island, he started crying just from smelling the caribou that was boiling. We really do have to get caribou from that area.

Community member: You wanted to hear from us, Igloodik. Many of us are elders, men and women. We really like traditional foods. One day if they put the caribou on SARA, I want people to keep hunting them even if they go extinct. You have to consult Inuit first. If they have to become extinct, then we can eat something else.

Community member: I'm a hunter, retired hunter. Where do you survey Caribou? Caribou from Canada

(mainland), or from Baffin? With the HTO, we have surveys and all that. The caribou is our food, so what am I supposed to do? Down south, they have businesses, and stores. You never give us money; you're talking about my food. The caribou has different population, you mixing them all together, here they were close to 5000, there were lots of them this summer, where were you in July? How come you never saw those caribou? What will happen if I can't hunt, I'll have to stop eating. The store has nothing. You're talking about my food ... the wolves are declining as well, why are you not talking about them?

ECCC: The caribou that we're talking about today are both the caribou on the Baffin Island and from the mainland. We're not trying to take away your food, or any restriction on harvesting. If we decide to list the species, we would work together to make plan and find solutions to protect the species from disappearing. Regarding your comment about the herds being all analyzed together, we want you to know that when it will come to the recovery strategy, every herd can have a different approach and different goals to adjust to their specific characteristics and incorporating the traditional knowledge from each region. The recovery doesn't have to be done as a whole; each herd can be managed and planed separately.

Community member: There seem to be no more caribou than what my parents were used to, as if there are no more caribou. I remember them looking for something so people can start hunt caribou again. When I was 4 years, what I remember most, in the spring the caribou arrive, they don't seem to be that many in the summer but when they get back there were lots of caribou. When they come back from inland, after the arrival of the sun, the caribou comes back. I don't think they will become extinct. There will be more caribou, as before.

Community member: Right now I hardly understand anything because you're translating too much, I saw some document but letters are so small I can't understand anything. After the meeting, what will be in effect?

ECCC: After the result of this meeting and other communities meeting we will report the comments to the NWMB and they will make the decision whether it should be listed or not. Then it will go to cabinet for a final decision. So it's not effective immediately, there's quite a few more steps before it's potentially listed.

Community member: Now that I understand that, the caribou were there more from the south and brought up here to the north? Now I'm asking again, was Inuit TK included in the document? Inuit never used to be wasting animals; Inuit know that animals are important. So how come the wildlife management isn't here?

ECCC: COSEWIC used the TK that was available to them at the moment of assessment, but they didn't seek for new TK for that report. In the next stage of the process, in the recovery strategy, we will incorporate the TK to make the plans.

Community member: According to the Nunavut Agreement, it seems like we haven't been consulted. Can we work something up before you give a response to SARA? We didn't get any choice except to go with your report. We weren't given a chance... only after the COSEWIC report. We need to do something about it first before you're going forward.

ECCC: The report from COSEWIC is just a recommendation, this is your chance to say if you agree or not. What we could do is see if in the future COSEWIC could include the HTOs in the assessment. But remember that this is your opportunity to give your comments. We are here now to hear from you.

Community member: What happened to Canada geese and others? Canada geese, they overpopulated because of COSEWIC. Polar bears, when they got into the system, it affected our harvests. Its meat, this is where we get our energy.

Community member: The caribou are in Nunavut not in Ottawa and the ministers and the others are not from Nunavut. This should be done by NU not outside of NU. From what I'm hearing it's just like way back then, they had to follow what the white person says. You'll probably be leaving tomorrow. You're here just to meet, like the old days. They just say what we have to do.

ECCC: We're here to listen to your comments. We are gathering information for the whole species which range is across all northern Canada. Nothing in the SARA will change what is already in Nunavut Agreement.

Hall Beach

Joint Public and HTO Meeting on the proposed listing of Barren-ground caribou as a threatened species under the federal *Species at Risk Act*.

September 26th, 2018

Number of attendees: 24

Environment and Climate Change Canada (ECCC) representatives: Dawn Andrews, Saleem Dar and Carine Cote-Germain

Summary:

- ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- Community members expressed strong concerns about the lack of Inuit participation and traditional knowledge in the assessment of Barren-ground caribou.
- Community members spoke about the importance of caribou to Inuit. They talked about how caribou is their main source of food, that they depend on caribou for food, clothing and survival, and how they have always existed together with caribou.
- Some community members indicated that they believe the caribou population is going through a natural cycle and will eventually come back on its own. ECCC acknowledged this possibility, but indicated that because caribou are facing so many new threats we can't be sure that caribou will recover on their own as they have in the past.
- People noted that the caribou have other predators, like wolves, that are also responsible for their decrease, that fires have had a big impact on caribou, and that disturbance from small planes disrupts caribou migrations. Information on threats will be used in the recovery strategy if the caribou are listed.
- People were worried about their harvest rights, food security and way of life. ECCC recognizes the importance of caribou to Inuit, and listing caribou as a species at risk is a step towards ensuring that caribou are available for future generations. Listing caribou as threatened will not cause any changes to how Inuit harvest is regulated.
- Some people thought animals should not be surveyed and that saying anything negative about the animals (like that the population is declining) will cause them to go away.
- People indicated that Inuit know about the land and the caribou, and expressed concern about outsiders interfering with their wildlife management. One community member expressed concern about the new practice of selling meat through social media.
- One community member expressed concern about having multiple communities harvesting the same herd, and indicated that the harvest needs to be regulated in order to coordinate between communities.

Comments/Questions:

Community member: The caribou from this region, where would they migrate to and from?

ECCC: Showing on the map the range of the Wager Bay herd.

Community member: Prince Charles Island herd should be surveyed with Baffin Island, there are too many caribou migrating there. A lot of them died due to icing conditions, the biologists should go to the Prince

Charles side. From 1965 caribou start coming back and they seem to be considering to put them into threatened but they will come back. My grand-kids, when they grow up, they will see the Caribou come back, I'm not concerned about Caribou.

ECCC: Thanks for the comments, that's exactly the kind of information that we want to bring back.

Community member: We used to see 3 types of caribou in the area, years ago there was a big forest fire in the West, and it had a big impact on the caribou over there.

ECCC: After that fire, there were not that many Caribou there?

Community member: Not in the same area, there were just passing by.

ECCC: That's very good information. The COSEWIC report contains information that goes only up to 20-30 years back. Any information that goes further is very much appreciated.

Community member: When the animals get too many, too abundant, it's a dangerous situation for the animals. They go up and down. It's our subsistence; it's our food, our earning. It was never our concern, they can get low in numbers but they don't go extinct. They always go back up. They follow the food there is on the land.

Community member: The herds on the mainland, we have no major herds, so we have no quota. Senseless now, it's not regulated. Caribou is being sold everywhere on the social media now, it is not regulated, it is senseless now; it is expensive, only rich people who can afford it. Even in the South, they can buy the Caribou meat through Social Media; you should take a look at that, it has an impact. NWMB have no control over it. Our practices have completely changed. Our herd, in this region, they migrate to Baffin Island. We could put a fence across the peninsula to regulate it and so we get more caribou. I'm not about to support that cause.

Community member (Elder): I don't want any restrictions or quota system on Caribou. It's not part of my tradition. Here in Hall Beach, the food, the animals and the stuff from the shelf: we combine those for food, it is very expensive. We cannot live from the store, it's too expensive. People will starve without the caribou as food is too expensive. If the caribou is very low, we go through hardship too. The youth, there's no job opportunity in town. I don't want to be bothered, no restrictions or quota system. Those who do the survey, they are barriers. When Polar bears have been surveyed, we couldn't hunt the Polar Bear anymore in this region.

ECCC: Thanks for your comment, and just to be clear, we are not talking about putting any restrictions on the caribou harvesting. That would be done through the existing co-management system with NWMB.

Community member: People that are learning about the Caribou, they put restrictions on the animals. They survey the animal, they yell out their low numbers on the news, and then we can't hunt the animals anymore, I don't want this. I cannot hunt, but I'm here for my fellow citizens. Sometimes the Caribou get low in numbers and abandoned at times, that's the cycle in the land of Inuit. Our ancestors, they were elders; they talked of the animals, our livelihood has always been hunting and living, they grew up on country food. The younger people now, they don't, not as much [live on country food]. The people who are changing their ways now, I've seen it, someone got killed [by Polar Bear?] near Repulse Bay, there was a big announcement on tv, "if they're dangerous to you, you can kill them". All animals are dangerous, they just shoot away the animals, but they always come back. Walrus are abandoned, which is lots of food. The animals are not to be surveyed, this is part of my culture and I grew up with that.

Community member: Truly, all of us who grew up on country food, we've seen the animals fluctuate in abundance, sometimes high, sometimes low. I've never seen a survey been done in this area. The caribou come up this way in the spring, so in the summer they're relatively abundant. But now, they don't come as much, there are constantly small planes for survey and exploration, they cut off the migration routes, they divert somewhere else. We're not just killers of animal, we exist with the Caribou. The wolves are also to be considered in the decrease of the Caribou.

Community member: Three communities (Igloodik, Hall beach, Naujaat) hunt the caribou on the peninsula. Not just us. How can we regulate the harvest when they come from three communities? Plus some come from Baffin Island sometimes. How can we regulate that if we don't have any regulations, even the HTA I don't think they have any regulations regarding who can hunt and who cannot hunt.

ECCC: The recovery strategy may provide a way to work together across different jurisdictions.

Community member: I don't want the Caribou to be listed. Some of us don't have hunters. Around Christmas there's a feast here and a lot of people join, we fill this room of people and we have a feast of caribou meat, a delicacy. Basically it's our main diet.

ECCC: We understand caribou is very important; you can't live only from store bought food. And we don't want to change anything around your subsistence harvest.

Community member: Stories were told that I've heard concerning caribou, some years are different; it fluctuates from year to year. Those, according to this map, [Porcupine herd] is a different herd. Those who migrate come back within the boundaries, and to the calving grounds. The herd here, they come back here that I do know. Wolves are the biggest factor. It's their food too, if the wolves are too big of a pack, they follow the caribou and nothing else, they're killing, they're hungry. There are other predators of caribou as well.

ECCC: Information like this about threats from predators like wolves can be used in the recovery strategy.

Community member: We, Inuit, know our land. Basically, you don't know the land here, you don't know the rules. We do know the wolves are hunting caribou. It's their main source of food. The Inuit are not to be blamed. It's our main diet and we do cherish them. We receive food from hunters; there are a few hunters here. I would not like the COSEWIC to interfere on our land. Like what happened on Baffin Island.

ECCC: We recognized that we don't know the land, and that's why we are here now to listen to you and learn from you.

Community member: Absolutely no, don't put them on SARA, listed as threatened. We would be starving. Every day I eat country food, we don't want to rely only on store bought food.

ECCC: Listing the caribou would not cause any harvest restrictions for Inuit.

Community member: Caribou, they migrate, there's no obstructions for them. In the spring in the 1900s they washed the shore. They could come from Greenland, or Russia, nothing stops them when they're migrating. They can go through anything.

Community member: There was a question earlier, do we want them as threatened. If we were to rule it ourselves, there are other communities; they're just going to end up opposing us if we were going to agree to

the listing. We want to sit together. We're not supposed to say anything negative about animals; they're a gift for us to eat. When we do, they reduce their numbers that is TK.

Community member: We have TK, we grew up hunting the Caribou. We Inuit, we do know the slightly different characteristics from regions to regions. We have extensive knowledge of their anatomy.

Community member: Before our time, the caribou were very low, the elders used to go inland maybe back then you would have put them as threatened, but they came back. You say there's no more caribou in Hall Beach but they're basically moving around, they follow the food and they will come back.

Community member: Under what conditions, they chose to put the Caribou under *threatened*?

ECCC: The worry is that they might not come back again on their own. We call it "precautionary principle", they want actions to take place now if there's a risk they continue to decrease and don't go back up on their own.

Community member: Us, Inuit, who grew up in this region, from what we know is that they do go down and we know they always go back up; they go through a natural long cycle of low and high periods.

Community member: We used to go inland when I was a kid, on the other side of the peninsula. We were just walking, looking for caribou; that was our way of life. Every year, they catch caribou meat, when they're catching caribou, they were never taken by other animals, they skinned, and they were not scavenging by other animals like wolves and wolverines. Now they are a lot closer than back then.

Community member: I have been to another area where the caribou is abundant, closer to Igloodik. When I was there the caribou was coming in, I started counting them. They were still moving, for 4 hours [we watched them]. The caribou was so abundant. They're not endangered, they're too many.

Community member: What is the process coming up with this listing? When is it going to happen? [EC response] We will be very disadvantaged if they're listed. I won't be able to eat caribou for supper?

ECCC: We are not talking about putting quotas or any restrictions. That would only happen by going through the NWMB process. The SARA listing doesn't affect harvest where there is a land claim agreement in place.

Community member: We don't want that listing, it's better if they're not on the list. We depend too much on the caribou.

Community member: My understanding here, after the facts are gathered, you'll pass on that to NWMB and they will put a ruling regarding our harvest, we've seen it happen in the Baffin region.

ECCC: What happened on Baffin had nothing to do with SARA. Harvest restrictions can be put in place whether or not the caribou are listed as threatened.

Community member: We're basically paying taxes in this region. Bring us Caribou using federal funds if you want to put the Caribou under threatened. 30-50 caribou monthly that would be a good recommendation for me. Furthermore, the food on the shelf at the store, they come from income support, we who eat from the land don't get any fund.

Community member: Thank you for giving us the opportunity to speak. White people, surely what they said is the truth... funds that are available are usually way too small. Thank you!

Naujaat

Joint Public and HTO Meeting on the proposed listing of Barren-ground caribou as a threatened species under the federal *Species at Risk Act*.

September 27th, 2018

Number of attendees: 24

Environment and Climate Change Canada (ECCC) representatives: Dawn Andrews, Saleem Dar and Carine Cote-Germain

Summary:

- ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- Community members wanted to see local management of the herd. They didn't like having their caribou lumped in with other herds across Canada as part of the assessment of Barren-ground caribou or in future recovery plans. ECCC indicated that the different herds can be treated separately in the recovery strategy later on in the recovery planning process.
- Some people believed that the population numbers and survey methodology are not trustworthy, and that the range maps may not be correct.
- Some people indicated that the caribou in the area are currently doing well and not declining.
- People were worried about their harvest rights and food security. ECCC recognizes the importance of caribou to Inuit, and listing caribou as a species at risk is a step towards ensuring that caribou are available for future generations. Listing caribou as threatened will not cause changes to how Inuit harvest is regulated.

Comments/Questions:

Mayor: there's not much time for us to submit the information you want to hear. And this is the 1st time we hear about this, it's not much time for us. We want to take the time to write our comments and feedback, can we extend the date?

ECCC: Yes, the information was sent to the HTO back in January, but we understand that it's the first time you hear about it so we can definitely extend the deadline.

Local conservation officer (GN): your submission for the species at risk of the whole BGCA should be done differently (herd by herd). Some herds are going very well, like the one we have here. If you put the whole BGCA the way you expose it tonight, you are putting this up for failure. This information will be used against us by the local Inuit; this is the kind of information that doesn't help us collaborate. I believe the population around here is increasing.

ECCC: There hasn't been anything passed on to NWMB yet. The next step after the outcomes of the consultations and NWMB decision will be the cabinet that can accept, refuse or refer back to COSEWIC for further analysis. We're not here to defend any position, we're just here to listen to you and if you think it should be done differently, we'll report it.

Community member: It seems a bit like a "bang", are you going to treat us the same as what happened on Baffin Island? They were told that they can't catch caribou anymore.

ECCC: No, this is not about putting on any restrictions or telling you what you can or cannot do. It's just about

finding other ways to help the species recover.

Community member: Ok but, we also heard that around Yellowknife, they're not allowed to hunt Caribou, even on the mainland. If it does occur that we can't hunt caribou, how are you going to apply it? Every time a hunter catches a female he won't report it. How are you going to enforce it?

ECCC: I think it's at the front of people's minds, given what happened on Baffin Island and some other herds. Those changes were done through other legislation process, it did not happen through us, or SARA, the federal government didn't impose those restrictions that go to NWMB and GN. But I understand your concern.

Community member: People coming from down south are always coming up with some ideas of what species will go extinct. They think the caribou is going extinct and what next? Inuit are always put down by white people, what will be the next thing they will come up with towards the Inuit.

ECCC: This is why we want to hear from you. We know you know best and that's why we want to consult you before any decisions is taken. Obviously, you want the Inuit to be more involved and that's a great comment that we want to hear from you.

Mayor: What I want to see is caribou by herd, our caribou probably don't go to NWT, we want to hear from our herds only and deal with this herd only.

Community member (Michel): Our caribou around here are not at risk right now. Just before I was born, there used to be lots of caribou, and after I was born there was hardly any caribou and now there's a lot again. Whatever you guys write down, that the caribou is at risk, I want you to know that the caribou around here is not at risk. Also, people from Coral Harbor, have told the people from mainland that their caribou are not coming to the mainland, but they are. We found out that the caribou from Coral Harbour are coming to the land and going back, we found out from the fat. We don't have any knowledge, like you guys, of how they've been moving. We know just by seeing the fat of the caribou.

HTO member (Gino): We've been requested to report all the caribou around the area. But in the winter there are hardly any caribou around here because they're always moving. Every season is different.

Community member (Don): Baffin Island caribou, where are they now? And Labrador and Northern Qc, do you know what happened to them?

ECCC: (showing the graph) Baffin Island herd went from 234,000 in 1991 to under 5,000 in 2014. But northern Quebec and Labrador is another population that is not included in this report.

Community member: Looking at the map that you guys have fixed up, it is very different from the one of the biologist we talked with. Where did you get your information?

ECCC: The range map was developed by GNWT who gathered the information from others like the GN. But again, you know best, if you think this map is not right for your herd, then we want to hear it, that's a great comment to give.

Community member: How accurate are the surveys on the caribou?

ECCC: For some herds (6-7) they have good/accurate information, and for others there may not be as much information.

Community member: I have been involved in the caribou survey all around the peninsula here (describing all the areas where he's been surveyed: Baker Lake, Gjoa Haven). The first place we started was Naujaat – Baker Bay [doing transect]. We knew what to look for from the plane at 600 feet high. We counted 258 caribou, the biologist working on the caribou ended up saying that we had 10K caribou. That's not accurate. That's supposed to be our expert biologist, caribou biologist and they don't do the survey properly. That's how the survey works, just big calculation. It's just like with the polar bear. The polar bear biologists think they know everything because they're biologist. And they go on TV saying they know everything, that they are the experts. I think he's more of a bureaucrat politician.

Arctic Bay

Joint Public and HTO Meeting on the proposed listing of Barren-ground caribou as a threatened species under the federal *Species at Risk Act*.

October 16th, 2018

Number of attendees: 26

Environment and Climate Change Canada (ECCC) representatives: Dawn Andrews and Carine Cote-Germain

NWMB representative: Kyle Ritchie

Summary:

- ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- People had concerns about survey methods used to count the caribou, and thought that caribou were being missed in the surveys.
- Concerns were raised about female only harvests, noting that females can't breed if there are no males.
- People indicated that the caribou are low now but will return. That the caribou have migrated to the mainland and will return as they have in the past. The low numbers of caribou were seen as a temporary fluctuation. COSEWIC recognized the possibility that the current low numbers might be part of natural population cycling, but because caribou are facing so many new threats now COSEWIC couldn't be sure that caribou will recover on their own as they have in the past.
- People pointed out that Inuit harvest is not to blame for the decline of caribou, noting that caribou have other predators, like wolves, that are also responsible for their decrease. People reported seeing more wolves now than in the past. Hunting wolves was suggested as a method of helping caribou. Information on threats will be used in the recovery strategy if the caribou are listed.
- The HTO is working on plans to manage the caribou. People wanted the decision on whether to list caribou to be delayed by a number of years.
- People were worried about their harvest rights, food security and way of life. They felt that listing would have an indirect effect on harvest quotas. ECCC recognizes the importance of caribou to Inuit, and listing caribou as a species at risk is a step towards ensuring that caribou are available for future generations. Listing caribou as threatened will not cause any changes to how Inuit harvest is regulated.
- The community members in attendance were unanimously against listing Barren-ground caribou as threatened at this time.

Comments/Questions:

Community member: No wonder you're saying there's hardly any caribou, yes I agree. If we only harvest the males, females won't have any chance to breed; they can only breed if there are males. Plus, you cannot see them when you're counting from the plane, you can miss those that are camouflage. When counting, make sure you go slowly and you catch them all. The caribou might be low but they will return eventually. It happened in the past, it will happen again. Here, we are an island, the caribou are on the mainland right now, and they migrate.

Community member: We haven't considered the question yet as HTO board. We haven't been asked to consider whether we support or relate to the listing as threatened. Wolves, wolverines and others are impacting the caribou number, not just humans from harvesting. We could hunt the wolves to help the caribou

recover. The government just kind of give us the quotas, we never saw any kind of numbers, and they didn't consult us. Likewise, the caribou that are not under the line of the planes are not counted.

ECCC: We recognize there are some uncertainties in the surveys, but they're done the same way time after time so they do show some trends. You mentioned there were predation, do you notice more predators than there used to be?

Community member: I think so; I heard stories that where the caribou is, wolves are more visible. We see more of them now.

Community member: Wolves, they decrease the number of caribou. Back then, we lived outside of Baffin Island, so we are not sure of it, but we know more about the Baffin Island caribou. We used to see more wolves pack, we heard stories that RCMP used poisoned baits to kill them. There used to be a lot more packs of wolves, I haven't seen or heard that in a while now. The caribou migrate on the island, they follow the vegetation, and it is very slow growing. I grew up without any caribou, but then they came back, we were seeing a lot of caribou. They migrate to Igloodik, on the mainland, and they come back to the Island. We are starting to hear that they are heading back to Baffin Island. They are not extinct, it's a temporary fluctuation.

Community member: The comments I heard, I agree. They are expressing their experience and knowledge. They are naturally dying now not just from humans. Caribou were found naturally dying in the west (die-off). How do you count those deaths in your report?

ECCC: The caribou that were found are part of the declining numbers; we are not sure what the causes of these important declines are. It could be something to do with the climate change, are you seeing more instances of die-offs like that?

Community member: Inuit are blamed for the decline that they over-harvest. It's not just the Inuit, the wolves and other predators, we need to be fair and not just blame the Inuit for over-harvesting. When do you do your aerial surveys? What season?

NWMB: For the Baffin Island, it's very expensive so they're not able to do it very often. They go where the females go to calves, and they go in the fall and spring.

ECCC: The SARA is focused on solving all those other problems; it's not on setting quotas or changing harvest. We can act on protecting habitat from developing and other things like that.

Community member: The caribou migrate, may-June, they settle down. They don't breed on the flat areas; they go to the mountains to give birth. If you go in the spring, you need to go to the mountains. Depending on the season, you probably end up not seeing a lot of caribou. If you're going to list the caribou as threatened, tell the minister to give us funding so we can help the caribou recovering. In the spring, we don't really hunt; we go in the fall when they're fat. On Baffin, we have quotas now. We are craving for caribou meat, so we need to get caribou meat but were not getting any help from the governments (GN, GoC). I agree they are low, but we know from our knowledge that it's a temporary decline.

Community member: As HTO president, I would like to ask if it's possible to extend the deadline to decide whether or not the Caribou should be listed. We need to look at ways to make changes to the quota system that we're using now, so if you could give us more time and maybe in the future we can decide if we list the species or not. We are in the process of finalizing our plans to manage the caribou to increase the numbers. We're trying to see the options we have to help recover the caribou. We rely on our elders' advice, we have

discussion. We're still looking at what the elders are saying, so we need more time. They say they will come back and I believe them. I think listing the caribou at this time is premature, it's too early, let us find out ourselves before we can take a decision if the species is threatened.

ECCC: TK is definitely something we could be incorporated into the recovery strategy. At the moment we're hoping to present the results of the community consultations to the NWMB in March. There is another place to feed in public comments right before the Minister makes his decision, so you can still send more comments after March.

Community member: Comments about natural cycle, I believe them and not, because like birds they migrate to breed... Caribou go to the Melville Peninsula and if they harvest them they will never come back to Baffin Island.

Community member: The animals, we don't control them. Give us more time; give us a chance to come with our own plans. The consideration of listing the species that should be postpone, let's give a few more years, because they are coming back.

ECCC: Even if the caribou are listed now, it's not a permanent decision. The species at risk are re-assessed every 5-10 years; at that point if the caribou comes back the caribou can be taking off the list.

Community member: There's going to be a caribou summit in Ottawa, are these report going to be used? We have knowledge that should be incorporated. Living here we know the caribou is migrating. We know there are caribou at the mine (Baffin land) right now, we know that.

ECCC: Definitely, the Inuit knowledge is very important in the SAR process.

Community member: The presentation says SARA doesn't affect the Inuit right to harvest. But it will be if the GN looks at SARA, and they decide to lower the quotas, that will affect us. If GN can move caribou from Quebec to other region, I'm sure the government of Canada can work with other countries to get Caribou from Greenland or to transport the caribou and bring them here to help recover the species. Now if we buy caribou from Coral Harbour, Naujaat or other places it cost \$500-800, if you put the species on the list, those price will sky rocket. I'm sure we can take caribou from other herds to help recover them here.

Community member: It says here: Climate change might have impact. When you say climate change, what does that mean?

ECCC: Climate Change is the climate warming up over the earth because of the pollution that we have put into in the air and that is causing the overall warming of the planet. That is affecting the caribou because it's going to change the food available and the time that food starts to grow, the type of plants. For instance, more shrubs may start to grow up here and jeopardize the other plants that Caribou eat. More species are moving in this area, which can mean more predators to the Caribou (i.e. Grizzly bears, insects, disease)

NWMB: Another potential concern is there will be more rain in the fall which can create a crust of ice on top of snow which can make it harder for the caribou to forage.

Community member: If the earth is warming and more plants are growing, then more animals will be growing. If you go to Rankin Inlet, you'll see that in July they have a warmer wind. I saw a herd of caribou there that was moving. The climate change will not have any detriment effect on the caribou; it will help the caribou to find more food. Furthermore, it's part of our law that we have to be considered, TK must be considered in any decision the government take.

Community member: Back then, we were not born yet, before the skidoos and aircrafts, we were living in Iluksuk (?), Arctic bay wasn't a community yet. If you go on the side of the hill there, there's an ancient trail that goes to Pond Inlet, they would go there and see Caribou up on the hill. After that, the caribou went away, and finally they started heading back before the government was introduced. Same area where they usually return. So today, when the government is managing us, they really don't believe the Caribou are coming back but we know it's a cycle, before way back we had caribou in the area. The ancestors kept the stories. Government is interrupting by imposing the restrictions.

Community member: I don't want Caribou to be listed right now, because the GN, NWMB and GoC come here, one night and leave. It would be better if they take the time to talk with HTO then HTO can talk with the community. Wait at least 5 years, and come back to talk to us again to seek for what the hunters have seen. We need to go for the people and community first, not just one day, one night and not just send papers.

Community member: Why is no one from NTI, they usually come to consultations?

ECCC: They were informed of the meetings but weren't able to send a representative.

Community member: COSEWIC I heard they have 5 categories?

ECCC: Yes, Special concern, Threatened, Endangered, Extirpated, Extinct. [Explained the categories]

NWMB: Usually with a 30% decline in individuals a species qualified to be *Threatened*; with a 50% decline they fall into the *Endangered* category. BGCA could have been qualified as *Endangered*, but since the caribou is so wide spread, they don't think they are that close to become extinct, so they advise listing them as *Threatened*.

Community member: We are opposed to put the caribou listed as threatened. In Iqaluit, if you catch a caribou out of the quotas, they confiscate all your snowmobile and stuff you have. You say it won't affect the restrictions, but you don't know what they do to us. In spring time, I travelled from Arctic Bay to Iqaluit (1 week), I saw tracks of Caribou all the way. Before, there were no Caribou tracks.

Community member: Thanks for coming, and listening to us. But we don't have a lot of time to discuss; I thought we would have more time. I don't agree with the listing, because we want to increase the quotas, so it's better to wait before we decide any listing. When the caribou migrate, they go very long distance. When there's a forest fire, how far do they go? When there's a forest fire the animal can come up to our land. So we should wait until the government does the survey. I participated to the survey on the planes and on skidoos, and I didn't agree to the way they were doing the survey. Perhaps wait for the government to do the survey and then come back to us.

Community member: I don't want the caribou to be listed right now. They won't run out just like that. The problem is, you come here to check what's going on with us or are you really asking me if it should be listed or not. But that's not the real problem. You could bring in cows and try to farm here but that won't work. The real problem is we are missing out on caribou meat. Everybody is getting affected. It's like making a border between NU and Canada, when something gets in here the price goes up. It makes us feel like we're not Canadians. The food problem we have, we're losing people because of this food, and it's time we do something about it. Being Canadian, we should be taking care of.

Community member: Who's COSEWIC?

ECCC: They are an independent committee, so it's separate from the government. They are formed of wildlife experts from different knowledge holders (Universities, Museum, and National indigenous organizations)

Community member: For about 6 years we have been told how many caribou we can hunt. Why can't we have someone from QWB or NTI on the committee so we can be represented?

ECCC: Remember that COSEWIC doesn't have the final say on the listing. They're just doing a recommendation.

Community member: Is it the people who did the survey who said that caribou should be listed?

ECCC: Nobody asked the committee to put the Caribou in a certain category. COSEWIC gathered up information that was available from all over the country (surveys from the GN and others), and analyzed the population of caribou. From that they recommended which category the caribou should be placed in.

Community member: Under Inuit, they say that they included TK but they never decided based on Inuit knowledge. There's a lake near Iqaluit (between Igloodik and Big Island) where they found a lot of dead caribou. They didn't know what they died from, but we knew, and you didn't ask us.

Community member: If it's listed under SARA, it's not only Baffin Island who will be affected, its other areas as well. If it is listed, we will be the most affected. In 2015 GN imposed quotas, we were allowed 25 tags, as HTO we had to manage that. We try to enforce that to our hunters because we are forced to comply with the government directions. When you're forced to comply, there are many communities on Baffin, we have to dispatch that evenly among communities. It's hard because we don't have farm here, we rely on the food from the land. We still have to eat. If it gets listed, the government will decrease the quotas.

ECCC: The decision of listing has been made by considering all the 14-15 herds. The one on Baffin Island is one of the herds that is declining the most, but most of the herds have been suffering decline. It is the hope that if the species is listed, we can establish new ways to help the species recover, so that your future generation will also have caribou.

Community member: Baffin Island seems to be the most focused on with this initiative. We heard that there's only male allowed to be harvested. That changed our diet because Inuit have preference on what they like to eat (male, female, young). During spring, we don't really hunt because they are so thin and the hides are not good for clothing. There could be funding for the communities so they can go hunting where it's allowed by charter or plane. Right now, HTO provides the community feast with reindeer from Greenland right now because our Caribou are not allowed to be harvested. Harvesting only males is affecting the [calf production], females can't breed. You bring back information that you only read or heard, we need someone that is knowledgeable on firsthand experience.

ECCC: If the caribou are listed as species at risk there are funding programs, money that can be applied for to support programs initiated by the community to help the caribou recover.

Community member: I also agree not to list the caribou. I agree they are declining in numbers, it is a natural process. When I was a child we wouldn't see any caribou, then they came back. Right now they are in a decline, but we always manage to find old antlers on the ground so we know there was caribou and they moved out. When me and my brother went wolf hunting, we saw a caribou moving his head but lying there, like dead. The wolves were not interested in eating that caribou. We know the caribou go far, even all the way to Prince Island inlet, so we know they will come back. It's not that we are over-harvesting, that's not the main reason for decline, and it's a cycle, a natural process.

Community member: Caribou, we keep hearing they are declining because they moved out. But we cannot get any caribou meat here right now. I agree with people talking earlier, based on their knowledge. Down south in Ottawa, Montreal, we have Inuit living there and were told there was Caribou there. But the government never told us there was caribou there. How are they going to make their decision? Will they take the average of all the country?

ECCC: The listing decision will consider the feedback from every community.

Community member: Thank you for coming and consult with us. The funding you were talking about, it's hard to apply for that funding. When people are asking for meat, we should be able to just fill a form and make it simple. The other thing is if we only harvest males, we will be missing on them to get the female pregnant. We are contributing to the decline.

Community member: I'm pretty sure that all the consultation meetings will be the same but that doesn't matter to a guy who has bachelor or master's degree. I remember, since I was young, people from government would come here and consult with us. We would tell our concerns and nothing ever happens. I know that when you leave tonight, and you have meetings with closed doors, you will listen to the folks from university, more than us. In the end, they will only reduce the number of tags for the caribou, and will make us more miserable. It's our food, and food in the north is not easy... We always teach our kids to not waste any animals, and that's what we do. But the government doesn't listen to us.

Community member: Living on Baffin Island myself, back then we didn't have any caribou but they returned. In 1990s we had lots of caribou here. Some caribou became infected by parasites. When animals became too many, there get more diseases. Now the caribou is lower and Inuit rely on the caribou for meat. Inuit are restricted to harvest, but it's not the main reason for declining numbers, there are also other predators like wolves. The climate change, I don't believe that has any impact on the caribou. It's more the ocean that is affected by the climate change, the temperature and salinity of the ocean is changing. This summer was cold all throughout the summer, colder than usual so I know the climate change is not affecting the land, just the ocean.

Community member: Next step to the meeting. I don't understand what the result from this meeting is. Did Arctic Bay say no? Maybe we can do a show of hands.

[Unanimous show of hands against listing caribou]

Pond Inlet

Joint Public and HTO Meeting on the proposed listing of Barren-ground caribou as a threatened species under the federal *Species at Risk Act*.

October 17th, 2018

Number of attendees: 15

Environment and Climate Change Canada (ECCC) representatives: Dawn Andrews and Carine Cote-Germain

NWMB representative: Kyle Ritchie

GN representative: John Ringrose

Summary:

- ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- Community and HTO members expressed strong concerns about the lack of Inuit participation in the assessment of Barren-ground caribou and decision-making. They would like to see more local management.
- There were some doubts regarding the numbers of caribou and the survey methodology, and people thought that the estimate of 2 million in the 1990s might be an exaggeration. People believed the caribou population is going through a natural cycle and will eventually come back on its own. However, one person asked for a further investigation on the actual causes of decline of the Baffin herd.
- There were questions about whether listing would effect Inuit harvest rights. Listing caribou as threatened will not cause any changes to how Inuit harvest is regulated.
- People pointed out that Inuit harvest is not to blame for the decline of caribou, noting that Inuit don't take more than they need and that caribou also die from disease and starvation. Information on threats will be used in the recovery strategy if the caribou are listed.
- People objected to all the herds being merged together for the assessment, and to caribou being managed as one group. The Barren-ground caribou were grouped together in the assessment because all these herds are similar in terms of their appearance, behaviour, and genetics. The different herds can be treated separately in the recovery strategy later on in the recovery planning process.
- One community member stated that he supported listing the caribou as threatened if Inuit don't lose harvest rights and if Inuit are included in the recovery planning process.

Comments/Questions:

Community member: After you gather all the information, who will you give your report to?

ECCC: The results from community consultation meetings will go to NWMB and they will make the decision whether they approve the listing or not. Then it will go to the federal minister who will ultimately take the decision on the listing.

Community member: You probably know that in this region, we can only have 25 tags for Caribou. I saw you said in your presentation there would be no change to the Inuit right. But our rights have already been negated, so I don't understand this statement.

ECCC: What we're saying is listing won't add new restrictions. The federal is not responsible for setting those harvest restrictions.

Community member: Why putting more restrictions on top of what we have now?

ECCC: The Species at Risk Act does impose restrictions on where non-Inuit can harvest but the Nunavut Agreement takes precedence.

Community member: So our right under the Nunavut Agreement won't change after SARA?

ECCC: That's right. Listing the species won't affect your rights under the Nunavut Agreement.

Community member: So why am I here?

ECCC: Listing the species would give us more tools to protect the species like protecting critical habitat, making funding available.

Community member: What will happen to those who have become Inuit because they're married to an Inuit? What about their harvest right?

Another community member: I believe they have the right to harvest some species just as the Inuit but for other species the regulations are a bit different. I'm not sure for the Caribou.

Community member: The numbers you gave us, 800,000 caribou, is it for Baffin Island?

ECCC: No, that is for Barren-ground caribou across the entire range. The last count on Baffin Island was around 5000 individuals.

Community member: I saw on the internet a herd of Caribou, they were lots, I can't say how many but they were lots. The other thing, there were 2 million caribou in the 1990s, is that an exaggeration maybe?

ECCC: There are two herds that are increasing, that is the Porcupine herd and the Southampton herd. All the other herds are decreasing. The populations in the 1990s were at their highest, but it has been going down since then.

Community member: That COSEWIC committee, when did they make that statement? And what are the reasons?

ECCC: The assessment report was written in 2016, so it would contain any data that was collected prior to that. There are a number of reasons why they designate the caribou as Threatened. Based on the number of 56% decline, the caribou was qualifying for a higher rank in the species at risk pyramid, the Endangered status, but the committee decided to recommend threatened because the caribou is so wide spread and they didn't think they were about to go extinct at this moment and they wanted to recognize all of the local management that is already in place to help the species recover.

Community member: And there were different from the other populations? Labrador herd is increasing; can we understand why they are increasing even though they are way down?

ECCC: I don't have any information about the Labrador herd.

Community member: They say that Inuit input is always included in the process, and sometimes that's just on paper. Just because somebody came to our community and talk about the project, we will be told that we were consulted. Thanks for coming but I think if we list it, the Inuit won't matter anymore. Once we try to remove that label, it will be very hard for us, right?

ECCC: The caribou will be reassessed periodically, the next time being in about 6 years. At that time if their

number has raised enough to consider they're not threatened anymore, they can be down-listed to special concern or not at risk.

Community member: Once you take your decision, I hope you consider the Inuit knowledge in all the process. How easy will it be to remove the species from at risk?

ECCC: Removing caribou from the list of species at risk would go through the same process as listing it. COSEWIC would gather the new TK and scientific knowledge and recommend a new category under which they should be listed. Then we would come back and consult with you again whether the Caribou should change category.

Community member: Who is authorized to say the final word?

ECCC: The federal cabinet who makes the final decision whether to list the species or not.

Community member: We should be more involved in this process, we live here, and we see what's going on. We are never included in the decision meeting because we're not great scientist, just regular people. For example, they restricted us from hunting whales because they said they were at risk. Even though we were telling them there were lots of whales and we can hunt them. It's only a few years later they said we can because they realized there were lots of whales in Canada. We were trying to tell them but nobody believed us.

ECCC: SARA does recognize traditional and community knowledge and it's required to be involved in all part of the decision making process. The cabinet will take very seriously all the input that we receive.

Community member: The caribou were 2 million in numbers; I think that's an exaggeration. It shows that the caribou were very numerous at one point, and they move a lot. At one point there were not much caribou in other communities because they all moved in pond inlet area. You say they're low in numbers; they are killed by other reason than over-harvesting. They can die from disease or starvation. I know very well that Inuit wouldn't take more than we need. It's an Inuit law.

ECCC: Over-harvest might not be a problem here but in other areas such as where there was more sport harvest, it may have played a large role in the decline.

Community member: The reasons we're saying the caribou should be listed don't come from our region?

ECCC: Yes, they include your region, but it also includes all the herds across the range of the BGCA.

Community member: Have we been affected by threats other than over-harvest?

ECCC: Most of the threats are affecting the caribou here on Baffin Island and across the range. Threats include climate change.

Community member: When was the last federal government study on our caribou herd?

ECCC: The federal government does not undertake surveys, they rely on the GN. The last abundance survey was in 2014 and composition surveys were done yearly after that.

Community member: Where did you get the 56% decline number?

ECCC: COSEWIC gathered all the herds' surveys and took the population where the numbers allow establishing a rate; they averaged the decline of the population in Canada based on those herds. The population surveys have been done by the territorial governments.

Community member: In 1992, here in pond there were caribou. And you could see them everywhere, down the airport, near the gas station, at the lake. That was one huge herd, males, females. They kept coming to feed. After 30-40 years we will see another increase. They have always fluctuated. If the caribou are not harassed too much, they will come back. If they're not harassed by helicopters, ear tagging, etc. they will return. The statement you're trying to make, hold on a minute, wait a bit. We follow them, throughout the winter we follow their tracks, that's TK, we are very sensitive to the environment. The Inuit throughout history have been tested; they know what's happening with their wildlife. Inuit use their experience. We can't put out numbers like you do, and statistics. If you studied caribou close enough you'd see that they will come back.

ECCC: Thank you for sharing all that information. All that knowledge could be incorporated in the recovery strategy.

Community member: If the caribou were listed, you say I won't lose any harvest rights, that Nunavut Agreement will take precedence over SARA. If we are included in the process afterwards, the recovery, and everything, I agree to put the species as threatened but only if my harvest right are not affected. I have starved before, we eat from the land and we've always managed all the wildlife, plants and birds. I have seen that Baffin Island has seen the most important decrease in numbers, what cause that decrease on Baffin Island?

GN: There's no report written just about the decline, there are speculations based on IQ, and science. It could be due to food scarcities (making the caribou herd in a very low population until it grows back up). Also, when a population gets high in density there are more diseases and mortality rate usually rises. But there other reasons like climate change.

Community member: Why hasn't your department been pro-active to find out what is happening?

GN: One of the challenges is that it's hard to study something that has happened in the past (mid-90s). I'm not saying we're not open to trying to find out, but my role here is to listen to the population and report the needs to my department.

Community member: Has they ever been designated as special concern? Or has the decline happened so fast it went directly to *threatened*.

ECCC: Actually, it's the first time the BGCA was assessed and it was suggested to be categorized as threatened. The assessment wasn't done early enough to catch the decline when it was special concern.

GN: Last abundant survey was done in 2014, and that was the whole island. After we've done composition surveys yearly meaning surveying a smaller area (number of bulls, calves, and cows) and looked into how many of them survived year after year.

Clyde River

Consultation meetings on the proposed listing of the barren ground Caribou as a threatened species under the federal *Species at Risk Act*.

October 18th, 2018

Number attendees (HTO meeting): 5 board members

Number of attendees (community meeting): 18

Environment and Climate Change Canada (ECCC) representatives: Dawn Andrews and Carine Cote-Germain

NWMB representative: Kyle Ritchie

Summary:

- ECCC met with the HTO board members in the afternoon for a brief discussion on what was going to be presented at the community meeting. HTO board members asked a few questions about how involved were the Inuit in the assessment of the barren-ground caribou, about the surveys, and about the impact it would have on the quotas.
- A joint public and HTO consultation meeting was held in the evening. ECCC presented a PowerPoint describing the federal species at risk process, why barren-ground caribou have been assessed as threatened, and what it would mean if barren-ground caribou are listed as threatened under the federal species at risk act.
- Community and HTO members expressed strong concerns about the lack of Inuit participation in the assessment of Barren-ground caribou and decision-making. They would like to see more local management and are concerned about their harvest rights.
- One member mentioned there was a generational conflict where the younger hunters want to try new wildlife management methods, but the elders disagree. The Inuit's profound respect for elders makes the younger generation hesitant to talk about it.
- Community members also mentioned potential cause of the caribou decline, i.e. the natural cycle of the caribou population, the predation by wolves, female-male ratio allowed for hunting, and the new technology (snowmobiles scare caribou away).

HTO meeting Comments/Questions/Answers:

ECCC:

- COSEWIC (independent committee) assessed BGCA, and proposed it to be listed as threatened.
 - o Population decreased of about half
 - o New threats (industry, pollution, Climate Change) = might not be able to go back up
- Process:
 - o Assessment (was done by the committee)
 - o Consultations, decision making
 - o Recovery plan
 - o Implementation
- What would happened:
 - o No change to Inuit harvest rights
 - o Nunavut agreement takes precedence over SARA

- For non-Inuit: automatic restrictions are only in National Parks, Migratory Bird Sanctuaries, and National Wildlife Areas.
- We would write a recovery strategy
 - Coordination of all parties involved
 - Herds could be managed separately
 - Critical habitat will be identified (for instance: calving areas and migration routes could be identified as critical for the survival of the species and would be protected)
- Funding could be available to the communities who want to set up projects to protect the caribou.

HTO member: Are there any Inuit on the COSEWIC?

ECCC: I think there's an Inuit representative. And Inuit knowledge was used for the assessment.

HTO member: This number of population (800 000) is it from 1990?

ECCC: No that was in 2016 for all over Canada (all herds included). Number was established out of GN and GNWT surveys.

HTO member: Back in the 1970s, they put quotas for the polar bear because they said they were decreasing a lot. After that the population went back up and now they say they're too many. Maybe that's what will happen with the caribou as well.

HTO member: Do you know what's going on with the Labrador herd?

ECCC: I don't know, this assessment was done on the Barren-Ground Caribou, and Labrador herd is another kind of caribou.

HTO member: What about the Peary caribou?

ECCC: They are already listed with SARA, and their biggest threat is the climate change (condition of snow has changed).

HTO member: In our TK, we know that the animals move a lot, they don't stay in one place. So I believe the Caribou will come back on its own.

HTO member: When you count them, do you only consider the ones with the collars?

ECCC: No, the counting is done by aircraft, and they do transect where they count every caribou they see.

Community Meeting Comments/Questions:

Community member: Ever since I remember, my parents used to say, there are times when they are over populated and declines, it's a cycle. They used to walk inland to find the caribou, to hunt wolves. The predators are the wolves, and they are the reason why the caribou is declining. Be careful with the people who hunt in Igloodik and Arctic Bay. There aren't going to be a lot of them in some time, and they go back up.

ECCC: Thank you for your comment. We certainly do hope the Caribou comes back on their own. The reason why we are concerned about this low number today, is because there are new threats that were not in the past.

Community member: I'm hesitant to the listing, I've listened to CBC about not hunting the females. They can't multiply if all the males are hunted, they won't be able to reproduce without males. I'm concerned about this restriction.

ECCC: Thanks, that's a concern that we've heard in other communities. The federal is not responsible for those

restrictions but we can forward those comments to GN and NWMB.

Community member: During the spring the caribou is tenderer and dries faster. Different seasons make the meat different. Towards the winter, some people don't really like the meat because it tastes different. For Inuit, they eat fermented meat, and they are aware of what they eat.

Community member: If we were to disagree with this listing of the Caribou. Would the quotas be gone?

ECCC: No, the quota that are in place now were put in place without the Species at Risk process to list. The quotas and the listing of the species are two independent processes. It won't increase or decrease the quotas.

Community member: Why did the Inuit didn't get consulted when they decided to put the quotas?

ECCC: That would have been the GN and NWMB, this is not the federal jurisdiction.

NWMB: This is before my time, I imagined they would have been consulted but I can't speak to that. But I know the GN initially recommended a total of 80 to NWMB, and NWMB raised it to 250.

Community member: In your presentation it says: "it won't apply to Inuit rights": it has already affected our harvest rights, we are on quota system. Why are you saying that?

ECCC: We are saying that the listing of the species will not affect the current restrictions, it won't go up or down; only the territorial government and NWMB can make those decisions. There would only be new restrictions for non-Inuit if the caribou were listed as threatened. It would not change the quotas already in place, because it is two independent processes. There would not be NEW restrictions automatically put in to place because of listing under the Species at Risk act.

Community member: Are there any Inuit that are being involved in this decision process? There will be foreign people coming to our community and say that this is happening and we haven't heard anything from the process.

ECCC: The Inuit will be involved starting from this point and forward. This is the moment for you to say what you think and make your comments.

NWMB: We will listen to those comments very seriously. And when we take the decisions we always look into half science and half TK to make a decision. I recommend you write a letter to the HTO and they can forward this to us.

Community member: When people are talking about the decline of caribou. Those people might have heard information from other hunters; I don't believe or don't really know if they are declining. I often hear from people in Hall Beach have a lot of caribou. Migration might be an issue, communities sometimes have a lot of caribou close by, once it was Pond Inlet, and then it was Hall Beach.

ECCC: [Showed the map and which herds are going up and which are going down. Mentioned the Southampton introduction.] Since most of the herds are going down, it makes us think that migration is not responsible for the decline.

Community member: Can we introduce caribou to our community as well?

ECCC: I don't know, but this could be something that we could be looking at for the recovery plan. However, since most of the herds are going low, I'm not sure which herd we could take them from.

Community member: I have noticed in my lifetime that a lot of herds that I saw are in Igloodik. It's not only by

hunters that Caribou die from. In certain years, die-offs might happen in some areas. Would that be the cause of the decline?

ECCC: Yes, certainly weather events can harm the caribou population and create an important die-off at one time.

Community member: We often try and listen to the quotas. We don't, because it's our delicacy, we grew up with them. But we would like to find a way to bring back the caribou; it's expensive to go get the caribou far away. And when we get only 1 or 2, we can't really share. With the quota system, there seem to be not many caribou. The animals are very happy that humans only eat what they are able to share. What goes around comes around.

Community member: We don't eat the caribou that often, because we have to go very far to get it. Once the lakes are frozen then we can have access to them. We only hunt male caribou; I want to see if we can make recommendations to the NWMB and their coming meeting, there could be any form of monitoring and see if there seem to be more caribou. And some people go to the land where there didn't use to be caribou, now there seem to be more caribou in places that didn't use to find them. Often time, I think there must be more caribou in mountains and other places where it's hard to get and find. And if there could be a funding provided for the hunters so they can monitor the caribou. Even if they don't find them often we see the tracks and that could help to understand where they are. Because hunters know where to go and find the caribous, often time they can go to those areas to see if they're around and that could be very precious information.

ECCC: There is a fund that could be available to the communities if the species is listed. You could apply to those funds with this kind of project.

Community member: Are you going to help them get the funding?

ECCC: Yes, we can help them get through the process.

NWMB: we also have some program with funding available to the communities project.

Community member: When I grew up, I saw the polar bear quota system being used. Now look at them, they are healthy. I think we, who are younger, would like to be able to manage our wildlife in a new way, but the elders are saying otherwise, maybe we're scared of our elders but we'd like to try something new. When we come back with only 1 caribou, it's not enough. We want the caribou to come back. Look at the Labrador herd, they used to have lots of calves, now they can't get barely a few. All the wildlife worldwide is going extinct. My generation would like to try something different but the elders will say that's not the Inuit way. Maybe my generation or the younger would like to try something new in the wildlife management, but they are scared of the elders.

Community member: We, as older generation, are not like that; we sometime want to say to the younger people, the way we used to hunt is different. The quota system especially seems to be doing more damage than good. Everyday there are people who are hunting seal, when they go out during the day, if it's nice out, they still go hunting. If there could be a teacher and teach them how to hunt and teach them to protect the animals and the way they are, being cautious about the way the elders used to hunt. It's different from the way they hunt today.

ECCC: The teaching is something that could be including in the recovery strategy. Or it could be a project that could be funded by one of the programs that I talked about.

Community member: 1971 was the last year with the dog teams, and they saw a lot of caribou, the dogs didn't try to hunt the caribou, they didn't hunt them because they had food. The caribou were following them. 2003 they went hunting the caribou, and when they finally found the caribou they followed them by snowmobile, they ran away so fast... in 71 they used to follow people, nowadays they run away from them. The other idea would be to monitor what vehicle they used and the area where there used to be caribou, they might be somewhere else.

ECCC: So do you think the caribou are scared away from snowmobiles?

Community member: That's what I always thought. Back then, when we used the dog teams, they didn't have that problem.

Community member: The people who hunt in other communities we can't control what they do because we're not from there. They have their own way of hunting, and we have our own and we don't say anything about it. It takes years for the slow growth vegetation that caribou is eating. After many years, it will come back and the caribou will come back too. It was generated by elders in the past. 2nd point: in the past, we hunted in our designated area, and we know, because we eat of land, we eat country food, we will leave some animal behind so they regrow. So we are not run by our neighbor Pond inlet, but we are run by other people who live far away, is this correct? Why don't try to make it right? Can we do better? We designate people in our community who live here, and manage the wildlife that we have here. We don't hunt all the animals that we see, just the animals that we need, that's what we do. It takes years before they come back.

ECCC: So maybe more coordination among the communities, would that be a good idea?

Community member: Maybe someone from here to represent us within the government. Because we live here, we know how to manage.

Community member: We don't just take the meat from the caribou, we are not more informative because that was then, and this is now. We used them for clothing and I grew up using the caribou skin and clothing and all sorts of things from the caribou. My grandmother used to say if there is no rabbit skin, we can use the caribou skin for the women's period. We use every part of caribou, and people still use it as mattress and other things. We grew up back then, but it's different nowadays, the children are being taught by other people today, and sometimes people are trying to bring back the tradition for teaching purposes. Bones are used as well, every part is used, the antlers, the penis, my father raised me and that's how I can say because we lived in a traditional way that we share what we catch.

ECCC: Thank you for these comments. The education of the youth is something that could be implemented by the funding programs available

Community member: Has there been any monitoring of the wolves related to the caribou?

ECCC: No, not that I know of. Wolves are counted when they are seen during the surveys, but I don't believe there has been any survey specific to wolf populations.

NWMB: There have been a lot of desires in doing wolves' survey, but it hasn't been done for the moment.

Community member: There're more of us people that don't swim up here. Therefore, when people go in the water, they drown because they use what they buy at the store. But if they were wearing caribou skin, they would be warmer. Or you would be able to be found, because we use it to find people.

Community member: About protecting the caribou, I want to mention that the wolves kill the caribou, we don't really eat the wolves, we just sometime use the skin for clothing, but maybe we could try to decline the

population of wolves. Could that be a possibility to help the caribou recover?

ECCC: That is something that could be considered in the recovery strategy.

	<p><i>ECCC elaborated on the federal listing framework and the steps that lead to a species listing at the federal level.</i></p> <p>NWMB: It is difficult to say what will happen. In March of 2019, once the consultations are done, EC will provide NWMB with their proposal and all of their material. The NWMB will decide if there is enough information. If the the NWMB does not feel there is enough information they may request a public hearing.</p>
5	<p>Community member: If this is a pre-consultation, will there be a final consultation? Or will that be decided in March of 2019?</p> <p>ECCC: There won't be a decision by March. Right now we are doing our consultation to get as much input and information from people. This is the consultation on this phase. It will go up to cabinet at some point if our ministry, or NWMB, think it's a good idea. The timeline depends on the complexity and types of comments we are hearing. Likely two years or longer before a decision is made. This is a really important time for our department to gather information from all of the people affected.</p>
6	<p>Community member: So the federal cabinet will be involved by 2020?</p> <p>ECCC: I am guessing. It is very complicated. The consultation period has been extended and may even go longer. So it is important that people provide their comments or let us know if they need more time.</p>
7	<p>Community member: This is happening in the region of Kivalliq and all over Canada. First of all we live on a little island of Coral Harbour. The caribou here usually remain on the island. We have always been informed by the elders of the animals increasing or decreasing. It has always been a concern. Most of the community remembers the caribou that were brought over from Coats Island and we know that it has helped our herd. We were always taught to manage the animals. When the animals are affected by diseases the hunters and families are also affected. We have always been taught to respect the animals. Both Kivalliq and Canada are affected by this. Has anyone ever reported an increase or a decrease in southern populations across Canada?</p> <p>ECCC: I don't have information on other herds across Canada, but Eastern herds and those in the West (Alberta and BC) are also declining. There is also a lot more development in the south. Herds in the mountains of BC are going extinct, but I don't have all the information about those other caribou.</p>
8	<p>Community member: We have heard in the past that the Baffin herd has declined, but we have also heard that there will be more caribou. We know that, they increase and they decrease, it's just the process of nature. You won't believe this, in Iqaluit there was caribou by the houses; that is how much there were. It was always said that the numbers will always come back.</p>
9	<p>Community member: When they were by Coats Island there were always ups and downs. When I hear that they are threatened I always wonder how caribou are doing in the rest of Canada.</p>
10	<p>Community member: We know mining affects them. Does the federal government of Canada look into the mining when they are looking into the animals for the SARA? Like the Meadowbank or the mining camps?</p>

	<p>ECCC: Right now mining is a territorial area. Federally under the SARA there would be a requirement to look at critical habitat and determine what protection is needed. One of the benefits of listing caribou under SARA would be the development of critical habitat, assessing how we are using the land, what is and isn't working for caribou through cooperative planning.</p>
11	<p>Community member: I can tell you one thing, the seasons are changing, when the ground freezes is changing and the permafrost is changing. Weather will always be a factor. Climate change is affecting the caribou and their habitat.</p>
12	<p>Community member: I helped the crew transport caribou from Coats island over to us. There was a certain way we needed to get caribou into the airplane. The caribou will increase and decrease, and won't follow any policies or guidelines set by the government. But when we were moving caribou, the government helped us get caribou onto the island.</p>
13	<p>Community member: If this is a concern all over Canada, can we find out which provinces are a concern?</p> <p>ECCC: In general, I know George River, BC, and where the oil sands are in Canada, these are three places where Caribou are in decline. I would have to get back to you.</p>
14	<p>Community member: Are we able to get a report from all over Canada?</p> <p>ECCC: I can send Natasha reports for other caribou herds in Canada. I will follow up with that.</p>
15	<p>Community member: Thank you for taking the time to come to our community. I am very thankful and believe in the work that you do under the federal government and the GN. I would also like to say thank you for carrying on the information. I am thankful for good management and good visits. As mentioned earlier, our community likes to keep our younger generations informed.</p>

	ECCC: We will do the same presentation, but at the community hall.
	HTO member: If this goes through, the decision is not right away, but would there still be available tags? Would all communities receive the same number of tags? ECCC: If this goes through the decision will still be up to NWMB and GN. Harvest decisions won't be up to the federal government.
	HTO member: I believe the elders that caribou will go away for a long time. Vegetation takes a while to grow back and these animals move around. I know from the 1950's to 1960's there were quite a few caribou. In my mind, they are now disappearing faster because the caribou eat all that they can, and wolves and Inuit hunt them. It is not just the Inuit who hunt the caribou, but wolves also.
	HTO member: I used to fly around with M. Taylor, the caribou biologist, for quite a few years. The food will take a long time to grow back (5-8 years), so the caribou move around.

Community Comments/Questions:

1	Community member: The mines affect the caribou. Can you approach the mines and tell them that the caribou are declining, and make them stop or do something about it? ECCC: SARA is a way to look at land use and identify the critical habitat, the most important habitat for caribou. The federal government is responsible for endangered species, because they are of national and international importance, to ensure the next generations can live with the wildlife. The SARA would mean a plan would be developed to protect the most important areas caribou need to survive and increase in numbers. This is how SARA could look at mining. <i>Provided an example using a species which is already listed.</i>
2	Community member: Maybe we can look at alternatives. We can get more tags and start killing the wolves. We are not the only problem and the only reason the population has been decreasing over the years. We used to see many caribous over the land. ECCC: In the report it discusses the effects of predation. For wolves it doesn't matter if there are a lot or only a few caribou, they are just as successful at killing them. They may be taking a greater proportion of the population when numbers are low. Caribou are tricky, there isn't just one reason why populations are declining, and it could be an interaction of different things, but predation is one of them. If SARA goes ahead, there could be some federal funding for projects to help protect caribou. <i>Provided an example.</i>
3	Community member: There is a little predation by wolves, but there are other effects to caribou, helicopters, aircrafts and stuff. These affect the caribou. So that should be noted, to the people in charge that should be noted.
4	Community member: I really liked the animal part of the presentation. I think what you talked about in the presentation, the plan, could really help the caribou population.

5	<p>Community member: Myself, I don't think that, maybe they're not threatened. I believe that the hunters know more and they really follow the quotas. I think the only time we are really concerned is when we don't see their tracks anymore or if the weather really changes. That's when we feel they might be endangered. Like in the winter when it rains and the caribou can't reach their food, that's when they die. Nunavut is a vast land and a large region, I think they might have just moved to another part of the land.</p>
6	<p>Community member: I am going to refer to the report that you gave us. 235,000 was the number that you gave us in 1991 and then they didn't look at the population until 2014. So why was it called endangered? What were the percentages?</p> <p>ECCC: You're absolutely right. In 1991 they did a count of the Baffin herd, and again in 2014. That is not very good information. 23 years. That is a big gap. The numbers in 1991 were much higher than in 2014. Baffin is one of the herds that they don't have a lot of information about. They added what information they could find. The report was published in 2016, but was most likely written in 2014. So maybe there is some very important information that isn't in this report. I hope we can get more information and more Inuit knowledge incorporated. Some communities are saying that listing the caribou won't affect them, because the caribou are already well managed. Listing the caribou, however, could help other communities and caribou in other regions. If it gets added to the SARA, my office would be taking care of that. It would be a plan that everyone would be involved in.</p>
7	<p>Community member: Does the federal government oversee the surveys that determine how many caribou are in the area?</p> <p>ECCC: No, usually it's the territorial government. Here the GN have biologist. The federal government might do surveys for other species, like migratory birds, but not caribou. In the 1960's we did caribou surveys, but that's before there was a government of Nunavut. Sometimes the federal government participates or helps support management boards through funding to help do surveys, or by purchasing collars to track caribou.</p>
8	<p>Community member: 23 years seems like a long time to find out the population. Perhaps you can tell the people that do the surveys that 23 years is too long, and we should do the surveys more frequently.</p> <p>ECCC: You're absolutely right. Even when surveys are done, methods differ and people don't always agree on how it was done. You can't count every single caribou. This is a very large part of the country and caribou do move. So these estimates should include Inuit knowledge.</p>
9	<p>Community member: I would like to comment. I don't even want them to be called threatened or special concern. According to our elders, caribou are animals that are always on the go, they are here one day, and they are gone off somewhere else the next. In our region it has been a pattern. The people doing the surveys can't just count them and go: "1, 2, 3, 4, 5...". They might think there's only 5, but there are more for sure. Maybe they don't see all of them in that area from the plane. How can you count like that? I think that the population is going back up in our region.</p>

	<p>ECCC: It is a very good point. There are definitely some challenges about how caribou are counted. Caribou in one area might not be there the following year, or may be doing different things. It is difficult. Others have also mentioned seeing an increase in calves, and I hope that's true, I do hope the quotas can be removed.</p>
10	<p>Community member: If surveys have to be done, then Inuit should be involved. Inuit should be involved for the surveys of different animals.</p> <p>*Crowd applauds*</p> <p>ECCC: Thanks you very much. I agree. There are the surveys that the GN do, but there are also other opportunities to have Inuit involvement or knowledge included, which are just as important as the counts the scientist do. <i>Provided examples: land stewards, etc.</i></p> <p><i>Miriame agrees with Inuit Involvement. She talks about the indigenous guardian programs. How indigenous people are doing their own research, getting information, making and executing their own plans to bring back the land and the culture. Through these programs indigenous people are hired to do the work. Funding is currently available and she can provide more information after the meeting.</i></p>
11	<p>Community member: This workshop, who is providing funding for the visits?</p> <p>ECCC: We are funding this through Environment Canada. We are paying for the meeting, the catering and the hall. This could not have been possible without the help of the community through the HTA.</p>
12	<p>Community member: Who asked for this to happen?</p> <p>ECCC: Every year the committee who wrote this report have a meeting, and they look at how plants and animals are doing across Canada. They might look at up to 30 different species. In 2016 they looked at caribou. They gave the federal government their annual report/proposal, at that time our minister had to make a decisions about what to do. That's when we made a plan and talked to the NWMB. We gave the NWMB the proposal to add caribou the SARA, we know it's very important here, so we talked to NWMB about visiting the communities to see what people think of the plan. When we've visited every community we'll go back to NWMB and tell them what we heard. Does that answer your question?</p>
13	<p>Community member: We used to follow the advice from our elders about caribou and everything. So is it the HTA that asked for the consultations on the caribou? Why are we talking about the Porcupine herd and not about the caribou in our region? And the mines, there are many now. Maybe we have to start closing the mines if it's affecting the caribou populations. Way back we followed strict caribou guidelines from our elders. So did the federal government ask you to come into the communities? Can you answer this first question about the Porcupine?</p>

	<p>ECCC: I wanted to explain the proposal, which is based on all the Barren-ground caribou across Canada, which includes herds in the NWT, Yukon and here on Baffin. I understand, and I hear you. We are here in Cape Dorset tonight. The Baffin herd is the caribou around here and that should be the focus tonight. I apologize, I am not a caribou biologist. My department doesn't manage the caribou here, the GN have biologist, and I would have liked the GN to be here tonight. My department only plays a small part in the big picture. It's the GN, HTA, NWMB, and the community that know your caribou and manage them. By talking about the Porcupine herd, I was sharing what we heard over there and what I know.</p>
14	<p>Community member: I am just trying to be a bit more positive here. 5 years ago we made a decisions based our elders, of what to expect by setting the quotas. Tonight I did not expect this department to be here telling us what to expect. Where is the GN? You work for the federal government? Where is everyone else who is at stake with the caribou, I'd like to better understand that.</p> <p>ECCC: The GN was invited to attend. I really appreciate your comment, and I think the meeting would be a much better use of everyone time if the right people were here. The GN included. Which is why I'm very happy that Kyle, the NWMB, was able to come, I really appreciate it, and it's a lot of time. We are all the government, we need to work together and with the communities. So If you have comments on how it could have been done better, or how we can do better in the future, please add them tonight.</p>
15	<p>Community member: The main point of the consultation you are doing now is to tell us about the proposal recognizing the caribou population as being threatened, and to inform the GN, NWMB and all people, about what we think? So they are aware of what the people want, and to help them make decision?</p> <p>ECCC: Yes, that is correct.</p>
16	<p>Community member: I don't want to be so negative, but you said you invited the GN and NWMB and all stakeholders to be here, but they are not here. What good will come of this consultation if the stakeholders aren't here? That is a concern. I hope to see changes, but the CWS might have their own opinions that are different than our Inuit culture and this seems like a waste of time. I don't want to be negative, but sometimes it's the truth, the hard truth.</p>
17	<p>Community member: The NWMB was supposed to come here in the fall for consultation, but I don't know what happened to their trip. The paper questionnaire provided is a good opportunity for people to voice their concerns.</p>
18	<p>Community member: I am really glad that you are here for the consultation. It's good that we are not being left out, but I'd like to stress that Inuit Qaujimajatuqangit need to be involved in all areas of consultation, and that is very important.</p>
19	<p>Community member: The way I understand it, is from elders knowledge. I was born in Netsilik, quite a way from here. The only reason we were in the Netsilik area was because there were no caribou in this area at that time. We used to move based on where the animals were. It could be like that now. I am not concerned about the caribou being threatened. The caribou were here a few years ago and then they ate all the food. They were healthy and then skinny. Then they</p>

	<p>moved away somewhere else. I have very high hopes of them moving back, maybe in a few years, when I am gone, the caribou will be back in great numbers again.</p>
20	<p>Community member: In this handout we are helping the species that aren't doing well. I don't really go for that. My father used to say if an animal or species is not well, or is sick, we should kill it.</p> <p>ECCC: I may have used the wrong word or language. I meant if the caribou numbers aren't good, we need to help the caribou numbers to get better. Not the sick caribou.</p>
21	<p>Community member: I used to work with the HTA for a number of years. Back then we used to hear that bears were endangered and now we have bear encounters like never before. So we don't always believe what is said, sometimes it is not true. So I believe what my elders say.</p> <p>Before the white man came, hunters used to go and get thousands of caribou to feed the community for the year, and it never affected the herds. There won't always be caribou, the elders have said, once the food goes the caribou will move to another place, but there is always hope. When the food grows back the caribou will be back. We will always have hope.</p>
22	<p>Community member: It would be excellent if everyone could fill out the forms. I believe that everything said in these consultations will be recorded and used at a later time. Everything will be sent back to the HTA for the community to review, is that my understanding?</p> <p>ECCC: Yes. All the notes that we've taken at the HTA meeting this afternoon and right now will be sent back to the HTA so you can make sure they reflect what you have said.</p>

	<p>ECCC: In 2011 they specified the caribou herds (groups) and said they would write a report for each one, but if you don't agree with the groupings that were selected, that is an important comment to tell us. If you think South Baffin should not be included in the group, you can say that. These are important comments.</p>
6	<p>HTO member: We can look at this from a different perspective. We could say caribou are a species at risk because of their high abundance. High abundance results in herds being killed off because vegetation is limited, and they cannot feed. People aren't over-harvesting, but caribou numbers are too abundant causing caribou to die-off.</p>
7	<p>HTO member: My mother and father used to tell me that there used to be herds of caribou not far away from the community where they wintered. There used to be an abundance of caribou in this general area, but when I was growing up as a child there were hardly any caribou. I recall hunters hunting way up north beyond the shoreline for many days. Sometimes they caught some and sometimes not. I agree with the report, there are low populations at this time, and I would like to have more say.</p>
8	<p>HTO member: I'd like to add, our elders used to tell us that there used to be different types of caribou. Now Baffin Island caribou have eyelashes, which are not originally from the Baffin Island. In 1930 there used to be an abundance of caribou and in 1965 and 1970 there were low populations of caribou. But they began increasing again in the 1970's, and by the 2000's the caribou began dying off again. Not because of people, but because there were too many. This can happen to any species, it is a known fact, when there are too many they die-off.</p>
9	<p>HTO member: Baffin Island caribou appear different than those with eyelashes, which aren't local and are probably the migratory caribou that crossed the Hudson Strait to Baffin Island. Migratory caribou from other areas may have eaten the vegetation the Baffin Island caribou normally feed on. Our caribou here are different and we know that because of their appearance. The migrating herds seem to migrate for a long time, while the local caribou seem to only migrate around the area.</p>
10	<p>HTO member: The South Baffin Island caribou subpopulation should not be put into the SARA. As you know we are managing the current quota system, and we decide how they are going to be harvested. The GN and the NWMB work together to determine the caribou subpopulation, and there has been an increase in the subpopulation in South Baffin, and therefore there is no need for SARA implementation.</p> <p>ECCC: Thank you. The community members in Pangnirtung have also started to see an increase in caribou in South Baffin. We have heard this as well. Article 5 does not change, even if there is SARA, the harvest rights of Inuit do not change, and the federal government would not manage the harvest in Nunavut.</p>
11	<p>HTO member: This is a large area to cover, there is North and South Baffin Island. There should be a boundary.</p>
12	<p>HTO member: Looking at this map of Barren-ground caribou, you are asking us if we are going to put the caribou on SARA. All the caribou across? We are already in some sort of a program, so we are going to speak on behalf of other people who are not on the program? Because right now, I cannot go out and shoot a caribou, I'll be charged. There's a program there for us.</p> <p>ECCC: You speak for your area. Speak for what you know. This is your area.</p>

	<p>HTO member: Right now you are asking if we are going to put them with SARA, so we are actually talking about the other communities.</p> <p>ECCC: Yes, all the way across.</p> <p>HTO member: So it doesn't really make sense to me why you are here asking us about this when we are already in a quota system.</p> <p>ECCC: When this committee decided how to group the different caribou across Canada, they looked for caribou with similar behaviour, appearance and genetics. We know they move and they mix. This is why they group them together, they couldn't see a way to group them apart. You don't obviously need to agree with that, but this is what the proposal is based on. <i>(Map was used to point to and explain differences between herds.)</i></p>
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Community Meeting Comments/Questions:

1	<p>Community member: The Coral Harbour herd, as you mentioned, is increasing. However, in the last couple of years there seems to have been some declining numbers. Did you say that the caribou herds in Coral Harbour are increasing?</p> <p>ECCC: Yes. In the report there is a section on population estimates. There's a subsection called Southampton Island. Keep in mind this report was finalized in 2016, they probably wrote most of it in 2014-2015. So any new information since then won't necessarily be in there. When this report was written, two of the 14 herds were going up, and the Coral Harbour herd was one of them. They thought it might have something to do with caribou crossings from the mainland in winter.</p>
2	<p>Community member: The reports, as you mentioned, were from 2016 regarding species at risk for caribou. Where did this come from? Who wrote them? Is it from NWMB?</p> <p>ECCC: The committee that wrote the report is COSEWIC.</p> <p><i>Provided background on COSEWIC and used a slide to visually show different status classifications and indicate where caribou fall – in the middle.</i></p>
3	<p>Community member: For the Baffin Island caribou in South Baffin, we already preserve and manage our caribou here. There is no one from NTI or NWMB in here, how come they are not here? As mentioned you are from the Yukon, right?</p> <p>NWMB: Kyle Ritchie introduces himself.</p> <p>ECCC: An invitation did go out to NTI. We've also been in contact with, and invited, the GN to send someone. Ideally they would be here too, because the Nunavut agreement, and harvest rules for hunting caribou, is all managed by the HTA, NWMB and/or by GN, not the federal government. Unfortunately I don't have any co-workers who work on caribou from ECCC here in Nunavut. We have an office in Iqaluit, but we are trying to build those positions. Once those positions get filled, then those people should be the ones who come to your communities. I am not from Nunavut. Your caribou is being managed well, I know. I am here</p>

	<p>to try and help, but I must admit I am not from here so I don't have great knowledge of what is going on, but we didn't have anyone else to come.</p>
4	<p>Community member: Right now the caribou are quite close to our community and for quite sometime there were hardly any. Before the use of vehicles, men used to go hunt on the land for clothing and without snowmobile, they had to walk there, far away from their camps. Now during summer we are allowed to harvest caribou. Who decided to try and band the caribou harvest?</p> <p>ECCC: I do want to be really clear that putting caribou on the SARA does not ban hunting by Inuit. So the same way caribou is managed now, will be the same way caribou is managed after. I know other quotas appear in other parts of Nunavut. That is all through NWMB, HTA and the GN. That will not change.</p>
5	<p>Community member: Who is funding the community visit? Is it the HTO or NWMB?</p> <p>ECCC: The funds to support the travel, the catering, the HTA members' time, and the translators, this is all from Environment Canada.</p>
6	<p>Community member: What is the cause of the decline in the caribou populations? Is it because of disease?</p> <p>ECCC: It's a good question. You know more about your caribou than I do, but in the report they talk about a number of different causes. Caribou are tricky because there is likely not one thing, but many factors causing the numbers to go down. These may not be true for every herd, but some of the big ones outlined in the report are: (1) climate change, and the way that it could affect parasites, disease, predation or changes in vegetation; (2) mining or human activity, affecting land or creating noise disturbances; (3) pollution and contaminants; and in some cases (4) harvesting, which may not be necessarily true.</p>
7	<p>Community member: Do you know what kind of parasites caribou have?</p> <p>ECCC: We can look in the report. I'm not a caribou biologist. I know some caribou herds, like Coral Harbour, have had Brucellosis. For a while it seemed every other caribou had this disease, which could be a factor for some herds. But we can look more at the report together or we can talk after.</p>
8	<p>Community member: Have you got any updated numbers for Baffin Island caribou? In terms of subpopulations? Is there updated information about the surveys in this area?</p> <p>ECCC: All I have is what is in this report. The Baffin herd didn't have very good information. They had a count done in 1991, then the next estimate for Baffin was done in 2014. That is what is reported in here. In 1991, the estimate in South Baffin was 60-180, in North Baffin 50-160, and over 10,000 in North-East Baffin. In 2014, they reported 4,600 total. But this is not very good survey information, because they only have two counts. EC isn't really involved in the surveys, GN and MWNB are responsible for surveys and management. The Inuit knowledge is very important and is needed in that report. Through the IQ people had a good idea of what was going on with the caribou even though the scientist didn't have a count between 1991 and 2014.</p>

9	<p>Community member: I understand that the harvest won't be closed for good, however we are already affected by the quota system. We used to have gathering and feasting time together with other community members, with the quota system that is no longer the case. Now we savour our caribou meat for later. Some get lucky and are given caribou meat, but some don't even taste it anymore because there is nothing, and we are already affected by the quota system.</p>
10	<p>Community member: Another major concern for caribou are the wolves. They are preying on caribou day and night. They probably get more caribou than us. That is something that should be looked into, and I would be happy if there was a program in place to reduce the wolf populations.</p>
11	<p>Community member: The use of helicopters for surveys should stop. The wildlife have acute hearing and they can definitely hear the helicopters, and are disturbed by them. We are in 2019, we can find something else other than helicopters. Because they are so loud, the scientist would get better results if they found a better way. Scientist collar caribou, walrus and polar bears, you guys do more harm than good. You should find a better way to do that.</p> <p>ECCC: Really thinking critically about the methods that are used is important. We want to gather good information, but we don't want to be doing any harm by the way we are doing it. That all makes lots of sense.</p>
12	<p>Community member: My question is regarding caribou parasites. There used to be an abundance of caribou here in Kimmirut, Cape Dorset and Iqaluit. The first time I saw parasites on the neck of a caribou I was butchering, I almost ran away. What happened to the caribou that were around Cape Dorset and Iqaluit? Where did they go?</p> <p>ECCC: You know better than I do. There are probably a bunch of different reasons. Some people think they moved off the island. There are different factors that can make it hard for the caribou to get the food they require to reproduce: climate change, weather events, rain. Different factors cause their numbers to go down.</p>
13	<p>Community member: During our meeting today at the HTA board we mentioned that that we want to talk more about South Baffin rather than the whole area because we are from here. You are here to consult with the community. You are not the biologists, you are here to get feedback from the community regarding what we think about listing caribou under SARA or if the numbers of caribou are too low.</p> <p>ECCC: This is correct. This is the main question.</p>
14	<p>Community member: I don't believe in the declining numbers. They are following vegetation. At high abundances they die-off, that's just nature. One time caribou died-off because of abundance, to the point where some that we thought were alive were actually dead on the lake. I am not concerned with the caribou close to our area, because on the current fishing areas/trails caribou have been seen. I would be concerned that I would be able to harvest caribou as much as earlier like Coral Harbour. What about the other areas like Kivalliq, Chesterfield and Rankin, what's going on in those areas?</p> <p>ECCC: Thank you for those comments. I can try and find information in the report for these herds. Coral harbour is one of two herds increasing, it's an island and is likely easier to do</p>

	<p>counts on. The counts are good over the past 20-30 years. Kivalliq I would need to check. <i>Read the population numbers for various herds directly from the report.</i></p>
15	<p>Community member: My question is, are you asking us if caribou should be put on the SARA and if caribou are a species at risk? Is that why you are here?</p> <p>ECCC: Yes, we are here today to ask you if you think caribou should be added to the SARA. We are here to ask you what you think.</p>
16	<p>Community member: There are other factors and animals that should be considered under SARA. For example, polar bears, they never used to come into our communities. This is a risk factor that needs addressing. And now we are talking about caribou. Nowadays we need to order from Kivalliq, and it's very expensive. We only have one month to harvest caribou in a season. Those who have harvested local caribou, they savour their caribou for later, and do not think to share.</p>
17	<p>Community member: If caribou should be under SARA, there should maybe be a vote. To assess who are for or against it.</p> <p>ECCC: However you want to do it. But we would also like to hear what you think or if there are any concerns.</p>
18	<p>Community member: If barren ground caribou were to be listed under SARA. How long would they be under SARA? Is it 5, 10, 20 years, or once caribou populations are in a better situation? What's that timeframe like?</p> <p>ECCC: Thank you for that question. I want to be really clear that, if caribou were listed under SARA, there aren't immediate conservation measures. I know you already have quota here, I don't know what the duration or the timeframe is on those, but those are the management of the GN, NWMB and HTA, that's not SARA.</p>
19	<p>Community member: My concern is, how long it will take for the Federal Cabinet to make a decision. Is it a few months from today?</p> <p>ECCC: <i>Showing a summary slide.</i> A decision isn't going to happen anytime soon. Right now we are at the proposal stage and have extended the consultation period, because people have a lot to say and it is very important. Right now we are collecting peoples' comments and thoughts until March 2019, but that may be extended further. We will provide NWMB with a summary of what we've heard in March, since they also play a role in the decision. Before my minister makes a decision she will receive all of the important information we gather here in Nunavut. No decision from cabinet for at least two or three years, or perhaps longer. It won't be soon. I hope that helps.</p>
20	<p>Community member: Now we need to answer the question whether or not our Barren-ground caribou herds should be under SARA. We might have the opportunity to answer the paper questionnaire that is provided here in Kimmirut tonight. But for us here in Kimmirut what we practice is already convenient and very good. My concern is that I don't want to answer for central community areas, that's their discretion, not for me from Baffin Island. I do not wish to speak on behalf of the Kivalliq, or other regions.</p>
21	<p>Community member: I would like to add a brief comment about what I think of the question. It will be difficult to add more caribou to our quota. We are already managing under article 5.</p>

	<p>I have no problems with how caribou harvesting is currently setup because we like to see the caribou increase in the long-run. The only thing I am uncertain about is how long it will take for the caribou populations to increase. When I was a young man there were no caribou for a long period of time, and that could be the case now, but nobody knows. I do believe caribou populations are in decline and at risk. I suggest that more surveys be done on Baffin Island caribou, particularly South Baffin Island caribou.</p>
22	<p>Community member: You are trying to gather information about whether we think the caribou are a species at risk. I've been listening to CBC radio, and this has been the topic on the media, that's what they've been saying. But in fact they are not at risk, is what I've been hearing. To no longer have a quota we need to wait a bit longer. Caribou cows only calve once per year, and to continue harvesting males in the mean time is what I'm hearing.</p>
23	<p>Community member: I think we have 30 caribou tags that will be distributed in seven months. The HTA needs to consider that some people don't have equipment to go out hunting. The current assistance is not enough for those that don't have boats, skidoos or vehicles.</p>
24	<p>Community member: What does article 5 state, and how do you interpret it? Have you got a copy of article 5?</p> <p>ECCC: I do, but I am not the expert. Perhaps Kyle could speak to it. The point I wanted to make was that article 5 is of higher priority than SARA. If caribou are on SARA and you want to know how caribou are managed, don't look at the SARA look to article 5.</p>
25	<p>Community member: This Barren-ground caribou population is wide ranging. It seems to be not just Baffin, it extends to the high Arctic. There's probably more caribou in our South Baffin area than in Pond Inlet and Arctic Bay.</p> <p>ECCC: Thank you. You are right, the committee looked at all caribou within this red line (<i>showing map</i>) and grouped species by similarity. As you know, and as we discussed, there are different herds within this group, but they've been considered all together.</p>
26	<p>Community member: I would like to adjourn this meeting because you are mentioning other jurisdictions. I thought I understood, but then other jurisdictions were mentioned. I thought our caribou were the topic to discuss, not other subpopulations of caribou, since we don't harvest caribou from the Boreal forest or the Porcupine herd.</p>
27	<p>Community member: Whether or not caribou are listed under SARA, you said it won't affect our hunting rights. I believe it will impact us, because the NWMB is a part of it. That is why I am against the proposal.</p>
28	<p>Community member: I thought you were all experts up there, but now I think that you are not. Polar bears were put on the SARA, but caribou are not a species at risk. I would like to harvest caribou in the winter and female caribou. The herd I recently saw had only one male with them and perhaps couldn't even mate with any of the females. We didn't come here to talk about Yukon caribou we came here to talk about Nunavut caribou.</p>
29	<p>Community member: The chairman was explaining that we still have caribou.</p>
30	<p>Community member: Thank you. Hopefully you will understand what I have to say regarding animals. We the Inuit don't own animals, nobody does; animals are a part of the world. They move and get around themselves. That is just a fact. Animals don't belong to us, they belong to themselves. I'd like to mention that NWMB, HTA, and the committee mentioned earlier</p>

	<p>(COSEWIC) should be told that animal aren't theirs, they aren't a pet, they are wildlife. Conservation officers just like to charge people to feel like they are the winners. They don't know the animals. They bring people to court so they can feel like the winners.</p>
31	<p>Community member: I cannot say that caribou are declining in numbers, but I can say caribou are very important to us. I wish to see a rise in caribou, and if putting caribou under SARA will help increase numbers then we need to support SARA. Wolves were mentioned earlier, giving out traps for wolves would be good.</p>
32	<p>Community member: I was not addressing the HTA board, I wanted to say that I would like to be allowed to harvest caribou anytime of the year (winter and summer), and I would like this expression of interest to be recorded.</p>
33	<p>Community member: If I may, the question tonight was to ask if we should put Barren-ground caribou under SARA, it was not regarding what we are going to harvest. We are talking about whether or not caribou will be identified as a SARA species, that's why you came to our community, to present your proposal and consult with us. It was not to talk about what we are going to harvest.</p>
34	<p>Community member: Regarding our discussion tonight, I would just like the people from my community to expect that caribou will be calving this summer for certain, and there will be more caribou without a doubt. As mentioned earlier, we don't own animals, we are given the animals for us to use. We are tired, and I would like to adjourn this meeting. Thank you to the elders who brought up important topics tonight.</p>



Barren-ground Caribou Proposed listing as Threatened

The following questions are intended to assist you in providing comments. They are not limiting and any other comments you may have are welcome. We also encourage you to share descriptions and estimates of costs and benefits where possible.

Questionnaire filled out by:

MIKE JAYPOODY

(Print name / title)

Organization:

HUNTER

Date questionnaire completed:

October 10, 2018

Have you seen Barren-ground Caribou in your area? Yes No

What is your organization's position/opinion on the proposed listing of Barren-ground Caribou as Threatened?

- Support the proposed listing of Barren-ground Caribou as Threatened
- Do not support the proposed listing of Barren-ground Caribou as Threatened
- Indifferent to the proposed listing of Barren-ground Caribou as Threatened

What are your reasons for this position?

I believe from the stories of our elders that there are always decline / rise of every species but in terms of climate change, the predatorial species coming up might be an issue so that we as hunters can try and monitor or be notified of what species are coming up that hunt caribous.





Please fax this form to **867-873-6776**
Or email to **ec.sarnt-lepnt.ec@canada.ca**
by **October 22, 2018**

Do you have any additional comments?

Some points to consider:

- What impact do you think that listing Barren-ground Caribou as a wildlife species at risk would have?
- Do you have any other information or concerns that the federal Minister of the Environment should consider before making a decision on the listing of the species?

People are ~~causi~~ concern about only to hunt male caribou using the quota system and without many males to mate with female caribou, I think that is part of the decline in some areas.





Barren-ground Caribou Proposed listing as Threatened

The following questions are intended to assist you in providing comments. They are not limiting and any other comments you may have are welcome. We also encourage you to share descriptions and estimates of costs and benefits where possible.

Questionnaire filled out by:

Levi Palituga

(Print name / title)

Organization:

HTO

Date questionnaire completed:

October 18, 2018

Have you seen Barren-ground Caribou in your area? Yes No

What is your organization's position/opinion on the proposed listing of Barren-ground Caribou as Threatened?

- Support the proposed listing of Barren-ground Caribou as Threatened
- Do not support the proposed listing of Barren-ground Caribou as Threatened
- Indifferent to the proposed listing of Barren-ground Caribou as Threatened

What are your reasons for this position?

There has not been much Consultation done on Caribou. or lack of Consultation.

I think the quota system should be continued until a permanent Plan is in place.

This time Inuit should be or should have a permanent seat in the plan for management.





Do you have any additional comments?

Some points to consider:

- What impact do you think that listing Barren-ground Caribou as a wildlife species at risk would have?
- Do you have any other information or concerns that the federal Minister of the Environment should consider before making a decision on the listing of the species?

Barren-ground Caribou
Proposed Listing as Threatened





Barren-ground Caribou Proposed listing as Threatened

The following questions are intended to assist you in providing comments. They are not limiting and any other comments you may have are welcome. We also encourage you to share descriptions and estimates of costs and benefits where possible.

Questionnaire filled out by:

(Print name / title)

Organization:

Date questionnaire completed:

Have you seen Barren-ground Caribou in your area? Yes No

What is your organization's position/opinion on the proposed listing of Barren-ground Caribou as Threatened?

- Support the proposed listing of Barren-ground Caribou as Threatened
- Do not support the proposed listing of Barren-ground Caribou as Threatened
- Indifferent to the proposed listing of Barren-ground Caribou as Threatened

What are your reasons for this position?

Good Population with the Wager Bay herd.





Do you have any additional comments?

Some points to consider:

- What impact do you think that listing Barren-ground Caribou as a wildlife species at risk would have?
- Do you have any other information or concerns that the federal Minister of the Environment should consider before making a decision on the listing of the species?

Other Populations are at Risk. This recommendation should ~~not~~ be considered by populations that are at risk. Not populations that are doing well.





Barren-ground Caribou Proposed listing as Threatened

The following questions are intended to assist you in providing comments. They are not limiting and any other comments you may have are welcome. We also encourage you to share descriptions and estimates of costs and benefits where possible.

Questionnaire filled out by:

BEN KOVIC
(Print name / title)

Organization:

Amara & Hunter & Trapper

Date questionnaire completed:

Oct 22 / 2018

Have you seen Barren-ground Caribou in your area? Yes No

What is your organization's position/opinion on the proposed listing of Barren-ground Caribou as Threatened?

- Support the proposed listing of Barren-ground Caribou as Threatened
- Do not support the proposed listing of Barren-ground Caribou as Threatened
- Indifferent to the proposed listing of Barren-ground Caribou as Threatened

What are your reasons for this position?

For reasons are so many. One side of our caribou are so call Barren-ground caribou - there is special name for them "Bojja Caribou" Even if our caribou have declined we are still working to bring them back





Do you have any additional comments?

Some points to consider:

- What impact do you think that listing Barren-ground Caribou as a wildlife species at risk would have?
- Do you have any other information or concerns that the federal Minister of the Environment should consider before making a decision on the listing of the species?

~~The right to consider them as
Species at Risk~~

my suggestion that, the caribou
in Nunavut are not or should
be listed as "Species of Concern",
"Threatened" "Endangered" only
as "Not at Risk" - because we
need better Science information
on these herds

Ben Kovic





Barren-ground Caribou Proposed listing as Threatened

The following questions are intended to assist you in providing comments. They are not limiting and any other comments you may have are welcome. We also encourage you to share descriptions and estimates of costs and benefits where possible.

Questionnaire filled out by:

Tommy Akavak
(Print name / title)

Organization:

Resident / Hunter

Date questionnaire completed:

January

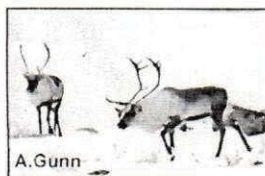
Have you seen Barren-ground Caribou in your area? Yes No

What is your organization's position/opinion on the proposed listing of Barren-ground Caribou as Threatened?

- Support the proposed listing of Barren-ground Caribou as Threatened
- Do not support the proposed listing of Barren-ground Caribou as Threatened
- Indifferent to the proposed listing of Barren-ground Caribou as Threatened

What are your reasons for this position?

There are less caribou everywhere due to global warming, mining, hunting and other reasons that I do not know about. Maybe it is a cycle??



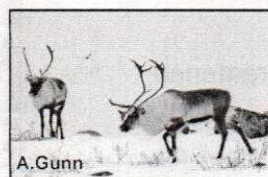


Do you have any additional comments?

Some points to consider:

- What impact do you think that listing Barren-ground Caribou as a wildlife species at risk would have? *It would not be a good thing if we had no more caribou so any impacts would like be nothing.*
- Do you have any other information or concerns that the federal Minister of the Environment should consider before making a decision on the listing of the species?

If the ~~be~~ barren-ground caribou are listed as threatened under SARA, it would be appropriate to give us wolf traps and put a cull (bounty) on wolves to give the caribou a helping hand. Wolves are the main predator of the caribou and it is thought that they even kill more caribou than people (hunters).





Barren-ground Caribou * Cape Dorset *

Proposed listing as Threatened

The following questions are intended to assist you in providing comments. They are not limiting and any other comments you may have are welcome. We also encourage you to share descriptions and estimates of costs and benefits where possible.

Questionnaire filled out by:

(Print name / title)

TABIALUK NANA

Organization:

Aivia HTO

Date questionnaire completed:

Jan 22, 2019

Have you seen Barren-ground Caribou in your area? Yes No

What is your organization's position/opinion on the proposed listing of Barren-ground Caribou as Threatened?

- Support the proposed listing of Barren-ground Caribou as Threatened
- Do not support the proposed listing of Barren-ground Caribou as Threatened
- Indifferent to the proposed listing of Barren-ground Caribou as Threatened

What are your reasons for this position?

Caribou's
they will come back when there
food grow back





Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

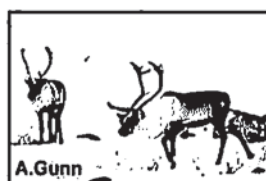
Please fax this form to **867-873-6776**
Or email to
ec.sarnt-lepnt.ec@canada.ca

Do you have any additional comments?

Some points to consider:

- What impact do you think that listing Barren-ground Caribou as a wildlife species at risk would have?
- Do you have any other information or concerns that the federal Minister of the Environment should consider before making a decision on the listing of the species?

Barren-ground Caribou
Proposed Listing as Threatened



Canada

Summary of the Assessment and Status Report on the Caribou *Rangifer tarandus* (Barren-ground population).

https://wildlife-species.canada.ca/species-risk-registry/document/default_e.cfm?documentID=3189

Scientific name

Rangifer tarandus

COSEWIC Status

Threatened

Canadian range

Yukon, Northwest Territories, Nunavut, Alberta, Saskatchewan, Manitoba

Reason for Designation

Members of this population give birth on the open arctic tundra, and most subpopulations (herds) winter in vast subarctic forests. Well-known for its large aggregations, lengthy migrations, and significant cultural and social value to northern Aboriginal Peoples and other Canadians, its 14-15 subpopulations range from northeastern Alaska to western Hudson Bay and Baffin Island. Numbering more than 2 million individuals in the early 1990s, the current population is estimated at about 800,000. Most subpopulations have declined dramatically, but two are increasing: the Porcupine Caribou Herd and the Southhampton Island herd. For 70% of the population with sufficient data to quantify trends, the decline is estimated at 56% over the past three generations (since 1989), with several of the largest herds having declined by >80% from peak numbers. Available survey data for an additional 25% of the total population also indicate declines. Evidence from both local Aboriginal people and scientific studies suggests that most herds have undergone natural fluctuations in numbers in the past; however, available data indicate no sign of rapid recovery at this time and cumulative threats are without historical precedent. Status meets criteria for Endangered because of a reduction in numbers of ≥50%, but Threatened is recommended because, overall, this population does not appear to be facing imminent extinction at this time. Despite worrisome declines across most of the range, the current numerical abundance of the Porcupine Caribou Herd and the initiation of numerous management actions by governments, wildlife management boards, and communities support Threatened as a more appropriate conservation status. The status of these subpopulations will have to be carefully monitored and may warrant re-assessment within five years.

Wildlife Species Description and Significance

All the world's caribou and reindeer belong to a single species, *Rangifer tarandus*, and are found in arctic and subarctic regions as well as in northern forests. Barren-ground Caribou are characterized by long migrations and highly gregarious behaviour, often travelling in groups of hundreds or thousands. As a relatively large herbivore with an extensive distribution and high numbers, Barren-ground Caribou is a keystone species, playing a key ecological and cultural role in northern ecosystems.

The significance of Barren-ground Caribou to the peopling of northern Canada is evident from archaeological findings tracking the distribution of people and Barren-ground Caribou relative to the retreating glaciers some 8,000 years ago in the central barrens and as long as 12-15,000 years ago in the central range of the Porcupine subpopulation. Barren-ground Caribou have been and continue to be a key resource for people in northern Canada; in some cases these animals have such importance that families would follow their migration. They have significant direct economic value from harvest, primarily for subsistence use. They also contribute to the northern economy through wildlife tourism

and recreational hunting; beyond this, they have incalculable cultural value for people throughout the subpopulation ranges.

Distribution

The global range of Barren-ground Caribou extends from Alaska to western Greenland, and is continuous across northern continental mainland Canada, from northwestern Yukon to Baffin Island. The northern extent is the Arctic mainland coast; the southern extent is northern Saskatchewan, Alberta and Manitoba. Sampling efforts and methods have varied among subpopulations, leading to differences in interpreting subpopulation structure; 14-15 are recognized in this report. Some are combined for the purposes of generating population abundance and trend estimates, for a total of 13 units. Ten subpopulations have been consistently identified for the past several decades, mainly through fidelity to calving areas.

Fluctuating abundance of individual subpopulations affects distribution; as Barren-ground Caribou decline in abundance their distribution (especially during winter) changes, reducing the length of fall and pre-calving migration. Mainland subpopulations of Barren-ground Caribou generally migrate toward the Arctic coast to calve, and occur during summer and fall on the tundra of the Southern Arctic ecozone. Western and central mainland subpopulations usually winter in the boreal forests.

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Distribution of Caribou subpopulations in the Barren-ground Caribou designatable unit. Map by Bonnie Fournier, GNWT.

Habitat

Habitat requirements are partly driven by the need for forage, which depends on the timing of the caribou's annual breeding cycle and its nutritional costs relative to the brief plant growing season and long winters of the sub-arctic and arctic regions. Caribou are generalist foragers, especially in summer, and select among grasses, sedges, shrubs and forbs for nutrient content according to the stage of plant growth rather than plant species. Barren-ground Caribou require large annual ranges (several hundred

thousand square kilometres in size) to enable selection of alternative habitats in response to annual variations in the environment, such as snow cover, plant growth, and/or predation or parasite risk. Habitat attributes that are important for calving include those that reduce predation risk and maximize nutrition intake; these vary among calving grounds. Forage requirements depend on the timing of the annual breeding cycle relative to the brief plant growing season and long winter that is characteristic of the sub-arctic and arctic regions. On summer ranges, caribou seek habitats that reduce exposure to insect harassment, while obtaining high-quality forage. While most subpopulations winter in the boreal forest, several remain in tundra habitats at that time.

Within the previous three generations, there has been some reduction in habitat as a consequence of the natural fragmentation of the winter ranges caused by forest fires and increasing human presence (i.e., infrastructure) on the caribou ranges. However, habitat outside the forested winter range is still largely intact at the landscape scale. The generally increasing trends in human population will increase economic development (industrial development, roads and traffic) within Barren-ground Caribou ranges in the future.

Biology

Caribou usually first calve at three years of age, although they can calve at two years when conditions are favourable. Females give birth to a single calf and may breed every year, although if nutritionally stressed they do not conceive every year. Calving is highly synchronized, generally occurring over a 2-week period in June. Annual migrations and gregarious behaviour are the most conspicuous characteristics of most Barren-ground Caribou subpopulations. They are adapted to a long winter season when cold temperatures, wind chill and snow impose high energetic costs. Those costs are met through reducing their maintenance energy requirements and mobilizing fat and protein reserves.

Predation is an important factor affecting many facets of caribou ecology, as caribou movements and habitat choices are often made to minimize exposure to predators. An array of predators and scavengers depend on Barren-ground Caribou: Grizzly Bears are effective predators on newborn calves, while Wolves are predators of all sex and age classes throughout the year. Pathogens together with insects, play an important role in caribou ecology with effects ranging from subtle effects on reproduction through to disease and death.

Population Sizes and Trends

The current population of Barren-ground Caribou is estimated at about 800,000 individuals. Between 1986 and mid-1990s, the overall trend was an increase to > two million, followed by a decline, which has persisted through today. Of 13 subpopulation units used to derive abundance estimates, eight are declining, two are increasing, and three are unknown. The median three-generation percentage decline in the total number of Barren-ground Caribou was 56.8% (range = -50.8 – -59.0%), based on the summed population change for seven subpopulations with sufficient survey data, which comprise almost 70% of the total current population. Four of these seven subpopulations declined by >80% during this period, one had a median decline of -39%, characterized by marked variability, whereas the remaining two increased. Available survey data for three additional subpopulations, representing about 25% of the total population, also suggest declines; the current trajectories of another three subpopulations are unknown, due to lack of recent surveys.

Evidence from Aboriginal traditional knowledge and scientific study suggests that Barren-ground Caribou subpopulations undergo periods of high and low numbers (fluctuations) that might resemble population cycles. The evidence is, however, insufficient to consistently infer a naturally occurring cyclic increase across the full range of subpopulations. Available demographic data, cumulative changes to

the environment, habitats, and harvest regimes for many of these subpopulations are without historical precedent, such that it would be risky to assume there will be a naturally occurring recovery, at least to numbers recorded in the 1990s, for many of the subpopulations.

Threats and Limiting Factors

Climate and weather influence other limiting factors important for Barren-ground Caribou, including forage availability, predation, parasites and diseases. So many aspects of caribou ecology are affected by weather that a warmer climate could have a significant but complicated suite of positive and negative effects.

Industrial exploration and development in Barren-ground Caribou ranges has increased over the past several decades, such that there are several new mines and hundreds of prospecting permits, mineral claims and mineral leases on several subpopulation ranges. Subsistence and sport harvest can be significant causes of mortality that can increase the rate of decline and lead to a lower population size after populations have been reduced for other reasons. Chemical contaminant levels in tissues are generally low at present. The changing conditions on the caribou ranges also include the administrative and political complexity of a mix of settled and unsettled land claims, with changes in jurisdictional boundaries and mandates. The implementation of management actions is challenged by the inter-jurisdictional complexity between political, land management and wildlife management agencies, combined with the migratory nature of caribou and their use of extensive seasonal ranges.

Protection, Status, and Ranks

Protection of Barren-ground Caribou subpopulations by territorial and provincial jurisdictions is through harvest regulation and habitat protection. The co-management regime is a shared management responsibility among governments and bodies established through land claim legislation and through renewable multi-jurisdictional agreements among public governments (for the Porcupine, Beverly and Qamanirjuaq subpopulations). The Porcupine Caribou subpopulation is the only subpopulation of Barren-ground Caribou covered by an international agreement signed between Canada and the United States in 1987. The Barren-ground Caribou designatable unit (DU) was assessed for the first time by COSEWIC as Threatened in November 2016. It is currently not scheduled under the federal Species at Risk Act (SARA).

The 2015 territorial rank for Yukon for Barren-ground Caribou is Vulnerable to Apparently Secure, and for Northwest Territories is Sensitive. At present, there is no specific rank for Barren-ground Caribou for Nunavut; however, for all DUs combined, the territory-specific general status rank for Caribou in Nunavut is Apparently Secure. Federal protected areas that exclude industrial land uses but allow continued subsistence hunting cover about 6% of Barren-ground Caribou ranges, including eight national parks.

SUBMISSION TO THE NUNAVUT WILDLIFE MANAGEMENT BOARD – March 7, 2019

FOR : Information: X

Decision: N/A

Issue: Tallurutiup Imanga National Marine Conservation Area (TINMCA) establishment

Background:

Tallurutiup Imanga region is of outstanding global ecological significance and one of the most productive marine environments in the Arctic Ocean. It serves as the primary eastern gateway to the central Arctic for large numbers of migrating marine mammals and as breeding and foraging habitat for immense colonies of seabirds. The ecosystem and its wildlife have sustained the life and culture of Inuit for thousands of years, serving as the heart of High Arctic Inuit existence and supporting a traditional way of life strong in language, culture and customs.

Parks Canada Agency, the Qikiqtani Inuit Association and the Government of Nunavut are pursuing the establishment of the Tallurutiup Imanga National Marine Conservation Area under the *Canada National Marine Conservation Areas Act (2002)*. The creation of an NMCA will protect biodiversity and ecosystem functions, Inuit rights, and ensure Inuit benefits are enhanced including, continued access to healthy country food, and engagement in traditional practices.

The Lancaster Sound Steering Committee completed a feasibility assessment in February 2017 and submitted its findings and recommendations in *A National Marine Conservation Area Proposal for Lancaster Sound – Feasibility Assessment Report*. After reviewing the results of a series of studies and community and stakeholder consultations, the Steering Committee concluded a national marine conservation area in the Tallurutiup Imanga region was feasible and recommended an enlarged boundary of approximately 109,000 square kilometres in size for marine conservation.

As part of the establishment process under the *Canada National Marine Conservation Areas Act (2002)* for a national marine conservation area, requirements include: assessing the feasibility potential of the NMCA/MERA (completed February 2017); negotiating an IIBA (underway); undertaking interim management planning, including a consultation report (underway); and establishing the NMCA in legislation.

A Tallurutiup Imanga Planning Committee (consisting of 2 QIA representatives; 1 Government of Canada/Parks Canada representative; and 1 GN representative) has been established to:

- a) lead the development of an interim management plan for the national marine conservation area including consultation on the draft plan;
- b) consider small modifications to the boundary; and
- c) provide advice and context on specific issues to the IIBA.

Once the Tallurutiup Imanga National Marine Conservation Area of Canada is designated under the *Canada National Marine Conservation Areas Act*, the exploration for and exploitation of hydrocarbons, minerals, aggregates and any other inorganic matter, including any related seismic testing activities, will be prohibited in perpetuity.

Future milestones for the TINMCA interim management plan process include:

- February 2019: Draft interim management plan to be completed
- March-April 2019: 2nd round of community consultations
- March 2019: Update to NWMB with final draft of interim plan
- June 2019: Final interim management plan completed and ready for review/approval by NWMB and forwarding to the Minister for signing

This is the second information update for the Tallurutiup Imanga National Marine Conservation Area. Parks Canada, QIA and the GN will update the NWMB as the development of the interim management plan progresses.

Approximately 8-10 minutes is expected for the attached presentation.

Consultation:

- During the first round of consultations, five communities were consulted between May-July 2018: Grise Fiord; Resolute Bay; Arctic Bay; Pond Inlet; and Clyde River through a series of face-to-face meetings (hamlets, HTOs, CLARCs, CLOs, ACMCs, JPMCs) and open house sessions with community members. Approximately 300 individuals have attended these sessions.
- In addition to the communities, engagement with other government departments and key stakeholders were conducted through face-to-face meetings including: DFO, Transport Canada, Government of Nunavut departments, NPC, NIRB, Canadian Wildlife Services, Department of Defence, INAC, Canadian Coast Guard, Border Control Services, Global Affairs Canada, Environment Canada, CanNor, NRCAN, ENGOs, Baffinland, marine shipping industry, fishing industry and tourism industry players. Approximately 60 individuals have been consulted.
- A second round of consultations will take place with the above community members and other government departments and key stakeholders along with the Canadian public.
- A confirmation of what was recommended in the *A National Marine Conservation Area Proposal for Lancaster Sound – Feasibility Assessment Report* was confirmed with the communities and concerns, opportunities and expectations were listened to and captured during the consultation process.
- These will be addressed in the initial draft of the management plan and any questions raised by communities during consultation will be followed up through direct communication.

Prepared by: Tallurutiup Imanga National Marine Conservation Area Planning Committee:

Qikiqtani Inuit Association : Rosanne D’Orazio/Sandra Inutiq (867) 975-8400
 Government of Nunavut : David Monteith (867) 223-1952
 Parks Canada Agency : David Murray (819) 420-9177

Date: March 7, 2019.



Tallurutiup Imanga National Marine Conservation Area

Interim Management Plan

**Presentation to: Nunavut Wildlife
Management Board**

Parks Canada Agency
Qikiqtani Inuit Organization
Government of Nunavut

March 7, 2019



Outline

- Interim Management Planning
- Consultation Process
- Proposed schedule





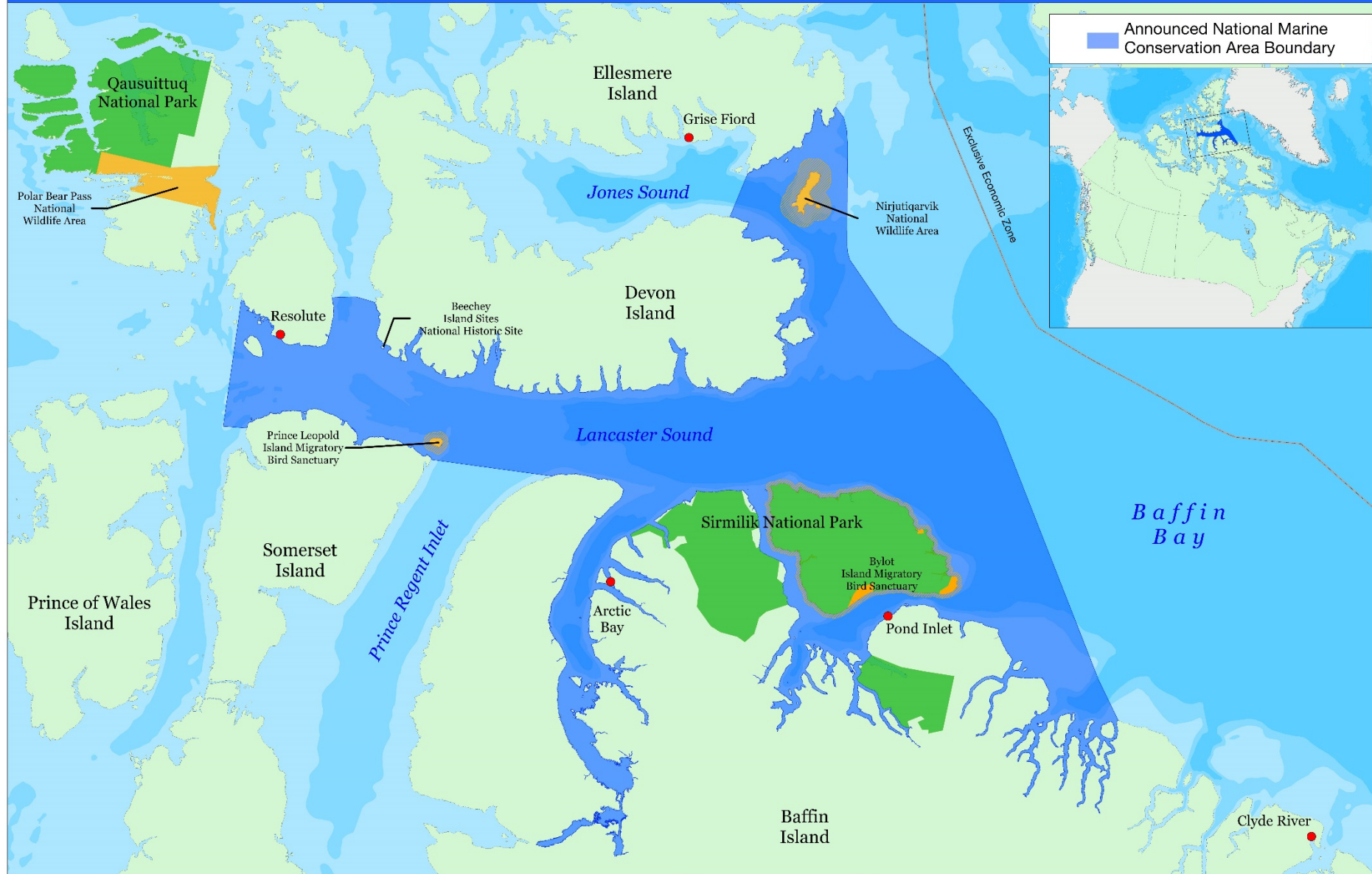
- PCA, QIA and GN continue to work together to establish a national marine conservation area
- Size: 109,000 km²
- Once established, it will be the largest protected area in Canada
- Contains a rich abundance of whales, polar bears, and migrating birds
- IIBA continues to be negotiated

Tallurutiup Imanga

Détroit de Lancaster

Lancaster Sound

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Parcs
Canada

Parks
Canada



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Agreements

- **MOU (Aug 2017)** signed between the Government of Canada, Government of Nunavut (GN) and Qikiqtani Inuit Association (QIA)
 - Established a four member **Planning Committee** consisting of equal representation from QIA (2 members) and government (2 members)
 - **Role:** lead the development of an interim management plan for the national marine conservation area including consultation on the draft plan; consider small modifications to the boundary; and provide advice and context on specific issues to the IIBA
- **Terms of Reference (Aug 2017)** signed between the Government of Canada and Qikiqtani Inuit Association (QIA)
 - Governs the negotiations of an Inuit Impact and Benefit Agreement for a National Marine Conservation Area in Tallurutiup Imanga Region
 - Established a whole of government approach



Establishment Process

National Marine Conservation Areas (NMCAs) are established according to a five-step process outlined in the *Canada National Marine Conservations Area Act (2002)*:

1. identify representative marine areas within a marine region;
2. select a potential NMCA;
3. assess feasibility potential of the NMCA/MERA (completed Feb 2017);
- 4. negotiate agreements and undertake interim management planning (consultation report); and**
5. establish the NMCA in legislation



Current step in establishment process



Interim Management Planning (IMP)

- Interim Management Plan occurs at establishment stage and sets interim direction until a full management plan can be prepared within 5 years of establishment.
- Outlines the purpose and broad management objectives for the NMCA, as well as the valued features and elements of an NMCA and their long term conservation objectives.
- Provides guidance to achieve management plan objectives.





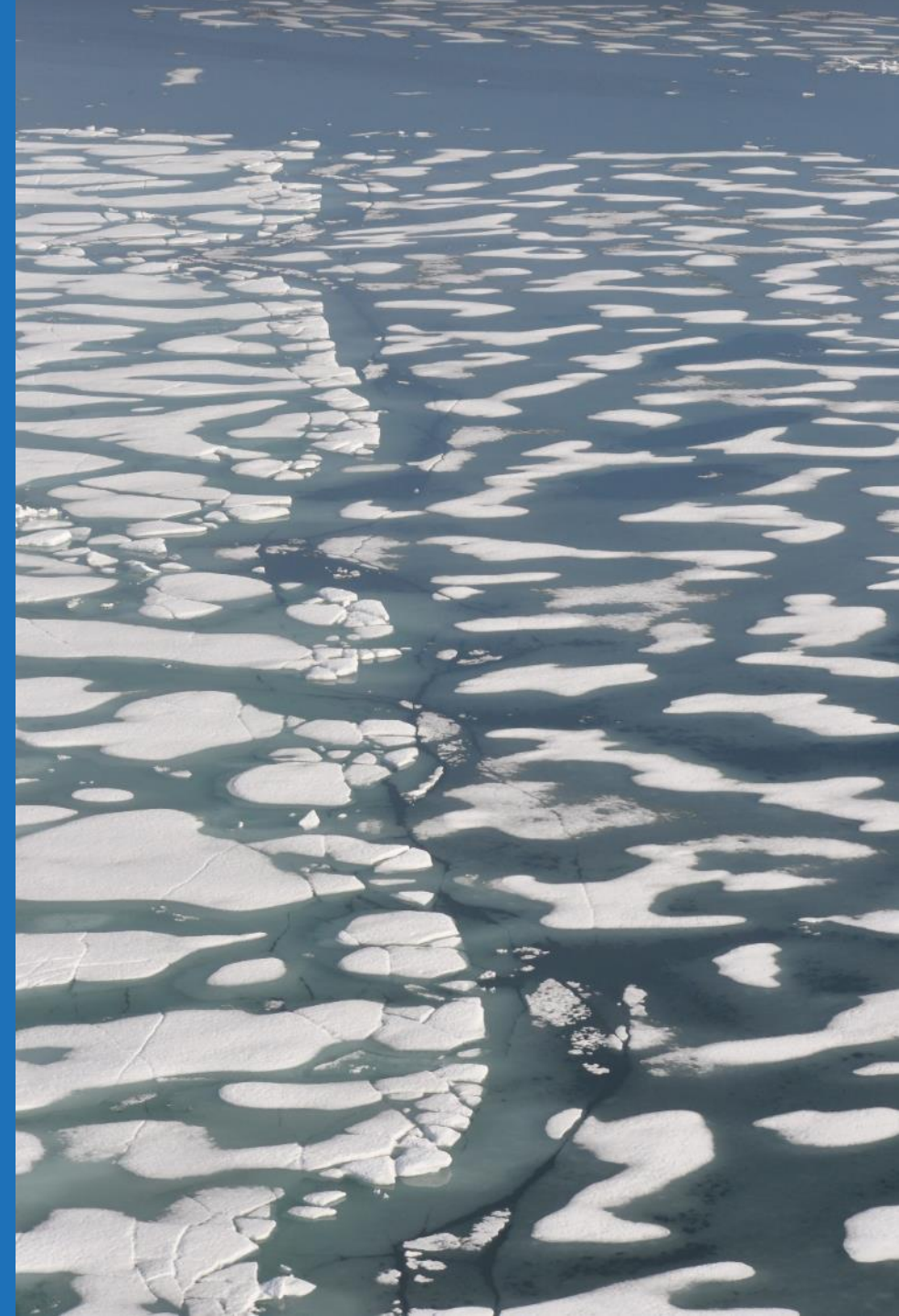
Interim Management Planning (IMP)

Prepared by

- Qikiqtani Inuit Organization
- Government of Nunavut
- Parks Canada

Input from:

- Community input
 - Federal Government
 - NGO's & Industry
 - Canadian Public
-
- Require agreement of other Ministers where the provision affects another's area of jurisdiction (the Minister of Transport and the Minister of Fisheries, Oceans and the Canadian Coast Guard).





Consultation Process

- Following approval of the draft interim management plan, a public consultation period with Canadians, stakeholders/partners will take place including:
 - 2nd round of community consultations
 - Grise Fiord
 - Resolute Bay
 - Arctic Bay
 - Pond Inlet
 - Clyde River
 - other government department engagement
- Proposed for Mar-April 2019





Draft and Final IMP

Preparation of Draft/Final Interim Management Plan to include:

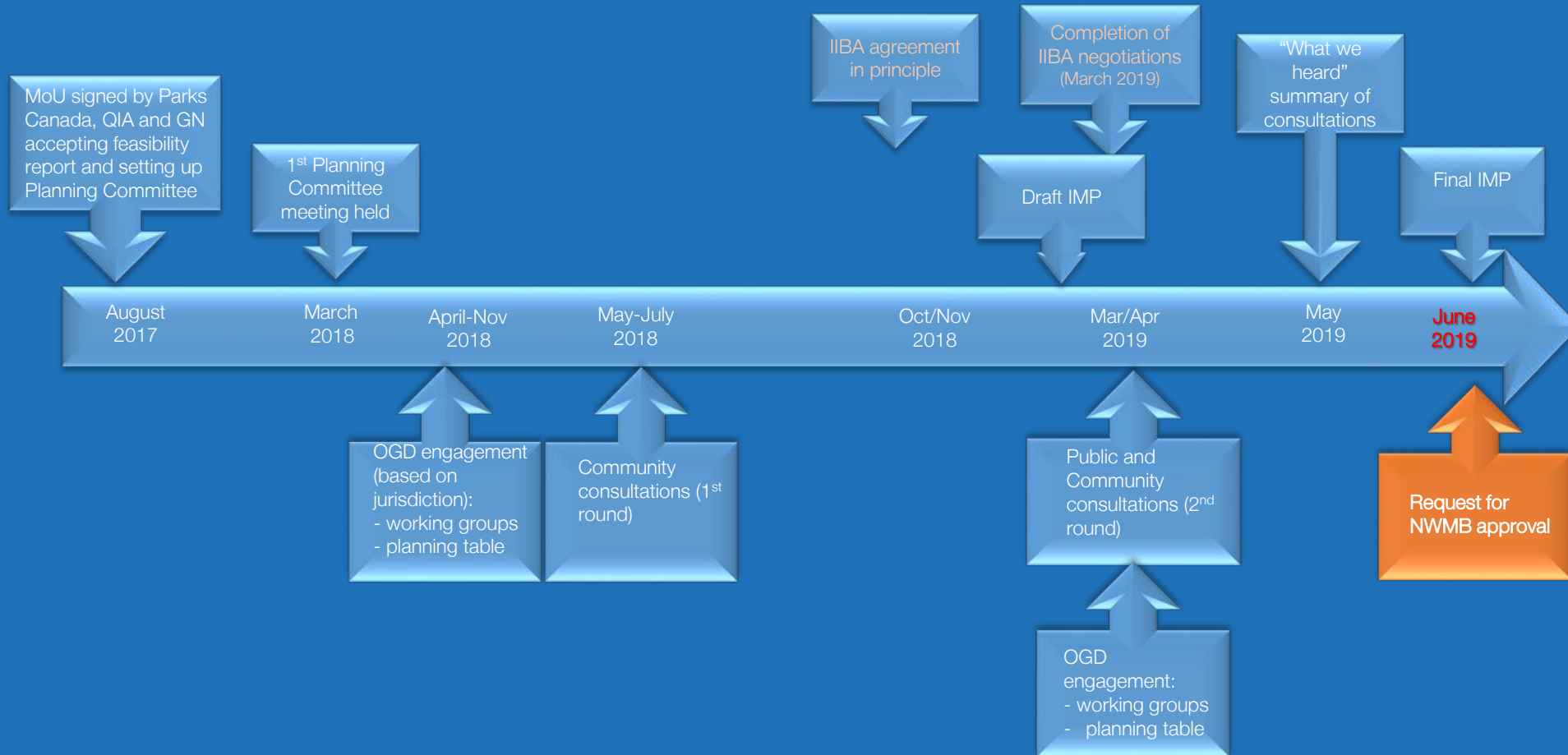
- Vision
- management objectives
- Interim zoning

Final plan expected to be completed by June 2019





TINMCA Planning Process and Timeline





Thank
you!



Photo credits: Diane Blanchard
and Francine Mercier

February 1, 2019

Daniel Shewchuk
Chairperson
Nunavut Wildlife Management Board
PO Box 1379, Iqaluit, NU
X0A 0H0

Re: Proposed Sharing Agreement on 0A/0B Turbot Increase

Dear Mr. Shewchuk:

The members of the Nunavut Fisheries Association (NFA) are pleased to submit a formal request for consideration by the Nunavut Wildlife Management Board (NWMB) at its upcoming scheduled Board meeting on the sharing of the 2019/2020 increase in Nunavut turbot allocations in Subareas 0A and 0B. After extensive negotiations over the past several weeks, the members of NFA have entered into a proposed sharing agreement on the additional 1,933 t of turbot allocations for Nunavut for the years 2019 and 2020.

This proposal represents a major milestone for the Nunavut industry (and Canadian industry in general) in reaching an agreement on quota sharing, one based on maximizing the utilization of Nunavut's fishing fleet. A fully executed agreement outlining the agreed to sharing terms is appended to this letter.

The rationale for entering into negotiations and reaching a sharing agreement was based on the following factors:

- QC's shortfall in allocations required to keep its vessel busy and viable, attributable to the recent reductions in shrimp in southern Shrimp Fishing Areas (SFAs) and the company's low share of Nunavut's turbot allocations;
- A desire by industry members to expand their collaborative efforts in support of industry development and viability, to demonstrate a united voice to federal and territorial stakeholders;
- The four companies desire to work together to follow the principles and the spirit of the new NWMB Commercial Fisheries Allocation Policy, and to respect the process employed by the NWMB in drafting the policy;
- Given that this Policy has not been formally released by the NWMB as approved, NFA members feel that it would be unfair to go directly into a multi-year assessment process in the near future. The approach proposed through the industry agreement will provide the commercial industry with a period of time to adjust to the changes in this Policy prior to having to make a full submission; and
- A recognition by the existing industry players that the Qikiqtani Fisheries Alliance (QFA) has been provided with an indication by the NWMB that it would be looked on favorably for sharing in allocation increases during the next round of allocations and, as such, agreement amongst members that this entity should be considered in industry sharing.

As previously indicated, this agreement serves as a first for the Nunavut industry and a major accomplishment and demonstration of collaboration. The NFA is requesting that the Board consider this two-year agreement at

its March Board meeting and approve it for consideration by the Minister of Fisheries and Oceans Canada. Please let me know if you have any questions.

Sincerely,



Brian Burke
Executive Director, Nunavut Fisheries Association

cc: Jason Akearok, NWMB Executive Director
Jeffrey Maurice, NTI
Lootie Toomasie, NFA Chair
Jerry Ell, NFA Vice-Chair
Sakiasie Sowdloopik, NFA Secretary-Treasurer
Jerry Ward, NFA Director

Memorandum of Agreement

Between: **Qikiqtaaluk Corporation**, a body corporate duly incorporated under the laws of the Territory of Nunavut, Canada (hereinafter referred to as “**QC**”)

And **Baffin Fisheries**, a federally incorporated not-for-profit (hereinafter referred to as “**BF**”)

And **Cumberland Sound Fisheries Ltd./Pangnirtung Fisheries Ltd. Partnership** (hereinafter referred to as “**CSPFL**”)

And **Arctic Fishery Alliance LP**, a partnership between hunter and trapper associations and community trusts in the Territory of Nunavut, Canada (hereinafter referred to as “**AFA**”)

(and each or all are referred to as the “party” or “parties” as the case may be)

Whereas the parties have agreed that it is mutually beneficial to establish an agreement where the increase in 0A and 0B Greenland halibut (turbot) quota announced by the Minister of Fisheries and Oceans is shared for the 2019 and 2020 fishing years in lieu of proceeding to a full quota application process via the Nunavut Wildlife Management Board (NWMB);

Whereas the parties agree that in view of the major revisions to the Allocation Policy for Commercial Marine Fisheries it is in the best interest of all parties and NWMB to delay a multi-year quota application to permit all parties to adjust their operations to conform to the revisions of the Policy;

Whereas the parties have agreed to compromise in the interest of coming to an agreed sharing arrangement of the 2019 0A/0B turbot quota increase and a demonstration of cooperation among the four quota holders.

NOW THEREFORE THE PARTIES ENTER INTO THIS MEMORANDUM OF AGREEMENT WITNESSETH AS FOLLOWS:

1. The parties agree to the following sharing arrangement as outlined in the table below.

Proposed allocations for the 2019-2020 0A & 0B turbot fishery. Numbers in table may not add up to exact totals due to rounding of some numbers.

1	2	3	4	5	6	7	8
Company	2018 Quota	Current Share	Prorated Share of Proposed 2019 Increase	Quota Made Available to QC/QFA at Nominal Royalty (MT)	Additional Quota Made Available to QC/QFA on Commercial Royalty Basis (MT)	Total Quota Made Available to QC/QFA	Total Quota Available from 2019 Increase (MT)
AFA	2,232	18.8%	364	-189	-52	-241	123
BF	6,208	52.4%	1,013	-527	-146	-673	340
CS/P	2,131	18.0%	348	-181	-50	-231	117
QC	1,272	10.7%	208	897	248	1,145	1,353 (70%)
TOTAL		100.0%	1,933*				1,933

*Based on DFO Minister's announced allocation between 0A & 0B after allowing for 10% of 0B to Makivik.

2. This proposal is based on the understanding that the parties would have their 2018 allocations become the base allocations and be considered part of their history.
3. This proposal is for a two-year period only, but there would be an opportunity to extend or renegotiate a sharing arrangement if the parties agree and it is acceptable to NWMB. The achievement of this agreement is a demonstration of the parties' ability to cooperate on future quota allocation matters.
4. The parties agree that a royalty of \$100 per MT will be paid on the quota made available in the above table, Column 5 to cover quota access fees paid to DFO and other administrative costs.
5. **AFA**, **CSPFL**, and **BF** agree to make available to **QC** as outlined in the above table, Column 6, a share of the increase at commercially competitive royalty rates. **AFA** and **CSPFL** also agree to make available their allocation of DSW shrimp to **QC** based on commercially competitive royalty rates.
6. While **AFA**, **CSPFL**, and **BF** agree to make turbot quota available to **QC** and Qikiqtani Fisheries Alliance (QFA), it is understood that **QC** is not in position to agree to this proposal on behalf of QFA. However, since **QC** is a member of QFA and will harvest the QFA quota under a royalty arrangement it is agreed that **QC** is in a position to use its best efforts to ensure QFA will support this proposed quota sharing arrangement and that QFA will not make a separate application for quota except for the allocation for them as agreed to between

QC and **QFA**. It will be the responsibility of **QC** to negotiate with **QFA** a satisfactory sharing arrangement of the quota increase made available to the two organizations.

7. All other quota holders will commit to offer first to **QC** any quota they will have surplus to their harvesting arrangements on a royalty basis on or before July 31 of each fishing year.
8. Any party may, by notice in writing given as herein-before provided, change its address for notice hereunder, and such address so changed shall be deemed to be the address of that party for the purpose hereunder. Until notice of change of address is given by any party, the addresses for notice of the parties are:

Qikiqtaaluk Corporation
922 Niaqunngusiaq Rd, PO Box 1228
Iqaluit, NU, X0A 0H0
Tel 867-979-8400


Baffin Fisheries
Building 208, Box 6008
Iqaluit, NU, X0A 1H0
Tel 867-979-3070

**Cumberland Sound Fisheries Ltd./
Pangnirtung Fisheries Ltd. Partnership**
PO Box 185
Pangnirtung, NU, X0A 0R0
Tel 867-473-4628

Arctic Fishery Alliance L.P.
Box 205
Qikiqtarjuaq, NU, X0A 0B0
Tel 867-927-8894

9. This agreement shall be construed and enforced in accordance with the applicable laws of the Territory of Nunavut and the federal laws of Canada applicable therein.

In Witness Whereof, the undersigned, hereby certifying that they are authorized to do so, have executed this agreement on behalf of the parties on January 31, 2019.

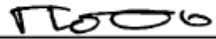



Qikiqtaaluk Corporation

Witness 

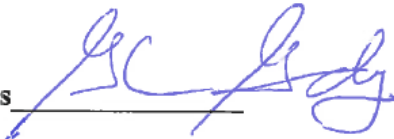



**Cumberland Sound Fisheries Ltd./
Pangnirtung Fisheries Ltd. Partnership**

Witness 




Baffin Fisheries
Chris Flanagan, Interim CEO

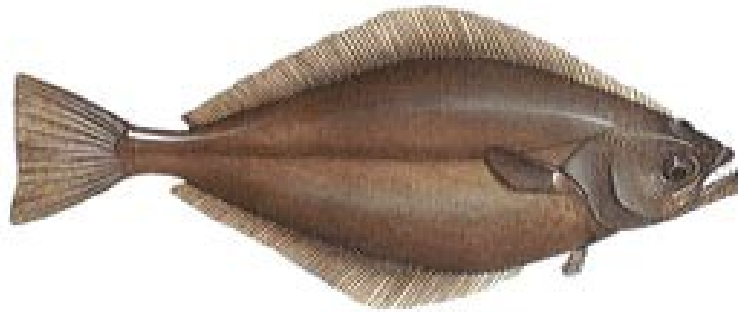
Witness 



Arctic Fishery Alliance L.P.

Witness 

SUBMISSION TO THE NWMB
FOR
An increase to the Cumberland Sound TAH



Submitted By
Cumberland Sound Fisheries Ltd.

NOVEMBER 1, 2018

Cumberland Sound Fisheries Ltd.

Quota Increase Proposal

November 2018

Cumberland Sound Fisheries Ltd.

P.O. Box 185
Pangnirtung, NU
X0A 0R0

Mr. Daniel Shewchuk
A/Chairperson
Nunavut Wildlife Management Board

P.O. Box 1379
Iqaluit, NU
X0A 0H0

November 1, 2018

Dear Mr. Shewchuk,

Attached please find our request to increase the **Cumberland Sound Inshore Turbot Quota**.

The full inshore quota (500 MT) was harvested in the 2018 winter fishery plus 10 MT from the summer fishery (2017). Therefore we are requesting that the **Cumberland Sound Inshore Turbot** quota be increased to accommodate the developing summer fishery.

This will benefit the inshore fisherman in Cumberland Sound, specifically Pangnirtung. Indirectly this would benefit the plant workers in Pangnirtung and the inshore fisherman in Pangnirtung and Cumberland sound. As you may be aware, harvesting and processing of turbot has been growing steadily in the last few years.

To support our commitment, CSFL has purchased a 40' inshore fishing vessel, the f/v Pijiuja II with plans to purchase additional vessels to work within this developing fishery. It is anticipated that additional vessels will also be part of this developing fishery.

The FV "Pijiuja II" was commissioned by The Department of Fisheries and Oceans to conduct a scientific assessment of turbot stocks in Cumberland Sound, Nunavut this past summer. Results showed that the stock in Cumberland Sound has grown to a level where an increase is warranted that remains within sustainable quota levels which protects the overall health of the stock in the long term. Hook and line gear fished in various grids in the sound yielded good catch rates mainly in depths between 475 and 600 fathoms. The overall range of small to larger fish was positive given the size of hooks used in the long line gear. By-catch levels were minimal.

To ensure the successful development of the summer fishery and the continued development of the winter fishery, there is a need to increase the TAH in Cumberland Sound. We are proposing that the quota be increased to a least 800 MT from the current level of 500 MT.

Sincerely,

Joopa Sowdlooapik
Chairman
Cumberland Sound Fisheries Lt

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1. Request

CSFL is requesting that the Turbot TAH in Cumberland Sound be increased from the current level of 500MT to at least 800MT which will be fished during winter ice fishery and the summer fishery using hook and line on the f/v Pijujá II.

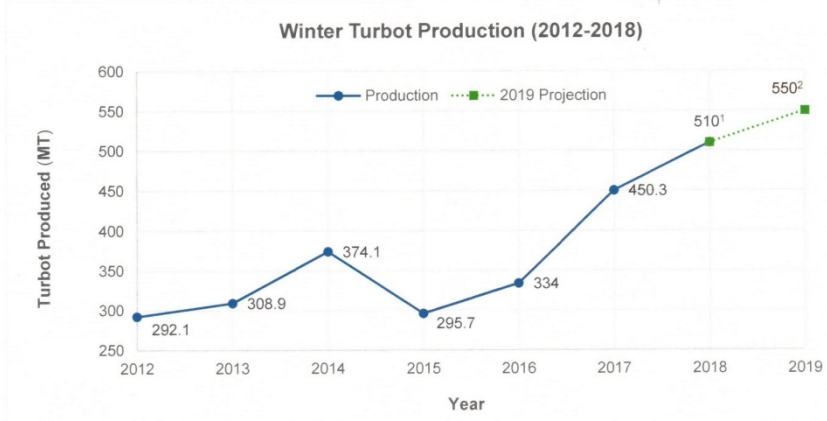
2. Resource

2.1 Winter Fishery

The winter fishery in 2018 has been the most successful to date, with landings of 510MT (from the 500MT Cumberland Sound Allocation). It is estimated (see chart below) that the winter fishery in 2019 will meet the current quota of 500MT for the inshore fishery in Cumberland Sound.

The through the ice fishery is growing as the graph below shows, and a portion of the royalties from offshore allocations are used to support the ongoing operation at PFL. Overall the through-the-ice fishery has been positive for all involved and proven to be an economic boost to the community.

Year	Amount Processed (MT)
2012	292.1
2013	308.9
2014	374.1
2015	295.7
2016	334.0
2017	450.3
2018	510.0



Notes:

- 1) Total inshore quota of 500 MT plus 10 MT from the summer fishery in 2018
- 2) Assuming all of the 500 MT are caught, and 50 MT caught in summer fishery

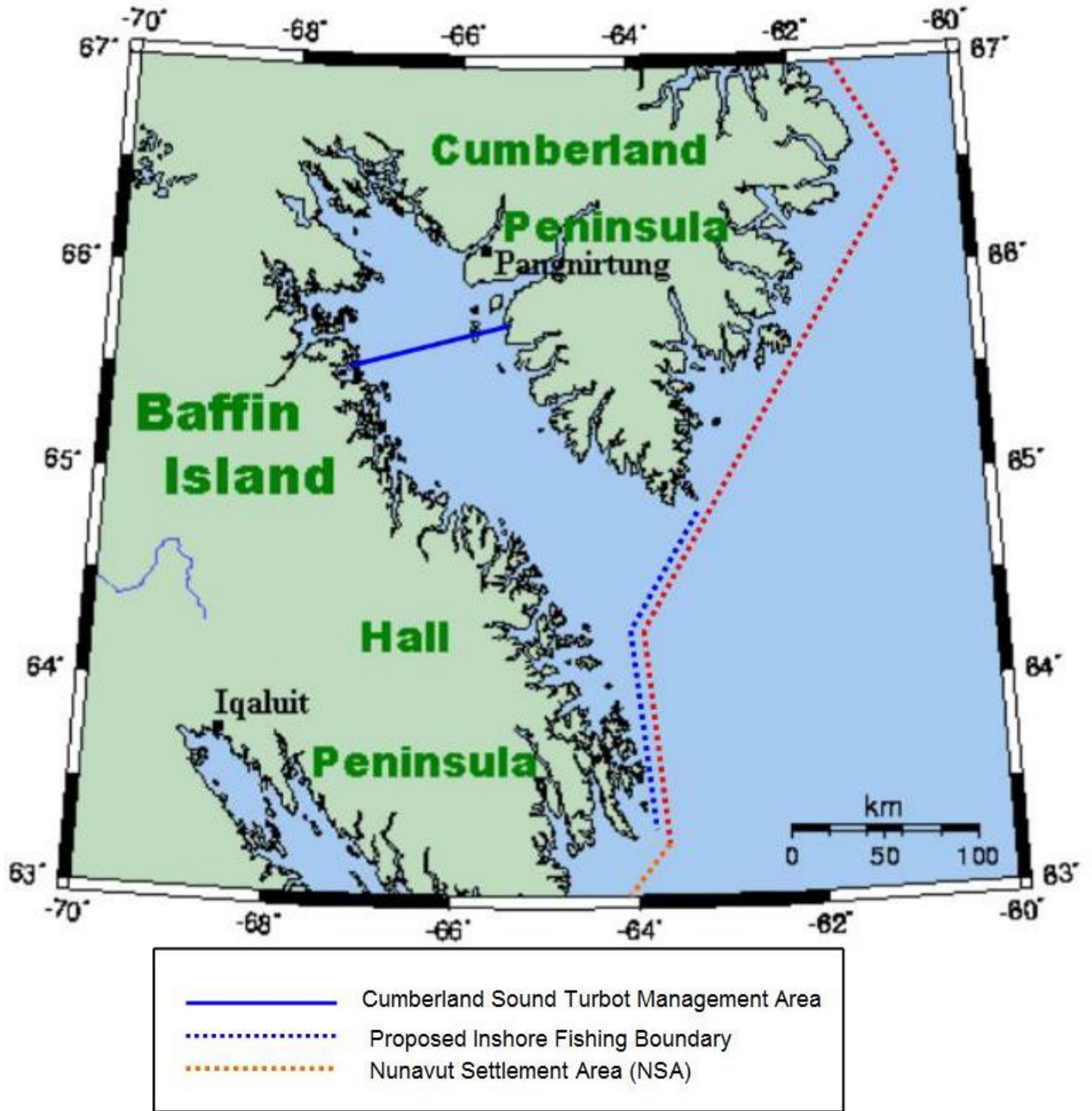
2.2 Cumberland Sound Border

The border for the Cumberland Sound Turbot Management Area (CSTMA) has been moved (see below) as requested by PHTO in May 2013, and approved by The Minister of Fisheries in 2014. The CSTMA now includes all of Cumberland Sound. This move will provide harvesters with more flexibility, and opportunities to pursue other species that may become available.

The move of the CSTMA border is very positive for Pangnirtung’s developing fishery, and, the CSTMA border move is in line with NWMB’s mission of “conserving wildlife through the application of Inuit Qaujimajatuqangit (IQ) and scientific knowledge”, and is in line with the NWMB’s vision to make Nunavut ‘a world class model for the cooperative management of healthy wildlife populations’.

As previously established, harvesting within Cumberland Sound is ‘hook and line’ only and the use of gill nets is not permitted. The hook and line fishery, whereby the turbot is bled, gutted and bloodline removed immediately after harvest, produces an excellent quality product that can meet or exceed any market requirement. Vessel size is also limited to <85’. These harvesting restrictions contribute to Cumberland Sound being a world- class model of cooperative management, which contributes to a healthy, sustainable resource.

2.3 Map of Cumberland Sound



3. Harvesting

At present, there are 60 active fishers and helpers in the Winter Fishery with a total of 90 licenses issued from DFO. 30+ employees are employed at the plant, Pangnirtung Fisheries Limited with the potential to double the number of employees with increased quota. This quota increase would allow our operation to move from a four months to 10-12 months per year.

To support the Summer Fishery, CSFL's has purchased a vessel, the f/v Pijiujua II (see Appendix #1).

3.1. Harvesting Plan (2019)

- Ice (winter fishery) / Sea (summer fishery) 800 MT
- Cumberland Sound Fisheries has a vessel, f/v Pijiujua II (38'11")
- Gear: Hook and line trawl and long line trawl
- CSFL has a sound waste management plan
- Gear loss reduction
- By-catch reduction

The following is the offshore allocation harvest for 2017/2018.

Species Harvested	Fiscal Year 2017/2018		
	Allocation	Metric tonnes Harvested	% of Allocation Harvested
Greenland Halibut			
NAFO Division 0A	940mt	940mt	100%
NAFO Division 0B	950mt	950mt	100%
CSTMA	500mt	500mt	100%
Northern Shrimp			
SFA 1	744.4mt	744.4mt	100%
SFA 2 (outside NSA)	232.6mt	232.6mt	100%
SFA 2 (inside NSA)	0.0mt	0.0mt	n/a

There were no compliance issues as a result of harvesting efforts regarding The Partnerships allocations in 2017/2018.

4. Research

Results of 2018 Cumberland Sound Turbot Population Research

The FV “Pijujua II” was commissioned by The Department of Fisheries and Oceans to conduct a scientific assessment of turbot stocks in Cumberland Sound, Nunavut. Discussions with the ship’s captain, John Cabot and Pangnirtung Fisheries board members and management reveal that the stock in Cumberland Sound has grown to a level where an increase is warranted that remains within sustainable quota levels which protects the overall health of the stock in the long term. Hook and line gear fished in various grids in the sound yielded good catch rates mainly in depths between 475 and 600 fathoms. The overall range of small to larger fish was positive given the size of hooks used in the long line gear. By-catch levels were minimal. A few sharks, skate and grenadier were identified in select areas and were able to be released with minimal mortality. Gear selectivity through the use of various size hooks prevented other species from capture. The absence of gill nets further allows avoidance of non-targeted species.

The overall state of the stock from a historical basis has been also very positive given the successful harvesting and processing of 500 Metric tonnes of turbot in Cumberland Sound in recent years. In 2018, fishing was extremely good with record catch per unit efforts and an extensive range of small to large fish. Harvesters caught the quota in record time, less than 3 three months. A summer fishery yielded 10 tonnes of available quota, again experiencing positive catch rates. The overall quality of the fish was excellent given the workmanship on the ice, quick transport time and expedient processing in the Pangnirtung Fisheries plant. The results of the 2018 survey were positive. The report will not be available until February, findings were very encouraging. While Cumberland Sound Fisheries realizes the research must be analyzed and confirmed, our organization is presenting a preliminary proposal for a quota increase in recognition of the findings this fall.



5. Rationale

Increasing the quota in Cumberland Sound also supports the goal of the Nunavut Land Claims Agreement: to encourage self-reliance. Local harvesters will have more opportunity to fish Turbot, and possibly other species thus benefiting the residents of Pangnirtung.

It should be noted that Cumberland Sound harvesting is already a model for others in that NO gillnets are permitted in the Sound. Only 'hook and line' fishing is permitted.

While enhancing the turbot fishery, the potential to develop new fisheries in Cumberland Sound will also be possible.

Further developing a winter / summer fishery will contribute to the local fish processing operation at Pangnirtung allowing for an extended operating season, considerable increase in local employment and numerous spin off benefits for Pangnirtung and the region.

This request also supports the Goal of Nunavut Land Claims Agreement: To encourage self-reliance.

6. Consultations

6.1 People of Pangnirtung

This request is supported by the Municipality of Pangnirtung and the PHTO as the inshore turbot fishery has been developing over the last few years.

7. Timing 2019

It is anticipated that the turbot inshore fishery will start in January 2019.

8. Investment

- Plant upgrades
- Boats (Fleet improvement)
- Gear
- Quality improvement
- Training in partnership with programs developed through the Government of Nunavut
- Education Opportunities
- Ecologically Sustainable
- Good compliance with DFO and the NWMB

9. Governance Plan Update

The following outlines the current Board members of CSFL and PFL:

A Board of Directors and an Executive Committee (managed CSFL). Currently the Board members are as follows:

- Joopa Sowdluapik - Chairman
- Peter Kilabuk - Vice Chairman
- Sakiasie Sowdloopik - Secretary Treasurer (Acting Executive Director)
- Paulette Metuq - Director
- Chitee Kilabuk - Director
- Matewsie Manaiapik (HTA Rep) - Director
- Jaco Qaqasiq (Co-op rep) - Director

PFL has a four member Board; one appointed by NDC, one appointed by Niqitac Fisheries Ltd (BFC) and two by CSFL. Currently the Board members are as follows:

- Sakiasie Sowdloopik - Chairman (Acting Executive Director)
- Jacopee Maniapik - Vice Chairman
- Joopa Sowdloopik - Director
- Jaco Qaqasiq - Director

A new General Manager of PFL was hired in August 2018, Todd Johnson.

10. Benefits Summary

- Increased number of harvesting jobs (Inuit and Nunavummiut)
- Increased number of processing jobs (Inuit and Nunavummiut)
- Benefit for local business
- Increased economic benefit to the community due to longer periods of employment and increased income for both fishers and plant workers
- More independence and less reliant on social programs
- Profitability
- 100% Inuit owned and managed
- Increase quota does not negatively affect neighboring communities
- Stewardship is positive – responsible fishing using hook and line
- Gear selectivity (hook and line and longline trawl)

11. Appendices

Appendix I Inspection and Valuation of Fishing Vessel by RCG Marine Consulting

*Note: Formatting and image quality has been changed from the original document

Inspection and Valuation of Small Fishing Vessel: Pijjuja II

Pangnirtung, Nunavut

August 28, 2016

Vessel History

The fishing vessel Pijjuja II is a traditional maritime small fishing vessel, built in 2013 for the owner at Cheticamp Boatyard, in accordance with the Small Fishing Vessel Regulations as outlined under the Canada Shipping Act 2001 (CSA 2001). The owner's intention was to prosecute the exploratory inshore turbot fishery recently permitted by federal regulation in the Cumberland Sound area. The vessel was completed and delivered to the owner in the late summer of 2013. However, as a result of low fish prices and heavy ice coverage in the area, the Pijjuja II did not enter the fishery and has spent the last two seasons laid up, in cradle at Pangnirtung, Nunavut. The vessel has received very little commercial sea going time and as a result has been put for sale by the owner. The vessel is approximately 39' in length and is registered as less than 15 gross tons (GRT) with a traditional "Cape Island" hull design commonly employed in the inshore fishing industry on Canada's East Coast. Although, properly winterized and well attended, the vessel has been subjected to several harsh northern winters, therefore a thorough examination, including the powering of all equipment was undertaken. The results of this inspection process are categorized in this report.

Cumberland Sound Fisheries Ltd.

Quota Increase Proposal

November 2018

Vessel Particulars

Name Of Vessel	Pijjuja II
Date Of Survey	August 22, 2016
Vessel Type	Small Fishing Vessel
Engine Type and Horse Power	Cummins Diesel- 300hp - 2013



Photo 1 & 2 (Vessel Profiles)



Photo 3: PFL Fishing Vessel – Pijjuja II