

# **Consultations on Bathurst and Bluenose East Caribou TAH recommendations**

January 14 and 15, 2016



Department of Environment, Government of Nunavut Iqaluit, Nunavut

## Executive Summary

Government of Nunavut, Department of Environment representatives conducted consultations with the Hunters and Trappers Organizations and Elders from Kugluktuk, Cambridge Bay, Bay Chimo and Bathurst Inlet where NTI and KWRB were also present on January 14 and 15, 2016. The primary purpose of this consultation was to provide co-management partners with the results of 2015 caribou monitoring activities, present revised Total Allowable Harvest (TAH) recommendations, and revive feedback from HTOs regarding the recommendations and other potential management actions.

HTO members all agree that the Caribou are a fundamental part of their culture and major component of their country food intake. To preserve this resource for the future generations, they understand that some conservation measures are necessary. However, the level of harvest restriction is not agreed upon as it will restrict the amount of meat provided for families and lead to a loss in hunting skills.

The HTOs have taken action for caribou management already and would like their initiatives be recognized. They understand that more restriction measures on the non-beneficiary are necessary to the preservation of the species and that to do so require a TAH being implemented. Concerns around establishing a TAH were made. It was expressed Inuit are not the driver of the decline but other factors such as climate and predators are.

This report attempts to summarize the comments made by HTO members during these meetings.

## Preface

This report represents the Department of Environment's best efforts to accurately capture and translate all of the information that was shared during consultation meetings with the Hunters and Trappers Organizations.

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

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## 1.0 Summary Purpose and Structure

This summary is intended to collate and summarize comments, questions, concerns and suggestions raised during a consultation meeting held with West Kitikmeot HTOs on the Department of Environments (DOE) proposed Total Allowable Harvest (TAH) recommendations on the Bathurst and Bluenose East caribou herds. The summary and notes herein only reflect what was shared during the meeting, a record of communications outside of the meeting are found in Appendix I.

## 2.0 Purpose of Consultations

The primary purpose of the consultation, organized DOE, was first to engage the HTOs in an ongoing dialogue on caribou and second to present more specific TAH recommendations and solicit HTO feedback. This meeting was not intended as a negotiation of the DOE position, but rather as an opportunity to record what HTO Board members would like to recommend and record those suggestions for consideration by decision makers. HTOs were consulted as the designated representatives of the hunting community under the Nunavut Land Claims Agreement (NLCA). Discussions around management initiatives from the community level to the Government represent over half the meeting.

### 2.1 Format of Meetings

The meetings were held during the days of January 14 and 15th, 2016 in Cambridge Bay at the Arctic Islands Lodge meeting room. Meetings were Co-Chaired by Simon Qingnaqtug, KRWB Chairman, and Mathieu Dumond, Regional Manager for DOE. The meeting format was a series of presentations on herd status, management process, and DOE TAH recommendations (presentations are in Appendix 3), followed by questions and comments. The entire second day focused on discussions of the proposed recommendations and potential additional actions for caribou management. The meeting was an open exchange of knowledge, both scientific and traditional.

### 2.2 Meeting Participants

Name	Community	Organization
Simon Qingnaqtug	Taloyoak	Kitikmeot Region Wildlife Board
Ema Qaqqutaq	Kugaaruk	Kitikmeot Region Wildlife Board
Bobby Greenley	Cambridge Bay	Cambridge Bay Hunters & Trappers Organization
George Angohiatok	Cambridge Bay	Cambridge Bay Hunters & Trappers Organization
Jimmy Haniliak	Cambridge Bay	Cambridge Bay Hunters & Trappers Organization
Mark Haongak	Cambridge Bay	Cambridge Bay Hunters & Trappers Organization
Howard Greenley	Cambridge Bay	Cambridge Bay Hunters & Trappers Organization
Philip Kadlun	Kugluktuk	Kugluktuk Hunters & Trappers Organization
Larry Adjun	Kugluktuk	Kugluktuk Hunters & Trappers Organization
Jorgan Bolt	Kugluktuk	Kugluktuk Hunters & Trappers Organization
Peter Kapolak	Kugluktuk	Kugluktuk Hunters & Trappers Organization
Martina Kapolak	Bathurst Inlet	Bathurst Inlet Hunters & Trappers Organization

Tommy Norberg	Kugluktuk	Kugluktuk Elder and Knowledge Holder
Sam Sr. Angohiatok	Cambridge Bay	Cambridge Bay Elder and Knowledge Holder
Jimmy Maniyogina	Cambridge Bay	Cambridge Bay Elder and Knowledge Holder
Mary Kaniak	Cambridge Bay	Bathurst Inlet/Bay Chimo Elder and Knowledge Holder
Connie Kapolak	Bay Chimo	Bay Chimo Hunters & Trappers Organization
Allen Kapolak	Bay Chimo	Bay Chimo Hunters & Trappers Organization
Sam Kapolak	Bay Chimo	Bay Chimo Hunters & Trappers Organization
Bert Dean	Rankin Inlet	Nunavut Tunngavik Inc. (NTI)
Lisa-Marie Leclerc	Kugluktuk	Government of Nunavut (GN)
Drikus Gissing	Iqaluit	Government of Nunavut (GN)
Mathieu Dumond	Kugluktuk	Government of Nunavut (GN)
Bruno Croft	Yellowknife	Government of NWT (GNWT)

### 3.0 HTO Consultation Summary

The goals of the meeting were made clear to the participants prior to the meeting as well as at the start of it (see "Goals of the Consultation" in Appendix 2 - Agenda). HTO members and elders raised many similar questions, concerns and suggestions. The meetings maintained a positive tone throughout and many participants commented on this and the need to work together to find solutions for caribou conservation.

#### 3.1 Management process and review of consultations to date

Presentations we made to remind participants of the NLCA process and how the meeting feeds into that process. Additional review of the consultations undertaken to date was given, as some participants were new to the process with this meeting while others have participated since the beginning, including development of the draft Management Plan.

The main discussion points out of these presentations were the need for Elder involvement, particularly with the NWMB. Recognition was given to the Elders Advisory Committee created by the Minister of Environment as well as to the ongoing practice of the NWMB inviting elders to participate in meetings, public hearings, and workshops.

#### 3.2 2015 Survey Results

Presentations from GN Biologist and GNWT Biologist on the Dolphin and Union herd, and the Bathurst and Bluenose East Herds respectively, highlighted the results of the most recent survey work. DU was surveyed during the fall migration along the coast of Victoria Island in 2015. The Bluenose East and Bathurst herds both had photo census surveys conducted in June 2015 as well. Results from all surveys indicate declines. DU caribou is of concern, but there is no TAH recommendation at this time. Continued severe declines in Bathurst and Bluenose East are of serious concern as unrestricted harvest at this time will have considerable impact on both herds ability to recover.

Several questions arose about the surveys, their timing, methodology, and whether they saw all the caribou. The response was that the methodology and flight line have been identical since 1996, and although some caribou would be missed the decline is obvious and supports local knowledge. The observation and trend of predators during surveys was discussed and all predators observed are recorded. The trend on the calving ground was for more grizzly bears (sow and cubs) sighted however wolves seem to be the same or less.

Concerns about the impact of surveys during calving were discussed as well as options for the use of drones or satellite imagery. These are being pursued however technology does not quite allow for it yet. Also there is still a need for collars and reconnaissance surveys to determine the core calving areas in real time. However new technology will become part of monitoring in the future.

### 3.3 TAH Recommendations

The DOE submission on TAH included a review of the previous determinations for TAH, the results of the recent surveys, and the impacts of those results on the revised TAH recommendations. The draft Bluenose East caribou management plan was also reviewed, particularly the action table with examples of how what is being undertaken currently in terms of monitoring, consultations, and TAH recommendations are in line with what the plan and ACCWM recommend for the current population levels, assessed in orange in December 18 2015. In addition to the focus on potential harvest numbers DOE is specifically seeking comments or concerns with the recommendations, as well as current and potential actions that HTO's can take to address the caribou declines.

The questions and discussion generated by the presentation on TAH recommendations focused largely on the following points;

- predators are causing an impact, and action needs to be taken
- we need to educate the public about what is coming (harvest restrictions) and why
- we need to educate youth in how to hunt caribou and other species
- we need to switch harvest to other species to take pressure off caribou (not just other herds)
- ice roads/mines are impacting migration
- we need to protect calving grounds particularly from low flying aircraft
- we need to stop all caribou sport hunts
- we need to increase traditional and sport hunts of predators and want GN support to do this

### 3.4 Discussions

Several issues were recurrent throughout the meeting, these were primarily the issues of predators and their impacts on caribou, the need for hunter education, and the adverse impact of harvest restrictions on Inuit. To summarize these discussions, which occurred throughout the meeting, they are grouped below by topic.

### 3.4.1 Predators

The concern about predators and the impact they have on caribou was the most discussed topic at the meeting. Participants were concerned that the population of both wolves and grizzly bears is high enough to be harming the population, particularly on calving grounds. All participants also expressed a desire for increased predator control, primarily as an increase in harvest and use of the predators harvested, as opposed to a cull type of program.

The following points capture the range of discussion in regard to predators;

- elders used to talk about searching for wolf dens and taking the pups to reduce the population
- if you harvest the alpha pair or disrupt that pair it can cause an increase in breeding (wolves)
- we need to increase harvest of wolves and grizzly bears
- we need increase sport hunts of predators
- GN needs to increase incentives for wolf hunters
- wolves are part of the cycle with caribou and follow the cycle, now wolves are high and caribou are low, they will become low again
- there are not as many wolf hunters as there used to be and many do not now how to hunt them
- we need to educate people on how to hunt wolves

### 3.4.2 Education

Education was the second most voiced concern by participants. Views ranged from a need to teach youth about how to harvest caribou, to teaching how to hunt wolves as many have not learned that skill, to how to harvest and butcher other species such as moose or muskox. This is largely viewed as a traditional passing on of knowledge from elders to youth but there was also indication that a more active role could be taken by individuals that have experience as well as HTO's.

### 3.4.3 Other issues

Roads and development on the caribou range were of considerable concern to most participants. This was not just the impact to the land but observed impacts during migration as well.

The following points highlight concerns raised:

- the snow banks along the ice road are an obstacle to caribou
- the crossing points they have made for caribou at roads are in the wrong place, they are too narrow, too steep and made of sharp, broken rocks: caribou do not use them. More thought and effort needs to go into these crossings
- increased access has (in the past) allowed for tremendous amounts of caribou to be harvested (no harvest now)



- is the ice road monitored? (yes it is)
- the mines increase low level flights and this impacts caribou, need to control this particularly during calving

#### 3.4.4 Actions by HTO

Several HTOs provided examples of steps they have taken to address the current caribou declines. These actions included;

- stopping caribou sport hunts
- conducting community harvest for other species such as musk ox
- using the Community Food Support Program to access other foods, such as char and reindeer
- conducting hunter education programs in schools
- starting a community harvest data program
- Conducting a caribou education week for students
- Promote caribou conservation

#### 3.4.5 Elders Recommendations

The elders provided advice on several topics. They were consistent in calling for Inuit and non-Inuit to work together to find solutions. All elders described how caribou cycle and that there are periods of scarcity and periods of plenty, but also that the migration routes do move over time. Training hunters to not harvest the leaders during migration was also considered important as these caribou know the routes and are important to the herd. Finally concern about predators and the need to harvest them as well as caribou to maintain balance was shared.

### 3.5 Accommodation of input received

There is little accommodation to be made on the TAH recommendations as they are based on biological facts however there are additional issues that were consistent throughout the meeting on which there is room for additional actions. Concerns on the impacts of predators and requests for assistance in predator management, as well as a need for hunter education are areas identified as important by participants. Requests for a predator control program and additional incentives for predator harvesting were widely discussed during the meeting.

Increasing harvester education opportunities for youth and harvesters was also a key discussion topic. Many participants felt improving harvester knowledge about other species would benefit caribou conservation by reducing harvest. The Kugluktuk HTO is already conducting this type of education. DOE is currently developing a hunter education program. As part of this effort, which focuses on hunter safety, DOE is prepared to work with co-management partners to include additional course material to address harvesting of other animals. DOE would encourage other HTO's to pursue the community based program implemented by Kugluktuk HTO.

## **4.0 Conclusion- Next Steps**

The Department of Environment will consider the comments and suggestions made during the consultation meeting when preparing the TAH recommendation to the Nunavut Wildlife Management Board. DOE will make a revised submission to the NWMB for their March 2016 meeting seeking the implementation of a Total Allowable Harvest for the Bathurst and Bluenose East caribou herds.

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## **Appendix 1- Additional correspondence**

insert record of emails here i.e. request for review of minutes

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## Appendix 2 - Agenda

# Caribou Harvest Management Consultation

North Inn, Cambridge Bay

January 14-15, 2016

Co-Chaired by Simon Qingnaqtuq (KRWB) and Mathieu Dumond (GN-DOE)

### Goals of the Consultation

**Bring Co-Management Partners together to:**

- 1) *Listen and Share Knowledge*
- 2) *Build Understanding and Collaboration*
- 3) *Address Key Stewardship and Caribou Co-Management on the Kitikmeot Western Herds*
- 4) *Identify Conservation Measures in Keeping with the Nunavut Land Claims - Including adjusted new TAH recommendations to NWMB for Bathurst and Bluenose-East herds.*

### **Day 1 – Status of the Western Kitikmeot Caribou herds and Principles of Conservation**

8:15-8:45	<b>Registration</b>	Chair
8:45	<b>Opening Prayer</b>	Chair
8:45-9:00	<b>Welcome and Opening Remarks</b>	Chair
9:00-9:50	<b>Overview of the Nunavut Wildlife Management Process and 2007 and 2014-2015 Community Consultations and Current Management Actions</b>	Lisa-Marie Leclerc/NTI/NWMB
9:50-10:05	<b>HEALTH BREAK</b>	
10:05-12:00	<b>Changes in the Number and Distribution of Caribou</b> <ul style="list-style-type: none"><li>• Caribou Abundance and Distribution – Bathurst and Bluenose-East Survey Results, 2015</li><li>• Dolphin and Union Abundance and Distribution, Preliminary Survey Results, 2015</li></ul>	Bruno Croft  Lisa-Marie Leclerc
12:00-1:30	<b>LUNCH</b>	
1:00-1:20	<b>The Principles of Conservation under the Nunavut Land Claims Agreement Process</b>	NTI
1:20-3:00	<b>Moving Forward to Conserve Bathurst and Bluenose-East Caribou Herds</b> <ul style="list-style-type: none"><li>• Mandate of the Government of Nunavut</li><li>• Government of Nunavut proposed harvest management</li></ul>	Lisa-Marie Leclerc

	actions submitted to NWMB.	All participants
3:00-3:15	HEALTH BREAK	
3:15-3:45	<b>What is Happening Elsewhere in Nunavut?</b> <ul style="list-style-type: none"> <li>• Baffin Island Caribou</li> <li>• Barren-ground Caribou on Southampton Island</li> </ul>	Lisa-Marie Leclerc
3:45-4:50	<b>Next Steps, NWMB Public Hearing</b>	NWMB
4:50 -5:00	<b>Closing Remarks</b>	Chair
<b>Day 2: Moving Forward for the harvest management of Caribou</b>		
8:45	Welcome and Opening Remarks	Chair
9:00-10:00	<b>Moving Forward on Bathurst, Bluenose-East and Dolphin and Union</b> <ul style="list-style-type: none"> <li>• Caribou Management Actions (HTOs)</li> <li>• Additional and Supportive Community-Based Actions, (Co-Management Partners)</li> </ul>	All Participants (HTOs)
10:00-10:15	HEALTH BREAK	
10:15-12:00	<b>Implementing Solutions- Small Group Discussions</b> <ul style="list-style-type: none"> <li>• Propose Caribou Management Options <ul style="list-style-type: none"> <li>- Educating the communities</li> <li>- Getting the communities support</li> <li>- Implementing harvest restrictions (HTO by-laws, enforcement)</li> </ul> </li> </ul>	All Participants
12:00-1:00	LUNCH	
1:00-3:40	<b>Implementing Solutions-Group discussion</b>	All Participants
3:45-4:00	<b>Final Closing Remarks</b>	Chair

## Appendix 3 - Presentations

### WILDLIFE MANAGEMENT IN NUNAVUT

#### AN OVERVIEW OF THE CO-MANAGEMENT PARTNERS

### SETTLEMENT OF LAND CLAIMS

- > IN 1993 NUNAVUT TUNNGAVIK INC. SIGNED A COMPREHENSIVE LAND CLAIM
- > \$580 MILLION PAID OVER 13 YEARS WITH INTEREST FOR A TOTAL OF \$1.1 BILLION DOLLARS
- > IMPLEMENTATION CONTRACT PROVIDES FUNDING FOR NWMB AND RWO'S AND HTO'S THROUGHOUT NUNAVUT
- > GIVES COMMUNITIES RESPONSIBILITIES IN THE CO-MANAGEMENT SYSTEM THROUGH A COMMUNITY HUNTERS & TRAPPERS ORGANIZATION (HTO)
- > PRESIDENT OF EACH HTO SITS AS A BOARD MEMBER ON A REGIONAL WILDLIFE ORGANIZATION (RWO)

### THE PARTNERS

- GOVERNMENT OF CANADA
  - > FISHERIES & OCEANS (DFO)
  - > INAC
- GOVERNMENT OF NUNAVUT (DOE – WILDLIFE DEPT.)
- NUNAVUT TUNNGAVIK INC. (WILDLIFE DEPT.)
- REGIONAL WILDLIFE ORGANISATIONS
  - > KITIKMEOT REGIONAL WILDLIFE BOARD
- LOCAL HUNTERS & TRAPPERS ORGANISATIONS

### HUNTERS & TRAPPERS ORGANIZATIONS

- NLCA - ARTICLE 5 - PART 7
- > 5.7.3 THE POWERS & FUNCTIONS OF HTO'S
  - A) REGULATE HARVESTING PRACTICES (NQL'S)
  - B) ALLOCATION OF BASIC NEEDS LEVELS
  - C) ASSIGNMENT TO NON-MEMBERS
  - D) MANAGEMENT OF HARVESTING AMONG MEMBERS

### REGIONAL WILDLIFE ORGANIZATIONS (RWO'S)

- NLCA - ARTICLE 5 - PART 7
- > 5.7.6 THE POWERS & FUNCTIONS OF RWO'S
  - A) REGULATE HARVESTING PRACTICES OF HTO'S (NQL)
  - B) ALLOCATION OF COMMUNITY BASIC NEEDS LEVELS
  - C) ASSIGNMENT TO NON-MEMBERS OF REGIONAL BNL'S
  - D) MANAGEMENT OF HARVESTING AMONG MEMBERS OF HTO'S IN THE REGION

### NUNAVUT WILDLIFE MANAGEMENT BOARD



## NWMB MISSION STATEMENT

- THE NWMB STRIVES TO ENABLE AND PROTECT THE BENEFICIAL UTILIZATION OF WILDLIFE FOR AND BY THE BENEFICIARIES OF THE NUNAVUT LAND CLAIMS AGREEMENT AS WELL AS OTHER RESIDENTS OF THE NUNAVUT SETTLEMENT AREA (NSA) AND TO MANAGE WILDLIFE CONSISTENT WITH THE PRINCIPLES OF CONSERVATION, SUSTAINABILITY AND ECOSYSTEMIC INTEGRITY.
- THE NWMB CO-ORDINATES ITS FUNCTIONS AND ACTIVITIES WITH THE REGIONAL WILDLIFE ORGANIZATIONS AND THE HUNTERS AND TRAPPERS ORGANIZATIONS TO ENSURE COMMUNICATION AND CO-OPERATION WITH THE MANY COMMUNITIES OF THE NSA.
- THE NWMB SEEKS TO IDENTIFY, DEVELOP AND BRING TO BEAR THE BEST INFORMATION AND EXPERTISE IN THE FORMULATION OF ITS DECISIONS. THE BOARD RECOGNIZES THE ROLE AND POWER OF VARIOUS SOURCES OF INFORMATION AND EXPERTISE, INCLUDING BUT NOT LIMITED TO, RESOURCE USERS, COMMUNITY ELDERS, TRADITIONAL KNOWLEDGE AND MODERN SCIENCE.
- THE NWMB OPERATES IN AN OPEN FORUM, INFORMING THE PUBLIC AND PROVIDING FOR PUBLIC INPUT AND PARTICIPATION

## ROLE OF THE NWMB

- APPROVING PLANS FOR THE MANAGEMENT AND PROTECTION OF PARTICULAR WILDLIFE OR WILDLIFE HABITATS
- ESTABLISHING, MODIFYING OR REMOVING QUOTAS AND NON-QUOTA LIMITATIONS ON WILDLIFE HARVESTING
- PARTICIPATING IN THE NEGOTIATION OR AMENDMENT OF DOMESTIC INTERJURISDICTIONAL AGREEMENTS



[NWMB.COM](http://NWMB.COM)

- HARVEST STUDY



- INUIT BOWHEAD KNOWLEDGE STUDY



- PROVIDES FUNDING FOR HTO'S AND RWO'S



## NUNAVUT TUNNGAVIK

- RESPONSIBLE FOR IMPLEMENTING THE NUNAVUT LAND CLAIM AGREEMENT (NLCA) – WILDLIFE – ARTICLE 5
- ARTICLE 40 PROVISIONS – OVERLAP AGREEMENTS
- 5.7.2 - RESPONSIBLE FOR ESTABLISHING HTO'S AND RWO'S
- LIAISON WITH NWMB, MAKIVIK, INUVIALUIT, ITK & ICC AND OTHER ORGANISATIONS ON REGIONAL, NATIONAL & INTERNATIONAL ISSUES.

## NUNAVUT WILDLIFE SECRETARIAT

- SECRETARIAT TO ADMINISTER FINANCES (APPROX. - \$3 MILLION) FOR 27 COMMUNITIES AND 3 REGIONS
- LIAISON AND COORDINATION AMONG THE REGIONS AND COMMUNITIES
- ADMINISTER AND COORDINATE THE WILDLIFE POLICY ADVISORY COMMITTEE (WPAC)

## CRITERIA FOR NWMB DECISIONS

5.3.3 DECISIONS OF THE NWMB OR A MINISTER SHALL RESTRICT OR LIMIT INUIT HARVESTING ONLY TO THE EXTENT NECESSARY:

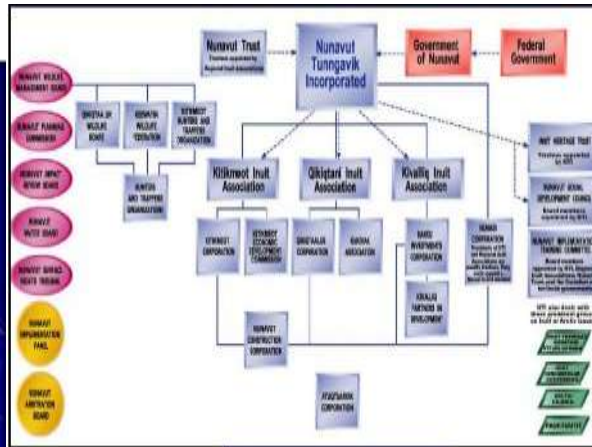
(A) TO EFFECT A VALID CONSERVATION PURPOSE;

(B) TO GIVE EFFECT TO THE ALLOCATION SYSTEM OUTLINED IN THIS ARTICLE, TO OTHER PROVISIONS OF THIS ARTICLE AND TO ARTICLE 40; OR

(C) TO PROVIDE FOR PUBLIC HEALTH OR PUBLIC SAFETY.

## NLCA 5.1.5 PRINCIPLES OF CONSERVATION

- (A) THE MAINTENANCE OF THE NATURAL BALANCE OF ECOLOGICAL SYSTEMS WITHIN THE NUNAVUT SETTLEMENT AREA;
- (B) THE PROTECTION OF WILDLIFE HABITAT;
- (C) THE MAINTENANCE OF VITAL, HEALTHY, WILDLIFE POPULATIONS CAPABLE OF SUSTAINING HARVESTING NEEDS AS DEFINED IN THIS ARTICLE; AND
- (D) THE RESTORATION AND REVITALIZATION OF DEPLETED POPULATIONS OF WILDLIFE AND WILDLIFE HABITAT.



### Nunavut Wildlife Management Process Community Consultations Current Management Action

Lisa-Marie Leclerc  
January 14, 2016



### Harvest Management Actions



### Management Process



### Monitoring Caribou – Distribution

Geographical distribution of barren-ground caribou. Portions of ranges extend into Yukon Territory, Alberta, Saskatchewan and Manitoba. (from Nagel et al. 2011).

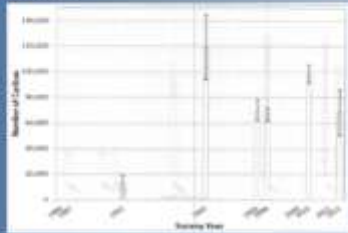




## Monitoring Caribou –Bluenose- East



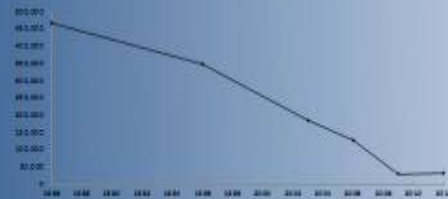
Survey history of the Bluenose East Herd from 1986 to 2013.  
The Bluenose East Caribou herd we measure a rapid decline from 2000 and 2005 and confirm in 2006. Then after a high of 125,000 in 2010 declined to an estimated 68,000 in 2013.



## Monitoring Caribou -Bathurst



Survey history of the Bathurst Caribou Herd from 1986 to 2012.  
In the mid-1980s close to half a million Bathurst caribou were present on their annual range. From 2006 to 2009 the herd declined to about 32,000 caribou. In 2012, the most recent survey, the herd was estimated at 35,000 caribou suggesting the herd had been relatively stable from 2009 to 2012.



## Consultations



### Monthly/Annual Basis:

Report on the survey results to the HTOs and KRWB  
Report to the public

### Meetings:

Management plan meetings  
Special event "Caribou week"  
Public consultations  
2007 Workshop on West Kitikmeot caribou status (Kugluktuk)

## Community-based Management Actions



- Education awareness programs.
- Shift in harvest to alternative species like muskox.
- No sport or commercial harvest of Bluenose East caribou in Nunavut.
- Kugluktuk HTO does not support sale/purchase of caribou under the country food distribution program.
- Strong participations to consultations/meetings/workshops.

## 2014 Consultations



### Bathurst Caribou

September 9, 2014 - Kugluktuk HTO board meeting  
September 22, 2014 - Kugluktuk community information and consultations  
October 1, 2014 - Bay Chimo and Bathurst HTO meeting  
October 9-10, 2014 - NWT Technical Meeting 1, GN and NIT participation  
October 15-18, 2014 - KRWB AGM meeting  
October 22-23, 2014 - NWT Technical Meeting 2, GN participation  
October 31, 2014 - Kugluktuk HTO board meeting  
January 30, 2015 - Bathurst and Bay Chimo (TAH)  
February 11, 2015 - Kugluktuk HTO (TAH)

### Bluenose East Caribou

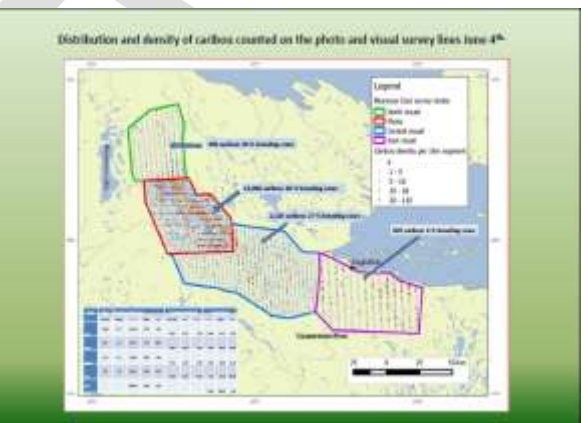
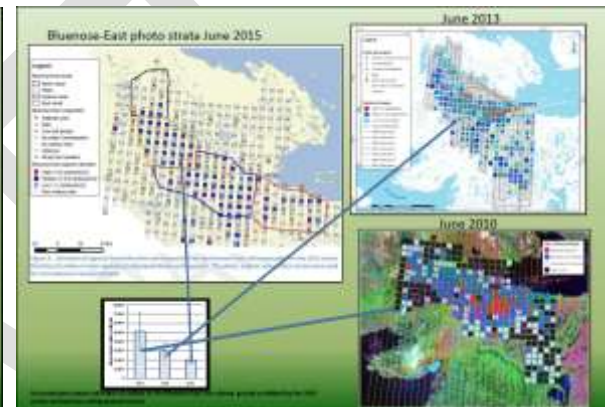
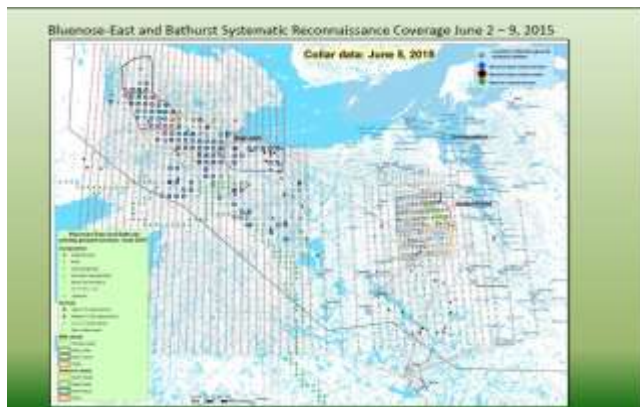
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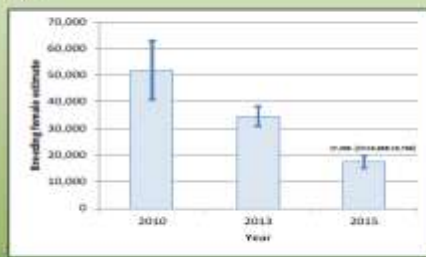
**Logistics**

- 2 Cesna caravans, 1 Pilatus Porter and 1 helicopter based out of Kugluktuk.
- 1 Cesna caravan and 1 helicopter based out of Ekati, 2 photo planes based out of Kugluktuk (Piper Malibu and Cesna 206)

- June 2: Both calving ground resens started and status of calving assessed.
- June 3-7: Systematic reconnaissance survey for both calving grounds.
- June 5: BME photographic survey completed.
- June 6: Bathurst photographic completed.
- June 5 and 6: BME composition survey on all strata.
- June 6: Bathurst composition survey commenced in photo strata.
- June 7: Bathurst composition survey interrupted due to weather.
- June 8: Bathurst composition survey completed in the Photo, West and South strata.
- June 9: Bathurst composition survey completed on the North strata.



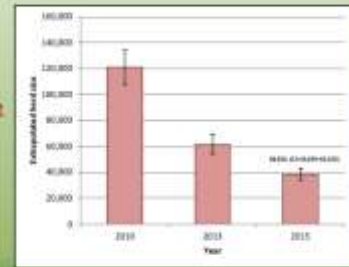
Comparison of 2015 breeding female estimate with estimates from the 2013 and 2010 calving ground surveys for the Bluenose-East herd.



### Bluenose-East extrapolated Herd Size

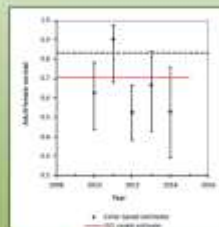
- Adult female based extrapolated estimate

21% annual decline rate



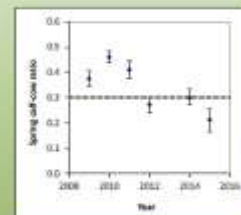
Thresholds defined: Why are we so concerned about the Bluenose-East Herd?

- OLS modeling estimated adult female survival is 0.71
- Caribou herds need survival rates of at least 0.8 to 0.85 to maintain stability



Thresholds defined: Why are we so concerned about the Bluenose-East Herd?

- Calf cow ratios estimate productivity (are caribou replacing themselves?)
- Rule of thumb: Should be >0.3 for herd stability



Thresholds defined: Why are we so concerned about the Bluenose-East Herd?

Table 1: Thresholds of risk as a function of trend and population size

Lambda	% change	Population Size (thousands)				
		<30	30-60	60-90	90-120	>120
>1.1	>10%	5	5	5	5	5
1.02-1.09	2-9%	10	10	10	10	10
0.99-1.02	-2 to +2%	15	15	15	15	15
0.9-0.98	-10 to -2	20	20	20	20	20
<0.9	<-10%	25	25	25	25	25

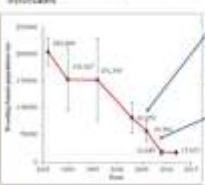
Minimizing harvest risk



Is a high (20-30%) annual rate of decline reasonable?

The Bathurst herd

Trends in Bathurst herd breeding female estimates



Bathurst 2006-8  
Low survival and constant harvest on a declining population deepened the rate of decline

11.7% annual rate of decline from 2000-6

35.1% annual rate of decline from 2006-8

### Conclusions for Bluenose-East Herd

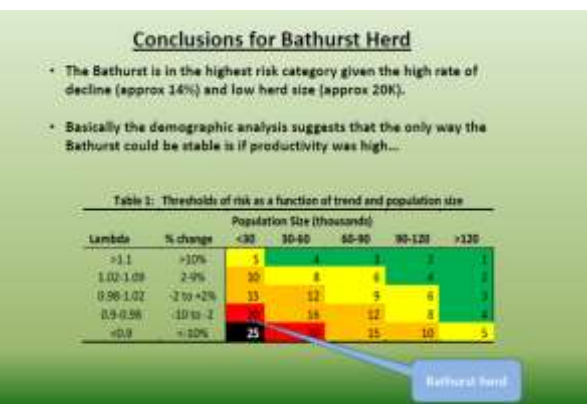
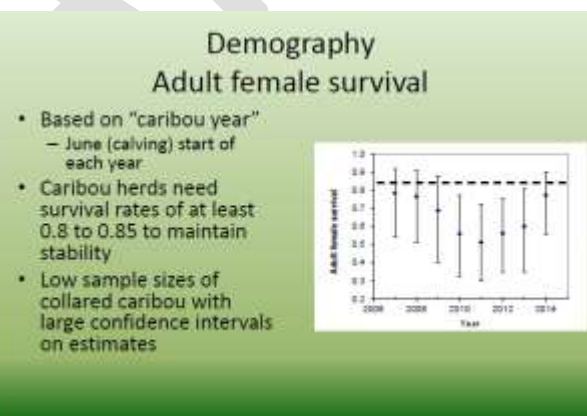
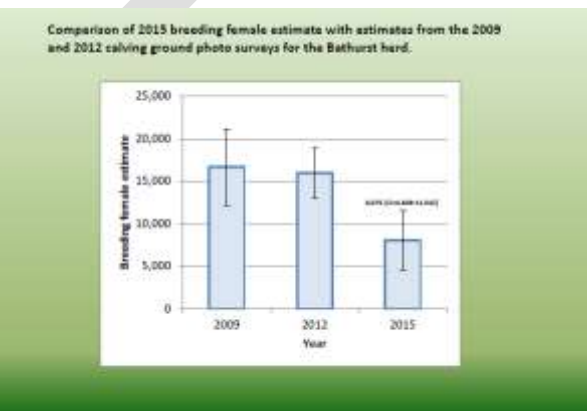
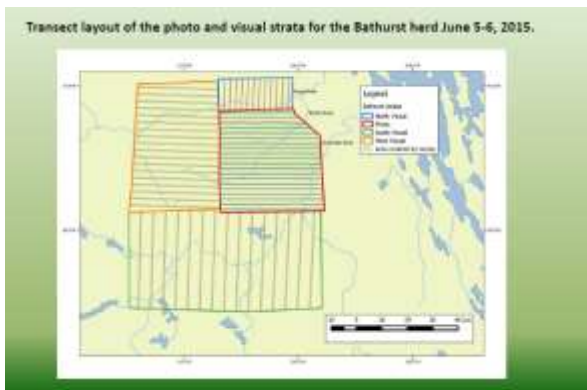
- Bluenose-East is probably somewhere near the bottom of the orange zone due to its rapid (21%) rate of decline.
- Demographic indicators suggest low adult female survival, low pregnancy rate and low productivity.
- Therefore, the resilience of the herd to harvest pressure is low.



Bluenose-East and Bathurst Systematic Reconnaissance Coverage June 2 - 9, 2015









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Building Nunavut together  
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Biter in Nunavut ensemble

## Dolphin and Union Abundance and Distribution

Lisa-Marie Leclerc  
January 14, 2015



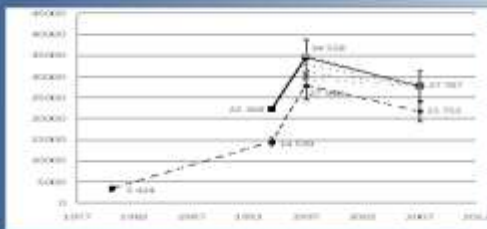
## 4. 4 Population and Distribution



- Dolphin and Union caribou are intermediates in size and color between Peary caribou and Barren-ground caribou.
- Dolphin and Union caribou is the most genetically differentiated of the barren-ground caribou (Zitlau, 2004) possibly due to genetic bottleneck.
- Special behaviors:
  - They do not form well define calving ground, as its calving strategy is mainly individualist (Nagy et al., 2011).
  - Migratory herd crossing the sea-ice to reach their wintering and summering ground.

(Dumont and Lee, 2013)

## 4. 4 Population and Distribution



(Dumont and Lee, 2013)

## 4. 4 Population and Distribution



## 4. 4 Population and Distribution



## 2015 Survey



## 2015 Survey



Map of initial reconnaissance flights on October 25, 26 (East of Cambridge Bay), and October 27 (West of Cambridge Bay).

## 2015 Survey



## 2015 Survey



Map of final systematic reconnaissance flights on October 29 (East of Cambridge Bay) and October 31 (West of Cambridge Bay) and second shoreline reconnaissance flight in higher density areas (October 31).

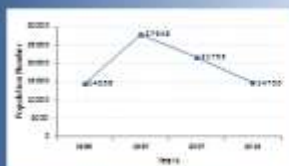
## 2015 Survey



## 2015 Survey



The resulting estimate of caribou of 14,730 (CI= 11,475-17,986).



## Summary of Western Kitikmeot Caribou Population Status



- Bluenose-East Caribou 122,697 (2010) to 38,592 (2015)  
• => depleted by 69%.
- Bathurst Caribou about 480,000 (1986) to 19,700 (2015)  
• => depleted by 96%.
- Dolphin and Union have shown a declining trend, but GN is not proposing limitation on the herd at this time.





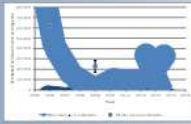
## GN DOE Proposed Recommendations



Bathurst based on :

- The latest population estimate available, 35,000 caribou in 2012.
- Given an estimated sustainable harvesting rate of 1% since 2010 (considered low for barren-ground caribou), a harvest of 370 caribou/year from both jurisdiction was not able to sustain current abundance. The herd has continued to decline under the current management.

Stock Abundance Level	Stock Abundance Level	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)
Very High	Very High	1% or higher	1% or higher	1% or higher	1% or higher
High	High	2.5%	2.5%	2.5%	2.5%
Medium	Medium	3.5%	3.5%	3.5%	3.5%
Low	Low	4.5%	4.5%	4.5%	4.5%
Very Low	Very Low	5.5%	5.5%	5.5%	5.5%



GN DOE NWMB Minister

## GN DOE Proposed Recommendations



Bathurst:

At this declining rate, biologically the herd cannot sustain an harvest.

$$(100 / 35,000 \text{ caribou} = 0.3\% \text{ harvest rate})$$

NU TAH = 100

Stock Abundance Level	Stock Abundance Level	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)
Very High	Very High	1% or higher	1% or higher	1% or higher	1% or higher
High	High	2.5%	2.5%	2.5%	2.5%
Medium	Medium	3.5%	3.5%	3.5%	3.5%
Low	Low	4.5%	4.5%	4.5%	4.5%
Very Low	Very Low	5.5%	5.5%	5.5%	5.5%

GN DOE NWMB Minister

## GN DOE Proposed Recommendations



In June 2015,

- GN DOE submitted proposed recommended TAH of 1,000 caribou for the Bluenose herd to NWMB board.
- GN DOE submitted proposed recommended TAH of 100 caribou for the Bathurst herd to NWMB board.

There was no consensus on the proposed TAH by the HTO, although there was a recognition of the need of harvest limitation to address the principle of conservation concerns. Review the harvest limitation, for the two herds, based on the new population survey of June 2015.

GN DOE NWMB Minister

## GN DOE Proposed Recommendations



### SURVEYS

## GN DOE Proposed Recommendations



Bluenose-East, based on :

- The latest population estimate available, 38,592 caribou in 2015.
- Harvest monitoring program show an overall harvest of the herd estimated in the order of 3,300 caribou. Of this, subsistence harvest in Nunavut was estimated between 1000 - 1500 (1250) caribou annually which represent 36% of the overall harvest.
- According to the "Taking Care of Caribou" Management plan, signed by the KRWB, the recommended harvest rate is 2.5%.

HERD	Harvest Abundance Level	Threshold Abundance Level	Threshold Abundance Level
Cape Bathurst Herd	20,000	15,000	10,000
Bluenose West Herd	12,000	9,000	6,000
Bluenose East Herd	12,000	9,000	6,000

GN DOE NWMB Minister

## GN DOE Proposed Recommendations



Bluenose-East:

$$(38,000 \text{ caribou} \times 2.5\% \text{ harvest rate}) / 100 = 950 \text{ caribou in total}$$

$$(950 \text{ caribou} \times 36\%) / 100 = 340 \text{ caribou for Nunavut where } 1250 / 3500 = 36\%$$

NU TAH = 340 males only

Stock Abundance Level	Stock Abundance Level	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)	Recommended Harvest Rate (% of herd)
Very High	Very High	1% or higher	1% or higher	1% or higher	1% or higher
High	High	2.5%	2.5%	2.5%	2.5%
Medium	Medium	3.5%	3.5%	3.5%	3.5%
Low	Low	4.5%	4.5%	4.5%	4.5%
Very Low	Very Low	5.5%	5.5%	5.5%	5.5%

GN DOE NWMB Minister



## GN DOE Proposed Recommendations



Bathurst based on :

- The latest population estimate available, 19,700 caribou in 2015.
- The herd has continued to decline under the current management; minimal harvest in Nunavut and moratorium in Northwest Territory with 15 tag allocated for ceremonial purposes only.



GN DOE NWMB Minister

## GN DOE Proposed Recommendations



Bathurst:

At this declining rate, biologically, the herd cannot sustain an harvest.

$$(19,700 \text{ caribou} \times 0.15\% \text{ harvest rate}) \times 100 = 30$$

NU TAH = 30



GN DOE NWMB Minister

## GN DOE Next Steps



In January 2015,

- Consult with the affected communities on the adjusted new TAH recommendations.
  - GN DOE submitted proposed recommended TAH of 300 caribou for the Bluehope herd to NWMB board.
  - GN DOE submitted proposed recommended TAH of 30 caribou for the Bathurst herd to NWMB board.

Consensus?

The GN would like to seek HTOs and NWMO support to these proposed recommendations.

- Submission to NWMB for their March meeting