
		<b>NUNAVUT WILDLIFE MANAGEMENT BOARD</b>			
		<b>Agenda: Regular Meeting 001-2026</b>			
		<b>February 25, 2026</b>			
		<b>Iqaluit, Nunavut</b>			
	<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 RM001-2026	1	Chairperson	1 minutes
	4	Modification of season-bridging protocols for Nunavut and Nunavik shrimp allocations in the Eastern Assessment Zone (For Advice)	2	Fisheries and Oceans	
		<b>Break</b>			
	5	Inuit Qaujimagatuqangit Study Results of the Southampton Island barren-ground caribou population (For Information)	3	Government of Nunavut	
	6	Changes in management of northern shrimp (For Information)	4	Fisheries and Oceans	
	7	Information on the updated stock structure of Belcher Islands – Eastern Hudson Bay beluga following the 2023 genetic reanalysis (For Information)	5	Fisheries and Oceans	
		<b>Lunch</b>			
	8	Development of the federal management plan for Grizzly Bear in Canada (For Information)	6	Environment and Climate Change Canada	
	9	Update on the status and timelines for the interim management plan of Tallurutiup Imanga National Marine Conservation Area (For Information)	7	Parks Canada	
	10	Pangnirtung HTA Beluga Harvesting By-laws to be Implemented in 2026 (For Information)	8	Pangnirtung Hunters and Trappers Organization	
	11	Meeting adjournment of RM001-2026		Chairperson	

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

**FOR**

**Information:**

**Decision: X**

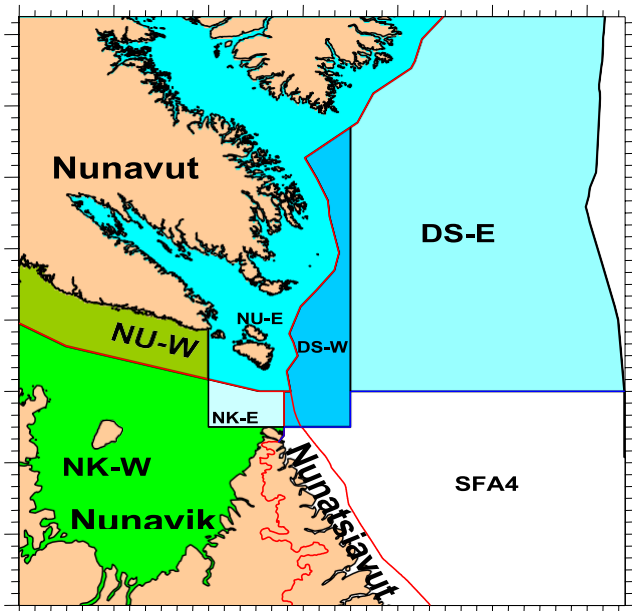
**Recommendation: X**

**Issue: Modification of season-bridging protocols for Nunavut and Nunavik shrimp allocations in the Eastern Assessment Zone (EAZ)**

**Map:**

Blue areas – Eastern Assessment Zone

Green areas – Western Assessment Zone



Northern shrimp (*Pandalus borealis*)



Striped shrimp (*Pandalus montagui*)

## **Background**

Two shrimp species (*P. borealis* and *P. montagui*) occur in the shrimp fishery that takes place in the Davis Strait and eastern Hudson Strait. This fishery is managed according to two distinct Shrimp Fishing Areas (SFAs), the Western Assessment Zone (WAZ) and the Eastern Assessment Zone (EAZ), as part of the newly established Northern Stock Assessment Region (NSAR) (Appendix 1).

While allocations are provided annually for commercial fishing, season bridging of quota is regarded as a useful management measure in the Northern shrimp fishery that allows for additional opportunities and flexibility to catch allocations. Season bridging is available, with varying components, to the offshore fleet, Nunavut, Nunavik and Nunatsiavut.

Collectively, season bridging refers to 1) borrowing from the following year's quota to be fished in the current year; and 2) transferring some of the current year's unused quota to be caught in the following year (carry forward). Under the current NU and NK bridging protocols in the EAZ (for *P. borealis*), allowances of 350t are available for carry forward for Nunavut allocations and 20t for Nunavik allocations, to be fished within the first 120 days of the season (April 1 - July 31 of the following year) (Appendix 2). Currently, quota carried forward that is not caught by this date remains unfished.

In 2020, the Nunavik Marine Region Wildlife Board (NMRWB) and Nunavut Wildlife Management Board (NWMB) made decisions and recommendations, as appropriate, to maintain the existing season bridging protocols for Nunavut and Nunavik allocations within the WAZ and EAZ, until such time as Harvest Decision Rules (HDRs) are developed for these areas. DFO was in agreement that this extension of season bridging protocols was a constructive way forward while this work is ongoing.

Additionally in 2020, both Boards decided that the *P. borealis* allocations in the NU/NK-E management units would no longer be designated as bycatch, and instead would be managed as directed fisheries. As with other directed *P. borealis* fisheries in the EAZ, the Boards also agreed that these allocations would be available for season bridging, but the decision did not specify carry forward amounts for either NU/NK-E.

In 2023, the NWMB and NMRWB made decisions and recommendations, as appropriate, to maintain the existing carry-forward allowances for Nunavut and Nunavik EAZ *P. borealis* allocations, respectively, acknowledging the stock was in the Cautious Zone. Further, NWMB and NMRWB decisions and recommendations, as appropriate, supported extending the carry-forward harvest deadline for Nunavut and Nunavik *P. borealis* allocations in the Nunavut/Nunavik-East and Davis Strait management units from July 31 to August 31.

In 2024, adjustments to DFO's Precautionary Approach (PA) framework, including Upper Stock References (USRs) and HDRs, for the shrimp fisheries in the EAZ and WAZ were supported by the NWMB and NMRWB. Season bridging protocols were considered outside

the purview of the PA framework, and consequently no changes to season bridging for Nunavut and Nunavik allocations were proposed in 2024.

In 2025, a new stock assessment model for *P. borealis* was implemented, which implicated several changes to the management of the *P. borealis* fishery, including in the EAZ and WAZ. A transitional management approach was implemented for 2025 while working groups of the Northern Shrimp Advisory Committee – comprised of representatives including DFO, co-management partners, industry stakeholders, and Indigenous groups – developed recommendations regarding changes to the management of the *P. borealis* fishery. This working group initiated the development of a revised season bridging protocol that would include all fishing fleets and areas. However, given the breadth of other management changes and flexibilities proposed for implementation in 2026-27, the season bridging protocol revision was postponed, with a commitment to re-engage the management transition working group on this issue for resolution in 2026. The Department has indicated that additional flexibilities for season bridging would be offered in the interim until the revised season bridging protocol is developed and finalized.

As of January 5, 2026 catch data, Nunavut has harvested 846t in Davis Strait (Nunavik = 0t), amounting to 44% of their Davis Strait allocation. In NU/NK-E, Nunavut has harvested 407t (~73% of their NU-E) and Nunavik 127t (~86% of their NK-E), amounting to a combined 76% of the NU/NK-E allocations being harvested.

The Department has received requests from Nunavut and Nunavik industry to amend the existing season bridging allowances for their respective allocations over the years. Given these requests and the delay in revising the existing bridging protocols, DFO is seeking decisions and recommendations from the Boards to increase the amounts available for carry forward inside and adjacent to the settlement areas, respectively, until such time that the season bridging protocol for NU and NK is revised, anticipated to be completed for the 2027/28 season.

Current carry-forward allowances in EAZ are relatively small (350t for Nunavut; 20t for Nunavik). An industry request for a combined 1200t carry-forward allowance (1000t for Nunavut and 200t for Nunavik) would amount to 12.5% of the EAZ overall TAC, which is within the bounds of what is permitted in other shrimp fleets. Nunavut entities have requested to carry-forward 780t in Davis Strait and 220t in NU-E, which amounts to ~40% and ~39% of the initial allocations, respectively. Nunavik interests have requested to carry-forward 140t in Davis Strait and 60t in NK-E, which amounts to ~65% and ~43% of the initial 2025-26 allocations, respectively. Based on current fishing patterns (i.e., Davis Strait East not being fished), even with this carry-forward increase, it is unlikely that the overall EAZ TAC would be caught in the following year.

Additionally, as part of the season bridging flexibilities noted above, DFO proposes to remove the deadline by which carry-forward quota must be harvested in all EAZ management units for the upcoming season. A recommendation to remove this deadline for harvesting in the Nunavut Settlement Area and Nunavik Marine Region in 2026-27 is also outlined below.



### **Science Considerations**

In the past, the Total Allowable Catch (TAC) for *P. borealis* in the EAZ (all management units) has not been fully taken. This is in part because ice conditions effectively end the fishing season before quotas can be fully prosecuted and because of minimal harvest of quotas in the Davis Strait East management unit. While harvesting of carry forward allowances potentially increases the exploitation rate in a given year, any one year increase in permitted carry forward amounts would be minimal under current allowances for Nunavut and Nunavik allocations and the offshore fleet in Davis Strait. It is possible for catches (including carry-forward) to exceed the TAC in an individual management area, but they are not expected to exceed the EAZ TAC for bridged seasons. Should there be a change implemented in the management of the fishery to make up for the unfished quota in the Davis Strait-East management unit, further analysis would be required to assess the impact of any future changes to these allowances.

DFO Science notes that the deadline by which to harvest carry-forward allowances does not serve as an end to fishing activity (*i.e.*, fishing does not cease at the deadline), but rather an administrative end after which catches must be reported against current year quotas. For this reason and on the basis that catches are not likely to exceed the TAC, removing the carry-forward harvest deadline does not present a conservation concern at this time.

### **Recommendation**

#### ***Carry-forward allowances***

Given the repeated requests over the years by Nunavut and Nunavik fishing interests, and as part of season bridging flexibilities that could be offered in the interim while a review of the season bridging protocol is undertaken, the Department is recommending increasing carry-forward allowances for Nunavut and Nunavik EAZ *P. borealis* allocations from the 2025-26 season to the 2026-27 season.

In line with the industry request, DFO specifically recommends increasing the current carry-forward allowance for Nunavut to 1000t (780t in Davis Strait; 220t in NU-E) and Nunavik to 200t (140t in Davis Strait; 60t in NK-E) for the 2026-27 fishing season only. Specifically, the Department is seeking a decision to allow a collective 280t to be carried forward in NU/NKE, and a recommendation to allow NU and NK to carry forward 780t and 140t, respectively, in Davis Strait.

#### ***Carry-forward harvest deadline***

Consistent with the flexibilities afforded to other industry stakeholders (*i.e.*, the offshore fleet), and in the absence of a conservation concern, DFO recommends to remove the carry-forward harvest deadline for all EAZ management units.

### **Summary of the request**

DFO is seeking from the NWMB and NMRWB:

- 1) Decisions (NU/NK-E) and recommendations (Davis Strait), as appropriate, on whether to increase current carry-forward allowances for Nunavut from 350t to 1000t (780t in Davis Strait; 220t in NU-E) and Nunavik from 20t to 200t (140t in Davis Strait; 60t in NK-E) for their EAZ *P. borealis* allocations for the 2026-27 fishing season only.
- 2) Decisions to remove the carry-forward harvest deadline for NU and NK *P. borealis* allocations in the NU/NK-East management units.
- 3) Recommendations to remove the carry-forward harvest deadline for NU and NK *P. borealis* allocations in Davis Strait.

**Prepared by:** Dirk Algera, Fisheries Resource Management, Fisheries and Oceans Canada

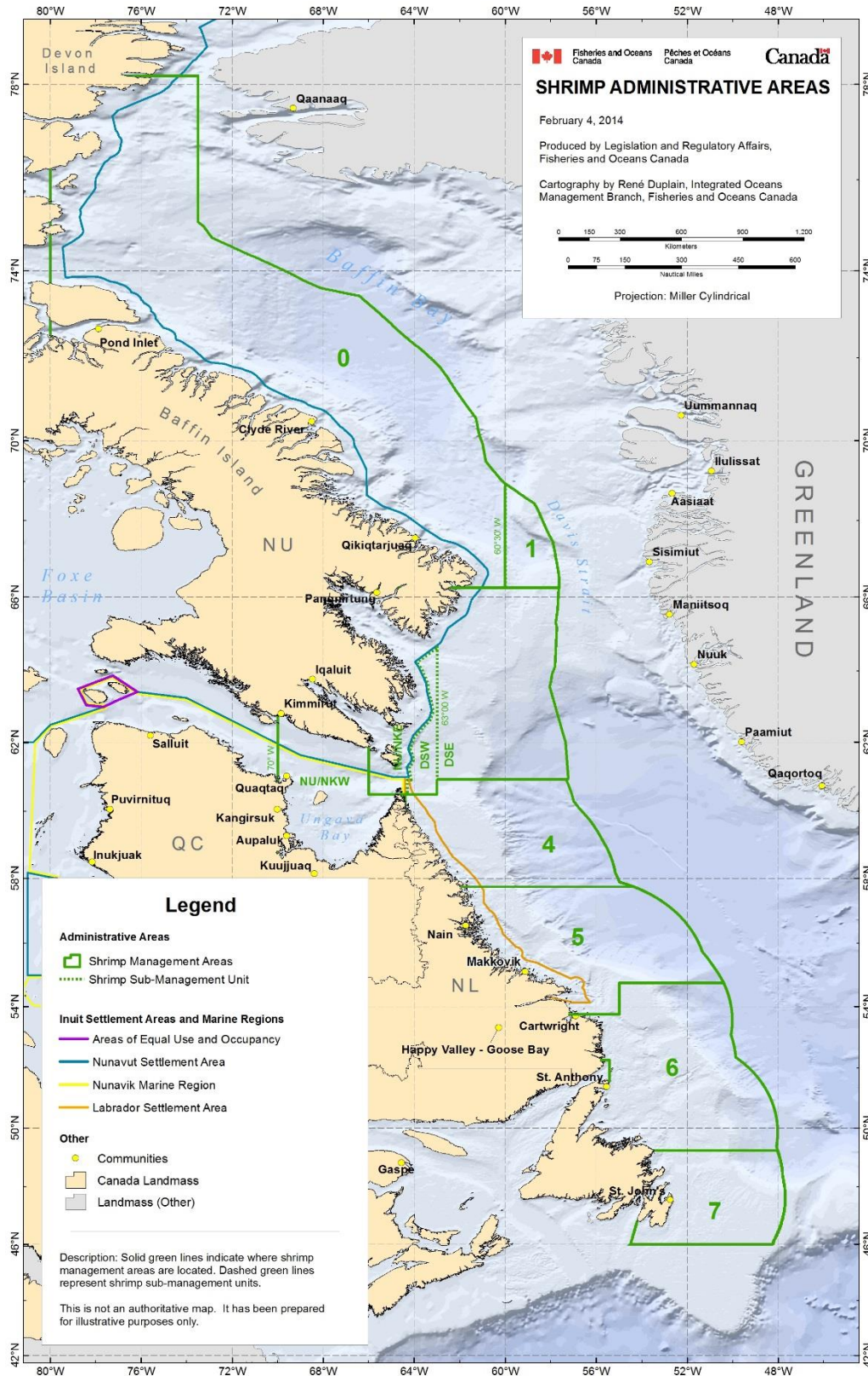
**Date:** January 13, 2026

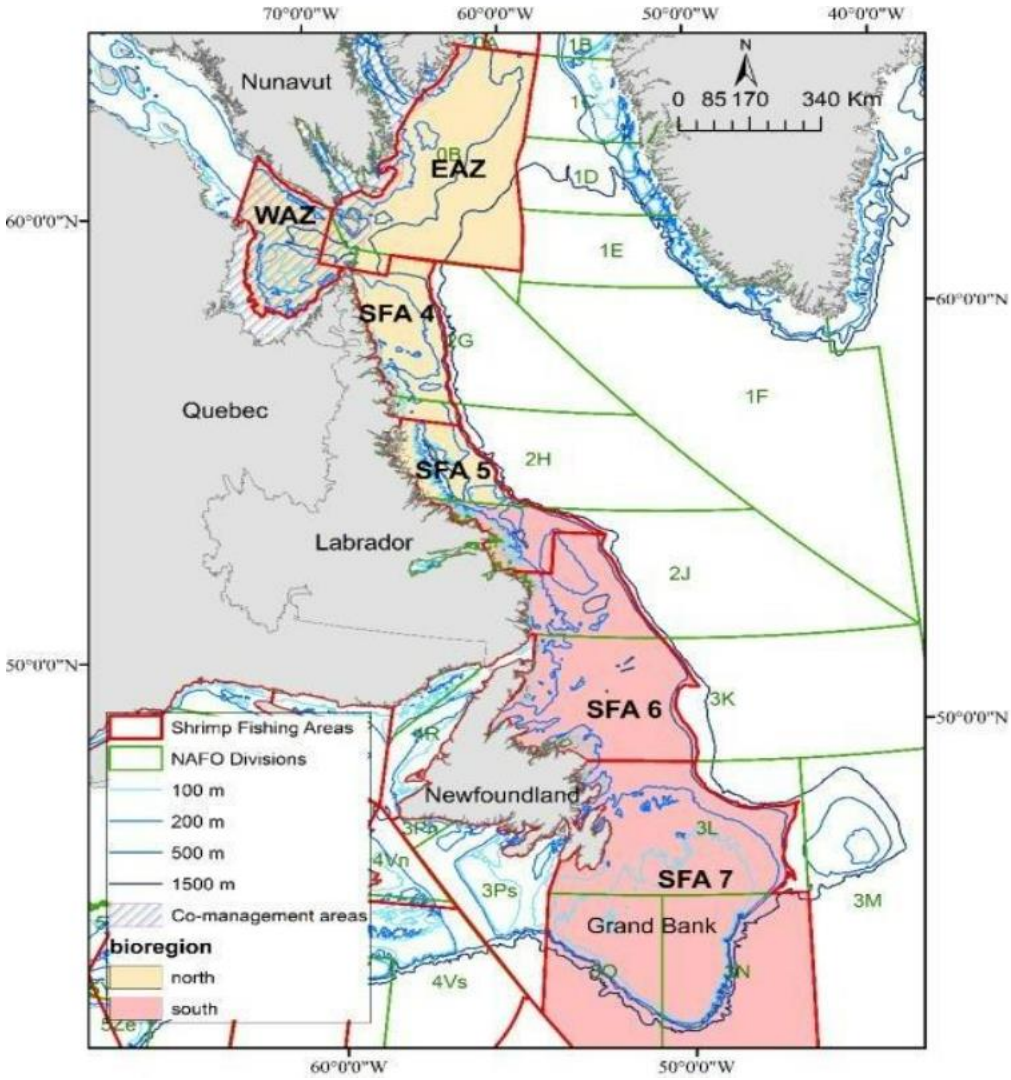
## **Appendices**

**Appendix 1** – Maps of shrimp administrative areas in Atlantic Canada

**Appendix 2** – Season bridging protocols for NU and NK Allocations in the WAZ and EAZ

# Appendix 1





## Appendix 2

### Existing Season Bridging Protocol for NU and NK Allocations in the WAZ and EAZ

#### Carry Forward

##### WAZ (*P. montagui*)

The Department will make 800t available in the WAZ for carry forward to Nunavut and Nunavik allocation holders annually; sharing of this amount will be consistent with the sharing arrangement established by the Boards.

Currently, based on the 50/50 split, Nunavut and Nunavik will each be able to bridge a total of 400t each. Any carry forward quota not caught by September 30 of the following year will remain unfished.

##### EAZ - Davis Strait, NU/NK E (*P. borealis*)

350t will be available for carry forward for Nunavut and 20t for Nunavik allocations, to be fished by July 31 of the following year. Quota that is not caught by this date will remain unfished.

#### Borrowing

##### WAZ (*P. montagui*)

Nunavut and Nunavik shall share a total of 550t annually for borrowing based on sharing arrangements established by the Boards, which is currently 275t each. Requests to borrow quota will be assessed by the Department on a case by case basis in consideration of ice and climate conditions.

##### EAZ - Davis Strait, NU/NK E (*P. borealis*)

Nunavut and Nunavik entities shall be allowed to borrow a total of 225t and 10t respectively from their following year's allocations, to be fished in the last month (March) of the current fishery.

**Table 1.** Existing Nunavut and Nunavik bridging allowances.

Area	Nunavik		Nunavut	
	Carry forward	Borrow	Carry forward	Borrow
WAZ <i>P. montagui</i>	400t	275t	400t	275t
WAZ <i>P. borealis</i>	N/A			
EAZ <i>P. montagui</i>	N/A			
EAZ <i>P. borealis</i> (Davis Strait NU/NK E)	20t	10t	350t	225t



## SUBMISSION TO THE

## NUNAVUT WILDLIFE MANAGEMENT BOARD

## FOR

Information: X

Decision:

**Issue:** *Inuit Qaujimajatuqangit (IQ) Study Results of the Southampton Island barren-ground caribou population*

### **Background**

- Southampton Island barren-ground caribou (*Rangifer tarandus groenlandicus*) are an ecologically and culturally significant sub-population that has experienced dramatic fluctuations since reintroduction, underscoring the need for careful, adaptive management.
- The island's small, relatively closed ecosystem requires balanced caribou numbers to prevent overpopulation, food shortages, and disease.
- The herd is non-migratory and was extirpated by the mid-1950s due to overharvest after European contact.
- Wolves, the primary predator, were extirpated in the 1930s, creating conditions for rapid herd growth and later vulnerability.
- At the request of Coral Harbour Inuit, 48 caribou were reintroduced from neighbouring Coats Island in 1967.
- The herd grew rapidly without predators, peaking near 30,000 animals in the late 1990s.
- The herd experienced a sharp decline in the 2000s driven by: disease (*Brucellosis*), severe winter weather (icing events limiting forage access), and high harvest pressure, including commercial harvest and later off-island meat sales via social media.
- Management actions including ending the commercial harvest and implementing a Total Allowable Harvest (TAH), led to herd stabilization at 12,000–13,000 animals from 2015–2023; aerial surveys confirm this trend with estimates of 12,054 (2019) and 12,651 (2023).
- On Southampton Island caribou remain the most commonly consumed country food. Healthy caribou directly support food security and well-being in Coral Harbour.
- Wildlife management is guided by the Nunavut Wildlife Management Board's mission of "*conserving wildlife through the application of Inuit Qaujimajatuqangit and scientific knowledge.*" This study contributes relevant and timely *Inuit Qaujimajatuqangit* to support adaptive caribou management, helping strengthen the



integration of Inuit knowledge alongside scientific evidence in decision-making processes.

### **Current Status**

- In May 2025, the Government of Nunavut's Department of Environment, Wildlife Research Division conducted a qualitative social science Inuit Qaujimagatuqangit (IQ) study with Elders, members of the Aiviit Hunters and Trappers Organization (HTO), and other key knowledge holders to document observations of the Southampton Island barren-ground caribou herd. Fifteen interviews were conducted, including a group discussion with the Aiviit HTO Board and individual interviews with key knowledge holders (*Documenting Inuit Qaujimagatuqangit (IQ) and Observations of the Southampton Island Barren-Ground Caribou Herd, 2025*).
- Participants shared ecological and cultural observations spanning many decades, covering Coral Harbour, all of Southampton Island, and neighbouring Coats and White Islands. IQ also includes stories, artifacts, and memories linking generations to the original Southampton Island caribou and occasional arrivals via ice bridges
- Tuktu (caribou) remain a main source of food and clothing and are essential to Inuit health and well-being. Elders emphasized that caribou connect past and present, carrying deep cultural meaning tied to identity, survival, and continuity. Sharing caribou meat across communities reflects Inuit values of care, reciprocity, and responsibility.
- Harvesters report that since the brucellosis outbreak of the 2010s, caribou numbers have been steadily increasing, with more animals observed near the community in recent years. Caribou are described as generally healthy and in good body condition, with sick animals rarely seen and animals remaining fat through fall and winter.
- High calf numbers and strong calf survival were frequently noted and attributed in part to responsible harvesting practices.
- Participants raised concerns about increasing numbers of wolves and wolverines, which may be making caribou more skittish. Winter rain and freezing events were also identified as a risk, as ice layers can block access to forage and occasionally lead to calf mortality.
- Knowledge holders emphasized the need to maintain balance in the island's relatively small and closed ecosystem, noting that both overpopulation and under-harvesting can increase risks of food shortages and disease.
- Most participants support continued careful monitoring of caribou numbers and balancing sustainable harvest with herd recovery. Some suggested increasing household tags from four to six in response to rising abundance. Participants emphasized the need for improved enforcement, monitoring, and more consistent application of existing legislation and permit requirements, particularly for off-island harvesting. Participants also expressed support for reviving organized sharing programs, while respecting sustainable harvest limits.



## **Consultations**

- ENV social scientist met with the Aiviit HTO and Coral Harbour community members from May 14–21, 2025. The infographic and report were shared on December 18, 2025, and on that same date the Aiviit HTO was informed that ENV would be submitting the report to the NWMB Regular Meeting 001-2026.

## **Recommendation**

- Based on information from the May 2023 aerial survey and information collected in the IQ report, the Department of Environment is not recommending any changes to the current management actions for Southampton Island barren-ground caribou population.



The views expressed in this report reflect the voices and experiences of Inuit subsistence harvesters, Elders, and Hunters and Trappers Organization (HTO) members who participated in interviews. They do not necessarily reflect the views or positions of the Government of Nunavut, Department of Environment. While the interviewer and author strived to remain impartial and analyze the data with care, some interpretive bias may persist due to factors such as transcription, translation, and thematic coding. These biases are considered minimal and do not detract from the integrity of participants' contributions.

## Summary

The Southampton Island barren-ground caribou (*Rangifer tarandus groenlandicus*) are an ecologically and culturally significant sub-population that has undergone dramatic fluctuations since their reintroduction in 1967 following extirpation in the 1950s. After nearly three decades of rapid growth and subsequent commercial harvesting, the herd declined sharply through the 2000s and early 2010s, largely due to brucellosis outbreaks, severe winter icing events, and hunting pressure. In recent years, population surveys and Inuit Qaujimagatuqangit (IQ) observations suggest that the herd has stabilized and begun to recover. This study respectfully gathered insights from and with IQ through semi-structured interviews with Elders, subsistence harvesters, and members of the Aiviit Hunters and Trappers Organization (HTO) in Coral Harbour, Nunavut, to document Inuit knowledge, values, and perspectives on caribou abundance, health, distribution, and management.

Fifteen interviews were conducted in May 2025, including a group discussion with the Aiviit HTO board and individual interviews with key knowledge holders. Participants consistently reported increasing caribou abundance since the 2010s, noting greater numbers near Coral Harbour and improved body condition across all seasons. Participants described calves as numerous and healthy. While participants described disease prevalence to have declined, emerging concerns include growing numbers of wolves and wolverines and the effects of freezing rain and ice layers in winter, which can restrict forage access and affect calf survival.

Inuit participants emphasized the enduring importance of traditional stewardship, sharing practices, and community-based management guided by IQ. Many supported ongoing monitoring and adaptive management, suggesting modest increases in household tags and stronger community enforcement to ensure compliance and long-term herd health. Findings underscore the value of integrating IQ with scientific monitoring to inform collaborative management under the Nunavut Agreement. The results also highlight the Aiviit HTO's leadership in regulating harvests and preventing off-island commercial sales, demonstrating how Inuit-led decision-making continues to sustain the herd, community, and culture.

**Key words:** *Commercial harvest, barren-ground caribou, caribou, Rangifer tarandus, Southampton Island, Coral Harbour, Kivalliq, disease, Brucellosis suis, Nunavut, Inuit Qaujimajatuqangit (IQ), semi-structured interviews, human dimensions, conservation social science.*













## Introduction

For thousands of years, caribou (*Tuktu* in Inuktitut; *Rangifer tarandus*) have been central to Inuit livelihoods, emotional wellness, cultural identity and continuity, community well-being, and nutrition (Borish et al., 2021). Across Inuit Nunangat (homeland), they are harvested for subsistence food, clothing, and income. This is especially true for Nunavummiuq (Inuit Nunavummiut) on Southampton Island who rely heavily on the Southampton Island barren-ground caribou (*Rangifer tarandus groenlandicus*) herd (Meis Mason et al., 2008a). In the Kivalliq region, caribou contribute up to 11% of the total diet and are the primary source of key nutrients such as iron, zinc, copper, riboflavin, vitamin B12, and protein (Kenny et al., 2018a). Nutrition surveys consistently confirm their importance: the 2007–2008 Inuit Health Survey identified caribou as the top country food consumed in Nunavut, with 39.3% of recall surveys reporting consumption (Kenny et al., 2018b); and the 2014–2015 Foodbook study found 57.2% of Nunavut respondents had eaten caribou in the previous seven days (Morton et al., 2021).

In Nunavut, caribou are co-managed by the Government of Nunavut, the Nunavut Wildlife Management Board (NWMB), and other partners (e.g., Regional Wildlife Organizations [RWO] and Hunters and Trappers Organizations [HTO]), using the best available knowledge that draws on both *Inuit Qaujimajatuqangit* (IQ) and Western science. IQ is a shared worldview—though with regional differences—by Inuit across the circumpolar world (Karetak et al., 2017). It refers to the traditional, current, and evolving body of Inuit knowledge, laws, values, beliefs, and practices, encompassing “all aspects of Inuit culture including worldview, language, social organization, and life skills,” as well as relationships with the environment—land, water, wildlife, and people—i.e., “*what Inuit have always known to be true*” (Karetak et al., 2017; Wenzel, 2004; PricewaterhouseCoopers, 2006). Since the late 1990s, the term IQ has been adopted to replace the narrower idea of “traditional knowledge,” which was often interpreted as static or belonging only to the past with limited value and relevance to modern life. By contrast, IQ emphasizes that Inuit knowledge is a living, dynamic system of understanding, inseparable from an ethical framework for living a good life and ways of being (Karetak et al., 2017). In practice, IQ contributes timely, place-based insights that can be spatially and temporally more complete than written records, supporting nimble and responsive conservation decisions (Ferguson et al., 1998; Hanke et al., 2021). Both IQ and Western science are needed together through the approach of *Two-Eyed Seeing*—learning to see from one eye with the strengths of Indigenous

knowledge and from the other with the strengths of Western science—to support effective, adaptive wildlife management across Nunavut and the broader North (Thomas & Schaefer, 1991; Bartlett et al., 2012; Reid et al., 2021).

Southampton Island is a large Arctic Island located at the entrance of Hudson Bay, in the Foxe Basin, and is part of the Kivalliq Region in Nunavut, Canada (Fig. 1). It is one of the larger members of the Arctic Archipelago and is Canada's ninth-largest island, covering an area of approximately 41,214 km<sup>2</sup>, making it the largest in or near Hudson Bay.

Southampton Island has been inhabited by Inuit for thousands of years due to its abundant resources. Until the early 20th century, it was home to the Sallirmiut, believed to be the last of the Thule Inuit, who were wiped out by a 1902 epidemic. The island was later re-populated by Inuit families from Nauyaat, Chesterfield Inlet, and Baker Lake, many arriving through ties with the Hudson's Bay Company and missions after a trading post was established at Coral Harbour in 1924. Today, the Inuit of Coral Harbour are descendants of these families, maintaining strong cultural traditions of hunting, fishing, and community life.

The island's only settlement is the hamlet of Coral Harbour (Inuktitut: *Salliq*), meaning "large flat island in front of the mainland." Its English name was given by Captain George Comer, who noted the presence of unusual red coral in the area (Comer, 1910). According to the 2021 Canadian Census, Coral Harbour has a population of 1,035, a 16.2% increase since 2016, with approximately 95% of residents identifying as Inuit. According to the 2005 Nunavut Wildlife Management Study, Coral Harbour had 283 registered hunters over a five-year period (2001–2006) (Meis Mason et al., 2008b). Of these, 28 were classified as intensive (regularly providing country food to the household), 104 as active (short but intensive hunting in a limited number of activities), and 94 as occasional (daytrips or weekend outings for occasional hunting activities). The community lies about a 90-minute flight from Rankin Inlet, and local employment is largely supported by hunting and seasonal work with mining and exploration companies.



**Figure 1.** Southampton Island and Nearby Islands, Nunavut, Canada (Base map from Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors).

Barren-ground caribou (*Rangifer tarandus groenlandicus*) on Southampton Island were once described as “plentiful” by Captain Henry Toke Munn, a British Army officer, adventurer, and sportsman who organized expeditions to the island between 1916 and 1918 (Munn, 1919). Although these caribou were never formally described by scientists, George Comer, a whaling captain who worked closely with Inuit in the early 1900s and documented their knowledge of the region, wrote that they “differ in size somewhat from those of the mainland” (Comer, 1910). The herd is unique in that it does not migrate, with the island serving as a natural barrier (Meis Mason et al., 2007; 2008b). Wolves (*Canis lupus*) were also common on the Island until the early 1900s (Heard & Ouellet, 1994). Following the arrival of whalers and fishing boats, and later commercial hunters, wolves were extirpated from Southampton Island by 1937, and caribou became rare by 1935 and soon followed into extirpation by 1953 (Heard & Ouellet, 1994; Meis Mason et al., 2007) or 1955 (Parker, 1975). At the request of the Inuit of Coral Harbour, 48 caribou were reintroduced on Bell Peninsula of Southampton Island in 1967 by the Northwest Territories Game Management Service and the Canadian Wildlife Service (CWS) by air-lifting them from neighbouring Coats Island in the Kivalliq Region of Nunavut (Parker, 1975; Ouellet et al., 1993; Heard & Ouellet, 1994; Meis Mason et al., 2007; Campbell & Boulanger, 2024).

Since their reintroduction, Southampton Island caribou were protected from harvest until 1978, when estimates suggested the herd had recovered to over 1,000 animals and could once again support limited subsistence harvest (Kraft, 1978; Campbell & Boulanger, 2024). Ongoing assessments of this unique herd since 1978 suggest large fluctuations in abundance and distributional changes since its re-establishment across Southampton Island (Campbell & Boulanger, 2024), a pattern common among many caribou herds (Ferguson et al., 1998; Gunn, 2003; Kenny et al., 2018a; Parlee et al., 2018; Bongelli et al., 2020; St. John, 2022). In the absence of predation or high human harvest, food availability largely regulates caribou population abundance on Southampton Island (Ouellet et al., 1996). However, numbers can fluctuate markedly from year to year because inter-annual variation in weather conditions affects forage accessibility, particularly during winter. Without natural predators, the herd grew very rapidly after 1978, and a commercial harvest abattoir was approved and formally introduced in the early 1990s primarily to control herd size, as the population was believed to have exceeded the island’s carrying capacity (Ouellet et al., 1993; Meis Mason et al., 2007, 2008b). Early estimates placed the carrying capacity near 40,000 caribou (Parker, 1975), but this was later revised to around 15,000 based on forage availability and actual seasonal distribution of the

herd (Heard & Ouellet, 1994; Ouellet et al., 1996). Herd numbers continued to rise in the 1990s, peaking near 30,000 animals by 1997 (Mulders, 2013; Campbell, 2015; Campbell & Boulanger, 2024). Commercial quotas rose quickly from 250 animals in 1992 to 1,000 in 1993, 5,000 in 1994, and 6,000 by 1997, with annual commercial harvests continuing through the 2000s before the commercial harvest abattoir was ended in 2009 (Junkin, 2003; Meis Mason et al., 2007, 2008b; Campbell & Boulanger, 2024). The commercial harvest also created 68 seasonal jobs, training opportunities, and new income for Coral Harbour, including work for hunters, skimmers, packers, and maintenance staff, and provided an important source of local income alongside subsistence harvesting (see Meis Mason et al., 2007, 2008b). These increasing harvests, with over 6,500 animals by 2006–2007, reduced the herd to the island’s estimated carrying capacity of about 15,000 but later raised concerns about pushing numbers too low for sustainable subsistence harvests (Campbell & Boulanger, 2024).

However, after nearly three decades of rapid growth, the population declined sharply through the 2000s and early 2010s, dropping to fewer than 8,500 in 2011 and 7,300 by 2013; an average annual decline of roughly 9% between 1997 and 2013 (Campbell, 2015; Campbell & Boulanger, 2024). Co-management partners, the Aiviit Hunters and Trappers Organization (HTO) in Coral Harbour and the Government of Nunavut, agreed to suspend the commercial harvest after 2009 to help stabilize the declining population and maintain numbers sufficient to support subsistence harvesting. With the formal commercial harvest already halted, the Aiviit HTO and GN had limited options and implemented a Total Allowable Harvest (TAH) in 2012 to regulate subsistence harvests and address the growing sale of caribou meat, particularly to Baffin communities through social media (Campbell, 2015; Campbell & Boulanger, 2024). A locally reported and genetically supported winter immigration event of mainland barren-ground caribou between 2013 and 2015 contributed to a subsequent increase (Paetkau, 2015), and since about 2015 the herd has remained relatively stable at 12,000–13,000 animals, including the most recent survey in 2023, which estimated 12,651 (Campbell, 2015; Campbell & Boulanger, 2024). While the herd has shown relative stability from 2015 to 2023 (Campbell & Boulanger, 2024), it remains below historic levels (Ouellet et al., 1993; Heard & Ouellet, 1994).

The decline of the Southampton Island caribou starting in the 2000s has been primarily driven by disease, harvest, and winter weather conditions (Campbell & Boulanger, 2024). Low genetic diversity following reintroduction from Coats Island caribou made the herd susceptible to disease. The reproductive disease *Brucella suis* Type IV (Brucellosis) spread rapidly after first

being detected in 2000 (1.7% prevalence), peaking at 58.8% in 2011 (Campbell, 2015). Over the same period, pregnancy rates fell from a high of 93.1% in 2001 to a low of 37% in 2011 (Campbell, 2015). High infection rates raised concerns both for human health and for the herd's ability to sustain and recover under substantial commercial and subsistence harvesting pressures. Severe winter conditions, especially icing events, limited forage access and likely drove year-to-year fluctuations; notably, extensive icing during the winters of 2010 and 2011 reduced food availability, leading to poor body condition, reduced reproductive success, and widespread reports of starving and dead caribou (Tyler, 2010; Campbell, 2015). More recent observations (2015–2023) suggest disease prevalence is decreasing, with improved calf survival, indicating that harvest and winter conditions should now be the primary focus for management and monitoring, alongside improved tracking of both subsistence and commercial harvests (Campbell & Boulanger, 2024).

In addition to disease and weather, a new but unregulated form of commercial harvest, social media sales of caribou meat, emerged as a dominant threat to the long-term sustainability of the Southampton Island herd (Campbell & Boulanger, 2024). While subsistence harvest remains essential for Inuit food security, this new pressure developed rapidly in 2010 in the form of social media sales of caribou meat off-island. A lucrative market opened on Baffin Island, where communities were struggling with declining caribou populations, and demand for Southampton Island caribou grew quickly. In the first eight months of sales alone, 24,764 kilograms of caribou meat, representing an estimated 710 caribou, were shipped off the island (Campbell & Boulanger, 2024). Although airline data that allowed tracking of these exports was cut off in January 2012, evidence suggests that harvest levels during 2011–2012 exceeded subsistence needs, particularly as buyers often paid premiums for fat animals, most of which were pregnant females in winter and spring (Campbell & Boulanger, 2024). The unanticipated commercial harvest and sale of caribou meat through social media was protected as a right under the Nunavut Agreement, leaving the Aiviit HTO and the Government of Nunavut with little option but to apply a TAH to curb these pressures. Despite efforts to manage the issue, Campbell and Boulanger (2024) report that attempts to control intra-territorial meat sales via social media have been largely ineffective under the current management regime through 2023, though their consultations at the time with Kivalliq HTOs suggested that a legislative approach to addressing these sales could be mutually supported. Since then, however, the results presented herein indicate that the Aiviit HTO has intervened to regulate this practice, deciding at an Annual



General Meeting to halt off-island exports and instructing Calm Air, the primary airline serving Southampton Island, not to transport caribou for commercial sale.

Harvesting on Southampton Island is governed under Nunavut's wildlife co-management system, in which the Nunavut Wildlife Management Board (NWMB) makes final decisions based on recommendations from the Government of Nunavut's Department of Environment and Inuit organizations. At the community level, harvesting is overseen by the Aiviit Hunters and Trappers Organization (HTO), which plays a central role in implementing and supporting management within Coral Harbour and on Southampton Island. The HTO plays a central role in coordinating and supporting harvesting practices, allocating community quotas, maintaining harvest records, and promoting locally beneficial economic initiatives. While the HTO does not enforce quotas, it supports compliance through community oversight, guidance, and communication with members. The current management strategy, co-developed by the Government of Nunavut and the Aiviit HTO, combines regular aerial surveys with an extensive health monitoring program. The sharp decline recorded in the 2011 and 2013 aerial surveys led to a reduced TAH: 1,000 for 2012–2013 and 800 for 2014–2015 (Campbell, 2015). A rise detected in 2015 briefly raised the TAH to 1,600 in 2016, but when numbers fell again in 2017, it was brought back down to 1,000 (Campbell & Boulanger, 2024). With surveys in 2019 and 2023 indicating herd abundance stability, the TAH has since remained at 1,000 animals to support herd recovery while ensuring continued current and future access for Inuit subsistence and limited commercial harvesting (Campbell & Boulanger, 2024).

## Methods

This project was designed to respectfully gather insights from and with *Inuit Qaujimajatuqangit* (IQ: Inuit knowledge, values, and perspectives) and to help mobilize this knowledge in ways that support collaborative and informed caribou management planning for the Southampton Island herd. To achieve this, we spoke with subsistence harvesters, Elders, members of the Aiviit HTO, and other key knowledge holders in Coral Harbour to gather IQ about Southampton Island caribou. We took a qualitative social sciences research approach, using open-ended, semi-structured interviews that followed a scripted guide while leaving space for discussion and elaboration; this approach encouraged participants to explain their positions and knowledge freely, while also allowing for precise, sometimes sensitive information to emerge (Axinn &

Pearce, 2006; Creswell & Creswell, 2022). A local interpreter was hired to provide Inuktitut–English translation for participants who spoke Inuktitut or were more comfortable using their first language. In total, 15 semi-structured interviews were conducted in-person in Coral Harbour between May 14 and 21, 2025. Seven of these were conducted as a group interview with the Aiviit HTO board during a board meeting, while the remaining eight were individual interviews. The 14-question interview guide (Appendix A) was used to gather IQ and perspectives on Southampton Island caribou, focusing on abundance, condition, distribution, cultural significance, changes over time, and current management policies such as the Total Allowable Harvest (TAH). This knowledge will help inform future decisions by the Government of Nunavut and the Nunavut Wildlife Management Board, supporting stronger management that respects and includes IQ in decision-making.

These interviews shared ecological and cultural experiences and observations about caribou spanning many decades, covering the community of Coral Harbour, all of Southampton Island, and neighbouring Coats and White Islands (Fig. 1). We began by interviewing members of the Aiviit HTO (chairperson, manager, and board members). From there, additional participants were recruited through a snowball approach, where interviewees voluntarily referred others who could share valuable (IQ) knowledge. While we did not ask participants their age, respondents ranged from young adults (20s–30s) to Elders. In Inuit communities, ‘Elder’ often refers to individuals around 55 or 60 years and older, but the term is based less on age than on community-recognized cultural knowledge, experience, and respect. Importantly, Elders are identified by others, not typically by self-designation. All interview participants were male. Some interview participants elected to remain anonymous while others released their identities. Although some interviewees granted permission to use their names, all quotes shared in this article are attributed anonymously to protect identities. Interviews lasted between 10 min and 1 and half hours, depending on the level of detail provided by the respondent.

Participation in this study was completely voluntary. Participants could choose not to answer any question, stop the interview at any time, or withdraw from the study without consequence. The research was registered with the Nunavut Research Institute (NRI) as *Documenting Inuit Qaujimagatuqangit (IQ) and Observations of the Southampton Island Caribou Herd*, under its database of projects exempt from full licensing under the *Nunavut Scientists Act*. This exemption was granted because the work supports internal Government of Nunavut (GN) policy, programs, and services, provided it is minimally impactful and ethically sound (personal

communication with Jamal Shirley, Director, Innovation and Research at NRI). The researcher committed to upholding Inuit Nunavummiut self-determination in research and to following established principles of ethical, respectful engagement with Inuit communities. The project was guided by the *National Inuit Strategy on Research* and the *OCAP® principles of Ownership, Control, Access, and Possession* as a framework for IQ data governance, and importantly, free prior informed consent was sought before each interview. All participants gave informed consent to participate in the study. With participant permission, interviews were also audio-recorded. Participants received an honorarium for their participation, in accordance with the Government of Nunavut Honorarium Rates Schedule (FAM 810, Appendix A); HTO/HTA Katimaji/members could receive up to \$175 per half day, and Elders serving as Uqaqtittiji (Chair) could receive up to \$250 per half day. A copy of the consent form is in Appendix B.

Interview transcripts were transcribed from audio to text using [Otter.AI](#). Qualitative interview data were analyzed using NVivo 15.2.1 (Lumivero, 2023). We applied a combination of inductive (“bottom-up”) and deductive (“top-down”) coding, iteratively cycling between reading, coding, and refining the codebook to ensure consistency and rigor in theme identification (Thomas, 2006; Adu, 2019; Saldaña, 2021; Charmaz & Belgrave, 2012). Deductive themes were based on interview question topics (e.g., abundance, health and recruitment, behaviour, range and movement, management), while inductive themes emerged through repeated reading, reflection, and comparison across transcripts. Responses were initially read to identify key words, which were compiled into a list of potential codes. Similar codes were then grouped into broader themes. Transcripts were read a second time, and responses were sorted under these themes to assess their prevalence, measured both as the number of interviewees mentioning a theme and the overall frequency of mentions across all transcripts. Individual responses could be assigned multiple thematic codes if warranted. All coding was performed by the first author. The codebook is available in Appendix C. In this report, we use terms such as *most*, *many*, *some*, and *few* to summarize participant perspectives. These labels provide a general sense of how commonly a theme was raised while protecting individual anonymity. Broadly, *most* refers to the largest share of respondents, followed by *many* (more than *some*), and *few*, which reflects the smallest number.

## Results and Discussion

We interviewed 15 Inuit harvesters, elders, and members of the Aiviit Hunter and Trappers Organization (HTO; hereafter “HTO” or “the HTO”) in Coral Harbour, who shared their extensive knowledge and personal experiences of caribou harvesting on Southampton Island and the nearby Coats and White Islands.

### Caribou Harvesting on Southampton Island: Summary

Interview participants described a long history of caribou harvesting on Southampton Island, shaped by changes in population abundance, regulations, and technology. Several elders recalled that caribou were extirpated mid-1900s and reintroduced from Coats Island in the late 1960s or early 1970s, with about 50-60 animals to start. For 15 years following reintroduction, harvest was prohibited to allow the population to grow. When hunting resumed, it was initially restricted to one animal shared between two households, later increasing to one, two, and eventually four animals per household.

Following reintroduction from Coats Island, participants described a period of rapid caribou population growth, reaching estimates of around 30,000 animals, followed by concerns about overpopulation and subsequent declines. Commercial harvest (including the abattoir and past intra-territorial export sales of meat) and disease were mentioned as contributing factors to the decline.

Harvesting practices vary seasonally: bulls are typically hunted in fall, while in winter hunters target females without calves to support population growth. Some participants hunt weekly or biweekly to maintain a steady meat supply, with more intensive harvesting in the fall when animals are fatter. Others noted hunting in August for hides suitable for clothing.

Technological changes have influenced harvesting: dog teams were used in earlier years, replaced by snowmobiles and ATVs from the 1970s onward, making caribou more accessible across the island. Participants reflected on their personal harvesting histories, which were generally extensive, ranging from a couple of decades to lifelong harvesting (40+ years) for some. While we did not specifically ask for age, respondents likely included individuals as young as their 20s–30s up to elders, with skills and knowledge gained through both family mentorship and personal experience.

## Geographic Constraints and Southampton Island Ecology

Southampton Island's geography — relatively small, isolated, and without migration routes to the mainland — shapes nearly every aspect of its caribou population, including abundance, movement, body condition, and management. As several harvesters noted, the island “is not very big... you can go to the edge of it in a day” by snowmobile, and even during summer, rough terrain slows travel but much of the island can still be reached in a single trip. Caribou are “kind of locked in” with “nowhere else to go,” moving seasonally between rocky uplands and flatter gravel areas, but never leaving the island.

Because the herd cannot easily disperse beyond the island, abundance and distribution are tightly linked to food availability. Harvesters noted that distribution can be highly uneven, with “a lot more” caribou in some areas but “absolutely nothing” in others, as animals often concentrate in particular feeding grounds (see *Range and Movement* for further discussion).

Harvesters also stressed the important need to “find the right balance”: avoiding overabundance, which can lead to overgrazing, hunger, and disease, and low numbers that limit harvest opportunities. An elder explained, when hunters recognized how abundant the herd had become, they began calling for renewed harvesting, noting that “when they're over abundant, some will just die from sickness... this island isn't too big.” Overcrowding has, in the past, prompted management actions such as large-scale harvests to reduce the herd by thousands (see *Commercial Harvest – Abattoir* and *Brucellosis Outbreak*); as one participant explained, “the island can't hold so many caribou... they run out of food really quickly.”

An HTO board member/harvester noted that “the caribou should be at around 15,000; right now, they are at around 13,000. We would eventually like to see an increase in the TAH [Total Allowable Harvest]” referencing the island's hypothesized carrying capacity of approximately 15,000 caribou (Ouellet et al., 1996). Body condition reflects these constraints, and while some caribou are found near the community, many hunters travel farther into hillier or rockier terrain in search of “healthier” or “fatter” animals (see *Hunting Effort*).

Modern vehicles make these areas more accessible, though travel remains limited by weather and terrain, reinforcing the link between movement patterns, feeding grounds, and physical condition. On a small, closed island, caribou abundance and movement are inseparable from careful local stewardship and management decisions.

## Historical Trends in Caribou Abundance

Interview participants' knowledge confirmed abundance trends reported by Campbell and Boulanger (2024), including the mid-1900s extirpation of caribou from Southampton Island, the subsequent reintroduction from Coats Island, a 30-year period of population growth during a harvest abstinence through the 1990s, followed by a return to subsistence harvest and the opening of a commercial harvest and then a rapid decline.

“I don't remember the exact year caribou were introduced from Coats Island, maybe 1968. 20 years later I remember there were some on the Island, but we weren't allowed to hunt them. Eventually, harvest limits increased from one per two families, to one per household, then up to four. I remember them reaching about 30,000 animals around 20 years ago. Now I'm hearing it's closer to 13,000.”

“I'm from Northern Quebec but moved here when there were hardly any caribou. They were reintroduced from Coats Island. I remember each household receiving half a caribou. The population somewhat exploded—over 30,000.”

The subsequent decline starting in around the early 2000s was attributed to both commercial harvest (including the abattoir and off-island intra-territorial meat sales) and disease (e.g., brucellosis):

“For the past five years, we've seen the caribou decrease because of caribou selling. That's why the HTO decided to pause sales for a few years, to see if the population can recover.”

“I've been here 29 years, and we've seen the decline in numbers. The bulls especially, after 2011, their numbers and size crashed.”

## Commercial Harvest — Abattoir

Four interview participants described the commercial harvest, referring to the “abattoir” (slaughterhouse) that operated from 1993 until its closure in 2009. The establishment of the large-scale commercial harvest on the Island was associated with concerns about overpopulation and high caribou abundance:

“Overpopulation. They were numbered at 30,000 plus. That’s when the caribou abattoir was introduced to the island to control the caribou.”

Conversely, as indicated, the abattoir was also implicated in the herd’s subsequent decline:

“After that abattoir was carrying on, the number of caribou decreased, of course. There was some sort of a population crash, also from brucellosis, sickness, so that decreased the number.”

“Caribou harvesting went on for about eight or nine years until the population started to decline. I was one of the hunters at the time, and I remember the caribou numbers dropped suddenly. Cut in half.”

This in turn led to the implementation of a tag-based total allowable harvest management system (see *Management and Total Allowable Harvest*).

“After about a year, we started using caribou tags. At first, we were given six tags. But the numbers kept declining. So, each household was only allowed to harvest four caribou per year. That’s the limit we still have now, as far as I know.”

For roughly 5–11 years, guided recreational (sports) hunting by non-local hunters also continued until the HTO implemented a pause to allow the caribou population to recover and reach a sustainable size.

One elder/harvester familiar with the time period of the abattoir operations noted that population data or harvest records were not well-tracked or shared during this time:

“We didn’t get the numbers from the caribou harvesting. How many caribou were harvested that time from the caribou harvesting or commercial caribou harvesting, we weren’t allowed to get the numbers that time. I don’t know why, though.”

Since the closure of the commercial harvest abattoir participants described the situation as stable with minor fluctuations: “The caribou rotation is abundance, increase, decrease. It’s circular.” Such cycles of abundance and scarcity are widely recognized as a natural feature of caribou populations across the Circumpolar North (Ferguson et al., 1998; Gunn, 2003; Kenny et al., 2018a; Parlee et al., 2018; Bongelli et al., 2020, St. John, 2022).

#### Commercial Harvest — Past Intra-Territorial Meat Sales

Nearly all participants (12 of 15) commented on the intra-territorial sales of caribou meat on social media “a new form of commercial harvesting protected as a right under the Nunavut Agreement, that began in 2010 and reached levels believed to have exceeded the subsistence harvest over the 2011/2012 harvesting season” (Campbell & Boulanger, 2024). Over the past several years, caribou numbers have declined, partly due to intra-territorial commercial sales of caribou over social media before the HTO paused the practice. At the time, the HTO sold caribou tags (\$25 each, around 200 tags), allowing buyers to sell the meat freely. The practice was partly driven by high demand from outside the community, particularly in larger Baffin communities, resulting in large volumes—“like 40,000 pounds in less than a year”—being exported by plane and prompting complaints from transport agents. As one participant recalled, “going back now like five years ago, it was hard to catch them after so many people selling to Baffin.”

Several participants described widespread frustration with the scale of intra-territorial caribou meat sales and the perception that existing management tools were insufficient to address the issue. While interviewees did not focus on specific enforcement mechanisms, they emphasized that unchecked sales, particularly those facilitated by air transport, were undermining conservation efforts and community trust. This frustration contributed to strong community support for halting the shipment of caribou meat out of Coral Harbour, reflecting a collective desire to “step up” in the face of conservation concerns and ensure that caribou would remain available for future generations.

A former board member while working at First Air Cargo witnessed the scale of the trade: “they were sending like 2,000 pounds a day, every day, for the past four to six months.” Upon joining the HTO board, he pushed to stop caribou sales to allow the population to recover, reasoning, “if we want to keep hunting these caribou, we need to stop the caribou selling. We need to step



up.” He highlighted the long-term, intergenerational importance: “When you want our grandkids, or great-grandkids, to keep hunting caribou, like if we don't take care of our caribou, we may not even see them over the years.” Eventually, the HTO intervened to regulate the practice. He and others advocated halting sales “for at least a few years to see if the caribou population are going to go back up,” stressing that while Inuit have the right to sell, “when you have a conservation concern... we can step up and control the caribou.”

Although the proposal drew some disagreement at the Coral Harbour Annual General Meeting (AGM), “a lot more people” supported it, and the decision to halt intra-territorial commercial sales that relied on air transport “turned out pretty good”.

As one harvester/HTO board member noted, “Yeah, I'm sure there were a few guys that lost some money, but the numbers were going down too quickly... it had to be stopped.” Calm Air, the main airline serving Southampton Island, was advised by the HTO not to transport any caribou: “If they [Calm Air agents] see a box cracked, if they see it's caribou, they'll stop it. Some people will still try to smuggle it out.” Thus, currently, harvesting is tightly regulated, with community members no longer allowed to sell or export caribou meat. One elder recalled the success of this management decision, noting that “when they started managing that and stopped exporting them, we saw a big difference in terms of increasing the population of caribou right after that” highlighting how historical sales affected populations and setting the stage for ongoing discussions about intra-territorial sales, management, and cultural perspectives (see *Intra-Territorial Sales of Caribou Meat on Social Media* below)."

#### Brucellosis Outbreak

In addition to harvest pressures from the abattoir and intra-territorial sales, disease also played a significant role in past population declines. The most notable was an outbreak of *Brucella suis* (brucellosis), first detected in the caribou herd around 2000 and peaking in 2011 at infection rates of nearly 60% (Campbell & Boulanger, 2024). Eight participants described how widespread the disease became:

“There was a period of a few years when a lot of caribou were infected with brucellosis.”

“Like every other caribou had it or something... It was bad, really bad.”

Symptoms of infected animals included green coloration in the joints, fluid-filled cysts, large visible swellings on the legs and reproductive organs, and in some cases, internal discoloration:

“We were shooting caribou, and we had to leave it... Brucellosis. Green on the joints and liquid on them.”

“They used to have big balls; you could even see them with binoculars. That's how ugly they were.”

In a few rare cases, humans contracted brucellosis from infected meat. One harvester described being medevaced to Winnipeg and hospitalized for three months:

“I had brucellosis from it. I was hospitalized for three months. It was crazy... They weren't sure what was wrong with me until one doctor asked what I ate. When I told him caribou, they finally figured it out.”

An elder expressed concern about young or inexperienced hunters unknowingly catching infected caribou and exposing their families to risk.

Some participants speculated that the disease spread when mainland caribou migrated to the island via ice, mixing with previously healthy herds (see also *Coats Island and Its Role in Southampton Caribou History* and *Inuit Qaujimaqatuqangit* for related accounts of ice-bridge movements).

#### [Coats Island and Its Role in Southampton Caribou History](#)

Coats Island has played a pivotal role in the history and management of Southampton Island's caribou. It served as both a source herd for reintroduction starting in 1968 after local extirpation in the mid-1900s and a fallback hunting ground during periods when Southampton harvests were restricted. Today, it remains an important reference point for discussions about abundance, body condition, and the risks of overgrazing in an isolated island ecosystem.

When harvesting on Southampton Island was prohibited from 1968–1978 (Campbell & Boulanger, 2024) to support herd reintroduction, some community members described travelling

to Coats Island to hunt, sometimes walking long distances on foot. For some, Coats Island was where they harvested their first caribou.

As described in the Introduction, caribou were reintroduced to Southampton Island from Coats Island in the late 1960s after the local population was wiped out. Participants described animals captured by helicopter flown over several at a time by Twin Otter aircraft, with landings made on the part of Southampton closest to Coats Island as well as in central areas. Around 50 animals were transferred in total, and the population slowly rebuilt over the following decades.

Experienced harvesters and elders pointed to Coats Island as a cautionary example of the risks of overabundance and overgrazing, which in the past led to starvation and sickness. They recalled seeing ribs protruding from starving caribou and noted that the population there has gone through repeated cycles of abundance, decline, and recovery.

“I’ve seen a lot of caribou starve to death on Coats Island because they overgrazed and ran out of food. You could see them everywhere, with their ribs showing through their hide. I haven’t seen that happen here yet, which is a good thing.”

Echoing this, an elder emphasized that because Southampton caribou have nowhere else to go, overabundance raises real risks of overgrazing, hunger, and sickness, concerns he felt “should be really heard” (see *Geographic Constraints and Southampton Island Ecology*).

In the past, the community organized harvesting trips to Coats Island to provide a backup food source for Southampton Island residents, particularly when local hunting was restricted. Hunters were sometimes hired for these efforts, which not only supplied meat but also created income and helped offset the high cost of living. Travel was often without ATVs, requiring hunters to carry caribou back on foot and sometimes overnight on the land. Tags, up to 200, were set aside for such activities, and in earlier times up to 300 animals could be taken for distribution. These organized hunts reflected long-standing Inuit cultural norms of sharing country food within the community and across regions (see *Inuit Cultural Norms of Sharing and Community Food Distribution*), and elders suggested that reinstating or resuming such a program could once again benefit the community by ensuring food security while reducing expenses for bullets, gas, and equipment.

Today, Coats Island caribou are widely regarded by interview participants as fatter and better tasting than those on Southampton Island. This result corroborates other accounts in which Coats Island caribou were some of the heaviest recorded specimens of barren-ground caribou in Canada (Parker, 1975; Ouellet et al. 1997), though interview participants emphasized that this condition varies by year, reflecting the highly cyclical, boom-and-bust dynamics of island caribou populations.

Participants noted that in earlier decades, Southampton Island caribou descended from Coats Island stock were generally healthy and had high-quality fat, particularly in the years following reintroduction when forage was abundant. Over time, as herd size increased and ecological conditions shifted, participants noted body condition became more variable.

Several participants described multiple ice-bridge events occurring at different times, allowing caribou to move between the mainland and Southampton Island. Some recalled ice bridges forming in the mid-1980s (though there is no direct western scientific evidence to support this – Campbell & Boulanger, 2024), when mainland caribou crossed onto the island for short periods and were described as “very fat” and healthy before disappearing again after one or two years. Others described later ice-bridge movements, including confirmed events in 2014 (Campbell & Boulanger, 2024), which were associated with increased mixing among caribou herds.

Importantly, participants expressed diverse interpretations of ice-bridge movements. Some associated crossings from the mainland with periods of improving herd health and productivity, while others linked ice-bridge events to the movement of predators, wolves and wolverines (see *Wolves and Wolverines* below) and to the emergence of disease on the island (see *Brucellosis Outbreak* above).

“Back in the 1980s, all the caribou on this island came from Coats Island and were healthy, with very good quality fat. That was the case until long ago, when ice formed between the mainland and the island, allowing other caribou to cross over.”

### Recent Trends in Caribou Abundance

Most interview participants who spoke directly about recent trends indicated that caribou numbers are increasing (8 of 9, or 89%):

“The numbers are going up, not drastically, but they're going up... they're steadily climbing I find. The numbers are rising.”

“I think the caribou population is starting to grow again, slowly.”

“A couple years ago, we had to really look for them, but now they're almost everywhere—right around town. Seems to have doubled in a couple of years.”

“We were informed after the caribou survey that the estimate was around 12 to 13,000, but I'm pretty sure it's more than that.”

“There's more now, like five years ago, six years ago, it was less. It's finally, slowly coming back.”

One elder, however, perceived a decline over the past few years based on personal hunting experience and community reports. They also pointed out that occasional unexpected sightings make it difficult to track trends precisely.

#### Proximity to Coral Harbour

As reflected above, seven participants described increased sightings of caribou near Coral Harbour, sometimes even “right around town”, as a key indicator of population growth.

“We can go for a smoke break and go catch one there. So, you probably saw some caribou coming in.”

“I could walk this year. Last year I had to drive.”

“I think they're bouncing back, because we're seeing them in town now again.”

“Nowadays, it’s a lot easier. Even we can see caribou from town. I’ve seen a lot of posts on Facebook where people are surprised to see them so close by. When the numbers were declining, we didn’t see caribou nearby for about three years.”

### Hunting Effort

Most participants said caribou are currently easy to access (i.e., locate and harvest), often close to town, enabling hunting by ATV or even on foot. Some choose to travel farther to find fatter, healthier animals or simply for the enjoyment of being on the land. A few noted seasonal or annual variations in effort, such as the later arrival of bulls in some years or summer challenges due to rough terrain. Compared to periods of scarcity, current hunting generally requires less travel. Several participants linked the proximity of caribou to possible wolf presence (covered in the section *Wolves and Wolverines* below), while others emphasized that movement patterns remain variable and can still require longer trips to locate desired animals.

### Seasonal Hunting Patterns

Fall is preferred for harvesting fatter animals and obtaining quality skins, with bulls specifically targeted at this time. In some years, bulls arrive from the hills later than usual. Summer hunting can be more challenging due to rough, rocky terrain, slower ATV travel, and more dispersed animals. In contrast, winter often brings caribou closer to town in larger groups, making them easier to harvest, and females without calves are taken during this season to support herd growth. Spring proximity can vary. Some animals come very close to town and others stay farther away and are more wary of snowmobiles.

### Range and Movement

Participants observed that caribou movements are largely driven by food availability and predator presence, leading to shifts in where herds gather over time (see *Geographic Constraints and Southampton Island Ecology* and *Wolves and Wolverines*). One harvester noted that hunger can influence behaviour, with “some caribou... are totally hungry, and they don’t even care [about] a snowmobile passing by or not even running away from them”, while lingering in areas with abundant vegetation (see *Environmental and Weather Changes Affecting Caribou* and *Body Condition* for further discussion). A few participants reported no noticeable changes in caribou travel patterns compared to previous years. Overall, caribou were described as mobile and responsive to environmental conditions rather than remaining in fixed locations.

## Observed Changes in Caribou Behaviour

Interview participants did not notice any significant changes in how caribou behave, how they move, travel or react to people, with the only exception being behaviour changes linked to perceived predators (wolves, wolverines).

### Wolves and Wolverines

Six participants explicitly discussed perceived increases in wolves (once a common predator on Southampton Island, Heard & Ouellet, 1994), and to a lesser extent wolverines, and felt that recent encounters with these predators had made caribou more “skittish”, particularly in areas where predators had been observed.”

“There are a few known predators on the island, like wolves, and more wolverines have been caught recently. Let’s say I go to one area for caribou hunting, if a wolf or a wolverine has been there, the caribou are very skittish. They’ll run off for miles. But in a different area, it’s different. They won’t run right away.”

“In some areas, I think we’re starting to hear more people say that wolves are chasing off the caribou, and a few have even seen wolves chasing them. I’ve noticed that whenever you see caribou, even from a far distance, they start to run.”

“They seem to run away faster. There are wolves and wolverines on the island now, and [caribou] seem to be more alert. They’re running from predators. Sometimes we don’t even see them and they’re already running.”

“Yes, I’ve seen a few posts on Facebook about caribou being killed by wolves. On this island, wolves killed two caribou just like that, and it seemed like only the tongue was taken. I have a nephew in Naujaat who’s a wolf hunter, and he told me that sometimes wolves only go for the best parts, sometimes just the tongue, and leave the whole carcass. That’s happened out here before.”

Some participants believed wolf numbers have increased in recent years:

“Yeah, I have noticed changes, because when I’m approaching a caribou even from pretty far away, they’ll run off like crazy. I figure a wolf must have been chasing them

before or something. We've had wolves here for over three years now, and I'm pretty sure their numbers have increased over time."

This increase was sometimes linked to the formation of an ice bridge between Southampton Island and the mainland (see also *Coats Island and Its Role in Southampton Caribou History*):

"A couple of years ago, there was an ice bridge from our island to the mainland, and wolves and wolverines got across. A couple of wolverines were caught this winter, and hunters saw some wolf tracks too. So, they're probably getting a lot of caribou somewhere on the island."

These predators are believed to be concentrated in the northern part of Southampton Island:

"From what I've seen, there are very few wolves, but they've been here longer than the wolverines, mostly up towards the north end of the island."

As reflected above, wolves may also be influencing caribou distribution, with some participants suggesting this could explain their increased presence near Coral Harbour:

"Now they're very close. I believe they are staying away from the wolf."

### Environmental and Weather Changes Affecting Caribou

Several participants noted no observed environmental impacts on caribou, such as changes in vegetation or insect activity, but seven identified winter rain and subsequent freeze-up, most often in December or January, as the most significant factor. Rain falling on snow creates an ice layer that makes it difficult for caribou to dig for food, sometimes leading to die-offs.

As one harvester explained:

"Rain during the winter... puts a layer of ice on the snow, and that makes it very difficult for the caribou to dig for the food to eat. That's when you'll start seeing some die-offs here and there."

Another recalled that calves struggled to access forage while bulls could dig more effectively:



“One January we had a freezing rain... three to four inches thick. Blowing snow went on top of the ice... calves started to have a problem digging to the ground. Bulls could dig better, but it was still hard.”

Older harvesters specifically remembered a major disturbance to the caribou population in the late 1980s:

“There was a freeze up rain during the winter months, and soon after there was a big snowfall, and it dwindled the number of caribou due to those natural causes.”

A few also described signs of possible food scarcity, such as skinnier animals or vegetation taking longer to regrow, and noted that hunger can make caribou less wary of snowmobiles (see *Range and Movement*). Rain or freezing rain in spring or fall was said to prompt caribou to move in search of better feeding areas.

Elders cautioned that if caribou numbers became overly abundant, such icing events could trigger large-scale starvation by depleting food resources, as has happened in the past (see *Geographic Constraints and Southampton Island Ecology* and *Coats Island and Its Role in Southampton Caribou History* above).

A less frequently mentioned observation came from two participants, who described increasing summer dryness, sometimes mentioned alongside forest fires on the mainland. They noted that this has caused some lakes to partially or completely drain, with one suggesting that thawing permafrost may also be contributing to changes in caribou habitat and food availability.

## Caribou Health

Participants expressed no major concerns regarding the overall health of caribou today. They described caribou as healthy and recovering well from past issues such as brucellosis. Observations related to body condition and calf survival were generally positive, and several noted a noticeable decline in sightings of sick (brucellosis-infected) animals compared to a decade ago.

“Way less sick caribou now [compared] to like ten years ago.”

“I think the caribou [are] going back to being healthy.”

Inuit caribou harvesters also pointed out that sick animals are now rarely encountered or reported on social media, a change from earlier years when diseased caribou were more frequently seen and shared.

“Nobody’s been posting lately on the diseased caribou or anything like that, which is good news... we haven’t seen those kinds of posts much this year, this winter.”

### Body Condition

Five participants (representing 86% of those who commented on body condition) described the caribou as currently “healthy and fat,” particularly in the fall and early winter months.

Experienced harvesters explained that caribou are typically fat from August through March but become leaner by spring as fat reserves deplete, a pattern considered normal:

“The caribou are fat for like about eight months of the year, like from August through March, kind of thing. And right now, they’ve depleted their reserve. They’re pretty skinny right now [spring], and they’ll be skinny for the next few months. They still have a good layer of fat in the summer and fall. They might be a little less fat than what they used to be before big numbers came up [i.e., when caribou populations were smaller], but generally they still have good fat on them.”

“They get fat during the fall and start getting skinny around this time of the year [spring]. I haven’t really noticed any real skinny Caribous.”

Another noted that animals found farther from town or at higher elevations tend to be fatter:

“Pretty much, yeah” [in response to whether higher elevation or more distant caribou are generally healthier or fatter].

Once participant described caribou as skinnier in recent years, possibly due to food scarcity (covered in *Environmental and Weather Changes Affecting Caribou*) or predator pressure (covered in *Wolves and Wolverines*):

“They're running from predators, or their food... takes a long time to grow.”

As also noted in *Environmental and Weather Changes Affecting Caribou and Range and Movement*, hunger may affect behaviour, with some caribou becoming less wary of snowmobiles when food is scarce. Another participant further noted that food scarcity may also be influenced by the island's small size or delayed plant growth (see *Geographic Constraints and Southampton Island Ecology*).

Another mentioned that “past couple years, they barely got fat,” but noted a return to more normal conditions in 2025.

#### Calf Abundance and Survival

All ten interview participants who commented on calf abundance and survival expressed no concerns, consistently describing high numbers of calves and successful overwintering.

“This year we've seen a lot of good calves, so I think that's a good sign.”

“Whenever I go hunting, I've seen a lot of calves. I think that's a pretty good sign.”

Several noted frequent observations of calves with their mothers or in small groups. While many viewed this as encouraging, these observations reflect perceived conditions rather than confirmed measures of calf survival or recruitment.

“Every time you go out here, [you're] pretty much sure to see some calves out there, with the mother... it's not too bad right now.”

“This winter when we [were] caribou hunting, there were calves in groups, four or five calves around here... another group of calves over there... To me, that seems to be a good sign.”

Some also linked this positive trend to responsible harvesting practices. One participant credited local rules and hunter cooperation, particularly avoiding harvest of females with calves, for contributing to the apparent growth:

“Ever since we started to... let [the population] grow... HTO made some rules... as much as possible, they can leave the female along with the calves... hunters are listening... I've seen quite a bit of calves with a mother.”

#### Brucellosis Recovery and Present-Day Observations

As described in the *Brucellosis Outbreak* subsection of *Historical Trends in Caribou Abundance*, a major brucellosis outbreak affected Southampton Island caribou between 2000 and 2011, peaking at infection rates of nearly 60% in 2011 (Campbell, 2015; Campbell & Boulanger, 2024). While the outbreak contributed to earlier population declines, most participants reported that the disease is now much less common and that the herd's overall health has improved:

“We had brucellosis for quite a number of years... and they're not that way anymore. They're healthier now.”

“I think the caribou are starting to get healthy again.”

Harvesters today are more cautious, checking joints and meat carefully before consuming or sharing it. As one participant explained:

“Every time I shoot one, I check how the joints are before I cut them open. So, if they're bad, I leave them. I wouldn't want to go back to being sick with brucellosis.”

#### Observations of Crabby Eye in Caribou Meat

Two participants mentioned a condition referred to locally as “crabby eye,” described as small white marks found in the meat of some caribou. While the cause is unknown by participants who mentioned it, it was thought by some to indicate sickness. We understand *crabby eye* to be a colloquial term used by hunters to describe tapeworm cysts found in the muscle or organs of caribou, likely referring to their round, eye, or marble-like appearance. Although no formal testing was done, these cysts are most often the larval stages of the tapeworm *Taenia krabbei* or, less commonly, *Echinococcus granulosus* (also known as *Echinococcus canadensis*). Harvesters typically removed and discarded the affected portions. One participant noted they had not seen “crabby eye” in quite some time, suggesting it may no longer be common.

## Inuit Qaujimajatuqangit: Historical and Cultural Observations of Caribou

Participants shared a range of historical, cultural, and personal observations about caribou, drawing on Inuit Qaujimajatuqangit and lived experience on the land. These accounts included stories passed down through generations, recollections of unusual events, and teachings about respectful hunting practices. Together, they provide important cultural and ecological context for understanding changes in caribou populations and behaviour over time.

An older harvester recalled a childhood discovery of remnants from the original Southampton Island caribou (i.e., the native herd before reintroduction from Coats Island). He described spending time exploring an old habitation site with his uncle, where he found “a very, very thick” caribou antler unlike any he had seen on the island before. His uncle explained that these antlers belonged to the first caribou that once lived on the island, before they were “wiped out”. This artifact serves as a tangible link to the island’s original native caribou population and traditional knowledge passed through generations.

The same older harvester recalled times when ice bridges formed between the mainland and Southampton Island, allowing caribou to “walk out from the island” or “walk in” from elsewhere. On rare occasions, this included what he described as Peary caribou, which he remembered arriving in the mid-1980s when “the ice used to form to this island from the mainland.” These animals were distinct from the local herd—“healthy, short legs and very fat”—and were seen on the island for only “maybe two years” before disappearing again. Such movements were described as occasional and dependent on sea ice condition are also noted in discussions of disease (see *Brucellosis Outbreak*) and predators (see *Wolves and Wolverines*).

An elder shared important Inuit Qaujimajatuqangit related to caribou movement and sustainable harvesting, describing how large caribou herds are observed moving across the Kivalliq region through areas such as Arviat, Rankin Inlet, Baker Lake, and Naujaat. Drawing on this knowledge, he noted that, from an Inuit knowledge perspective, migrating caribou are often understood as moving in large, ordered groups, with leading animals guiding those behind: “the first of the herd are leading the ones behind them, and they're in big numbers.” He emphasized that “it was always told and known by Inuit to never hunt them, because the first of the herd is routing the others behind them where to go.” Hunting this first group of the migrating herd, he warned, could cause “the migration [to] be disturbed” as the caribou might reroute. This IQ

traditional knowledge highlights a sustainable practice aimed at protecting the migration patterns and health of the caribou populations.

A story was shared of a hunter from Cape Dorset (Kinngait) who once caught a caribou with three eyes, the third believed to be on the lower part of its face. People from Cape Dorset often come to hunt caribou on the east side of the island, but local residents said they are not notified when this happens (see *Harvest by Off-Island Communities*).

## Management and Total Allowable Harvest

This section summarizes community perspectives on caribou management and Total Allowable Harvest (TAH) on Southampton Island, highlighting how local observations of herd abundance, body condition, and movement inform decisions about quota limits, hunting practices, and stewardship. Participants reflected on both the effectiveness of current management strategies and opportunities for adjustment, emphasizing the balance between sustainable harvesting, cultural traditions, and ongoing monitoring.

### Perspectives on Total Allowable Harvest

Of the ten participants who commented on the current Total Allowable Harvest (TAH) of 1,000 animals, or four quota tags per household, two thought the current level was adequate: “what’s given is working right now” (20%). The remaining eight suggested the harvest could be increased: “it could be higher,” “they could be harvested more,” and “being our main source of food, to put on the table I think it’s too low” (80%).

Many participants linked the perceived increase in caribou numbers over the past four years to opportunities for higher harvests:

“Caribou numbers have been climbing over the past four years. We currently get four tags a year, but I think it should be increased by maybe two more: make it six per year, like we did in the past.”

At the same time, one harvester and HTO board member emphasized that the current quota, though sometimes viewed as too low, was intentionally designed to support herd recovery:

“I believe it’s a work in progress. Like, it feels too low, but at the same time it’s helping to keep the caribou numbers growing. Over time, we’re open to see an increase in the harvest, and also an increase in the herd.”

Others elaborated on the idea of increasing tags further, noting both compliance challenges (see *Community Perspectives on Current Caribou Management and Management Recommendations* below) and abundance concerns:

“I agree with increasing the number of tags from four to six. Personally, if I were given 10 tags, I might not catch all of them, but it would be a good idea. Some people follow the four-tag limit, others don’t, so having flexibility could help.”

“If this island becomes abundant or overabundant with caribou, I’d like to see tags increase. People recognize that caribou have nowhere else to go here, so we need careful management, monitoring the quota and surveying the herd to ensure it doesn’t become overabundant. This has been discussed many times on the island.”

Overall, these perspectives reflect a balance between local observations of rising caribou numbers, the importance of caribou as a primary food source, and the need for thoughtful stewardship to maintain herd health.

#### [Community Perspectives on Current Caribou Management](#)

Of the eight participants who commented on whether the current caribou management approach is working well for Southampton Island, 75% expressed a positive view, while 25% were negative. Those with positive responses emphasized rising caribou numbers and appreciated ongoing monitoring and management efforts:

“The current plan is not the best right now, but it’s working. The numbers are rising.”

“Current management sure seems to be doing good. I’m glad you guys come around and check up on things.”

Negative responses focused on frustrations about harvest limits, non-compliance with regulations (see also *Perspectives on Total Allowable Harvest and Management Recommendations*), and concerns about health monitoring:

“A tag system... forget that. In my opinion, I think no one follows that tag system. Even I don't. I get eight or nine a year or something, maybe more. If that tag system just dropped...HTO can be a bitch about it... If there's going to be another change, like in less allowable harvest, it's gonna stir up BS in town.”

As detailed in the *Brucellosis Outbreak* section, an elder voiced strong concern that “the community should better manage their hunt” and “carefully watch” the caribou for sickness such as brucellosis, which had previously caused illness in families. He stressed that when concerns arise, “people should look into those concerns and take action, especially through HTO,” underscoring the importance of the HTO’s active role in overseeing both health and hunting management. He also noted that community hunters “are always aware of where the caribous are” and about their condition. Reflecting on the recent winter, he observed that “the people caught caribou with fat in them” and concluded that “they’re healthy because they’re eating well out there.” He emphasized the value of sharing this knowledge so the community can recognize when caribou are healthy and abundant, and when they are not, urging hunters to “watch what you hunt, because you carry the information from what you see.”

Similar to the negative perspective above, other respondents acknowledged that some harvesters do not fully follow the current management system, particularly the tag allocation system limiting harvest to four caribou per year:

“I'm pretty sure some people don't really follow it, but I'm pretty sure most people try and follow what's given.”

Others expressed gratitude that most harvesters respect the HTO and hunting regulations, despite their inherent Inuit rights under the Nunavut Land Claims Agreement (NLCA):

“I'm very happy that hunters are respecting the HTO even though hunters have power in the NLCA Nunavut land agreement, and they still managed to listen to the HTO. That's very good news to hear.”



A harvester also reflected on the complex and nuanced balance between sustainable caribou populations and community livelihoods:

“It works both ways, I guess. It’s good for the herd, but not good for the hunter, because it costs a lot of money to go hunting, or we could sell. There’s a lot of people that are willing to buy it that don’t have hunters in the home.”

#### [Intra-Territorial Meat Sales via Social Media](#)

As noted above, intra-territorial sales of caribou meat via social media emerged around 2010 (Campbell & Boulanger, 2024). While the Southampton Island herd is managed under a Total Allowable Harvest (TAH), these sales occur largely outside the mechanisms used to track and regulate harvest and are therefore difficult to manage through existing tools. Current regulations *attempt* to limit such practices, but participants consistently emphasized that enforcement remains challenging and uneven. While unrestricted sales are no longer allowed, it was noted a small amount of managed local meat sales continues under HTO oversight. Five participants, including all interviewed elders, expressed opposition to intra-territorial commercial harvest and sales, although several acknowledged, “It’s not an issue right now. It’s not a big issue right now in the community. Not much of that happening here right now.”

For example, a community harvester explained:

“Our community’s caribou numbers were getting lower because people were selling to other communities. Too many were sending any kind of caribou they caught, even ones that weren’t fat.”

An elder emphasized concerns about profit-driven harvests by youth:

“I don’t support selling caribou locally for profit, especially by young people focused on income. I think that’s where the decline suddenly came from because people were not listening to the quota the HTO set. But it’s a different story when someone is hungry and you want to give them food.”

Two participants, however, supported limited sales, highlighting its value as an income source:

“If we're allowed limited tags and we're able to sell, that would make a lot of difference.”

“We used to sell caribou to Baffin. It was a good source of income. Wish that could happen again.”

Relatedly, several participants expressed a desire to send caribou meat to relatives in other communities that do not have access to caribou, framing this more as food-sharing than commercial sale:

“That’s pretty hard right now” (see *Inuit Cultural Norms of Sharing and Community Food Distribution*).

#### Harvest by Off-Island Communities

Nine participants described hunters from off-island communities, namely Cape Dorset (Kinngait) and Repulse Bay (Naujaat), travelling by boat to Southampton Island and nearby Coats and White islands to harvest caribou (and sometimes whale). Some accounts suggested these harvests were opportunistic, occurring during trips targeting marine species (“They go Narwhal hunting and if they see caribou on that island, they’ll just go for it”), while others described them as regular and intentional, such as annual summer visits to White Island by Repulse Bay hunters “guaranteed all the time.” Participants expressed concern that these harvests are not consistently recorded and could unknowingly reduce local populations. These concerns were framed not as an absence of management authority, but as an enforcement and monitoring gap within the existing co-management system, particularly at the community and inter-regional scale. This misalignment was seen as undermining local management efforts and, at times, creating tensions between regions (e.g., Baffin/Qikiqtaaluk vs. Kivalliq, Southampton Island vs. mainlanders).

“I was boating up there one time ago, I seen myself quite a few hunters looking for caribou on that White Island. I'm sure there are a lot of caribou being taken out without a tag... that's the reason why Coral Harbour and Repulse Bay people are against each other because of that island.”

“Cape Dorset, in the summertime, they come over to our island and harvest some caribou, and I don't like that... with the tags allowed and whatnot, they're coming over to our island...”

“Cape Dorset, they travel over here by boat. The only concern is they're not recorded, how many they catch, so they could be decreasing the number unknowingly... it's a big concern. What should you do? What can they do?”

Despite frustrations with the lack of regulation, some participants expressed no objection to the harvests themselves:

“Doesn't bother me. They welcome us on their land too.”

“As for Cape Dorset and Naujaat people, it's not that we don't want them to catch caribou, but us here on the island, we're using a tag system... if they're stranded and need food, I don't mind, but otherwise they catch whatever they want. That's the only thing we're concerned about.”

#### [Inuit Cultural Norms of Sharing and Community Food Distribution](#)

While concerns about unregulated caribou harvesting by off-island visitors were common, several participants emphasized the deep-rooted Inuit cultural values of sharing country foods across communities. One elder reflecting on Inuit Qaujimajatuqangit (IQ), underscored that animals and food have always been shared among Inuit as a fundamental survival strategy. He cautioned against framing the issue as exclusion or territoriality, noting that “if we say, ‘don't come hunt on this island,’ it could backfire on our culture and the caribou abundance.” He expressed compassion for hunters from Baffin and Naujaat, emphasizing that “it's our animal” collectively, and sharing food is a key part of Inuit heritage.

Participants also recalled historical and ongoing practices of sharing caribou meat with family and friends living outside their communities, sometimes over great distances, highlighting the cultural importance and necessity of this tradition. For example, at a recent Annual General Meeting (AGM), community members requested the ability to send meat to relatives in places like Rankin Inlet and Arviat, reflecting the need to maintain food-sharing ties despite logistical challenges.

Earlier community hunting programs, such as organized trips to Coats Island for meat distribution, embodied these sharing values while addressing food security needs. As noted in the *Coats Island and Its Role in Southampton Caribou History* section, some participants suggested that reviving such initiatives could once again help reduce costs and ensure equitable access to subsistence food.

However, some participants also observed that contemporary social changes have affected sharing practices, with concerns that sharing and mutual care have declined compared to the past, when neighbors would readily share food and resources to ensure community wellbeing.

#### Management Recommendations

Several participants recommended stronger monitoring and enforcement measures to improve caribou management on Southampton Island. One suggestion shared by several was to establish vehicle patrols by community members to actively track herd numbers and ensure harvest limits are respected:

“We should get caribou patrol (vehicles). Our own guys...”

Concerns were raised about some families exceeding the four-tag limit (see *Perspectives on Total Allowable Harvest and Community Perspectives on Current Caribou Management*), with calls for stricter enforcement and record-keeping:

“Each family is given four and it's obvious that a family doesn't follow through, they go more than four tags... people... pick it up, come back and not record what they caught... maybe better management over that area.”

Additionally, participants emphasized the need for clearer more consistent implementation of existing legislation and permit requirements for off-island communities harvesting Southampton Island caribou. These harvests were viewed as contributing to population declines when not effectively monitored or enforced, particularly given limited operational capacity.

“With the offshore visitors, some stronger enforcement or legislation”

“The HTO committee had written a letter of concern to Repulse Bay and Cape Dorset committees about decreasing numbers... they're just coming in on the island and decreasing it.”

“I think it should be put into legislative... Or get a permit through the HTO to get that animal.”

## Conclusions & Recommendations

According to interview respondents, the Southampton Island caribou herd is showing clear signs of recovery following the population decline associated with the brucellosis outbreak of the early 2000s and the intra-territorial sales of caribou meat on social media in the 2010s. Harvesters report steadily increasing numbers of caribou across the island, with animals more frequently observed near Coral Harbour. The herd appears healthy, with respondents reporting few sick caribou and signs of disease, and strong body condition (i.e., fat) throughout fall and winter. Calf survival appears high, indicating a productive and resilient population said to be supported by responsible harvesting practices and effective local stewardship. However, Southampton Island remains a relatively closed and small ecosystem where caribou numbers must be carefully balanced to prevent overpopulation, overharvest, food shortages, or renewed disease outbreaks. Emerging concerns include the observed increase in wolves and wolverines, which may be influencing caribou behaviour and distribution, and the impacts of winter icing and freezing rain events that can reduce forage availability and affect calf survival. At the same time, nearly all participants identified intra-territorial caribou meat sales facilitated through social media as a major management challenge that undermines conservation efforts, confidence in the tag system, and trust in current management tools, noting that recent community-led measures to limit meat shipments function as a temporary stop-gap rather than a long-term solution within the formal co-management system.

Traditional Inuit stewardship, rooted in Inuit Qaujimajatuqangit (IQ), continues to play a vital role in maintaining balance between caribou, people, and the land. Participants emphasized the importance of sharing caribou across communities as an expression of Inuit values and as a means of sustaining food security and cultural continuity. Reviving organized sharing programs, alongside continued monitoring and adaptive management, was widely supported. Most

participants recommended ongoing close monitoring of herd size and health to ensure sustainable harvest levels as the herd continues to recover.

To support continued recovery and sustainable management toward safeguarding the herd's long-term health the following recommendations are proposed based on community input: **(1)** maintain current Total Allowable Harvest (TAH) levels while considering modest increases (e.g., from four to six household tags) in response to rising caribou abundance; **(2)** strengthen community-based monitoring and enforcement, including HTO-led patrols to monitor off-island hunting and improved tracking of subsistence and commercial harvests, to address enforcement and monitoring challenges within the existing co-management framework; **(3)** improve enforcement, monitoring, and consistent application of existing legislation and permit requirements for off-island harvesting, recognizing that current challenges stem from limited operational capacity rather than gaps in law; and **(4)** revive organized sharing programs that reflect Inuit cultural values and support food security across communities.

Ongoing integration of IQ with scientific monitoring will be essential to adaptively manage the herd within the constraints of Southampton Island's relatively closed ecosystem. Continued collaboration between the Aiviit HTO, Government of Nunavut, and the Nunavut Wildlife Management Board will ensure management decisions remain grounded in both IQ and scientific knowledge, supporting a sustainable future for caribou and the Coral Harbour community.

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## Literature Cited

- Adu, P. (2019). *A step-by-step guide to qualitative data coding*. Routledge.
- Axinn, W., and L. Pearce. 2006. *Mixed method data collection strategies*. Cambridge University Press.
- Bartlett, C., M. Marshall, and A. Marshall, A. 2012. Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together Indigenous and mainstream knowledges. *Journal of Environmental Studies and Sciences* 2(4): 331–340. <https://doi.org/10.1007/s13412-012-0086-8>
- Bongelli, E., Dowsley, M., Velasco-Herrera, V.M., and M. Taylor. 2020. Do North American Migratory Barren-Ground Caribou Subpopulations Cycle?. *Arctic* 73(3): 326-346. <https://doi.org/10.14430/arctic71029>
- Borish, D., A. Cunsolo, J. Snook, I. Shiwak, M. Wood, HERD Caribou Project Steering Committee, I. Mauro, C. Dewey, and S. L. Harper. 2021. “Caribou was the reason, and everything else happened after”: Effects of caribou declines on Inuit in Labrador, Canada. *Global Environmental Change* 68: 102268. <https://doi.org/10.1016/j.gloenvcha.2021.102268>
- Campbell, M. 2015. The Long-Term Abundance Fluctuations of the Southampton Island Caribou Herd - 1978 -2015: Interim Report, 1. NWRT Project Number: 2-15-03. Government of Nunavut.
- Campbell, M., and J. Boulanger. 2024. Long-term trends in abundance and spring distribution of the Southampton Island caribou herd: 1978 – 2023. Technical Report Series – No: KIV-01-2024. Government of Nunavut. Department of Environment.
- Charmaz, K., and L. Belgrave. 2012. Qualitative interviewing and grounded theory analysis (Eds.) J.F. Gubrium, J.A. Holstein, A.B. Marvasti, K.D. McKinney (Eds.), *The SAGE Handbook of Interview Research: The Complexity of the Craft*, SAGE Publications, Inc., Thousand Oaks, California (2012), pp. 347-366.
- Comer, G. 1910. A Geographical Description of Southampton Island and Notes upon the Eskimo. *Bulletin of the American Geographical Society* 42(2): 84-90.
- Creswell, J.W., and J.D. Creswell. 2022. *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Ferguson, M.A.D., R.G. Williamson, and F. Messier. 1998. Inuit Knowledge of Long-term Changes in a Population of Arctic Tundra Caribou. *Arctic* 51(3): 201–219. <https://doi.org/10.14430/arctic1062>
- Gunn, A. 2003. Voles, lemmings and caribou - population cycles revisited?. *Rangifer* 23(5): 105–111. <https://doi.org/10.7557/2.23.5.1689>
- Hanke, A.N., M. Angohiatok, L.-M. Leclerc, C. Adams, and S. Kutz. 2021. A Caribou Decline Foreshadowed by Inuit in the Central Canadian Arctic: A Retrospective Analysis. *Arctic* 74(4): 437-455. <https://doi.org/10.14430/arctic73826>
- Heard, D., and J.-P. Ouellet. 1994. Dynamics of an Introduced Caribou Population. *Arctic* 74(1): 88-95. <https://doi.org/10.14430/arctic1276>
- Junkin, L.B. 2003. The Past is The Future – A detailed examination of the Coral Harbour

- caribou harvest. Department of Sustainable Development, Government of Nunavut, Rankin Inlet. 180 pp.
- Karetak, J., F. Tester, and S. Tagalik. (Eds.). 2017. Inuit Qaujimajatuqangit: What Inuit have always known to be true. Fernwood Publishing.
- Kenny, T.-A., M. Fillion, S. Simpkin, S. D. Wesche, and H. M. Chan. 2018a. Caribou (*Rangifer tarandus*) and Inuit Nutrition Security in Canada. *EcoHealth* 15: 590–607. <https://doi.org/10.1007/s10393-018-1348-z>
- Kenny, T.-A., X.F. Hu, H.V. Kuhnlein, S.D. Wesche, and H.M. Chan. 2018b. Dietary sources of energy and nutrients in the contemporary diet of Inuit adults: results from the 2007–08 Inuit Health Survey. *Public Health Nutrition*: 21(7): 1319–1331. <https://doi.org/10.1017/S1368980017003810>
- Kraft, P. 1978. The Status of Barren Ground Caribou on Southampton Island, N.W.T. N.W.T. Fish and Wildlife Service Report. Department of Natural and Cultural Affairs, Government of the N.W.T. 8 pp.
- Lumivero. (2023). *NVivo (Version 15.2.1) [Qualitative data analysis software]*. <https://www.lumivero.com/nvivo>
- Meis Mason, A., L.-P. Dana, and R. Anderson. 2007. The Inuit commercial caribou harvest and related agri-food industries in Nunavut. *International Journal of Entrepreneurship and Small Business* 4(6): 785-806. <https://doi.org/10.1504/IJESB.2007.014982>
- Meis Mason, A., L.-P. Dana, and R. Anderson. 2008a. Entrepreneurship in Coral Harbour, Nunavut. *The International Journal of Entrepreneurship and Innovation* 9(2): 111-120. <https://doi.org/10.5367/000000008784489453>
- Meis Mason, A., L.-P. Dana, and R. Anderson. 2008b. Emerging Inuit Small Business from Caribou in Coral Harbour, Nunavut, Canada. *ICSB World Conference Proceedings; Washington: International Council for Small Business (ICSB): 1-17.*
- Morton, V., A. Manore, N. Ciampa, S. Glass-Kaastra, M. Hurst, A. Mullen, and J. Cutler. 2021. Country food consumption in Yukon, Northwest Territories and Nunavut, Foodbook study 2014–2015. *Canada Communicable Disease Report* 47(1): 30–6. <https://doi.org/10.14745/ccdr.v47i01a06>
- Mulders, R. 2003. A research update for the Nunavut Wildlife Management Board Re: 1997 Southampton Island Caribou Census. Draft Report, Government of the Northwest Territories, Department of Resources, Wildlife, and Economic Development. 17 pp.
- Munn, H. T. 1919. Southampton Island. *The Geographical Journal* 54(1): 52-55.
- Ouellet, J.-P., D.C. Heard, and S. Boutin. 1993. Range Impacts Following the Introduction of Caribou on Southampton Island, Northwest Territories, Canada. *Arctic and Alpine Research* 25(2): 136-141. <https://doi.org/10.1080/00040851.1993.12002994>
- Ouellet, J.-P., D.C. Heard, and R. Mulders. 1996. Population Ecology of Caribou Populations without Predators: Southampton and Coats Island Herds. *Rangifer* 16(4); Special Issue No. 9: 17-26. <https://doi.org/10.7557/2.16.4.1216>
- Ouellet, J.-P., D.C. Heard, S. Boutin, and R. Mulders. 1997. A comparison of body condition and reproduction of caribou on two predator-free arctic islands. *Canadian Journal of Zoology* 75: 11–17. <https://doi.org/10.1139/z97-002>
- Paetkau, D. 2015. Project g1616 Nunavut caribou, re: Draft Southampton Island caribou



- sample analysis and population genetics report to the GN ENV. Report # g1616, November 9, 2015. 6 pp.
- Parlee, B.L., Sandlos, J., and D.C. Natcher. 2018. Undermining subsistence: Barren-ground caribou in a “tragedy of open access”. *Science Advances* 4(2): e1701611. <https://doi.org/10.1126/sciadv.1701611>
- Parker, G.R. 1975. An investigation of caribou range on Southampton Island, N.W.T. Canadian Wildlife Service, Report Series Number 33: 83 pp.
- PricewaterhouseCoopers LLP. 2006. Second Independent Five Year Review of the Implementation of the Nunavut Land Claims Agreement. Nunavut Tunngavik Incorporated. Retrieved from <https://www.tunngavik.com/files/2010/02/second-five-year-review-of-the-nunavut-land-claims-agreement.pdf>
- Reid, A.J., L.E. Eckert, J.-F. Lane, N. Young, S.G. Hinch, C.T. Darimont, S.J. Cooke, N.C. Ban, and A. Marshall. 2021. “Two-Eyed Seeing”: An Indigenous framework to transform fisheries research and management. *Fish and Fisheries* 22: 243–261. <https://doi.org/10.1111/faf.12516>
- Saldaña, J. 2021. *The coding manual for qualitative researchers* (4th ed.). SAGE Publications
- St. John, J.R. 2022. “Understanding Caribou Population Cycles”. Undergraduate Theses, Professional Papers, and Capstone Artifacts. 355. <https://scholarworks.umt.edu/utpp/355>
- Thomas, D.C., and J. Schaefer. 1991. Wildlife Co-management defined: The Beverly and Kaminuriak Caribou Management Board. *Rangifer* 11(4); Special Issue No. 7: 73-89. <https://doi.org/10.7557/2.11.4.997>
- Thomas, D.R. 2006. A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation* 27(2): 237–246. <https://doi.org/10.1177/1098214005283748>.
- Tyler, N.J.C. 2010. Climate, snow, ice, crashes, and declines in populations of reindeer and caribou (*Rangifer tarandus L.*). *Ecological Monographs* 80(2): 197–219. <https://doi.org/10.1890/09-1070.1>
- Wenzel, G. 2004. From TEK to IQ: Inuit Qaujimaqatunnginnut and Inuit cultural ecology. *Arctic Anthropology* 41(2):238–250. <https://doi.org/10.1353/arc.2011.0067>

## Appendix A. Interview Guide



### Documenting Inuit Qaujimaqatugangit (IQ) and Observations of the Southampton Island Caribou Herd

#### Southampton Island Caribou Semi-Structured Interview Guide

##### Introduction (spoken by interviewer)

*Thank you for taking the time to speak with me today. My name is Andrew, and I'm working with the Government of Nunavut's Department of Environment on a study about Southampton Island caribou. We're hoping to learn from local harvesters, Elders, and knowledge holders about your observations and experiences with caribou over time.*

*The goal is to understand any changes in the population — like abundance, condition, and movement — and your perspectives on current management, including the Total Allowable Harvest. Your knowledge can help shape future decisions by the Government of Nunavut and the Nunavut Wildlife Management Board, and support stronger management that respects and includes Inuit Qaujimaqatugangit.*

*The interview will take around 45–60 minutes. If you're okay with it, I'd like to take notes and audio record the conversation so I don't miss anything. Your participation is voluntary, and you can skip any question or stop at any time.*

##### Do I have your permission to record this conversation?

---

#### 1. Opening question – Building rapport & broad context

- **Can you tell me a bit about your experience with hunting or observing caribou on Southampton Island?**
    - *(Prompt if needed: How long you've been harvesting, how often, where you usually go, etc.)*
- 

#### 2. Abundance, sightings, and effort

- **Have you noticed any changes in the number of caribou you see compared to past years?**
    - *(Prompt: Is it easier or harder to find caribou than it used to be?)*
    - *(Prompt: What was it like before the decline started in the early 2000s? What about around 2011 when the big drop happened? Any difference around 2013–2015 when things seemed to improve a bit? And now — how would you say it is these days?)*
  - **Has the number of caribou you see per trip changed over time?**
    - *(Prompt: Easier or harder to find them now compared to before 2011? What about the last few years?)*
  - **Has your hunting effort changed — like how long you have to travel, or how far?**
    - *(Prompt: Compared to the past, do you spend more time or go farther to find caribou?)*
    - *(Prompt: Any big changes in how far you go now vs. in the early 2000s or around 2015?)*
- 

### **3. Health and recruitment**

- **What have you noticed about the condition or health of the caribou you've seen or harvested recently?**
    - *(Prompt: Are they fatter or skinnier than before? Any signs of disease or injury?)*
  - **Have you seen any changes in the number of calves, or how well calves are surviving?**
- 

### **4. Behaviour, predators, and environment**

- **Have you noticed any changes in how caribou behave — like how they move, travel, or react to people?**
  - **Are there any new predators on the land, or have predator numbers changed?**
  - **Have you seen changes in the environment or weather that you think might affect caribou survival or health?**
    - *(Prompt: Snow, ice, vegetation, insects, etc.)*
    - *(Prompt: Do you think any environmental changes (like snow, ice, weather) have made a difference — now or in earlier years, like after 2011?)*
- 

### **5. Range and movement**

- **Have the areas where caribou travel or gather changed in recent years?**
    - *(Prompt: Are they using different parts of the island now, or have they stopped going to places they used to?)*
- 

## **6. Management and Total Allowable Harvest**

- **What are your thoughts on the current Total Allowable Harvest (TAH) of 1000 animals?**
    - *(Prompt: Do you think it's too high, too low, or about right?)*
    - *(Prompt: What did you think when the TAH was changed — first increased after 2015, and then lowered again in 2017? Has it helped or hurt the herd?)*
  - **Do you think the current caribou management approach is working well for your community? Why or why not?**
- 

## **7. Export and social media sales**

- **What are your thoughts on caribou meat being sold off the island or on social media?**
  - **Do you think there should be rules or agreements to manage this?**
    - *(Prompt: Some communities have talked about possibly changing the legislation — what do you think about that?)*
    - *(Prompt: Have you seen or heard of caribou meat being sold online recently, like it was around 2011? Do you think anything has changed in how people sell or share meat?)*
- 

## **8. Wrap-up**

- **Is there anything else you'd like to share about caribou or how they're being managed?**
  - **Do you have any recommendations for what should be done moving forward?**
  - **Is there anyone else you think we should talk to — someone with good knowledge or experience about caribou on Southampton Island?**
- 

**Closing (spoken by interviewer)**

*Thanks again for your time and for sharing what you know. We'll continue speaking with people in the community, and your suggestions will help us make sure we're hearing from the right folks. If you have questions later or think of anything else, feel free to reach out. Once we've had a chance to listen and learn from everyone, we'll work on summarizing what we've heard and sharing it back in a format that works for the community — like a plain-language summary or poster. If you have any questions or want to follow up later, I'll always be available.*











## Appendix B. Participant Consent Form



### Documenting Inuit Qaujimajatuqangit (IQ) and Observations of the Southampton Island Caribou Herd

#### Consent Form

**Title of the Study:** *Documenting Inuit Qaujimajatuqangit (IQ) and Observations of the Southampton Island Caribou Herd*

**Who is conducting the research?** This research is led by Dr. Andrew Kadykalo, a social science researcher with the Department of Environment, Government of Nunavut. Andrew has experience working in partnership with Indigenous communities and is committed to respectful, reciprocal research grounded in Inuit Qaujimajatuqangit (IQ). His role is to help document and mobilize IQ in support of Nunavummiut self-determination in research and wildlife management. Andrew aims to act as an ally, advocate, and knowledge broker—helping elevate and connect community voices to decision-making processes, by tabling the results of his work to the Nunavut Wildlife Management Board (NWMB).

This project seeks to respectfully gather and help braid IQ into caribou management planning for the Southampton Island caribou population. The results will support the Government of Nunavut, Department of Environment in its decisions, priorities, and efforts related to caribou management. They may also inform submissions to the NWMB, and if so, overall conclusions may be made publicly available through a report on the NWMB website as part of the public decision-making process. No names or identifying information will be shared publicly.

#### **Researcher Contact:**

##### **Andrew Kadykalo**

Social Science Researcher  
Department of Environment  
Government of Nunavut  
Tel.: 867-222-6342  
[AKadykalo@gov.nu.ca](mailto:AKadykalo@gov.nu.ca)

**Purpose of the Study:** The goal of this study is to gather Inuit perspectives on the Southampton Island caribou population—particularly knowledge about caribou abundance, distribution, changes over time, cultural significance, and ideas for effective management. This information will be used to support Inuit involvement in caribou management and to include IQ in decision-making processes.

We are inviting members, harvesters, and elders of Aiviit Hunters and Trappers Organization (HTO) to participate in this study.

**What Participation Involves:** If you choose to participate, we will schedule an in-person interview at a time and place that works best for you. The interview will take about 45–60 minutes. With your permission, it will be audio-recorded and transcribed to make sure your words are accurately represented.

We will ask about topics such as:

- Your observations and knowledge of caribou abundance and distribution
- Cultural importance and human-caribou interactions
- Views on caribou management policies (e.g., total allowable harvest)

You are free to skip any questions or stop the interview at any time. If you choose to withdraw, your information will not be used and will be securely destroyed.

**Anonymity and Confidentiality:** You may choose to:

- **Remain anonymous**, in which case the researcher commits to keeping your identity in strict confidence and your name will not appear in any reports or publications; or
- **Be named**, if you wish your knowledge to be directly attributed to you.

However, you should be aware that even if you choose anonymity, people may sometimes be able to guess your identity based on your statements. You may also ask for specific comments to remain anonymous.

If you choose anonymity, your name will be removed from interview transcripts, and we will use a respectful, non-identifying reference (e.g., general descriptor or pseudonym) to protect your anonymity.

**Data Storage and Security:** Andrew will make sure that all information is stored safely and handled with respect. Audio recordings and paper copies will be kept in a locked office. Electronic files will be password-protected and can be shared with the Aiviit Hunters and Trappers Organization if they are interested. Only the researcher will have access to the full data. Records will be kept for at least 10 years and possibly up to 40 years, following GN policy.

**Voluntary Participation:** Your participation is completely voluntary. You can refuse to answer any question, stop the interview at any time, or withdraw from the study with no negative consequences. If you withdraw, all your data will be removed and not included in the research. You may ask me any questions at any time during the interview.

**Benefits and Risks:** This study is intended to benefit your community by:

- Helping ensure IQ is meaningfully included in wildlife management
- Supporting co-management of caribou on Southampton Island
- Elevating the voices of Inuit harvesters, knowledge holders, and elders

We do not anticipate any harm or risk from participating in the study. However, some topics may bring up strong feelings. If you feel uncomfortable, you are not required to answer. Please let us know if you'd like to stop or take a break.

### **IQ Data Management, Ownership, and Research Approach**

The researcher is committed to upholding Nunavummiut self-determination in research and to following established principles for ethical, respectful engagement with Inuit communities. This includes aligning with the Government of Nunavut's research requirements and the Nunavut Research Institute (NRI) licensing process, which help ensure research is minimally impactful and ethically sound. The project is also guided by *the National Inuit Strategy on Research* and the OCAP principles—Ownership, Control, Access, and Possession—as a framework for Inuit Qaujimagatuqangit (IQ) data governance.

Although there is no formal data-sharing or research agreement in place at this time, all data collected through this project will be considered the collective intellectual property of the participating communities. This includes IQ, knowledge, perspectives, lived experiences and oral histories shared during interviews or group discussions with community members and harvesters. The researcher acknowledges that this knowledge belongs to the people who share it and their communities, not to the Government of Nunavut or the researcher.

The role of the researcher is to respectfully document and help mobilize this knowledge in ways that reflect the wishes of participants and their communities. Participants will be involved in decisions about how their contributions are used, how results are shared, and how the final research products are returned to communities. Efforts will be made to ensure results are communicated in accessible and meaningful formats (e.g., plain-language summary, infographic/poster).

Participants may choose to remain anonymous, or to be named, depending on their preference. Throughout the project, the researcher will maintain a respectful and reciprocal relationship with communities. The data will be stored securely and used only for the purposes of this study, as approved by the appropriate territorial and institutional ethics review processes. If community members or the Aiviit Hunters and Trappers Organization (HTO) wish to revisit or clarify any aspect of the project, the researcher will remain available and responsive throughout.

**Agreement to Participate:** Please select your preferred option. You may change your preference at any time:

- I choose to remain anonymous
- I choose to have my name appear in subsequent publications

If you have any ethical concerns regarding your participation in this study, you may contact Jamal Shirley Director, Innovation and Research at Nunavut Research Institute (NRI)  
Tel: 867 979-7290 or [Jamal.Shirley@arcticcollege.ca](mailto:Jamal.Shirley@arcticcollege.ca).

There are two copies of this form—one for you to keep.

By signing below, you agree to participate in this study. You understand that your participation is voluntary and that you can withdraw at any time.

Participant Name (Printed): \_\_\_\_\_

Participant Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Researcher Signature: \_\_\_\_\_

Date: \_\_\_\_\_













## Appendix C. Codebook and Thematic Framework

Name
Abattoir
Abundance
Decline in the past
Declining
Increasing
Behaviour
Snow Machines
Uncertain_No Observation
Wolf
Caribou Harvesting
ATVs_Sleds
Experience (Years)
Firearms
Frequency
Period of No Hunting
Change in Hunting Effort
Easier_Closer
Longer
No
Spring
Winter
Yes
Change in Sightings Over Time
Fluctuating
More seen than before
No
Coats Island
Environment
Dry
Food
Ice_Rain_Freezing
No Changes
Export & Social Media Sales
Don't Like or Support
Health
Body Condition (Observed)
Changes Over Time
Fat

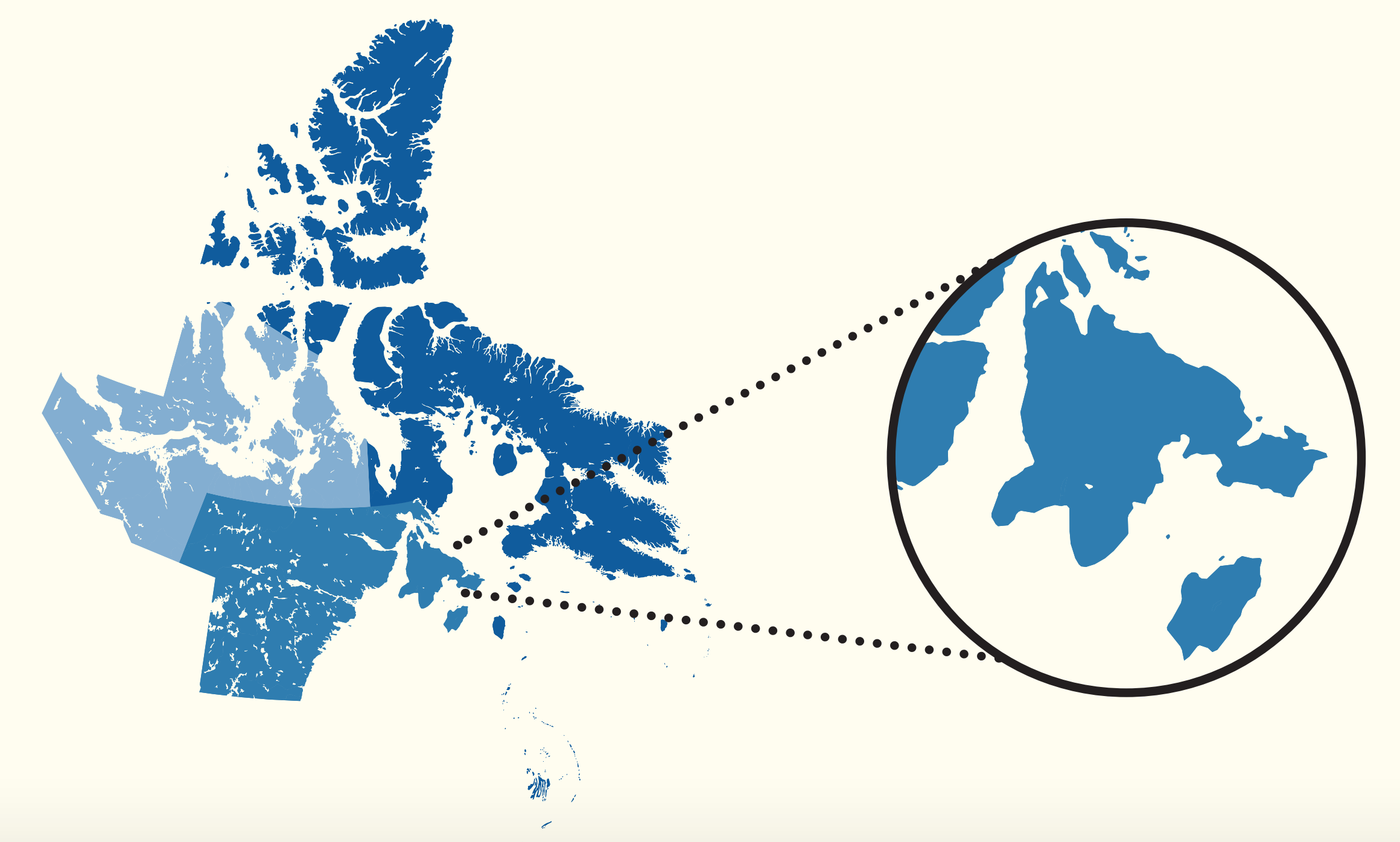
Name
Normal
Thin
Brucellosis
Calf Abundance and Survival (Observed Change)
No concerns
Uncertain_No Observation
Crabby Eye
No concerns
IQ_Historical
Management
Mixed
Negative
Working
Other Communities_Offshore Visitors
Peary Caribou
Proximity to Community
Range and Movement
Selling Off-Island_Caribou meat sales
Against
In-Favour
Would still like to ship
Sharing
Small Island
Sports Hunting
TAH_Harvest
Could increase
It's ok
Visibility and Availability
Easier than Before





# SOUTHAMPTON ISLAND BARREN-GROUND CARIBOU

## What *Inuit Qaujimaqatuqangit* and community observations reveal about caribou



Tuktu (caribou in Inuktitut) are central to Inuit culture, identity, and wellbeing. Across Inuit Nunangat, they are sustainably harvested for food, clothing, and income. In Nunavut, caribou are co-managed by the Government of Nunavut, the Nunavut Wildlife Management Board (NWMB) and other partners using the best available knowledge, recognizing both *Inuit Qaujimaqatuqangit* (IQ: Inuit knowledge, values, and perspectives) and Western science.

### The Southampton Island Caribou Knowledge Project

Inuit on Southampton Island have long-held knowledge about caribou and their importance for culture, food, and community wellbeing. This project is led by the Government of Nunavut's Department of Environment Wildlife Research Division. It seeks to respectfully gather, document, and mobilize IQ as reflected in harvester, Elder, and community observations about changes in caribou abundance, condition, movement, and management over time. By mobilizing IQ into co-management processes, the project aims to ensure that Inuit voices and perspectives guide decisions through the NWMB. This knowledge will support stronger stewardship of the Southampton Island herd, inform discussions on the Total Allowable Harvest (TAH), and recognize both Inuit and scientific knowledge systems in decision-making.

"Rain during the winter... puts a layer of ice on the snow, and that makes it very difficult for the caribou to dig for the food to eat. That's when you'll start seeing some die-offs here and there."

- Samuel Emiktowt, Aiviit HTO Director

"I'm very happy that hunters are respecting the HTO even though hunters have power in the NLCA Nunavut land agreement, and they still managed to listen to the HTO."

- Moses Nakoolak, Aiviit HTO Director

"A couple years ago, we had to really look for them, but now they're almost everywhere—right around town. Seems to have doubled in a couple of years."

- Eepah Netser, Caribou Harvester in Coral Harbour

"Caribou is our main dish. We constantly need to eat it. It's still our source of healthy food"

- Resident of Coral Harbour

"If we say, 'don't come hunt on this island,' it could backfire on our culture and the caribou abundance... it's our animal collectively, and sharing food is a key part of Inuit heritage."

- Lucassie Nakoolak, Coral Harbour Elder

### Interviews with Knowledge Holders

We spoke with harvesters, Elders, members of the Aiviit Hunters and Trappers Organization (HTO), and other key knowledge holders to gather IQ about Southampton Island caribou. These interviews shared ecological and cultural observations spanning many decades, covering the community of Coral Harbour, all of Southampton Island, and neighbouring Coats and White Islands.

"The numbers are going up, not drastically, but they're going up... they're steadily climbing I find. The numbers are rising."

- Samuel Emiktowt, Aiviit HTO Director

"I believe it's a work in progress. Like, it feels too low [Total Allowable Harvest], but at the same time it's helping to keep the caribou numbers growing. Over time, we're open to see an increase in the harvest—and also an increase in the herd."

- Samuel Emiktowt, Aiviit HTO Director

"They seem to run away faster. There's wolves and wolverines on the island now, and [caribou] seem to be more alert. They're running from predators. Sometimes we don't even see them and they're already running."

- Eepah Netser, Caribou Harvester in Coral Harbour

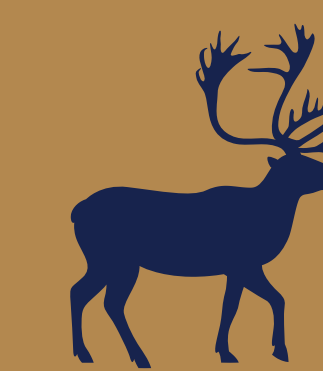
"Community hunters are always aware of where the caribou are. This winter, those caught were healthy and fat, showing they're eating well. Sharing this knowledge helps the community recognize when caribou are healthy or low in abundance. You carry the information from what you see."

- Lucassie Nakoolak, Coral Harbour Elder

“One thing I do know, it's very good to have caribou. I've been here when you're not allowed to get caribou.”

- Samuel Emiktowt, Aiviit HTO Director

### Inuit Culture / Health - Relationships to Caribou



• Tuktu (caribou) are a main source of food and clothing, essential for Inuit health and wellbeing.



• Sharing caribou meat across communities reflects IQ and cultural values of care and reciprocity.



• Elders emphasized that caribou connect past and present, carrying deep cultural meaning, identity, and survival.

• Healthy caribou mean healthy people — supporting food security in Coral Harbour.

### Ecology - Caribou Abundance and Health

#### Sub-population/Herd trend

• **Caribou are coming back/on the come back:** Since the 2010s brucellosis outbreak, harvesters report caribou steadily increasing, with more animals seen near town in recent years.



#### Body condition/health

• **Healthy Herd:** Caribou are recovering from past diseases like brucellosis, with sick animals rarely seen, and are generally in good body condition, fat through fall and winter.

• **Calves Thriving:** High calf numbers and strong survival are supported by responsible harvesting practices.

#### Other observations



• **Emerging Concern: Wolves & Wolverines** Increasing predators may be making caribou more skittish and shifting their distribution.



• **Emerging Concern: Winter Ice & Rain** Freezing rain and ice layers in winter can block access to food, sometimes causing die-offs, especially for calves.



• **Finding the Right Balance:** The island's ecosystem is relatively small and closed, meaning caribou numbers must stay balanced to prevent overpopulation, food shortages, or disease.

### Management and Stewardship

#### Traditional Inuit Stewardship & IQ

• IQ includes stories, artifacts, and memories linking generations to the original Southampton Island caribou and occasional arrivals via ice bridges, including Peary caribou in the 1980s.

• Inuit emphasize sharing caribou across communities reflects cultural values and IQ, supporting food security and stewardship.

• Participants support reviving organized sharing programs while respecting sustainable harvest limits

#### Inuit perspectives on management

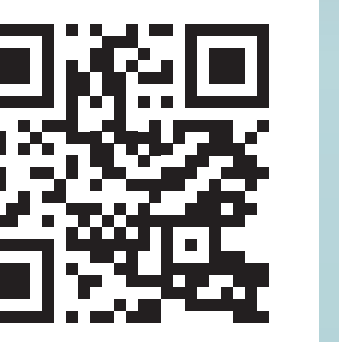
• Most participants support careful monitoring of caribou numbers, balancing sustainable harvest with herd recovery.

• Some suggest increasing household tags from four to six, reflecting rising caribou abundance.

• Stronger community-based enforcement and monitoring, including by HTO patrols for off-island hunters, was recommended to support compliance and herd health.

For more information contact:  
Andrew Kadykalo

Please see QR code for a copy of the Southampton Island Barren-Ground Caribou Report





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

**FOR**

**Information: X**

**Decision:**

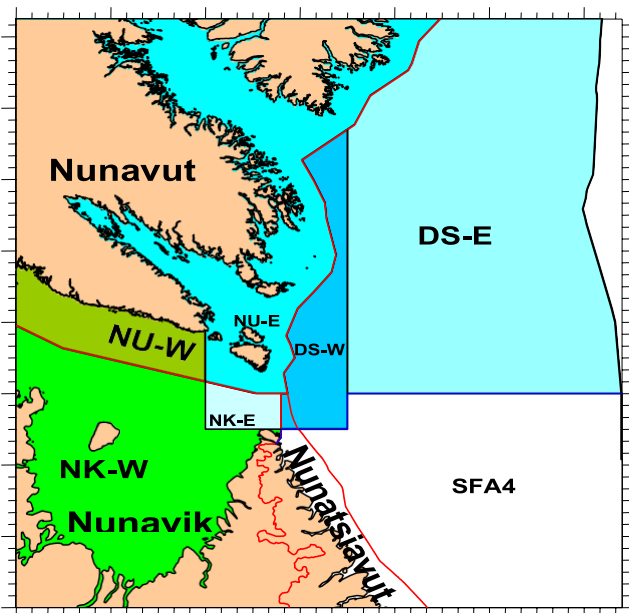
**Recommendation:**

**Issue: Changes in management of Northern Shrimp (*Pandalus borealis*)**

**Map:**

Blue areas – Eastern Assessment Zone

Green areas – Western Assessment Zone



Northern shrimp (*Pandalus borealis*)



Striped shrimp (*Pandalus montagui*)

## **Background**

Two shrimp species (*P. borealis* and *P. montagui*) occur in the Northern shrimp fishery that takes place in the Davis Strait and eastern Hudson Strait. As described below, there are now two separate stock assessment areas in this fishery, the North Stock Assessment Region (NSAR) and the South Stock Assessment Region (SSAR). The Shrimp Fishing Area (SFA) structure remains for management and allocation purposes. Nunavut and Nunavik entities have allocations in both the Western Assessment Zone (WAZ) and the Eastern Assessment Zone (EAZ) (Appendix 1).

In March 2025, Northern Shrimp (*P. borealis*) were assessed under a new peer-reviewed stock assessment framework that redefined assessment areas to better align with distribution of the species' biological attributes. The adopted framework combines the former management areas into two regions: the NSAR—comprising the WAZ, EAZ, shrimp fishing area (SFA) 4, and the northern portion of SFA 5—and the SSAR—including SFA 6 and NAFO areas 3LNO and the southern portion of SFA 5. Under this revised approach, both stocks would be classified within the Healthy Zone of DFO's Precautionary Approach Framework, if the proposed Upper Stock Reference (USR) is adopted. Striped Shrimp (*P. montagui*) in the EAZ, WAZ, and SFA 4 continue to be assessed and managed at the SFA level and all were estimated to be in the Healthy Zone.

### ***Management implications resulting from the new stock assessment for Northern Shrimp***

A Management Transition Working Group was established to develop recommendations for the Northern Shrimp Advisory Committee (NSAC) membership in 2026 on management implications resulting from the new stock assessment approach for Northern Shrimp (*P. borealis*), including the basis by which the distribution of fishable biomass within the NSAR and SSAR respectively would inform total allowable catch (TAC) setting at the traditional SFA level, and a management approach for SFA 5 North and SFA 5 South.

At the next stock update, DFO Science will provide the proportion of fishable biomass in each Assessment Zone, SFA and management unit where applicable using data from the four most recent assessments. Pending NSAC support, the TAC recommendation for each Assessment Zone and SFA will be based on a four-year moving average of the fishable biomass, to smooth year-to-year fluctuations.

Offshore industry members have requested to increase flexibility to address catchability concerns in the EAZ and WAZ, by increasing allocations by 5% (after the TAC is established) for all management areas in the NSAR. This approach was tentatively supported by NU entities through the working group. If this approach is supported by NSAC on January 20, 2026, NSAC views on TAC for each Assessment Zone/SFA / management unit will be sought using the approach described above, following the stock update in March 2026.

As in previous years, NSAC recommendations on TACs will be shared with the Boards for consideration as the Boards provide decisions and recommendations, as appropriate, on TAC

levels for 2026/27. DFO TAC recommendations to Boards will be consistent with how TAC recommendations in other management areas are calculated.

### ***Management Strategy Evaluation (MSE)***

Since 2024, DFO, industry, and Landmark Fisheries (consultant) have collaborated through the MSE Working Group to develop an MSE tool for Northern shrimp management. MSE is a structured, transparent, and scientifically robust decision-support framework used to operationalize the Precautionary Approach (PA) in fisheries management in Canada and is recognized and utilized internationally. MSE uses simulations to test and compare management strategies under different scenarios, helping identify harvest level options that balance conservation, yield, and catch stability.

The Working Group (including Board staff) has defined management objectives and performance metrics to guide the development and assess the performance of the MSE. A broad range of candidate management procedures was tested across several operating model scenarios. A scientific peer review in December 2025 confirmed the MSE's consistency with the approved Northern Shrimp modeling framework, assessed deviations, and ensured the MSE functions as intended. The working group is assessing the performance of the candidate management procedures with the objective to present a narrowed selection of candidate management procedures (approaches) to NSAC for decision on implementation of one of these approaches for the future management of the NSAR and to use it to inform TAC recommendations for the 2026–27 fishing season. If NSAC selects a management procedure for the NSAR in March, the TAC recommendation would be generated using this management procedure using updated biomass indices and other stock variables. If supported by NSAC, the MSE output would be used in concert with the approach to distribute fishable biomass by Assessment Zone to make SFA level TAC recommendations. These TAC recommendations will be shared with the Boards for harvest level recommendations outside, and decisions within the Nunavut Settlement Area (NSA) and Nunavik Marine Region (NMR), recognizing that the Boards have a decision-making role for setting harvest levels in settlement areas.

The MSE is intended to serve as a long-term, precautionary tool for setting TACs annually. Pending discussions with NSAC in March, the first year of implementation (2026–27) may be an interim implementation, allowing for adjustments and refinements in the selection of management procedures for the future years. Once fully implemented, commitment from all is important to ensure catches do not exceed the MSE established output, which could invalidate the MSE projections. In this context, it is hoped that the Boards will also consider the MSE outputs as an important source of information when making their harvest level decisions and recommendations, alongside other relevant considerations, to support alignment with the precautionary objectives and assumptions underpinning the MSE framework.

### ***Electronic Video Monitoring***

The Electronic Video Monitoring (EVM) initiative originated as a proposal from the Canadian Association of Prawn Producers (CAPP) to address issues with the at-sea observer program



and create consistent processes at the dock. DFO and CAPP have worked collaboratively to develop a draft Northern Shrimp Monitoring Plan, which is targeted for limited implementation in the offshore fleet in April 2026.

Vessels that choose to adopt EVM will be required to maintain a minimum of 20% At-Sea Observer (ASO) coverage level for scientific sampling and compliance verification purposes. Vessels without EVM will continue to operate with 100% ASO coverage. Vessels fishing in the NSA and NMR are currently not eligible to participate in the EVM project, and would continue to require an ASO until such time as the co-management Boards make a decision on the use of EVM in these areas.

Vessels offloading in Greenland must also carry an ASO until appropriate processes are established with Greenland authorities.

The core objectives of the EVM Program are to 1) identify and quantify bycatch; 2) verify the relative composition of Northern shrimp (*Pandalus borealis*) and striped shrimp (*Pandalus montagui*); 3) audit reported catch.

The EVM protocol includes requirements and specifications, data review process and reporting requirements, an implementation plan, and program review schedule. A transition period will assess the EVM performance for participating vessels against established standards.

In addition to the introduction of EVM to its interested members, CAPP also proposed the introduction of a mandatory landings requirement consisting of two parts: 1) Dockside carton counting and sampling (DCS); and 2) Quota weight verification (QWV). These landings requirements are proposed as mandatory for all offshore Northern shrimp vessels offloading in Canadian ports and would be carried out by independent service providers. The objectives of this program are to establish a consistent, independent, and standardized approach, across regions, to verify and reconcile shrimp quota weights, by product form and package, including hail reporting, overpack determination, and alignment between declared and shore-based inspected weights. These changes will not be mandatory without agreement from all Northern shrimp vessels and are not expected to impact Inuit harvesting rights and privileges.

### ***Precautionary Approach (PA) Framework***

In the March 2025 stock assessment, DFO Science proposed an Upper Stock Reference (USR) point — the level that marks the boundary between healthy and cautious stock status — for *P. borealis* in the NSAR and SSAR and these were discussed at NSAC in March 2025. DFO Science recommended USR is 80% of a Bmsy-proxy (the stock size that gives the best sustainable catch) for the Northern shrimp stocks in both regions.

At the March 2025 NSAC meeting, participants expressed general support with the recommended levels, but no formal approval was given. DFO will seek confirmation from NSAC on January 20, in order to establish USRs, pending Board approval. Subsequently, DFO will seek a decision from the Boards on the NSAR USR at the next Board meeting, informed by NSAC views.

## **Next Steps**

1. DFO will seek NSAC views on the implementation of approaches developed by the Management Transition Working Group to align Northern shrimp management with the new stock assessment model, with a view to applying these approaches in TAC recommendations for the 2026–27 fishing season.
2. DFO will consult NSAC on the use of the MSE as a decision-support tool for recommending harvest levels and will present a narrowed set of candidate management procedures for consideration. NSAC views will be sought on the selection of a management procedure for application in the North Stock Assessment Region in March. Outcomes of NSAC discussions, including establishment of TACs by management area, MSE application, and proposed management procedures, will be brought forward to the Boards for their views and consideration in advance of harvest level decisions within the NSA and NMR, recognizing the Boards' full authority in settlement areas.
3. Pending NSAC support, DFO will proceed with limited implementation of the EVM program in the offshore fleet outside the NSA and NMR, consistent with the draft Northern Shrimp Monitoring Plan. Following initial implementation and assessment of alignment with objectives, DFO will engage formally with the Boards on the potential future use of EVM within the NSA and NMR.
4. DFO will seek NSAC confirmation of the proposed USR levels for Northern shrimp in January. Subject to NSAC views, DFO will subsequently bring the proposed NSAR USR to the Boards for consideration and decision, to support alignment of harvest decisions with the Precautionary Approach.

**Prepared by:** Liliya Baranova, Fisheries Resource Management, Fisheries and Oceans Canada

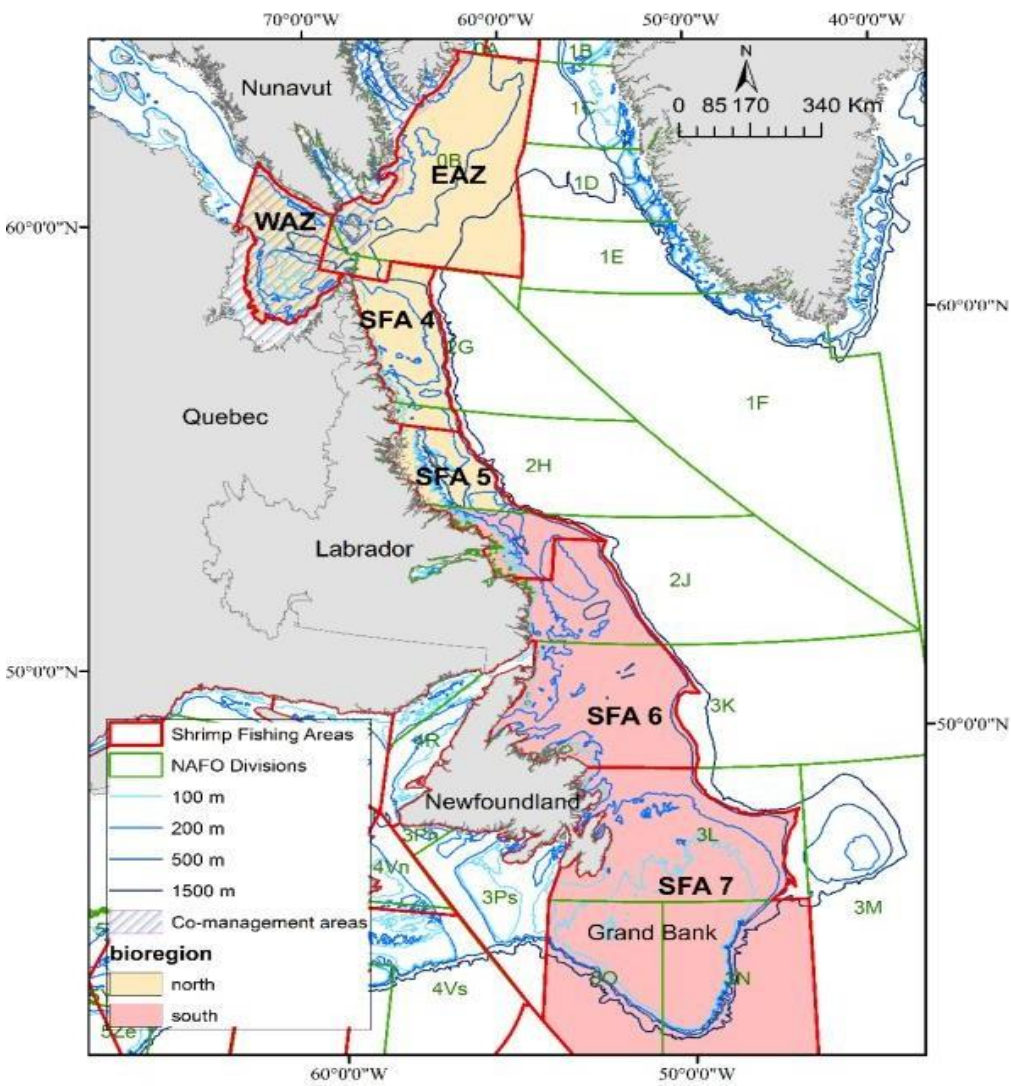
**Date:** January 10, 2026

## **Appendices**

**Appendix 1** – Map of shrimp administrative areas in Atlantic Canada

**Appendix 1**

**Map:** Yellow – North Stock Assessment Region; Red – South Stock Assessment Region





## SUBMISSION TO THE NUNAVUT WILDLIFE MANAGEMENT BOARD

**FOR**

**Information: X**

**Decision:**

### Issue

Information on the updated stock structure of Belcher Islands – Eastern Hudson Bay beluga following the 2023 genetic reanalysis.

### Background

Belugas from the Hudson Bay-Strait complex have been harvested by Inuit for millennia. Beluga are of profound cultural significance and an important source of food security for northern residents.

Previous studies have suggested that some beluga populations undertake seasonal migrations, demonstrating a strong tendency to return to their natal summering areas every year, while other populations can be considered as resident, remaining in one area year-round. Knowledge of summering grounds and migratory routes are understood to be transmitted from older individuals to juveniles, and from mothers to their offspring, resulting in genetic structures among beluga populations defined by their summering location. There has been compelling evidence that beluga tend not to recolonize suitable summering habitat that was previously used as aggregation areas once they are abandoned or the local population is extirpated. Multiple populations mix at different times of the year, for example, during spring-fall migrations, or they may share overlapping wintering areas.

Beluga sampling programs have been in place in the Hudson Bay-Strait complex since the 1980s. The mitochondrial DNA (mtDNA) in the samples is analyzed to estimate the contribution of each population to the harvest outside of summering grounds and from fall to spring. Analysis of short sequences (234 base pairs haplotypes) from the mtDNA have allowed for the identification of four distinct populations in the Hudson Bay-Strait complex: Western Hudson Bay (WHB); Eastern Hudson Bay (EHB); James Bay (JAM); and Cumberland Sound beluga (CSB). Based on short haplotype analysis, most beluga harvested in Sanikiluaq were considered to be WHB animals. A 2023 reanalysis using longer mtDNA sequences (615 base pairs haplotypes) from the mtDNA identified a fifth distinct population in the Hudson Bay-Strait complex, which is harvested year-round by Sanikiluaq residents and was therefore named the Belcher Islands (BEL) beluga population (TAB 1). This newly identified BEL population summers within the geographic summer distribution area of EHB beluga. The spatial overlap between BEL and EHB beluga prevents estimating the abundance of these two populations separately. Therefore,

Fisheries and Oceans Canada (DFO) considers beluga summering between the eastern coast of Hudson Bay and up to 60 km west of the Belcher Islands to be a mixed BEL-EHB stock.

The last BEL-EHB stock assessment, carried out in 2021, suggests the stock has declined from 3,600-3,900 individuals in 2015 to 2,900-3,200 individuals in 2021 (i.e., ~3% per year), and that the decline is primarily attributed to unsustainable harvest levels throughout the BEL-EHB stock range (Tab 2).

Since the mid-1980s, harvesting restrictions have been in place to ease pressures on the Eastern Hudson Bay (EHB) beluga, which has been assessed as Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). BEL-EHB beluga are present in multiple jurisdictions. Management measures in the Nunavik Marine Region (NMR) and the shared zone with the Eeyou Marine Region (EMR) are detailed in the 2021-26 Nunavik Beluga Management System and include a total allowable take (TAT) of 20 beluga in the Eastern Hudson Bay Arc management zone and non-quota limitations in the rest of the NMR. The management system aims to ensure a 50% probability that the EHB stock remains stable at 2015 levels (the 2021 population abundance was not available at the time) after 5 years and recommends total annual removals of EHB not exceed 58 individuals. A voluntary summer closure between July 15 and September 30 has been in effect in Sanikiluaq since 2014 with the goal of reducing harvesting pressure on EHB beluga.

### **Implications**

The 2023 genetic reanalysis indicates that a significant portion of beluga harvests previously assigned to the WHB population are instead from the BEL population. As such, the number of annual removals from the joint BEL-EHB stock has been underestimated. The identification of the BEL stock and the reanalysis of previous genetic samples has significant impacts on the harvest proportions in the Hudson Strait during the spring and fall migrations and around the Belcher Islands throughout the year (TAB 3). The genetic reanalysis suggests total removals by Nunavik and Nunavut harvesters of BEL-EHB across their range has been underestimated by over 80% between 1996 and 2022.

### **Consultations**

An updated stock structure has been presented to the Sanikiluaq Hunters and Trappers Organization, the Nunavik Marine Region Wildlife Board (NMRWB), the Nunavik Anguvigaq, Makivvik, and the five Hudson Bay communities in Nunavik. DFO staff are planning a public meeting in Sanikiluaq to present the stock structure to the community, respond to questions, and gather feedback and concerns.

### **Recommendation**

The NWMB may wish to consider scheduling a joint decision making process with the Nunavik Marine Region Wildlife Board (NMRWB) and the Eeyou Marine Region Wildlife Board (EMRWB) on the management of the shared BEL-EHB beluga stock.

**Prepared by:** Michael Hale – Fisheries Management - Fisheries and Oceans Canada – Arctic Region

**Date:** December 11, 2024

**Attachments:**

TAB 1 - [Re-examining populations of beluga in the Hudson Bay-Strait Complex and assessing the impact on harvests in Nunavik and Sanikiluaq management units](#)

TAB 2 - [Recovery Potential Assessment for Beluga \(\*Delphinapterus leucas\*\) Stocks in Nunavik \(Northern Quebec\)](#)

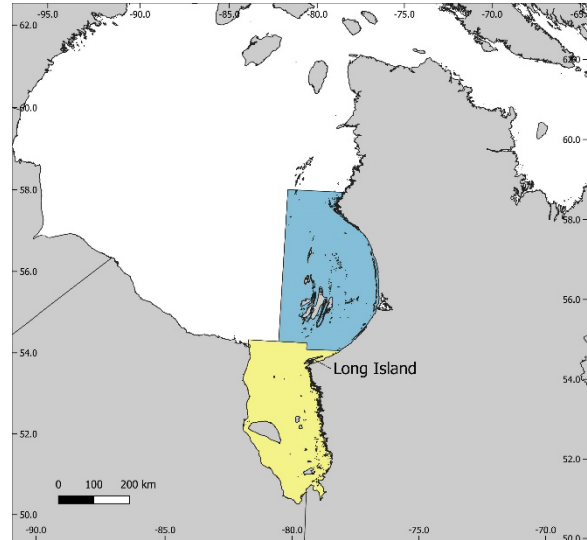
TAB 3 - ANNEX A – Graphs and tables (attached)



# STOCK ASSESSMENT OF BELCHER ISLANDS-EASTERN HUDSON BAY AND JAMES BAY BELUGA (*DELPHINAPTERUS LEUCAS*) IN 2024



*Beluga Whales (Delphinapterus leucas) (DFO)*



*Figure 1. The Belcher Islands-Eastern Hudson Bay (blue) and James Bay (yellow) strata covered during the 2024 aerial survey. These fully encompass the summer distribution of the Belcher Islands-eastern Hudson Bay (BEL-EHB) and James Bay (JAM) beluga stocks.*

## CONTEXT

Beluga hunting is very important for Nunavik communities both from a cultural point of view and in terms of community food security. Nunavik hunters harvest belugas from at least four stocks: Belcher Islands-Eastern Hudson Bay (BEL-EHB), Western Hudson Bay (WHB), Ungava Bay (UNG) and James Bay (JAM).

Harvesting of BEL-EHB beluga by Nunavik communities is managed under a multi-year management plan developed by the Nunavik Marine Region Wildlife Board (NMRWB) and the Eeyou Marine Region Wildlife Board (EMRWB), and reviewed for acceptance or variation by the Minister of Fisheries and Oceans Canada. The current 5-year management plan (2021-2026) objective is to ensure a 50% or greater probability that the stock will remain at or above 3,400 EHB beluga after five years. The plan intends to meet this objective through a combination of non-quota limitations (regional and seasonal closures) and quota limitations in the Eastern Hudson Bay management zone.

Beluga stock assessment in Nunavik relies on the estimation of abundance of beluga in their summering habitat, and on an understanding of stock composition of the harvest, which varies both seasonally and spatially. The 3,400 threshold in the management plan was established based on the best available science when the management plan was developed in 2021 (DFO 2020). At that time, the BEL-EHB beluga stock (referred to as EHB beluga in the current management plan) was estimated to be slightly increasing or stable with an abundance of 3,400 in 2016. However, since then, improvements in survey analysis methods, an additional aerial survey estimate from 2021, and a genetic re-analysis changed our understanding of stock structure and demographic trend. As a result, the entire abundance time series was recalculated, making the 3,400 individual benchmark for assessing impacts of the harvest on the population outdated. The last BEL-EHB stock assessment also indicated that the stock has been declining at a rate of 2.5 to 3% per year since 2015, changing our perspective on the BEL-EHB stock dynamics.

In light of these considerations, and the expiration of the current management plan in January 2026, a new survey of BEL-EHB and JAM beluga was conducted in summer 2024. In addition, a new integrated population model optimizing the use of available information from sampled beluga, and accounting for unexplained sources of variation in population dynamics (i.e., environmental stochasticity) has been developed.

DFO Science was requested to review the 2024 aerial survey abundance estimates and trends for the BEL-EHB and JAM stocks, to conduct an assessment of the status of the BEL-EHB stock using the most recent information on genetic composition of the harvest, and to provide advice on the maximum level of harvest that maintains the stock at a stable level or increases it to different target levels. A request was also made to provide potential biological removals (PBR) for both BEL-EHB and JAM stocks.

This Science Advisory Report is from the regional peer review of February 10-12, 2025 on Population Assessment and Advice on Beluga Harvest in Eastern Hudson Bay and James Bay. Additional publications from this meeting will be posted on the [Fisheries and Oceans Canada \(DFO\) Science Advisory Schedule](#) as they become available.

## **SUMMARY**

- Total harvest in Nunavik has ranged between 366 and 681 beluga per year during 2021-2024. In Sanikiluaq (Belcher Islands, Nunavut), harvest has ranged from 20 to 51 beluga per year.
- Based on genetic analysis and season- and area-specific distribution of the beluga hunt, on average, 126 and 23 beluga from the BEL-EHB stock were harvested by Nunavik and Sanikiluaq hunters between 2021-2024, respectively. For the JAM stock, the Nunavik and Sanikiluaq harvest levels are estimated at 27 and 6 beluga over the same period.
- The spatial- and seasonal distribution of the harvest under the current management plan results in 3.8 beluga being harvested for each BEL-EHB landed. Alternate scenarios would increase or decrease this ratio.
- The 2024 survey abundance estimate, corrected to account for the proportion of animals missed at the surface or underwater during the aircraft overpass, was 1,500 (95% CI= 900-2,400) (rounded to the nearest 100) for the BEL-EHB stock. This 2024 estimate is the lowest and most precise in the time series of comparable surveys flown since 1985.



**Quebec Region**

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- The 2024 corrected survey abundance estimate for the JAM stock was 11,500 (95% CI=7,300-17,900).
- A Bayesian Integrated Population model was developed for the BEL-EHB stock using six sources of information (aerial surveys, harvest levels, genetic composition of the harvest, reproductive rates, age and sex structure, and proportion of lactating females) to estimate abundance trends and the impact of various harvest scenarios.
- For the BEL-EHB stock, the model estimated carrying capacity at 8,100 (95% CrI = [6,800; 10,300]) and a 2024 abundance of 2,200 (95% CrI = [1,800; 2,500]) beluga. Following a period of apparent stability (2001-2013), the stock is estimated to have been declining, with an average rate of decline of 5.1% per year (95% CrI = [3.6; 7.2]) since 2021.
- The 2021-2026 management plan objective for the BEL-EHB stock is to ensure a 50% probability that the stock will be at or above 3,400 animals after 5 years. Based on the 2024 estimate of stock abundance and trend, no harvest level of BEL-EHB beluga would respect this objective.
- The maximum number of BEL-EHB beluga that could be harvested annually to ensure 50%, 80% and 95% probabilities that the stock remains stable to its 2024 abundance are 50, 43, and 35 BEL-EHB beluga, respectively.
- Under the Maximum Sustainable Yield (DFO-MSY) Precautionary Approach framework, the Limit Reference Point (LRP) for the BEL-EHB stock is estimated at 1,900 beluga and the Precautionary Reference Point (PRP) at 3,900 beluga. Considering the 2024 estimate, there is a 100% probability that it is below the PRP and a 89% probability that the stock is above the LRP. Therefore, the stock is considered in the Cautious Zone.
- Model projections indicate that if current BEL-EHB beluga harvest levels are maintained, the stock is expected to decrease to a state of quasi-extinction (i.e., less than 50 mature females) with 50% to 95% probabilities by 2037 to 2039.
- Annual harvest levels not exceeding 88, 66, and 55 BEL-EHB beluga would allow the BEL-EHB stock to reach or surpass the LRP with a 50% probability in 5, 10 and 25 years.
- The potential biological removal (PBR) for the BEL-EHB beluga stock was estimated at 4 beluga per year.
- The IPM approach was applied to the JAM beluga stock. Two sources of information (aerial surveys, harvest levels) were used to fit the model and estimate abundance and demographic trends.
- The model estimated a carrying capacity of 18,300 and a population abundance in 2024 of 16,000 (95% CrI = [12,300; 20,600]) beluga for the JAM stock. Following a period of increase, the stock is estimated to have remained stable close to carrying capacity since 2010.
- Under the DFO-MSY Precautionary Approach framework and considering the 2024 estimate, there is a 100% probability that the JAM stock is above the PRP (8,800 beluga), i.e., in the Healthy Zone.
- The PBR for JAM was estimated at 245 beluga per year.
- Harvest levels exert a large influence on the IPM results for the BEL-EHB stock. However, there remains a high level of uncertainty in the number of animals struck and killed but not recovered or non-reported, and in how these may have varied over time.

## BACKGROUND

The beluga has a nearly circumpolar range in the Arctic and subarctic. In Canada, beluga stocks have been identified based primarily on the disjunct distribution of summering aggregations. These stock separations have been supported by evidence for strong intra- and inter-annual fidelity to summering areas and migration routes, which are thought to be learned through the cultural transfer of information from females to calves. These characteristics make beluga more vulnerable to local extinction and may reduce their ability to adapt to local changes and re-colonize areas where they are extirpated.

### The Harvest

#### James Bay (JAM) stock

Historically, efforts to develop commercial whaling in James Bay were not successful and removals appear to have been insignificant. Consequently, the JAM population was never depleted to the extent seen elsewhere. Significant habitat changes have occurred through very large-scale hydroelectric developments on the east side of James Bay, but their long-term impacts are not known. In recent times, there has been limited hunting. Reported removals in 2024 were 4 belugas.

#### Belcher Islands and Eastern Hudson Bay (BEL-EHB) stock

Commercial harvests in the 19<sup>th</sup> century initiated the depletion of beluga in eastern Hudson Bay. Subsequent subsistence harvests may have limited recovery. In the 1980's, limits were placed on harvesting through a combination of Total Allowable Takes (TAT) in Nunavik and regional and seasonal closures at the Nastapoka and Little Whale rivers. Harvesting in eastern Hudson Bay was closed from 2001 to 2006, and the Nastapoka and Little Whale rivers estuaries have remained closed since harvesting resumed in eastern Hudson Bay in 2007. In 2024, a total of 681 beluga were reported harvested by Nunavik, including the 4 animals from the Long Island area with another 48 animals harvested by the Sanikiluaq community (Nunavut) (Table 1). The 2024 harvest in Nunavik was the highest in the time series since the 1970s, and based on season- and management area-specific genetic stock composition, 182 of these whales were BEL-EHB beluga (Table 1). For reference, the harvest threshold identified in the current management plan for Nunavik is 58 BEL-EHB beluga per year.

*Table 1. Annual number of beluga reported to have been harvested across Nunavik and by the Sanikiluaq (SAN) community (Nunavut), along with the harvest numbers specific to BEL-EHB and JAM beluga calculated from season- and management area-specific genetic stock composition of the harvest.*

Year	Total Nunavik	Total SAN	TOTAL BEL-EHB Nunavik	TOTAL BEL-EHB SAN	TOTAL JAM Nunavik	TOTAL JAM SAN
1974	605	0	270	0	6	0
1975	810	0	344	0	9	0
1976	679	0	310	0	7	0
1977	823	14	382	9	8	2
1978	407	6	213	4	4	1
1979	564	0	329	0	4	0
1980	561	0	336	0	4	0
1981	333	6	145	4	3	1
1982	385	30	169	20	4	3

**Quebec Region**

**Stock Assessment of Belcher Islands-Eastern  
Hudson Bay and James Bay Beluga in 2024**

<b>Year</b>	<b>Total Nunavik</b>	<b>Total SAN</b>	<b>TOTAL BEL-EHB Nunavik</b>	<b>TOTAL BEL-EHB SAN</b>	<b>TOTAL JAM Nunavik</b>	<b>TOTAL JAM SAN</b>
1983	332	7	151	5	3	1
1984	320	28	169	18	3	3
1985	269	5	137	3	2	1
1986	169	25	69	16	2	3
1987	178	28	79	18	2	3
1988	169	20	76	13	2	2
1989	368	19	142	12	4	2
1990	162	20	75	13	2	2
1991	284	22	142	14	3	3
1992	174	20	97	13	1	2
1993	256	10	106	7	3	1
1994	289	50	124	33	3	6
1995	276	30	101	20	3	3
1996	267	30	99	20	3	3
1997	290	19	100	12	3	2
1998	302	54	102	35	4	6
1999	295	32	106	21	3	4
2000	270	23	105	15	3	3
2001	380	27	124	18	5	3
2002	179	15	39	10	3	2
2003	202	80	43	52	3	9
2004	151	94	33	61	2	11
2005	178	53	37	35	3	6
2006	149	22	31	14	2	3
2007	192	24	55	16	2	3
2008	120	33	42	21	1	4
2009	165	34	54	22	2	4
2010	230	47	56	31	3	5
2011	237	32	64	21	3	4
2012	289	61	61	40	5	7
2013	256	76	59	49	3	9
2014	298	26	71	17	11	3
2015	303	170	98	111	12	20
2016	225	43	42	28	41	5
2017	299	30	74	20	11	3
2018	378	50	92	33	12	6
2019	367	28	114	18	34	3
2020	430	46	106	30	34	5
2021	366	30	141	20	50	3
2022	384	51	80	30	21	9
2023	532	20	127	13	18	3
2024	681	48	154	28	19	8

## The DFO Maximum Sustainable Yield (MSY) Framework

The DFO-MSY Precautionary Approach identifies a Limit Reference Point (LRP) and a Precautionary Reference Point (PRP) calculated based on MSY. The MSY is defined as 60% of the stock's carrying capacity, whereas the LRP and PRP are defined as 40% and 80% of the MSY. From these benchmarks, three zones of resource concern are defined (DFO 2006). A stock is considered to be in the Healthy Zone if there is at least a 50% probability that its abundance lies above the PRP, whereas it is considered in the Critical Zone if there is a 50% probability that the stock abundance is below the LRP. Finally, a stock is considered to be in the Cautious zone if its abundance lies between the LRP and PRP (Hammill et al. 2017). Within this framework, the objective is to manage exploitation of the resource so that it remains in the healthy zone.

The BEL-EHB and JAM beluga stocks are not currently managed under the Precautionary Approach. Nevertheless, the DFO-MSY reference points are included in this assessment as benchmarks to contextualize the status of these stocks.

## ASSESSMENT

### Aerial surveys

Visual line-transect surveys flown in July-September 2024 covered James Bay, Tasiujaq Lake (formerly Richmond Gulf) and the eastern Hudson Bay from the coastline to 81°W of longitude, which is 60 km west of the Belcher Islands (Figure 1). Surveys were also flown along the coastline from Long Island to North of Inukjuak and in the Nastapoka and Little Whale River estuaries to search for beluga aggregations. The Nastapoka and Little Whale rivers were specifically targeted and visited every time a transit was passing by, weather permitting.

In 2024, no surveys were flown in Ungava Bay nor in the west of Hudson Bay.

Data from the 2024 survey were analyzed by fitting a gamma detection curve to ungrouped perpendicular distances to estimate surface abundance indices. Gamma functions optimize the use of existing data when maximum probability of detection is away from the track line, as is the case in an aircraft. To facilitate comparability with previous survey estimates, the entire time series of aerial survey abundance estimates (i.e., 1985-2021; Table 2) has been revised, using a gamma key function upon fitting the detection curve in distance sampling analyses.

*Table 2. Aerial survey abundance estimates (est.) and standard error (SE) for the BEL-EHB, Western Hudson Bay (WHB), James Bay (JAM) and Ungava Bay (UB) beluga stocks from aerial surveys. Indices have been corrected for availability and perception bias.*

Year	BEL-EHB (SE)	WHB (SE)	JAM (SE)	UNG (SE)
1985	4,497 (1,168)	-	4,788 (1,525)	*
1987	-	31,124 (6967)	-	-
1993	2,504 (961)	-	7,573 (1,985)	*
2001	2,634 (1,166)	-	17,958 (4,477)	*
2004	5,069 (1,686)	51,761 (15,875)	17,930 (4,238)	-
2008	4,326 (2938)	-	25,686 (18,175)	*
2011	4,681 (2,064)	-	22,063 (6,536)	-
2015	8,506 (4,341)	54,473 (5,329)	22,847 (7,557)	-
2021	2,858 (814)	-	14,427 (3,427)	-

**Stock Assessment of Belcher Islands-Eastern  
Hudson Bay and James Bay Beluga in 2024**

**Quebec Region**

Year	BEL-EHB (SE)	WHB (SE)	JAM (SE)	UNG (SE)
2022	-	-	-	68 (41)
2024	1,491 (366)	-	11,455 (2,650)	

\* No beluga have been seen on transect in Ungava Bay during the 1985, 1993, 2001 and 2008 surveys.

**Modeling abundance of beluga and impact of harvest**

An age and stage structured Bayesian Integrated Population Model (IPM) was developed for the BEL-EHB beluga stock. The model includes six sources of information to produce stock abundance estimates and trends: 1) abundance from aerial surveys, 2) pregnancy rates, 3) harvest numbers, 4) genetic composition of the harvest, 5) harvest sex and age structure, and 6) proportion of adult females lactating in the harvest. In addition, the model includes annual stochasticity, allowing for a more realistic picture of annual fluctuations in abundance and the estimation of the relative contribution of harvest to overall mortality.

The new IPM was used to provide an updated estimate of BEL-EHB stock abundance for 2024 and harvest advice. Abundance of the BEL-EHB stock in 2024 was estimated at 2,200 (95% CrI = [1,800; 2,500]) beluga (Figure 2). The model estimates that after a period of stability from approximately 2001 – 2014, the population has since declined. Since 2021, the estimated rate of decline for the BEL-EHB beluga stock is 5.1% (95% CrI = [3.6; 7.2]). The average number of BEL-EHB beluga harvested per year is estimated at 140 for this period, with the 2024 estimate being 183. The estimated contribution of harvest to overall mortality also increased since 2021 and reached 63% (95% CrI = [51, 77]) in 2024.

**Stock Assessment of Belcher Islands-Eastern  
Hudson Bay and James Bay Beluga in 2024**

**Quebec Region**

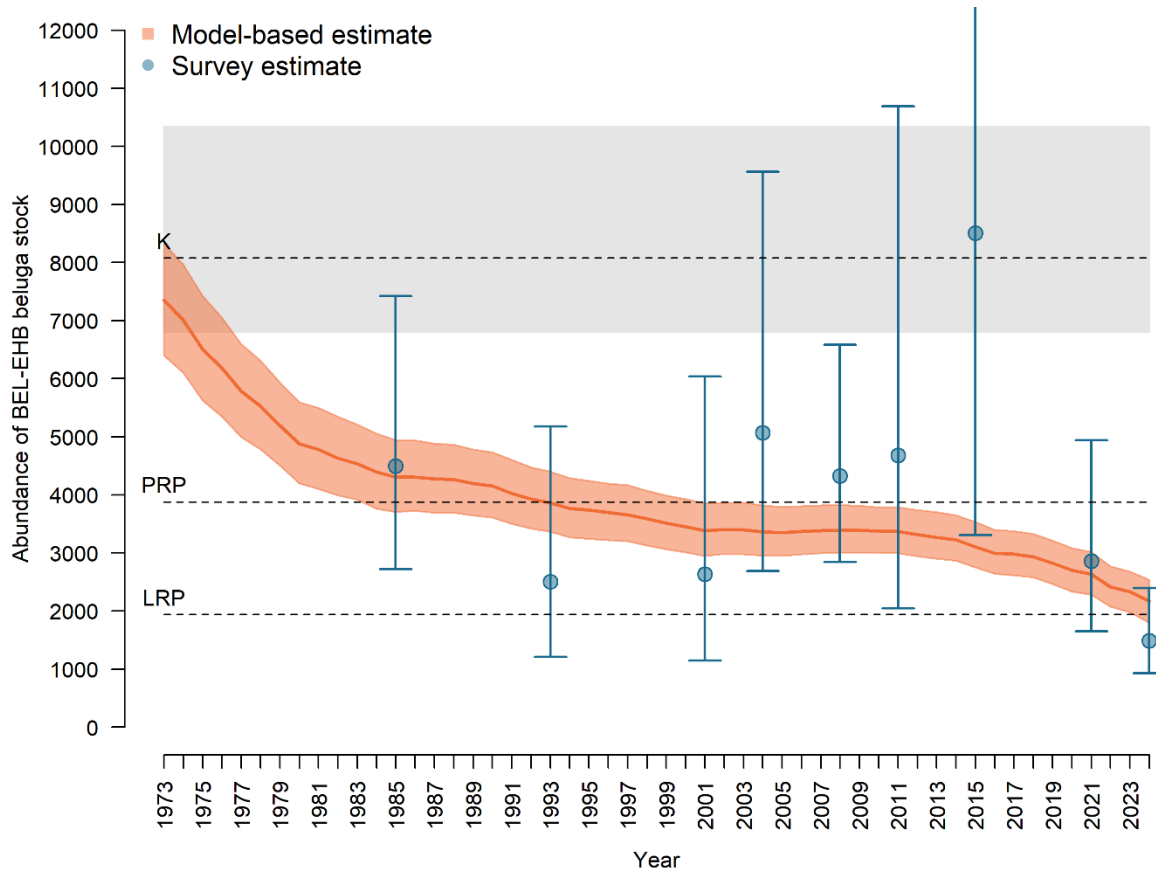


Figure 2. Demographic trend for the BEL-EHB beluga stock. Abundance (mean: dark orange line, 95% Credible Interval: light orange polygon) is estimated from a multistate (age and reproductive status) Integrated Population Model. Blue circles and whiskers represent aerial survey abundance estimates and their 95% confidence interval, respectively. The LRP and PRP, as well as carrying capacity (K) along with its 95% CrI (grey rectangle) are also presented for reference.

The new IPM formulation developed for BEL-EHB was also used to model the JAM stock abundance and trend. However, only abundance from surveys and annual harvest numbers were used as sources of observational data to inform the model. Based on the IPM, the JAM stock increased over the time series until 2014, and has since stabilized. The JAM stock abundance in 2024 was estimated at 16,000 (95% CrI = [12,100; 30,300]) beluga. Between 2021 and 2024, the average number of JAM beluga harvested per year was estimated at 31, with the 2024 estimate being 24 beluga. The contribution of harvest to overall mortality for the JAM stock was low and ranged between 1.6% (95% CrI = [0.2, 7.2]) in 2008 and 12.4% (95% CrI = [1.6, 39.9]) in 2021.

**Harvest advice**

The current management plan (2021-2026) objective for BEL-EHB beluga is to ensure a 50% or greater probability that the BEL-EHB beluga stock will remain at 3,400 beluga (i.e., the 2016 abundance estimate at which point the stock was considered stable; Hammill et al. 2017; DFO 2020). However, this 3,400 abundance estimate is no longer aligned with recent understandings of the BEL-EHB stock dynamics; based on the new population model, in retrospective, the 2016 abundance can be re-evaluated at 3,000 (95% CrI: [2,700; 3,300]). The current assessment

suggests that the stock has been below 3,400 individuals (with a 95% probability) every year since 2015, and that no harvest level of BEL-EHB beluga would allow the stock to reach or surpass 3,400 animals in the next five to ten years. The maximum number of BEL-EHB beluga that could be harvested annually to ensure a 50%, 80% and 95% probability that the stock remains stable to its 2024 abundance are 50 (Figure 3), 43 and 35 BEL-EHB beluga, respectively.

Projecting the population forward in time for three generations (86 years) under the current BEL-EHB harvest level (i.e., average annual harvest for 2021-2024; 140 beluga) suggests that quasi-extinction (i.e., reaching less than 50 adult females) could be attained by 2037 (50% probability) to 2039 (95% probability) (Figure 4). Reducing annual harvest to 75% and 50% of current harvest levels postpones quasi-extinction to 2044 and 2072, respectively. With a reduction to 25% and 10% of the current harvest level, the population is projected to increase and reach 5,400 (95% CrI = [2,700; 7,200]) and 7,300 [95% CrI = [6,200; 8,600]) beluga in 86 years, respectively.

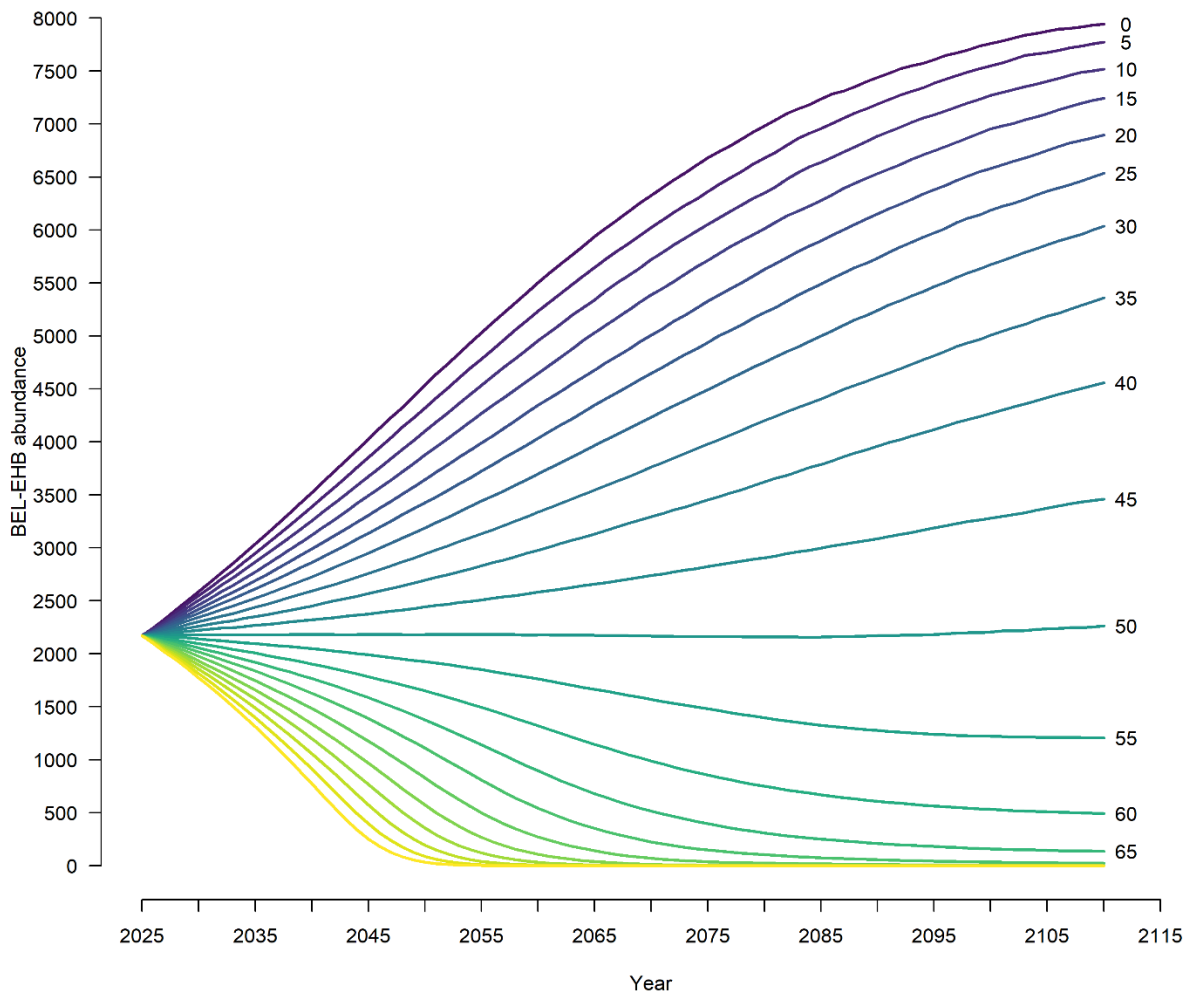


Figure 3. Median projected demographic trend (over three generations) for the BEL-EHB stock considering scenarios of future harvest levels ranging from 0 to 100 BEL-EHB beluga per year.

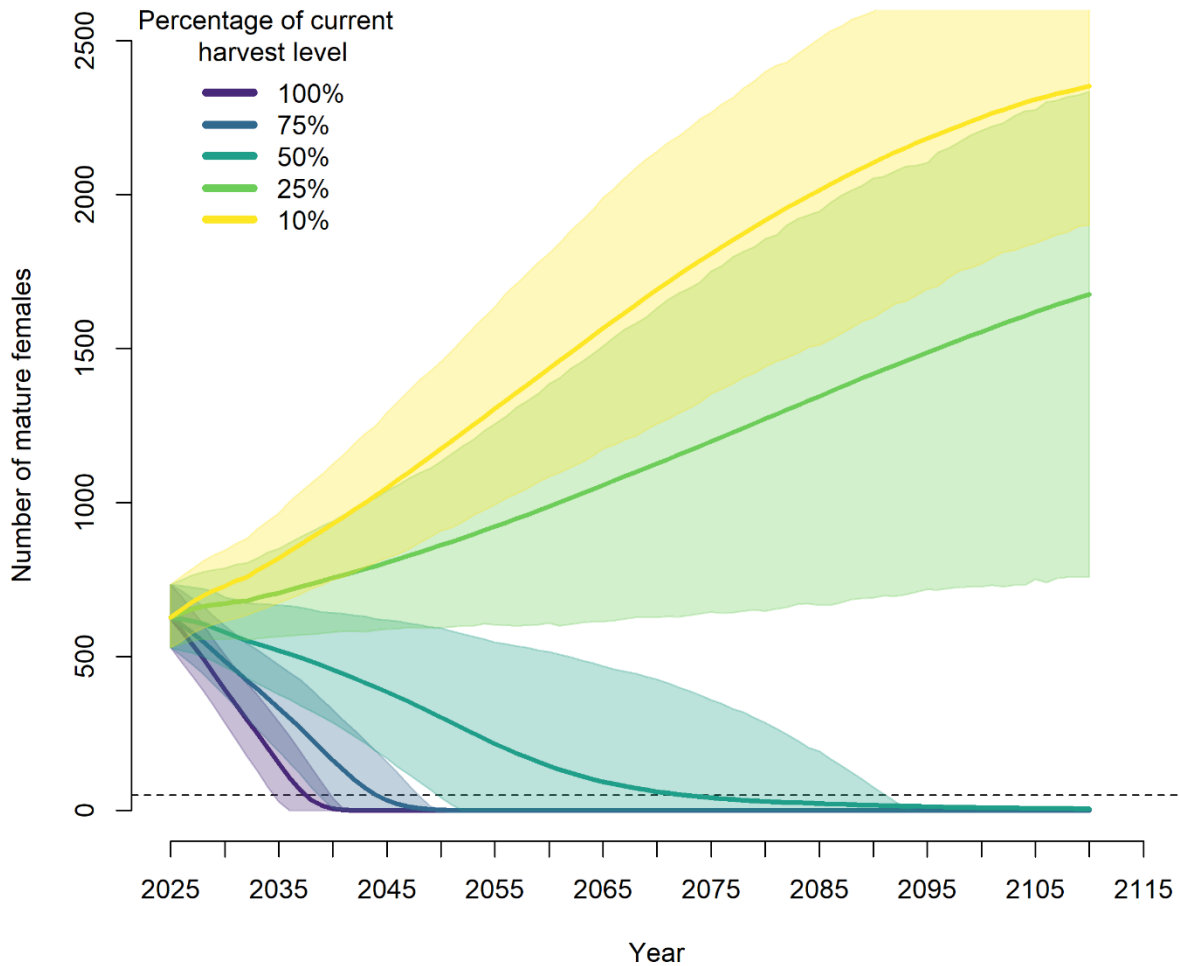


Figure 4. Projection of the number of mature females in the BEL-EHB beluga stock over three generations (86 years) under various harvest levels. The current harvest level is estimated at 140 BEL-EHB beluga per year, which represents the average over the 2021-2024 period. Correspondingly, the 75%, 50%, 25% and 10% percents of the current level represent 105, 70, 35 and 14 BEL-EHB beluga harvested annually, respectively. The dashed line represents 50 mature females, which is the quasi-extinction threshold.

Under the DFO-MSY framework, the Limit Reference Point (LRP) for the BEL-EHB beluga stock is estimated at 1,900 beluga and the Precautionary Reference Point (PRP) at 3,900 beluga. Considering the 2024 model estimate, the BEL-EHB stock is considered in the Cautious Zone, with a 89% probability of being above the LRP and 100% probability of being below PRP. The annual harvest levels ensuring that the stock will remain above the LRL or reach or surpass the PRL with different probabilities over various time frames are presented in Table 3.



Table 3. Annual harvest levels compatible with management objectives for the BEL-EHB beluga stock. A dash indicates that the specified management objective is unachievable under zero-harvest conditions.

Management objective	Projection interval	50% probability	80% probability	95% probability
Remain above LRP	5 years	88	59	30
	10 years	66	50	36
	25 years	55	46	37
Reach or surpass PRP	5 years	-	-	-
	10 years	-	-	-
	25 years	13	3	-

Based on model estimates of  $N_{min}$  in 2024 (2,000 beluga) and  $R_{max}$  (4%), and using a FR of 0.1, the Potential Biological Removal (PBR) for the BEL-EHB stock is 4 beluga.

There is currently no management objective for the JAM stock. The PBR for the stock is 245 beluga per year, considering an  $N_{min}$  of 14,200 beluga, a  $R_{max}$  of 3%, and a Recovery Factor of 1.

### Sources of Uncertainty

Aerial survey estimates for beluga are naturally variable given the clumped distribution of the species. Much of this variability is associated with group size, and whether large groups are encountered or not, and how often. Factors affecting group size are poorly understood, but may be related to social behaviour, bathymetry, local foraging conditions, and population size.

Depth at which beluga can be detected varies with water turbidity. Currently, a mean correction for availability bias is applied in all sectors given that information on water turbidity is lacking for James Bay and the Belcher Islands-eastern Hudson Bay area.

Our understanding of beluga stock structure in the Hudson Bay-Strait complex has greatly improved over the past two decades. Additional sampling (through harvest or non-lethal methods) would further improve the genetic characterization of beluga summering along the Ontario coast of Hudson Bay, in northwest James Bay, southern Ungava Bay (Marralik-Ungunniavik rivers), and from eastern Hudson Bay.

The genetic approach for estimating the contribution of each stock to the harvest currently does not assign each harvested beluga to a specific stock. Consequently, information on age and sex structure, and on annual reproductive rates in the IPM are not specific to BEL-EHB beluga.

Harvest levels, including struck and lost rates, have a considerable impact on the demographic trend and abundance estimates derived from the IPM. Currently, struck and lost rates from other stocks are used to inform the IMP given the absence of data for Nunavik and Sanikiluaq. This rate is also assumed to remain constant over time despite suspected (but undocumented) regional and temporal variations in hunting practices and reporting.

Genetics support including Long Island in the James Bay stratum (beluga harvested there belong to the JAM stock). However, there is uncertainty as to whether a clear spatial separation exists between the JAM and BEL-EHB stock distributions. Possible movements of beluga between strata cannot be excluded, although setting the limit between the two strata in a low beluga density area likely limit this potential bias.

The survey area for BEL-EHB is informed by multiple data sources and is thought to encompass the full summer distribution of this stock. Telemetry work is needed to better understand movement patterns and the range of the BEL population.

The IPM estimates carrying capacity and reference points under the DFO-MSY framework using the entire time series. A shift in environmental conditions could affect reference points and projections of population abundance.

## **CONCLUSIONS AND ADVICE**

The current assessment has improved the accuracy of abundance estimates and our understanding of the status of the BEL-EHB and JAM beluga stocks. The integration of abundance estimates into a comprehensive population model, along with 30 to 40 years of data from multiple sources, has highlighted several processes underlying BEL-EHB and JAM beluga stock trends.

The BEL-EHB stock has been declining since approximately 2013. The rate of decline has accelerated to 5.1% since 2021, resulting in a current abundance estimate of approximately 2,200 animals. Under the DFO-MSY PA framework, the stock is estimated to be in the Cautious Zone. Harvest has been an important source of mortality for this stock over the past five decades, and its contribution to overall mortality has increased to reach 63% in 2024. From 2021 to 2024, the average harvest level for the BEL-EHB stock has been 140 beluga per year. If this current harvest level is maintained, the stock is predicted to reach a state of quasi-extinction (50 mature females) by 2037. Harvest levels not exceeding 35 to 50 BEL-EHB belugas are expected to prevent further decline of the stock, depending on risk tolerance (i.e., 95% to 50% probabilities of stability). Annual harvest levels not exceeding 37 BEL-EHB beluga would allow the stock to remain above the LRP for 25 years with high certainty (95% probability).

The JAM stock increased over the time series until 2014. Since then, the JAM stock has levelled off close to carrying capacity to an estimated 16,000 individuals in 2024.

## **OTHER CONSIDERATIONS**

Based on the DFO-MSY framework, the JAM beluga stock currently lies in the Healthy Zone, i.e., above PRP, while the BEL-EHB beluga stock lies in the Cautious Zone, but is declining and approaching the LRP and the Critical Zone. Under the Precautionary Approach, if a stock falls below the LRP, it is considered to have suffered serious harm, and there is an obligation to implement a rebuilding plan for the stock. For a declining stock approaching the LRP, the requirement is to (1) implement management measures to promote stock growth and cease preventable declines and, (2) initiate the development of a rebuilding plan in advance of the stock declining to its LRP.

The current management approach does not allow for rebuilding of the BEL-EHB stock and does not account for potential unusual mortality events. Moreover, the model projections in this assessment do not account for possible changes in environmental conditions, nor for a potential Allee effect (i.e., decrease in population growth at very small population sizes; Allee and Bowen 1932). For small populations, Allee effects may increase the risk of extinction and prevent

recovery despite relief from anthropogenic threats (Dennis 1989; Liermann and Hilborn 2001). This assessment estimates that should current harvest levels be maintained, the BEL-EHB beluga stock may reach a state of quasi-extinction within the next 15 years. This timeframe may be an overestimate as it doesn't account for unusual mortality events, adverse environmental conditions and/or an Allee effect interfering with the stock's population dynamics.

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### **SOURCES OF INFORMATION**

- Allee, W. C., and Bowen, E. S. 1932. Studies in animal aggregations: Mass protection against colloidal silver among goldfishes. *J. Exp. Zool.* 61, 185–207. doi: 10.1002/jez.1400610202.
- Dennis, B. 1989. Allee effects: Population Growth, Critical Density, and the Chance of Extinction. *Nat. Resour. Model.* 3, 481–538. doi: 10.1111/j.1939-7445.1989.tb00119.x.
- DFO. 2006. [A Harvest Strategy Compliant with the Precautionary Approach](#). DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2006/023.
- DFO. 2020. [Harvest Advice for Eastern Hudson Bay Beluga \(\*Delphinapterus leucas\*\)](#). DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2020/031.
- Hammill, M.O., Mosnier, A., Gosselin, J.-F., Matthews, C.J.D., Marcoux, M., and Ferguson, S.H. 2017. [Management approaches, abundance indices and total allowable harvest levels of belugas in Hudson Bay](#). DFO Can. Sci. Advis. Sec. Res. Doc. 2017/062. iv + 43 p.
- Liermann, M., and Hilborn, R. 2001. Depensation: evidence, models and implications. *Fish Fish.* 2, 33–58.
- Parent, G.J., Mosnier, A., Montana, L., Cortial, G., St-Pierre, A.P., Bordeleau, X., Lesage, V., Watt, C., Postma, L., and Hammill, M.O. 2023. [Re-examining populations of beluga in the Hudson Bay Strait Complex and assessing the impact on harvests in Nunavik and Sanikiluaq management units](#). DFO Can. Sci. Advis. Sec. Res. Doc. 2023/004: iv + 31 p.

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la baie d'Hudson et à la baie James en 2024. Secr. can. des avis sci. du MPO. Avis sci.  
2025/038.

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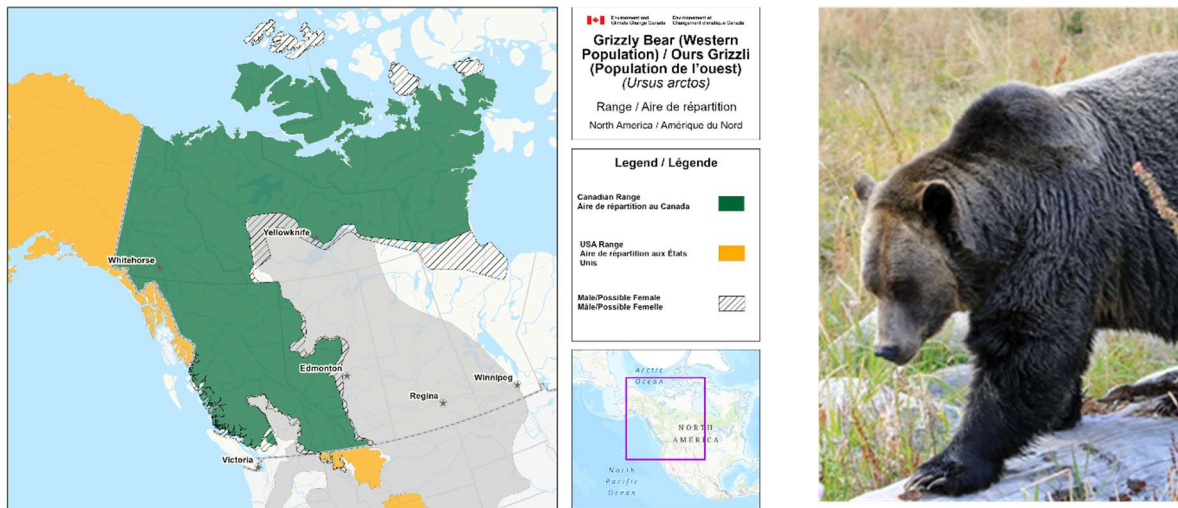
## Submission to the Nunavut Wildlife Management Board

For

Information: X

Decision:

**Issue:** Development of the federal management plan for Grizzly Bear in Canada



### Background:

- Grizzly Bear was assessed at a national level by COSEWIC as special concern in 2014
- NWMB supported the listing of Grizzly Bear under the federal *Species at Risk Act* (SARA) and in 2018 it was listed as special concern
- Species of special concern do not receive protections or prohibitions under the SARA
- A management plan must be developed for species listed as special concern outlining the threats to the species and propose conservation actions to prevent further decline of the species
- The management plan will not limit harvest of Grizzly Bears and will not affect Inuit rights
- The federal management plan is based off information from existing plans including the Nunavut Grizzly Bear Co-Management Plan and shared by Knowledge Holders in Indigenous Knowledge workshops
- Canadian Wildlife Service (CWS) has drafted the management plan for Grizzly Bears in Canada and will be continuing to consult on the draft before bringing the document to NWMB for decision
- A summary of the contents of the management plan including the species description, threats, management objectives and conservation strategies can be found in Appendix A

## Management Plan Engagement and Consultations:

Purpose	Date	Contact Method	Who was Contacted/Attended
<p><b>Early Engagement</b></p> <p>Asking how Indigenous partners and jurisdictions would like to be involved in the management plan development</p>	Spring 2019	Emails and follow up phone calls	<p><b>Full contact list:</b> GN, KitlA, KRWB, KIA, KWB, NIWS, NTI, NWMB, QIA, QWB</p> <p>Agiggiaq HTO, Aiviit HTO, Aqigiq HTO, Arviat HTO, Arviq HTO, Baker Lake HTO, Bathurst Inlet HTA, Ekaluktutiak HTA, Gjoa Haven HTA, Hall Beach HTA, Igloolik HTO, Issatik HTO, Kugluktuk HTA, Kurtairojuark HTA, Omingmaktok HTA, Spence Bay HTA</p>
<p><b>Early Engagement</b></p> <p>Information Sessions</p>	February and March 2021	Virtual meetings	<p>All contacted</p> <p><b>Attended:</b> NWMB, GN, KitlA, KIA, QIA, KRWB, KWB, NTI, Aiviit HTO, Arviq HTO, Baker Lake HTO, Ekaluktutiak HTO, Gjoa Haven HTO, Hall Beach HTO, Kugluktuk HTO, Spence Bay HTA</p>
<p><b>Early Engagement</b></p> <p>Workshop on community concerns and proposed path forward for plan development</p>	May 2021	Virtual meeting	<p>All contacted</p> <p><b>Attended:</b> KWB, QIA, GN, KitlA Aiviit HTO, Arviq HTO, Baker Lake HTO, Issatik HTO, Spence Bay HTA,</p>
<p><b>IQ workshops</b></p> <p>To better represent Indigenous voices and perspectives in the management plan</p>	<p>Two Nunavut workshops:</p> <p>February 22, 2022, and</p> <p>March 16, 2022</p>	In-person meetings cancelled due to COVID outbreaks, held virtually	<p>All contacted, except Igloolik HTO who asked not to be engaged until the plan was written</p> <p><b>First workshop:</b> Agiggiaq HTO, Arviq HTO, Arviat HTO, Ekaluktutiak HTO, Kugluktuk HTA, Spence Bay HTA</p> <p><b>Second workshop:</b> Baker Lake HTO</p>

<p><b>Updates to Nunavut Wildlife Boards</b></p> <p>CWS annual updates</p>	<p>December 6, 2023</p> <p>October 23, 2024</p> <p>October 24, 2025</p>	<p>In-person update on management plan development</p>	<p>KWB</p>
<p><b>Updates to Nunavut Wildlife Boards</b></p> <p>CWS annual updates</p>	<p>November 2, 2023</p> <p>November 6, 2024</p> <p>October 30, 2025</p>	<p>In-person update on management plan development</p>	<p>KRWB</p>
<p><b>Updates to Nunavut Wildlife Boards</b></p> <p>CWS annual updates</p>	<p>November 21, 2023</p> <p>November 26, 2024</p> <p>December 8, 2025</p>	<p>In-person update on management plan development</p>	<p>QWB</p>
<p><b>Consultation</b></p> <p>First Review of draft Management Plan</p>	<p>October 7, 2024</p>	<p>Emailed package and follow up phone calls</p>	<p>All contacted and followed up by phone with HTOs</p>
<p><b>Workshop</b></p> <p>National Workshop on management plan contents and initial feedback</p>	<p>October 10, 2024</p> <p>October 24, 2024</p> <p>November 14, 2024</p>	<p>Virtual meetings</p>	<p>All contacted</p> <p>Attendees from Nunavut: NWMB, KRWB</p>
<p><b>Consultation</b></p> <p>Second Review of draft Management Plan</p>	<p>June 16, 2025</p>	<p>Emailed package</p>	<p>All contacted</p>

- In multiple early engagement meetings and IQ workshops, we heard that Grizzly Bears aren't at risk in Nunavut. The management plan is for the entire population in Canada, however in response to this feedback, the plan focuses more on southern threats and conservation actions
- Inuit perspectives represented throughout the draft management plan, including community concerns about Grizzly Bears impacting culturally important species and raiding food caches, and the need for community-led monitoring
- Consultation packages sent out for the first and second reviews contained a fact sheet (in Inuktitut and English; Appendix A) and the draft management plan. The Inuktitut translation of the draft management plan was sent as part of the second review package.
- CWS has received support to post the plan for public comment from the Government of Nunavut
- In the three territories, CWS has also received support to post from Yukon Government, Government of Northwest Territories, Wildlife Management Advisory Council -North Slope, Wildlife Management Advisory Council -NWT, Inuvialuit Game Council, Wek'éezhii Renewable Resources Board, Sahtu Renewable Resources Council, and Gwich'in Renewable Resources Board

#### **Next Steps:**

- The proposed document will be posted on the Species at Risk Public Registry for a 60-day public comment period
- Once public comments have been addressed, CWS will bring the proposed final document to NWMB for decision as per the *Nunavut Agreement* s.5.2.34(d,i) and 5.3.16-5.3.23

Prepared by: Canadian Wildlife Service, Northern Region  
 Date Drafted: 2026-01-14



# GRIZZLY BEAR, WESTERN POPULATION

## Summary of the Draft Federal Management Plan (June 2025)

### Conservation Status

Grizzly Bear, Western Population (*Ursus arctos*) is listed as Special Concern under the *Species at Risk Act* (SARA).

Under the SARA, a management plan must be developed for a species listed as Special Concern. The draft management plan outlines the needs of Grizzly Bear, and the actions required to support their conservation, including the key sections highlighted below.

### Range

In Canada, Grizzly Bears are currently found in British Columbia, Alberta, northern Manitoba, Yukon, Northwest Territories and Nunavut. Grizzly Bear historic range also includes parts of the prairie region of Alberta, Saskatchewan, southern Manitoba, as well as northern Quebec and Labrador (Ungava Population).



### Description

Grizzly Bears are large, muscular, and powerful. They can be distinguished from other bear species including Black Bear and Polar Bear by their prominent shoulder hump, concave facial profile and long front claws. In many instances, the fur on their shoulders and back is tipped with white, grey or silver which gives them a 'grizzled' appearance. Grizzly Bears have well developed sense of smell and hearing and can run at speeds of up to 55 km/hour.

### Habitat Needs

Grizzly Bears are wide-ranging mammals with large home ranges. They require high food supply and appropriate habitat for denning sites to support reproduction to maintain a stable population. Grizzly Bears are omnivores, eating both meat and plants, and have a diet that varies with location and season. As a result, habitat associations are strongly seasonal and typically reflect local plant growth, timing of ungulate calving, and onset of migratory fish spawning, for example. Grizzly Bears hibernate during the late fall, winter and early spring months. Winter den building requires loose, well-drained substrate for digging.



## Threats to Grizzly Bear Survival

**Agriculture** – Reduces habitat and can result in loss of landscape connectivity. Increases in human-bear conflicts.

**Climate Change** – Increased temperatures and unpredictable weather events may result in reduced abundance or altered timing of food availability.

**Forest Fires** – Fragments habitat making it harder to travel on the landscape and decreases suitable habitat and food availability.

**Housing & Commercial Development** – Expansion of communities and other infrastructure destroys habitat and fragments home ranges and natural corridors.

**Industrial & Logging Activities** – Large landscape disturbances from habitat destruction, fragmentation, road development, increased human presence, and pollution.

**Recreational Activities & Tourism** – Backcountry activities (e.g.: hiking, camping, skiing, off-road vehicles, etc.) can cause habitat modifications, pollution and change Grizzly Bear behaviour as they avoid human presence.

**Roads & Corridors** – Fragments habitat making it harder for travel to access food and mates. Increases risk of mortalities from vehicle and train collisions. Facilitate human access to remote areas and increases human-bear conflicts.

## Management Objective

Maintain the long-term stability and resiliency of Grizzly Bear, Western Population through the diversity of ecosystems it currently occupies in Canada, by mitigation the primary threats to the species, improving and fostering respectful and sustainable human-bear coexistence, and restoring and maintaining ecological connectivity in parts of its range where human impacts have been most severe.

## Strategies to Help Meet Objective

- Promote and support improving respectful and sustainable human-Grizzly Bear coexistence and minimize Grizzly Bear mortality.
- Address knowledge gaps required to inform decision making processes for Grizzly Bear management, conservation, and recovery.
- Support Indigenous-led initiatives and collaboratively apply Indigenous Knowledge to operations and plans aimed at supporting healthy Grizzly Bear populations.
- Maintain and enhance interconnected habitats to support ecosystem integrity and processes that Grizzly Bears require.
- Improve policy implementation and species conservation through promoting and improving information sharing and collaboration across local, regional, Indigenous, provincial, territorial and federal jurisdictions.



**For more information, please contact:**

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 Environment and Climate Change Canada  
**Email:** [Kirsten.wilcox@ec.gc.ca](mailto:Kirsten.wilcox@ec.gc.ca)



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# Tallurutiup Imanga National Marine Conservation Area Update on the Interim Management Plan

Nunavut Wildlife Management Board



ᐃᑎᓐᑦᑦ 25. 2026 February 25, 2026



Parks  
Canada

Parcs  
Canada











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## Interim Management Plan

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- 
- Guidance for the Aulattiqatigiit Board and users
  - Developed by Qikiqtani Inuit Association, Government of Nunavut, and Government of Canada
  - Input from communities, stakeholders and the public
  - In place until a full management plan is developed









# Contents of the Interim Management Plan



## VISION

Expresses an inspiring and vivid – yet achievable – description of the desired future state of the NMCA.



## OBJECTIVES

Answer the question: “In order to achieve the vision, what results do we need to see?”



## TARGETS

Answer the question: “How do we measure our progress toward achieving the desired results?”



## ZONING

From more to less restrictive, describes what activities can take place in an area, when they can take place, and under what conditions.








# Objectives

## Objective 1

- The natural and cultural heritage of Tallurutiup Imanga is protected and conserved.

**Targets 3, 4 and 6 are related to wildlife.**



## Objective 2

- The sustainable use of marine and terrestrial resources respects Inuit rights, results in economic and social benefits for Inuit, and enhances the well-being of the associated communities.

## Objective 3

- Collaborative research and monitoring increases awareness, informs decision making, and promotes knowledge collection and sharing.

**Target 1 is related to wildlife.**



## Objective 4

- Collaborative and coordinated prevention, preparedness, and response planning increases safety of the associated communities and NMCA users and the protection of Tallurutiup Imanga.





## Objective 1

- **Target 3** - Processes for issuing authorizations (such as permits or licenses) for activities in Tallurutiup Imanga NMCA are developed, and documented in a format that is publicly available, by the end of year 2. These processes prioritize the protection of wildlife and Inuit use of the area in the management of other uses and activities within the NMCA. To the extent possible, these processes are streamlined with existing procedures.
- **Target 4** - As per the Federal Marine Protected Areas Protection Standard, an assessment of the compatibility of the use of bottom trawl gear with the NMCA's conservation objectives is conducted in collaboration with communities and stakeholders, and a report delivered to the Aulattiqatigiit Board by the end of year 5.
- **Target 6** - An assessment of the need for increased protection of colonial seabirds and their habitat is completed in collaboration with the Canadian Wildlife Service, and a report with findings and recommendations delivered to the Aulattiqatigiit Board by year 3.

## Objective 3

- **Target 1** - A minimum of 3 indicators to monitor ecological sustainability that are based on Inuit Qaujimagatuqangit and western science are co-developed with communities and approved by the Aulattiqatigiit Board. The monitoring of these indicators commences within 5 years.

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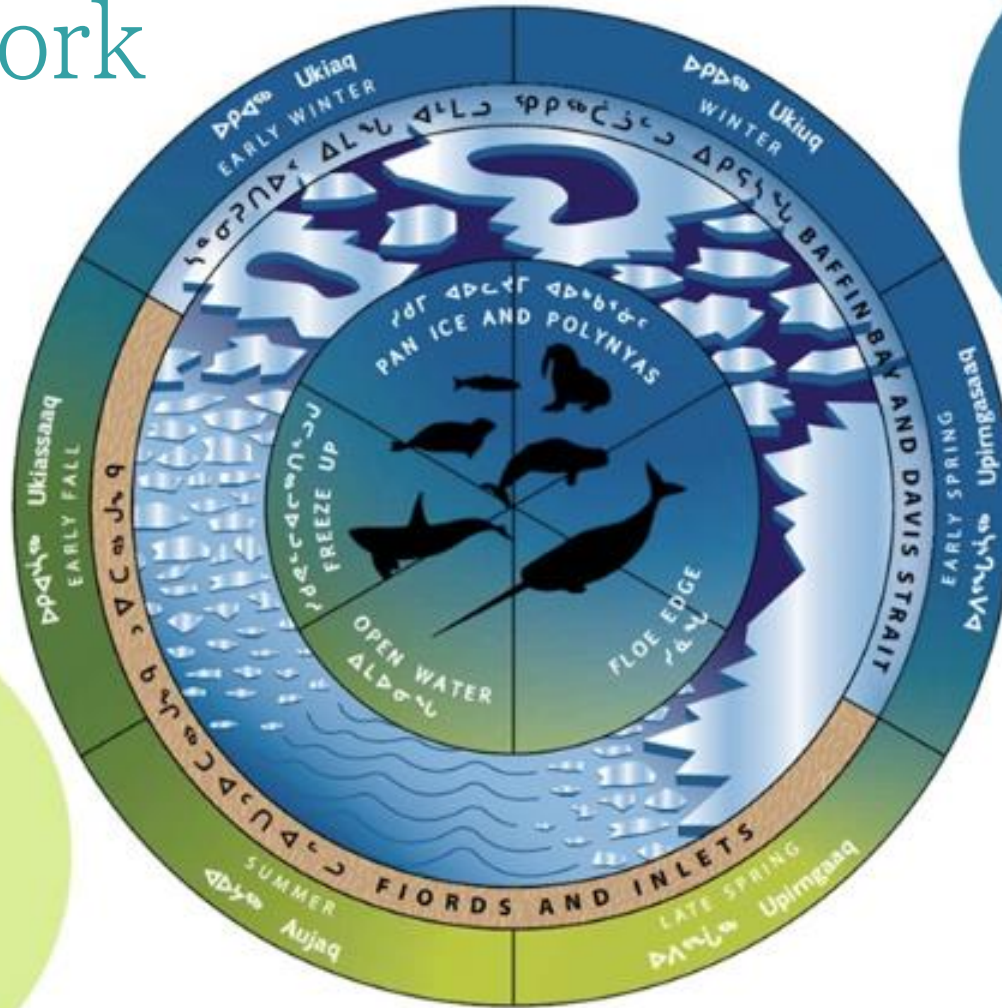
## Zoning Framework

Open Water  
Zoning Plan

July 21 to  
November 15

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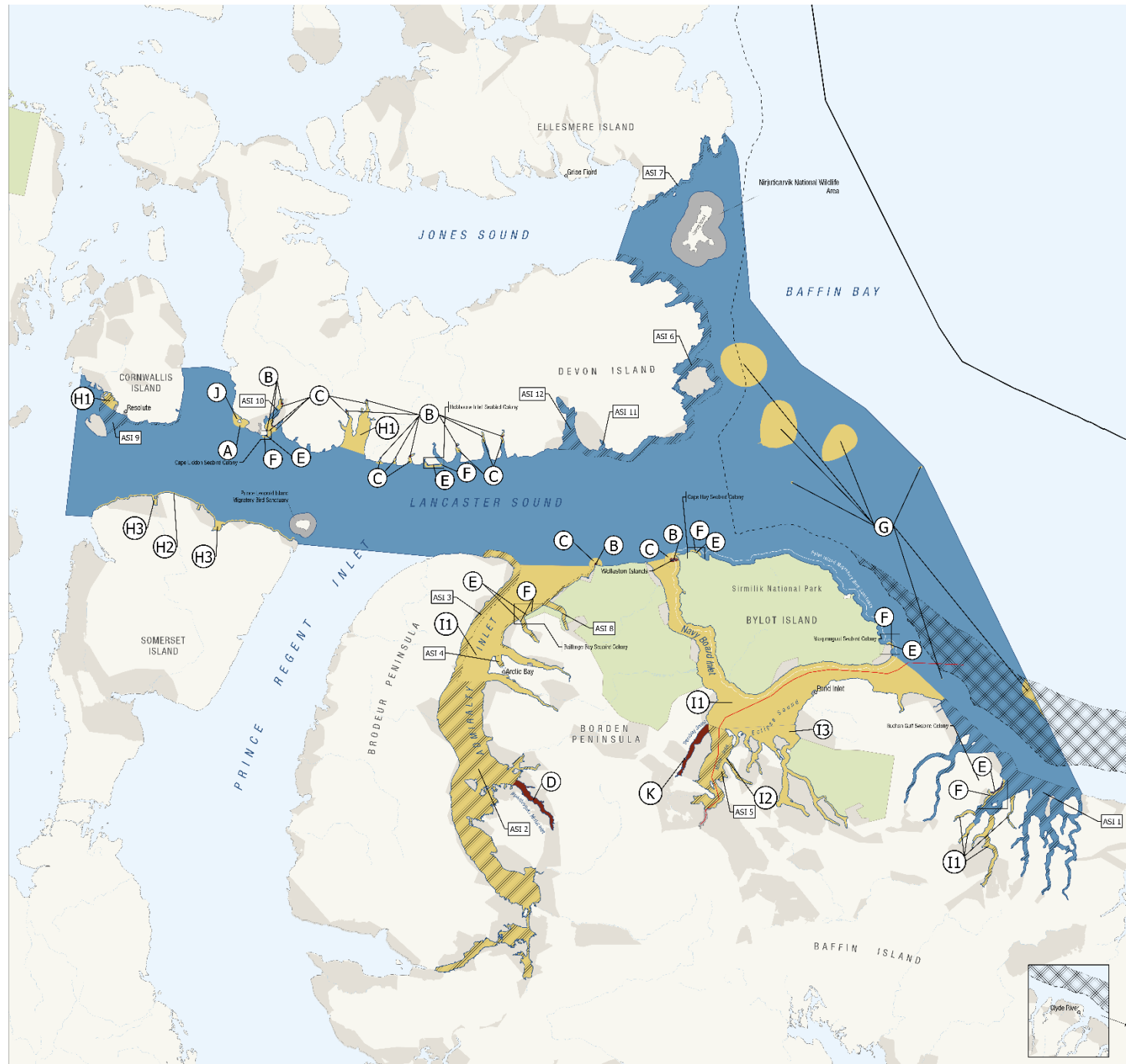
Ice Zoning  
Plan

November 16  
to July 20





# OPEN WATER SEASON

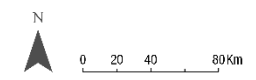


## Open Water Season (July 21 - November 15)

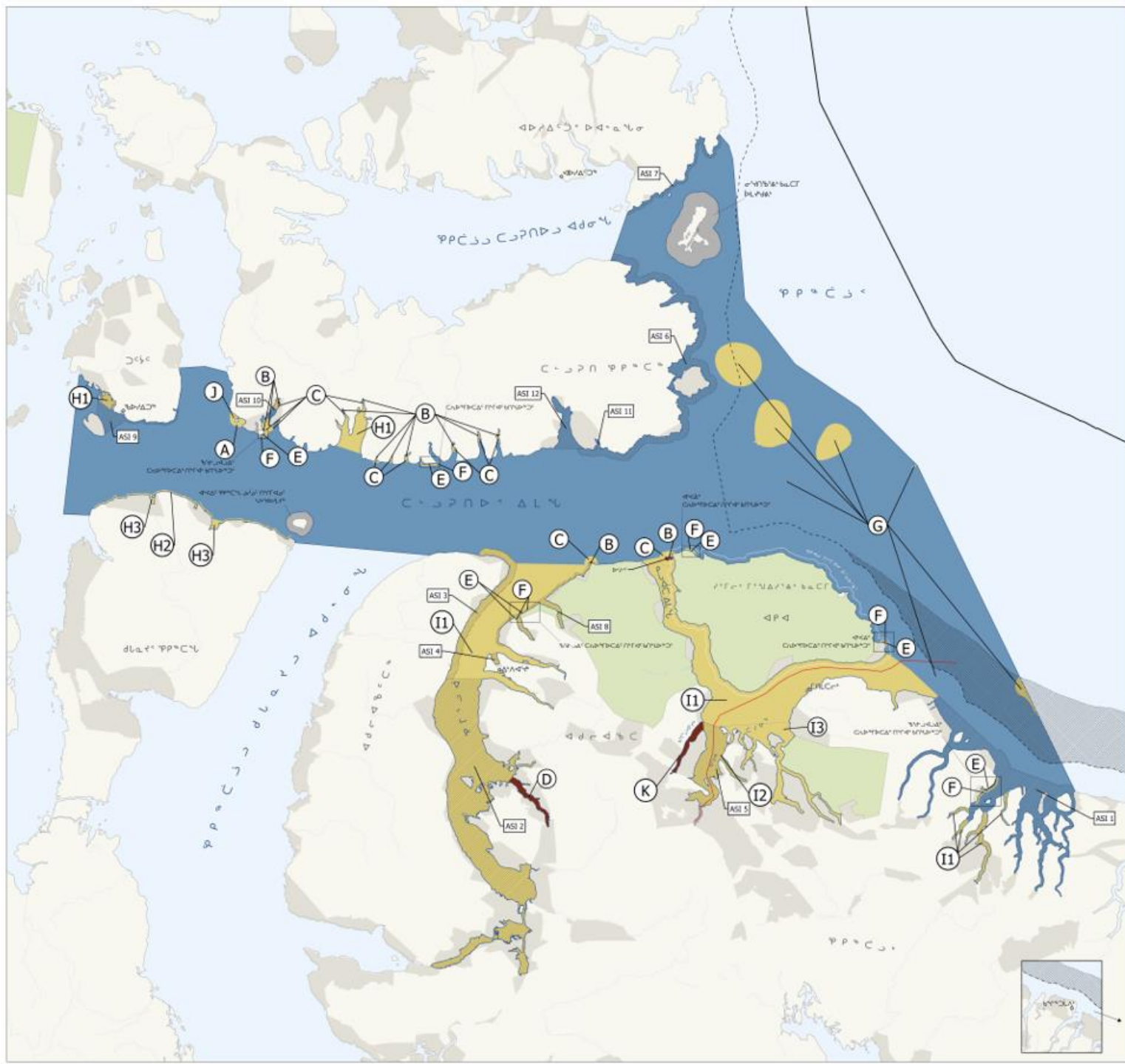
- ### Zoning
- Zone 1 (strict protection)
  - Zone 3 (habitat protection)
  - Zone 4 (multiple use)
  - Area of special importance to Inuit (ASI)
  - Marine exclusion from TINMCA
  - National Park
  - Tallurutiup Imanga NMCA

- ### Other Features
- Inuit Owned Lands
  - Nunavut Settlement Area
  - Bylot Island Migratory Bird Sanctuary
  - Outer land fast ice zone
  - Exclusive Economic Zone Boundaries
  - Northern Shipping Route

Habitat Code	Description
A	Wreck of Breda/bane National Historic Site
B	Walrus haul out
C	Walrus haul-out buffer
D	Ikoikittuarjuk / Moffet Inlet
E	Seabird colony
F	Seabird colony buffer
G	Significant Benthic Areas
H1, H2, H3	Beluga summer aggregation area
I1, I2, I3	Narwhal summer aggregation area
J	Underwater cultural resource area
K	Tremblay Sound



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(የግ.ገ.ገ. 21 መጠን 15)

**Zoning**

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- ዞን 3 (የግብርና ልማት ስራ)
- ዞን 4 (የግብርና ልማት ስራ)
- ልማት ለከተሎች (ASI)
- ስራ ለግብርና ልማት ስራ
- የግብርና ልማት ስራ
- ስራ ለግብርና ልማት ስራ

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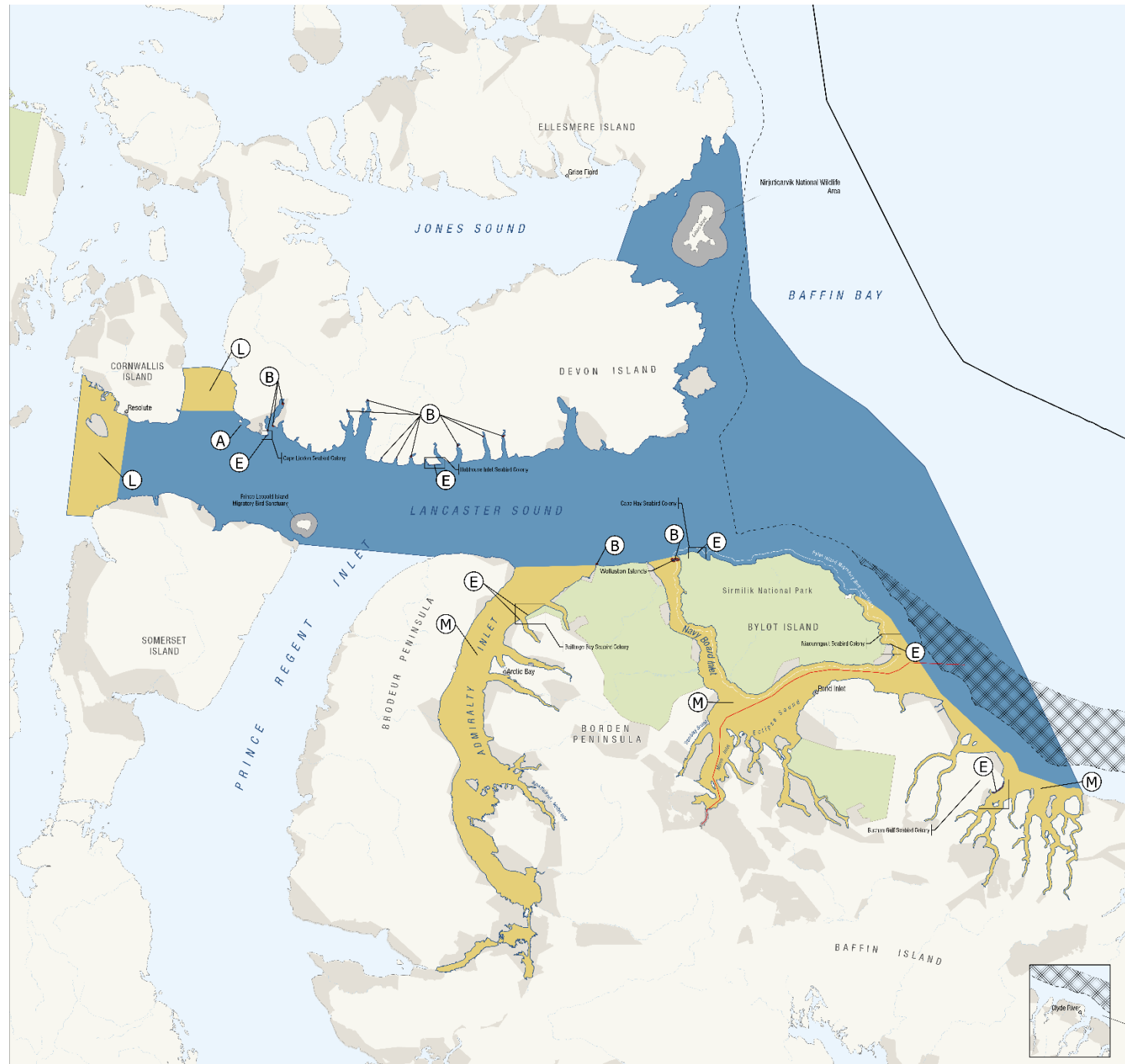
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- ልማት ስራ
- የግብርና ልማት ስራ
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B	ስራ
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D	ስራ
E	የግብርና ልማት ስራ
F	የግብርና ልማት ስራ
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I1, I2, I3	ስራ ለግብርና ልማት ስራ
J	ስራ ለግብርና ልማት ስራ
K	ስራ





# ICE SEASON



**Ice Season**  
(November 16 - July 20)

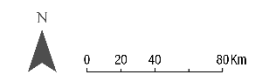
**Zoning**

- Zone 1 (strict protection)
- Zone 3 (habitat protection)
- Zone 4 (multiple use)
- Marine exclusion from TINMCA
- National Park
- Tallurutiup Imanga NMCA

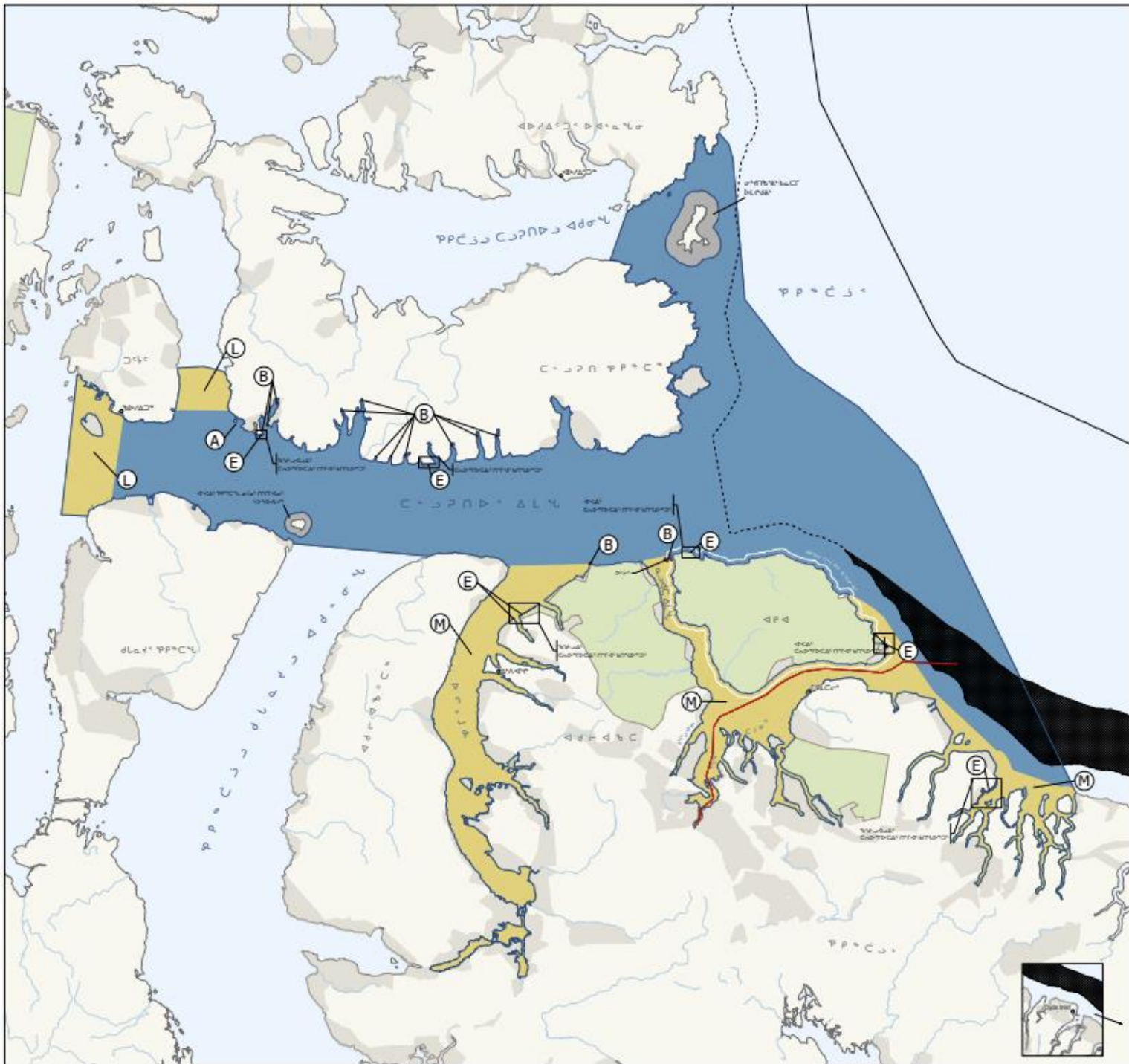
**Other Features**

- Inuit Owned Lands
- Nunavut Settlement Area
- Bylot Island Migratory Bird Sanctuary
- Outer land fast ice zone
- Exclusive Economic Zone Boundaries
- Northern Shipping Route

Habitat Code	Description
A	Wreck of Breadalbane National Historic Site
B	Walrus haul-out
E	Seabird colony
L	Feary Caribou sea ice crossing critical habitat
M	Key sea ice habitat



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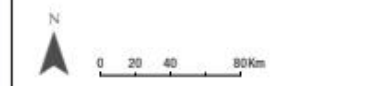


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  - የደረጃ 4 (አጠቃላይ ነጥብ)
  - የደረጃ 5 (አጠቃላይ ነጥብ)
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  - የደረጃ 5 ስልጠና
  - የደረጃ 6 ስልጠና
  - የደረጃ 7 ስልጠና
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E	የደረጃ 4 ስልጠና
L	የደረጃ 5 ስልጠና
M	የደረጃ 6 ስልጠና





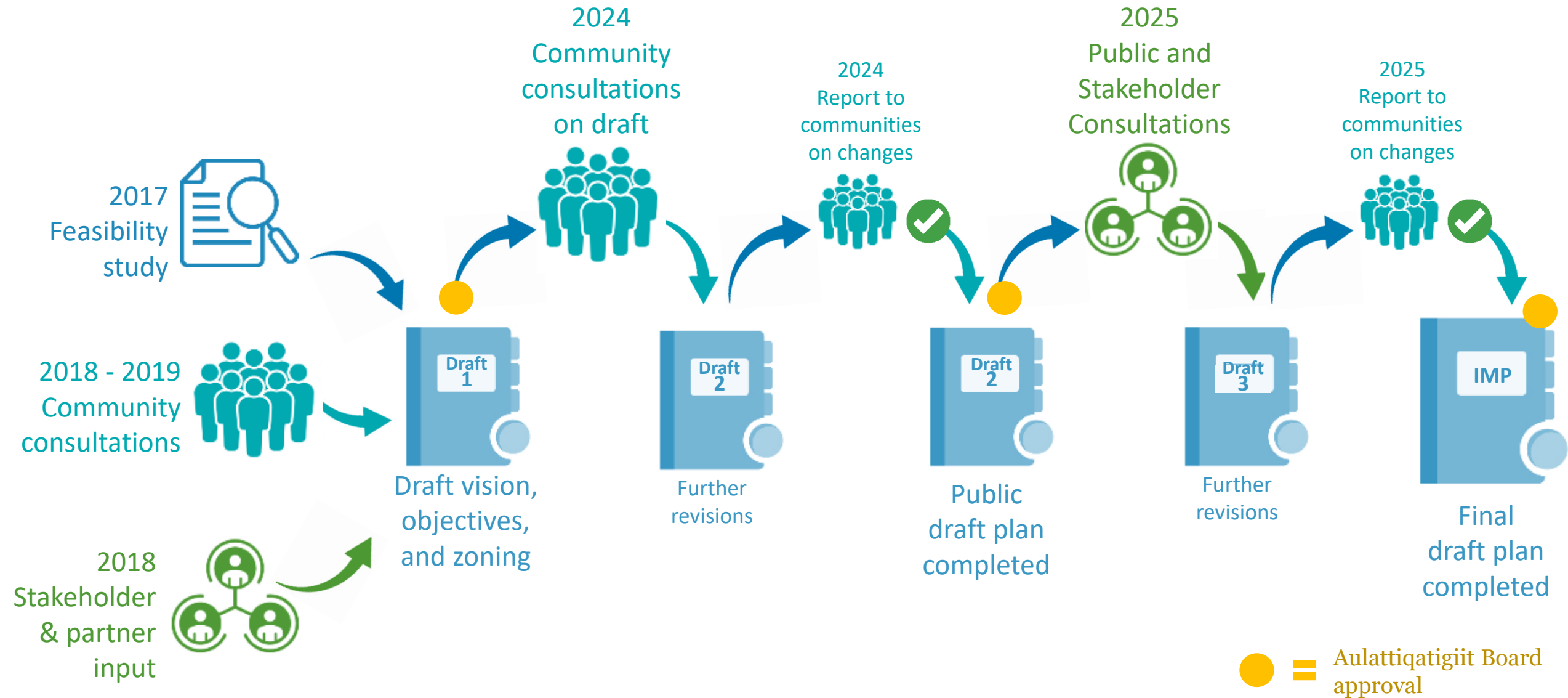




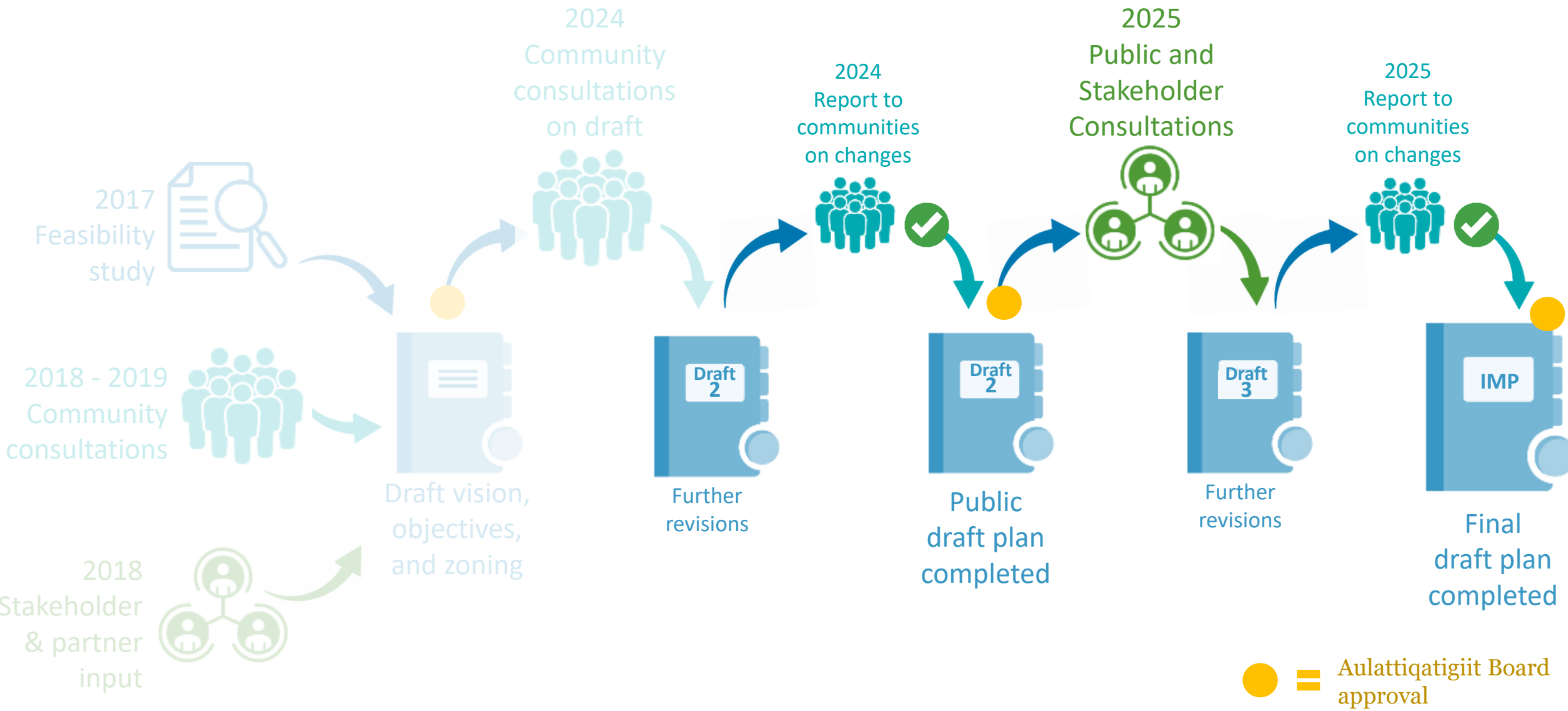




# Development of the Interim Management Plan



# Since the NWMB update in October 2024





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Thank you!



## SUBMISSION TO THE NUNAVUT WILDLIFE MANAGEMENT BOARD

**FOR: Information:** X

**Decision:**

**Issue:** Update on the status and timelines for the interim management plan of Tallurutiup Imanga National Marine Conservation Area.

### **Background**

#### **(a) How the issue related to the NWMB mandate**

In June 2026, the Aulattiqatigiit Board, the co-management board for Tallurutiup Imanga National Marine Conservation Area (NMCA), will be seeking NWMB approval on aspects of the Tallurutiup Imanga NMCA Interim Management Plan (IMP) that concern wildlife management.

#### **(b) Why the issue is being presented**

Prior to submitting the IMP to the NWMB for approval at the June 2026 meeting, the Planning Committee responsible for leading the development of the IMP wishes to provide an update to the NWMB on progress to date, including recent community, stakeholder, and public consultations, as well as next steps and the anticipated timeline for completion. The last update was given to the NWMB in October 2024.

The IMP is being submitted to the NWMB for approval in June in accordance with requirements of Article 5 of the Nunavut Agreement, as well as Section 7 of the Inuit Impact and Benefit Agreement for Tallurutiup Imanga NMCA. However, no wildlife management measures that affect Inuit rights-based activities provided for in the *Nunavut Agreement* are being proposed in the IMP. Management measures related to wildlife (e.g. zones restricting access to non-beneficiaries) were developed to increase the protection of wildlife and its habitat.

#### **(c) The key facts and circumstances relating to the issue**

Tallurutiup Imanga NMCA is a marine conservation area located in the northern Qikiqtani region and includes some terrestrial areas (three significant bird cliffs and all islands under 400 ha). It is jointly managed by the Qikiqtani Inuit Association and the Government of Canada (Parks Canada, Fisheries and Oceans, and Transport Canada). An Inuit Impact and Benefit Agreement was signed for Tallurutiup Imanga NMCA in 2019, but the establishment of the site under the *Canada National Marine Conservation Areas Act* remains outstanding. One of the steps needed to complete establishment of Tallurutiup Imanga NMCA is to develop an IMP.

The IMP will guide the management of Tallurutiup Imanga NMCA while a comprehensive 10-year Management Plan is developed within five years of the establishment of the NMCA. The development has been led by a Planning Committee, which consists of two representatives from the Qikiqtani Inuit Association, one representative from Parks Canada, and one representative from the Government of Nunavut. The IMP has been informed by extensive consultation with the associated communities, as well as input from stakeholders and the public. The communities associated with Tallurutiup Imanga NMCA are Ausuittuq (Grise Fiord), Qausuittuq (Resolute Bay), Ikpiarjuk (Arctic Bay), Mittimatalik (Pond Inlet), and Kangiqtugaapik (Clyde River).

The IMP contains a vision that describes the desired future state of Tallurutiup Imanga NMCA in 15-20 years; management objectives that are broad outcomes to accomplish over the life of the IMP, with associated targets that are more specific and will measure progress towards achieving the objectives; and a zoning plan that sets the management intent for different areas of Tallurutiup Imanga NMCA by dividing it into specific zones. Zoning describes what activities can take place in an area, when they can take place, and under what conditions. Inuit rights-based harvesting and traditional use are allowed in all zones, at all times. The zoning is divided into an ice-season zoning plan and an open-water season zoning plan, to better reflect the realities of each season.

**(d) The estimated time required to orally present the issue (excluding questions/discussion).**

The Planning Committee will deliver a 15-minute presentation that provides details about the IMP, updates on new developments, and next steps.

### **Consultations**

- **2018 - 2019 community consultations:** Consultations on the draft IMP were held in Ausuittuq (Grise Fiord), Qausuittuq (Resolute Bay), Ikpiarjuk (Arctic Bay), Mittimatalik (Pond Inlet), and Kangiqtugaapik (Clyde River) to gather information about what should be in the IMP. The Planning Committee met with hamlet councils, Hunters & Trappers Organizations and other local organizations and held public information sessions. 158 individuals attended those consultations. The Planning Committee used what was heard at these meetings to draft the IMP.
- **2018 - 2019 stakeholder engagement:** Stakeholders in the cruise, shipping, mining, and tourism industries, as well as NGOs and researchers, were engaged through presentations, meetings, and workshops. Sixty-eight stakeholder groups attended 16 engagement opportunities. Letters and emails were also received from stakeholders. Inputs received during this stakeholder engagement informed the draft IMP.
- **March 2024 community consultations:** The Planning Committee travelled to the five communities associated with Tallurutiup Imanga NMCA to present the draft IMP and ensure that community concerns and priorities had been adequately addressed. Meetings were held with hamlet councils, Hunters & Trappers Organizations, Community Land and Resource Committees, and the Nauttiqsuqtiit (or Inuit stewards) over 2 days in each community. Open houses were also held in each community. A total of 103 individuals attended these meetings. During these consultations, the Planning Committee received additional information on values that need to be protected (e.g. rights, culture, wildlife) and about the threats to these values in Tallurutiup Imanga NMCA (e.g., concerns about pleasure craft and cruise ship behavior and impacts, concerns about capacity to respond to public safety or environmental incidents). The Planning Committee used this information to further refine the objectives and targets and the zoning sections of the draft IMP. The Planning Committee also received comments that improved the vision statement.
- **November 2024 - January 2025 community consultations:** Representatives of the Planning Committee travelled to the five communities associated with Tallurutiup Imanga NMCA to validate the updates made to the content of the draft IMP, as a result of the March community consultations. Evening meetings were held with hamlet councils, Hunters &

Trappers Organizations, and the Nauttiqsuqtiit. Presentations were given in Inuktitut with interpretation into English. Fifty-one individuals attended the meetings. Community members had questions and comments but were overall satisfied with the draft IMP, which allowed the Planning Committee to move to public and stakeholder consultations.

- **2025 public engagement:** Engagement was held online from June 23 to July 21. The draft IMP was posted in Inuktitut, English, and French on parks.canada.ca. It was shared on Facebook (@ParksCanadaNunavut, @ParksCanada, @QikiqtaniInuit @GovofNunavut), X (@ParksCanNunavut), and on the website Consulting with Canadians. The draft IMP webpage was visited 258 times in English and 25 times in Inuktitut. The public was offered to provide comments by email. Only one comment was received. No modifications to the draft IMP were made following the public engagement.
- **2025 stakeholder engagement:** From May 22 to August 1, 78 stakeholder groups were engaged. They each received a copy of the draft IMP. Meetings were held with representatives of the mining, shipping, cruise ship, tourism, and fisheries industries. Follow-up meetings were then held with the Association of Arctic Expedition Cruise Operators and Baffinland Iron Mines Corp. Non-government organizations and academia were provided an opportunity to submit feedback in writing. A total of 125 comments were received from all stakeholders. Following this stakeholder engagement, the Planning Committee recommended making minor changes to the IMP.
- **2025 community check-in:** Before officially integrating these changes in the draft IMP, the Planning Committee checked in with each of the five communities associated with Tallurutiup Imanga NMCA. The hamlet councils and Hunters & Trappers Organizations of each community were sent a letter that provided an overview of the proposed changes. They were also offered an opportunity to meet and discuss the changes with the Planning Committee, ask questions, and clarify any of the edits. Communities did not raise concerns regarding the proposed changes. Therefore, these changes were made to the draft IMP.

### **Recommendation**

The Planning Committee hopes to present the final IMP for NWMB approval at the June 2026 meeting, following internal approvals. Prior to submitting the final IMP to the NWMB for approval in May, the Planning Committee recommends organizing a meeting with NWMB staff to provide an overview of the IMP and answer any questions pre-emptively.

### **Prepared By:**

Tallurutiup Imanga NMCA IMP Planning Committee

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**Date:** January 16, 2026





Act. The NWMB did not support the listing. The DFO Minister ultimately rejected decisions of the NWMB and listed the beluga in Cumberland Sound as “threatened” in 2011.

During the listing process, an especially contentious issue, among several, was centered at the intersection of science vs. Inuit systems of wildlife manage and Inuit Qaujimaqatugangit (I.Q). Based on generations of IQ and more recent Inuit testimony, the Pangnirtung HTA emphasized that two separate beluga populations have been found within Cumberland Sound for many human generations. That IQ-based position was rejected by the DFO Minister, contrary to subsection 5.12(e) of the Nunavut Agreement. On the other hand, the NWMB in 2011 found that the IQ supporting the HTA’s position was “reliable and persuasive”.

After requests from the Pangnirtung HTA, in 2022 DFO conducted genetic analyses of samples taken from beluga whales in Cumberland Sound. In December 2022, DFO presented the genetic results to the Cumberland Sound Beluga Working Group. Of 24 samples evaluated, the majority were from the Cumberland Sound beluga (CSB) population (74%). The remainder (26%) were most similar to whales from the Western Hudson Bay beluga (WHB) population. It is unknown whether or not these proportions based on genetic results from each population are representative of either the total beluga harvest in Cumberland Sound, or of the relative abundances of the two populations in the Sound, or of neither of these components.

The genetic classification of the beluga is generally consistent with IQ. Note that the two populations within Cumberland Sound are referred to differently in the PHTA’s current harvesting by-laws to be consistent with local references. The “Clearwater” beluga in the PHTA’s by-laws are larger animals and concentrate in the area of Clearwater Fiord during early summer, and appear to be comparable to CSB whales from the DFO genetic analyses. On the other hand, the “small” beluga in the PHTA’s current by-laws occur mainly on the south side of Cumberland Sound mainly east of Irvine Inlet and appear to be very similar to WHB whales based on ancestral and current IQ, and as suggested by DFO’s recent genetic analyses.

In June 2023, DFO confirmed that there is no quota or total allowable harvest for WHB beluga. The current quota or basic needs level for beluga in Cumberland Sound is 41. DFO has applied the current and past quotas to all beluga harvested in Cumberland Sound, which the Inuit of Pangnirtung and their HTA have objected to since the quotas were first imposed by DFO. DFO’s application of the quota to all belugas in Cumberland Sound is inconsistent with the occurrence of two populations within the Sound, one of which (i.e., WHB) has no quota across most of its range which is outside of the Sound.

Inuit harvesters in Pangnirtung can determine which population that a harvested beluga may come from based on physical size and other characteristics, and this information will be collected in future.

In an email message sent to the Cumberland Sound Beluga Working Group in March 2024 by DFO staff, both the NWMB and DFO reportedly support management of beluga in Pangnirtung by Inuit-based community management systems. This would be in accordance with sub-section 5.1.2(e) of the Nunavut Agreement.

## *Approval of Revised PHTA Beluga Harvesting By-laws in 2024 and Implementation in 2026*

After an IQ workshop (see Consultations below) in February 2023, the current beluga harvesting by-laws were revised and passed at the Annual General Meeting of the Pangnirtung HTA in December 2024. Implementation of the revised by-laws was delayed until 2026, while PHTA staffing levels were reviewed.

Pertinent revisions of the Pangnirtung HTA's Beluga By-laws are as follows:

### **2.1.2 Harvest Limitations for Clearwater Beluga**

- (a) The total annual allocation for harvesting of Clearwater beluga is 41 while Clearwater beluga may be outside of the Clearwater Beluga Conversation Area. The harvest year begins on April 1 and ends on March 31 of the following calendar year.
- (b) Each HTA member will be limited to a maximum of one Clearwater beluga annually, provided that the total quota for Clearwater beluga has not been reached.

### **2.2.2 Elimination of Harvest Limitations on Smaller Beluga in Cumberland Sound**

Harvesting of smaller beluga in Cumberland Sound will not be limited by quota.

### **2.2.3 Reporting the Type of Each Beluga Harvested in Cumberland Sound**

As per section 3.5 below, each harvester must record and report the type of beluga that he or she may have harvested.

In 2026, the Pangnirtung HTA plans to hire an Assistant Manager to help record the beluga harvest information described above in by-law section 2.2.3.

### **Consultations:**

The Pangnirtung HTA held a beluga by-law workshop during February 27-28, 2023. The workshop was attended by Pangnirtung HTA Board members, local beluga experts, two representatives of the Amaruk HTA in Iqaluit, and the Director of Wildlife and Environment from the Qikiqtaaluk Wildlife Board.

Amaruk HTA representatives helped to address two specific topics, as well as other potential management issues and processes. No regular overlap of beluga harvesting in Cumberland Sound by Iqaluit hunters was apparent. Also, based on IQ, the small beluga in Cumberland Sound seem to be similar to the type of beluga harvested by Iqaluit harvesters in Frobisher Bay. Large beluga similar to Clearwater whales were rarely, if ever, seen in Frobisher Bay.

The NWMB could not provide detailed records of public hearings and other consultations for the past establishment and modifications of the total allowable harvest and non-quota limitations for beluga in Cumberland Sound. Reportedly, the NWMB advised the Pangnirtung HTA that the quota (presumably a total allowable harvest) for Cumberland Sound increased from 35 to 41 in 2000. The NWMB could not provide the Pangnirtung HTA with a record of public consultations leading to that decision, or to the decisions that led to the previous quota level of 35, or other potential prior quotas.

According to records of the Cumberland Sound Beluga Working Group in March 2024, both NWMB and DFO support management of beluga in Pangnirtung by Inuit-based community management systems, as long as management details are shared with NWMB and DFO. This would be in compliance with sub-section 5.1.2(e) of the Nunavut Agreement.

In addition to other Inuit beluga management meetings, representatives of the Pangnirtung HTA and the Qikiqtaaluk Wildlife Board have participated in meetings of the Cumberland Sound Beluga Management Working Group sponsored by DFO since at least 2017.

This Briefing Note and the attached current Cumberland Sound beluga harvesting by-laws are provided to the NWMB and DFO to respond to the DFO's expressed request for sharing of management details.

**Prepared by:** Michael Ferguson *(at the request of the Board of Directors of the Pangnirtung HTA, and as supported by the Executive Committee of the Qikiqtaaluk Wildlife Board)*

**Date:** January 16, 2026

**Cumberland Sound Beluga Harvesting and Conservation By-laws  
Pangnirtung Hunters and Trappers Association (HTA)**

**Approved during the Annual General Meeting of the HTA. December 14, 2024**

**1. Introduction**

**1.1. The Nunavut Agreement and Recognition of Inuit Systems of Wildlife Management**

These Beluga Harvesting and Conservation By-laws are guided by Article 5 for Wildlife of the Nunavut Agreement, especially sections 5.1.2 – Principles, 5.1.5 – The Principles of Conservation, 5.3.3 – Restricting or limiting Inuit harvesting only to the extent necessary, and 5.7.3 – The powers and functions of HTOs.

The Pangnirtung HTA recognizes that the Nunavut Agreement is part of the Constitution of Canada, and therefore provisions of the Agreement supersede provisions of federal legislation, acts and regulations, which may differ in part from the Agreement. The powers and functions of the Pangnirtung HTA are derived directly from the Nunavut Agreement, not from the Nunavut Wildlife Management Board or from the federal Fisheries Act.

Important elements of the Nunavut Agreement considered for these By-laws include but are not limited to the following:

5.1.2 This Article recognizes and reflects the following principles:

- (e) there is a need for an effective system of wildlife management that complements Inuit harvesting rights and priorities, and recognizes Inuit systems of wildlife management that contribute to the conservation of wildlife and protection of wildlife habitat;

5.1.5 The principles of conservation are:

- (c) the maintenance of vital, healthy, wildlife populations capable of sustaining harvesting needs<sup>1</sup> as defined in this Article; and

5.3.3 Decisions of the NWMB or a Minister made in relation to Part 6 [Harvesting] shall restrict or limit Inuit harvesting only to the extent necessary:

- (a) to effect a valid conservation purpose; ...
- or

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<sup>1</sup> Article 5 addresses harvesting needs only in terms of the Basic Needs of Inuit, which the NWMB may review and adjust based on section 5.6.26 of the Agreement.

(c) to provide for public health or public safety.

Sub-section 5,1,2(e) of the Nunavut Agreement “recognizes Inuit systems of wildlife management” in Nunavut, while other general systems of wildlife management (e.g., scientific systems) are not explicitly recognized in Article 5 of the Nunavut Agreement. Therefore, the Pangnirtung HTA asserts that Inuit systems of beluga management have primacy over such other systems.

## **1.2 Types or Sub-populations of Cumberland Sound Beluga**

The Inuit of Pangnirtung and the Pangnirtung HTA have long recognized that the beluga in Cumberland Sound are made up of two different types or sub-populations, as described below:

- (a) The beluga that calve in Clearwater Fiord (see Fig.1 below) are readily recognized by experienced Inuit of Pangnirtung based on their larger body size as adults, fatness and skin colour, even when these beluga are outside Clearwater Fiord while migrating to and from the fiord. Upon arrival in Clearwater Fiord in late June or early July in big groups, their outer layer of skin is yellow and in its early stage of shedding. These beluga are fat, and most float when killed;<sup>2</sup> In these by-laws these beluga are referred to as “Clearwater beluga”. and
- (b) Smaller beluga in Cumberland Sound are readily recognized by experienced Inuit of Pangnirtung based on their smaller body size as adults, by having less fat, spending more time in faster currents, and having different migratory movements, and distribution as follows (in these by-laws these beluga are referred to as “smaller beluga”):
  - (i) Smaller beluga are usually first seen near the floe edge in Cumberland Sound during April – June, are whiter in colour and do not show any sign of shedding as Clearwater beluga do; are seen in smaller groups; and are generally easier to harvest than Clearwater beluga;<sup>3</sup> and
  - (ii) Smaller beluga are also seen in July and later months before freeze-up on the west side of Cumberland Sound, when their skin (Maayak) is thicker with a stronger taste<sup>4</sup>

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<sup>2</sup> Kilabuk, P. 1998. A Study of Inuit Knowledge of the Southeast Baffin Beluga. Nunavut Wildlife Management Board. Section: Distinguishing the Different Populations, Population 1 Page 53.

<sup>3</sup> Kilabuk, P. 1998. A Study of Inuit Knowledge of the Southeast Baffin Beluga. Nunavut Wildlife Management Board. Section: Distinguishing the Different Populations, Population 2 Page 53.

<sup>4</sup> Kilabuk, P. 1998. A Study of Inuit Knowledge of the Southeast Baffin Beluga. Nunavut Wildlife Management Board. Section: Distinguishing the Different Populations, Population 3 Page 53.





### **2.1.2 Harvest Limitations for Clearwater Beluga**

- (a) The total annual allocation for harvesting of Clearwater beluga is 41, while Clearwater beluga may be outside of the Clearwater Beluga Conversation Area. The harvest year begins on April 1 and ends on March 31 of the following calendar year.
- (b) Each HTA member will be limited to a maximum of one Clearwater beluga annually provided that the total quota for Clearwater beluga has not been reached.

### **2.1.3 Proposed Prohibition of Non-Traditional Land Use Activities in Clearwater Beluga Conservation Area**

- (a) The Pangnirtung HTA supports prohibition of all of the following non-tradition land and marine activities in and near the Clearwater Beluga Conservation Area (Fig. 1):
  - Mineral Exploration and Production
  - Oil and Gas Exploration and Production
  - Seismic Testing
  - Sonar
  - Disposal at sea
  - Obnoxious Land Use
  - Quarries
  - Hydro-electrical and related infrastructure
  - Linear Infrastructure
  - Tourism
  - Exploitive Scientific Research
  - All ship traffic, smaller vessels and watercraft.
- (b) For clarity, activities of local tourism outfitters and guides who are also members of the Pangnirtung HTA are not subject to the tourism prohibitions listed in 2.1.3(a).
- (c) A Indigenous Protected and Conserved Area on the waters and adjacent lands of the Clearwater Beluga Conservation Area was proposed.

## **2.2 Conservation of Smaller Beluga in Cumberland Sound**

### **2.2.1 Recognition of Smaller Beluga in Cumberland Sound**

The Inuit of Pangnirtung and the Pangnirtung HTA readily recognize smaller beluga based on their distinctive physical and other characteristics compared to Clearwater beluga (see section 1.2).

Fisheries and Oceans Canada (DFO) has recently summarized data on genetic differences between these two types of beluga. Classification of Clearwater beluga and smaller beluga in Cumberland Sound are recognized herein based on Inuit Qaujimajatuqangit, and is not dependent on scientific differences. The similarities of smaller beluga in Cumberland Sound with Western Hudson Bay beluga has been recognized by Pangnirtungmiut and the Pangnirtung HTA for decades or longer.

DFO has imposed quotas on all Cumberland Sound beluga without distinguishing between the two sub-populations, despite Inuit Qaujimajatuqangit about the distinctiveness of the two types. Western Hudson Bay beluga are not subject to any harvesting quotas in other parts of their range.

The Pangnirtung HTA do longer recognizes any quota on smaller beluga in Cumberland Sound. Inuit system of wildlife management is recognized in the Nunavut Agreement and therefore takes primacy in these by-laws.

#### **2.2.2 Elimination of Harvest Limitations on Smaller Beluga in Cumberland Sound**

Harvesting of smaller beluga in Cumberland Sound will not be limited by quota.

#### **2.2.3 Reporting the Type of Each Beluga Harvested in Cumberland Sound**

As per section 3.5 below, each harvester must record and report the type of beluga that he or she may have harvested.

### **3. Beluga Harvesting Rules, Guidelines and Policies**

#### **3.1 Overall Management of the Beluga Harvest**

- (a) The Pangnirtung HTA has the authority and responsibility to manage the harvesting of beluga by its members under section 5.7.3 of the Nunavut Agreement.
- (b) All members of the Pangnirtung HTA must follow these rules, guidelines and by-laws while engaged in any attempt to harvest any beluga.
- (c) The Pangnirtung HTA has the authority to enforce these By-laws among its members under the Nunavut Agreement.
- (d) The Board of the Pangnirtung HTA may temporarily stop HTA members from actively harvesting beluga for the following reasons:

- (i) public safety or related concerns,
  - (ii) respect for any wildlife in the harvesting area, and/or
  - (iii) avoid or limit the potential waste of any beluga.
- (e) The Board of the Pangnirtung HTA may reprimand or temporarily remove a member's beluga harvesting right if that member has broken any of the HTA's beluga harvesting by-laws, decisions, guidelines, rules or policies, after investigating the matter and passing a motion by the Board: A reprimand or removal of beluga harvesting rights may include the following:
- (i) Having an Elder speak to the member,
  - (ii) Determining other consequences for the HTA member if the member has been found to have broken any HTA by-law, guideline, rule or policy; and/or
  - (iii) Permit the member to keep the beluga that he or she may have already caught.
- (f) At the discretion and by motion of the Board of the Pangnirtung HTA, additional allocation or non-quota restrictions, limitations, or conditions may be established, removed or modified for the harvesting of beluga by any or all HTA members, specifying whether specific limitations, restrictions or conditions apply to Clearwater beluga or small beluga or both.

### 3.2 **Equipment and Firearm Guidelines**

3.2.1 HTA members engaged in beluga harvesting must provide and have available and use all tools, equipment and firearms needed for successful harvesting, including but not limited to the following:

- (a) A **harpoon** and a buoy (avataq)
- (b) A 243 or stronger rifle
- (c) Dragging equipment (to recover any sunken beluga)
- (d) Enough flotation/life vests for all passengers on the boat
- (e) Retrieval hook with adequate line
- (f) Sampling kit (if applicable)

### 3.3 **Harvesting Guidelines**

- (a) Any outfitter with tourists on board his or her boat is not allowed to go into active beluga harvesting areas. This is to avoid potential activity conflicts and ensure public safety.
- (b) All HTA members engaged in beluga harvesting must assess and predict likely weather and sea conditions, including but not only: the travelling distances by boat and the load in the boat in order to avoid leaving their catch behind due to environmental conditions.

- (c) Younger harvesters should be accompanied by an experienced harvester to ensure proper harvesting and butchering methods are used.
- (d) Harvesters will not harvest a calf or an adult female with a calf.
- (e) Harvesters must not injure a beluga and leave it behind. The harvester must make every reasonable effort to land any injured beluga.
- (f) Harvesters must not sink a beluga on purpose.
- (g) The first person to hit or strike the beluga is known to have caught the beluga.
- (h) Anyone that did not harm a beluga with a rifle will be known as not having caught the beluga.
- (i) HTA members must kill any and all beluga that they have injured and continue to only go after any injured beluga before going after another one.
- (j) HTA members are not to leave behind any meat from harvested beluga that may be deemed edible. Generally, all meat of a beluga is considered edible. An Elder may be consulted if necessary.
- (k) Any beluga meat should not be left on the ice or on the shore, and harvesters should give away any meat that is not suitable for humans to dog owners.
- (l) Any beluga trapped because of ice conditions and later caught by an HTA member will not be taken from the quota. Nevertheless, all harvesting information about the harvest of the entrapped beluga will be recorded by the HTA member and reported to the HTA. (See section 3.4 below.)

### **3.4 Recording and Submission of Harvest Information and Samples**

- (a) Each member of the HTA must write down on a note pad, paper or electronic device all pertinent information about his or her harvest whenever he or she catches a beluga.
- (b) Each member of the HTA must provide the information about each beluga that he or she harvested to the HTA on the next day after he or she returns to the community.
- (c) Each member of the HTA that harvests a beluga must provide the following information<sup>5</sup> to the HTA Manager/Harvest Monitor. If the information is

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<sup>5</sup> Harvesters could use the SIKU smartphone app for recording information in either Inuktitut, English or French in the field. The SIKU app needs to be set up initially while connected to the internet. The SIKU app is available on the Google Play store or the Apple iOS Play store or at siku.org. The SIKU app is owned by the Arctic Eider Society.

submitted to the Conservation Officer employed by the Government of Nunavut's Department of Environment, or a DFO Fisheries Officer, a copy should also be provided to the HTA:

- (i) Name and Home Address of Harvester
- (ii) Date of Harvest
- (iii) Location of Harvest: Name and GPS Coordinates
- (iv) Type of Beluga: Clearwater, Smaller; Other (specify)
- (v) Sex: Male, Female, Unknown, Other (specify)
- (vi) Age Class: Adult with a calf, Adult without a calf, Juvenile, Calf, Other.
- (vii) Tissue(s) submitted (specify)
- (viii) Quota Tag Number (if applicable)

#### 4. Natural Deaths of Beluga in Cumberland Sound

##### 4.1 Abandoned Calves and Natural Death of Older Beluga in Cumberland Sound

A naturally abandoned calf or any other beluga found dead or near death will be recorded as a natural death and not counted against the annual quota.

##### 4.2 Ice-related Entrapment or Other Hazards Endangering Beluga in Cumberland Sound

Any beluga that may be found entrapped by ice or otherwise likely to die due to a natural or human-made hazard, provided that the situation or injury was not a result caused during harvesting, netting or trapping, may be killed as a humane action where the Conservation Officer (CO) or a Qaujimanilik recognized by the HTA will certify that the beluga was or were near death or likely to die due to the circumstances. After certification by the CO or the Qaujimanilik, the humane kill(s) (or euthanization) will not be counted against the annual quota if the beluga is or are Clearwater beluga..



## RESPONSE TO THE NUNAVUT WILDLIFE MANAGEMENT BOARD (NWMB)

Re: Submission for information: “*Pangnirtung HTA Beluga Harvesting By-laws to be Implemented in 2026*” prepared by Michael Ferguson (at the request of the Board of Directors of the Pangnirtung HTO, and as supported by the Executive Committee of the Qikiqtaaluk Wildlife Board (QWB)) Regular Meeting No. RM 001-2026

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Cumberland Sound Beluga (CSB) are a key subsistence resource for Inuit of Pangnirtung, where the current system used to manage the CSB population has been a source of frustration and concern for the community of Pangnirtung for many years.

Fisheries and Oceans Canada (DFO) acknowledges the work done by the Pangnirtung Hunters and Trappers Organization (HTO), with support from the QWB, in developing beluga harvesting by-laws for the management and conservation of beluga in Cumberland Sound. We thank the Pangnirtung HTO and QWB for providing a copy of the by-laws to DFO with their submission for information to the NWMB.

In the Pangnirtung beluga harvesting by-laws, it was clearly identified that the Pangnirtung HTO does not believe harvesting restrictions apply to the beluga population referred to as “smaller” in Cumberland Sound. DFO is familiar with the interest expressed in unrestricted harvesting of the “smaller” beluga in the Pangnirtung area, and has actively been looking for ways to support the HTO in the collection of information to further their identification and distinction. At this time however, it should be advised that the quota of 41 beluga set in the *Marine Mammal Regulations* (MMRs) applies to all beluga in the Pangnirtung area. See map in Figure 1, below.

### **Background:**

The current quota for beluga in the Pangnirtung area was established through the NWMB – Minister decision making process in 2000, with implementation in 2002. When the current quota was established, it was based on the abundance of all beluga in the area during the summer. Inuit Qaujimagayatuqangit (IQ) and recent genetics work by DFO Science have confirmed there are beluga from at least two populations within the Cumberland Sound stock during the summer when the harvest occurs. Discussions have begun at the CSB Working Group table regarding how best to manage the stock going forward given that the beluga are from more than one population.

At the last CSB Working Group meeting in November 2025, we began to discuss a project to explore the potential for targeted harvesting of beluga in Cumberland Sound. The Pangnirtung HTO has been saying for many years that experienced Inuit of Pangnirtung are able to recognize the population of “smaller” beluga in Cumberland Sound, and this statement is also included in the new beluga harvesting by-laws.



**Next steps for DFO:**

DFO continues to be very interested in the Inuit-based, community management systems that the Pangnirtung HTO board members and elders want to see implemented for beluga in Cumberland Sound. As such, DFO would like to continue the conversation about targeted harvesting of beluga in Cumberland Sound within the CSB Working Group, with a goal of putting in an application to the NWMB for decision, for a modification of the quota to allow the targeted harvesting of “smaller” beluga.

DFO will be reaching out to both the Pangnirtung HTO and QWB in the coming weeks to discuss ways we can work together to support their goals for the revised management of beluga in Cumberland Sound and the broader Pangnirtung area.

We look forward to continued conversations and collaboration with the Pangnirtung HTO and the broader CSB Working Group about how best to ensure conservation and sustainable harvesting of beluga in Cumberland Sound.

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**Date:**

February 9<sup>th</sup> 2026



