



**NUNAVUT WILDLIFE MANAGEMENT BOARD**  
**Agenda: Regular Meeting 004-2023**  
**November 29, 2023**  
**Iqaluit, NU**



	<b>No:</b>	<b>Item:</b>	<b>Tab:</b>	<b>Presenter:</b>	<b>Maximum Time</b>
9:00 - 9:02 AM	1	Open Meeting		Chairperson	2 Minutes
9:02 - 9:04 AM	2	Declaration of Conflict of Interest		Chairperson	2 Minutes
9:04 - 9:05 AM	3	Agenda: Review and Approval of RM004-2023	1	Chairperson	1 Minute
9:05 - 10:00 AM	4	Caribou Collaring Mortality and Usage of Total Allowable Harvest Tags (Decision)	2	Government of Nunavut and Ekaluktutiak Hunters & Trappers Organization	55 Minutes
10:00 - 10:15 AM		<b>BREAK</b>			15 Minutes
10:15 - 10:30 AM	4	Caribou Collaring Mortality and Usage of Total Allowable Harvest Tags (Decision)	2	Government of Nunavut and Ekaluktutiak Hunters & Trappers Organization	15 Minutes
10:30 - 11:30 AM	5	Request for Five Additional Grizzly Bear Sport Hunt Tags (Decision)	3	Kugluktuk Hunters & Trappers Organization	1 Hour
11:30 AM - 12:00 PM	6	Fisheries Management Operational Updates (Information)	4	Fisheries and Oceans	30 Minutes

12:00 - 1:30 PM		<b>LUNCH</b>			1 Hr & 30 Min
1:30 - 2:00 PM	7	Marine Conservation Updates (Information)	5	Fisheries and Oceans	30 Minutes
2:00 - 2:05 PM	8	Adjournment of RM004-2023 Meeting		Chairperson	



**SUBMISSION TO THE**

**NUNAVUT WILDLIFE MANAGEMENT BOARD**

**FOR**

**Information:**

**Decision: X**

**Issue:** Caribou Collaring Mortality and Usage of Total Allowable Harvest Tags

**Background:**

- The Department of Environment (ENV) has a long history of using collaring programs to collect valuable information on a range of wildlife species including caribou.
- There have been community concerns raised about wildlife mortalities as a result of these research collaring projects particularly when there is a Total Allowable Harvest (TAH) in place.
- The Nunavut Harvesting Regulations allow for “humane kills” if wildlife is suffering from a life-threatening disease, is dying or was naturally abandoned by its mother and is too young to survive. While humane kills are not deducted from the Total Allowable Harvest, these humane kill provisions will not address all possible circumstances if a human caused mortality occurs during a research collaring project.

**Current Status:**

- In recent years, ENV has been hiring contractors for caribou collaring projects. While hiring contractors is expensive, this is very specialized work requiring a high level of training, expertise and sound judgment and specialized equipment.
- There are typically very low annual mortality events directly attributed to collaring programs, and therefore ENV does not believe these mortalities present a conservation concern.

**Consultations:**

Staff at the three Regional Wildlife Organizations (RWOs) have been contacted about the submission. No formal input was received prior to the submission deadline.

**Recommendations:**

ENV requests that NWMB provides clear direction that in the event of a human caused mortality during an approved research collaring program for a caribou herd with a Total Allowable Harvest, that the mortality will not be deducted from the Total Allowable Harvest.





**Ekaluktutiak Hunters & Trappers Organization**  
**P.O. Box 1270 Cambridge Bay, Nunavut X0B 0C0**  
**Telephone #: (867) 983-2426 Facsimile #: (867) 983-2427**  
**Email: [cambay@krwb.ca](mailto:cambay@krwb.ca)**

## **SUBMISSION TO THE NUNAVUT WILDLIFE MANAGEMENT BOARD**

### **FOR**

**Information:** X

**Decision:** X

**Issue:** Dolphin-Union caribou mortalities during collaring research

### **Background:**

*Inuit livelihood is deeply connected to and inseparable from the livelihood of caribou. Inuit in the Kitikmeot region have depended on and continue to rely on Dolphin-Union (DU) caribou for sustenance, learning and practicing Inuit Qaujimaqatunngit (IQ) and traditional knowledge, and sense of well-being and community. The Total Allowable Harvest (TAH) for DU caribou has deeply impacted opportunities for Inuit to continue to cultivate and maintain these relationships. Inuit populations in the north are continuing to grow and community members are facing significantly reduced access to caribou hunting.*

*The Ekaluktutiak Hunters and Trappers Organization (EHTO) understands that the Government of Nunavut Department of Environment (GN DOE) conducts scientific research to generate information on caribou population trends and make recommendations for TAH, as well as other management plans. For DU caribou, GN DOE completed abundance surveys in 2018 and 2020, and collaring took place in 2021. GN DOE is currently completing another abundance survey and EHTO was recently informed of their plans to deploy 35 more collars in March 2024. EHTO continues to receive and review map locations of already-collared DU caribou (with a 4 week delay) from GN DOE.*

*Specific to DU collaring, EHTO is concerned about the following:*

- Four mortalities (out of 36 collared individuals) occurred during collar deployment in 2021 that resulted in a reduction of 4 tags from the closest community (Kugluktuk). These unexpected mortalities occurred due to physical and physiological injuries (GN DOE, 2021). EHTO understands that GN DOE staff devoted their best efforts to avoid these events by following Standard Operating Procedures (Northwest Territories Environment and Natural Resources Wildlife Care Committee, 2011) and animal care protocols (CARMA 2008; TAEM 1996) via GN DOE and Government of Northwest Territories [GNWT] permits and frequent communications with GNWT veterinarian staff. However, even with these efforts, unexpected mortalities did and can occur.*
- Mortalities also occurred during collar deployment prior to 2021, but these were fewer instances over time (2 mortalities out of 94 collars deployed from 2015 to 2018; GN DOE, 2018; GN DOE, personal communication). There was no TAH for DU caribou at that time.*
- Although meat from the 2021 collaring mortalities was distributed to the local community, lost hunting opportunities for each household are invaluable and irreplaceable. On hunting trips, Inuit hunters not only learn from and practice hunting, they also learn and continue to practice traveling on the land, survival and safety skills, properly butchering and sharing meat, and updating their experience and knowledge of all wildlife. This IQ and traditional knowledge is shared with other community members, especially young ones that get to travel with older hunters.*
- EHTO was not informed that caribou mortalities that occur during research would be considered part of the TAH. EHTO became aware of this response after the research mortality events in 2021 had occurred. In addition, HTOs were not consulted on the amount of compensation that could be provided for a caribou mortality during research.*
- Kugluktuk Angoniatit Association (KAA; Hunters and Trappers Organization [HTO]) was informed of the 2021 mortality events in real-time. This was possible because of local participant observers who took part in the field work. Local observers properly and promptly butchered the animal and brought all parts of the animal and meat back to the community without wastage. GN DOE staff in the field also provided immediate updates through telephone and met in-person with KAA upon return from the field. Standard Operating Procedures and research protocols do not guarantee these circumstances and efforts will occur with all projects.*

- The TAH for DU caribou that was initially set in 2018 did not take into account caribou mortalities that could occur during research. Tag deductions that account for GN DOE research mortalities are perceived as taking hunting opportunities away from Inuit.
- Any mortality that occurs during collaring research is not considered acceptable by EHTO. DU caribou population pressures, risks, and threats have been and continue to be acknowledged by co-management partners. This is reflected in their establishment and maintenance of a TAH. DU caribou is also currently assessed as Endangered by the Committee on the Status of Endangered Wildlife in Canada under the Species at Risk Act.
- Collar deployment involves pursuit by aircraft, capture by net gunning, and physical immobilization and handling to collect biological samples from reproducing females (Northwest Territories Environment and Natural Resources Wildlife Care Committee, 2011). These activities add remarkable pressure on a small population of caribou. Perception of predation risk can also affect reproduction in female animals, and is potentially heightened by repeat capture and handling (Cattet, 2018).
- The large population of Cambridge Bay relies heavily only on DU herds for caribou harvesting, under EHTO tag allocations (currently 50 per year). Community members occasionally harvest Beverly caribou.
- There is a lack of transparency in how collaring data could or would be used by GN DOE outside of a proposed research project, for example, in land use planning or Nunavut Impact Review Board processes under the Nunavut Planning and Project Assessment Act.

In addition, EHTO notes the following proactive efforts as they pertain to DU caribou:

- Kitikmeot communities are part of a User-to-User DU caribou group with the Inuvialuit Settlement Region as an interjurisdictional effort to continue monitoring DU population and distribution changes. This group is also a forum for exchanging traditional knowledge across the whole DU caribou range.
- EHTO acknowledges that collaring can provide important information on caribou distribution and guide abundance surveys. However, Inuit hunters are also already aware of this information through their shared IQ and traditional knowledge; GN DOE uses this information to design their abundance surveys. EHTO is particularly aware of how collaring information is comparable to Inuit knowledge when reviewing GN DOE collaring maps.
- EHTO is not in support of collaring research that affects Inuit harvesting. Collars that were previously deployed are still providing locational data. EHTO encourages the inclusion of and support for IQ, traditional knowledge, and Inuit hunters as alternatives to investing in collaring research. These alternatives should be considered especially in the years where DU caribou herds are in low numbers and already facing multiple disturbances. Any further reductions in Inuit harvesting opportunities limits Inuit ability to practice and build DU caribou traditional knowledge, although this knowledge can be gathered indirectly during other traditional harvesting and land use activities.

## Consultation:

**The below consultation record does not include all communications. This record is not meant to be exhaustive but instead, highlights key points that are relevant for this submission.**

- On 16 September 2021, GN DOE provided information to KAA, EHTO, KRWB, Kitikmeot Inuit Association, Nunavut Tunngavik Inc., and Nunavut Wildlife Management Board representatives on DU collaring fieldwork that occurred in spring 2021. This in-person consultation took place in Kugluktuk. Discussions included the 4 mortality events and how GN DOE and KAA responded to them. It was noted by KRWB and KAA staff that no monetary compensation was offered or provided.
- On 10 November 2022, GN DOE indicated their intent (via email) to deploy 35 collars in spring 2023. GN DOE indicated this number was based on the vulnerable stage of the herd. GN DOE also proposed that collaring occur closer to Cambridge Bay since GNWT was also proposing to deploy collars in their jurisdiction on Victoria Island.
- On 9 December 2022, GN DOE provided draft research proposals (via email) indicating their intent for DU deployment to occur in April 2023. At this time, GN DOE indicated that letters of support were needed.
- On 30 August 2023, GN DOE hosted a meeting with EHTO and KRWB staff (via remote videoconferencing) that KAA was unable to attend. During this meeting, GN DOE initiated a discussion on how to approach DU caribou mortalities, and suggested options for EHTO and KRWB. EHTO voiced their concerns about mortalities occurring during collaring research, which are indicated in this submission. GN DOE proposed acceptable mortality rates and thresholds, where once a threshold is reached, research would no longer proceed and any remaining collars would be deployed the following year.

- *EHTO had a discussion on 31 August 2023 and did not want to support GN DOE on DU caribou collaring until the mortality issue is resolved. EHTO does not want to see their membership lose any DU tags.*
- *On 6 September 2023, GN DOE indicated to KRWB, EHTO, and KAA (via email) that “the GN supports the following two options for an NWMB submission: 1) keeping 4 additional tags in reserve for collar mortalities, or 2) seek approval from NWMB that any mortality from collaring will not be removed from the TAH.” GN DOE also recommended that the submission be made by HTOs and KRWB because of the lost opportunities for hunting when a mortality occurs, and that submissions should be made by the organizations requesting the change.*
- *On 20 September 2023, EHTO executives met with a KRWB staff member (via Microsoft Teams) to initiate a draft submission to NWMB.*
- *On 11 October 2023, EHTO executives met with a KRWB staff member (via Microsoft Teams) to discuss, review, and finalize a submission to NWMB.*
- *On 18 October 2023, GN DOE indicated (via email) that it is their “recommendation that animal mortalities during collaring operations not come of the TAH.” They also indicated that this recommendation would not create a conservation concern because collaring mortalities are usually a very low number.*

## **Recommendations:**

- Inuit view animals not only as meat, but also opportunities and relationships that need to be respected, cultivated, and maintained over time. Co-management partners must keep this in mind when using tags to represent animals.
- A mortality that occurs during DU caribou research should not be considered part of a TAH. Animal mortalities during research should be considered rare events. A DU caribou mortality that occurs during research is an unintended event rather than a harvest.
- For every DU caribou mortality that does occur during a GN DOE research project, the animal must be promptly butchered by a local Inuit research participant and the meat must be brought back to the nearest HTO. GN DOE must also provide monetary compensation to the nearest HTO to acknowledge (rather than substitute) the lost hunting opportunity when a mortality occurs. This compensation should occur regardless of whether the mortality is counted as part of a TAH. The value of caribou is priceless and the appropriate amount of compensation needs to be determined in collaboration with the HTO.
- *For all mortalities, animals must be biologically sampled and, if possible, autopsied to confirm causes of death. Local observers are also knowledgeable about and able to verify causes of death.*
- IQ can inform the design of research projects to minimize mortality risk. EHTO can be consulted for their knowledge of when and where collars could be deployed to reduce mortality risk (e.g., at water crossings).
- DU caribou collaring research should not proceed without the explicit support of local HTOs, and the inclusion of at least 2 local participant observers recruited by the HTO for fieldwork. HTOs and their recruited observers should have the authority to pause or cancel research activities if they observe mortality risks, unusual mortality events, and/or research conditions that violate the conditions of their research support (e.g., as indicated via letters of support).
- During fieldwork, GN DOE must provide daily updates to local HTOs.
- All GN DOE staff and their contractors that conduct wildlife research should be mentally and physically capable, take their work seriously, and respect Inuit, wildlife and the land that they need to work with.
- When requesting Letters of Support, GN DOE should be requesting support not only for research activities but also when, where, and how collaring data will be used, shared, and published, for example, in collaboration with land use projects and proponents. GN DOE should also disclose what kinds of information might be collected from captured caribou when they are being collared (e.g., how long caribou are restrained for). HTOs cannot make informed decisions on whether or not to support research when they do not know all of the risks and how the resulting data might be used.
- Inuit hunters and elders collectively share and hold information on current caribou population distributions and trends. There is a need to improve support for and reliance on research that documents IQ and traditional knowledge in a way that is led, analyzed, and shared directly by HTOs or RWOs, in support of their responsibilities under the Nunavut Agreement. Most IQ research involves information that is extracted and reinterpreted by non-Inuit organizations to meet non-Inuit management objectives and priorities. Published IQ research also has a tendency to replace community consultations. When this happens, important aspects of IQ on how and when to use community-sourced information is lost.

- GN DOE must provide all wildlife handling and sampling protocols and research permits associated with a research project to the local HTOs and KRWB that they are requesting support from. For DU caribou, this includes permits that are acquired in the Northwest Territories and under the Species at Risk Act.

**References:**

CARMA. 2008. Rangifer Health and Body Condition Monitoring: Monitoring Protocols Level 2. CircumArctic Rangifer Monitoring and Assessment Network. 54 p.

GN DOE. 2021. Dolphin and Union caribou 2021 collaring, Kugluktuk — August 24–26. Field Report. Prepared by: A. Roberto-Charron.

GN DOE. 2018. Dolphin and Union caribou (*Rangifer tarandus groenlandicus* x *pearyi*) 2018 collaring (NWRT Project Number : #2-18-10). Nunavut Wildlife Management Board Final Project Report. Prepared by L.M. Leclerc.

Northwest Territories Environment and Natural Resources Wildlife Care Committee. 2011. Standard Operating Procedure. Capture, Handling & Release of Caribou. Version 2. Prepared by M. Cattet.

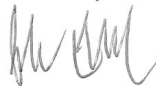
TAEM. 1996. 1995/1996 Year One Progress Report. Development and Application of Animal Borne GPS Technology on Woodland Caribou. A report of the Research and Development Committee of Manitoba Hydro.

**Prepared by:**

*Ekaluktutiak Hunters and Trappers Organization*  
[cambay@krwb.ca](mailto:cambay@krwb.ca)

*Dr. Pamela B.Y. Wong*  
*Senior Research and Technical Advisor*  
*Kitikmeot Regional Wildlife Board*  
[pwong@krwb.ca](mailto:pwong@krwb.ca)

**Submitted by:**



**Peter Evalik, Interim Chair**  
Ekaluktutiak Hunters and Trappers Organization

**Date:** 3 November 2023

# Wildlife Telemetry in Nunavut – Barren-Ground Caribou



*Prepared by:* Mitch Campbell  
Kivalliq Wildlife Biologist  
Nunavut Department of Environment  
P.O. Box 120  
Arviat, NU, X0C 0E0  
Ph: (867)857-3171

*Some of the contents of this presentation contain draft results and are not to be cited, published or distributed without written permission of the GN ENV.*

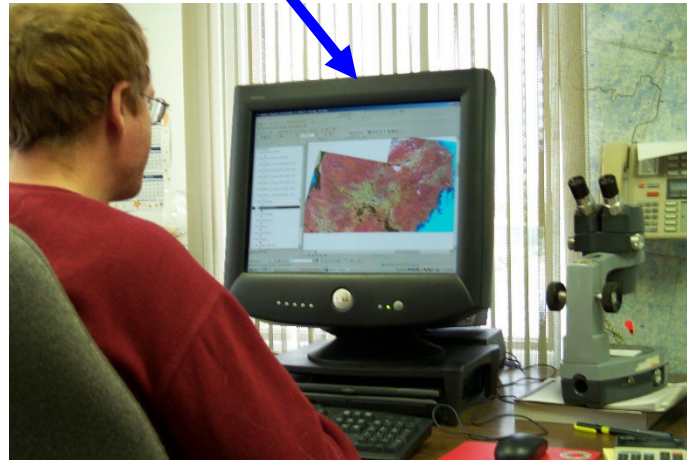
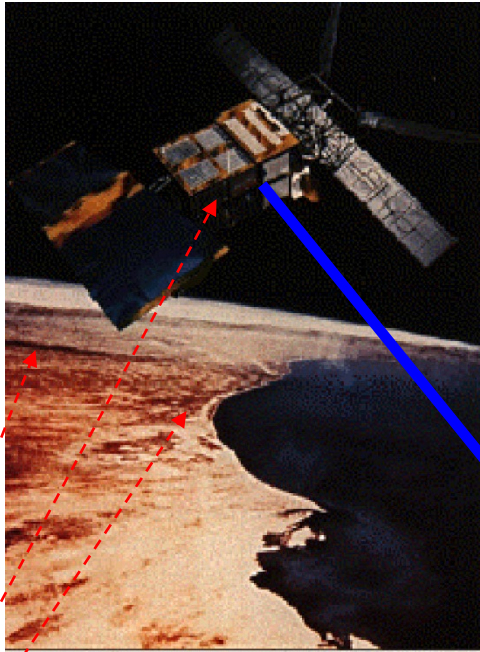


# Telemetry Based Studies - Overview



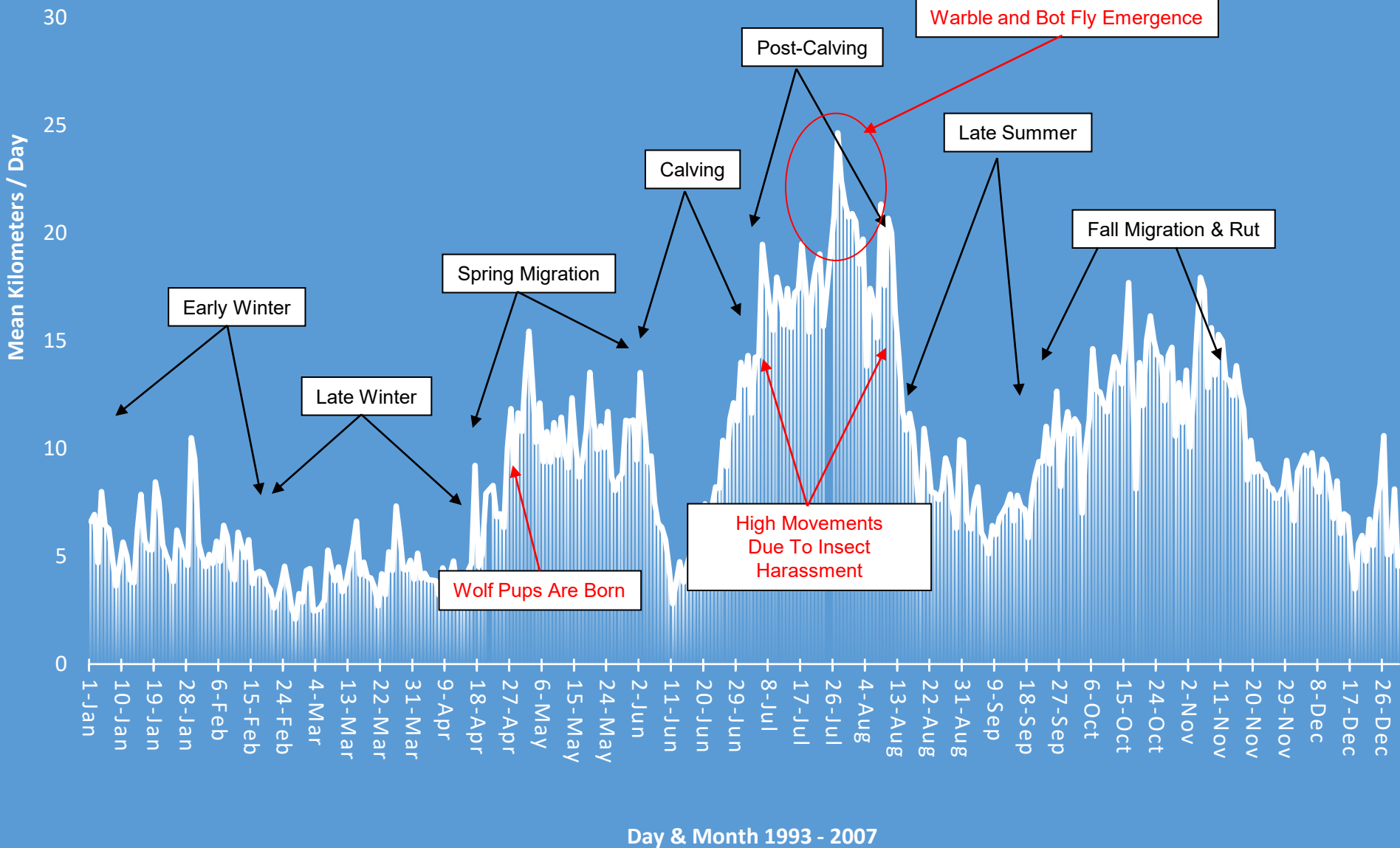








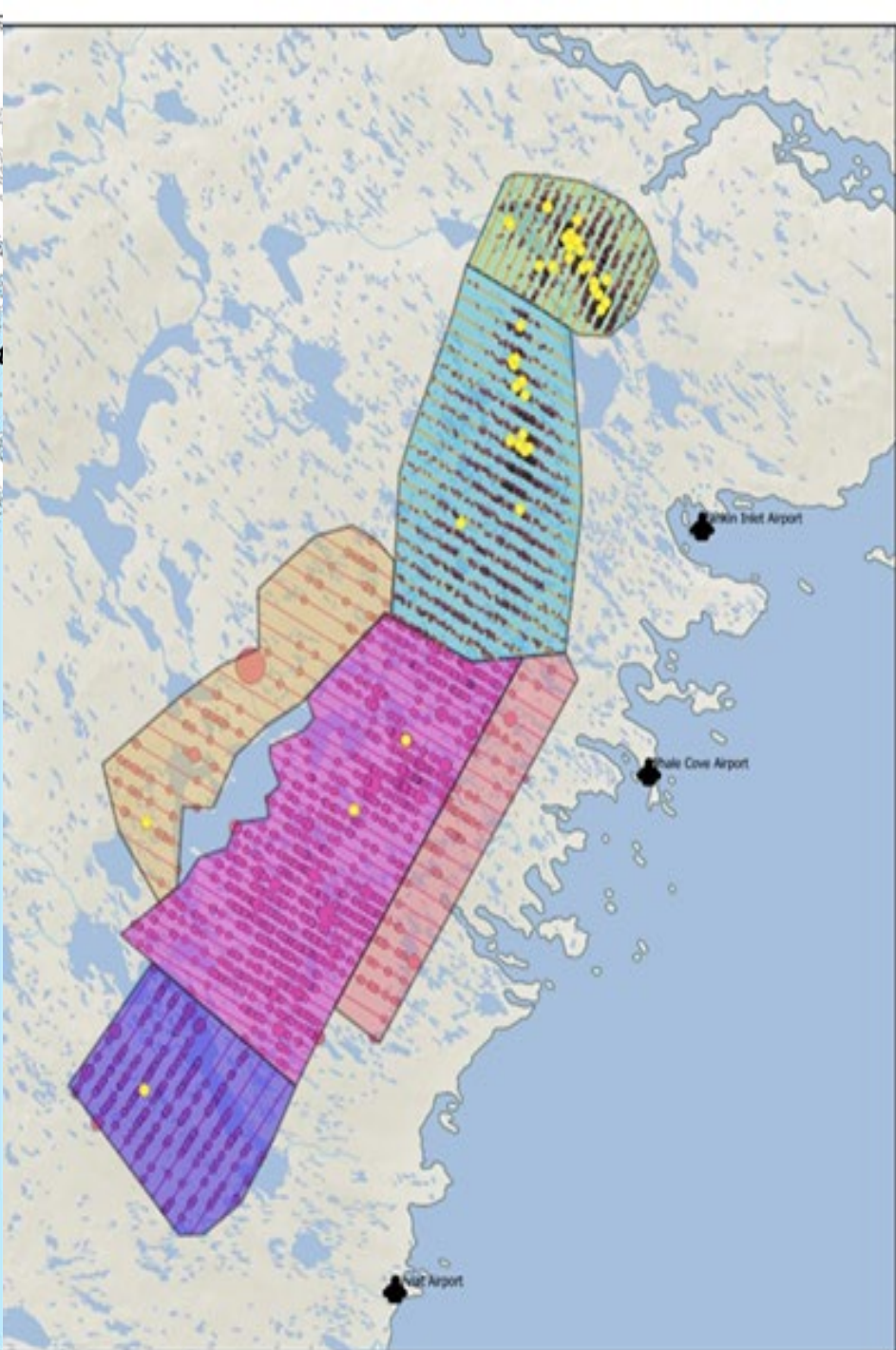
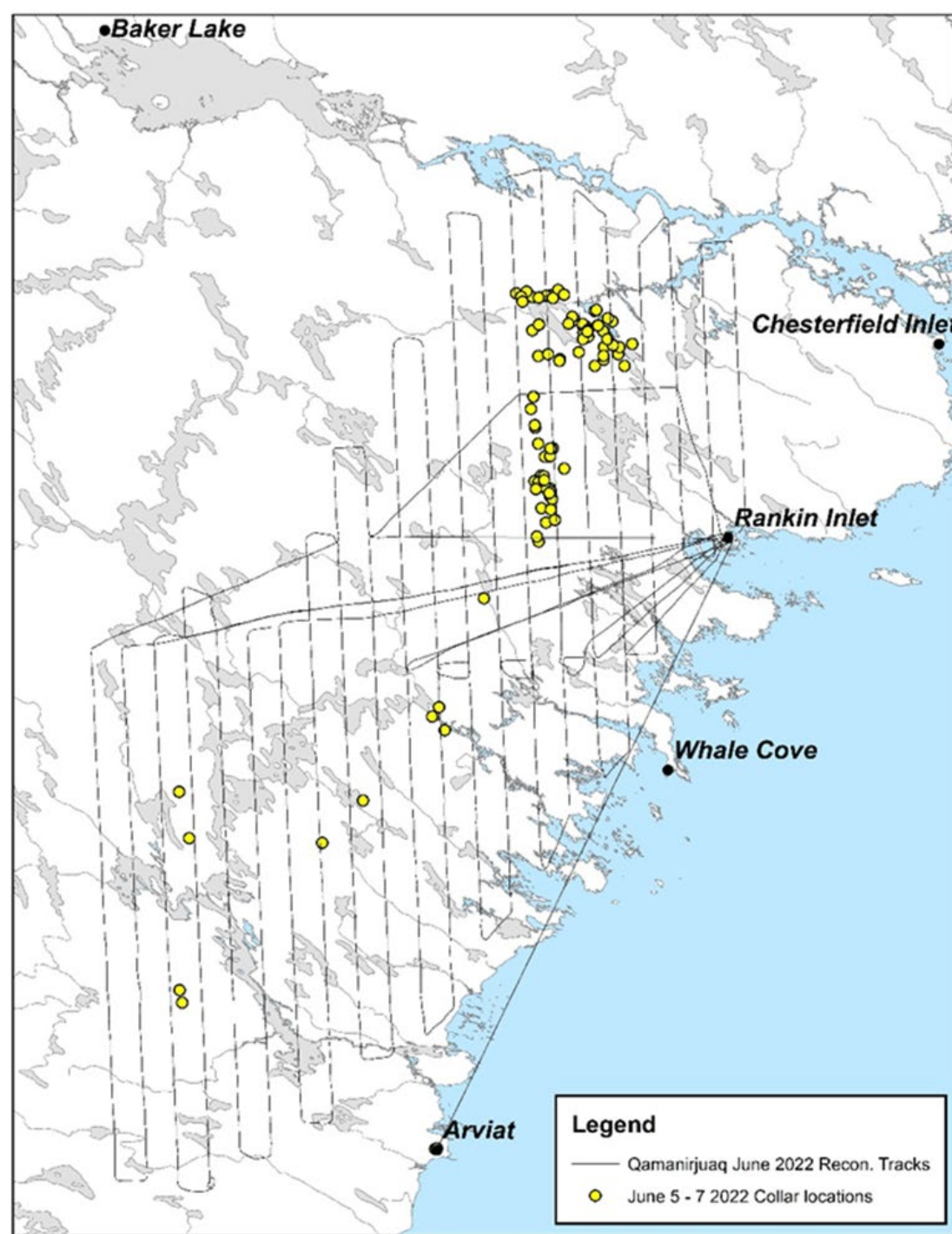
# QAMANIRJUAQ CARIBOU MOVEMENTS (KM / DAY)



# Caribou Research Programs

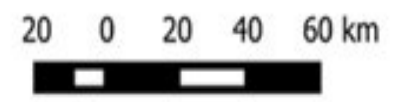




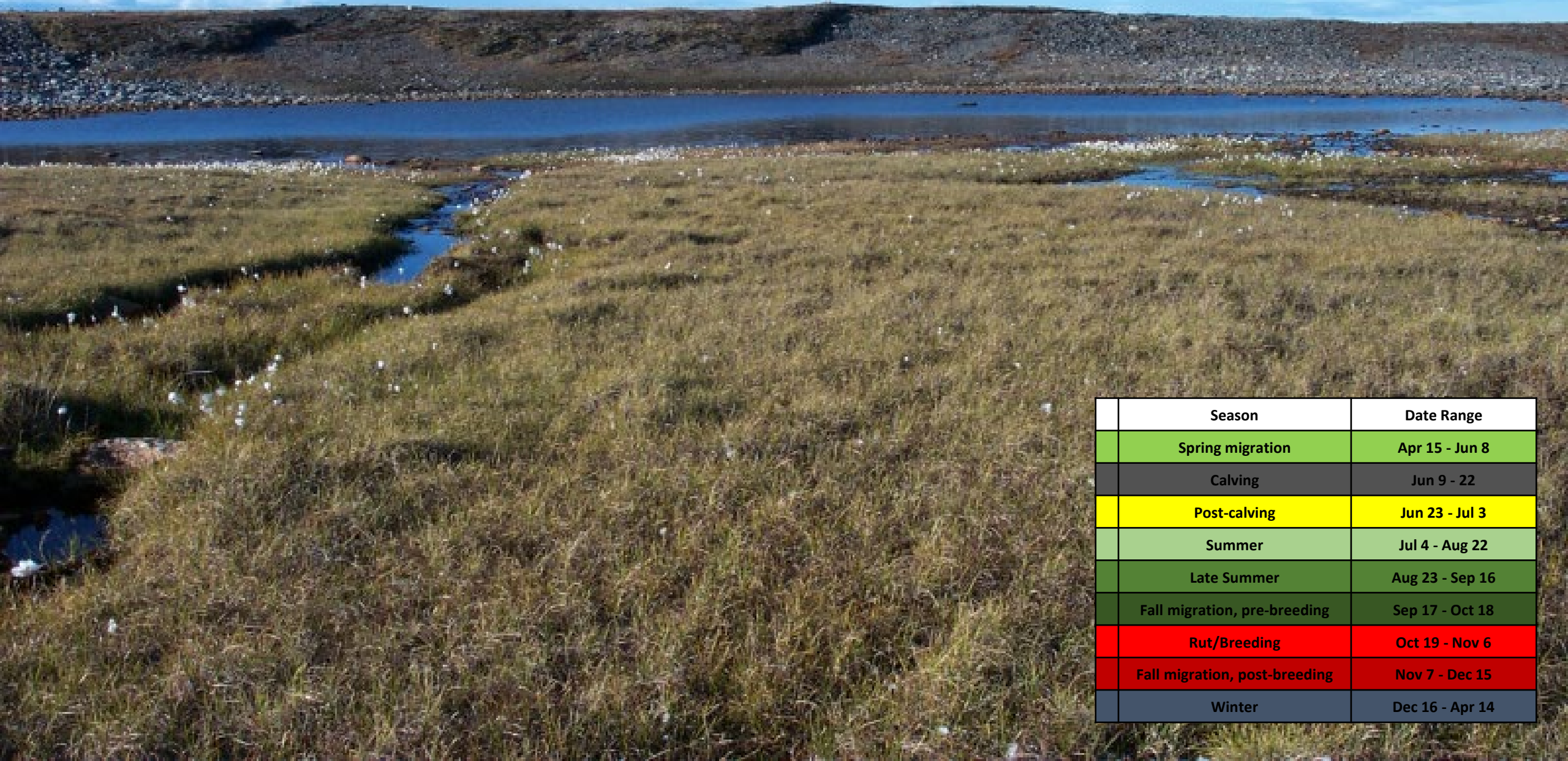


**Legend**

- Collars locations June 8, 2022
  - caribou counted on photos
- Visual transects (group size)**
- 1 - 16
  - 16 - 32
  - 32 - 47
  - 63 - 79



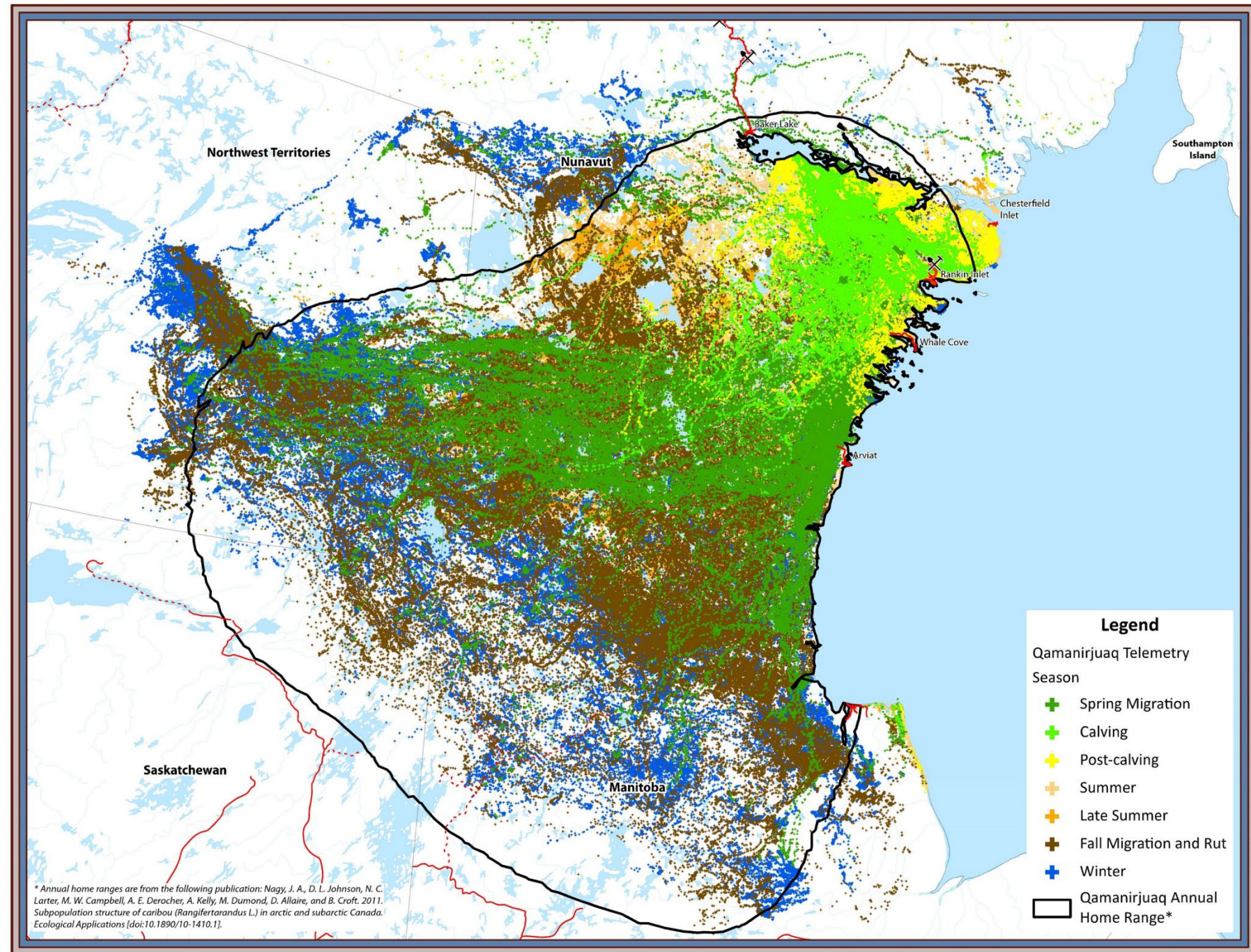
# Caribou Range Studies



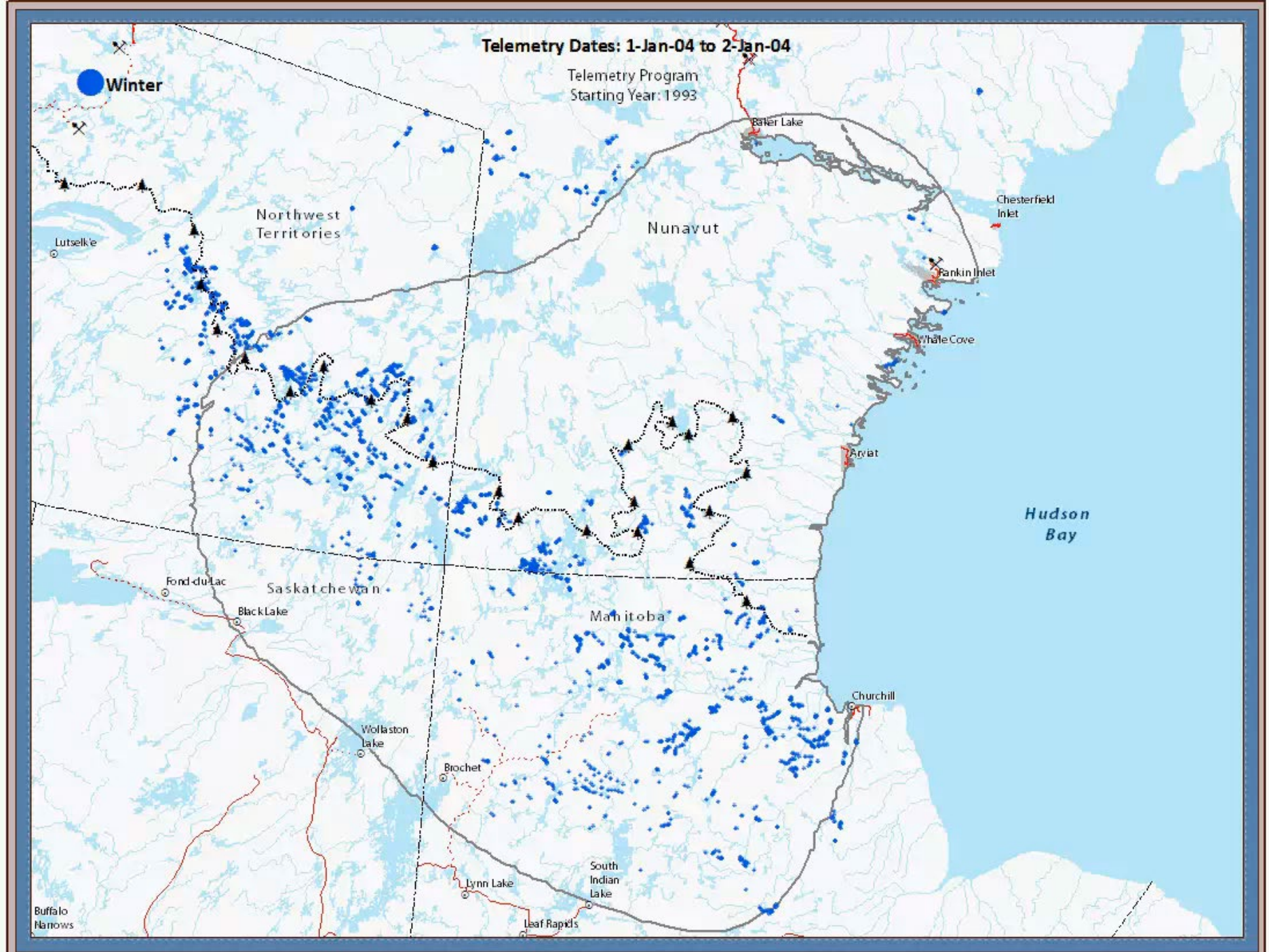
	Season	Date Range
	Spring migration	Apr 15 - Jun 8
	Calving	Jun 9 - 22
	Post-calving	Jun 23 - Jul 3
	Summer	Jul 4 - Aug 22
	Late Summer	Aug 23 - Sep 16
	Fall migration, pre-breeding	Sep 17 - Oct 18
	Rut/Breeding	Oct 19 - Nov 6
	Fall migration, post-breeding	Nov 7 - Dec 15
	Winter	Dec 16 - Apr 14



# Qamanirjuaq Caribou Telemetry Based Annual Range









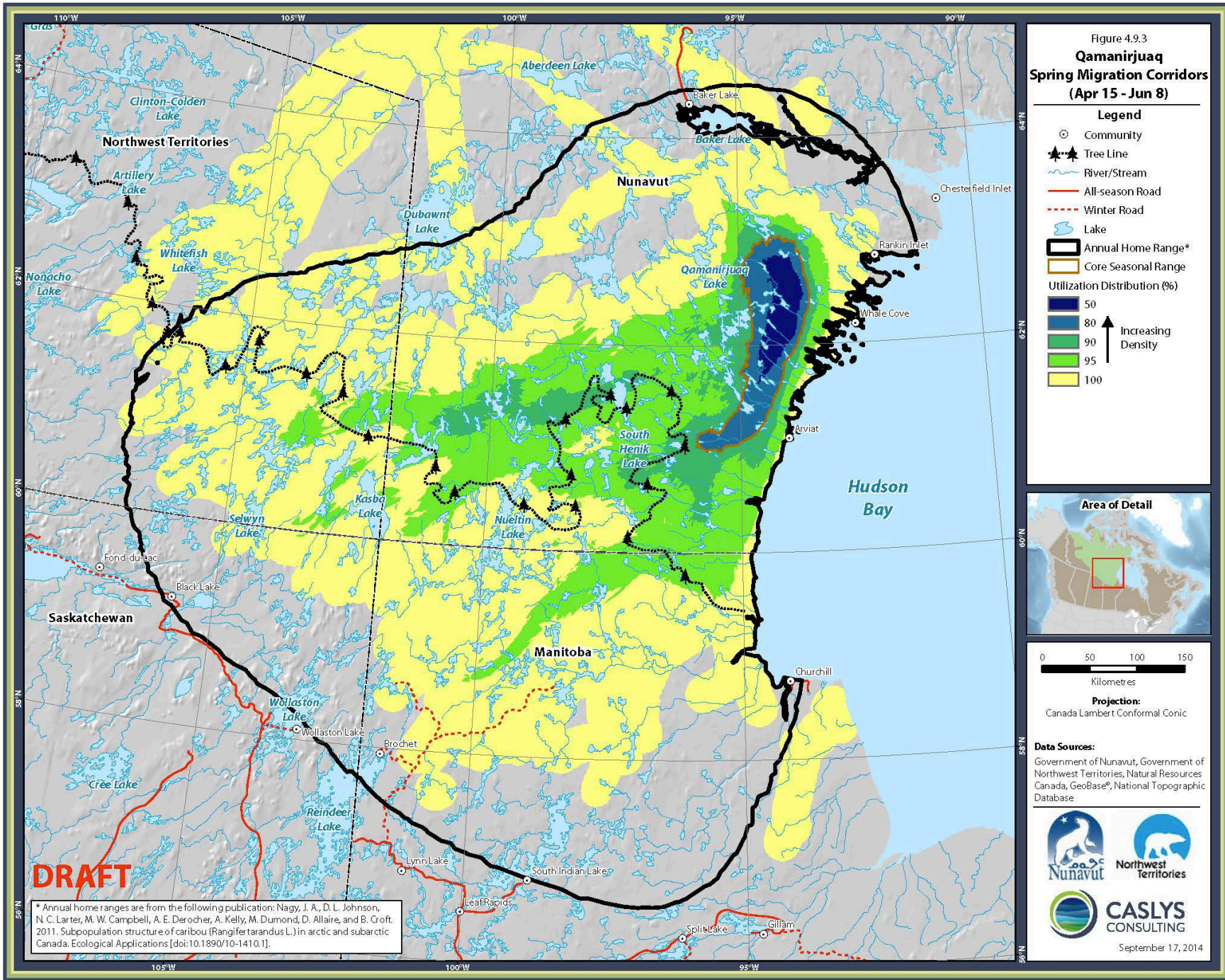
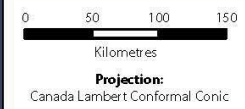
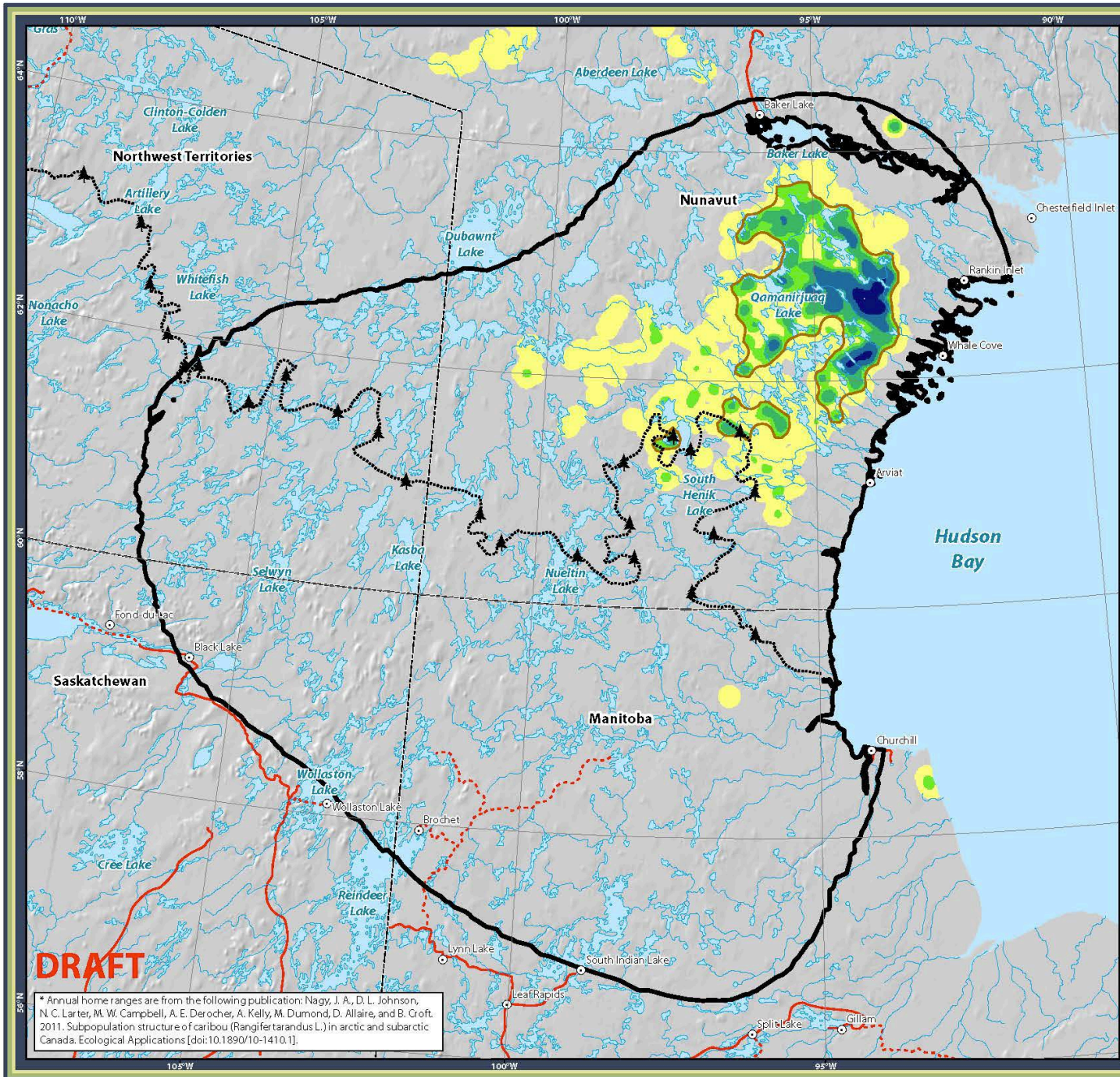




Figure 4.9.4  
**Qamanirjuaq  
 Calving Density  
 (Jun 9 - 22)**

**Legend**

- ⊙ Community
- ▲ Tree Line
- River/Stream
- All-season Road
- - - Winter Road
- Lake
- ▭ Annual Home Range\*
- ▭ Core Seasonal Range
- Utilization Distribution (%)
- 50
- 80
- 90
- 95
- 100
- ↑ Increasing Density



**Data Sources:**  
 Government of Nunavut, Government of Northwest Territories, Natural Resources Canada, GeoBase®, National Topographic Database



**DRAFT**

\* Annual home ranges are from the following publication: Nagy, J. A., D. L. Johnson, N. C. Larter, M. W. Campbell, A. E. Derocher, A. Kelly, M. Dumond, D. Allaire, and B. Croft. 2011. Subpopulation structure of caribou (*Rangifer tarandus* L.) in arctic and subarctic Canada. *Ecological Applications* [doi:10.1890/10-1410.1].



Cal'

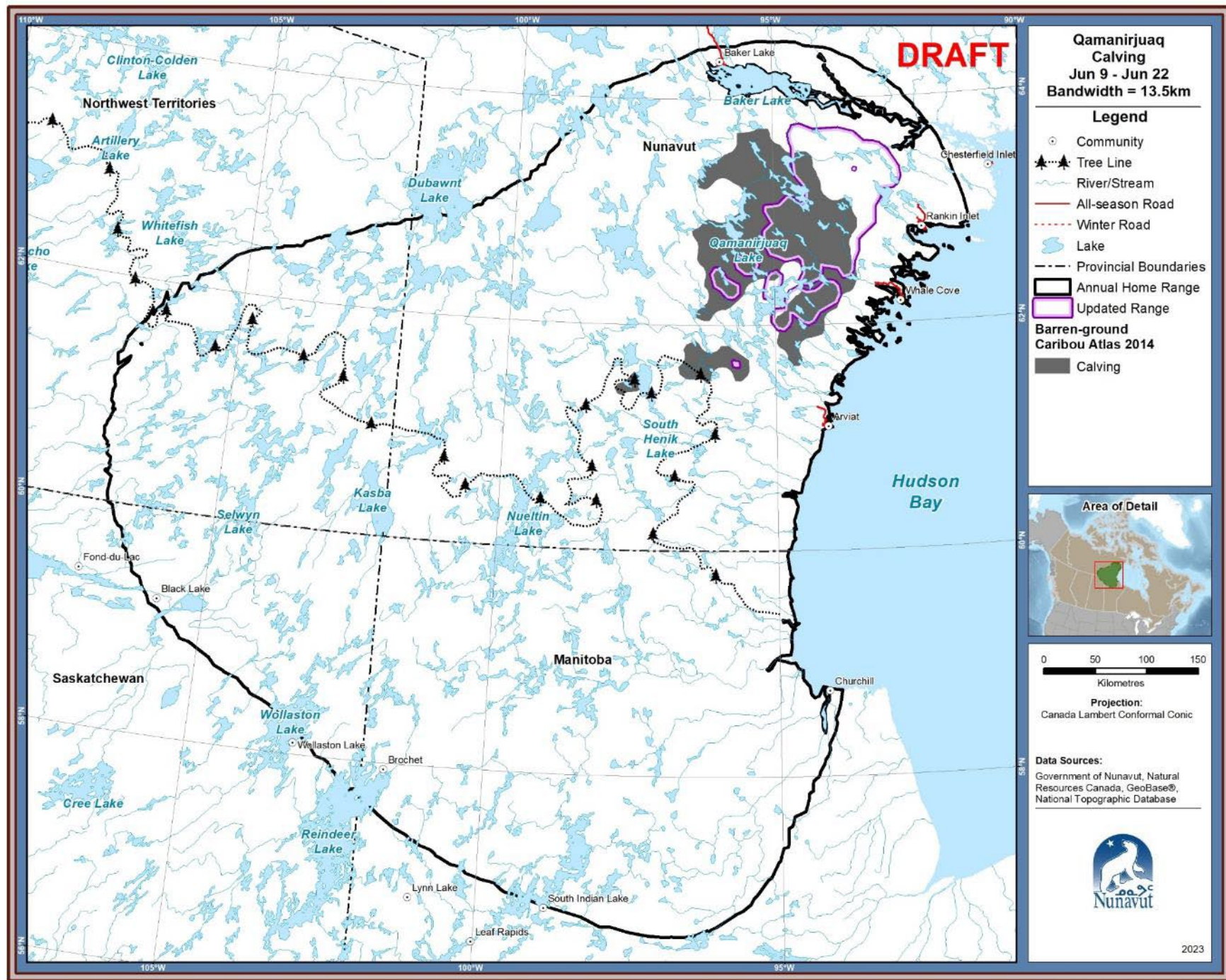
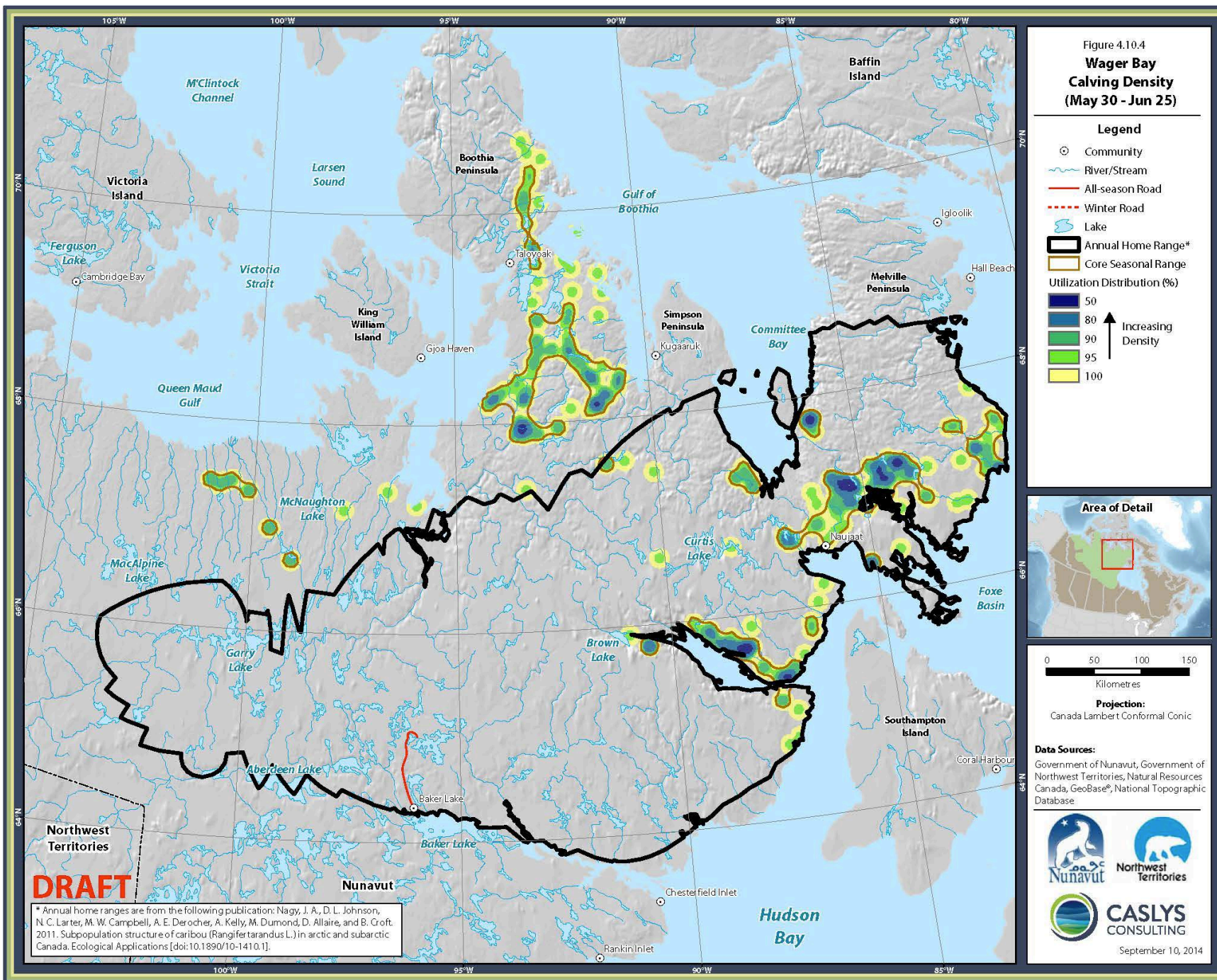




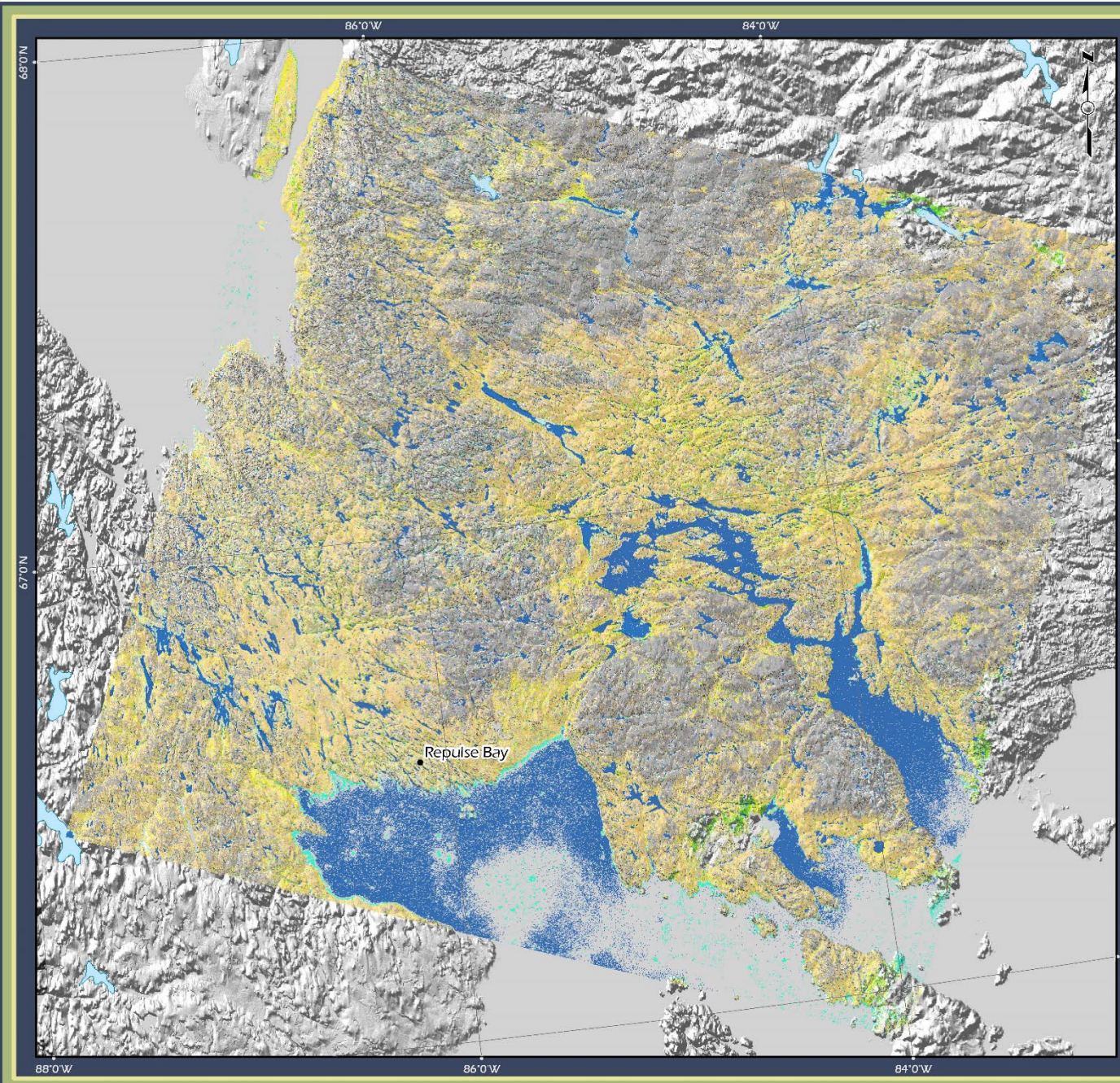
Figure 4.10.4  
**Wager Bay**  
**Calving Density**  
**(May 30 - Jun 25)**



**DRAFT**

\* Annual home ranges are from the following publication: Nagy, J. A., D. L. Johnson, N. C. Larter, M. W. Campbell, A. E. Derocher, A. Kelly, M. Dumond, D. Allaire, and B. Croft. 2011. Subpopulation structure of caribou (*Rangifer tarandus* L.) in arctic and subarctic Canada. *Ecological Applications* [doi:10.1890/10-1410.1].





# Lyon Inlet ELC Mapping

## Legend

- Towns/Villages
- Lyon Inlet ELC Groups**
- |                       |                     |
|-----------------------|---------------------|
| Lichen Association    | Dry Peat            |
| Shrub                 | Rock                |
| Shrub Association     | Rock Association    |
| Moss                  | Boulder             |
| Moss Association      | Boulder Association |
| Carex                 | Gravel              |
| Carex - wet           | Sand                |
| Carex - dry           | Snow                |
| Graminoid             | Water               |
| Graminoid Association |                     |



Data Sources:  
 Natural Resources Canada  
 Department of Environment (Gov't of Nunavut)  
 Caslys Consulting Ltd.



Prepared for:



By:  
**CASLYS Consulting Ltd.**

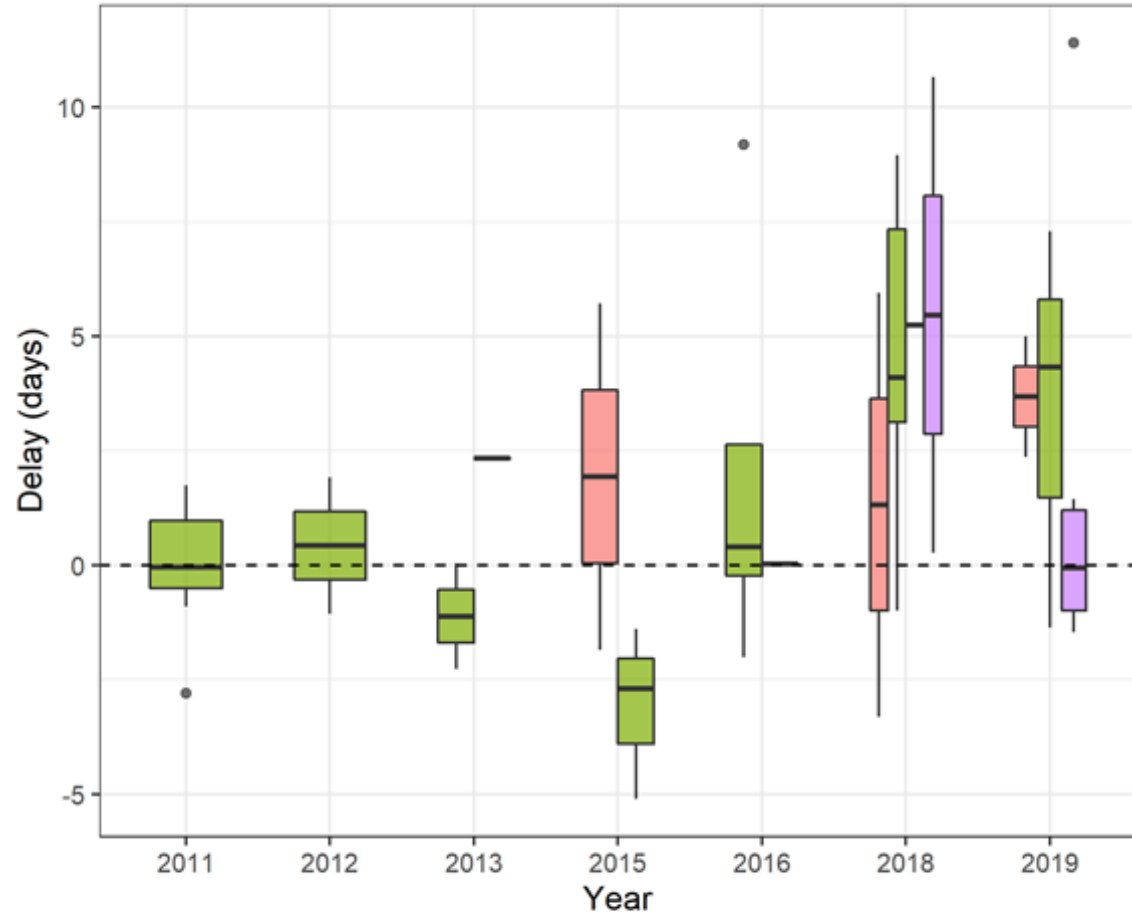
Oct 2006



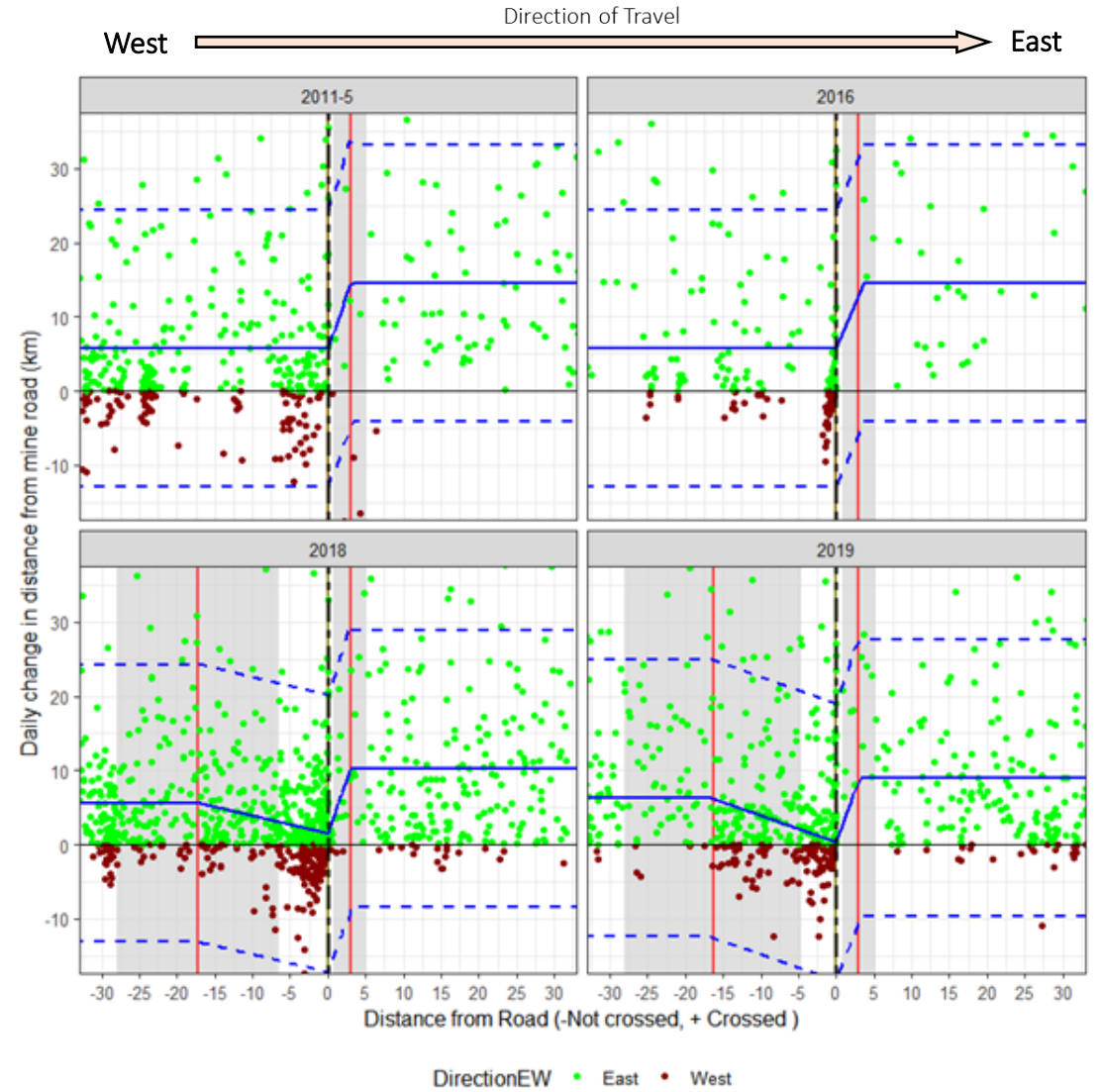
# Land Use Planning



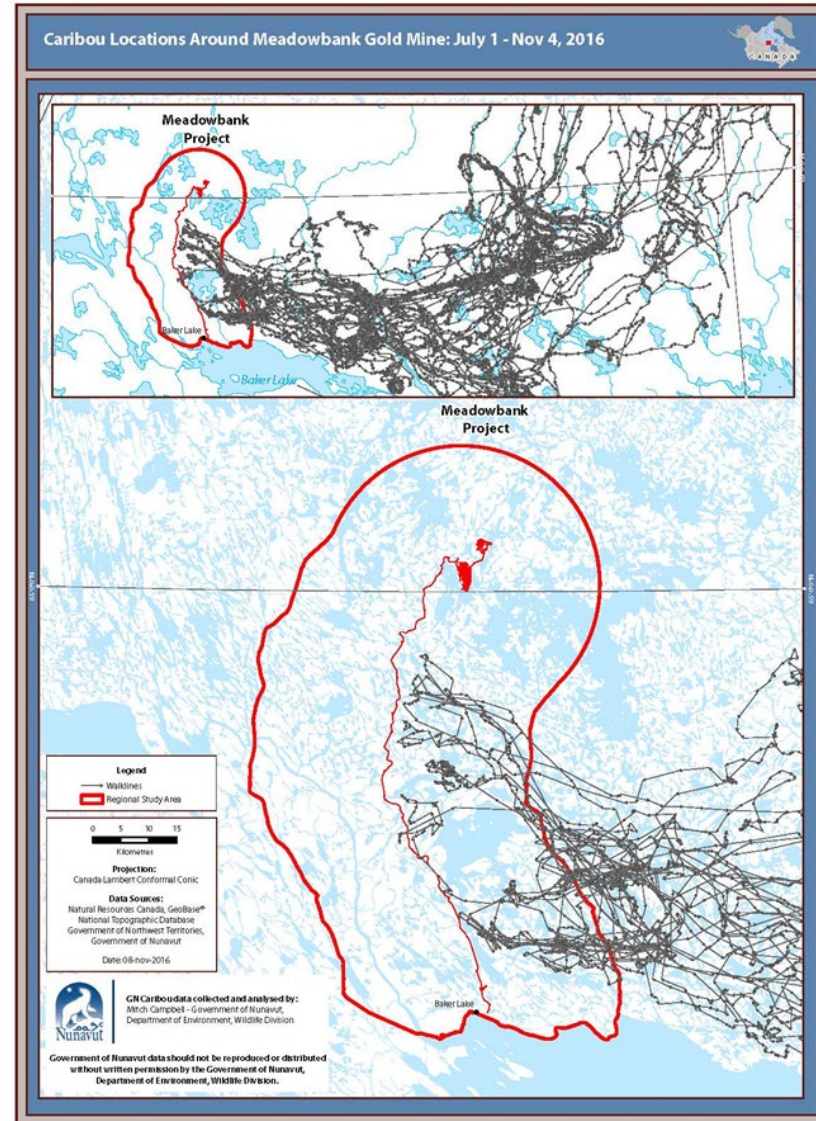
# Significant Impacts Found



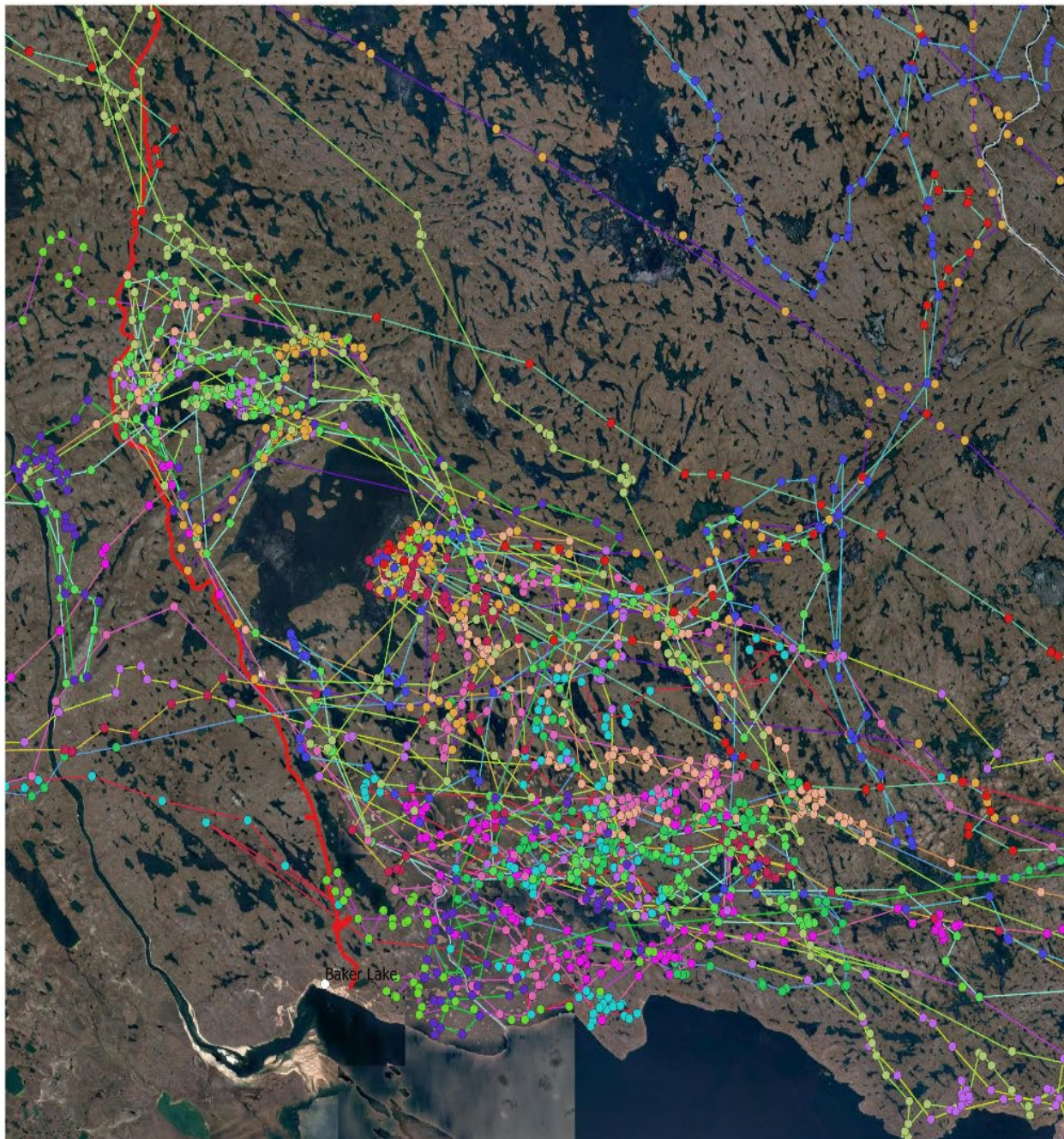
Herds Ahiak Lorillard Unknown Wager Bay



# Impacts of Roads on Migration







## Legend

### Caribou collars

- BL0600415
- BL0640415
- BL0730416
- BL0750416
- BL0760416
- BL201733
- BL2018002
- BL2018003
- BL2018004
- BL2018005
- BL2018011
- BL2018013
- BL2018016
- BL2018017
- BL2018020
- BL2018024
- BL2018054

**August 15<sup>th</sup> through  
November 17<sup>th</sup>,  
2018**

10      0      10 km





**Kugluktuk Angoniatit Association • Hunters' & Trappers' Organization**

PO Box 309, Kugluktuk NU X0B 0E0 • Phone: (867) 982-4908 • Email: [kugluktuk@krwb.ca](mailto:kugluktuk@krwb.ca)

**SUBMISSION TO THE NUNAVUT WILDLIFE MANAGEMENT BOARD  
REGULAR MEETING RM-004-2023  
NOVEMBER 29, 2023**

for

**INFORMATION:**

**DECISION: X**

**ISSUE:** Kugluktuk Angoniatit Association (Kugluktuk HTO) request for 5 additional Grizzly Bear Sport Hunt Tags

**BACKGROUND & FACTS:**

In recent years, Kugluktuk Inuit have observed an increase in grizzly bears around the Kugluktuk area. Observations also include many sows with multiple cubs.

Grizzly bears are always present in caribou calving grounds and in areas where muskoxen calves are.

The Government of Nunavut conducted a grizzly bear study around Kugluktuk in 2008-09 and again in 2021. Results from the 2021 study showed that there is a slight increase of grizzly bears around Kugluktuk. In 2008-09 there were 5.6 bears/1000 km<sup>2</sup> and in 2021 there were 6.6 bears/1000 km<sup>2</sup>. Genetics show that the female population of grizzly bears have increased, and there is no significant increase in the male population. This recent study also indicates that bears are surviving for many years. In 2021, 17 bears were recaptured from the 2008-09 survey.

Under the Federal Species at Risk Act, grizzly bears are listed as Special Concern. This does not reflect what communities are seeing in the north. The recent Government of Nunavut study and the community members indicate that the grizzly bear population is increasing, especially around Kugluktuk.

In 2020, the Nunavut Wildlife Management Board did not support the Kitikmeot Region Wildlife Board's request for an additional 5 sport hunt tags because not all 15 tags are being fully used. The Kitikmeot Region currently has 15 grizzly bear sport hunt tags allocated as follows: Kugluktuk – 5; Cambridge Bay – 5; Omingmaktok – 2 and Burnside – 3. The Kugluktuk Hunters and Trappers Organization does not want to take any tags away from other HTOs in the region, especially when income and other activities are involved.

Kugluktuk sport hunt harvests in recent years are as follows:

2018-19      2 harvested

2019-20      0 harvested; due to the pandemic



2020-21	0 harvested; due to the pandemic
2021-22	4 harvested; 1 unsuccessful due to the early spring melt
2022-23	2 harvested; 1 unsuccessful; 2 cancelled before the hunt
2023-24	5 hunts booked for spring

The local outfitter anticipates filling the extra 5 sport hunt tags.

**CONSULTATION:**

On October 24, 2022, the Kugluktuk HTO met with the Government of Nunavut biologist to discuss the 2021 study results.

The Kugluktuk HTO is in continuous communication with harvesters and the Department of Environment staff in Kugluktuk and the carnivore biologist.

**RECOMMENDATION:**

The Kugluktuk Hunters and Trappers Organization would like the Nunavut Wildlife Management Board to approve an additional 5 grizzly bear sport hunt tags.

The Kitikmeot Regional Wildlife Board is in support of our request.

An extra 5 sport hunt tags would bring more income to the community; it would help keep the grizzly bear population low leading to less grizzly bears on caribou calving grounds and less predation on muskoxen calves.

**PREPARED BY:**

Amanda Dumond  
Manager, Kugluktuk Angoniatit Association

## **Kitikmeot Grizzly Bear update**

- In 2008-2009, ENV estimated a density of 5.6 bears/1,000 km<sup>2</sup> in a 40,000 km<sup>2</sup> area around Kugluktuk using DNA hair snagging methods.
- In 2021 ENV re-sampled the 2008–2009 survey area with the objectives of providing a more precise estimate of bear abundance and examining population trend since the previous estimate of 2008-2009.
- Overall population density of grizzly bears in 2021 (6.6 bears/1,000 km<sup>2</sup>) was non-significantly higher than in 2008–2009 (5.6 bears/1,000 km<sup>2</sup>).
- Despite the absence of statistical significance, local knowledge supports that the grizzly bear population increased in the area and is consistent with field observations by hunters and biologists.

### **Kugluktuk harvest:**

- The number of bears harvested within the Kugluktuk study area during 2008–2022 averaged 5.6 bears annually, and was significantly higher in 2021.
- Sport hunts contributed 20% of the total harvest during 2008–2022 (n = 84), with only 1 female harvested by sport hunters. On average 2.1 bears were taken annually by sport hunters (range 0–4; 2020 and 2021 excluded due to Covid-related travel restrictions).
- The current estimated 1.6% harvest rate is sustainable, given the high focus on male grizzly bears and the clumped distribution of harvest around Kugluktuk.

### **Kitikmeot region harvest and allocation**

- Currently, there are no restriction on Inuit harvest of grizzly bears for domestic use and in defense of life and property.
- The reported average annual harvest from 2019-23 is 22 bears/year for the Kitikmeot region.
- There are 15 sport hunt tag allocations in the Kitikmeot region, which are distributed by the Kitikmeot Regional Wildlife Board (KRWB) as follows:
  - Kugluktuk HTO = 5
  - Bathurst Inlet HTO =3
  - Bay Chimo HTO = 2
  - Cambridge Bay = 5

Reported grizzly bear harvest in the Kivalliq and Kitikmeot regions between 2019 and 2023. RH = Regular (subsistence) Hunt, SH = Sport Hunt (only successful hunts). Cambridge Bay <sup>x</sup> includes Bay Chimo and Bathurst Inlet.										
Community	2019		2020		2021		2022		2023	
	RH	SH	RH	SH	RH	SH	RH	SH	RH	SH
Arviat	11	2	15	-	20	-	3	-	6	-
Baker Lake	11	-	12	-	2	-	4	1	3	1
Rankin Inlet	1	1	-	-	1	-	-	-	2	-
Whale Cove	1	-	-	-		1	-	-	-	-
<b>TOTAL KIVALLIQ</b>	24	3	27		23	1	7	1	11	1
Cambridge Bay <sup>x</sup>	6	4	7	-	9	-	9	5	5	4
Gjoa Haven				-			1		-	
Kugaaruk				-					1	
Kugluktuk	7	1	9	-	23	-	5	4	9	2
<b>TOTAL KITIKMEOT</b>	13	5	16		32		15	9	15	6

- The success rate of grizzly bear sport hunt in Nunavut is low (<50% in the past 5 years).
- Non-sport kill is also increasing, grizzly bears on the tundra have low reproductive potential and are not likely to support high subsistence and sport hunting at the same time.
- If an increase in harvest occurs in the Kitikmeot, it becomes increasingly important to implement the protection of female bears and family groups by HTOs, according to the Grizzly Bear Co-Management Plan.

**Western Kitikmeot density estimates:**

- ENV has planned to estimate density across the larger regional study area, encompassing calving through summer ranges of the Bluenose-East and Bathurst caribou herds and completed surveys in 2022 and 2023 for the eastern sector of the mainland Kitikmeot Region (Fig. 1).
- Results from all three years analyses will be provided in the final report which is anticipated to be available in spring 2025.

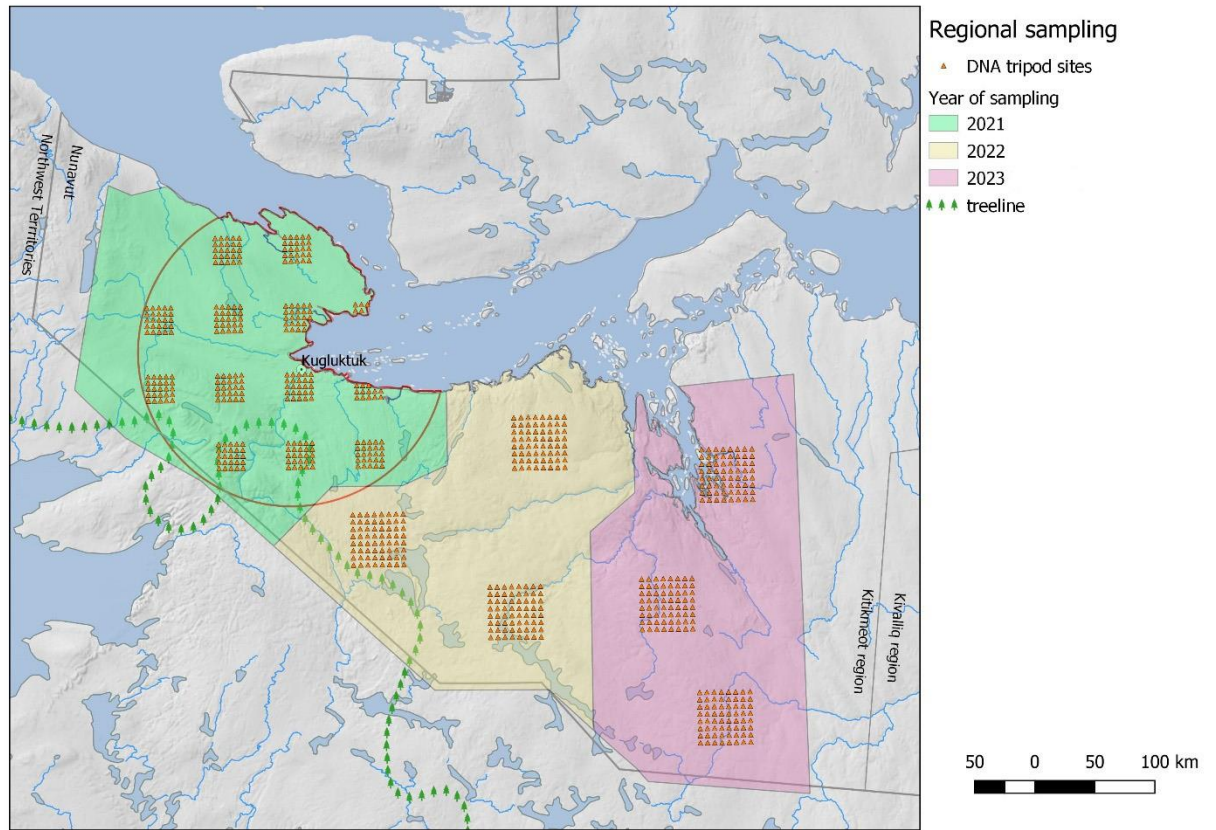


Figure 1. Division of Kitikmeot Region into sectors sampled for grizzly bears in 2021 (western; 54,200 km<sup>2</sup>), 2022 (central; 51,500 km<sup>2</sup>, and in 2023 (eastern; 50,800 km<sup>2</sup>). Red crosses mark the locations of hair snag stations (tripods). Straight edges to the west and south are the NWT/Nunavut border. Also shown is the border of the Kivalliq and Kitikmeot regions to the east.

**SUBMISSION TO THE**  
**NUNAVUT WILDLIFE MANAGEMENT BOARD**  
**NOVEMBER 2023**

**FOR**

**Information: X**

**Recommendation:**

**Decision:**

**Issue:** Department of Fisheries and Oceans Canada (DFO) – Fisheries Management (FM) Operational Updates

**Updates:**

**Marine Mammals:**

1. Narwhal
  - The total reported landings for Narwhal management units in the 2022/23 harvest season were: Jones Sound 18, Smith Sound 0, Northern Hudson Bay 121, Somerset Island 111, East Baffin Island 147, Admiralty Inlet 194, and Eclipse Sound 103.
  - Following confirmation of season dates and allocations for 2023/24, narwhal tags (including carry-over tags) and information packages were distributed to all harvesting communities in the spring/summer of 2023.
  - While judicial review proceedings are ongoing regarding DFO's application of 2021/22 narwhal season dates and allocations to the 2022/23 harvest year, the Nunavut Narwhal Working Group continues to work on its review and update of the *Integrated Fisheries Management Plan (IFMP) for Narwhal in the Nunavut Settlement Area*. Narwhal Working Group meetings were most recently held in 2023 on March 15, May 4, and July 4, with additional meetings planned this fiscal year.
  - In 2020, DFO Science published two Science Advisory Reports (SAR) regarding Baffin Bay narwhal. [SAR 2020/048](#) contains information related to the delineation of the Eclipse Sound and Admiralty Inlet narwhal stocks. [SAR 2020/051](#) describes an estimated abundance and Total Allowable Landed Catch for the Eclipse Sound narwhal stock. Consultation regarding this science advice has been delayed owing in part to the COVID-19 pandemic. With travel restrictions now lifted, DFO FM is planning in-person visits to Arctic Bay and Pond Inlet this fiscal year to consult on this science advice.
  - In planning for the 2024/25 harvest season, DFO requests that Hunters and Trappers Organizations/Associations (HTOs/HTAs) return both the used and unused tags and harvest sheets from 2023/24 by the close of the season (March 31, 2024). Prior to distributing the 2024 harvest tags, 2023 harvest data will be reconciled, carry-over allocations will be calculated, and community allocations will be sought from Regional Wildlife Organizations (RWOs).

## 2. Walrus

- The total reported landings for walrus within the Nunavut Settlement Area for the 2022/23 season was 139 harvested for subsistence and 29 harvested by sport hunters. However, numerous communities did not provide a report of subsistence harvest.
- Due to lack of community engagement, DFO decided that the Community Based Catch Monitoring program for walrus would be paused in 2023/24. The Nunavut Walrus Working Group (NWWG) will discuss possible improvements to the program prior to reimplementation.
- Of the 152 walrus sport hunts approved by the Nunavut Wildlife Management Board (NWMB) and DFO for 2023, 58 walrus sport hunt licences were issued and DFO has received reports from 21 of these hunts. DFO staff will continue to follow up with sport hunt outfitters to ensure receipt of reporting information and biological samples in the coming months.
- Following the NWMB's decision to discontinue their Interim Walrus Sport Hunt Policy after the 2023 season, the NWWG has been meeting and co-developing an updated process to ensure the sustainable management and efficient licensing of walrus sport hunts in Nunavut with Inuit outfitters. Under this updated process, walrus will continue to be sustainably harvested by Inuit and sport hunters while providing economic benefits to Nunavut communities.
- The updated draft walrus sport hunt licensing process currently involves eight steps as follows:
  1. Call for applications;
  2. Outfitters submit applications to HTO and RWO/DFO;
  3. HTOs review applications;
  4. RWOs review applications;
  5. Request for Special RWO Reserve;
  6. DFO reviews applications;
  7. DFO issues Marine Mammal Fishing Licences; and
  8. Collect and submit biological samples.
- DFO FM staff distributed the current draft walrus sport hunt licensing process in both English and Inuktitut to the NWWG on October 5 and have requested support letters from each NWWG organization regarding the new process. DFO staff will soon be submitting a memo to the Minister of Fisheries and Oceans Canada for approval of the new process.
- While the new process is being finalized, DFO has encouraged each RWO to distribute a call for 2024 Walrus Sport Hunt Applications to regional HTOs and outfitters. This will ensure adequate time for application review and approvals prior to next year's sport hunts.

### 3. Beluga

- The total reported landings for beluga within the Nunavut Settlement Area for the 2022/23 season was 481. However, numerous communities did not provide a report of harvests in 2022/23.
- The Cumberland Sound Beluga Working Group (CSB-WG) continues to meet regularly throughout the year. The CSB-WG last met in Pangnirtung on October 12, 2023. This was the first CSB-WG meeting to be held in person in Pangnirtung since the COVID-19 pandemic. A public meeting was also held the same day to discuss the findings of [DFO's SAR published online in December 2022](#) regarding genetic population structure of beluga whales in Cumberland Sound and provide updates on CSB-WG and DFO Science activities. The next CSB-WG meeting is tentatively planned for January 2024.

### 4. Bowhead

#### A. Harvest

- The Total Allowable Harvest of Eastern Arctic-West Greenland bowhead whales in Nunavut is 5 per year (Qikiqtaaluk 2, Kivalliq 2, Kitikmeot 1). Following the approval of hunt plans by RWOs and penthrite grenade training by Nunavut Tunngavik Inc., DFO issued licences for 2023 bowhead hunts in Igloolik, Coral Harbour, Naujaat, and Taloyoak.
- The hunts in Igloolik, Naujaat, and Taloyoak were successful in landing a whale, while the hunt in Arctic Bay was cancelled. At the time this briefing note was written, Coral Harbour had not yet harvested a whale.
- Sample kits were provided by DFO Science to all communities who were issued a licence this year. DFO will continue to follow up with communities in the coming months to ensure receipt of harvest information and biological samples.

#### B. Management Plan

- DFO Fisheries Management is now able to resume work activities related to updating the bowhead management plan and will contact Bowhead Working Group members in the fall of 2023 to identify suitable meeting dates.

## **Arctic Char**

### 1. Pangnirtung:

- In 2022/23, a total of approximately 19,154 kg of Arctic char was reported harvested in Cumberland Sound.
- For 2023/24, the Arctic char summer fishery in Cumberland Sound opened on July 31. DFO Fisheries Management staff flew to Pangnirtung to assist with the opening of the fishery and meet with the HTO, fish plant, and fishers. Approximately 40 fishers participated in the summer fishery and fished 13 waterbodies, with a total of approximately 16,000 kg round weight of char reported landed at the Pangnirtung fish plant.
- Additional char fishing in Cumberland Sound is expected to occur during the upcoming winter season.

## 2. Kivalliq:

- In 2023/24, the Arctic char commercial summer fishery in the Kivalliq region was approximately 8,100 kg.
- In March 2023, DFO hosted another Kivalliq char workshop in Rankin Inlet including participants from Kivalliq HTOs, Government of Nunavut (GN) Wildlife Officers, and the Kivalliq Wildlife Board. Findings from the workshop will be used to continue the development of emerging and commercial Arctic char fisheries and to guide future char research in the region.
- In 2023, a pilot community-based program was initiated in Rankin Inlet to document bycatch in Arctic char subsistence harvest. Bycatch consisted mostly of discarded Arctic char and cod, but also included lumpfish and sculpin. Arctic char are often discarded for various reasons such as the size or condition of the char. When possible, bycatch species were often released alive.
- The Kivalliq Arctic char diet study was continued by DFO in 2023. Twenty (20) sea-run Arctic char were captured from the Diana River in mid-August. Although samples from 2023 have not yet been examined, results from previous years indicate that Diana River Arctic char eat mainly smaller marine fish species such as capelin and sand lance, and to a lesser degree shrimp-like organisms. Capelin and sand lance do not contain any carotenoids (the pigments responsible for the red colouration of char muscle) while shrimp-like organisms contain very high levels of this pigment. This is likely why the colour of Diana River char muscle is lighter than other locations in the Kivalliq region, such as char from Naujaat, whose main food source is shrimp-like organisms.

## 3. Cambridge Bay:

- The Cambridge Bay IFMP Working Group met virtually in June 2023 for its annual meeting to review the IFMP and discuss the fishery's operation. The Working Group includes the Ekaluktutiak HTO, Kitikmeot Foods Ltd. (KFL), GN, commercial fishers, community elders, and DFO.
- Commercial harvest occurred at four sites in 2023: Ekalluk, Halokvik (30-Mile), Jayko, and Surrey. Lauchlan was not harvested this year. A total of 36,971 kg (round weight) or 80% of the targeted quota was harvested.
- Overall, the commercial harvests were successful given challenges KFL faced before the start of fishing after its long-time manager resigned in June 2023. KFL staff managed the plant during the commercial harvest in the absence of a plant manager to ensure the commercial harvest could still occur.
- DFO staff worked closely with KFL to provide information and recorded landings to ensure there was no over-harvest.
- In 2023 the commercial plant sampling program was again successful in providing fisher-dependent biological data and samples from 200 Arctic char from the four locations that were commercially fished.
- DFO will be planning an IFMP Working Group Meeting and post-season fishing meeting in 2024.



- 2023 research on Arctic char, lake trout, ogacs, and/or kanoyaks included data collection for analysis of mixed-stock fisheries, marine microplastics and contaminants, effects of temperature on fish performance, and movement/habitat use in the marine environment and in the Grenier Lake watershed.

### **Greenland Halibut (Turbot)**

- Following a productive 2023 winter fishing season in which 550 t of turbot was harvested in the Cumberland Sound Turbot Management Area (CSTMA), DFO issued a licence in mid-July for open-water turbot fishing in Cumberland Sound for the remaining 25 t. To date, no landings have been reported for the summer fishery.
- In preparation for the upcoming winter turbot fishery in the CSTMA, DFO staff are planning in-person pre-season meetings in Pangnirtung in January 2024.

### **Fish Stocks Provisions**

- DFO is seeking feedback on a proposal for a regulatory amendment to the *Fishery (General) Regulations* (FGR) to list the second batch of major fish stocks that would be subject to the Fish Stocks provisions (sections 6.1-6.3) of the *Fisheries Act*, including Arctic Char stocks in Cambridge Bay (Jayko and Halokvik Rivers) and Cumberland Sound [Ijaruvung Lake, Iqalugaarjuit (Iqalujjuaq Fiord), and Irvine Inlet], as well as Northern (*Pandalus borealis*) and Striped (*P. Montagu*) shrimp in the Eastern Assessment Zone.
- The Fish Stocks provisions include obligations to maintain major fish stocks prescribed by regulation at levels necessary to promote their sustainability and to develop and implement rebuilding plans for stocks that have declined to or below their limit reference point.
- DFO staff presented the proposal to list Jayko and Halokvik Arctic char stocks as major fish stocks to the Cambridge Bay Arctic Char IFMP Working Group in June 2023. The Ekaluktutiak HTO indicated support for the proposal.
- DFO staff presented the proposal to list Ijaruvung Lake, Iqalugaarjuit (Iqalujjuaq Fiord), and Irvine Inlet Arctic char stocks as major fish stocks to the Pangnirtung HTO in July 2023 and are awaiting notification from the HTO regarding their support.
- Additionally, DFO's Domestic Fisheries Policy group identified the shrimp stocks proposed for listing in this second batch at the February 2023 meeting of the Northern Shrimp Advisory Committee.
- Seeking feedback on this proposed regulatory amendment is a step in the regulatory process. The formal regulatory process will provide another opportunity to submit feedback on the proposed list of fish stocks once the draft regulation is published in *Canada Gazette*, Part I. Currently there is no timeline for that publication step.

- Additional feedback or questions on the proposed regulatory amendment can be sent to DFO's regional coordinator, Adrienne McLean, at [Adrienne.McLean@dfo-mpo.gc.ca](mailto:Adrienne.McLean@dfo-mpo.gc.ca).

### **U.S. Marine Mammal Protection Act Import Provisions**

- Over the past several years, DFO has worked with the National Oceanic and Atmospheric Administration (NOAA) on comparability finding applications for our commercial fishing operations to permit export of fish and fish products to the United States.
- After several delays, NOAA is now expected to provide nations with their final comparability finding results by November 30, 2023. The comparability finding applications included information on regulatory programs governing the bycatch of marine mammals for NOAA to verify a comparable level of effectiveness to U.S. regulations.
- Co-management organizations and stakeholders will be provided with updates on the results of our comparability finding applications as they become available.

### **Ghost Gear Program**

- In 2023, the Ghost Gear Program in the Arctic Region has teamed up with four Inuit communities and one commercial fisher on Great Slave Lake to conduct seven cleanup projects targeting Ghost Gear (abandoned, lost or otherwise discarded fishing gear) and one community outreach project working on education on Ghost Gear. Over \$80,000 has been allocated to these activities resulting in the hiring of nearly 40 community members to collect and properly dispose of Ghost Gear in their communities.

**Prepared by:** Fisheries Management, Arctic Region – Fisheries & Oceans Canada

**Date:** October 25, 2023

**SUBMISSION TO THE**  
**NUNAVUT WILDLIFE MANAGEMENT BOARD**  
**NOVEMBER 2023**

**FOR**

**Information: X**

**Recommendation:**

**Decision:**

**Issue:** Department of Fisheries and Oceans Canada – Marine Conservation Updates

**Background**

As part of the Marine Conservation Targets initiative, the Government of Canada committed to advancing progress on effective management of existing marine protected areas (MPAs) and Other Effective area-based Conservation Measures (OECMs). In addition, the Government of Canada continues to work with partners to advance the establishment of new sites, aiming to conserve 25% of Canada's oceans by 2025 (see Appendix 1 for Arctic contributions), and working towards an international goal of conserving 30% by 2030.

**Updates**

**1. Marine Refuges Management and Monitoring Plans**

- With the support of co-management partners, fishing industry, and environmental organizations, three Eastern Arctic Marine Refuges (which qualify as OECMs) were established in 2017 ([Hatton Basin](#), [Davis Strait](#) and [Disko Fan](#)). These marine refuges are located in offshore areas adjacent to the NSA. These areas have conservation objectives to protect sensitive coral and sponge habitat. They also include important overwintering habitat for two narwhal populations.
- With establishment complete, Fisheries and Oceans Canada (DFO) is now focusing on the development of management and monitoring plans to ensure these sites are effective in reaching the desired conservation objectives. This work is being led by DFO's Fisheries Management and Marine Planning and Conservation sectors in the Arctic region.
- To guide plan development, a steering committee has been established with membership from The Government of Nunavut, The Qikiqtani Inuit Association, Nunavut Tunngavik Corporation, The Nunatsiavut Government, and one observer from the Nunavut Wildlife Management Board.
- Next steps include:



- Qikiqtait refers to the waters in and around the Belcher Islands area, where the community of Sanikiluaq is located. This area is important nesting and feeding habitats for large groups of Common Eiders and also supports large groups of marine mammals.
- Sarvarjuaq and Qikiqtait have been identified in the Qikiqtani Inuit Association's (QIA) 2022 Prospectus to support a regional conservation approach and contribute towards advancing Inuit-led conservation in the Qikiqtani Region.
- DFO, along with Environment and Climate Change Canada (ECCC) and Transport Canada, is leading a whole-of-government negotiation of an Inuit Impact and Benefit Agreement (IIBA) with QIA to support Inuit-led marine conservation and management opportunities in both the Sarvarjuaq and Qikiqtait study areas.
- The Qikiqtait and Sarvarjuaq working group (QIA, GoC, GN) will be engaging seven communities in the Qikiqtani region on two community tours in October and November to share information and seek feedback on these two study areas. Additional community consultations are anticipated in Winter 2024 on the proposed regulatory content.
- All Inuit rights under the Nunavut Agreement, including harvesting rights, would be respected in establishment and management of a Marine Protected Area. The NWMB's powers, duties and functions would also continue to be respected.
- Following the public consultations and development of the regulatory approach (with all requirements under the Nunavut Agreement met), public posting to Canada Gazette I will be completed.
  - Advice or guidance on the proposed consultation approach or study areas by NWMB to the Working Group would gratefully be received at any time.
- A formal submission of the Qikiqtait and Sarvarjuaq MPAs by Ministerial Order, including proposed regulations and community letters of support, will be submitted for NWMB review and further consideration for board approval (anticipated February 2025) prior to posting in Canada Gazette II and designation.

#### **4. Tuvaijuittuq Marine Protected Area**

- DFO, Parks Canada Agency, the Qikiqtani Inuit Association, and the Government of Nunavut have partnered to advance a feasibility assessment to consider long-term protection in Tuvaijuittuq. Tuvaijuittuq is located north of Ellesmere Island, contains the oldest and thickest multi-year sea ice in Canada's Arctic and is projected to become a critical refuge for ice-associated species into the future.
- The area was protected by a 5-year Ministerial Order Marine Protected Area (MPA) under the *Oceans Act* in 2019 to provide partners time to complete the feasibility assessment and establish a long-term protection measure if recommended.

- The Tuvaijuittuq Working Group, with members from all parties are continuing to pursue the establishment of a second Ministerial Order Marine Protected Area in Tuvaijuittuq, as requested by the Qikiqtani Inuit Association.
- A formal submission of the proposal for NWMB review and approval is anticipated in spring/early summer 2024 following the public comment period (Canada Gazette I).

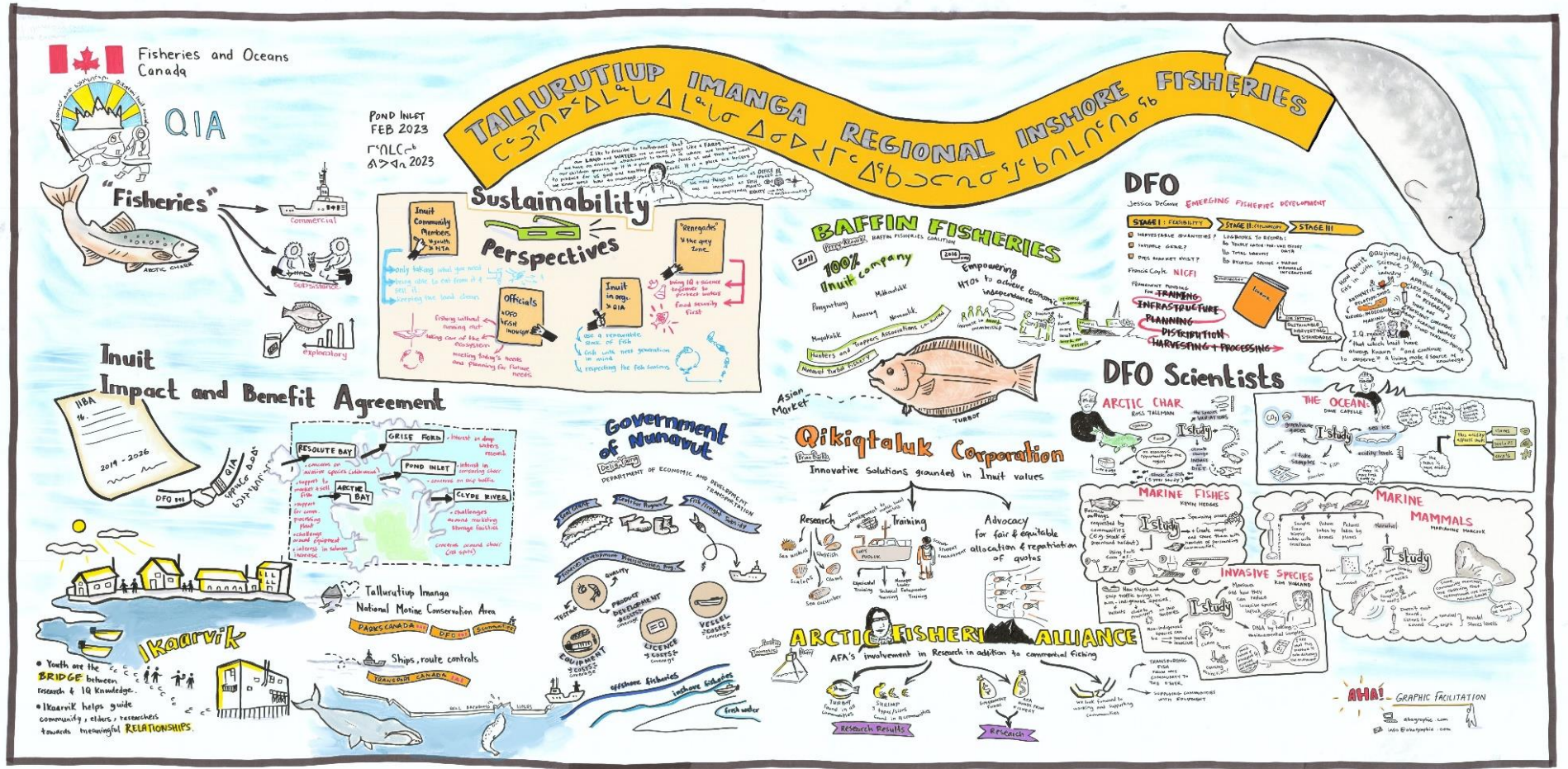
### **5. Southampton Island Area of Interest**

- DFO and the Kivalliq Inuit Association have partnered to advance the Southampton Island Area of Interest for potential designation as a new *Oceans Act* Marine Protected Area.
- The Southampton Island Area of Interest encompasses the nearshore ocean around Southampton Island and Chesterfield Inlet in the Kivalliq Region of Nunavut. The final boundary of a potential future Marine Protected Area will be based on assessments and consultation.
- All Inuit rights under the Nunavut Agreement, including harvesting rights, would be respected in establishment and management of a Marine Protected Area. The NWMB's powers, duties and functions would be respected.
- As briefed to the NWMB at its last meeting, DFO, the Kivalliq Inuit Association and the Government of Nunavut plan to engage five communities in the vicinity of the Southampton Island Area of Interest (Baker Lake, Chesterfield Inlet, Coral Harbour, Naujaat and Rankin Inlet), on two community tours to present and seek feedback on a Marine Protected Area Proposal, in Fall 2023 and Winter 2024.
- The first tour is scheduled for November 2023, and will help refine the draft Marine Protected Area Proposal based on consultations. It will include an overview of key information from assessments of the area; conservation objectives; proposed boundary of a Marine Protected Area; and proposed measures that may regulate, restrict, allow with conditions, or allow activities, while respecting the Nunavut Agreement.
- Concurrently to the community consultations, partners will seek stakeholder feedback on the draft Marine Protected Area Proposal, including from mineral and petroleum, shipping, fishing, and tourism industries.

**Prepared by:** Fisheries Management & Marine Planning and Conservation, Arctic Region – Fisheries and Oceans Canada

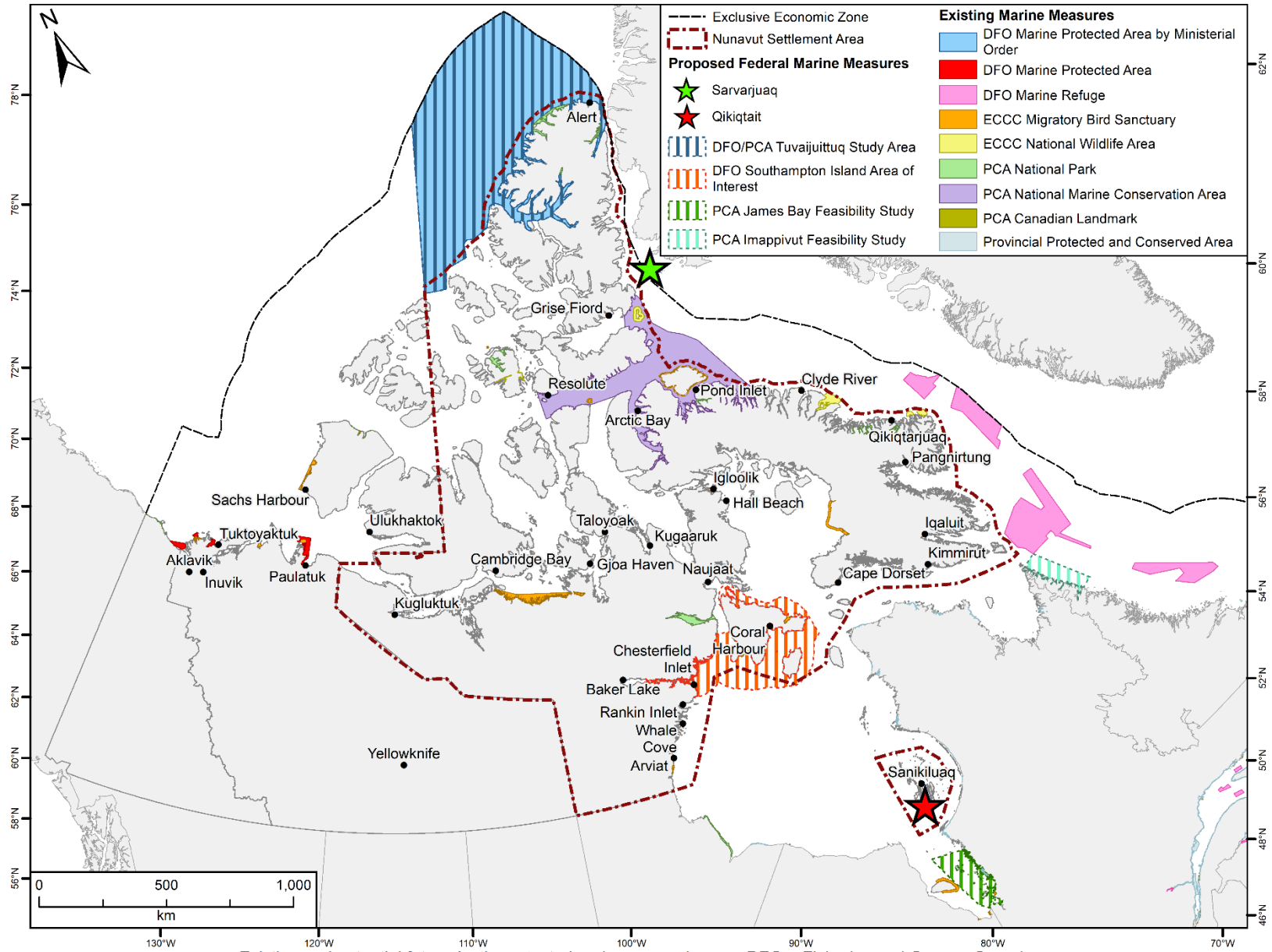
**Date:** October 11, 2023





**Figure 1.** A graphic recording of the partnership, collaboration, discussions and priorities identified through the Tallurutiup Imanga National Marine Conservation Area regional inshore fisheries workshop.

# Appendix 1. Existing and potential future Arctic protected and conserved areas.



Existing and potential future Arctic protected and conserved areas. DFO = Fisheries and Oceans Canada; PCA = Parks Canada Agency; ECCC = Environment and Climate Change Canada