

Progress Report on the Recovery of Barren-ground Caribou

in the Northwest Territories (2021-2025)



SPECIES AT RISK (NWT) ACT

Progress Report and Review Series 2026

For copies of the progress report, recovery strategy, or for additional information on Northwest Territories (NWT) species at risk, please visit the [NWT Species at Risk website \(www.nwt-species-at-risk.ca\)](http://www.nwt-species-at-risk.ca).

Recommended citation: Conference of Management Authorities. 2026. Progress Report on the Recovery of Barren-ground Caribou (*Rangifer tarandus groenlandicus*) in the Northwest Territories (2021-2025). Conference of Management Authorities, Yellowknife, NT.

Un résumé des faits saillants du rapport est disponible en français: Rapport d'étape sur le rétablissement du caribou de la toundra aux Territoires du Nord-Ouest (2021 à 2025) – Faits saillants.

© Government of the Northwest Territories on behalf of the Conference of Management Authorities.

All rights reserved.

ISBN: 978-0-7708-0314-8

Content (excluding the illustrations) may be used without permission, with appropriate credit to the source.

Cover photo: Barren-ground caribou bull at Contwoyto Lake, Petter Jacobsen, Tłı̄chǫ Government

What is the *Species at Risk (NWT) Act*?

The *Species at Risk (NWT) Act* (the Act) provides a process to identify, protect and recover species at risk in the NWT. The Act applies to any wild animal, plant or other species for which the Government of the Northwest Territories has management authority. It applies everywhere in the NWT, on both public and private lands, including private lands owned under a land claims agreement.

What is the Conference of Management Authorities?

The Conference of Management Authorities (CMA) was established under the Act and is made up of the wildlife co-management boards and governments in the Northwest Territories (NWT) that share responsibility for the management of species at risk in the NWT (referred to as 'Management Authorities'). The purpose of the CMA is to build consensus among Management Authorities on the conservation of species at risk and to provide direction, coordination and leadership with respect to the assessment, listing, conservation and recovery of species at risk while respecting the roles and responsibilities of Management Authorities under land claim and self-government agreements. The CMA develops consensus agreements on listing species at risk, conservation measures, management plans and recovery strategies. Only Management Authorities in or near the range of a species are involved in making decisions.

What is a Threatened species?

Under the Act, a Threatened species is a species that is likely to become Endangered in the Northwest Territories if nothing is done to reverse the factors leading to its extirpation or extinction.

What is a recovery strategy?

Under the Act, a recovery strategy is a document that recommends objectives for the conservation and recovery of a Threatened species. It also recommends approaches to achieve those objectives. It includes a description of threats and positive influences to the species and its habitat. Under the Act, a recovery strategy must be completed for a Threatened species within two years of the species being added to the NWT List of Species at Risk.

What is a progress report?

Under the Act, a progress report is required every five years, or sooner, to report on the actions undertaken to implement a management plan or recovery strategy and on the progress made toward meeting its objectives.

PREFACE

The [Recovery Strategy for Barren-ground Caribou \(*Rangifer tarandus groenlandicus*\) in the Northwest Territories](#) (CMA 2020) was developed to provide overarching guidance on the management and stewardship of barren-ground caribou in the Northwest Territories (NWT) over the long term. It applies to all barren-ground caribou herds (Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst, Beverly, Ahiak, and Qamanirjuaq) that occur either entirely or partially in the NWT, with the exception of the Porcupine herd, which is considered geographically distinct and not at risk when assessed in 2017.

The strategy defines overall recovery goals and objectives for barren-ground caribou conservation and recovery across the NWT and recommends approaches to achieve those objectives. Management tools and actions specific to the needs of individual barren-ground caribou herds are outlined in herd-specific management plans, range plans and community-based caribou stewardship plans.

Under subsection 73(1) of the [Species at Risk \(NWT\) Act](#) and Section 7 of the recovery strategy (Next Steps), a progress report must be completed every five years on the actions undertaken to implement the recovery strategy and the progress towards meeting its objectives.

This document is a report on progress towards the recovery of barren-ground caribou in the NWT from 2021 to 2025. It describes the actions taken by co-management partners to implement the [Recovery Strategy for Barren-ground Caribou \(*Rangifer tarandus groenlandicus*\) in the Northwest Territories](#) and meets the legislative requirement for a progress report under the *Species at Risk (NWT) Act*.

While the Porcupine caribou herd is not considered within the scope of the recovery strategy, much of the guidance provided in the strategy would benefit this herd as well. In the interest of providing a complete picture of caribou conservation and management in the NWT, management actions for the Porcupine caribou herd are also included in this progress report.

ACKNOWLEDGMENTS

This progress report was prepared by the Management Authorities for barren-ground caribou that form the [Conference of Management Authorities](#) (CMA): the Wildlife Management Advisory Council (NWT), Gwich'in Renewable Resources Board, ʔehdzo Got'įnę Gots'ę Nákedı (Sahtú Renewable Resources Board), Wek'èezhii Renewable Resources Board, Tłıchq Government and Government of the Northwest Territories (GNWT).

Other partners in the CMA, including the Denesųliné Né Né Land Corporation, Beverly and Qamanirjuaq Caribou Management Board, North Slave Métis Alliance, Porcupine Caribou Management Board, and Government of Canada (Environment and Climate Change Canada and Parks Canada), as well as wildlife management partners in Nunavut, were invited to share their information and submit comments on drafts of the report.

Preparation of this progress report was funded by the GNWT Department of Environment and Climate Change (ECC). The management partners would like to thank the Species at Risk Secretariat for addressing the requirements of a progress report under the *Species at Risk (NWT) Act*. The principal preparers of this progress report were Joslyn Oosenbrug (Species at Risk Implementation Specialist) and Michele Grabke (Species at Risk Implementation Supervisor).

Background information in this document is summarized from the [Recovery Strategy for Barren-ground Caribou in the Northwest Territories](#) (CMA 2020) and the 2017 [Species Status Report for Porcupine Caribou and Barren-ground Caribou \(*Rangifer tarandus groenlandicus*\) in the Northwest Territories](#) (SARC 2017). To avoid repetitive citations, it can be assumed that information was taken from the recovery strategy or the species status report, unless another reference is given. Management partners are grateful to the NWT [Species at Risk Committee](#) for its work on the detailed assessment of the status of barren-ground caribou in the NWT.

Finally, we thank the many individuals from the following organizations who provided input on the progress report, which significantly improved the report:

- Wildlife Management Advisory Council (NWT)
- Gwich'in Renewable Resources Board
- ʔehdzo Got'įnę Gots'ę Nákedı (Sahtú Renewable Resources Board)
- Wek'èezhii Renewable Resources Board
- Tłıchq Government
- Government of the Northwest Territories

- North Slave Métis Alliance
- Beverly and Qamanirjuaq Caribou Management Board
- Porcupine Caribou Management Board
- Kitikmeot Regional Wildlife Board
- Parks Canada
- Environment and Climate Change Canada
- Government of Nunavut
- Government of Yukon
- Government of Manitoba
- Government of Saskatchewan

ACRONYMS

ACCWM	Advisory Committee for Cooperation on Wildlife Management
ADNLC	Athabasca Denesųliné Néné Land Corporation
BCAC	Bathurst Caribou Advisory Committee
BQCMB	Beverly and Qamanirjuaq Caribou Management Board
CARMA	CircumArctic Rangifer Monitoring and Assessment Network
CGC	Caribou Guardians Coalition
CMA	Conference of Management Authorities
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
EA	Environmental assessment
ECC (or GNWT- ECC)	Department of Environment and Climate Change, Government of the Northwest Territories (formerly Environment and Natural Resources [ENR])
ECCC	Environment and Climate Change Canada
EIRB	Environmental Impact Review Board
EISC	Environmental Impact Screening Committee
ENR	Department of Environment and Natural Resources (ENR)
GN	Government of Nunavut
GNWT	Government of the Northwest Territories
GRRB	Gwich'in Renewable Resources Board
GSA	Gwich'in Settlement Area
HTC	Hunters and Trappers Committee
HTO	Hunters and Trappers Organization
ICK	Indigenous and community knowledge
IGC	Inuvialuit Game Council
IGIOs	Indigenous governments and Indigenous organizations
ILA	Inuvialuit Land Administration
IRC	Inuvialuit Regional Corporation
ISR	Inuvialuit Settlement Region
KAA	Kugluktuk Angoniatit Association

KRWB	Kitikmeot Regional Wildlife Board
LASR	Lockhart All-Season Road
LKDFN	Łutsël K'édene First Nation
NSMA	North Slave Métis Alliance
NWMB	Nunavut Wildlife Management Board
NWT	Northwest Territories
NWT CIMP	NWT Cumulative Impact Monitoring Program
NWTMN	Northwest Territories Métis Nation
PC	Parks Canada
PCMB	Porcupine Caribou Management Board
RRC	Renewable Resources Council
SARC	Species at Risk Committee
SARA	<i>Species at Risk Act</i>
SCARF	Species Conservation and Recovery Fund
SRRB	ᑭᑦᑲᑦᑲᑦ ᑭᑦᑲᑦᑲᑦ ᑭᑦᑲᑦᑲᑦ ᑭᑦᑲᑦᑲᑦ (Sahtú Renewable Resources Board)
TAH	Total Allowable Harvest
TG	Tłı̨chǫ Government
WLWB	Wek'èezhìi Land and Water Board
WMAC (NWT)	Wildlife Management Advisory Council NWT
WMMP	Wildlife Management and Monitoring Plan
WRRB	Wek'èezhìi Renewable Resources Board
YKDFN	Yellowknives Dene First Nation

TABLE OF CONTENTS

PREFACE 4

ACKNOWLEDGMENTS 5

ACRONYMS 7

TABLE OF CONTENTS 9

PROGRESS TOWARDS CONSERVATION AND RECOVERY FROM 2021 TO 2025 10

PROGRESS REPORT 13

1. *INTRODUCTION* 13

2. *MANAGEMENT PARTNERS FOR BARREN-GROUND CARIBOU* 15

3. *SPECIES INFORMATION* 17

4. *HOW ARE BARREN-GROUND CARIBOU DOING IN THE NWT?* 21

5. *CONSERVATION AND RECOVERY* 23

6. *PROGRESS OVERVIEW* 24

Progress Reporting Table 47

7. *RECOVERY STRATEGY REVIEW* 102

8. *NEXT STEPS* 103

9. *REFERENCES* 104

APPENDIX A – PROGRESS REPORT PARTNERS 124

APPENDIX B – ADDITIONAL RESEARCH 128

PROGRESS TOWARDS CONSERVATION AND RECOVERY FROM 2021 TO 2025

HIGHLIGHTS

The Conference of Management Authorities recognizes the many governments, organizations and individuals doing important work to conserve and recover barren-ground caribou in the NWT.

Progress has been made towards meeting all objectives in the [Recovery Strategy for Barren-ground Caribou \(*Rangifer tarandus groenlandicus*\) in the Northwest Territories](#).

Some of the **key actions** implemented between 2021-2025 include:

- **Collaboration on barren-ground caribou management** is ongoing through the Advisory Committee for Cooperation on Wildlife Management, Bathurst Caribou Advisory Committee, Caribou Guardians Coalition, the Beverly and Qamanirjuaq Caribou Management Board, and other co-management forums. Herd-specific management plans have been developed and are reviewed regularly.
- **Population and composition surveys** are conducted regularly for each barren-ground caribou herd to estimate herd size and monitor population trends.
- **Community-based monitors and Guardians** collect environmental observations in caribou habitat and promote caribou harvest regulations, safe hunting practices, and respectful harvest. The **Caribou Guardians Coalition** is developing a coordinated network of community monitoring programs on the Bathurst range.
- **Harvest management** is ongoing for all barren-ground caribou herds. Total allowable harvest levels are set by co-management boards and councils in consultation with Indigenous governments and Indigenous organizations, the Government of the Northwest Territories, and the Government of Nunavut.
- A **mobile 'no-harvest' zone** (Mobile Core Bathurst Caribou Management Zone) has been established to protect the Bathurst caribou herd. The 'Mobile Zone' is managed by the Government of the Northwest Territories in collaboration with the Wek'èezhìi Renewable Resources Board and the Tłı̨chǫ Government.
- The **Gwich'in Harvest Survey** is conducted twice a year by the Gwich'in Renewable Resources Board to provide health and harvest information on the Cape Bathurst, Bluenose-West, and Porcupine caribou herds.

- The **Ekwò Nàxoèhdee K'è** program (Tłıchq Research and Training Institute) has been collecting critical on-the-ground field knowledge of Bathurst caribou and their habitat since 2016. In 2020, the program expanded to monitor Bluenose-East caribou. Recently, Beverly caribou has been a focus as well.
- Guardian-led **Winter Road Monitoring Programs** run by the North Slave Métis Alliance, Tłıchq Government, Yellowknives Dene First Nation, and others use a combination of traditional knowledge and science to investigate impacts to barren-ground caribou on the Tibbitt to Contwoyto Winter Road.
- A five-part series of **Public Listening Sessions** coordinated by ʔehdzo Got'ıne Gots'é Nákedı (Sahtú Renewable Resources Board) is exploring the question of *What is the most effective way to conserve caribou?* Two sessions were held during the reporting period (Délıne and Tłegóhı/Norman Wells).
- **Community-based stewardship or conservation plans** have been developed for Délıne, Colville Lake, and Łutsël K'é. Plans are also in place for communities outside of the NWT: Kugluktuk (Bluenose-East caribou) and Athabasca Denesųłné communities (Beverly and Qamanirjuaq caribou).
- A **position paper** on the management of sensitive habitat for the Tuktoyaktuk Peninsula and Cape Bathurst caribou herds was developed by Hunters and Trappers Committees in the Inuvialuit Settlement Region and released in December 2025. It includes important areas for caribou, their movements and threats, and how these areas should be managed.
- A **collaborative cumulative effects assessment** to simulate the effects of landscape change on population dynamics is underway for the ranges of five barren-ground caribou herds (Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula, and Bathurst). A **Bathurst Caribou Range Plan** guides management of cumulative impacts on the Bathurst range.
- **Wildlife Management and Monitoring Plans** are in place or in development for several major projects in the NWT (e.g. diamond mines, all-season roads) to manage and mitigate impacts to wildlife, including barren-ground caribou. **Mobile Caribou Conservation Measures** are being used to help mitigate disturbance to Bathurst caribou from mineral exploration activities.
- **Information about wolves and grizzly bears** is being gathered to increase our understanding of wolf ecology and inform predator management programs for barren-ground caribou. A **joint wolf management program** to support the

recovery of Bathurst and Bluenose-East caribou and the traditional economy removed 579 wolves from caribou winter ranges of those herds from 2020-2024.

- **Various research projects on barren-ground caribou** ecology, movements, health, status, threats, and other key factors affecting caribou and their habitat, have been completed or are underway (see also Appendix B).

PROGRESS REPORT

1. INTRODUCTION

Barren-ground caribou (*Rangifer tarandus groenlandicus*) are an ecological and cultural keystone species and a critical part of northern ecosystems. There are nine barren-ground caribou herds that reside partially or entirely in the NWT (Porcupine,¹ Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst, Beverly, Ahlak, and Qamanirjuaq).

For many Indigenous peoples and communities, no other animal has such a large influence socially, culturally, spiritually, or economically on their way of life, in the past and for present and future generations. Even with the changes in harvesting in recent years, the importance of barren-ground caribou to Indigenous peoples and communities cannot be overstated. Traditional understandings of respectful relationships, including traditional laws and harvesting protocols, are fundamental to the continued survival of people and caribou as well as their relationship with the land.

A Threatened Species

Barren-ground caribou (not including the Porcupine caribou herd) are listed as a [Threatened species](#) under the [Species at Risk \(NWT\) Act](#). This means they are likely to become Endangered if nothing is done to reverse the factors leading to its decline. Barren-ground caribou (including the Porcupine herd) were also assessed as Threatened in Canada by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). A federal decision on listing under the *Species at Risk Act* is pending.

Barren-ground Caribou Status

	NWT	Canada
Assessment	Threatened (2017)	Threatened (2016)
Legal Status	Threatened (2018)	<i>Pending</i>
Recovery strategy	2020	--

¹ The Porcupine herd is not included within the scope of the recovery strategy; however, for completeness, management actions for the Porcupine caribou herd are included in this progress report. See *Preface*.

The [2017 status assessment](#) by the NWT Species at Risk Committee (SARC 2017) found that barren-ground caribou in the NWT were declining in such a way that they could disappear from the NWT within our children's lifetime. This was based on steep reductions in many herd sizes between 1989 and 2016, and an overall trend of continued decline. Habitat changes due to climate change and wildfires, as well as industrial development and predation were identified as threats to barren-ground caribou, according to both scientific and traditional knowledge. Barren-ground caribou are scheduled for reassessment by SARC in 2027 and an updated status report is being prepared (SARC *in prep.*).

Recovery Strategy

The [Recovery Strategy for Barren-ground Caribou \(*Rangifer tarandus groenlandicus*\) in the Northwest Territories](#) (CMA 2020) was developed to guide the overall conservation and recovery of barren-ground caribou in the NWT. It is intentionally high level, recognizing that herd-specific management plans and community conservation plans have a key role in defining detailed monitoring and management requirements. The recovery strategy also supports cross-regional action planning and provides specific guidance on what management for barren-ground caribou should look like from a community perspective.

In April 2020, the Wildlife Management Advisory Council (NWT), Gwich'in Renewable Resources Board, ʔehdzo Got'ıneᑦ Gots'ę́ Nákedı (Sahtú Renewable Resources Board), Wek'èezhii Renewable Resources Board, Tłıchq̓ Government and Government of the Northwest Territories (GNWT) accepted the recovery strategy as the Conference of Management Authorities (CMA). They finalized an agreement to implement the recovery strategy and provided it to the territorial Minister of Environment and Natural Resources (now Environment and Climate Change) on April 8, 2020.

The implementation agreement outlines the actions the Management Authorities intend to take to implement the recovery strategy. However, there are many co-management partners involved in barren-ground caribou recovery, with many actions being taken at the community or herd-specific level. The CMA recognizes that Indigenous governments and Indigenous organizations are partners in conservation and recovery, and that collaborative and cooperative management is key to the successful recovery of barren-ground caribou in the NWT.

This progress report highlights the actions taken by management partners in the Northwest Territories, including the CMA, to implement the recovery strategy for barren-ground caribou from 2021 to 2025 and progress towards meeting its objectives.

Section 74 of the *Species at Risk (NWT) Act* also states that the CMA shall review a management plan or recovery strategy every five years. A review of the recovery strategy for barren-ground caribou took place on November 14, 2025, and the findings are summarized in this document.

2. MANAGEMENT PARTNERS FOR BARREN-GROUND CARIBOU

The recovery strategy recognizes the collaborative and interjurisdictional nature of barren-ground caribou conservation in the North and the shared responsibility to care for caribou by Indigenous governments and Indigenous organizations, federal/territorial/provincial governments, co-management boards, caribou management boards, and communities.

Under the *Species at Risk (NWT) Act*, the responsibility for implementing the recovery strategy rests primarily with the co-management boards and governments with formal responsibility for wildlife management that make up the [Conference of Management Authorities](#) (CMA):

- Wildlife Management Advisory Council (NWT)
- Gwich'in Renewable Resources Board
- ʔehdzo Got'ıne Gots'ę Nákedi (Sahtú Renewable Resources Board)
- Wek'èezhì Renewable Resources Board
- Tłıchq Government
- Government of the Northwest Territories

The Government of Canada also participates in the CMA. It is responsible for the implementation of the federal *Species at Risk Act*, as well as conservation and recovery of barren-ground caribou on federal Crown lands (including national parks and reserves, migratory bird sanctuaries, and national wildlife areas).

Acho Dene Koe First Nation, Akaitcho Territory Government, Beverly and Qamanirjuaq Caribou Management Board, Dehcho First Nations, Athabasca Denesųliné Né Né Land Corporation, Kátł'odeeche First Nation, North Slave Métis Alliance, Northwest Territory Métis Nation, Salt River First Nation, and the Porcupine Caribou Management Board are also invited to participate in CMA meetings.

Further information on the CMA management partners that developed this progress report is provided in Appendix A.

Caribou Co-management

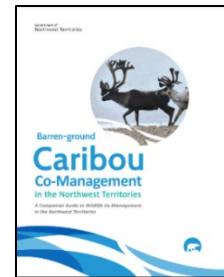
Success in the conservation and recovery of barren-ground caribou depends on the commitment and cooperation of many different groups involved in implementing the recommendations set out in the recovery strategy, including many other partners that work together to care for the land, water and wildlife of the NWT.

Many of the NWT's barren-ground caribou herds spend part of the year in Nunavut. The GNWT works closely with the Government of Nunavut to conduct caribou research and monitoring, share information and results, and coordinate caribou management efforts. The transboundary Porcupine caribou herd is shared between the NWT, Yukon, and Alaska. Partners in all three jurisdictions work together to protect and manage the herd.

Other co-management processes have also been established to provide direction and advice to governments on the management of human activities with respect to caribou herds and their habitat.

Further information on the co-management partners that share responsibility for barren-ground caribou is provided in Appendix A.

The GNWT's *Barren-ground Caribou Co-management in the Northwest Territories* provides an overview of co-management processes for barren-ground caribou in the NWT, including roles and responsibilities for organizations involved in management decisions for each of the NWT's caribou herds.



3. SPECIES INFORMATION

Common name in English:	Barren-ground caribou
Names in other NWT languages: ²	Tutu/Tuttu (Inuvialuktun/Uummarmiotun) Tuktu/Tuktut (Inuvialuktun) Vadzaih (Teetł'it and Gwichya Gwich'in) ʔekwé/ʔepe/ʔedə (Sahtúot'ıne Yatıj) Ekwò or Hozıı ekwò (Tłıchq Yatıı) Nódı (Dene Zhatıé/Kátł'odeeche dialect) ʔetthën (Chipewyan – Denınu Kué and Łutsël K'é Dene) Etthén (Denesųlıné) Pakwataskamik atihk (Nēhiyawēwin) Caribou de la toundra (French)
Scientific name:	<i>Rangifer tarandus groenlandicus</i>

Barren-ground caribou are a medium-sized member of the deer family. They are slightly smaller than the closely-related boreal caribou (*Rangifer tarandus caribou*).

Barren-ground caribou calve on the tundra near the Arctic coast and spend summer on the tundra. They typically winter below the treeline of the NWT, but they may also winter on the tundra, particularly in smaller herds with limited migrations. Barren-ground caribou require the use of large annual ranges (several hundred thousand square kilometres in size) to support their seasonal migrations, to be able to use alternate ranges (e.g. when some winter habitat burns), and to support large populations.

² Citations and references for names in other NWT languages can be found in SARC *in prep*.



Figure 1. Historic maximum barren-ground caribou range, compiled based on spatial data and written descriptions of range (Thorpe et al. 2001; Parlee et al. 2005; Inuvik Community Corporation [ICC] et al. 2006; Dumond 2007; Community of Aklavik et al. 2008; Community of Paulatuk et al. 2008; Benson 2011; Beaulieu 2012; Kavik-Stantec 2012b; ACCWM 2014b). From SARC 2017.

All ranges used during the year are important to barren-ground caribou, but calving and post-calving ranges have been consistently identified as necessary to the persistence of barren-ground caribou and essential to recovery of herds at low numbers.

It is generally understood that barren-ground caribou undergo large, natural fluctuations in population numbers. These fluctuations are likely driven by interactions among factors such as climate, food availability, predation, and parasites. Periods between high and low numbers can be decades in duration, although the timing and extent of peaks and troughs are not always predictable.

Barren-ground caribou in the NWT

Barren-ground caribou are often classified in terms of 'herds.' Scientific knowledge defines herds based on identifiable and distinct calving grounds, although some

mixing and movement does occur between neighbouring herds. Indigenous knowledge holders and communities vary in their interpretation of barren-ground caribou herds. Some distinguish among different herds based on direction of travel, range, colour/size/body condition, and the taste of the meat. Other interpretations stress fluidity and interconnectedness and do not identify barren-ground caribou as belonging to distinct units or groups. Indigenous stewards of the land, management authorities, and governments have been working within the scientific designations of herds to facilitate collaborative management of threats to barren-ground caribou and to guide recovery.

The NWT is considered home, either entirely or partially, to nine barren-ground caribou herds (Porcupine,³ Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst, Beverly, Ahiak, and Qamanirjuaq). Periodic scientific estimates of herd size provide key quantitative benchmarks for management, and comparison of consecutive surveys can show whether a herd is increasing, stable, or declining. During the reporting period, most NWT herds were surveyed every 2-3 years; this frequency reflects low herd numbers and increased concern over herd vulnerability.

³ The Porcupine herd is not included within the scope of the recovery strategy; however, for completeness, management actions for the Porcupine caribou herd are included in this progress report. See *Preface*.

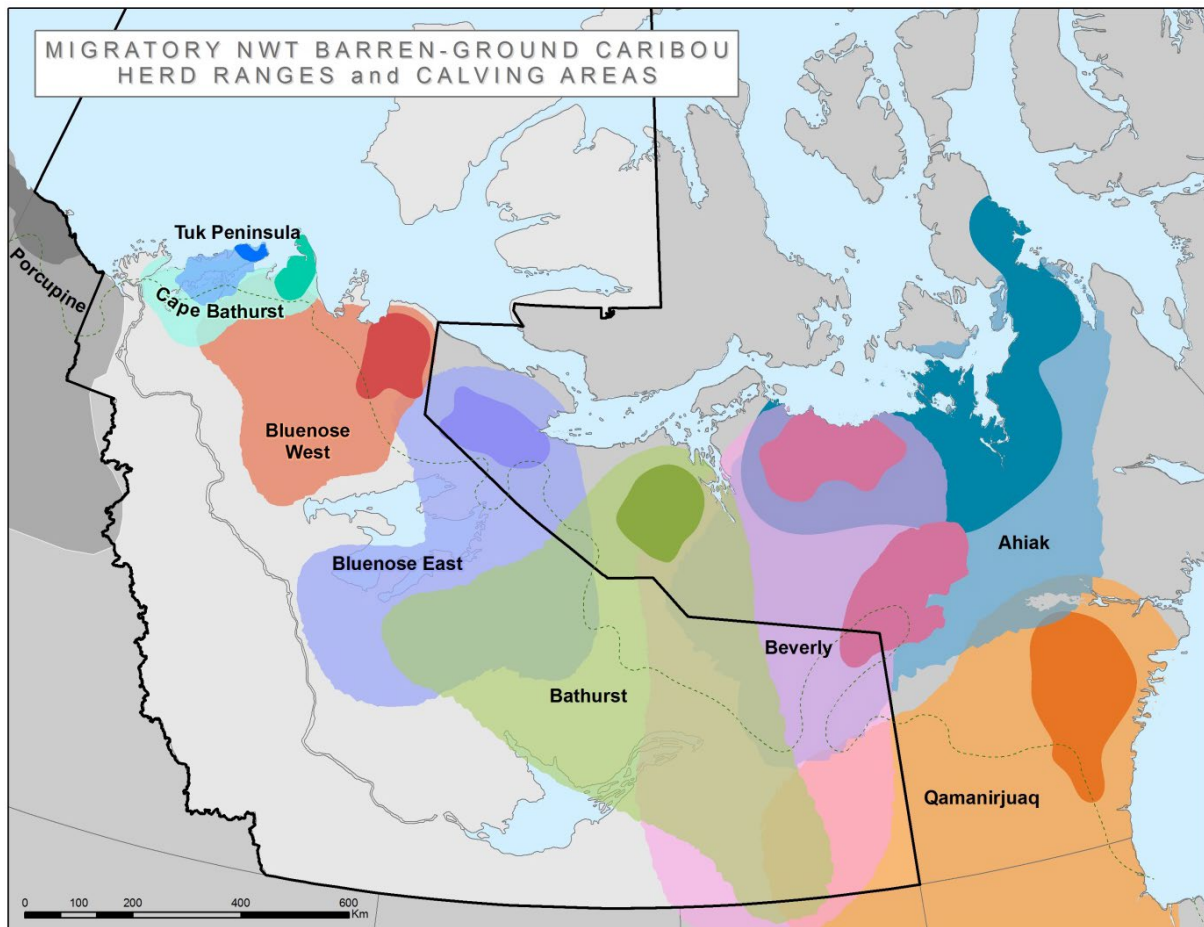


Figure 2. Barren-ground caribou annual core ranges (pale colours) and calving grounds (dark colours) based on collar data and telemetry).⁴ Polygons were derived using collar data from the GNWT, Government of Nunavut, Government of Yukon, and United States Fish and Wildlife Service. The composite shapefile was developed by GNWT-ENR. Annual range use varies for each herd; actual annual ranges since 2000 have been smaller, corresponding to smaller herd sizes.

⁴ Qamanirjuaq range based on radio-collar data from 1993-2008; Qamanirjuaq calving ground based on compilation of all data from government surveys (1963-2008) and telemetry (1993-2012). Tuktoyaktuk Peninsula range based on collar data from 2006-2012. Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst, and Ahlak ranges based on collar data from 1996-2008. Beverly range based on collar data from 1995-2008; Beverly calving ground based on compilation of all data from government surveys (1957-2011) and telemetry (1996-2012). The inland Beverly calving ground (southern of the two dark pink polygons) has not been used by the herd since 2010.

4. HOW ARE BARREN-GROUND CARIBOU DOING IN THE NORTHWEST TERRITORIES?

Biological status

The NWT Species at Risk Committee (SARC) assessed the biological status of barren-ground caribou in April 2017. All herds except the Porcupine herd (i.e., Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst, Beverly, Ahiak, and Qamanirjuaq herds) were considered together. Barren-ground caribou were assessed as Threatened in the NWT due to dramatic declines in most herds, which was reflected at the population level, as well as threats including climate change, predation, industrial development, and wildfires. The cumulative effects from these combined threats are considered unprecedented.

SARC considered Porcupine caribou separately as a geographically distinct population and assessed it as not at risk in the NWT. This means that it was not considered at risk of extinction given the circumstances.

Barren-ground caribou are scheduled for reassessment by SARC in 2027. The assessment will determine whether the status of the species in the NWT has improved, worsened, or remains the same (i.e. has not become further at risk). A species status report is being prepared that compiles and analyzes the best available Indigenous, community, and scientific information on the biological status of barren-ground caribou in the NWT, as well as existing and potential threats and positive influences (SARC *in prep.*).

A full discussion of biological status of barren-ground caribou in the NWT, including threats and positive influences to the species and its habitat, can be found in the 2017 species status report ([SARC 2017](#)) and the forthcoming 2027 species status report (SARC *in prep.*).

Population and trends

The natural range of variation for population numbers is difficult to quantify. Barren-ground caribou herds have historically undergone large fluctuations in population size, and their abundance has been known to cycle. GNWT-ECC monitors the size and composition of barren-ground caribou herds in the NWT in collaboration with co-management partners. For barren-ground caribou with traditional ranges mainly in Nunavut (Beverly, Ahiak, and Qamanirjuaq), the Government of Nunavut conducts population surveys. The State of Alaska (Department of Fish and Game) and Government of Yukon lead monitoring of the Porcupine caribou herd.

Scientific surveys and population estimates indicate that numbers of many barren-ground caribou herds were low from the 1950s to the 1970s, after which numbers began to increase. By the mid-1980s to 1990s, herds were peaking in abundance, and then they began to decline. Some herds stabilized at low numbers by 2010 and started to increase by 2020. These documented low and high numbers are presented in Table 2, along with the recent trend for each herd.

As of 2025, two NWT herds continue to decline (Bathurst and Qamanirjuaq), one herd appears stable at low numbers (Bluenose-West), and four appear to be increasing (Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-East, and Beverly) although their numbers remain below historic highs (Table 2). The Porcupine herd reached its peak around 2018 and data from Alaska's most recent herd estimate (2025) and key indicators suggest the herd is now declining. Two surveys of the Ahiak herd conducted by the Government of Nunavut indicate a decline between 2011 and 2021.

More information on barren-ground caribou herd population estimates and trends can be found in *Section 6 – Progress Overview*.

Species distribution

Descriptions from Indigenous and community knowledge and spatial data from scientific knowledge indicate that the historic range of barren-ground caribou has contracted substantially as some herds declined. Prior to the 1970s-1980s, the winter range of barren-ground caribou in the NWT extended further to the south, including northern Saskatchewan, Manitoba and part of northern Alberta (Figure 1). Migration routes and calving grounds have also shifted slightly or changed over time. Range changes are often linked to changes in habitat quality/quantity (e.g., if an area is burned by wildfire, caribou may move to areas that provide better habitat) or changes in population numbers (i.e., fewer caribou will occupy a smaller area).

Other indicators

Population surveys provide important information about the number of caribou, but there are other ways to tell how caribou are doing. Hunters and people out on the land provide important on-the-ground observations, including harvest information and samples that tell us about overall herd health—including climate-linked stressors such as greater parasite burdens, exposure to reproduction-limiting viruses, and pressures that force caribou to expend more energy. Composition surveys to determine birth rate, calf survival, and the ratio of bulls to cows in a herd can also provide an early warning of decline or signal that things are getting better.

5. CONSERVATION AND RECOVERY

The long-term vision of the recovery strategy is to conserve barren-ground caribou and to ensure that barren-ground caribou remain a cultural and ecological keystone species. They should be able to move freely on the land within their historic ranges, facilitating natural habitat use and migration. When individual caribou and caribou populations are healthy, the benefits are felt widely across communities, ecosystems, and local economies.

Conservation and Recovery Goals and Objectives

The **overall goals** of the recovery strategy are:

1. Maintain or restore **self-sustaining, resilient populations** of each barren-ground caribou herd, such that no herd is lost.
2. Support and maintain the **caribou-people relationship**.
3. Promote conditions that allow barren-ground caribou to **move and migrate across their historic ranges** without barriers.
4. Promote the **conditions necessary for recovery**.

The recovery strategy recommends the following five objectives to meet the conservation and recovery goals for barren-ground caribou in the NWT:

Conservation and Recovery Objectives	
1	Partners collaborate on the development and implementation of management, monitoring, guardianship, and conservation plans for barren-ground caribou in the NWT.
2	Monitor barren-ground caribou, their habitat, and key factors and threats that may be affecting the status and health of herds in the NWT.
3	Fill knowledge gaps, using traditional, community, and scientific knowledge, to enhance responsible and respectful barren-ground caribou conservation.
4	Conserve and protect barren-ground caribou populations and their habitat.
5	Provide education and promote respect for barren-ground caribou, their habitat, and conservation initiatives.

Approaches to Achieve Objectives

Thirty-one (31) approaches are recommended in the recovery strategy to achieve these five objectives. Each is assigned a relative priority (critical, necessary or beneficial) and relative timeframe (short-term, long-term or ongoing).

Relative priority can be *critical, necessary or beneficial*. Critical approaches are the highest priority for the conservation of barren-ground caribou and should be implemented sooner rather than later. Necessary approaches are important to implement for the conservation of barren-ground caribou but with less urgency than critical. Beneficial approaches help to achieve management goals but are less important to the conservation of the species compared to critical or necessary.

Relative timeframe can be *short-term, long-term or ongoing*. Short-term approaches should be completed within five years and long-term approaches require more than five years to complete. Ongoing approaches are actions carried out repeatedly on a systematic basis.

Overall progress and success can be measured using various factors, for example: adherence to traditional laws and protocols, renewed relationship between caribou and people, population trends (stable or increasing), species distribution (species continues to be found in its historical range and range recession has not occurred, or has been reversed), and species status (species status has improved or has not become further at risk when assessed/re-assessed). These are long-term indicators of success.

6. PROGRESS OVERVIEW

The recovery strategy establishes short-term milestones/approaches for each barren-ground caribou herd, based on their population trend when the recovery strategy was released in 2020. Coloured shading in Table 2 indicates whether recent population trends meet (green) or do not meet (red) the short-term milestone for each herd.

Multi-year progress towards achieving each of the conservation and recovery objectives in the recovery strategy is discussed below.

Detailed progress reporting for each approach is provided in Table 4 (p.47). Appendix B provides a summary of relevant studies on barren-ground caribou published within the reporting period (2021-2025).

OBJECTIVE 1

Partners collaborate on the development and implementation of management, monitoring, guardianship, and conservation plans for barren-ground caribou in the NWT.

Efforts to strengthen co-management processes and support collaboration in caribou decision-making continued over the reporting period (2021-2025). The Memorandum of

Understanding between the GNWT and Government of Nunavut on collaborative research, monitoring and management of shared barren-ground caribou herds was renewed in September 2025.

Management plans are being implemented for **all barren-ground caribou herds** in the NWT, *except*:

- **Tuktoyaktuk Peninsula** – Inuvialuit Hunters and Trappers Committees have published a position paper on the management of sensitive habitat for the Tuktoyaktuk Peninsula and Cape Bathurst caribou, which includes desired management actions for these herds.
- **Ahiak** – Monitoring and management of this herd is led by Nunavut.

Indigenous governments and Indigenous organizations are also implementing caribou conservation plans that strengthen stewardship practices and are initiating guardianship programs across the ranges of barren-ground caribou in the NWT.

Current management and conservation plans include:

- [Harvest Management Plan for the Porcupine Caribou Herd in Canada](#) (2010) and [Implementation Plan](#) (updated 2016); a conservation plan to address other factors for the Porcupine caribou herd (such as habitat conservation) is also under development
- [Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground Caribou Herds Management Plan](#) (updated 2021)
- [Déljñę Caribou Conservation Plan \(Belarewíle Gots'ę ʔekwé: Caribou for All Time\)](#) (2016)
- [Bathurst Caribou Range Plan](#) (2019) and [Bathurst Caribou Management Plan](#) (2021)
- [Colville Lake Caribou Stewardship Plan \(Dehlá Got'jne ʔədə Plan\)](#) (2019; update underway)
- [Łutsël K'é Dene First Nation's Caribou Stewardship Plan \(Yúnethé Xá ʔetthën Hádi\)](#) (2020)
- [Beverly and Qamanirjuaq Caribou Management Plan](#) (updated 2024)

These plans are reviewed regularly. For example, the [2023–2032 Beverly and Qamanirjuaq Caribou Management Plan: Caribou is Life](#) builds on and updates the 2013–2022 Plan, and a 10-year review of the [Taking Care of Caribou Management Plan](#) is underway in 2025–26.

Community-based caribou management or conservation plans are also in place for some communities that share herds with the NWT, such as the Kugluktuk Angoniatik Association's [Bluenose-East Community Caribou Management Plan](#) (2019) and the Athabasca Denesųliné Caribou Relationship Plan (in prep).

Caribou co-management boards, including the [Advisory Committee for Cooperation on Wildlife Management](#) (ACCWM), Bathurst Caribou Advisory Committee (BCAC), [Beverly and Qamanirjuaq Caribou Management Board](#) (BQCMB), and the [Porcupine Caribou Management Board](#) (PCMB) meet annually to determine herd statuses and management actions.

OBJECTIVE 2

Monitor barren-ground caribou, their habitat, and key factors and threats that may be affecting the status and health of herds in the NWT.

Scientific surveys

Herd numbers continue to be monitored closely. During the reporting period (2021-2025), population surveys were completed for all barren-ground caribou herds that range into the NWT (Table 1). Composition surveys, conducted up to three times a year, also provide information on demographic indicators such as herd recruitment, productivity, and sex composition—and can indicate a decline or signal when a herd is increasing.

For example, key demographic indicators for Porcupine caribou during the reporting period (2021-2025) indicated the herd was no longer increasing—rather, that it was likely stable or experiencing decline. The declining trend was further confirmed through a photo census in 2025.

Demographic indicators for the Bluenose-East herd in the years from 2020-2023 are consistent with the observed population increase in 2023. Data from demographic indicators on Bathurst caribou are consistent with population decline but are not unfavourable enough to explain the large magnitude of herd decline observed between the 2022 and 2025 surveys (47% decrease in numbers), which suggests there may be other factors at play, including movement to other herds.

High, low and current population estimates are provided in Table 2, as well as recent population trends and whether they meet the short-term milestones for recovery set out in the NWT recovery strategy.

Table 1. NWT barren-ground caribou population and composition surveys during the reporting period, 2021-2025.

Year	Population estimates	Composition surveys	References
2021	Tuktoyaktuk Peninsula: 3,070 ⁱ Cape Bathurst: 4,912 ⁱⁱ Bluenose-West: 18,440 ⁱⁱ Bathurst: 6,243 ⁱⁱⁱ Bluenose-East: 23,202 ^{iv} Ahiak: 39,131 ^v	Porcupine ^{vi} Bathurst, Bluenose-East (October) ^{vii}	ⁱ GNWT 2021 ⁱⁱ ACCWM 2022a ⁱⁱⁱ Adamczewski et al. 2022a ^{iv} Boulanger et al. 2022 ^v Campbell et al. 2022 ^{vi} PCTC 2021 ^{vii} Adamczewski et al. 2022b
2022	Bathurst: 6,851 ^{viii} Qamanirjuaq: 252,900 ^{ix}	Porcupine ^x Bathurst (June, October) ^{viii, xi} Bluenose-East (March, June, October) ^{xii, viii, xi} Beverly (March, October) ^{xii, xi}	^{viii} Adamczewski et al. 2023a ^{ix} Campbell et al. 2024 ^x PCTC 2022 ^{xi} Adamczewski et al. 2024d ^{xii} Adamczewski et al. 2023b
2023 ⁵	Bluenose-East: 39,525 ^{xiii} Beverly: 152,000 ^{xiv}	Porcupine ^{xv} Beverly (March) ^{xvi} Bathurst (March, June, October) ^{xvi, xiii, xvii} Bluenose-East (March, June, October) ^{xiv, xiii, xvii}	^{xiii} Boulanger et al. 2024 ^{xiv} Campbell et al. 2025 ^{xv} PCTC 2024 ^{xvi} Adamczewski et al. 2024b ^{xvii} Adamczewski et al. 2024e
2024 ⁶	Tuktoyaktuk Peninsula: 2,798 ^{xviii} Cape Bathurst: 9,702 ⁱⁱ	Porcupine ^{xix} Tuktoyaktuk Peninsula (November) ^{xx} Cape Bathurst (November) ^{xx} Bathurst (October) ^{xxi} Bluenose-East (March, October) ^{xxii, xxi} Beverly (March) ^{xxii}	^{xviii} ECC unpubl. data 2025b ^{xix} PCTC 2025 ^{xx} ECC unpubl. data 2025a ^{xxi} Adamczewski et al. (in prep.) ^{xxii} Adamczewski et al. 2024c

⁵ The March 2023 composition survey of the Bathurst herd was not successful due to extensive mixing with the larger Beverly and Bluenose-East herds.

⁶ Post-calving photographic surveys were flown in July 2024 to obtain estimates for the Tuktoyaktuk Peninsula, Cape Bathurst, and Bluenose-West herds. However, it was not possible to produce an updated estimate for the Bluenose-West herd because the herd did not aggregate sufficiently.

2025 ⁷	Porcupine: 143,135 ^{xxiii} Cape Bathurst: 8,533 ^{xxiv} Bluenose-West: 20,476 ^{xxiv} Bathurst: 3,609 ^{xxv} Bluenose-East: 28,759 ^{xxv}	Porcupine ^{xxiii}	^{xxiii} PCTC 2026 ^{xxiv} ACCWM 2026 ^{xxv} GNWT 2025
-------------------	---	----------------------------	--

⁷ While 2025 marks the first survey-based population estimate for Porcupine caribou since 2018, a photo census was in fact attempted every year for Porcupine caribou since 2019. Surveys were unsuccessful every year, as the herd has been moving into the mountains.

Table 2. Barren-ground caribou herd population estimates and trends with 95% confidence intervals, except where standard error (SE) is noted. Short-term milestones are described in the [Recovery Strategy for Barren-ground Caribou in the NWT](#); shading indicates whether recent trend meets (green) or does not meet (orange) the short-term milestone for each herd as of 2020.

Herd	Population estimates			Short-term milestone for recovery	Recent trend	References
	High (year)	Low (year)	Most recent			
Porcupine	218,457 8,342 SE (2017) ⁱ	123,000 (2001) ⁱⁱ	143,135 12,784 SE (2025) ⁱ	N/A	Declining since 2018	ⁱ PCTC 2026 ⁱⁱ Arthur 2001
Tuktoyaktuk Peninsula	3,320 ± 623 (2006) ⁱⁱⁱ	1,499 ± 614 (2018) ^{iv}	2,798 ± 156 (2024) ^v	More information is required	Slow increase since 2018	ⁱⁱⁱ Nagy and Johnson 2006 ^{iv} Davison <i>et al.</i> 2020 ^v ECC unpubl. data 2025b
Cape Bathurst	19,278 ± 5,397 (1992) ^{vi}	2,039 ± 319 (2006) ^{vii}	8,533 ± 1,413 (2025) ^{viii}	Maintain increasing trend	Increasing since 2012	^{vi} Nagy 2009 ^{vii} Boulanger <i>et al.</i> 2018 ^{viii} ACCWM 2026
Bluenose-West ⁸	112,360 ± 25,566 (1992) ^{vi}	18,440 ± 5211 (2021) ^{ix}	20,476 ± 6,727 (2025) ^v	Promote increasing trend	Stable since 2021	^{ix} ACCWM 2022a
Bluenose-East	120,880 ± 13,398 (2010) ^x	19,294 1,475 SE (2018) ^{xi}	28,759 1,484 SE (2025) ^{xii}	Stop the decline	Slow increase since 2018	^x Adamczewski <i>et al.</i> 2017 ^{xi} Boulanger <i>et al.</i> 2019 ^{xii} GNWT 2025
Bathurst	472,000 ± 147,017 (1986) ^{xiii}	3,609 220 SE (2025) ^{xii}	3,609 220 SE (2025) ^{xii}	Stop the decline	Declining since 1986	^{xiii} Heard and Williams 1991
Beverly ⁹	276,000 106,600 SE (1994) ^{xiv}	103,372 5,109 SE (2018) ^{xv}	152,131 ± 27,427 (2023) ^{xvi}	Stop the decline	Increasing since 2018	^{xiv} Williams 1995 ^{xv} Campbell <i>et al.</i> 2019 ^{xvi} Campbell <i>et al.</i> 2025
Ahiak ¹⁰	40,341 2,926 SE (2011) ^{xv}	24,910 1,940 SE (2021) ^{xv}	24,910 1,940 SE (2021) ^{xv}	More information is required	Likely declining ¹¹	^{xv} Campbell <i>et al.</i> 2022
Qamanirjuaq ⁹	496,000 ± 206,584 (1994) ^{xvi}	252,892 35,154 SE (2022) ^{xvii}	252,892 35,154 SE (2022) ^{xvii}	Stop the decline	Slow decline since 1994	^{xvi} Williams 1994 ^{xvii} Campbell <i>et al.</i> 2024

⁸ 2021 estimate should be used with caution. Several collared caribou were not found during the survey, and some parts of the herd did not aggregate well.

⁹ The 1994 estimates for Beverly and Qamanirjuaq caribou used a different method to extrapolate total herd size (based on breeding females) than the method used for surveys 2008 and onwards (based on all females).

¹⁰ Although surveys were undertaken for the Ahiak prior to 2011, the Ahiak herd as defined in the 2011 and 2021 surveys cannot be directly compared to the Ahiak herd defined in the 1980s and 1990s. The 2011 and 2021 estimates presented here exclude the Adelaide Peninsula (which is included in the revised estimate for the Beverly herd).

¹¹ Based on estimates from 2011 and 2021 surveys.

Caribou movements and habitat use

Satellite collars collect location and movement data from barren-ground caribou to monitor seasonal range distribution, measure annual variations in rut and calving locations, and determine spring and fall migration routes. For some herds, collar deployments occur in specific years to support herd abundance surveys.

Collar deployments generally take place annually for the Porcupine, Bluenose-East, Bathurst and Beverly herds, and every three years for the Tuktoyaktuk Peninsula, Cape Bathurst and Bluenose-West herds (in March before a planned post-calving survey). More collars provide better information about herd distributions, more reliable estimates of caribou survival, and more confidence in assigning harvest estimates to each herd. Less frequent or discontinuation of collaring is preferred by co-management partners to reduce impact. The GNWT is exploring alternative methods of acquiring population dynamic, range, and ecological information on caribou; however, at this time, the use of collars remains the most efficient way of collecting this information and meeting research and monitoring objectives identified in the various management plans for caribou.

For the Bluenose-East and Bathurst herds, the target is to maintain 70 collars on each herd (50 cows, 20 bulls).¹² The target number of collars for the Beverly herd is 50 (30 cows, 20 bulls) and the target for Porcupine caribou is 110 (60 adult cows, 35 juvenile cows, 25 mature bulls). Collars are not maintained on the Tuktoyaktuk Peninsula, Cape Bathurst and Bluenose-West caribou (no targets). For these herds, collars are deployed as required for the post-calving survey and then allowed to fall off.

During the reporting period (2021-2025), the target number of collars on each herd was typically achieved for the Porcupine, Bluenose-East and Beverly herds and was not met for the Bathurst herd (Figure 3). Due to extensive mixing of herds in the winter, collars intended for Bathurst caribou may end up on caribou from more plentiful neighbouring herds (Bluenose-East or Beverly).

To better target Bathurst herd caribou, in July 2024, GNWT-ECC carried out a pilot project to place satellite collars on Bathurst caribou at water crossing sites near the main camp of the [Ekwò Nàxoèhdee K'è program](#) (at Kokèti/Contwoyto Lake). Unfortunately, most of the Bathurst herd was northwest of the area and no collars were successfully placed.

¹² Number of collars increased from 50 to 70 collars in 2019 following recommendations of the WRRB.

Another approach to target Bathurst herd caribou took place in October 2024 by placing collars during the peak of rut to maximize separation of the Bathurst herd from other herds. This approach was very successful; of the 12 collars deployed on adult females targeting the Bathurst herd, 10 went to the Bathurst calving ground in June 2025 (one of the collared cows died in March and one went to the Beverly calving ground).

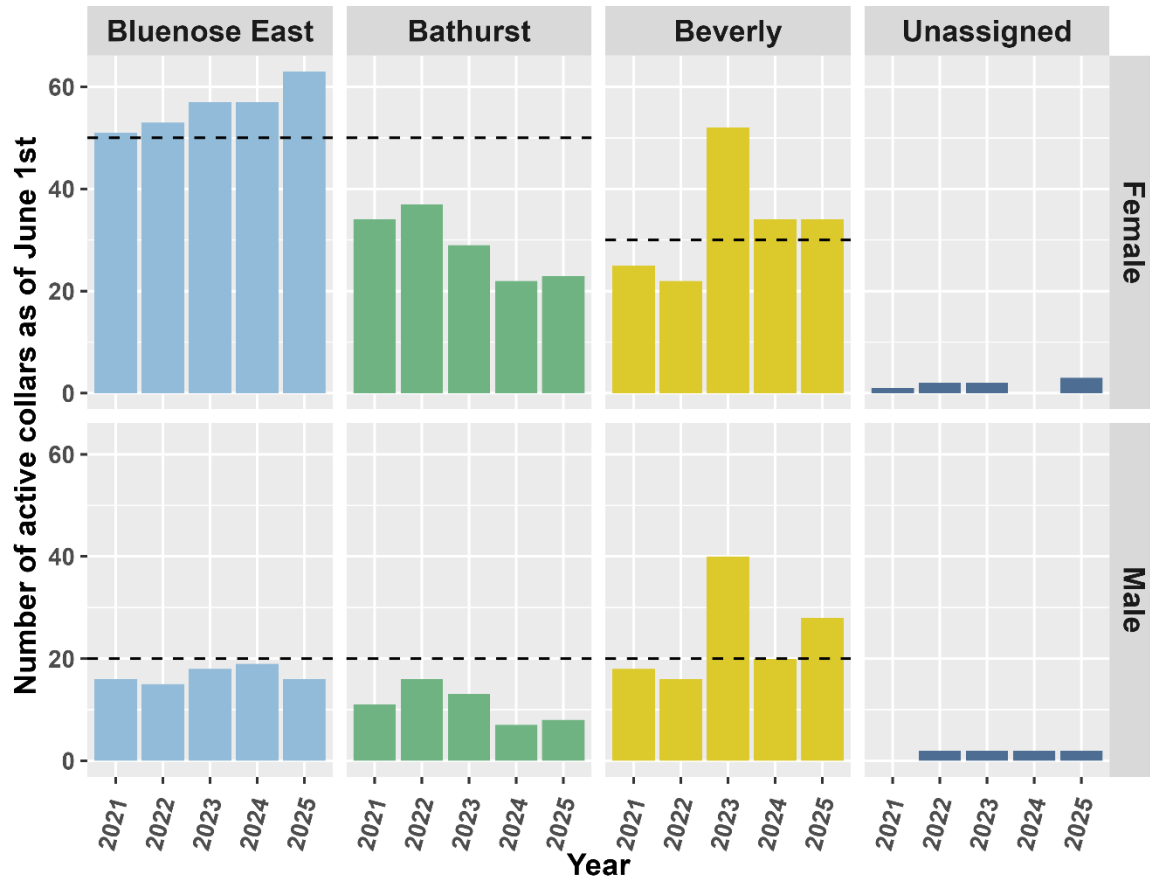


Figure 4. Number of GNWT-ECC satellite collars on Bluenose-East, Bathurst and Beverly caribou herds at the start of each monitoring year (June 1) from 2021-2025. Dotted horizontal lines show the target number of collars for females and males in each herd. In some years, the number of collars may temporarily exceed the target (e.g. Beverly herd in 2023) when several collars are scheduled for release later that summer. "Unassigned" refers to collared caribou that did not show a clear affiliation with a specific herd during their monitoring period. Data summarized from GNWT-ECC's Wildlife Information Management System (November 2025).

Indigenous and community knowledge

Information from Elders, harvesters, and other knowledge holders contributes important knowledge and context to understanding caribou. Community-based programs monitoring harvest, health and the environment are underway across the NWT, including:

- Imaryuk monitors (Inuvik to Tuktoyaktuk Highway)
- Arctic Caribou and Contaminant Monitoring Program
- Gwich'in Harvest Survey
- Caribou Guardians Coalition
- Ekwò Nàxoèhdee K'è (Boots on the Ground)
- Ekwò Harvest Monitoring Program (Tłı̄chǫ Government)
- North Slave Métis Alliance Winter Road Monitoring Program
- Yellowknives Dene First Nation community-based winter road monitoring
- Łutsël K'è Dene First Nation winter road monitoring
- Ni Hat'ni Dene (Watching the Land) Guardians
- Athabasca Denesų́liné harvest monitoring
- PCMB Annual Harvest Meeting Parties reports
- Porcupine Caribou Knowledge Hub
- Kitikmeot harvesters record observations using a mobile app (Trailmark)
- University of Calgary (Kutz Research Group) collaborates on community-based health monitoring of barren-ground caribou with communities in the NWT and Nunavut

Predators

GNWT monitors wolf population abundance, movement and interaction with caribou to inform management actions. Wolves are monitored using a combination of methods, including sample collection and analysis, GPS collar deployment and corresponding movement analyses, remote cameras, and aerial surveys. Other research on wolves/predation carried out during the reporting period (2021-2025) includes studies on diet, food web dynamics, predator health, wolf relationships to linear features, movement patterns and habitat use by wolves and caribou.

A total of 48 wolves were collared on the Bathurst and Bluenose-East ranges as part of the [Joint TG-GNWT Wolf \(Diga\) Management Program](#) (2020-2024). A comprehensive review of the 5-year wolf management program is underway as of 2025, which will include results from research and monitoring efforts.

Ongoing wolf monitoring in the North Slave region includes den surveys, pup counts, remote camera and sound recording unit deployment at den sites. These den investigation efforts help to determine pup production, survivorship, and recruitment into the population, which are important factors in determining trends in wolf abundance over time. Wolf carcasses collected from the winter ranges of Bathurst and Bluenose-East caribou continue to be studied to learn more about the diet, health and life history of wolf populations.

To support the recovery of the Bathurst and Bluenose-East caribou herds, the Nunavut Department of Environment initiated a wolf sample collection program in the Kitikmeot Region during the 2018-2019 season and was subsequently expanded across all of Nunavut in the 2019-2020 season.

The Government of Nunavut (GN) also monitors grizzly bear harvest and collects samples to estimate population density and abundance in the Kitikmeot and Kivalliq regions of Nunavut. In the NWT, GNWT-ECC collects data and samples from grizzly bear mortalities to monitor population dynamics (sex, age, reproductive status, and health), temporal and spatial distribution, and reasons for conflict (where applicable).

Researchers from the State University of New York are working with harvesters in Kugluktuk to study interactions between caribou and predators on the Bathurst caribou herd's calving grounds. Initial analyses revealed that grizzly bears were detected on the calving grounds five times as much as wolves, suggesting bears may play a larger role in limiting calf survival than previously recognized.

Government of Yukon, as part of the Changing Ecology of the Porcupine Caribou Summer Range project, has deployed 45 collars on wolves across the Canadian summer range for the herd since April 2022. Monitoring of collared wolves includes diet (GPS cluster investigations, fecal sample metabarcoding, isotope analysis), fall denning success and late winter pack size (aerial, camera, and automated recording unit), and den and rendezvous site identification. Researchers are also working closely with Indigenous knowledge keepers and active harvesters to understand the condition of sampled wolves, to collect samples where possible, and to better understand changes in the population.

In March 2024, after consultations with the Inuvialuit Game Council (IGC) and Hunters and Trappers Committees, a wolf collaring program was initiated on the mainland of the Inuvialuit Settlement Region. This program aims to study wolf ecology, pack dynamics and denning, and examine seasonal wolf movement patterns in relation to barren-ground caribou movements.

Health monitoring

Contaminant levels in caribou are monitored through the Arctic Caribou and Contaminant Monitoring Program led by researchers Mary Gamberg and Alana Wilcox. In addition to annual sampling from the Porcupine and Qamanirjuaq caribou herds, samples were also collected from the Bluenose-East, Beverly and Tuktoyaktuk Peninsula herds in 2023-25 by harvesters in various communities in NWT, NU, and YT. Levels of most contaminants measured in caribou tissues were found not to be of concern, although kidney mercury and cadmium may be a concern depending on the quantity of organs consumed.

Other monitoring

Habitat-related studies and monitoring of human-caused impacts, including climate change and development on the ranges of barren-ground caribou herds, is ongoing. Multi-year projects during the reporting period include:

- [Fate of the Caribou Project](#) – a series of research projects focused on understanding how caribou and the ecosystems and communities that rely on them are affected by climate change and human development.
- [Changing Ecology of the Porcupine Caribou Summer Range](#) – an ecosystem-based project that is evaluating changes in habitat (permafrost, shrubs and landcover), prey populations (muskox and moose), and corresponding changes in wolf populations. A deployment of camera collars on Porcupine caribou occurred from 2018-2023. Publications to date have focused on insect harassment prediction and energetic costs for the herd (Hein *et al.* in prep.), and diet through the summer range (Johnson *et al.* 2025). Extensive sampling of forage conditions occurred from 2022-2024 and samples are being analyzed.
- GNWT-ECC monitors health, body condition, disease and parasites of barren-ground caribou through samples taken from harvested or collared caribou animals.
- Community-based programs monitoring harvest, health and the environment are underway across the NWT (see above).

OBJECTIVE 3

Fill knowledge gaps, using Indigenous, community, and scientific knowledge, to enhance responsible and respectful barren-ground caribou conservation.

Research to help improve our understanding of factors underlying barren-ground caribou declines and changes in the herds is ongoing. The GNWT's [Knowledge Agenda](#) (updated in 2025) provides overarching guidance for science funders and researchers on GNWT research priorities. The [NWT Cumulative Impact Monitoring Program](#) prioritizes research on barren-ground caribou. From 2023-2026, NWT CIMP partnered with [Polar Knowledge Canada](#) to direct additional funds towards understanding the drivers of population trends in barren-ground caribou. More than 110 studies were published during the reporting period (2021-2025) by a range of researchers, including academics, governments, and co-management partners, which improved our understanding of barren-ground caribou ecology, movements, health (including diet, contaminants, disease and parasites, and insect harassment), predators, competitors, and other key

factors including the people-caribou relationship and impacts of climate change. A summary of relevant research published during the reporting period can be found in Appendix B of this report.

Wildlife co-management partners (including GNWT, TG, WMAC-NWT, GRRB, SRRB, WRRB, PCMB, WMAC-NS, and KRWB) record observations and concerns from harvesters and other community members as part of regular community tours and engagement opportunities. These observations are shared through co-management organizations (e.g., ACCWM, BCAC, Caribou Guardians Coalition (CGC), and BQCMB) to support decision-making and ensure management is based on the best knowledge available from Indigenous, community and scientific sources.

A [five-part series of public listening sessions](#) coordinated by ?ehdzo Got'ıne Gots'ę Nákedı (Sahtú Renewable Resources Board) has been exploring various themes and issues to answer the question, "What is the most effective way to conserve caribou?" During the reporting period (2021-2025), sessions were held in Délıne and Tęgóhtı (Norman Wells) on the themes of *Tıch'ádıı hé Gots'edı (Living with Wildlife) – Predators and Competitors* and *Climate Change and Wildfire*. The listening sessions help support the development of [Hjdó Gogha Sęnégots'ıá](#) (Planning for the Future), a community-led approach to conservation planning.

To help understand possible future population changes, the GNWT is leading a [collaborative cumulative effects assessment](#) on the ranges of five barren-ground caribou herds (Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula, and Bathurst). The project uses a mapping tool (ALCES Online) to simulate how the population of each herd may respond to changes in climate, vegetation, land-use, and harvest levels. Indigenous knowledge for each of the five herds has been summarized and will be incorporated into the modeling. An [online web mapping tool](#) is being developed for this project, which can be used to view different scenario outcomes and analysts from partner organizations are being trained in how to use these decision support tools.

OBJECTIVE 4

Conserve and protect barren-ground caribou populations and their habitat.

Managing land use impacts

A range-level approach to managing cumulative impacts and minimizing effects of development is in place for the Bathurst herd. The Bathurst Caribou Range Plan was released in 2019, and work is underway on eight of the nine recommendations in the plan to help address cumulative effects of development on the Bathurst herd's range. A progress report on the first five years of implementation is slated for release in 2026.

As part of these recommendations, the GNWT is working with industry partners to implement Mobile Caribou Conservation Measures (MCCMs) to help mitigate disturbance to Bathurst caribou in relation to mineral exploration activities. This approach provides proponents with sufficient warning (i.e., early detection) of caribou approaching their mineral exploration programs and allows proponents to be ready for both the arrival of caribou and for mitigation.

Since 2022, proponents conducting land use activities in the NWT and Kitikmeot region of Nunavut have started to implement MCCMs. GNWT-ECC has been supporting these proponents to detect caribou near their mineral exploration programs by providing maps of caribou collar locations and results of caribou occupancy analyses. Six proponents (Rio Tinto [Diavik Diamond Mine], North Arrow Minerals Inc., Blue Star Gold Corp., B2Gold, West Kitikmeot Resources Corp., and Li-FT Power Ltd.) have implemented MCCMs to date.

As of 2019, the NWT *Wildlife Act* requires an approved Wildlife Management and Monitoring Plan (WMMP) for development activities that are likely to result in significant disturbance or pose a threat of harm to wildlife, cause substantial damage to wildlife habitat or significantly contribute to cumulative impacts on wildlife or habitat, including barren-ground caribou. As of 2025, projects with [approved WMMPs](#) in place within barren-ground caribou habitat include:

- Ekati Diamond Mine
- Diavik Diamond Mine
- Gahcho Kué Diamond Mine
- Snap Lake Diamond Mine (Closure Phase)
- Tłıchǝ All-Season Road (Tłıchǝ Highway)

Guidelines on the use of offsetting to compensate for impacts to caribou and their habitat from development projects by creating or improving equivalent habitat elsewhere are being developed as a management tool. Best management practices to mitigate the effects of roads on barren-ground caribou are also being developed by the GNWT to assist regulators, developers, and co-management partners.

A 900-km all-season road is being proposed to connect Yellowknife with the central Arctic coast of Nunavut (referred to as the [Arctic Economic and Security Corridor](#)). The road would pass through the mineral-rich Slave Geological Province, enabling the development of several mineral deposits in the NWT and Nunavut; it would also transect important areas for barren-ground caribou, including the core calving grounds of the Bathurst caribou herd, which has raised some concerns among communities that rely on caribou.

In February 2023, the federal Minister of Northern Affairs [agreed to a regional study of the Slave Geological Province](#) in the NWT. The study was [requested by the Tłı̨chǫ Government](#) to inform and support decisions about the future of the region, including impact assessment processes, land use planning, and regional development planning. The study will specifically consider impacts to caribou from near-term anticipated development and planning processes, as well as strategies for mitigation of cumulative effects and caribou protection (such as the [Recovery Strategy for Barren-ground Caribou in the Northwest Territories](#), and the [Bathurst Caribou Management Plan](#)).

Predator management

Wolves are considered the primary predators of barren-ground caribou, though grizzly bears may play a larger role in limiting calf survival than previously recognized. Low barren-ground caribou population numbers have prompted increasing calls for action to reduce predator populations that may be limiting the ability of herds to recover.

The GNWT provides training for wolf harvesters and \$200 for each wolf harvested in the NWT (with additional incentives for prepared pelts). Enhanced incentives were also offered in the North Slave region as part of the [Joint TG-GNWT Wolf \(Diga\) Management Program](#) (see below) and have been offered for wolves harvested on the winter range of the Bluenose-West caribou herd within the Inuvialuit Settlement Region since 2023.

The Government of Nunavut pays harvesters for the submission of wolf samples in Nunavut under the Wolf Sample Collection Program. Under this program, [increased payments](#) are available for wolves harvested in areas where caribou are declining (i.e., Bathurst, Bluenose-East and Dolphin and Union caribou ranges).

From 2020 to 2024, the Tłı̨chǫ Government and GNWT implemented a [joint approach](#) to wolf (diga) management in the North Slave region. The program was approved by the WRRB and intended to encourage more wolf harvesting and help address the steep declines faced by the Bathurst and Bluenose-East caribou herds.

The program included:

- Increased financial incentives to harvesters for wolves harvested on the winter ranges of Bluenose-East and Bathurst caribou and elimination of fees for wolf tags.
- Enhanced incentives for Nunavut hunters harvesting wolves in their traditional harvesting area in the NWT.
- Training for local harvesters in humane wolf harvesting techniques and pelt preparation.
- Workshops on best practices for wolf harvesting and pelt preparation, including a workshop in Yellowknife in 2022 collaboratively organized by GNWT-ECC, Tłı̨chǫ

Government and the Kugluktuk Angoniatit Association that brought together Tłı̄chǫ and Inuit harvesters to share knowledge and harvest techniques.

- Some aerial removals were carried out as a pilot project in 2019-20 because the number of wolves harvested by hunters was less than removal targets.

Monitoring and research were also an important part of the joint approach to wolf management to better understand wolf population abundance, movement and interaction with caribou and assess the impact these removal actions had on wolves and caribou. Further details on predator monitoring can be found under *Objective 2*.

The joint program concluded in 2024. A total of 579 wolves were removed from the Bathurst and Bluenose-East caribou ranges from 2020-2024 and harvesters received a total of \$472,200 (see [GNWT 2026](#)). Technical reports were published annually, which include analyses of wolf and caribou movements:

- [Wolf \(Diga\) Management Pilot Program Technical Report 2020](#)
- [Technical Report: Wolf \(Diga\) Management Program January – May 2021](#)
- [Technical Report: Wolf \(Diga\) Management Program January – June 2022](#)
- [Technical Report: Wolf \(Diga\) Management Program December 2022 – September 2023](#)
- [Technical Report: Wolf \(Diga\) Management Program January – October 2024](#)

Tłı̄chǫ Government and GNWT are currently conducting a comprehensive review of the [Joint TG-GNWT Wolf \(Diga\) Management Program](#), which will look at the steps taken and assumptions made throughout the program and the overall the effectiveness of the program, as well as inform next steps. In the meantime, WRRB has approved the Tłı̄chǫ Government to continue the Community-based Diga Harvesting Program until June 2026. This program facilitates on-the-land knowledge transfer and provides Tłı̄chǫ with opportunities to harvest diga (wolves).

Predator management options were discussed at the SRRB's Déłı̄nǫ 2021 Public Listening Session: Tłı̄ch'ádıı hé Gots'edı (Living with Wildlife) / Predators and Competitors ([SRRB 2023](#)). The SRRB found insufficient evidence that wolf management measures in the North Slave region are improving caribou population levels (Finding 2.6) and recommended further studies to establish and better understand the impacts of predation on caribou.

Harvest management

Harvest alone is not necessarily considered a threat to the ability of barren-ground caribou herds to recover, particularly when they have stable to increasing populations

and harvest is managed. However, when populations are declining or when herd numbers are low, harvest can negatively influence the ability of a herd to recover. Further, when traditional harvesting protocols are not taught or practiced, caribou well-being can be threatened.

Harvest has been restricted on most NWT herds' ranges since 2007-2010. Harvest was closed entirely on the Cape Bathurst range from 2007-2014 and has been closed on the Bathurst range since 2015. Currently, there is no non-resident or commercial harvesting of any barren-ground caribou herd in the NWT.

During the reporting period (2021-2025), partners continued to promote ongoing compliance with these harvest management measures by issuing authorizations (tags), through implementation of the no-hunting zone (Mobile Zone), as well as through education and awareness and regular patrols.

Strong signs of recovery in the Bluenose-East herd between 2021-2023 (harvesters' observations and scientific surveys) led to increases in the total allowable harvest (TAH) for this herd in both the NWT and Nunavut in 2024.

Harvest management measures as of June 2025 are summarized in Table 3. The Gwich'in Renewable Resources Board conducts two harvest surveys a year as part of a long-term ongoing study of Gwich'in harvests (primarily Porcupine and Bluenose-West caribou). The Tłıchǫ Government, North Slave Métis Alliance (NSMA), and Yellowknives Dene First Nation have programs to monitor harvest of the Bathurst and Beverly caribou herds on the Tibbitt to Contwoyto winter road. The NSMA is also working on a harvest model based on caribou gut pile data collected from the NSMA Winter Road Monitoring Program. The goal is to quantify the level of harvest off the Tibbitt to Contwoyto winter road and investigate whether this number is sustainable.

In the southern NWT, the Athabasca Denesų́líné Néné Land Corporation has been collecting caribou harvest data every year since 2012 and is now developing a program to monitor caribou harvest to ensure harvesters are following traditional protocols. The Łutsël K'é Dene First Nation collects caribou harvest information from their members under Yúnethé Xá ʔetthën Hádı (caribou stewardship plan). LKDFN also runs the Ni Hat'ni Dene Guardians program in Thaidene Néné.

All harvesters of Porcupine caribou are encouraged to report their harvest, as this information is critical to determining the management status of the herd each year. Each Party of the Porcupine Caribou Management Agreement is responsible for collecting harvest data and reporting to the PCMB.

Table 3. Harvest management measures for barren-ground caribou herds, as of 2025.

Barren-ground caribou herd	Harvest closure	Current harvest
Porcupine	Commercial harvest of the Porcupine caribou herd in Canada is prohibited under the Porcupine Caribou Management Agreement (1985).	The Porcupine caribou herd is currently in the Green Zone (above 115,000). Licensed hunters receive a maximum of two bull tags. Indigenous harvesters have no harvest limit and may harvest bulls or cows.
Tuktoyaktuk Peninsula	All resident, outfitted, and commercial harvest has been suspended since 2006.	There is no hunting in the Tuktoyaktuk Peninsula area from April 1 to June 15 to allow the Cape Bathurst caribou to migrate. There are no other restrictions on the Indigenous harvest of the herd.
Cape Bathurst	All resident, outfitted, and commercial harvest has been suspended since 2007.	Indigenous harvest of Cape Bathurst caribou is not allowed in management area I/BC/07. If the Cape Bathurst herd ranges into management area I/BC/06 then a Bluenose-West tag may be used (see below).
Bluenose-West	All resident, outfitted and commercial harvest has been suspended since 2006.	There is an Indigenous harvest with total allowable harvest per year of 403 caribou for Inuvialuit, 403 caribou for the Sahtú and 34 caribou for the Gwich'in. This total allowable harvest (TAH) reflects 4% of the current herd estimate. An 80% bull harvest is recommended.
Bluenose-East	All resident, outfitted and commercial harvest has been suspended since 2006.	As of 2025, a total annual harvest of 395 bulls is allowed in Wek'èezhii. As the primary harvesting community of the Bluenose-East herd in the Sahtú region, Délı̄nę implemented a community-based caribou conservation plan (2016), which supports a limited harvest of 150 caribou (mostly bulls) and allows for community self-regulation of caribou harvesting. A new maximum harvest of 30 is proposed in the 2019 revision to reflect the current herd status but has not yet been formally accepted. However, as the herd has moved further from Délı̄nę in recent years, actual harvest has been near zero. As of 2024, a total allowable harvest of 450 is in place for the Bluenose-East herd in Nunavut.
Bathurst	There is no harvest of Bathurst caribou allowed in the NWT. Resident, outfitted, and commercial harvest was suspended in 2010. In 2015, a	A Mobile Core Bathurst Caribou Conservation Area was put in place in 2015 to protect the herd in the NWT. Indigenous-led Guardian programs are in place to monitor the herd's health and harvest levels.

	total allowable harvest of zero was implemented for Bathurst caribou in the NWT through a determination of the WRRB.	Nunavut harvest is limited to 10 Bathurst bulls per year, which are currently allocated by the Kugluktuk Angoniatit Association to a family living traditionally at Contwoyto Lake for subsistence/cultural use (as of October 2020).
Beverly	Outfitted and commercial harvest of Beverly caribou in the NWT has been suspended since 2010.	<p>There are no restrictions on Indigenous harvest for the Beverly herd.</p> <p>Since 2014, there has been a limited season resident harvest (one tag per year, bull-only) in the range of the Beverly, Ahiak and Qamanirjuaq caribou herds in the NWT.</p> <p>There is no resident or outfitted harvest of Beverly caribou in Saskatchewan.</p> <p>Nunavut has restrictions of five caribou annually for residents, and two caribou for non-residents/non-resident foreigners, commonly referred to as sport hunters.</p>
Qamanirjuaq	Outfitted and commercial harvest of Qamanirjuaq caribou in the NWT has been suspended since 2010.	<p>There are no restrictions on Indigenous harvest for the Qamanirjuaq herd.</p> <p>Since 2014, there has been a limited season resident harvest (one tag per year, bull-only) in the range of the Beverly, Ahiak and Qamanirjuaq caribou herds in the NWT.</p> <p>There is no resident or outfitted harvest of Qamanirjuaq caribou in Saskatchewan.</p> <p>In Manitoba, 250 tags are available to outfitters for non-residents to harvest Qamanirjuaq caribou. There are also 450 tags available to residents of Manitoba for winter caribou hunting, and 350 for fall resident licences. However, in recent years, tag sales have been significantly under these allocations (e.g. less than half in 2024/2025). As of 2024, licensed hunting for caribou in Manitoba is bull-only.</p> <p>Nunavut has restrictions of five caribou annually for residents, and two caribou for non-residents/non-resident foreigners, commonly referred to as sport hunters.</p>
Ahiak	Outfitted and commercial harvest of Ahiak caribou in the NWT has been suspended since 2010.	<p>There are no restrictions on Indigenous harvest for the Ahiak herd.</p> <p>Since 2014, there has been a limited season resident harvest (one tag per year, bull-only) in the range of the Beverly, Ahiak and Qamanirjuaq caribou herds in the NWT.</p> <p>Nunavut has restrictions of five caribou annually for residents, and two caribou for non-residents/non-resident foreigners, commonly referred to as sport hunters.</p>

Efforts are also underway across the NWT to promote respectful harvesting practices. GNWT-ECC held a series of meetings through the reporting period which brought together respected harvesters from Indigenous governments and Indigenous organizations to consider ways to work together to reduce illegal and disrespectful hunting activities. Many co-management partners (including WMAC-NWT, GRRB, SRRB, WRRB, TG and GNWT-ECC) have ongoing public education and awareness campaigns on traditional harvesting techniques and protocol, as well as regional harvest management measures.

Important habitat

The Cape Bathurst herd's calving grounds on the Cape Bathurst Peninsula are protected through the Inuvialuit Community Conservation Plans and provisions in the Inuvialuit Final Agreement. The area is also recognized as a conservation area under the *Wildlife Act* between May 25 and June 15. A sensitive habitat position paper published by the Inuvialuit Hunters and Trappers Committees (IHTCs 2025) identifies important areas for the Tuktoyaktuk Peninsula and Cape Bathurst caribou herds, their movements and threats, and desired management actions for these herds.

Partners in the Bathurst Caribou Advisory Committee (BCAC) and Caribou Guardians Coalition (CGC) are working to advance the protection of key habitats through implementation of the Bathurst Caribou Range Plan and participation in environmental assessments and land use planning processes. These partners have also increased efforts to gather Indigenous and community knowledge as part of Bathurst caribou range planning, including documenting key water crossings and land corridors, completing vegetation surveys along the Tł̥ch̥ Highway, identifying critical winter habitat, and developing a critical caribou habitat map.

Members of the Caribou Guardians Coalition, supported by GNWT, are working to identify important caribou habitat in the ranges of Bathurst and Bluenose-East caribou so these areas can be considered as values at risk under ECC's wildfire management system or possibly as conservation areas under the NWT *Wildlife Act*.

ʔehdzo Got'ı̄n̄ Gots'ė́ Nákedı́ (Sahtú Renewable Resources Board) is helping to identify key habitat for barren-ground caribou through community conservation plan development.

Co-management partners (including boards, governments and Indigenous organizations) participate in environmental screening and environmental assessment processes in NWT that may affect barren-ground caribou and processes in Nunavut that may affect trans-boundary caribou herds. GNWT-ECC supports other GNWT departments (e.g. Infrastructure) throughout the regulatory process, including

identification of baseline data needs and implementing commitments/measures resulting from environmental assessments.

The Porcupine Caribou Technical Committee (PCTC) recently updated the herd's annual core range and has also updated the *Movements and Distributions of the Porcupine Caribou Herd (1993-2025)* (see [Russell et. al 1992](#) for previous report) and the *Sensitive Habitats of the Porcupine Caribou Herd* (see [PCTC 1993](#) for previous report), both of which are expected to be published in 2026. The Sensitive Habitats of the Porcupine Caribou Herd was originally published in 1993, but updates have occurred previously to the base data for this report (e.g., 2017) and have been used extensively in environmental assessments in Yukon, environmental impact statements in Alaska, and to inform regional land use planning in the Yukon. This data was also critical in the establishment of the Aullaviat/Anguniarvik Traditional Conservation Area within the Inuvialuit Settlement Region located in the Yukon outside of Ivvavik National Park. The PCMB is currently preparing a Conservation Plan for the herd that will more carefully consider habitat needs of the herd amongst other areas of management importance.

OBJECTIVE 5

Provide education and promote respect for barren-ground caribou, their habitat, and conservation initiatives.

Widespread caribou declines and harvest restrictions have meant a loss of opportunities to learn traditional respect and culture through caribou harvesting—but the need to respect caribou and their habitat has never been greater. Programs such as cultural camps and other on the land programs are underway across the NWT. Participants learn about traditional laws and proper techniques for hunting and field dressing so that no parts of the caribou are wasted.

In 2016, the Tłıchq Government established [Ekwò Nàxoèhdee K'è](#) (Boots on the Ground). The caribou monitoring program brings Tłıchq people to traditional harvesting locations on the barren lands to collect critical field knowledge of the Bathurst caribou herd and its habitat. Over the years, the program has expanded to include three camps, which monitor three barren-ground caribou herds (Bathurst, Bluenose-East, and Beverly) at Kqk'èeti (Contwoyto Lake), Deèzàati (Point Lake), and Ek'ati (Lac du Sauvage/Lac de Gras). In addition to gathering important Indigenous and community knowledge, the program brings together Tłıchq and Inuit Elders, youth and harvesters, field guides, wildlife monitors, and researchers to exchange information and observe caribou (ekwò) out on the land.

Public education programs led by, or run in collaboration with, Indigenous organizations, hunters and Elders, in schools and on the land, promote respect for caribou and ensure that all NWT residents understand the status of caribou herds, traditional protocols around caring for caribou, and the measures necessary for herd recovery. Several public education campaigns and projects were completed during the reporting period (2021-2025) or are underway, including:

- An online storymap, '[Shifting Trails: The Shrinking Range of Bathurst Caribou](#),' was published in 2023 by the [Fate of the Caribou Project](#) in collaboration with TG, WRRB, and GNWT. The project provides traditional knowledge and scientific information about the K̄q̄k'èeti Ekw̄ (Bathurst caribou) range and migration shifts following the herd's rapid population decline.
- A map of Bathurst caribou migration routes from 1996-2023 was published in the [Atlas of Ungulate Migration](#), showing the proposed all-season road to the central Arctic coast that would transect important areas for barren-ground caribou, including the core range of the Bathurst caribou herd.
- Wildlife Management Advisory Council (North Slope) released a video about the [Aullaviat/Anguniarvik Traditional Conservation Area](#). This Indigenous-led area was established in June 2024 on the north slope of the Yukon adjacent to Ivavik National Park to foster Inuvialuit traditional use and community-driven conservation of wildlife and wildlife habitat, including the Porcupine caribou herd.
- The NWT Cumulative Impact Monitoring Program produced several videos highlighting key results of some of their funded programs (e.g., CIMP224 – [A Century of Petroleum Extraction at T̄eḡóh̄ł̄ \(Norman Wells\)](#) and CIMP187 – [Vegetation Change on the Range of the Bathurst Caribou Herd](#)).
- T̄ł̄ch̄q̄ Government continues to promote respectful harvesting through its website and social media channels, as well as through its [Ekw̄ Harvest Monitoring Program](#) along the Tibbitt to Contwoyto winter road.
- Wek'èezhì Renewable Resources Board publishes online news articles and an annual calendar highlighting management and conservation initiatives for wildlife in Wek'èezhì, including barren-ground caribou (e.g. [article on aerial survey methods](#)).
- The North Slave Métis Alliance [produced a video](#) highlighting the [NSMA Winter Road Monitoring Program](#) and the issues that barren-ground caribou face on their winter range.

- The BQCMB released an [Edu-kit](#) for youth in grades 3-5 to support implementation of the [2023-2032 Caribou Management Plan](#). This 28-page activity book covers topics such as cultural importance of caribou and caribou biology. The BQCMB also launched [Caribou Connect](#), an online tool that allows partners to share actions related to the Management Plan to track progress, encourage collaboration, and share best practices.
- [?ehdzo Got'jne Gots'ę Nákedı](#) (Sahtú Renewable Resources Board) is facilitating a series of five public listening sessions to address the question of "What is the most effective way to conserve caribou?"
- [Gwich'in Renewable Resources Board](#) shares information about caribou, the people-caribou relationship, and differences between types of caribou when taking part in school events and meetings.
- [GNWT-ECC](#) promotes public messaging on topics including identifying male versus female caribou, respecting the [Mobile Zone](#), highlighting the need to conserve caribou and encouraging people to harvest only what they need.
- Territorial governments continue to offer free hunter education courses (e.g. [NWT](#), [Nunavut](#), [Yukon](#)) and trapper training/education that teach hunters of all backgrounds and experience how to be respectful of wildlife, people and themselves while hunting.
- GNWT-ECC offers [short videos](#) on how caribou population numbers are estimated in the NWT (in eight languages) and is working on a video about composition surveys.
- WMAC-NS has developed educational materials around the Porcupine caribou herd in recent years, including [illustrations and social media posts](#) describing the importance of the summer range of the herd.
- PCMB has used [social media](#) to share technical information on the herd on a regular basis over the reporting period and frequently targets communications in the herd's user communities (e.g. [graphics sharing information from annual harvest meetings](#)).

PROGRESS REPORTING TABLE

Table 4. Progress on approaches for the conservation and recovery of barren-ground caribou in the Northwest Territories, 2021-2025. Additional research published within the reporting period (2021-2025) that is not addressed in reporting table but remains relevant to barren-ground caribou recovery objectives and approaches can be found in Appendix B – Additional Research.

Completed	In progress	Not started	Not pursuing
-----------	-------------	-------------	--------------

Conservation and Recovery Goals:

1. Maintain or restore self-sustaining, resilient populations of each barren-ground caribou herd, such that no herd is lost.
2. Support and maintain the caribou-people relationship.
3. Promote conditions that allow barren-ground caribou to move and migrate across their historic ranges without barriers.
4. Promote the conditions necessary for recovery.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
<p>Objective #1: Partners collaborate on the development and implementation of management, monitoring, guardianship, and conservation plans for barren-ground caribou in the NWT.</p>	<p>1.1: Implement herd-specific management plans for the Cape Bathurst, Bluenose-West, Bluenose-East, Beverly, and Qamanirjuaq caribou herds to promote recovery and conserve habitat.</p>	<p>Critical/Short-term</p>	<p>Cape Bathurst, Bluenose-West, and Bluenose-East</p> <ul style="list-style-type: none"> • Ongoing – Implementation of the Taking Care of Caribou Management Plan (updated in 2021) and annual herd-specific action plans for the Cape Bathurst, Bluenose-West and Bluenose-East caribou herds is ongoing through the Advisory Committee for Cooperation on Wildlife Management (ACCWM). • Ongoing – WMAC (NWT), GRRB, SRRB and WRRB participate in annual status meetings of the ACCWM along with Kitikmeot Regional Wildlife Board (KRWB) and Tuktu Nogait National Park Management Board. GNWT supports the ACCWM and uses these plans as primary guidance for monitoring and management of these herds. • Ongoing – SRRB supports Sahtú communities in community conservation plan development for relevant caribou herds (Bluenose-West and Bluenose-East) through the implementation of Hjdo Gogha Senegots'íra (community-led approach to conservation planning in the Sahtú region).

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – GRRB conducts annual interviews with harvesters of the Cape Bathurst and Bluenose-West caribou herds to collect information for the ACCWM and works with other ACCWM member boards to evaluate the most recent traditional knowledge and science and assign updated colour statuses to the Cape Bathurst, Bluenose-West, and Bluenose-East herds. • 2022 – GRRB attended Inuvik HTC/WMAC (NWT) meeting on proposed changes to harvest zones for Cape Bathurst and Bluenose-West caribou herds. • 2025 – ACCWM is planning a 10-year review of the Taking Care of Caribou Management Plan as one of its priority actions for 2025 and 2026. <p><u>Beverly and Qamanirjuaq</u></p> <ul style="list-style-type: none"> • Ongoing – BQCMB updated its management for the Beverly and Qamanirjuaq herds in 2024. Implementation of the 2023-2032 Caribou Management Plan: Caribou is Life is ongoing. GNWT-ECC supports the BQCMB and uses this plan as primary guidance for monitoring and management of these herds. <p><u>Community-based conservation planning</u></p> <ul style="list-style-type: none"> • Ongoing – Implementation of community conservation plans is ongoing in the NWT (Dél̄n̄ę, Colville Lake, Łuts̄s̄l K'̄é) through the Dél̄n̄ę Caribou Conservation Plan (Belarewile Gots'̄é ʔekw̄é: Caribou for All Time) (2016), Colville Lake Caribou Stewardship Plan (Dehlá Got'̄jne ʔəd̄ Plan) (2019), and Łuts̄s̄l K'̄é Dene First Nation's Caribou Stewardship Plan (Yúnethé Xá ʔetth̄n Hádi) (2020). Other community-based plans for herds shared with the NWT are also in place, including the Kugluktuk Angoniatit Association's Bluenose-East Community Caribou Management Plan (2019) and the Athabasca Denesųliné Caribou Relationship Plan (in prep). • Ongoing – PCMB is working on a conservation plan for the Canadian portion of the herd's range that will provide managers and communities with guidance for making decisions about the herd and its habitat. The plan is expected to be completed in 2026.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
	<p>1.2: Complete and implement herd-specific management plans for the Tuktoyaktuk Peninsula and Bathurst caribou herds to promote recovery and conserve habitat.</p>	<p>Critical/Short-term</p>	<p><u>Tuktoyaktuk Peninsula</u></p> <ul style="list-style-type: none"> • 2025 – Aklavik Hunters and Trappers Committee (AHTC), Inuvik Hunters and Trappers Committee (IHTC), Paulatuk Hunters and Trappers Committee (PHTC), and Tuktoyaktuk Hunters and Trappers Committee (THTC) completed a position paper on the management of sensitive habitat for the Tuktoyaktuk Peninsula and Cape Bathurst caribou herds with support from WMAC-NWT and IGC (Inuvialuit Hunters and Trappers Committees 2025). It includes important areas for caribou, their movements and threats, and desired management actions for these herds. <p><u>Bathurst</u></p> <ul style="list-style-type: none"> • 2021-Ongoing – The Bathurst Caribou Advisory Committee (BCAC) completed the Bathurst Caribou Management Plan and held an initial herd status meeting in December 2021. Implementation of the management plan is ongoing through annual BCAC meetings to discuss herd status and appropriate management actions. GNWT-ECC supports BCAC and uses this plan as primary guidance for monitoring and management of this herd.
	<p>1.3: Continue working with partners in Nunavut on effective conservation of the Ahiak herd.</p>	<p>Necessary/Ongoing</p>	<p>CMA partners continue to work with Nunavut on the monitoring and management of all transboundary herds. This implementation action is not being specifically pursued as the range of Ahiak caribou is almost entirely within Nunavut and monitoring and management is led by Nunavut. By-laws and policies are being updated by KRWB and HTOs in Nunavut.</p>
	<p>1.4: Review and update herd-specific management plans as required.</p>	<p>Necessary/Ongoing</p>	<ul style="list-style-type: none"> • Ongoing – ACCWM Management Authorities (including WMAC (NWT), GRRB, SRRB and WRRB) review the status and action plans for the Cape Bathurst, Bluenose-West and Bluenose-East herds every year and provide recommended management updates. In 2021, ACCWM drafted and approved revisions to the Taking Care of Caribou Management Plan. ACCWM began an evaluation of the management plan in 2025 in advance of the 10-year review scheduled for 2026. • Ongoing – BQCMB reviews status and management of the Beverly and Qamanirjuaq herds annually; GNWT, TG, LKDFN, NWTMN, and Athabasca Denesųłné participate on this board and

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>provide updates and/or support as needed. In 2024, BQCMB updated its management for the Beverly and Qamanirjuaq herds (2023-2032 Caribou Management Plan: Caribou is Life).</p> <ul style="list-style-type: none"> • Ongoing – BCAC (includes WRRB, TG, NSMA, NWTMN, ADNLC and GNWT-ECC) reviews the status of the Bathurst herd and action plan every year. A 5-year review of the Bathurst Caribou Range Plan and a progress report on the implementation of the range plan is being finalized. • Ongoing – PCMB reviews the management status of the Porcupine herd annually. The three-day Annual Harvest Meeting includes a public meeting to share information on the current status of the herd. GRRB collects and presents information from harvesters at the meeting, and GNWT-ECC provides updates on harvest sample monitoring.
	<p>1.5: Support community-based barren-ground caribou monitoring, guardianship, and conservation plans.</p>	<p>Necessary/ Ongoing</p>	<p>Monitoring and guardianship</p> <ul style="list-style-type: none"> • Ongoing – The Caribou Guardians Coalition (CGC), established in 2020 under a recommendation of the Bathurst Caribou Range Plan, is developing a coordinated network of community monitoring programs on the Bathurst range. GNWT-ECC, WRRB, and others provide in-kind support to the CGC. • Ongoing – TG continues to implement Ekwò Nàxoèhdee K'è (Boots on the Ground), a caribou monitoring program based on Indigenous and community knowledge. The program was established in 2016 to collect critical field knowledge of barren-ground caribou and their habitat. In 2024, the program was expanded to include three camps: Kòk'èeti (Contwoyto Lake) to monitor Bathurst caribou; Deèzàati (Point Lake) to monitor Bluenose-East caribou; and Ek'ati to monitor Bathurst and Beverly caribou. • 2021-Ongoing – TG runs the Ekwò Harvest Monitoring Program along the Tibbitt to Contwoyto winter road to ensure Tłchq hunters are following harvest regulations, being safe and harvesting respectfully. • 2020-Ongoing – The NSMA Winter Road Monitoring Program (CIMP243-BG; Phelan 2024) uses a combination of traditional knowledge and science to investigate cumulative effects of disturbances to barren-ground caribou on the Tibbitt to Contwoyto Winter Road. NSMA Guardians track GPS locations of any wildlife seen along the road and note information on sex, age, health and group

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>size as well as environmental conditions and human activity. This program also uses modern sensory equipment (cameras and autonomous recording units) to record traffic levels and caribou interactions with the road. In 2023, the program was expanded, and a semi-permanent camp was built on the Gahcho Kué spur road as a base for NSMA Guardians patrols.</p> <ul style="list-style-type: none"> • Ongoing – Yellowknives Dene First Nation (YKDFN) runs a community-based monitoring program to monitor harvest of caribou and other wildlife along the Tibbitt to Contwoyto Winter Road. • Ongoing – The Imaryuk program, run by the IHTC and THTC, monitors habitat along the Inuvik-Tuktoyaktuk highway. • Ongoing – Taloyoak Umarulirigut Association and Kurtairojuark Hunters and Trappers Association are lead guardian programs in the Kitikmeot region (mainly Ahiak herd). • Ongoing – GRRB conducts annual interviews with harvesters of the Cape Bathurst and Bluenose-West caribou herds to collect information on the size, trend, and health of those herds and coordinates the twice annual Gwich'in Harvest Survey (e.g. see presentation of 2023/24 results). In 2024, GRRB developed paperwork to help RRCs better track Bluenose-West tag distribution. • Ongoing – BQCMB supports Indigenous-led monitoring and guardianship programs by collaborating with communities, integrating traditional knowledge into management plans, and promoting respectful harvest and stewardship practices. • Ongoing – GNWT increased its support for Indigenous-led on-the-land monitoring programs for the Bathurst and Bluenose-East herds in 2021 and provides ongoing financial support to TG's Ekwo Nàxoèhdee K'è (Boots on the Ground) monitoring program and the YKDFN community-based monitoring program. • Ongoing – NSMA is investigating how caribou-people relationships have changed as barren-ground caribou populations declined across the NWT. A series of workshops were held in 2023, 2024 and 2025. • Ongoing – Łutsël K'è Dene First Nation, Northwest Territory Métis Nation, Deninu Kųę First Nation, and Yellowknives Dene First Nation co-manage the Thaidene Nënë Indigenous Protected Area,

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>supported by federal funding from the Canada Nature Fund agreement. Funding is also provided for the Ni Hat'ni Dene guardians.</p> <ul style="list-style-type: none"> • 2024-Ongoing – ADNLC is piloting a program to monitor caribou harvest in the southern NWT to ensure harvesters are following traditional protocols. The NWT Species Conservation and Recovery Fund provided financial support. • 2021-2025 – KRWB led a caribou monitoring project in Kitikmeot communities where harvesters recorded opportunistic observations using a mobile app. During the reporting period (2021-2025), more than 323 observations were recorded, including 108 involving caribou (barren-ground or Dolphin and Union). • 2025-2026 – SRRB partnered with the Norman Wells Renewable Resources Council to offer on-the-land training to build the capacity of local guardians to lead and sustain future boots-on-the-ground monitoring, fieldwork, and conservation initiatives related to barren-ground caribou. <p><u>Monitoring tools/approaches</u></p> <ul style="list-style-type: none"> • 2021 – SRRB provided training for community guardians in alternative monitoring methods such as fecal sampling. • 2022 – In February 2022, ACCWM published a report titled Monitoring Caribou: A review of selected technologies for tracking barren-ground caribou (ACCWM 2022b) on alternatives to collaring. • 2024 – ACCWM Member Boards created annual Harvest Data Collection Templates and a presentation explaining information gathering for the ACCWM to provide consistency across the regions. • 2025 – SRRB held a workshop in Tłegóhłı̨/Norman Wells for Indigenous organizations, researchers and co-management boards to share ideas and experiences with non-invasive monitoring techniques that don't involve handling wildlife. • 2025 – Research from the University of British Columbia looks at how collaborative wildlife monitoring can support Indigenous sovereignty (Tattersall et al. 2025).

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>Community-based conservation planning</p> <ul style="list-style-type: none"> • See also 1.1. • Ongoing – Community-based stewardship planning and implementation is ongoing. • Ongoing – SRRB continues to support the development of community conservation plans as part of its five-part series of public listening sessions through the implementation of Hjdó Gogha Sėnégots'ı́á (community-led approach to conservation planning in the Sahtú region). • Ongoing – Community Conservation Plans in the Inuvialuit Settlement Region (ISR) identify important areas for barren-ground caribou. CCPs were established under the Inuvialuit Final Agreement to guide the conservation and management of natural resources and lands within the ISR and are regularly reviewed and updated.
	<p>1.6: Continue working to secure adequate resources and ongoing support from governments and other partners (including industry, co-management and regulatory boards, and non-government organizations) for the implementation of this recovery strategy and the management, monitoring, guardianship, and conservation plans noted in approaches 1.1 to 1.5.</p>	<p>Necessary/ Ongoing</p>	<p>Federal funding</p> <ul style="list-style-type: none"> • Ongoing – Habitat Stewardship Program and Indigenous Partnerships for Species at Risk provide federal funding for projects that support species at risk, including barren-ground caribou. Over the reporting period, four projects on barren-ground caribou received \$460,000 in funding (e.g., funding provided to ACCWM for engagement on the 10-year review of the Taking Care of Caribou Management Plan; see 1.4). • 2021 – The Government of Canada expanded its support for Indigenous Guardians in 2021, committing up to \$173 million (nationally) to fund new and existing Indigenous guardians initiatives and the development of Indigenous Guardians Networks for First Nations, Inuit and Métis. • 2021 – SRRB secured funding from the Government of Canada for community participation and plan development for the public listening sessions in Délıne and Tłegóhtı́/Norman Wells (2021 & 2024). • 2021-23 – ECCC provided funding to GNWT-ECC to assist with costs of composition surveys of Bathurst and Bluenose-East caribou (2021/22 and 2022/23), a fall transect survey for Cape Bathurst

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>and Tuktoyaktuk Peninsula caribou (2021/22) and wolf kill site investigation and detection rate surveys (2021/22).</p> <ul style="list-style-type: none"> • 2022 – ECCC agreed to provide an additional \$3.605 million in funding to GNWT-ECC over three years (2022-2025) to assist with barren-ground caribou research, monitoring and management actions. • 2022 – In December 2022, ECCC launched a new First Nations National Guardians Network to “expand and support” individual First Nations guardians initiatives across Canada. • 2023-2024 – ECCC provided funding to GNWT-ECC to assist with costs of identifying key caribou habitats; developing and implementing mitigation measures for industry in caribou habitat; collaring wolves on the Cape Bathurst and Bluenose-West caribou ranges; health and genetics analysis of caribou and predator samples; and surveillance and enforcement of caribou no hunting zones. • 2024-25 – ECCC provided \$1.7 million to support the Bathurst Caribou Advisory Committee (BCAC) and Caribou Guardians Coalition (CGC), including Secretariat functions, annual gatherings and summits, and Indigenous-led habitat conservation work across the Bathurst caribou range. • Ongoing – The collaborative cumulative effects assessment (see 3.4) is partly supported by federal funds. <p>GNWT funding</p> <ul style="list-style-type: none"> • Ongoing – GNWT-ECC has provided funding to co-management partners to gather Indigenous knowledge and harvest reporting (e.g. GRRB harvest surveys, WMAC (NWT) interviews for the sensitive habitat position paper) and other work related to barren-ground caribou (e.g. ACCWM, BCAC, and BQCMB operations and meetings). • Ongoing – The NWT On the Land Collaborative, launched in 2015, promotes and supports on the land initiatives in the NWT. GNWT provides funding, in-kind and administrative support to the

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>Collaborative. Every year, the Collaborative has funded up to 55 projects for a total of approximately \$1 million.</p> <ul style="list-style-type: none"> • Ongoing – The NWT Cumulative Impacts Monitoring Program (NWT CIMP) and NWT Species Conservation and Recovery Fund (SCARF) are annual GNWT funding programs that support NWT projects related to caribou monitoring and conservation. • 2019-2024 – GNWT-ECC received an additional \$6.8 million in supplementary GNWT funding over five years (2019/2020 to 2023/2024) to enhance Bathurst and Bluenose-East caribou herd monitoring and management actions through harvest management, habitat protection, wolf management, enhanced research and monitoring and collaboration with partners. <p>Other funding sources</p> <ul style="list-style-type: none"> • 2023-2026 – NWT CIMP (GNWT-ECC) and Polar Knowledge Canada provided an additional \$850,000 in funding over three years to support traditional knowledge-based and/or science-based projects to help understand drivers of barren-ground caribou population trends. Seven projects were funded and will collaborate in 2026 to develop a synthesis report that describes drivers of barren-ground caribou abundance and predicts future conditions. • 2024 – IGIOs, GNWT, Government of Canada and private donors finalized the Our Land for the Future Agreement (previously known as Project Finance for Permanence, or PFP). It will provide \$375M to be spent from 2025-2035 and over the long term through an endowment to provide support for Indigenous-led conservation, stewardship, and related economic diversification opportunities. GNWT-ECC also negotiated a draft bilateral agreement with the federal government to secure separate, related funding that would allow the GNWT to support Indigenous-led conservation and stewardship. Canada has committed to contribute up to \$20 million in funding under the Canada-NWT Nature Agreement to support the GNWT’s role in conservation and biodiversity planning and implementation.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2025 – WMAC (NWT) has identified various funding sources (i.e., NWT SCARE, WWF’s Arctic Species Conservation Fund) to pursue a proposal to host an annual workshop focused on Objective 5 (see also 3.2, 3.3, 5.1, 5.2, 5.3, 5.4) • Ongoing – Polar Knowledge Canada and the Indigenous Centre for Cumulative Effects (ICCE) provide funding for the Caribou Guardians Coalition (CGC).
	<p>1.7: Increase capacity among communities and Indigenous partners to participate equally and meaningfully in the conservation of barren-ground caribou, and share tools and ideas to support their participation.</p>	Necessary/ Ongoing	<p>See also 1.5 and 1.6.</p> <ul style="list-style-type: none"> • Ongoing – Community-based stewardship planning and implementation is ongoing. • Ongoing – GNWT financially supports management planning meetings of the ACCWM, the BQCMB and the BCAC, including participation of various IGIOs. The NWT Cumulative Impacts Monitoring Program (NWT CIMP) and NWT Species Conservation and Recovery Fund (SCARF) are annual funding programs that support NWT projects related to caribou monitoring and conservation. • Ongoing – PCMB includes members from each of the five Indigenous groups that harvest from the Porcupine caribou herd. • Ongoing – WMAC (NWT) conducts an annual community tour, which includes discussion about ACCWM and the Cape Bathurst, Bluenose-West and Bluenose-East herds; co-management, research and management priorities; and species at risk updates. When providing species at risk updates to community members, WMAC (NWT) offers to answer questions and help address concerns. • Ongoing – SRRB continues to support communities and Indigenous partners to participate equally and meaningfully in the conservation of barren-ground caribou through its five-part series of public listening sessions on the question of What is the most effective way to conserve caribou? Two sessions were held during the reporting period (Délįnę and Tłęgóhı̄/Norman Wells). • Ongoing – GNWT and TG provide funding to Ekwò Nàxoèhdee K'è (Boots on the Ground), a caribou monitoring program based on Indigenous and community knowledge (Jacobsen 2022). More than 40 Tłı̄chq̄ people are involved in this program. Other programs supported by GNWT

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>funding include: YKDFN community-based winter road monitoring program and Ni Hat'ni Dene guardians (LKDFN), and joint Thaidene Nëné monitoring programs.</p> <ul style="list-style-type: none"> • Ongoing – The Centre for Indigenous Environmental Resources (CIER) supports the involvement of Indigenous communities and peoples in federal species at risk processes by providing training and funding. • Ongoing – TG runs a community-based Diga Harvesting Program to support harvesters to remove predators from the ranges of Bluenose-East and Bathurst barren-ground caribou (approved by WRRB until June 2026). The program facilitates on-the-land knowledge transfer and provides an opportunity for Tłı̨ch̨o to harvest wolves. • Ongoing – GNWT-ECC hosts an annual NWT <i>Wildlife Act</i> Section 15 meeting in Yellowknife every November. The 2025 meeting was the largest ever with 57 attendees from a range of groups and organizations from across the NWT, including IGIOs and renewable resource boards, as well as GNWT-ECC and ECCC staff. Recent meetings have focused on various harvest monitoring and reporting programs, outfitting, guardian initiatives across the NWT, and status and monitoring updates for caribou populations. Many IGIOs shared information about their programs, experiences and lessons learned. • 2022 – LKDFN and Trailmark Systems produced a guide (Trailmark and LKDFN 2022) that provides practical advice, tools, and best practices for gathering Indigenous knowledge used in resource management and decision-making (Keats and Michel 2022). • 2024 – Co-management partners for barren-ground caribou (including representatives from the WRRB, BQCMB, and the PCMB) published an opinion piece on challenges to and strategies for successful co-stewardship of North American caribou herds (Lemke et al. 2024). • 2024-Ongoing – NSMA is documenting traditional knowledge of environmental change, including relationships with the land, wildlife, and one another (NSMA 2025; CIMP248). This project will support decision-making related to resource development and wildlife.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2025 – TG held a Tłıchọ Ekwò Gathering: Ekwò t'à Ts'eeda Weghọ Elexègots'edo (Sharing Stories about Caribou, Our Source of Life) in May 2025 for researchers, co-management partners, and delegates from each of the Tłıchọ communities. TG, GNWT-ECC, WRRB and CGC provided updates on barren-ground caribou status and management.
	<p>1.8: If barren-ground caribou are listed under the federal <i>Species at Risk Act</i>, cooperate in the development and implementation of the national barren-ground caribou recovery strategy, including identification and protection of critical habitat, and defining population and distribution objectives, in accordance with the federal <i>Species at Risk Act</i>.</p>	Critical/Short-term	<ul style="list-style-type: none"> • Implementation action is not underway. Barren-ground caribou are not listed federally at this time.
<p>Objective #2: Monitor barren-ground caribou, their habitat, and key factors and threats that may be affecting the status and health of herds in the NWT.</p>	<p>2.1: Collect information on the size, trend, and health of all NWT barren-ground caribou herds.</p>	Critical/Ongoing	<p>See also Section 4: How are barren-ground caribou doing?</p> <p>Scientific monitoring</p> <ul style="list-style-type: none"> • Ongoing – GNWT-ECC and partners conduct population abundance surveys of five barren-ground caribou herds that range primarily in the NWT (Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, and Bathurst) every 2-3 years. Additional monitoring includes seasonal composition surveys to monitor calf:cow ratios, bull:cow ratios, calf productivity annually in June, and assessment of collar-based cow survival (e.g., Adamczewski and Williams 2024). • Ongoing – GNWT-ECC collects various biological samples during program activities that involve interactions with live-captured or found dead animals. Samples are processed to help determine individual and population health. Mortality investigations with tissue sampling are done where feasible in cases of collar mortality to investigate general health and survival. A summer student is

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>being hired through the University of Calgary to examine outcomes and trends from caribou collar-mortality investigations (in 2026).</p> <ul style="list-style-type: none"> • Ongoing – GNWT-ECC receives reports and samples from harvesters from across the NWT relating to food safety concerns, general abnormal findings, and sick or dead wildlife, including caribou. GNWT-ECC investigates all cases in collaboration with the Canadian Wildlife Health Cooperative to determine cause of illness or death. • Ongoing – GNWT-ECC shares monitoring of the Beverly herd with the Government of Nunavut (GN). GN leads population surveys and GNWT deploys collars and flies composition surveys. GN also leads monitoring of the Ahiak and Qamanirjuaq herds, which range primarily in Nunavut. • Ongoing – Satellite collars collect location and movement data from barren-ground caribou to monitor seasonal range distribution, measure annual variations in rut and calving locations, and determine spring and fall migration routes. • 2024 – Herd-wide pregnancy rates were estimated for each of the Bathurst, Bluenose-East and Beverly barren-ground herds using fecal samples collected in 2020 (Adamczewski et al. 2024a). • As of April 2026, barren-ground caribou population estimates are as follows: <ul style="list-style-type: none"> ○ Porcupine – 143,135 (2025); down from 218,457 (2017) ○ Tuktoyaktuk Peninsula – 2,798 (2024); down from 3,070 (2021) ○ Cape Bathurst – 8,533 (2025); down slightly from 9,702 (2024) ○ Bluenose-West – 20,476 (2025); up from 18,440 (2021) ○ Bluenose-East – 28,759 (2025); down from 39,525 (2023) ○ Bathurst – 3,609 (2025); down from 6,851 (2022) ○ Beverly – 152,131 (2023); up from 103,372 (2018) ○ Qamanirjuaq – 252,900 (2022); down from 288,200 (2017) ○ Ahiak – 24,910 (2021); down from 40,341 (2011) <p>Other monitoring</p>

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – WMAC (NWT) records observations from community members and harvesters every year during its annual community tours in the ISR. This information helps support decision making on barren-ground caribou herd statuses at the ACCWM annual status meeting. • Ongoing – GRRB conducts annual interviews with harvesters of the Cape Bathurst and Bluenose-West caribou herds to collect information on the size, trend, and health of those herds and coordinates the twice annual Gwich'in Harvest Survey, which collects information on the health of caribou being harvested (primarily Porcupine Caribou) (e.g. see presentation of 2023/24 results). • Ongoing – Many community-based monitoring and guardianship programs collect information on the size, trend, and health of barren-ground caribou herds, including Ekwò Nàxoèhdee K'è (Boots on the Ground), the NSMA Winter Road Monitoring Program, YKDFN's community-based monitoring along the Tibbitt to Contwoyto Winter Road, and the Ni Hat'ni Dene guardians. See 1.5 for further detail. • 2021-2025 – KRWB has been leading a caribou monitoring project in Kitikmeot communities where harvesters recorded opportunistic observations using a mobile app. During the reporting period (2021-2025), more than 323 observations were recorded, including 108 involving caribou (barren-ground or Dolphin and Union). • 2023-2026 – NWT CIMP (GNWT-ECC) and Polar Knowledge Canada provided an additional \$850,000 in funding over three years to support traditional knowledge-based and/or science-based projects to help understand drivers of barren-ground caribou population trends. Seven projects were funded and will collaborate in 2026 to develop a synthesis report that describes drivers of barren-ground caribou abundance and predicts future conditions. • 2024 – TG and GNWT submitted a Joint Management Proposal for the Bluenose-East Herd to the WRRB that included management actions for harvest, predators, habitat and land use, education and monitoring & research for 2024-2026 (GNWT and TG 2024).

Objective	Management Approaches	Relative Priority/Time Frame	Progress
	<p>2.2: Monitor predator populations that may affect barren-ground caribou, and assess predator-prey relationships and predation rates.</p>	<p>Necessary/ Ongoing</p>	<ul style="list-style-type: none"> • Ongoing – GNWT-ECC monitors wolf population abundance, movement and interaction with caribou using a combination of methods, including sample collection and analysis, GPS collar deployment, remote cameras, and aerial surveys. • Ongoing – GNWT-ECC collects data and samples from grizzly bear mortalities in the NWT to monitor population dynamics (sex, age, reproductive status, and health), temporal and spatial distribution, and reasons for conflict (where applicable). GN monitors grizzly bear harvest and collects samples to estimate population density and abundance in the Kitikmeot and Kivalliq regions of Nunavut. • Ongoing – WMAC (NWT) records predator observations and concerns from community members regarding predators during its annual community tours in the ISR. • Ongoing – Many community-based barren-ground caribou monitoring and guardianship programs record predator observations and predator-prey relationships, including Ekwò Nàxoèhdee K'è (Boots on the Ground), the NSMA Winter Road Monitoring Program, YKDFN's community-based monitoring along the Tibbitt to Contwoyto Winter Road, and the Ni Hat'ni Dene guardians, and Kitikmeot communities. See 1.5 for further detail. • 2019-Ongoing – TG runs a Diga Harvesting Program that provides training and support for Tłı̨chǫ people to increase their knowledge and skills for ground-based harvest of wolves (diga). The community-based harvesting program facilitates on-the-land knowledge transfer and provides Tłı̨chǫ with opportunities to support recovery of barren-ground caribou (ekwò). • 2019-2024 – GNWT-ECC assessed wolf abundance on the ranges of the Bathurst and Bluenose-East herds as part of the Joint TG-GNWT Wolf (Diga) Management Program and continued to collar wolves associated with the Bathurst, Bluenose-East and Beverly herds. GNWT-ECC also conducted wolf kill site investigation and detection rate surveys for tundra wolves to improve our understanding of tundra wolf ecology and help inform wolf management. GNWT-ECC staff worked with harvesters to design a wolf health sample kit in 2022 and performed wolf necropsies with local harvester participation.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2021 – The NWT Grizzly Bear and Wolverine Biological and Management Feasibility Working Group published the report Grizzly Bear Biological Assessment and Potential Options for Managing Grizzly Bear Predation on the Range of the Bathurst and Bluenose-East Barren-ground Caribou Herds. • 2022 – The NWT Grizzly Bear and Wolverine Biological and Management Feasibility Working Group published the report Wolverine Biological Assessment for the Range of the Bathurst and Bluenose-East Barren-ground Caribou Herds. • 2022 – GRRB loaned Yukon Government some wildlife cameras to assist with a study of wolves on the Yukon North Slope. • 2022 – GRRB's Wildlife Studies Fund funded a survey of the moose population in the GSA by GNWT-ECC and GRRB staff following concerns that as the moose population grows, the number of wolves is also increasing and putting more pressure on caribou. GRRB also provided funding for a separate moose survey by the Yukon Government on the Yukon North Slope. • 2022-2024 – Six boreal wolves were collared along the Tłıchǫ Highway as a part of a university collaboration on food web dynamics and to determine how wolves use and respond to linear features like roads in the North Slave region. • 2023-2024 – GNWT-ECC published studies on the impacts of the Inuvik to Tuktoyaktuk Highway, looking at: 1. Changes in patterns of harvest of wolves, wolverine and grizzly bears before, during and after highway construction (d'Eon-Eggertson 2023); and 2. How the highway affected grizzly bear density (Boulanger and d'Eon Eggertson 2024). WMAC (NWT) and HTC's supported the studies. • 2024 – A Master's thesis was published on movement patterns and habitat use by grey wolves and barren-ground caribou in NWT/Nunavut (Abernethy 2023). • 2025 – An Inuit Qaujimagatuqangit (traditional knowledge) study was prepared for the GN to estimate the abundance of grizzly bears (aklak) in the Kivalliq region of Nunavut (Harding et al. 2025). • 2025-2026 – Graduate students from the University of Saskatchewan (Taylor Volappi and Dr. Emily Jenkins) and the University of Kansas (Danielle Land and Riley Green from the Colella lab)

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>processed wolf intestines collected during the Joint TG-GNWT Wolf (Diga) Management Program to investigate wolf health and predator-prey relationships. GNWT-ECC also works with the University of Saskatchewan (Dr. Tim Jardine) and University of Calgary (Dr. Benjamin Barst) on broad scale diet analysis using samples collected from harvested wolves.</p> <ul style="list-style-type: none"> • 2024-Ongoing – In March 2024, a wolf collaring program was initiated on the mainland of the Inuvialuit Settlement Region. This program aims to study wolf ecology, pack dynamics and denning, and examine seasonal wolf movement patterns in relation to barren-ground caribou movements. GNWT-ECC collared four wolves in 2024 and nine more in 2025. • Ongoing – GNWT-ECC continues to work with collaborators at University of Saskatchewan (Dr. Tim Jardine and Dr. Emily Jenkins), University of Northern British Columbia (Dr. Jamie Gorrell; see UNBC 2026), University of Kansas (Dr. Jocelyn Colella), Government of Nunavut, TG, and WRRB on using samples collected from harvested wolves to develop a predator health monitoring framework through diet, genetics, parasites, and disease. • Ongoing – Researchers from the State University of New York are working with the GN and KAA to study interactions between caribou and predators using motion-triggered cameras on the Bathurst caribou herd’s calving grounds. Researchers presented at The Wildlife Society conference in Edmonton, AB in October 2025 (Larue et al. 2025; Fate of the Caribou Research Summary 2021-2025).
	<p>2.3: Monitor the impacts of other key factors affecting barren-ground caribou and their habitat, including, for example, diet, contaminants, disease, parasites, insects, and climate change.</p>	<p>Necessary/ Short-term</p>	<p>See also Appendix B – Additional Research</p> <ul style="list-style-type: none"> • Ongoing – More than 110 reports and studies were published during the reporting period (2021-2025) on key factors affecting barren-ground caribou and their habitat, including diet, contaminants, disease, parasites, insects, and climate change. • Ongoing – GNWT-ECC monitors status and trends of health, body condition, disease and parasites of barren-ground caribou through samples taken from harvested or collared caribou animals. This includes screening for key circulating pathogens, parasites, stress, pregnancy, minerals, age, and other metrics of individual and population health.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – GNWT-ECC conducts surveillance and management to prevent introduction of Chronic Wasting Disease into NWT cervids, including caribou. • Ongoing – GNWT-ECC conducts surveillance for ticks, biting insects, and vector-borne pathogens, including those that may impact caribou health across the territory. • Ongoing – TG records indicators of caribou health, climate change, insect harassment, habitat, road and other anthropogenic impacts through ground-based observations through Ekwò Nàxoèhdee K'è (Boots on the Ground). • Ongoing – GNWT-ECC has partnered with WMAC (NWT), SRRB, GRRB, WRRB and others on a collaborative cumulative effects assessment on the ranges of five barren-ground caribou herds (Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula, and Bathurst). The project simulates how the population of each herd may respond to changes in climate, vegetation, land-use, and harvest levels (CIMP207-BG; NWT CIMP Research Bulletin 55; Stubbs et al. 2023). • Ongoing – GNWT, Government of Canada and northern Indigenous organizations are partners in the Northern Contaminants Program (NCP), which monitors long-range contaminants in the Canadian Arctic. The data generated by the NCP are used to assess ecosystem and human health, and the findings of these assessments are used to inform policy and address the safety and security of traditional country foods. GNWT-ECC currently serves on the NWT Regional Contaminants Committee, contributing to project technical and socio-cultural review processes. • Ongoing – Contaminant levels in caribou are monitored through the Arctic Caribou and Contaminant Monitoring Program led by researchers Mary Gamberg and Alana Wilcox. In addition to annual sampling of the Porcupine and Qamanirjuaq caribou herds, samples were also collected from the Bluenose-East, Beverly and Tuktoyaktuk Peninsula herds in 2023-25 by harvesters in various communities in NWT, NU, and YT. A collaborative project with McGill and Concordia Universities is using some of these samples to explore relationships between contaminants in caribou and the sublethal effects that may affect survival, reproduction and recruitment (CIMP240-BG). • Ongoing – The Fate of the Caribou Project is a collaborative research group based at the State University of New York focused on furthering our understanding of how caribou and the ecosystems

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>and communities that rely on them are affected by climate change and human development. WRRB, NSMA, GNWT-ECC, CARMA, and others are partners in this project (see also CIMP241-BG; CIMP242-BG; Brose et al. 2024; Brose et al. 2025a; and Brose et al. 2025b for a five-year research summary).</p> <ul style="list-style-type: none"> • Ongoing – BQCMB sponsors the Gunther Abrahamson Caribou Research and Management Award which provides financial support to post-secondary students studying barren-ground caribou and their habitat. • Ongoing – Many community-based barren-ground caribou monitoring and guardianship programs record observations on caribou health and environmental factors, including Ekwò Nàxoèhdee K'è (Boots on the Ground), the NSMA Winter Road Monitoring Program, YKDFN's community-based monitoring program along the Tibbitt to Contwoyto Winter Road, and the Ni Hat'ni Dene guardians. See 1.5 for further detail. • Ongoing – Governments and renewable resource boards provide information on wildlife diseases and parasites to harvesters to protect them from infection and encourage reporting. For example, in 2021, GRRB provided RRCs with booklets on the identification of wildlife parasites and diseases for distribution to harvesters. GNWT-ECC maintains a webpage on wildlife diseases and publishes a field guide to wildlife diseases and parasites. • 2017-Ongoing – Researchers at the University of Calgary (Kutz Research Group) collect samples and assess various indicators of caribou health for some herds, including stress, body condition, minerals, contaminants, pathogens, fecal and blood parasites, etc., through an ongoing harvester-based monitoring of Bluenose-East caribou. They compiled a comprehensive caribou health database with approximately 200 records of Bluenose-East health profiles, and developed a variety of monitoring protocols, videos, and visual aids to support community-based health monitoring approaches, available online: Knowledge Sharing Kutz Research Group; see also CIMP239-BG. In 2024, researchers released an update on their work investigating how parasites impact caribou health and population dynamics (Kutz 2024).

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2021-Ongoing – Researchers at the University of Calgary (Kutz Research Group) have been conducting investigations into recently documented filarioid outbreaks in barren-ground caribou in the NWT and NU. They are assessing filarioid diversity, impacts, and developing sensitive diagnostic tests for <i>Setaria spp.</i>, <i>Onchocerca spp.</i>, and other filarioids that may impact caribou health. • 2022-Ongoing – GNWT-ECC is collaborating with University of Kansas (Dr. Jocelyn Colella), University of Wisconsin (Dianna Krejsa), University of New Mexico (Dr. Joe Cook), University of Saskatchewan (Dr. Tim Jardine, Dr. Emily Jenkins), and University of Northern British Columbia (Dr. Jamie Gorrell) on a project using carnivore and small mammal samples to examine parasite-pathogen dynamics of tundra wolves and caribou, as well as other research questions. • 2023-Ongoing – Researchers at the University of Calgary (Kutz Research Group) have been documenting traditional knowledge on historical health and ecological trends of Bluenose-East caribou, as well as collaboratively developing indicators of barren-ground caribou health and ecology with knowledge holders in the communities of Wekweèti, Délı̄ne, and Kugluktuk. • 2023-Ongoing – Researchers at the University of Calgary (Van der Meer Lab) have been working to better understand the role of pestiviruses in caribou health. Specifically, they have been screening various samples to try and identify the specific virus that is affecting caribou and working on development and validation of specific diagnostic tests to detect these viruses in caribou. • 2025-Ongoing – Researchers at State University of New York are using audio recorders deployed on the Bluenose-East and Beverly herds to monitor caribou behaviour including foraging, rumination and parasitism. Researchers presented at The Wildlife Society conference in Edmonton, AB in October 2025 (Perra et al. 2025). • 2021-2025 – KRWB has been leading a caribou monitoring project in Kitikmeot communities where harvesters recorded opportunistic observations using a mobile app. During the reporting period (2021-2025), more than 323 observations were recorded, including 108 involving caribou (barren-ground or Dolphin and Union).

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2021 – Researchers developed a model to estimate the “zone of influence” for mine sites on Bathurst caribou (distance and magnitude of impact) (Boulanger et al. 2021). • 2024 – Researchers at Queen’s University investigated the relationship between climate change and the summer range distribution of Bathurst caribou recent population declines (Cross 2024). The analysis revealed a significant northward shift and contraction of the herd over time. • 2024 – GNWT-ECC completed wildlife baseline studies over the Lockhart All-Season Road (LASR) project corridor, including muskox surveys, an aerial wolf den survey, and a bear den/raptor nest survey. Further studies in support of the impact assessment for the LASR project are on pause until the final routing is determined. • 2025 – A Master’s student McGill University investigated the impacts of insect harassment on Porcupine caribou (Hein 2025). • 2025 – Researchers from around the world looked at current knowledge on how vegetation in Arctic tundra ecosystems is expected to shift in response to fires (Heim et al. 2025). • 2025 – Dr. Xavier Fernandez-Aguilar at the CreSA-IRTA Animal Health Research Center in Spain is developing surveillance methods to allow for broader, less targeted scanning of infectious pathogens in wildlife mortality samples—a portable approach with potential applications in remote and northern contexts. In February 2025 he gave a presentation to GNWT-ECC staff to share information about these emerging technologies and their potential applications in the NWT. • 2025 – Canadian Forest Service (Natural Resources Canada) initiated a modelling project to forecast potential habitat changes for barren-ground and boreal caribou as a result of cumulative anthropogenic and environmental changes (CIMP256). GRRB and others are partners in this project.
	<p>2.4: Monitor changes in habitat quality, quantity, and availability for caribou</p>	<p>Necessary/ Ongoing</p>	<p>See 2.3. See also Appendix B – Additional Research</p> <ul style="list-style-type: none"> • Ongoing – GNWT-ECC has partnered with WMAC (NWT), SRRB, GRRB, WRRB and others on the Cumulative Effects Assessment of Barren-Ground Caribou Herds in the NWT, which uses the ALCES

Objective	Management Approaches	Relative Priority/Time Frame	Progress
	<p>resulting from natural and human-caused landscape changes.</p>		<p>Online tool to track and simulate landscape change in combination with population dynamics (see Stubbs et al. 2023). An Annual Regional Workshop of Barren-ground Caribou Herds was held in Inuvik and Yellowknife in March 2025.</p> <ul style="list-style-type: none"> • Ongoing – GRRB conducts a Gwich'in Harvest Survey twice a year, which collects harvester observations from the land, including notes about landscape, weather, wildlife, plants, and people (e.g. see presentation of 2023/24 results). • Ongoing – TG records caribou habitat observations through Ekwò Nàxoèhdee K'è (Boots on the Ground), a caribou monitoring program based on Indigenous and community knowledge. The program was established in 2016 to collect critical field knowledge of the Bathurst caribou herd and its habitat. • Ongoing – GNWT-ECC contributed telemetry data from several species (including boreal caribou, barren-ground caribou and wolves) to an ECCC-led collaborative research effort: a nation-scale, multi-species assessment of landscape connectivity (Brennan et al. 2025). Connectivity models could serve as a valuable tool for informing future landscape planning decisions across the north. • Ongoing – Many community-based monitoring and guardianship programs collect information on caribou habitat, including observations of snow cover, ice, temperature and forage availability for caribou. See 1.5 for further detail on these programs. • 2021-Ongoing – TG continues to implement the Tłıchọ Highway Wildlife Monitoring Program, which includes objectives for assessing Ekwò habitat. In 2024, dust fall collection was added to the program to determine how much dust accumulates on vegetation surrounding the road. • 2021-2024 – GNWT-ECC contracted an analysis of climate and demographic data for barren-ground caribou which examines the relationship between vital rates (e.g. productivity, survival) and climate indicators (Russell et al. 2024). • 2023 – TG, GNWT-ECC, and the Fate of the Caribou Project (see 2.3) collaborated on an online storymap dedicated to Kòk'èeti Ekwò (Bathurst caribou). The resource is called 'Shifting Trails: The

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>Shrinking Range of Bathurst Caribou’ and provides traditional knowledge and/or science information about Kqk’èeti Ekwò range and migration shifts following rapid population collapse.</p> <ul style="list-style-type: none"> • 2023-2024 – GNWT-ECC (Wildlife Management Division and NWT CIMP) worked with Caslys Consulting Ltd. to update the spatial data layer showing human-caused habitat disturbance for the Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, and Bathurst ranges. Caslys updates the human-caused disturbance layer for the Bathurst range annually. • 2024 – SRRB hosted the 2024 Tłegóhłı (Norman Wells) Public Listening Session looking at the impacts of climate change and wildfires on caribou. A key finding was that caribou and their habitat are affected by changes to land and water beyond human control, which also impact people who rely on caribou for Dene béré (country food) and to pass on Dene ts’jlı (way of life) (SRRB 2025a). • 2024 – A doctoral thesis (Bonta 2024a) looked at how increasing plant growth on the range of Bathurst caribou is changing the balance of food available to barren-ground caribou. See also related NWT CIMP-187 Research Bulletin (Bonta 2024b). • 2025 – Parks Canada finalized a remote-sensed monitoring measure to track changes in vegetation cover in Tuktut Nogait National Park (1985-2025). Draft analysis shows an ongoing trend of greening (shrubification) of the landscape. • 2025 – Wilfrid Laurier University hosted a public lecture (online and in-person) in March 2025 with Professor and Canada Research Chair Isla Myers-Smith of UBC about the greening of the Arctic.
	<p>2.5: Monitor the status of the relationship between people and caribou as an indicator of caribou well-being.</p>	<p>Necessary/ Ongoing</p>	<p>See also Appendix B – Additional Research</p> <ul style="list-style-type: none"> • Ongoing – TG monitors the status of the relationship between people and caribou through Ekwò Nàxoèhdee K’è (Boots on the Ground), a caribou monitoring program based on Indigenous and community knowledge. The program was established in 2016, following a total hunting ban on Bathurst caribou, to bring Tłychq people to traditional harvesting locations on the barren lands to collect critical field knowledge of the herd and its habitat.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2021-Ongoing – TG runs the Ekwò Harvest Monitoring Program along the Tibbitt to Contwoyto winter road to ensure Tłıchǵ hunters are following harvest regulations, being safe and harvesting respectfully. • 2023-Ongoing – NSMA has been investigating how caribou-people relationships have changed as barren-ground caribou herds declined across the NWT through a series of workshops in 2023, 2024, and 2025. This is part of a project to document traditional knowledge of environmental change (CIMP248) to support decision-making related to resource development and wildlife. • Ongoing – GRRB conducts the Gwich'in Harvest Survey twice a year, which together with ongoing meetings and communications with RRCs, provides information on current relationships between people and caribou (e.g. see presentation of 2023/24 results). • Ongoing – SRRB continues to support communities in community conservation plan development (Hjđó Gogha Sėnégots'ıńá) for relevant caribou herds as part of a five-part series of public listening sessions. • Ongoing – ADNLC is developing a community plan for monitoring and stewardship of caribou, including barren-ground caribou herds shared with the NWT. One of the initiatives under this plan is a program to monitor caribou harvest in the southern NWT to ensure harvesters are following traditional protocols. • Ongoing – The status of the relationship between people and caribou as an indicator of caribou well-being is a common topic of conversation during WMAC (NWT) annual community tour meetings. • Ongoing – This evaluation is ongoing by Nunavut's HTOs, and information is exchanged among HTOs directly and via KRWB. • 2024 – In April 2024, researchers from University of Waterloo delivered online presentations on: 1) Co-Located and Co-Researched Food System Projects in the ISR (Kelly Skinner); and 2) Country Foods for Good Health: The importance of monitoring animals in the ISR (Sonja Ostertag & Richard Gruben). These were part of the Laurier Northern Webinar Series.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
<p>Objective #3: Fill knowledge gaps, using traditional, community, and scientific knowledge, to enhance responsible and respectful barren-ground caribou conservation.</p>	<p>3.1: Update or develop population models using current information.</p>	<p>Beneficial/ Short-term</p>	<p>See also Appendix B – Additional Research</p> <ul style="list-style-type: none"> • Ongoing – GNWT-ECC has used demographic modeling of the Bathurst herd since the early 2000s to help understand population trends and the role of harvest; this is updated in every year of population surveys. Similar modeling of the Bluenose-East herd has been carried out since 2015 and updated after every population survey (e.g. Boulanger et al. 2024). • Ongoing – GNWT-ECC is partnering with WMAC (NWT), SRRB, GRRB, WRRB and others on a collaborative cumulative effects assessment on the ranges of five barren-ground caribou herds (Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula, and Bathurst). The project simulates how the population of each herd may respond to changes in climate, vegetation, land-use, and harvest levels (CIMP207-BG; Pellissey and Routh 2023; Stubbs et al. 2023). • Ongoing – Researchers at the State University of New York (McConnell and Fagan in prep.) are developing models to investigate drivers of population cycles of barren-ground caribou. • 2022-2024 – GNWT-ECC worked with a contractor on population modeling for the Bathurst and Bluenose-East herds using updated climate data. In 2022, a survey report for the Bluenose-East caribou herd was published (Boulanger et al. 2022), which included a section that looked at trends in some of the summer climate data and how those may have influenced population trend. Updated modeling of the two herds was published in the June 2023 calving ground survey report (Boulanger et al. 2024). • 2025-2026 – GNWT-ECC partnered with a contractor (Caslys Consulting) to update range maps for NWT barren-ground caribou herds.
	<p>3.2: Promote the collection and exchange of information on caribou ecology, movements, health, status, and threats.</p>	<p>Necessary/ Ongoing</p>	<p>See 2.1. See also Appendix B – Additional Research</p> <ul style="list-style-type: none"> • Ongoing – Annual meetings of the ACCWM, BCAC, CGC and BQCMB provide opportunities for all Management Authorities to exchange information on caribou research and monitoring with co-management boards, IGIOs, and communities.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – WMAC (NWT) records observations from community members and harvesters during its annual community tours in the ISR. This information helps support decision making on barren-ground caribou herd statuses at the ACCWM annual status meeting. Information on movements, pre- and post-calving habitat, and threats are also captured in the sensitive habitat position paper for Tuktoyaktuk Peninsula and Cape Bathurst caribou herds (see 1.2). • Ongoing – GRRB conducts annual interviews with harvesters on caribou health, status, and movements and presents it to the PCMB, ACCWM, and GNWT-ECC. • Ongoing – TG supports the collection and exchange of information on caribou ecology, movements, health, status and threats through the Ekwò Nàxoèhdee K'è (Boots on the Ground) caribou monitoring program. • Ongoing – WRRB and partners have developed and implemented an adaptive management framework to guide how monitoring information is considered in the management of the Bluenose-East and Bathurst herds. • Ongoing – SRRB continues to support communities in community conservation plan development for relevant caribou herds as part of a five-part series of public listening sessions. • Ongoing – BQCMB sponsors the Gunther Abrahamson Caribou Research and Management Award which provides financial support to post-secondary students studying barren-ground caribou and their habitat. • Ongoing – GNWT-ECC is collaborating on research with University of Calgary (Kutz Research Group) and TG (Ekwò Nàxoèhdee K'è program) to develop community-defined and monitored indicators of recovery in barren-ground caribou (see also CIMP239-BG). The goal is to strengthen the role of traditional knowledge towards better understanding caribou ecology, health status and impacts relative to population trends. It will also improve understanding of the viruses that affect caribou and how they may affect caribou populations. • Ongoing – The Fate of the Caribou Project out of the State University of New York is a collaborative research group focused on furthering our understanding of how caribou and the ecosystems and

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>communities that rely on them are affected by climate change and human development. WRRB, NSMA, GNWT-ECC, CARMA, and others are partners in this project. Research partnerships include soundscapes in caribou habitat (both winter and summer) partnered with NSMA and TG, and an investigation of survival patterns of barren-ground caribou with GNWT-ECC (CIMP241-BG), an analysis of interactions between barren-ground caribou and predators using motion-triggered cameras developed in partnership with KAA and GN (Larue <i>et al.</i> 2025), and population modelling to understand barren-ground caribou cycles (McConnell and Fagan in prep.). See also Brose <i>et al.</i> 2024; Brose <i>et al.</i> 2025a; and Brose <i>et al.</i> 2025b for a five-year research summary (2021-2025).</p> <ul style="list-style-type: none"> • Ongoing – GNWT-ECC provided caribou collar data to researchers at the University of Maryland (Liao <i>et al.</i> in prep) who analyzed lake-crossing behaviour and ice conditions at Contwoyto Lake. • Ongoing – GNWT-ECC actively engages in collaborative research on caribou with national and international scientists through university partnerships and expert networks, like the CircumArctic Rangifer Monitoring and Assessment Network (CARMA). • Ongoing – GNWT's Knowledge Agenda: Northern Research for Northern Priorities provides overarching guidance for science funders and researchers on the research priorities of the GNWT and is used by the GNWT to promote and initiate collaboration with researchers for the mobilization of scientific, traditional and local knowledge. The Knowledge Agenda Action Plan outlines internal GNWT actions 2019-2024 that support the Knowledge Agenda. • Ongoing – WRRB and other partners are providing financial and in-kind support to the Fate of the Caribou Project for emigration research on caribou use of the Bathurst calving ground relative to calving grounds of the neighbouring Bluenose-East and Beverly herds, as well as the causes and consequences of this change. • 2022 – SRRB supported the collection and exchange of information as part of the evidence for decisions and recommendations for relevant caribou herds for the Délı̄nę 2021 Public Listening Session (SRRB 2023). • 2022 – In June 2022, GNWT and GN's Environment Ministers hosted a meeting in Kugluktuk on management of shared barren-ground caribou herds. Representatives from Nunavut Tunngavik

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>Incorporated, Kitikmeot Regional Wildlife Organization, Kugluktuk HTO (KAA), TG, NWTMN and NSMA attended. Updates were given on the status of shared barren-ground caribou herds, and participants discussed ways to enhance communication and coordination to support conservation and recovery of these shared herds.</p> <ul style="list-style-type: none"> • 2022 – NWT CIMP published an analysis of data collected by the Arctic Borderlands Ecological Knowledge Society (NWT CIMP Research Bulletin 32; NWT CIMP Research Bulletin 33) looking at trends in caribou harvesting, caribou observations and health. The information was collected from five Gwich'in and Inuvialuit communities between 2010 and 2020. The Gwich'in Tribal Council (GTC) also plans to use this information to identify how climate change is affecting species important to the Gwich'in and inform caribou management decisions (CIMP252). • 2022-2023 – KRWB supported caribou workshops in the East Kitikmeot region focusing on exchange of knowledge on Ahiak caribou. • 2023-Ongoing – Genetic analysis using new technology (single-nucleotide polymorphisms or “SNPs”; see Trottier-Lavoie et al. 2024) is being used to investigate the relationship between NWT barren-ground caribou herds and reindeer and explore for genetic overlaps. GNWT-ECC is working with McGill University (Rowan Barrett and Eric Wootton) to develop tools to identify caribou ecotype (and potentially specific herd) using tissue samples. A report on this project is expected in 2026. • 2024 – SRRB hosted the Tłegóhłı (Norman Wells) Public Listening Session on Caribou Conservation, Climate Change and Forest Fire. Many partners participated in the PLS, including TG, GNWT-ECC, ECCC, and Sahtú RRCs. A key finding was that caribou and their habitat are affected by changes to land and water beyond human control, which also impact people who rely on caribou for Dene béré (country food) and to pass on Dene ts'jlı (way of life) (SRRB 2025a). • 2024 – CGC held an On the Land Gathering in Wekweèti in September 2024 to share knowledge and resources on guardianship programs about caribou. • 2025 – TG held a Tłıchò Ekwò Gathering: Ekwò t'à Ts'eeda Weghòq Ełexègots'edo (Sharing Stories about Caribou, Our Source of Life) in May 2025 for researchers, co-management partners, and

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>delegates from each of the Tłı̨chǫ communities. TG, GNWT-ECC, WRRB and CGC provided updates on barren-ground caribou status and management.</p> <ul style="list-style-type: none"> • 2025 – SRRB held a workshop in Norman Wells for Indigenous organizations, researchers and co-management boards to share ideas and experiences with non-invasive monitoring techniques that don't involve handling wildlife. • 2025 – GNWT and Government of Nunavut updated their Memorandum of Understanding on collaborative research, monitoring and management of shared barren-ground caribou herds. • 2025 – The Global Initiative on Ungulate Migration released a migration map of Bathurst caribou migration routes from 1996-2023 as part of its Atlas of Ungulate Migration. • Ongoing – The North American Caribou Workshop (NACW) takes place every 2-3 years and provides opportunities to exchange information on a wide range of caribou ecology and management subjects. The May 2023, the NACW /Arctic Ungulate Conference took place in Anchorage, AK; staff from GNWT-ECC, GRRB, WRRB, TG, NSMA, BQCMB and others participated. Information exchange also took place at the NACW in May 2021. GNWT-ECC and co-management partners are preparing to host the 20th North American Caribou Workshop in Yellowknife in June 2026.
	<p>3.3: Promote the collection and exchange of information on the relationships among barren-ground caribou, predators, competitors, and their wider environment.</p>	<p>Necessary/ Ongoing</p>	<p>See 2.2 and 3.2. See also Appendix B – Additional Research</p> <ul style="list-style-type: none"> • Ongoing – Annual meetings of the ACCWM, BCAC, CGC and BQCMB provide opportunities for all Management Authorities to exchange information on caribou research and monitoring with co-management boards, Indigenous governments and Indigenous organizations, and communities. • Ongoing – In addition to the meetings above, GNWT-ECC staff regularly attend conferences and workshops on caribou. These meetings provide opportunities for exchange of knowledge and experience with other jurisdictions and management authorities that monitor and manage barren-ground caribou in Canada and internationally. • Ongoing – WMAC (NWT) records observations on predators and competitors from community members and harvesters during its annual community tours in the ISR. This information helps

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>support decision making on barren-ground caribou herd statuses at the ACCWM annual status meeting.</p> <ul style="list-style-type: none"> • Ongoing – Discussion of predators, competitors, and their habitat is included in the sensitive habitat position paper for Tuktoyaktuk Peninsula and Cape Bathurst caribou herds (see 1.2). • Ongoing – GRRB collects information from harvesters on caribou predators and competitors and presents it to the PCMB, ACCWM and GNWT-ECC. • Ongoing – TG supports the collection and exchange of information on the relationships between barren-ground caribou, predators, competitors, and their wider environment through the Ekwò Nàxoèhdee K'è (Boots on the Ground) caribou monitoring program. • Ongoing – SRRB continues to support communities in community conservation plan development (Hjdó Gogha Sénégots'íᓱá) for relevant caribou herds as part of a five-part series of public listening sessions. • Ongoing – GNWT-ECC is collaborating with researchers at University of British Columbia (Nicola Love) and University of Alberta - Biodiversity Pathways (Dr. Robert Serrouya) and Michigan State University (Dr. Jerrold Belant) to investigate how predator-prey dynamics have changed by analyzing changes in wolf-caribou movement and space use during the Bathurst barren-ground caribou herd decline. • Ongoing – GNWT-ECC is collaborating with researchers at University of Alberta to investigate methods for estimating the age of wolves (e.g. Bieraugle et al. 2024, 2025a, 2025b). • Ongoing – GNWT-ECC is leading an integrated modelling project to forecast species' responses to climate change using wildlife occurrence data collected from environmental sensors (e.g., cameras) and other public data sources (e.g., iNaturalist). Researchers presented at The Wildlife Society conference in Edmonton, AB in October 2025.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2018-2024 – GNWT-ECC worked with contractors to compile and synthesize information about muskoxen in the NWT, including their population numbers, distribution and interactions with other species such as barren-ground caribou (Winbourne and Benson 2021; Gunn et al. 2024). • 2020-2025 – TG and GNWT-ECC published annual reports for the 5-year Joint TG-GNWT Wolf (Diga) Management Program (2020-2024). A comprehensive review of the program is underway as of 2025. WRRB is assisting with data analyses and final reporting. • 2022 – Predator management options were discussed at the SRRB’s Délı̄nę 2021 Public Listening Session on predators and competitors (SRRB 2023). The SRRB found insufficient evidence that wolf management measures in the North Slave region are improving caribou population levels (Finding 2.6) and recommended further studies to establish and better understand the impacts of predation on caribou. • 2023 – A report was prepared for GNWT-ECC (High-Country Wildlife 2023) analyzing the diet of wolves in the Beaufort-Delta region. It showed their diet varied with the communities where the wolves were harvested, but there was considerable overlap indicating a broadly similar diet. The report was provided to the IGC and WMAC (NWT) in 2023. • 2024 – GNWT-ECC completed wildlife baseline studies over the Lockhart All-Season Road (LASR) project corridor, including muskox surveys, an aerial wolf den survey, and a bear den/raptor nest survey. Further studies in support of the impact assessment for the LASR project are on pause until the final routing is determined. • 2024-Ongoing – GNWT-ECC is collaborating on research projects related to muskoxen. Researchers at Wilfrid Laurier University (Dr. Nick Luymes) are investigating habitat selection and competition potential of muskox and caribou below treeline (focus on the Sahtú region). In 2024, a Master’s thesis investigated NWT muskox density and distribution in relation to habitat factors (e.g. nutritional value, predation, elevation, proximity to water/shoreline) (Rentmeister 2024). Research is underway to model muskox movement patterns to look at shifts in distribution and demographics within Thaidene Nënë (Christine Dunbar). Research was also published in 2023 (Brodeur et al. 2023).

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>that looks at the potential for competition between muskox and barren-ground caribou in northern Québec.</p> <ul style="list-style-type: none"> • 2024-Ongoing – GNWT-ECC is collaborating with a researcher at Wilfrid Laurier University (Claudia Haas) to study how disturbances change wildlife community structure, specifically disturbances at different levels of the food web (in Thaidene Nënë). • 2024-2025 – GNWT-ECC and co-management partners are preparing to host the 20th North American Caribou Workshop (NACW) in Yellowknife from June 15-19, 2026. The theme for NACW 2026 will be United by Caribou. • 2025 – A Master’s thesis was published on factors affecting distribution of barren-ground caribou in Thaidene Nënë, NWT, including habitat type, predation, and competition (July 2025).
	<p>3.4: Assess cumulative impacts of natural and human-caused landscape change on barren-ground caribou and their habitat.</p>	<p>Necessary/ Ongoing</p>	<p>See also 2.3.</p> <ul style="list-style-type: none"> • Ongoing – The Fate of the Caribou Project out of the State University of New York is a collaborative research group focused on furthering our understanding of how caribou and the ecosystems and communities that rely on them are affected by climate change and human development. WRRB, NSMA, GNWT-ECC, CARMA, and others are partners in this project. Research partnerships include soundscapes in caribou habitat (both winter and summer) partnered with NSMA and TG (CIMP242-BG), an investigation of survival patterns of barren-ground caribou with GNWT-ECC (CIMP241-BG), an analysis of interactions between barren-ground caribou and predators using motion-triggered cameras developed in partnership with KAA and GN (Larue <i>et al.</i> 2025), and population modelling to understand barren-ground caribou cycles (McConnell and Fagan in prep.). See bullets below; also Brose et al. 2025a; Brose et al. 2025b provides a five-year research summary (2021-2025). • 2025 – A researcher with the State University of New York (Megan Perra) and GNWT-ECC deployed acoustic recorders mounted to GPS tracking collars on 30 barren-ground caribou in Spring 2025. The devices are being used to study disturbance effects on barren-ground caribou caused by insect activity and human-made noise (CIMP242-BG). Findings will inform land-use decisions and may support efforts to monitor and mitigate human-made sound impacts on caribou.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – Researchers with the State University of New York (Chloe Beaupré/Eliezer Gurarie) are working on a comparative analysis of factors affecting caribou survival patterns (CIMP241-BG). The goal is to describe barren-ground caribou survival rates and how they may vary across ranges, years and seasons. Project results will provide insights into factors influencing survival to better understand demographic trends regionally. • Ongoing – GNWT-ECC has partnered with WMAC (NWT), SRRB, GRRB, WRRB and others on a collaborative cumulative effects assessment on the ranges of five barren-ground caribou herds (Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula, and Bathurst). The project simulates how the population of each herd may respond to changes in climate, vegetation, land-use, and harvest levels (CIMP207-BG; NWT CIMP Research Bulletin 55; Stubbs et al. 2023). Indigenous knowledge for each of the five herds was incorporated into the modeling. An online web mapping tool has been developed, which can be used to view different scenario outcomes. Annual regional workshops are held in Inuvik and Yellowknife to update partners on the project, and GNWT-ECC has presented on the project at various regional fora, including the ACCWM Annual Status Meeting, Geoscience Forum, annual NWT <i>Wildlife Act</i> Section 15 meeting, and the NWT CIMP Results Workshop. • Ongoing – GNWT-ECC is developing spatial data products to support climate-informed landscape planning for wildlife and their habitats. One project contributing to this goal aims to generate predictions of climate change refugia across the NWT. Climate change refugia are areas that may be more resistant to impacts of climate change, including fire, drought, and temperature (i.e. areas where temperature increases more slowly). Preliminary fire refugia products have been developed by a team of collaborators at NRCAN Canadian Forest Service (C. Kuntzemann, Z. Sang, D. Stralberg) and can be viewed here. • 2020-Ongoing – The NSMA Winter Road Monitoring Program (CIMP243-BG; Phelan 2024) is investigating the cumulative impacts of disturbance (natural and human-caused) along the Tibbitt to Contwoyto Winter Road. This program involves an analysis of anthropogenic sound disturbance from traffic and mining related activities as well as the development of a harvest model for barren-ground caribou.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2022 – GNWT supported a graduate student project on caribou responses to mine winter roads (Smith 2022). Researchers released an update on this work in 2022 (Smith and Johnson 2022), investigating how the Tibbitt to Contwoyto winter road influenced the behaviour, stress levels, and road crossing events of caribou. • 2022-2023 – Researchers at Wilfrid Laurier University released an update on their work on the impacts of fire on woodland and barren-ground caribou habitat (Baltzer 2022) and provided a final report to NWT CIMP (Baltzer and Dieleman 2023). • 2022 – Researchers at Natural Resources Canada released an update on their work out of the Ek’ati (Lac de Gras) diamond mine site looking at how far dust, visual and noise impacts from mining operations reached in caribou habitat (Chen 2022). • 2022 – YKDFN released an update on their work to develop a Cumulative Effects Framework based on YKDFN values and to improve the YKDFN’s ability to monitor and manage cumulative impacts throughout their asserted territory (YKDFN 2022). • 2023 – GNWT-ECC analyzed the effects of the Inuvik-Tuktoyaktuk Highway on barren-ground caribou (Boulanger and d’Eon-Eggertson 2023). The analysis suggested caribou were less likely to select habitats immediately to the east of the road (2 km) and approximately 10 km to the west of the road compared to before the road was built. • 2024 – GNWT-ECC commissioned an assessment of projected changes to conditions in the NWT in response to climate change, and their potential impacts to species at risk including barren-ground caribou (Smith et al. 2024). • 2024 – GNWT-ECC released a discussion paper entitled Adapting Wildlife Conservation and Management to Climate Change in the Northwest Territories (GNWT 2024). It poses questions and presents ideas, considerations and possible approaches to adapting wildlife management and conservation in the NWT to a rapidly changing environment. A public engagement opportunity was conducted in February-March 2024. Information on the GNWT’s response to climate change is available here.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2024 – GNWT launched an online NWT Climate Change Library, which aims to provide a central repository for climate research, information and tools for those working on solutions to mitigate and adapt to climate change in the NWT. • 2024 – GNWT released the first NWT Climate Change Risks and Opportunities Assessment, which outlines the biggest climate change challenges that people and communities in the NWT will face over the next 10 years. • 2024-Ongoing – The NWT Species at Risk Committee and Secretariat are preparing an updated status report for the reassessment of barren-ground caribou in 2027 (<i>SARC in prep.</i>); GNWT-ECC and others shared information for this report. • 2025-Ongoing – WRRB and other partners are supporting ongoing research through the Fate of the Caribou Project (State University of New York) to understand and predict how the proposed all-season road from Yellowknife to the central Arctic coast (referred to as the Arctic Economic and Security Corridor) may affect caribou movement, habitat access, and survival.
	<p>3.5: Promote the collection and exchange of information on barren-ground caribou habitat, including the identification of key areas and habitat features.</p>	<p>Necessary/ Ongoing</p>	<p>See also 1.2, 3.2 and 4.8.</p> <ul style="list-style-type: none"> • Ongoing – Annual meetings of the ACCWM, BCAC, CGC, and BQCMB provide opportunities for all Management Authorities to exchange information on caribou habitat and other topics with co-management boards, Indigenous governments and Indigenous organizations, and communities. • Ongoing – WMAC (NWT) records observations from community members and harvesters on caribou habitat during its annual community tours in the ISR. This information helps support decision making on barren-ground caribou herd statuses at the ACCWM annual status meeting. • Ongoing – Inuvialuit Community-based Conservation Plans (CCPs) identify key areas and habitat features for barren-ground caribou in the ISR. CCPs were established under the Inuvialuit Final Agreement to guide the conservation and management of natural resources and lands within the ISR and are regularly reviewed and updated.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – SRRB supports Sahtú communities in community conservation plan development for relevant caribou herds (Bluenose-West and Bluenose-East) through the implementation of Hjđó Gogha Sėnégots'ıá (community-led approach to conservation planning in the Sahtú region). • Ongoing – Identification of barren-ground caribou habitat for protection is included in Healthy Land, Healthy People as part of the GNWT's five-year work plan for conservation network planning in the NWT. • Ongoing – TG supports the collection and exchange of information on barren-ground caribou habitat through the Ekwò Nàxoèhdee K'è (Boots on the Ground) caribou monitoring program. • 2020-Ongoing – NSMA supports the collection and exchange of data on barren-ground caribou winter habitat through the NSMA Winter Road Monitoring Program. • 2021-2025 – KRWB led a mapping project during the reporting period that documented important areas for caribou. • 2018-Ongoing – Denínu Kųę First Nation (DKFN) is collaborating with a contractor to investigate lichen habitat restoration on disturbed sites (see CIMP234; NWT CIMP Research Bulletin 81). • 2022 – SRRB supported the collection and exchange of information on barren-ground caribou habitat as part of the evidence for decisions and recommendations for relevant caribou herds for the Déłıneę 2021 Public Listening Session on predators and competitors. • 2024 – TG hosted a 5-day mapping workshop with the Elders committee in Wekweèti in July 2024 as part of the Regional Study of the Slave Geological Province. The study will integrate Indigenous and community knowledge with scientific research to help inform decision-making on development in the Slave Geological Province. • 2025 – HTC's, with support from WMAC (NWT) and IGC, released a sensitive habitat position paper that includes maps of important areas for barren-ground caribou, including their timing and why they are important.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
<p>Objective #4: Conserve and protect barren-ground caribou populations and their habitat.</p>	<p>4.1: Work with industry, governments, and co-management and regulatory boards to develop and implement best practices to minimize impacts of human land use on barren-ground caribou.</p>	<p>Necessary/ Ongoing</p>	<ul style="list-style-type: none"> • Ongoing – Work is underway on eight of the nine recommendations in the Bathurst Caribou Range Plan to help address cumulative effects of development on the Bathurst herd’s range. A 5-year review of the range plan and a progress report on its implementation are being finalized. • Ongoing – GNWT-ECC is working with industry partners to implement Mobile Caribou Conservation Measures (MCCM) to help mitigate disturbance to Bathurst caribou in relation to mineral exploration activities (see BCAC 2021). Since 2022, proponents conducting land use activities in the NWT and Kitikmeot region of Nunavut have started to implement MCCMs. Six proponents (Rio Tinto [Diavik Diamond Mine], North Arrow Minerals Inc., Blue Star Gold Corp., B2Gold, West Kitikmeot Resources Corp., and LiFT Power Ltd.) have implemented MCCMs to date (2022-2025). GNWT-ECC has been supporting these proponents to detect caribou near their mineral exploration programs by providing maps of caribou collar locations and results of caribou occupancy analyses. GNWT-ECC and Aurora Geosciences Ltd. gave a presentation on MCCM at the 2025 Yellowknife Geoscience Forum (abstract on p.36). • Ongoing – WMAC (NWT) reviews and provides comments on Environmental Impact Screening Committee public registry applications, Wildlife Management and Monitoring Plans (WMMPs), proposal reviews provided by the Nunavut Wildlife Management Board, and research projects proposed by federal and territorial governments. WMAC (NWT) brings forward concerns to the Inuvialuit Game Council, federal and territorial governments, and co-management partners as needed. • Ongoing – WRRB reviews WMMPs, water licences, and land use permits through the WLWB online review system. • Ongoing – TG reviews and makes recommendations on land-use applications keeping in mind the effects of the development on barren-ground caribou. • Ongoing – BQCMB reviews and, where applicable, makes recommendations on regulatory applications, environmental assessments, and WMMPs that could affect Beverly and Qamanirjuaq caribou and their habitat.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – GRRB advises research and regulatory permit applicants of best practices to minimize their impacts on wildlife, including stopping work when wildlife is within 500 metres of their location and methods of avoiding damage to vegetation and waterways. • Ongoing – GNWT-ECC has partnered with WMAC (NWT), SRRB, GRRB, WRRB and others on a collaborative cumulative effects assessment on the ranges of five barren-ground caribou herds (Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula, and Bathurst). The project simulates how the population of each herd may respond to changes in climate, vegetation, land-use, and harvest levels (CIMP207-BG; Pellissey and Routh 2023; Stubbs et al. 2023). • Ongoing – GNWT is developing guidelines on the use of offsetting and compensatory mechanisms as a tool to maintain caribou habitat in the NWT. Offsets are used to support the conservation and protection of caribou and their habitat by counterbalancing the impacts of a development project on caribou and/or harmful alteration, disruption or destruction of their habitat. • 2022 – After concerns were raised by TG in fall 2022, GNWT-ECC worked with Diavik, Rio Tinto Exploration and TG to mitigate impacts to caribou from their aerial geophysical exploration project. • 2024 – TG hosted a 5-day mapping workshop with the Elders committee in Wekweèti in July 2024 as part of the Regional Study of the Slave Geological Province. The study will integrate Indigenous and community knowledge with scientific research to help inform decision-making on development in the Slave Geological Province. • 2024-Ongoing – GNWT-ECC hired a contractor to conduct a review (literature review and interviews with subject matter experts) on the impacts of roads on barren-ground caribou to identify effective mitigation measures. Best management practices are being finalized and undergoing GNWT internal review. A public review of the best management practices is anticipated in Winter 2026-27. <p><u>Wildlife Management and Monitoring Plans</u></p> <ul style="list-style-type: none"> • 2019-Ongoing – As of July 1, 2019, GNWT requires a Wildlife Management and Monitoring Plan (WMMP) for any development activities that are likely to result in significant disturbance or pose a

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>threat of harm to wildlife, cause substantial damage to wildlife habitat or significantly contribute to cumulative impacts on wildlife or habitat, including measures for mitigation of effects on caribou.</p> <ul style="list-style-type: none"> • Ongoing – As of 2025, projects with approved WMMPs in barren-ground caribou habitat include: Ekati Diamond Mine (being updated), Diavik Diamond Mine, Gahcho Kué Diamond Mine, Snap Lake Diamond Mine (Closure Phase), and Tłı̄chǫ All-Season Road (Tłı̄chǫ Highway). • Ongoing – The environmental assessment (EA) for the Mackenzie Valley Highway project is in progress. A draft WMMP for the project was submitted with the Developer's Assessment Report in 2023. The developer (GNWT) is expected to submit an updated WMMP based on questions and comments received through the EA process.
	<p>4.2: Consider responsible predator management options that may benefit barren-ground caribou recovery.</p>	<p>Necessary/ Ongoing</p>	<ul style="list-style-type: none"> • See also 2.2. • Ongoing – GNWT-ECC provides a minimum of \$200 for each wolf harvested in the NWT; Increased wolf incentives are offered on the wintering range of the Bluenose-West herd (I/BC/06) within the ISR to help support the herd's recovery and the traditional economy. • Ongoing – GN offers a Wolf Sample Collection Program, which provides increase payment for wolves harvested in areas of Nunavut where caribou are declining (e.g. ranges of Bathurst, Bluenose-East, and Dolphin and Union caribou). • 2019 – GNWT increased financial incentives for wolf harvest on the winter ranges of the Bathurst and Bluenose-East herds and removed wolf licence and tag fees to encourage more wolf harvesting. • 2020 – WRRB approved a joint TG-GNWT pilot program to reduce wolf numbers on the winter ranges of the Bathurst and Bluenose-East herds. Wolves were removed by ground-based methods and aerial shooting in 2020 (Nishi et al. 2024). • 2020-2024 – GNWT and TG implemented a 5-year Joint TG-GNWT Wolf (Diga) Management Program (approved by WRRB) to help support the recovery of the Bathurst and Bluenose-East barren-ground caribou herds. A total of 579 wolves were removed from 2020-2024, and more than

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>\$400,000 in payments were made to NWT and Nunavut wolf harvesters under the Enhanced North Slave Harvest Incentive Program. Additional wolf management actions to support caribou recovery included training and support for the traditional economy, such as a harvester workshop in 2023, which brought harvesters together in Yellowknife to discuss wolf behaviour and harvest techniques. A comprehensive review of the program is underway as of 2025. WRRB is assisting with data analyses and final reporting.</p> <ul style="list-style-type: none"> • 2022-2023 – Predator management options were discussed at the SRRB’s Déljné 2021 Public Listening Session on predators and competitors (SRRB 2023). The SRRB found insufficient evidence that wolf management measures in the North Slave region are improving caribou population levels (Finding 2.6) and recommended further studies that take a biocultural approach, incorporating Dene/Métis ts’ı̀ı̀ (ways of life), náowerę (knowledge), and ɾeɾa (law) alongside scientific knowledge, to establish and better understand the impacts of predation on caribou. • 2019-Ongoing – TG established a Diga Harvesting Program that provides training and support for Tłı̄chǵ to increase their knowledge and skills for ground-based harvest of wolves (diga). The community-based harvesting program facilitates on-the-land knowledge transfer and provides Tłı̄chǵ people with opportunities to harvest wolves. • Ongoing – GNWT-ECC offers regular trapper training and fur-handling workshops in NWT communities, as well as funding for community-based trapper training programs through the Take a Kid Trapping Program. For example, Tuktoyaktuk Community Corporation received funding in 2024 and is working on program delivery in Tuktoyaktuk with support from the local Renewable Resource Officer. • Ongoing – A Trapper Mentorship Program funded by GNWT-ECC supports opportunities to pass on traditional skills, knowledge and experience related to trapping. As of February 2024, ECC had offered ten Trapper Mentorship Programs throughout the NWT. • Ongoing – GNWT-ECC offers programming under the Genuine Mackenzie Valley Fur Program to support harvesters to continue to participate in the traditional economy.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
	<p>4.3: Develop consistent, accurate, and complete reporting of barren-ground caribou harvest across the NWT along with estimates of unrecovered kills and wounding losses.</p>	<p>Critical/ Ongoing</p>	<ul style="list-style-type: none"> • Ongoing – GNWT-ECC issues authorizations (tags) as determined by harvest management measures for each herd (see Table 3). There is currently no non-resident or outfitted harvest of barren-ground caribou anywhere in the NWT. Resident harvest in the NWT is limited, with tags available only for the Porcupine and Beverly/Qamanirjuaq/Ahiak herds. Harvest restrictions for Indigenous harvesters have been put in place for several herds through the co-management process based on significant conservation concerns. Harvest reporting is mandatory for restricted herds. All harvest of the Bathurst herd has been closed since 2015, given a 99% decline in size since 1986. The Mobile Core Bathurst Caribou Management Zone, or Mobile Zone, is based on the location of collared Bathurst caribou and is used to manage this no hunting area. • Ongoing – GRRB conducts the Gwich'in Harvest Survey (e.g. see presentation of 2023/24 results) twice a year as part of a long-term ongoing study of Gwich'in harvests and provides the results to the PCMB and GNWT-ECC. • Ongoing – The Athabasca Denesųliné Né Né Land Corporation has been collecting barren-ground caribou harvest data annually since 2012 and are now developing a program to monitor caribou harvest in the southern NWT to ensure harvesters are following traditional protocols. • Ongoing – TG runs the Ekwų Harvest Monitoring Program along the Tibbitt to Contwoyto winter road to ensure Tųchų hunters are following harvest regulations, being safe and harvesting respectfully. • Ongoing – NSMA collects harvest information through observations of gut piles and wasted meat along the Tibbitt to Contwoyto Winter Road as part of the NSMA Winter Road Monitoring Program. NSMA is currently working with NWT CIMP to create a harvest model to estimate harvest levels (see also CIMP243-BG; Phelan 2024). NSMA and NWT CIMP researchers presented at The Wildlife Society conference in Edmonton, AB in October 2025 (Phelan and Cox 2025). • Ongoing – Yellowknives Dene First Nation runs a community-based monitoring program to monitor harvest of caribou and other wildlife by their members along the Tibbitt to Contwoyto Winter Road.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – Management Authorities take part in the annual ACCWM and BCAC status meetings where harvest data is collected and discussed. ACCWM has developed annual data reporting templates to provide consistency across NWT regions. • Ongoing – GNWT-ECC offered funding to interested IGIOs to help facilitate the collection of Indigenous harvest information. The availability of fiscal support to build the capacity for harvest reporting programs is routinely messaged to all partners. • Ongoing – GNWT-ECC hosts an annual NWT <i>Wildlife Act</i> Section 15 meeting in Yellowknife in November. The 2025 meeting was the largest ever with 57 attendees from a range of groups and organizations from across the NWT, including IGIOs and renewable resource boards, as well as GNWT-ECC and ECCC staff. Recent meetings have focused on various harvest monitoring and reporting programs, outfitting, guardian initiatives across the NWT, and status and monitoring updates for caribou populations. Many IGIOs shared information about their programs, experiences and lessons learned.
	<p>4.4: Promote respectful harvest of caribou, including respect for traditional laws and protocols, and compliance with harvest management measures.</p>	<p>Critical/Short-term</p>	<p><u>Education and awareness</u></p> <p>See also 4.3 – many programs to monitor harvest also promote respectful harvest of caribou.</p> <ul style="list-style-type: none"> • Ongoing – WMAC (NWT) promotes respectful harvest of caribou, including respect for traditional laws and protocols, and compliance with harvest management measures during its annual community tours. • Ongoing – GNWT-ECC conducts annual public education and awareness campaigns on respectful harvesting. A plain language summary of hunting regulations is also published annually. • Ongoing – TG conducts a respectful harvesting campaign, including social media and website messaging. • Ongoing – GRRB includes messages about respectful harvesting in its annual conservation calendar. In 2021 and 2022, GRRB reproduced “Let the Leaders Pass” bumper stickers to promote traditional harvest practices.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – GNWT-ECC encourages IGIOs to harvest from healthy caribou herds or alternative species, including offering financial support. • Ongoing – SRRB continues to support communities in community conservation plan development (Hj'dó Gogha S'énégots'í'á) for relevant caribou herds as part of a five-part series of public listening sessions. • Ongoing – BQCMB's 2023-2032 Caribou Management Plan promotes respectful harvest by sharing Indigenous teachings, encouraging youth education, and reinforcing the principle of taking only what is needed and using all that is taken. • 2021-Ongoing – Following reports of poor caribou hunting practices along winter roads, in 2021, GNWT-ECC hosted a meeting to bring together respected harvesters from Indigenous governments and Indigenous organizations whose members harvest along the Tibbitt to Contwoyto winter road to consider ways to work together to reduce illegal and disrespectful hunting activities. A summary report from the workshop included eight recommendations on actions that groups could take together and individually. Follow-up meetings were held in 2022, 2024 and 2025 to review progress and strengthen communications. • 2025 – Leaders from GNWT, YKDFN, TG, and NSMA released a statement urging respectful harvesting practices in March 2025 following a sharp increase in meat wastage/illegal hunting along the Tibbitt to Contwoyto Winter Road. • 2025 – TG held a Tłıchq Ekwò Gathering: Ekwò t'à Ts'eeda Weghòq Ełexègots'edo (Sharing Stories about Caribou, Our Source of Life) in May 2025 for researchers, co-management partners, and delegates from each of the Tłıchq communities. TG, GNWT-ECC, WRRB and CGC provided updates on barren-ground caribou management, and there were demonstrations of caribou butchering and traditional use of caribou parts. Elders talked about respectful harvesting and how to be a responsible harvester. <p><u>Compliance</u></p>

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – TG, NSMA, YKDFN, and LKDFN have community monitoring programs to promote compliance with harvest management measures along the Tibbitt to Contwoyto winter road. WRRB supports these programs. ADNLC has been piloting a program to monitor caribou harvest in the southern NWT to ensure harvesters are following traditional protocols. GNWT-ECC has provided financial support for these programs. • Ongoing – GNWT-ECC works to promote compliance with harvest management measures (see current summary of hunting regulations). For example, in 2023, Renewable Resource Officers investigated an illegal harvest of caribou on the Inuvik Tuktoyaktuk Highway; continued to remind the public that the Inuvialuit barren-ground caribou management area I/BC/07 is closed to all caribou harvesting; conducted multiple highway patrols while caribou were near the Inuvik Tuktoyaktuk Highway; and also conducted a rotary patrol throughout the Inuvialuit barren-ground caribou management area I/BC/07 to ensure hunter compliance. • Ongoing – GNWT-ECC operates three patrol stations (two fixed and one mobile) along the Tibbitt to Contwoyto winter road throughout the winter road season. Renewable Resource Officers conduct regular air, snowmachine, and truck patrols of the Mobile Zone to ensure compliance with the NWT <i>Wildlife Act</i> and associated regulations, and to enforce the complete harvest closure for Bathurst caribou. Each week, GNWT-ECC informs the public of the location of the Mobile Zone by sharing updated maps with IGIOs and community governments. • Ongoing – WMAC (NWT) partners with the HTC in the ISR, the IGC, and GNWT-ECC to promote responsible harvest management practices and enforce wildlife by-laws and regulations. Annual community tours by WMAC (NWT) promote respectful harvest and collect community information on caribou trends, health, and other relevant caribou management information. • Ongoing – KRWB and Nunavut HTOs have by-laws and establish resolutions for harvest management. <p>Updates to allowable harvest</p> <ul style="list-style-type: none"> • 2024 – NWMB approved a proposal from the Kugluktuk HTO (KAA) to increase the annual Total Allowable Harvest (TAH) for Bluenose-East caribou in Nunavut. After declining from 2010-2021,

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>both harvester observations and GNWT-ECC surveys in 2023 indicated strong signs of recovery. The TAH in Nunavut was increased from 170 (1:1 bull to cow ratio) to 450 caribou of any sex.</p> <ul style="list-style-type: none"> • 2024 – WRRB approved a request by GNWT-ECC and TG to extend Bathurst caribou management actions to July 1, 2027, including a TAH of zero and harvest management actions. The Bathurst herd is at a critical status under the Bathurst Caribou Management Plan, and is expected to remain at that level over the short term. • 2025 – In January 2025, WRRB approved a joint management proposal (GNWT and TG 2024) to increase in the TAH for the Bluenose-East herd in Wek'èezhiı̄ to 395 caribou (bulls only). The TAH was reduced to 193 in 2019 based on the ongoing decline in Bluenose-East caribou numbers.
	<p>4.5: Develop range-level approaches for management of cumulative impacts on barren-ground caribou and their habitat from natural and human-caused landscape change.</p>	<p>Necessary/ Ongoing</p>	<ul style="list-style-type: none"> • See 2.3 and 3.4. • Ongoing – The Bathurst Caribou Range Plan (2019), developed by Management Authorities (GNWT-ECC, TG, WRRB) and other partners, continues to guide management of cumulative impacts on the Bathurst range. • Ongoing – GNWT-ECC is leading a collaborative cumulative effects assessment on the ranges of five barren-ground caribou herds (Bluenose-East, Bluenose-West, Cape Bathurst, Tuktoyaktuk Peninsula, and Bathurst). The project simulates how the population of each herd may respond to changes in climate, vegetation, land-use, and harvest levels (CIMP207-BG; NWT CIMP Research Bulletin 55). • 2022 – YKDFN released an update on their work to develop a Cumulative Effects Framework based on YKDFN values and to improve the YKDFN's ability to monitor and manage cumulative impacts throughout their asserted territory (NWT Research Bulletin 43). • 2025-Ongoing – A collaborative modelling project led by the Canadian Forest Service (Natural Resources Canada) aims to forecast potential habitat changes for barren-ground and boreal caribou as a result of cumulative anthropogenic and environmental changes (CIMP256).

Objective	Management Approaches	Relative Priority/Time Frame	Progress
	<p>4.6: Prioritize important caribou winter habitat when making decisions about how to respond to a wildfire.</p>	<p>Necessary/ Ongoing</p>	<ul style="list-style-type: none"> • See 4.8. • Ongoing – GNWT-ECC is working with co-management partners (including Elders and hunters) to identify important caribou habitat in the ranges of Bathurst and Bluenose-East caribou and provide these areas to be considered as values at risk under ECC’s wildfire management system. • 2022 – TG developed a critical caribou habitat map. A 2021 vegetation survey along the Tłı̄chǫ Highway helped identify critical winter habitat for barren-ground caribou. • 2023-Ongoing – As part of annual Water Licence reporting for the Tłı̄chǫ Highway, GNWT-ECC reported on fire management responses to wildfires within priority caribou habitat patches identified by TG as well as key late-winter habitat patches for boreal caribou within the Wek’èezhìi region (Green 2024; 2025).
	<p>4.7: Conserve integrity of barren-ground caribou habitat through participation in key environmental assessments, land use planning processes, and conservation planning initiatives, and by ensuring that barren-ground caribou habitat is a key value that is integrated into these decisions, in the NWT and in other jurisdictions where proposed decisions/initiatives may affect NWT herds.</p>	<p>Critical/ Ongoing</p>	<ul style="list-style-type: none"> • Ongoing – GNWT-ECC participates in all environmental screening and environmental assessment (EA) processes in NWT that may affect barren-ground caribou, and in EA processes in Nunavut/Yukon that may affect trans-boundary caribou herds, as well as land use planning for Nunavut. ECC supports other GNWT departments (e.g. Infrastructure) throughout the regulatory process, including identification of baseline data needs and implementing commitments/measures resulting from EAs. <p>GNWT-ECC's Wildlife Management Division contributed to five EAs in barren-ground caribou range during the reporting period (2021-2025):</p> <ul style="list-style-type: none"> ○ Diavik Diamond Mines – Depositing Processed Kimberlite in Pits and Underground ○ GNWT-INF – Mackenzie Valley Highway ○ B2Gold – Back River Energy Centre (Nunavut Impact Review Board) ○ West Kitikmeot Resources Corp. – Grays Bay Road and Port (Nunavut Impact Review Board) ○ Coastal Plain Oil and Gas Leasing Program (Bureau of Land Management, Alaska) <ul style="list-style-type: none"> • Ongoing – TG participates in EA processes that may affect barren-ground caribou in Wek’èezhìi.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – WRRB reviews WMMPs, water licences, and land use permits through WLWB online review system. • Ongoing – GRRB reviews land use permit applications and draft legislation and provides advice for reducing impacts to wildlife and wildlife habitat. In 2025, GRRB provided advice on the potential impacts of the proposed Mackenzie Valley Highway, including impacts to the Bluenose-East and Bluenose-West barren-ground caribou herds. The advice was provided to GTC to assist with their submission to GNWT. • Ongoing – SRRB supports communities in community conservation plan development (Hjdó Gogha Sĕnégots'íᓂá) for relevant caribou herds as part of the five-part series of public listening sessions. • Ongoing – BQCMB participates in environmental assessment and land use planning processes to provide input on Beverly and Qamanirjuaq caribou conservation considerations. • Ongoing – WMAC (NWT) participates in Environmental Impact Screening Committee and/or Review Board processes by reviewing and commenting as needed. WMAC (NWT) maintains Community Conservation Plans for the ISR and updates them every 5-8 years. The plans are used to inform screening decisions and recommendations. See 1.5. • Ongoing – Partners in the NWT, Yukon, and Canada (including ECCC, GNWT, YG, and Gwich'in and Inuvialuit governments and organizations) continue to monitor the status of oil and gas leasing activity in Alaska's Arctic National Wildlife Refuge. This area includes important areas for the Porcupine caribou herd (calving, post-calving and summer range). • 2021 – TG requested a regional study of the Slave Geological Province area of the NWT, citing the need for an "independent assessment of options, impacts, and benefits" before permanent infrastructure such as an all-season highway through the area is built. The request addresses the importance of barren-ground caribou to Tłıchǫ wellbeing and urges full consideration of potential impacts of future development to the ecological integrity of the region.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2021-2022 – As part of the implementation of the Bathurst Caribou Range Plan (2019), several workshops were held in 2021 and 2022 to advance habitat conservation in areas of important caribou habitat. • 2023 – The federal Minister of Northern Affairs agreed to a regional study of the Slave Geological Province in the NWT. The study was requested by TG to inform and support decisions about the future of the region, and will specifically consider the impacts to caribou, mitigation of cumulative effects, and caribou protection. Northern partners convened in Yellowknife on February 16, 2023, to review the criteria set out by the Minister and to discuss next steps. • 2024 – Aullaviat/Anguniarvik Traditional Conservation Area (TCA) was established in June 2024 on the north slope of the Yukon adjacent to Ivvavik National Park to promote, support and maintain Inuvialuit traditional use and to conserve wildlife and wildlife habitat, including the Porcupine caribou herd. The Aullaviat/Anguniarvik Working Group oversees the protection of the area and is developing a team of Inuvialuit Guardians to monitor, protect, and care for the land and waters. • 2024 – TG hosted a 5-day mapping workshop with the Elders committee in Wekweètì in July 2024 as part of the Regional Study of the Slave Geological Province. The study will integrate Indigenous and community knowledge with scientific research to help inform decision-making on development in the Slave Geological Province. • 2024 – GNWT-ECC completed wildlife baseline studies over the Lockhart All-Season Road (LASR) project corridor, including muskox surveys, an aerial wolf den survey, and a bear den/raptor nest survey. Further studies in support of the impact assessment for the LASR project are on pause until the final routing is determined.
	<p>4.8: Identify and protect essential and important barren-ground caribou habitats such as calving grounds, post-calving ranges, and important water crossings.</p>	<p>Critical/Short-term</p>	<ul style="list-style-type: none"> • See 1.2, 4.5, 4.6, 4.7, and 4.9. • Ongoing – GNWT, TG, WRRB, ADNLC, NSMA, NWTMN, Prince of Wales Northern Heritage Centre, and other partners are working to identify key caribou habitat and advance conservation/protection of these areas through implementation of the Bathurst Caribou Range Plan and participation in EA and land use planning processes. GNWT-ECC hosted two workshops in 2022 to share information on legal tools for protection and a recent technical analysis using barren-ground

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>caribou collar data to identify and prioritize water crossings. After developing a two-year workplan in 2023, funding from ECCC was secured in 2024. The Caribou Guardians Coalition (CGC) is now leading this work; GNWT-ECC tracks its progress and participates as appropriate.</p> <ul style="list-style-type: none"> • Ongoing – A dataset on the NWT Species and Habitat Viewer includes information shared by TG, Athabasca Denesūliné First Nations and the Prince of Wales Northern Heritage Centre on important water crossings for Bathurst caribou. Spatial data on barren-ground caribou herd ranges, calving grounds, and core seasonal ranges are also shared on the Viewer. • Ongoing – SRRB is helping to identify key habitat through community conservation plan development. • Ongoing – GNWT-ECC provided funding, support and background information to IGIOs to advance habitat conservation and protection in areas of important caribou habitat. • Ongoing – Identifying barren-ground caribou habitat for protection is included in Healthy Land, Healthy People as part of GNWT’s five-year work plan for conservation network planning in the NWT. This work plan was finalized in October 2023. • Ongoing – Conservation priorities for important barren-ground caribou habitat in the ISR are identified and formalized under Community-based Conservation Plans (CCPs), which were established under the Inuvialuit Final Agreement to guide the conservation and management of natural resources and lands within the ISR. CCPs are regularly reviewed and updated. They are not legally binding but are considered by the ILA, EISC, EIRB, and other parties in deciding whether to allow activities. • 2024 – Aullaviat/Anguniarvik Traditional Conservation Area (TCA) was established in June 2024 on the north slope of the Yukon adjacent to Ivvavik National Park to promote, support and maintain Inuvialuit traditional use and to conserve wildlife and wildlife habitat, including the Porcupine caribou herd. The Aullaviat/Anguniarvik Working Group oversees the protection of the area and is developing a team of Inuvialuit Guardians to monitor, protect, and care for the land and waters.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2025 – WMAC (NWT), IGC, IRC, and Hunters and Trappers Committees (HTCs) completed a position paper on the management of sensitive habitat for the Tuktoyaktuk Peninsula and Cape Bathurst caribou. The paper includes Indigenous knowledge on these areas and desired management actions for those herds. Interviews were conducted with Tuktoyaktuk community members in 2023 to discuss calving/post-calving habitat. In 2024, WMAC (NWT) updated maps and held verification meetings in Aklavik, Inuvik, Paulatuk, and Tuktoyaktuk with the HTCs.
	<p>4.9: Conserve migratory routes to allow barren-ground caribou to move across their historic range without barriers.</p>	Necessary/ Ongoing	<ul style="list-style-type: none"> • See 1.2 and 4.8. • 2023 – TG updated Tłı̄chǫ Wenek'e (Tłı̄chǫ Land Use Plan) (TG 2023). • 2024-2025 – Migratory routes for barren-ground caribou were discussed during community tours and are defined in the sensitive habitat position paper for the Tuktoyaktuk Peninsula and Cape Bathurst caribou herds completed in December 2025.
<p>Objective #5: Provide education and promote respect for barren-ground caribou, their habitat, and conservation initiatives.</p>	<p>5.1: Develop and implement hunter education programs to share information on barren-ground caribou and promote hunter excellence.</p>	Necessary/ Ongoing	<ul style="list-style-type: none"> • Ongoing – GNWT-ECC continues to offer free hunter education programs that teach hunters of all backgrounds and experience how to be respectful of wildlife, people and themselves while hunting. The program is required for resident and non-resident hunters in the NWT. The program is also available as a credit course for delivery in NWT high schools. The NWT program was developed in consultation with, and based on the knowledge of, Elders across the territory. • Ongoing – GNWT-ECC hosts annual “Sight in your Rifle” events across the NWT to make sure hunters’ firearms are sighted properly to ensure accurate shots, reducing wounding and wastage. • Ongoing – ADNLC is developing education and awareness programs as part of the Athabasca Denesų́liné Caribou Relationship Plan (in prep) to ensure harvesters are following traditional protocols for respectful caribou harvest. • 2025 – TG held a Tłı̄chǫ Ekwǫ̀ Gathering: Ekwǫ̀ t'à Ts'eeda Weghǫǫ Ełexǫ̀gots'edo (Sharing Stories about Caribou, Our Source of Life) in May 2025 for researchers, co-management partners, and delegates from each of the Tłı̄chǫ communities. TG, GNWT-ECC, WRRB and CGC provided updates on barren-ground caribou management, and there were demonstrations of caribou butchering

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<p>and traditional use of caribou parts. Elders talked about respectful harvesting and how to be a responsible harvester.</p> <ul style="list-style-type: none"> • 2025-2026 – WMAC (NWT) is developing a proposal for an annual workshop focused on providing education and promoting respect for barren-ground caribou, their habitat, and conservation initiatives (Objective 5 of this recovery strategy). Funding sources are being identified.
	<p>5.2: Support barren-ground caribou programs that bring elders and youth together in schools and on the land.</p>	<p>Necessary/ Ongoing</p>	<p>See 5.1.</p> <ul style="list-style-type: none"> • Ongoing – SRRB supports Déljñę in its community conservation planning efforts, including on-the-land programming. • Ongoing – SRRB continues to support communities in community conservation plan development for relevant caribou herds as part of a five-part series of public listening sessions. In 2022, SRRB held the Déljñę 2021 Public Listening Session, which brought together Elders and youth from all five Sahtú communities. • Ongoing – TG runs three camps as part of the Ekwò Nàxoèhdee K'è (Boots on the Ground) program at Kqk'èeti (Contwoyto Lake), Deèzàati (Point Lake), and Ek'atì (Lac du Sauvage/Lac de Gras) with support from WRRB and GNWT-ECC. More than 40 Tłjchq people are involved in caribou monitoring annually through this program, including Elders and youth. • Ongoing – GNWT-ECC supports several programs that bring Elders and youth together on the land, including Ekwò Nàxoèhdee K'è (Boots on the Ground) and Tundra Science and Culture Camp. GNWT-ECC also provides funding for on the land programming through Take a Family on the Land, the NWT On the Land Collaborative and the NWT Species Conservation and Recovery Fund (SCARF) (e.g. ADNLC's Culture Camp at Firedrake Lake, NWT). • Ongoing – WRRB supports several barren-ground caribou initiatives that bring Elders and youth together, including community monitoring programs along the Tibbitt to Contwoyto winter road and the development of the Caribou Guardians Coalition.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – BQCMB provides an annual funding opportunity through its Caribou Connections Fund which supports community-based projects that connect youth, Elders, the land and caribou. • 2021-2024 – Discussions around barren-ground caribou took place during the SRRB’s Women’s Harvest Workshops (Dene Béré Harvesting and Sharing Campaign) in Tulit’a in 2022 and 2024. A photo book was published to document the outcomes of these workshops (SRRB 2025b). • 2025 – TG held a Tłıchǫ Ekwǫ Gathering: Ekwǫ t’à Ts’eeda Weghǫǫ Ełexǫgots’edo (Sharing Stories about Caribou, Our Source of Life) in May 2025 for researchers, co-management partners, and delegates from each of the Tłıchǫ communities. TG, GNWT-ECC, WRRB and CGC provided updates on barren-ground caribou status and management.
	<p>5.3: Promote educational programs for diverse audiences to increase understanding of conservation initiatives and management of threats to barren-ground caribou.</p>	<p>Necessary/ Ongoing</p>	<p>See 5.1.</p> <ul style="list-style-type: none"> • Ongoing – GNWT-ECC promotes public messaging on topics including: identifying male versus female caribou, respecting the Mobile Zone, highlighting the need to conserve caribou and encouraging people to harvest only what they need. These messages have been shared by various means including social media and news releases. Partners from GNWT-ECC, YKDFN, TG, and WRRB presented on the history and management of the Mobile Zone at The Wildlife Society conference in Edmonton, AB in October 2025 (Cluff <i>et al.</i> 2025). • Ongoing – SRRB continues to support communities in community conservation plan development (Hı́dó Gogha Sǫ́nǫgots’ı́ǫ́) for relevant caribou herds as part of a five-part series of public listening sessions. • Ongoing – TG promotes respectful harvesting through its website and social media channels. • Ongoing – WRRB publishes online news articles and an annual calendar highlighting management and conservation initiatives for wildlife in Wek’ǫ́ezhı́, including barren-ground caribou (e.g. article on aerial survey methods). • Ongoing – GRRB includes messages about current conservation initiatives and management of barren-ground caribou in its annual conservation calendar (e.g. biannual Gwich’in Harvest Survey).

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • Ongoing – GNWT-ECC is developing a plain-language video to explain caribou composition surveys: what they are, when they take place, what information they provide and how they contribute to caribou management. As part of this project, video sequences of barren-ground caribou in each season are being produced to share on social media, in wildlife management workshops and on the NWT Species at Risk website. • Ongoing – NWT CIMP works with partner organizations to produce and share videos highlighting key results of some of their funded programs. In 2021-2025 these included: <ul style="list-style-type: none"> ○ CIMP243BG – North Slave Métis Alliance Winter Road Monitoring Program (2024-25) ○ CIMP224 – A Century of Petroleum Extraction at Tłegóhłı (Norman Wells) (2023-24) ○ CIMP187 – Vegetation Change on the Range of the Bathurst Caribou Herd (2023-24) • 2024 – GRRB had a youth-focused educational booth at the annual Beaufort-Delta Science Rendezvous and GeoWeek events to increase understanding of caribou conservation work. • 2025 – GRRB developed and facilitated a youth program about wolves, including messaging around the impact of an abundance of predators on caribou. • 2025 – A University of Calgary Master’s student developed an illustrated guide to her research on viruses and caribou (Olson 2025). Olson is working on laboratory testing to better understand which viruses are present in caribou and how they may be linked to caribou population health and dynamics. • 2025 – The World Wildlife Fund Global Arctic Programme published a magazine issue dedicated to “caribou in a changing North” (The Circle, 4.2025), which includes articles about caribou research, conservation initiatives, and management of threats to barren-ground caribou. • 2025 – WMAC (North Slope) released a video about the Aullaviat/Anguniarvik Traditional Conservation Area. This Indigenous-led area was established in June 2024 on the north slope of the Yukon to foster Inuvialuit traditional use and community-driven conservation of wildlife and wildlife habitat, including the Porcupine caribou herd.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
	<p>5.4: Educate all people about the importance of maintaining the people-caribou relationship.</p>	<p>Necessary/ Ongoing</p>	<p>See 5.1.</p> <ul style="list-style-type: none"> • Ongoing – SRRB is facilitating a series of five public listening sessions to address the question of “What is the most effective way to conserve caribou?” Much of the discussion at these sessions centres around defining and maintaining the people-caribou relationship. SRRB continues to support communities in community conservation plan development for relevant caribou herds as part of these sessions. • Ongoing – TG promotes respectful harvesting through its website and social media channels and in person along the Contwoyto to Tibbitt winter road through the Ekwò Harvest Monitoring Program. • Ongoing – ADNLC is developing a community plan for monitoring and stewardship of caribou, including barren-ground caribou herds shared with the NWT. • Ongoing – GRRB staff share information about caribou, the people-caribou relationship, and differences between types of caribou when taking part school events and meetings. They also distribute educational materials to support conservation efforts. • Ongoing – GRRB includes messaging on the importance of maintaining the people-caribou relationship in its annual conservation calendar, including reminders to report harvest and submit samples to GNWT-ECC. • Ongoing – BQCMB’s 2023-2032 Caribou Management Plan emphasizes that sustaining Beverly and Qamanirjuaq caribou is inseparable from sustaining the cultures, knowledge, and well-being of the Indigenous peoples who rely on them, such as supporting traditional harvesting practices, passing on caribou-related knowledge to younger generations, and ensuring community participation in management decisions. • 2022 – TG released a short film, Kòk’eti: Walking with Caribou, which follows the journey of Ekwò Nàxoèhdee K’è caribou monitors as they use traditional methods to travel across the land to watch over the Bathurst caribou herd. • 2023 – GRRB attended the Caribou Summit organized by the Gwich’in Tribal Council.

Objective	Management Approaches	Relative Priority/Time Frame	Progress
			<ul style="list-style-type: none"> • 2024 – BQCMB developed Caribou Is Life Edu-kits for distribution to schools in communities across the Beverly and Qamanirjuaq herd ranges. • 2025 – CGC, TG, NSMA and ADNLC led a panel discussion on “Caribou Guardians Coalition: Creating Unity for Bathurst Caribou” at the 2025 Indigenous Centre for Cumulative Effects Conference in Vancouver in May 2025. • 2025 – TG held a Tłıchǫ Ekwò Gathering: Ekwò t'à Ts'eeda Weghǫǫ Ełexègots'edo (Sharing Stories about Caribou, Our Source of Life) in May 2025 for researchers, co-management partners, and delegates from each of the Tłıchǫ communities. TG, GNWT-ECC, WRRB and CGC provided updates on barren-ground caribou status and management.

7. RECOVERY STRATEGY REVIEW

The CMA is required under the *Species at Risk (NWT) Act* to review a management plan or recovery strategy every five years. The first review of the [Recovery Strategy for Barren-ground Caribou in the Northwest Territories](#) took place on November 14, 2025.

The review determined that the [Recovery Strategy for Barren-ground Caribou in the Northwest Territories](#) continues to meet the needs of Management Authorities to achieve the conservation and recovery goals for the species. Many barren-ground caribou herds are still declining and/or remain at numbers well below historic highs. Additionally, upcoming infrastructure projects such as the Grays Bay Road and Port Project and the all-season road through the Slave Geological Province (together referred to as the [Arctic Economic and Security Corridor](#)) are expected to have landscape-level impacts on barren-ground caribou and their habitat. The Recovery Strategy will continue to provide guidance for caribou conservation and recovery through its goals, objectives and approaches.

Management partners noted in the last five years, the role of Indigenous guardians has become more prominent in caribou co-management throughout barren-ground caribou range. The work of these groups helps address disrespectful and unsafe hunting practices and underpins the shared decision-making that is a central part of barren-ground caribou conservation and recovery.

Management partners for barren-ground caribou discussed which approaches should be priority for implementation over the next five years and recommended changes to some approaches that could be considered if or when the strategy is revised. These ideas were recorded for future use.

In the long-term, recovery will be considered successful if barren-ground caribou are conserved and their place as a cultural and ecological keystone species is maintained. They should be able to move freely on the land within their historic ranges, facilitating natural habitat use and migration. Maintaining and healing the relationship between people and caribou will be critical to barren-ground caribou conservation.

Management partners continue to support the [Recovery Strategy for Barren-ground Caribou in the Northwest Territories](#) and the guidance it provides to the CMA towards meeting the objectives of the *Species at Risk (NWT) Act*, including species stewardship and the preservation of biological diversity.

8. NEXT STEPS

Progress has been made over the last five years toward recovering barren-ground caribou herds in the NWT. Many herds, while far from historic highs, are showing signs of recovery.

Efforts to maintain or restore self-sustaining, resilient populations of each barren-ground caribou herd are ongoing. Direction provided by caribou co-management boards, including the ACCWM, BCAC and BQCMB, together with harvest monitoring and regular surveys by management authorities, ensures that management decisions about barren-ground caribou are based on the best available information.

The [*Recovery Strategy for Barren-ground Caribou in the Northwest Territories*](#) will continue to provide overarching guidance for the conservation and recovery of barren-ground caribou in the NWT, complemented by herd-specific management plans. Management partners will continue to use this strategy to help assign priorities and allocate resources to conserve and recover barren-ground caribou in the NWT, as well as for engaging other parties (e.g. communities, industry, co-management boards, regulators, caribou management boards, non-government organizations). The recovery strategy will be reviewed again in five years and progress on its implementation (2026-2030) will be reported in 2031.

9. REFERENCES

- Abernethy, R. 2023. [Concurrent movement patterns and habitat use on the Canadian Tundra by grey wolves and barren-ground caribou](#). Master's thesis, Department of Geography, Vancouver Island University, Nanaimo, BC. 147pp.
- Adamczewski, J. 2025. [Getting the Facts Straight About Caribou and Reindeer](#). Article in The Circle magazine, World Wildlife Fund Global Arctic Programme, issue 4.2025, p. 8.
- Adamczewski, J., and J. Williams. 2024. [Biological Monitoring of the Bathurst, Bluenose-East and Beverly Caribou Herds](#). Proposal submitted to Wek'èezhii Renewable Resources Board, Yellowknife, NT.
- Adamczewski, J., J. Boulanger, B. Croft, T. Davison, H. Sayine-Crawford, and B. Tracz. 2017. [A Comparison of Calving and Post-calving Photo Surveys for the Bluenose-East Herd of Barren-ground Caribou in northern Canada in 2010](#). Canadian Wildlife Biology and Management, 6(1), 1929-3100.
- Adamczewski, J., J. Boulanger, J. Williams, and R. Abernethy (in prep). Fall 2024 composition surveys of Bathurst and Bluenose-East barren-ground caribou herds. Environment and Climate Change, Government of Northwest Territories. Manuscript Report [submitted].
- Adamczewski, J., J. Boulanger, J. Williams, D. Cluff, and K. Clark. 2023a. [June 2022 Calving Ground Surveys: Bathurst and Bluenose-East Barren-Ground Caribou Herds](#). GNWT Manuscript Report 308. 113pp.
- Adamczewski, J., J. Boulanger, J. Williams, D. Cluff, K. Clark, J. Nishi, S. Goodman, K. Chan and R. Abernethy. 2022a. [Estimates of Breeding Females & Adult Herd Size and Analyses of Demographics for the Bathurst Herd of Barren-ground Caribou: 2021 Calving Ground Photographic Survey](#). GNWT Manuscript Report 326. 151pp.
- Adamczewski, J., J. Williams, and D. Cluff. 2023b. [March 2022 Late-winter Composition Surveys of Bluenose-East and Beverly Barren-ground Caribou Herds](#). GNWT Manuscript Report 304. 37pp.
- Adamczewski, J., J. Williams and J. Boulanger. 2024a. [March 2020 Pregnancy Assessment Using Samples from Bathurst, Bluenose-East and Beverly Barren-ground Caribou Herds](#). GNWT Manuscript Report 321. 49pp.
- Adamczewski, J., J. Williams and J. Boulanger. 2024b. [March 2023 Late Winter Composition Surveys of Bathurst, Bluenose-East and Beverly Barren-ground Caribou Herds](#). GNWT Manuscript Report 318. 52pp.
- Adamczewski, J., J. Williams and J. Boulanger. 2024c. [March 2024 Late-winter Composition Surveys of Bluenose-East and Beverly Barren-ground Caribou Herds](#). GNWT Manuscript Report 329. 40pp.
- Adamczewski, J., J. Williams, D. Cluff and C. Modeste-Burgin. 2024d. [Fall 2022 Composition Surveys of Bathurst, Bluenose-East and Beverly Barren-ground Caribou Herds](#). GNWT Manuscript Report 316. 51pp.

- Adamczewski, J., J. Williams, J. Boulanger and C. Modeste-Burgin. 2022b. [October 2021 Composition Survey of the Bathurst and Bluenose-East Barren-ground Caribou Herds](#). GNWT Manuscript Report 301. 35pp.
- Adamczewski, J., J. Williams, J. Boulanger and C. Modeste-Burgin. 2024e. [Fall 2023 Composition Surveys of Bathurst and Bluenose-East Barren-ground Caribou Herds](#). GNWT Manuscript Report 328. 48pp.
- Advisory Committee for Cooperation on Wildlife Management (ACCWM). 2021. [Taking Care of Caribou: The Cape Bathurst, Bluenose-West, and Bluenose-East Barren-ground Caribou Herds Management Plan](#). Yellowknife, NT. ii + 83pp.
- Advisory Committee for Cooperation on Wildlife Management (ACCWM). 2022a. [Annual Status Meeting Summary for the Cape Bathurst, Bluenose-West, and Bluenose-East Caribou Herds – November 23-25, 2021](#). Prepared by the Advisory Committee for Cooperation on Wildlife Management. 98pp.
- Advisory Committee for Cooperation on Wildlife Management (ACCWM). 2022b. [Monitoring Caribou: A review of selected technologies for tracking barren-ground caribou](#). Prepared for the Advisory Committee for Cooperation on Wildlife Management. 32pp.
- Advisory Committee for Cooperation on Wildlife Management (ACCWM). 2026. Annual Status Meeting Summary for the Cape Bathurst, Bluenose-West, and Bluenose-East Caribou Herds – November 2025. Yellowknife, NT.
- Aguilar, X.F., F. Mavrot, Om Surujballi b, L.-M. Leclerc, Kugluktuk Angoniatit Association, Ekaluktutiak Hunters and Trappers Organization, Olokhaktomiut Hunters and Trappers Committee, M. Tomaselli and S. Kutz. 2024. [Brucellosis emergence in the Canadian Arctic](#). One Health, 18: 100712. DOI: <https://doi.org/10.1016/j.onehlt.2024.100712>.
- Aleuy, O.A., M. Anholt, K. Orsel, F. Mavrot, C.A. Gagnon, K. Beckmen, S.D. Côté, C. Cuyler, A. Dobson, B. Elkin, L.-M. Leclerc, J. Taillon and S. Kutz. 2022. [Association of Environmental Factors with Seasonal Intensity of Erysipelothrix rhusiopathiae Seropositivity among Arctic Caribou](#). Emerging Infectious Diseases, 28(8): 1650-1658. DOI: <https://doi.org/10.3201/eid2808.212144>.
- Andersen-Ranberg, E., I.H. Nymo, P. Jokelainen, A. Emelyanova, S. Jore, B. Laird, R.K. Davidson, S. Ostertag, E. Bouchard, F. Fagerholm, K. Skinner, M. Acquarone, M. Tryland, R. Dietz, K. Abass, A. Rautio, S. Hammer, B. Evengårdj, T. Thierfelder, R. Stimmelmayer, E. Jenkins and C. Sonne. 2024. [Environmental stressors and zoonoses in the Arctic: Learning from the past to prepare for the future](#). Science of The Total Environment, 957: 176869. DOI: <https://doi.org/10.1016/j.scitotenv.2024.176869>.
- Arctic Borderlands Ecological Knowledge Society. 2022. [Assessing trends in caribou observations and health](#). NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 7(32).
- Arctic Borderlands Ecological Knowledge Society. 2022. [Assessing trends in caribou harvest](#). NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 7(33).

- Arthur, S. 2001. Alaska Department of Fish and Game memo dated 13 November 2001.
- Athabasca Denesųliné Néné Land Corporation (ADNLC) (in prep). Athabasca Denesųliné Caribou Relationship Plan.
- Awan, M. 2025. [Grizzly Bear \(*Ursus arctos*\) Harvest Monitoring in Nunavut—Summary Report](#). Department of Environment, Government of Nunavut. 17pp.
- Awan, M., J. Boulanger, M. Efford and K.G. Poole. 2023. Grizzly bear DNA mark–recapture sampling in the Western Kitikmeot region of Nunavut, 2021. Department of Environment, Government of Nunavut. 46pp.
- Awan, M., M. Efford, J. Boulanger, and K.G. Poole. 2025. [Grizzly bear DNA mark–recapture sampling in the Western Kitikmeot region of Nunavut, 2022–2023](#). Department of Environment, Government of Nunavut. 53pp.
- Baltzer, J. 2022. [Impacts of Fire on Woodland and Barren-ground Caribou Habitat](#). CIMP-170. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 7(35).
- Baltzer, J., and C. Dieleman. 2023. [Cumulative effects of fire, permafrost, and human development on caribou habitat and recovery](#). 2022–2023 Final Report to Northwest Territories Cumulative Impact Monitoring Program. Yellowknife, NT.
- Bathurst Caribou Advisory Committee (BCAC). 2021. [Bathurst Caribou Management Plan](#). Government of the Northwest Territories, Yellowknife, NT. 72pp.
- Bernauer, W. 2025. [Against Fast-Tracking: Critical Minerals and Indigenous Rights in Nunavut: Contre l'accélération des procédures: les minéraux critiques et les droits des Autochtones au Nunavut](#). Northern Review, (57), pp.23–49.
- Berner, L.T., K.M. Orndahl, M. Rose, M. Tamstorf, M.F. Arndal, H.D. Alexander, E.R. Humphreys, M.M. Loranty, S.M. Ludwig, J. Nyman, S. Juutinen, M. Aurela, K. Happonen, J. Mikola, M.C. Mack, M.R. Vankoughnett, C.M. Iversen, V.G. Salmon, D. Yang, J. Kumar, P. Grogan, R.K. Danby, N. Scott, J. Olofsson, M.B. Siewert, L. Deschamps, E. Lévesque, V. Maire, A. Morneault, G. Gauthier, C. Gignac, S. Boudreau, A. Gaspard, A. Kholodov, M.S. Bret-Harte, H.E. Greaves, D. Walker, F.M. Gregory, A. Michelsen, T. Kumpula, M. Villoslada, H. Yläne, M. Luoto, T. Virtanen, B.C. Forbes, N. Hölzel, H. Epstein, R.J. Heim, A.G. Bunn, R.M. Holmes, J.K.Y. Hung, S.M. Natali, A.-M. Virkkala and S.J. Goetz. 2024. [The Arctic Plant Aboveground Biomass Synthesis Dataset](#). Scientific Data, 11: 305. DOI: <https://doi.org/10.1038/s41597-024-03139-w>.
- Beverly and Qamanirjuaq Caribou Management Board (BQCMB). 2024. [Caribou is Life - Beverly and Qamanirjuaq Caribou Management Plan 2023-2032 Supporting Document](#). Beverly and Qamanirjuaq Caribou Management Board, Paddockwood, SK. 88pp.
- Bieraugle, M., A.E. Wilson, T. Nomokonova, N. Jutha, H.D. Cluff, and R.J. Losey. 2025a. [Suture obliteration patterns in wolves and a comparison to dogs](#). Scientific Reports, 15(1), 5793. DOI: [10.1038/s41598-025-89598-6](https://doi.org/10.1038/s41598-025-89598-6).

- Bieraugle, M., B. Vivian, A.E. Wilson, N. Jutha, H.D. Cluff and R.J. Losey. 2025b. [Ageing dogs and wolves using x-ray micro-computed tomography \(\$\mu\$ -CT\): an application to canid remains from the Junction Site, Alberta, Canada](#). *Journal of Archaeological Science*, 184, 106417. DOI: [10.1016/j.jas.2025.106417](#).
- Bieraugle, M., L. Ding, H.D. Cluff, N. Jutha, and R.J. Losey. 2024. [Ageing wolves through crown height measurements and its implications for ageing canids](#). *Archaeological and Anthropological Sciences*, 16(10), 157. DOI: [10.1007/s12520-024-02064-8](#).
- Binley, A.D., L. Haddaway, R. Buxton, K.M. Lalla, D. Lesbarreres, P.A. Smith and J.R. Bennett. 2025. [Endangered species lack research on the outcomes of conservation action](#). *Conservation Science and Practice*, 7(2): e13304. DOI: <https://doi.org/10.1111/csp2.13304>.
- Black, C.J. 2024. [Can Archaeologists See Intentional Sustainability? Modeling Dene \(Athabaskan\) Caribou Hunting to Understand Human Behavior](#). Master's thesis, Department of Anthropology, University of Wyoming, Laramie, WY.
- Blackburn, C. 2025. [Caribou-being beyond the Boreal](#). Master's thesis, Art, Media and Design, OCAD University, Toronto, ON. 64pp.
- Blakley, J. and B. Nobel. 2025. [Forum: cumulative effects assessment state-of-the-art](#). *Environmental Management*, 75:2855–2861. DOI: <https://doi.org/10.1007/s00267-025-02281-4>.
- Bongelli, E., P.D. McLoughlin, M. Dowsley, H.D. Cluff, M. Campbell and M.K. Taylor. [Range Dynamics of Barren-Ground Caribou Implied by Historical Population Cycles and Logistic Growth](#). *Arctic*, 78(1):1-116. DOI: <https://doi.org/10.14430/arctic82176>.
- Bonta, C., G.M. King and R.K. Danby. 2023. [Greening on the Bathurst caribou range in northern Canada: are erect shrubs responsible for remotely sensed trends?](#) *Arctic Science*, 9(3). DOI: <https://doi.org/10.1139/as-2022-0036>.
- Bonta, C.H. 2024a. [The Relationship Between Erect Deciduous Shrub Growth and Spectral Greening on the Bathurst Caribou Range](#). PhD thesis, Department of Geography and Planning, Queen's University, Kingston, ON. 203pp.
- Bonta, C. 2024b. [What is the Role of Birch Shrubs in 'Greening' the Bathurst Caribou Range?](#) CIMP-187. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 9(67).
- Boulanger, J. and F. d'Eon-Eggertson. 2023. [Analysis of the Effects of the Inuvik-Tuktoyaktuk Highway on Barren-ground Caribou](#). GNWT Manuscript Report 305. 54pp.
- Boulanger, J. and F. d'Eon-Eggertson. 2024. [Inuvik-Tuktoyaktuk Highway 2013-2020 Grizzly Bear DNA Inventory: Assessment of Response to Highway Development](#). GNWT Manuscript Report 320. 55pp.
- Boulanger, J. and J. Adamczewski. 2024. [Analysis of Environmental, Temporal and Spatial Factors Affecting Demography of the Bathurst and Bluenose-East Caribou Herds](#). GNWT Manuscript Report 309. 48pp.

- Boulanger, J., J. Adamczewski, and T. Davison. 2018. [Estimates of caribou herd size using post-calving surveys in the Northwest Territories and Nunavut: A meta-analysis](#). *Rangifer*, Vol. 38 No. 1 (2018).
- Boulanger, J., J. Adamczewski, J. Williams, S. Goodman, K. Clark, R. Abernethy, and L.-M. LeClerc. 2024. [June 2023 Calving Ground Surveys: Bluenose-East and Bathurst Barren-ground Caribou Herds](#). Environment and Climate Change, Government of the Northwest Territories, Yellowknife, NT. Manuscript Report 319. 185pp.
- Boulanger, J., J. Adamczewski, J. Williams, D. Cluff, K. Clark, S. Goodman, K. Chan, and R. Abernethy. 2022. [Estimates of breeding females & adult herd size and analyses of demographics for the Bluenose-East herd of barren-ground caribou: 2021 calving ground photographic survey](#). Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT. Manuscript Report 325. 102pp.
- Boulanger, J., K.G. Poole, A. Gunn, J. Adamczewski and J. Wierzchowski. 2021. [Estimation of trends in zone of influence of mine sites on barren-ground caribou populations in the Northwest Territories, Canada, using new methods](#). *Wildlife Biology*, 2021(1). DOI: 10.2981/wlb.00719.
- Boulanger, J., M. Campbell, and D.S. Lee. 2018. [Estimating Abundance and Trend of the Qamanirjuaq Mainland Migratory Barren-ground Caribou Subpopulation – June 2017](#). Technical Summary – No: 01-2018. Government of Nunavut, Department of Environment, Iqaluit, NU.
- Brennan, A., J. Bowman, L. Custode, S. Moran, R. Abernethy, J. Baici, M. Boyce, G. Brown, M. Cote, A. Ford, M. Hebblewhite, K. Hirsh-Pearson, A. F. Jakes, P.F. Jones, C.T. Lamb, M. McLellan, K. Munro, J. Northrup, M. Obbard, P. O'Brien, B.R. Patterson, A. Shafer, M.A. Scrafford, D. Sigouin, S. Sucharzewski, T. Wheeldon, J. Whittington, B.K. Woodworth and R. Pither. 2025. [National-scale multispecies connectivity models represent movements for a majority of species tested](#). *Landscape Ecology*, 40:200 (2025). DOI: <https://doi.org/10.1007/s10980-025-02227-5>.
- Brenning, M., F.J. Longstaffe, J.H. Miller and D. Fraser. 2025. [Stable Isotopes of Carbon and Nitrogen in Female Qamanirjuaq Caribou \(*Rangifer tarandus groenlandicus*\) Antlers in Relation to Diet and Physiology](#). *Ecology and Evolution*, 15(10): e72294. DOI: <https://doi.org/10.1002/ece3.72294>.
- Brodeur, A., M. Leblond, V. Brodeur, J. Taillon and S.D. Côté. 2023. [Investigating potential for competition between migratory caribou and introduced muskoxen](#). *The Wildlife Society*, Volume 87, Issue 3, April 2023 e22366. DOI: <https://doi.org/10.1002/jwmg.22366>.
- Brose, A., A. Gunn, O. Couriot, M. Perra, C. Beaupre and E. Gurarie. 2025a. [The practicalities of co-production of knowledge in conserving caribou](#). Article in Deer Specialist Group Newsletter (June 2025). International Union for Conservation of Nature Deer Specialist Group. www.deerspecialistgroup.org/wp-content/uploads/2025/06/DSGNews36-3.pdf#page=33.

- Brose, A.L., M. Perra, A. Gunn, E. Gurarie and C. Beaupre. 2024. [Fate of the Caribou: Studying Caribou and Climate, with Communities](#). *Xàgots'eèhk'ò Journal*, 2(2): 62-65.
- Brose, A., N. Barbour, C. Beaupre, A. Gunn, B. Larue, Q. Liao, M. McConnell, K. Orndahl, M. Perra, S. Salganek, L. Berner, B. Fagan, S. Goetz, E. Gurarie, and M. Hebblewhite. 2025b. [Fate of the Caribou: Research Summary, November 2021 – November 2025](#). Fate of the Caribou Project. 25pp.
- Brown-Dussault, E. 2025. [Lichen it: Optimizing post-fire caribou lichen transplantation and assessment](#). Master's thesis, Department of Biology, Wilfrid Laurier University, Waterloo, ON.
- Buhler, K.J., A. Dibernardo, N.W. Pilfold, N.J. Harms, H. Fenton, S. Carriere, A. Kelly, H. Schwantje, X.F. Aguilar, L.-M. Leclerc, G.G. Gouin, N.J. Lunn, E.S. Richardson, D. McGeachy, É. Bouchard, A.H. Ortiz, G. Samelius, L.R. Lindsay, M.A. Drebot, P. Gaffney, P. Leighton, R. Alisauskas and E. Jenkins. 2023. [Widespread Exposure to Mosquitoborne California Serogroup Viruses in Caribou, Arctic Fox, Red Fox, and Polar Bears, Canada](#). *Emerging Infectious Diseases*, 29(1), 54-63. DOI: <https://doi.org/10.3201/eid2901.220154>.
- Buhler, K.J., H. Schwantje, N.J. Harms, H. Fenton, X.F. Aguilar, S. Kutz, L.-M. Leclerc, J. Blake and E. Jenkins. 2024. [Widespread exposure to Francisella tularensis in Rangifer tarandus in Canada and Alaska](#). *Polar Research*, 43. DOI: <https://doi.org/10.33265/polar.v43.9288>.
- Caikoski, J.R. 2017. Photosurvey of the Porcupine Caribou Herd. Alaska Department of Fish and Game, Division of Wildlife Conservation. Unpublished memorandum, December 20, 2017. Fairbanks, Alaska.
- Campbell, M., D.S. Lee and J. Boulanger. 2019. [Abundance Trends of the Beverly Mainland Migratory Subpopulation of Barren-Ground Caribou \(Rangifer tarandus groenlandicus\): June 2011 – June 2018](#). Government of Nunavut, Department of Environment. File Report # 01-2018. 143pp.
- Campbell, M., J. Boulanger, D.S. Lee, M. Dumond, and J. McPherson. 2012. [Calving Ground Abundance Estimates of the Beverly and Ahik Subpopulations of Barren-ground Caribou \(Rangifer tarandus groenlandicus\) – June 2011](#). Technical Summary. Government of Nunavut, Department of Environment, Iqaluit, NU.
- Campbell, M., J. Boulanger, J. Ringrose, A. Roberto-Charron and C. Mutch. 2022. Abundance Estimates of the Northeastern Mainland Tundra Wintering Subpopulations of Barren-ground caribou (*Rangifer tarandus groenlandicus*) on the Nunavut Eastern Mainland – June 2021. Executive summary draft report to the Nunavut Department of Environment & co-management partners, September 29, 2022. Government of Nunavut, Arviat, NU. 86pp.
- Campbell, M., J. Boulanger, J. Ringrose, D.S. Lee. And E. Greene. 2024. Estimating abundance of the Qamanirjuaq mainland migratory barren ground caribou sub-population: June 2022. Nunavut Department of Environment, Wildlife Research Division. File Report # 01-2023. 102pp.
- Campbell, M., J. Boulanger, J. Ringrose, J. Danahy, R. Kite and A. Roberto-Charron. 2025. Abundance and trends of the Beverly mainland migratory subpopulation of barren-ground

- caribou (*Rangifer tarandus groenlandicus*) June 2011-June 2023. Nunavut Department of Environment, Wildlife Research Division. File Report # 01-25. 194pp.
- Canteri, E., S.C. Brown, E. Post, N.M. Schmidt, D. Noguez-Bravo and D.A. Fordham. 2025. [Mismatch in reindeer resilience to past and future warming signals ongoing declines](#). Science Advances, 11(33). DOI: <https://doi.org/10.1126/sciadv.adu0175>.
- Carter, N.A., L.M. Martinez-Levasseur, V. Johnston, P.A. Smith, A. Irkok, B. Saviakjuk, L. Emiktaut, B. Chaudhary, G. Ljubicic, R.T. Alisaukas and F. Baldwin. 2025. [Braiding Inuit knowledge and Western science to understand light goose population dynamics under a changing climate](#). Ecology and Society, 30(2). DOI: <https://doi.org/10.5751/ES-16079-300217>.
- Chen, W. 2022. [Monitoring cumulative impacts of mining development on Bathurst caribou habitat](#). CIMP-141. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 7(39).
- Clark, K., J. Nishi, D. Cluff, S. Shiga, S. Behrens, N. Jutha, R. Abernethy, R. Mulders, R. Kite and J. Shaw. 2024. [Technical Report: Wolf \(Diga\) Management Pilot Program January – May 2021](#). GNWT Manuscript Report 322. 108pp.
- Clark-Wolf, T.J., J. St. John, C.A. Rajesh and M. Hebblewhite. 2025. [Caribou and Reindeer Population Cycles Are Driven by Top-Down and Bottom-Up Mechanisms Across Space and Time](#). Ecology and Evolution, 15(5): e71348. DOI: <https://doi.org/10.1002/ece3.71348>.
- Cluff, D., J. Adamczewski, J. Boulanger, B. Croft, J. Nishi, A. Guile, L. Meinert and M. Birlea. 2025. Evaluation of a Mobile Conservation Zone for Bathurst Caribou Recovery and Management. Presentation given at [The Wildlife Society Conference](#) in Edmonton, AB in October 2025.
- Conference of Management Authorities. 2020. [Recovery Strategy for Barren-ground Caribou \(*Rangifer tarandus groenlandicus*\) in the Northwest Territories](#). Conference of Management Authorities, Yellowknife, NT.
- Couriot, O.H., M.D. Cameron, K. Joly, J. Adamczewski, M.W. Campbell, T. Davison, A. Gunn, A.P. Kelly, M. Leblond, J. Williams, W.F. Fagan, A. Brose and E. Gurarie. 2023. [Continental synchrony and local responses: Climatic effects on spatiotemporal patterns of calving in a social ungulate](#). Ecosphere, 14(1): e4399. DOI: <https://doi.org/10.1002/ecs2.4399>.
- Cross, L.I.W. 2024. [Relationship between Climate-Induced Changes and Spatial-Temporal Trends of the Bathurst Caribou Herd During Rapid Population Decline \(1997-2017\)](#). Master's thesis, School of Environmental Studies, Queen's University, Kingston, ON. 120pp.
- Dalgarno, S., J. Boulanger, A. Pearson, J. Thorley, T. Hegel, B. Nobert and D. Hervieux. 2025. [bbousuite: A set of R packages to facilitate analysis of boreal caribou survival and recruitment data](#). The Journal of Open Source Software, 10(109): 7997. DOI: <https://doi.org/10.21105/joss.07997>.
- Danby, R. 2021. [Remote Sensing of Vegetation on the Bathurst Caribou Herd Range](#). NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 6(25).

- Davison, T. pers. comm. 2025. Email correspondence. September 2025. Regional Biologist, Beaufort-Delta Region, Department of Environment and Climate Change, Government of the Northwest Territories, Yellowknife, NT.
- Davison, T., J. Boulanger, and S. Behrens. 2020. Population Estimates of Tuktoyaktuk Peninsula, Cape Bathurst and Bluenose-West Barren-ground Caribou Herds, using Post-calving Photography, July 2018. GNWT Manuscript Report 281. 41pp.
- Daigle, L., C. Nury, L. Delesalle, C.-A. Villeneuve, J. Colinas, P.A. Leighton, H. Carabin, K. Zinszer, S. Hillier, E. Jenkins and C. Aenishaenslin. 2024. [A call for a coherent One Health strategy for the surveillance of climate-sensitive infectious diseases in the Canadian Arctic and subarctic regions](#). *One Health Outlook*, 6:25. DOI: <https://doi.org/10.1186/s42522-024-00117-5>.
- Dearborn, K.D. and R.K. Danby. 2021. [Remotely sensed trends in vegetation productivity and phenology during population decline of the Bathurst caribou \(*Rangifer tarandus groenlandicus*\) herd](#). *Arctic Science*, 8(1). DOI: <https://doi.org/10.1139/as-2021-0003>.
- d'Eon-Eggertson, F. 2023. [Inuvik-Tuktoyaktuk Highway and Harvest Analysis as part of the Wildlife Effects Monitoring Program](#). GNWT Manuscript Report 306. 37pp.
- Deninu Kųę First Nation (DKFN) and M. d'Entremont. 2025. [Boreal Caribou Habitat Enhancement: Lichen Habitat Restoration on Disturbed Sites](#). NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 10(81).
- Dias, A.P., X.F. Aguilar, J. De Buck, S. Kutz and R. Arrazuria. 2024. [Digital dermatitis-associated *Treponema* species detection and quantification in migratory tundra caribou \(*Rangifer tarandus*\)](#). *Research in Veterinary Science*, 171: 105210. DOI: <https://doi.org/10.1016/j.rvsc.2024.105210>.
- Dickinson, E.R., K. Orsel, C. Cuyler and S.J. Kutz. 2023. [Life history matters: Differential effects of abomasal parasites on caribou fitness](#). *International Journal for Parasitology*, 53(4): 221-231. DOI: <https://doi.org/10.1016/j.ijpara.2023.01.001>.
- Ding, M.H., X. Wang, L.G. Bian, Z.N. Jiang, X. Lin, S.H. Ren, J. Su, B. Tian, S. Wang, Y.N. Yu and D.Q. Zhang. 2025. [State of polar climate \(2024\)](#). *Advances in Climate Change Research*, 16(5). DOI: <https://doi.org/10.1016/j.accre.2025.06.001>.
- Druckenmiller, M.L., R.L. Thoman and T.A. Moon, Eds. 2024. [The Arctic](#) [in "State of the Climate in 2023"]. *Bulletin of the American Meteorological Society*, 105(8): S277-S330. DOI: <https://doi.org/10.1175/BAMS-D-24-0101.1>.
- Dryneck, R., J. Moosenose, J. Antonio, E. McDonald and S.S. Peterson. 2025. [Using Storytelling to Teach Tichų Language and Culture to Young Children in the Canadian Northwest Territories](#). *The Reading Teacher*, 78(6): 356-360. DOI: <https://doi.org/10.1002/trtr.2373>.
- Ehlers, L., E. Palm, J. Herriges, T. Bentzen, M. Sutor, K. Joly, J. Millspaugh, P. Donnelly, J. Gross, J. Wells, B. Larue and M. Hebblewhite. 2024. [A taste of space: Remote animal observations and discrete-choice models provide new insights into foraging and density dynamics for a large subarctic herbivore](#). *Animal Ecology*, 93(7): 891-905. DOI: [10.1111/1365-2656.14109](https://doi.org/10.1111/1365-2656.14109)

- Ehlers, L., G. Coulombe, J. Herriges, T. Bentzen, M. Sutor, K. Joly and M. Hebblewhite. 2021. [Critical summer foraging tradeoffs in a subarctic ungulate](#). *Ecology and Evolution*, 11(24): 17835-17872. DOI: <https://doi.org/10.1002/ece3.8349>.
- Environment and Climate Change (ECC), unpublished data. 2025a. Field Summary of the November 2024 Fall Composition Survey for the Tuktoyaktuk Peninsula and Cape Bathurst Herds. Unpublished report provided by T. Davison. Government of the Northwest Territories, Yellowknife, NT.
- Environment and Climate Change (ECC), unpublished data. 2025b. Survey Results for the Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East and Bathurst Barren-ground Caribou Herds. Presentations at the 2025 *Wildlife Act* s.15 Meeting. Data provided by A. Kelly (Ungulate Biologist) and T. Davison (Regional Biologist, Ungulates, Beaufort-Delta Region). 13 November 2025. Government of the Northwest Territories, Yellowknife, NT.
- Fernandez Velasco, P. 2025. [Ecological grief as a crisis in dwelling](#). *European Journal of Philosophy*, 33(1), pp.233-248. DOI: <https://doi.org/10.1111/ejop.12962>.
- Fugate, J., C. Wallace, E.O. Aikens, B. Jesmer and M. Kauffman. 2025. [Origin stories: how does learned migratory behaviour arise in populations?](#) *Biological Reviews*, 100(2), pp.996-1014. DOI: [10.1111/brv.13171](https://doi.org/10.1111/brv.13171).
- Fullman, T.J., K. Joly, D.D. Gustine and M.D. Cameron. 2025. [Behavioral responses of migratory caribou to semi-permeable roads in Arctic Alaska](#). *Scientific Reports*, 15(1): 24712. DOI: <https://doi.org/10.1038/s41598-025-10216-6>.
- Gagnon, C.A., S. Hamel, D.E. Russell, J. Andre, A. Buckle, D. Haogak, J. Pascal, E. Schafer, T. Powell, M.Y. Svoboda and D. Berteaux. 2023. [Climate, caribou and human needs linked by analysis of Indigenous and scientific knowledge](#). *Nature Sustainability*, 6: 769-779. DOI: <https://doi.org/10.1038/s41893-023-01085-w>.
- Giroux-Bougard, X. 2024. [Barren-ground caribou in a rapidly changing Arctic: Effects of lake ice phenology and monitoring methods on movement behaviour](#). PhD thesis, Department of Natural Resource Sciences, McGill University, Montréal, QC. 227pp.
- Government of the Northwest Territories (GNWT). 2019. [Bathurst Caribou Range Plan](#). Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT. iii + 86pp.
- Government of the Northwest Territories (GNWT). 2021. [Barren-Ground Caribou Population Surveys Indicate Positive Signs for Some Herds, and Ongoing Concerns for the Bathurst Herd](#). News release. 20 December 2021. <https://www.gov.nt.ca/en/newsroom/barren-ground-caribou-population-surveys-indicate-positive-signs-some-herds-and-ongoing>.
- Government of the Northwest Territories (GNWT). 2024. [Adapting Wildlife Conservation and Management to Climate Change in the Northwest Territories](#). Environment and Climate Change, Government of the Northwest Territories, Yellowknife, NT. 16pp.

- Government of the Northwest Territories (GNWT). 2025. [2025 population survey results released for the Bathurst and Bluenose-East Barren-Ground Caribou herds](#). News release. 13 November 2025. www.gov.nt.ca/en/newsroom/2025-population-survey-results-released-bathurst-and-bluenose-east-barren-ground-caribou.
- Government of the Northwest Territories (GNWT). 2025. [Knowledge Agenda: Northern Research for Northern Priorities 2025](#). Government of the Northwest Territories, Yellowknife, NT. 27pp.
- Government of the Northwest Territories (GNWT). 2026. [Wolf Management](#). Website: www.gov.nt.ca/ecc/en/services/barren-ground-caribou/wolf-management [Accessed 13 February 2026].
- Government of the Northwest Territories (GNWT) and Tłı̨chǫ Government (TG). 2024. [Government of the Northwest Territories and Tłı̨chǫ Government Joint Proposal on Management Actions for the Bluenose-East Barren-ground Caribou \(Sahti ekwǫ\) Herd 2024-2026](#). Proposal submitted to Wek'èezhii Renewable Resources Board, Yellowknife, NT.
- Green, D. 2024. [2023 Water Licence W2020L8-0001 Annual Report for the Tłı̨chǫ Highway](#). Prepared by North Star Infrastructure for the Government of the Northwest Territories Department of Infrastructure (GNWT-INF), Yellowknife, NT. 61pp.
- Green, D. 2025. [2024 Water Licence W2020L8-0001 Annual Report for the Tłı̨chǫ Highway](#). Prepared by North Star Infrastructure for the Government of the Northwest Territories Department of Infrastructure (GNWT-INF), Yellowknife, NT. 64pp.
- Grizzly Bear and Wolverine Biological and Management Feasibility Working Group. 2021. Grizzly Bear Biological Assessment and Potential Options for Managing Grizzly Bear Predation on the Range of the Bathurst and Bluenose-East Barren-ground Caribou Herds. Unpublished Report. Yellowknife, NT.
- Grizzly Bear and Wolverine Biological and Management Feasibility Working Group. 2022. Wolverine Biological Assessment for the Range of the Bathurst and Bluenose-East Barren-ground Caribou Herds. Unpublished Report. Yellowknife, NT.
- Gryba, R., A. Von Duyke, H.P. Huntington, B. Adams, B. Frantz, J. Gatten, Q. Harcharek, R. Sarren, G. Henry and M. Auger-Méthé. 2025. [Indigenous Knowledge as a sole data source in habitat selection functions](#). Proceedings of the National Academy of Sciences, 122(15). DOI: <https://doi.org/10.1073/pnas.2411946122>.
- Gunn, A. and D. Russell. 2022. [Update on the global status of wild reindeer and caribou](#). Article in Deer Specialist Group Newsletter (February 2022). International Union for Conservation of Nature Deer Specialist Group. www.deerspecialistgroup.org/article/1060.
- Gunn, A., and D. Russell. 2022. [Are migrating caribou losing the collective memory they rely on to survive?](#) Article in The Circle magazine, World Wildlife Fund Global Arctic Programme, issue 1.2022, p. 24.

- Gunn, A., A. Guile, L. Meinert and J. Pellissey. 2021. [Optimism for Caribou](#). Book chapter (pp. 81-92). In "Lines in the Snow," ed. C. Tesar and P.W. Lackenbauer. Canadian Arctic Resources Committee, Ottawa, ON.
- Gunn, A., B. Fournier, J. Williams and J. Adamczewski. 2024. [Technical Status Report for Muskoxen \(*Ovibos moschatus*\) in the Northwest Territories](#). GNWT Manuscript Report 315. 119pp.
- Gunn, A., D. Russell, K. Joly, L. Manzo, J. Pellissey, J. Tulagak and A.V. Whiting. 2024. [Migratory Tundra Caribou in a Warmer Climate](#). United States. National Oceanic and Atmospheric Administration Technical Report OAR ARC, 24-10 (Arctic Report Card). DOI: <https://doi.org/10.25923/qn4a-td90>.
- Gunn, A., J. Dragon, and J. Nishi. 1997. [Bathurst Calving Ground Survey 1996](#). File Report No. 119. Resources, Wildlife and Economic Development, Yellowknife, NT. 70pp.
- Gurarie, E. and A. Brose. 2025. [Collective Memory and Survival](#). Article in The Circle magazine, World Wildlife Fund Global Arctic Programme, issue 4.2025, p. 16.
- Gurarie, E., C. Beaupré, O. Couriot, M.D. Cameron, W.F. Fagan and K. Joly. 2024. [Evidence for an adaptive, large-scale range shift in a long-distance terrestrial migrant](#). Global Change Biology, 30(11): e17589. DOI: 10.1111/gcb.17589
- Gurarie, E., S. Potluri, G.C. Cosner, R.S. Cantrell and W.F. Fagan. 2021. [Memories of migrations past: Sociality and cognition in dynamic, seasonal environments](#). Frontiers in Ecology and Evolution, 9: 742920. DOI: 10.3389/fevo.2021.742920.
- Harding, L., E. Arnalok, R. Toolooktook, M. Awan, T. Shah, M. Sidloski, and D. Clark. 2025. [Participatory assessment of aklak \(*Grizzly bear, Ursus arctos*\) abundance and distribution in the Kivalliq Region, Nunavut](#). Prepared for the Department of Environment, Government of Nunavut.
- Heard, D.C. and J. Williams. 1991. Bathurst calving ground survey, June 1986. Government of the Northwest Territories. Unpublished report. Yellowknife, NT.
- Hee, O., J. Invik and S. Kutz. 2025. Community-based Wildlife Health Surveillance Program Summary – Interim Report for the Kitikmeot Regional Wildlife Board. Unpublished report. University of Calgary, Calgary, AB.
- Heim, R.J., A.V. Rocha, V. Zemlianskii, K. Barrett, H. Bültmann, A. Breen, G.V. Frost, T.N. Hollingsworth, R. Jandt, M. Kozlova, A. Kurka, M.T. Jorgenson, S.M. Landhäuser, M.M. Loranty, E.A. Miller, K. Narita, E. Pravdolyubova, N. Hölzel and G. Schaepman-Strub. 2025. [Arctic tundra ecosystems under fire—Alternative ecosystem states in a changing climate?](#) Journal of Ecology, 113(5): 1042–1056. <https://doi.org/10.1111/1365-2745.70022>
- Hein, W. 2025. [Mosquito and Oestrid Fly Harassment of Barren-Ground Caribou: Environmental Predictors and Caribou Responses](#). Master's thesis, Department of Natural Resources Sciences, McGill University, Montréal, QC. 135pp.

- High-Country Wildlife. 2023. Preliminary Analysis of Wolf Diet in Relationship to Caribou Herds in the Northwest Territories. Prepared for Wildlife Division, Department of Environment and Climate Change, Government of the Northwest Territories, Yellowknife, NT. 24pp.
- Hughes, J., S. Endicott, A.M. Calvert and C.A. Johnson. 2025. [Integration of national demographic-disturbance relationships and local data can improve caribou population viability projections and inform monitoring decisions](#). *Ecological Informatics*, 87: 103095. DOI: <https://doi.org/10.1016/j.ecoinf.2025.103095>.
- Im, S., S. Lee and E. Lee. 2025. [Perception of the residents in the Arctic region towards climate change: a case study](#). *International Journal of Global Warming*, 36(2), 149-170. DOI: <https://doi.org/10.1504/IJGW.2025.146269>.
- Inuvialuit Hunters and Trappers Committees. 2025. Sensitive Habitat Management for the Tuktoyaktuk Peninsula and Cape Bathurst Caribou Herds. Developed with support from the Inuvialuit Game Council and Wildlife Management Advisory Council (NWT). Inuvik, NT. 39pp.
- Jacobsen, P. 2022. [Ekwò Nàxoèhdee K'e - Watching caribou with our 'boots on the ground'](#). CIMP-94. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 7(50).
- Jenkins, E., É. Bouchard and A. Hernández-Ortiz. 2025. [Toxoplasma gondii: a parasite pollutant in the Arctic](#). *Trends in Parasitology*, 41(7). DOI: <https://doi.org/10.1016/j.pt.2025.05.003>.
- Jesmer, B., J. Fugate and M. Kauffman. 2025. [On the interface between cultural transmission, phenotypic diversity, demography and the conservation of migratory ungulates](#). *Philosophical Transactions B*, 380(1925): 20240131. DOI: <https://doi.org/10.1098/rstb.2024.0131>.
- Johnson, H.E., G.L. Coulombe, L.G. Adams, C. Arnison, P. Barboza, M. Kienzler, W.B. Leacock, and M.J. Suitor. 2025. [DNA metabarcoding and video camera collars yield different inferences about the summer diet of an arctic ungulate](#). *Ecosphere* 16(7):e70319. DOI: <https://doi.org/10.1002/ecs2.70319>.
- Jolin, E. 2025. [Quantifying Ecological Processes Predicting Barren-ground Caribou \(*Rangifer tarandus groenlandicus*\) Occurrence Across a Heterogenous Northern Indigenous Protected and Conserved Area](#). Master's thesis, Department of Biology, Wilfrid Laurier University, Waterloo, ON. 144pp.
- Jovtoulia, A.R. 2025. [Diet and habitat selection of gray wolves \(*Canis lupus*\) during the boreal caribou \(*Rangifer tarandus caribou*\) calving season in the southern Northwest Territories](#). Master's thesis, Department of Biological Sciences, University of Alberta, Edmonton, AB. 63pp.
- Keats, B. and L.J. Michel. 2022. [Mobilizing Indigenous Knowledge in Resource Management Settings: Guide for Practitioners](#). CIMP-128. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 7(41).

- Kelly, B.C., J.M. Sun, M.R.R. McDougall, E.M. Sunderland and F.A.P.C. Gobas. 2024. [Development and Evaluation of Aquatic and Terrestrial Food Web Bioaccumulation Models for Per- and Polyfluoroalkyl Substances](#). *Environmental Science and Technology*, 58(40): 17828–17837. DOI: <https://doi.org/10.1021/acs.est.4c02134>.
- Kohut, G., R. Losey, S. Kutz, K. Khidas and T. Nomokonova. 2024. [Assessing current visual tooth wear age estimation methods for Rangifer tarandus using a known age sample from Canada](#). *PLOS One*, 19(4): e0301408. DOI: <https://doi.org/10.1371/journal.pone.0301408>.
- Kohut, G., R. Losey, S. Kutz, K. Khidas, M. Pelletier and T. Nomokonova. 2025. [An improved age estimation method for caribou and reindeer using tooth eruption and wear](#). *Journal of Archaeological Science*, Volume 174: 106133. DOI: <https://doi.org/10.1016/j.jas.2024.106133>.
- Kölzsch, A., K. Safi, M.M. Armfield, C. Beaupré, E. Bennitt, M. Böck, W. Brown, C. Eichler, W. Fielder, C. Hahn, V. Jain, M.W. Ketchin, J.A. Long, A.V. Merdian-Tarko, L. Minchin, T. Neves de Matos, A. Rakesh, O.L. van Schalkwyk, M. Wikelski and A.K. Scharf. 2025. [Conservation scientist for MoveApps: Innovations and insights from volunteer coders in wildlife conservation](#). *Methods in Ecology and Evolution*, 16(8): 1550-1563. DOI: 10.1111/2041-210X.70101.
- Kroker, J., 2025. [Today's Road to Resources in the Canadian Arctic: An Analysis of the Grays Bay Port and Road Project](#). BA Honours thesis, Department of Public Policy and Governance, St. Francis Xavier University, Antigonish, NS. 99pp.
- Kutz, S. 2024. [How do parasites impact caribou health and population dynamics?](#) CIMP-214. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 9(64).
- Larue, B., A. Roberto-Charron, A. Dumond, A. Niptanatiak, A. Gunn, J. Adamczewski, E. Hedlinm, R. Winter, M. Perra, E. Gurarie and M. Hebblewhite. 2025. Understanding Predator-Prey Dynamics to Inform Caribou Recovery in the Central Canadian Arctic. Presentation given at [The Wildlife Society Conference](#) in Edmonton, AB in October 2025.
- Le Corre, M., V. Grimes, R. Lam and K. Britton. [Comparison between strip sampling and laser ablation methods to infer seasonal movements from intra-tooth strontium isotopes profiles in migratory caribou](#). 2023. *Scientific Reports*, 3621, 13(1). DOI: <https://doi.org/10.1038/s41598-023-30222-w>.
- Lemke, D., K. Linnell, T. Giroux-Robillard, J. Pellissey, J. Tetlich, V. Cleveland Sr., H.P. Huntington, H. Voorhees and T. Brinkman. 2024. ["Put on Your Caribou Hat": Challenges to and Strategies for Successful Co-Stewardship of North American Caribou Herds](#). *Arctic*, Vol. 77 No. 1 (2024): March 2024 1–103.
- Lessard, É., P. Walker and E. Vander Wal. 2025. [Northern development and Rangifer risks: A review of the impacts of resource extraction for caribou and reindeer](#). *Environmental Reviews*. DOI: <https://doi.org/10.1139/er-2025-0182>.
- Liao, Q., E. Gurarie and W.F. Fagan (in prep). [Dynamic Lake Ice Conditions Shape Caribou Water-Crossing Behavior in the Arctic](#). 53pp. [submitted for publication]

- López, A.B.G., A. Burke and S. Costamagno. 2025. [The ecomorphology of Caribou \(*Rangifer tarandus*\): a geometric morphometric study](#). Open Research Europe, 1:99. DOI: <https://doi.org/10.12688/openreseurope.13782.2>.
- Malik, I.H. and J.D. Ford. 2025. [Barriers and limits to adaptation in the Arctic](#). Current Opinion in Environmental Sustainability, 73: 101519. DOI: <https://doi.org/10.1016/j.cosust.2025.101519>.
- Malik, I.H., R. Ahmed, J.D. Ford and A.R. Hamidi. 2025. [Arctic Warming: Cascading Climate Impacts and Global Consequences](#). Climate, 13(85). DOI: <https://doi.org/10.3390/cli13050085>.
- Malpeli, K.C., S.C. Endyke, S.R. Weiskopf, L.M. Thompson, C.G. Johnson, K.A. Kurth and M.A. Carlin. 2024. [Existing evidence on the effects of climate variability and climate change on ungulates in North America: a systematic map](#). Environmental Evidence, 13(8). DOI: <https://doi.org/10.1186/s13750-024-00331-8>.
- Mariyam Thomas, A. 2023. [Determining the Geographic Distribution of Filarioid Nematodes in Caribou in Canada](#). Master's thesis, Veterinary Medical Sciences, University of Calgary, Calgary, AB. 73pp.
- Mariyam Thomas, A., G.G. Verocai, J. Soghigian, F. Mavrot, N. Jutha, J. Adamczewski, T. Davison, G. Duytschaever, A. Fernandes, A. Kelly, M.R. Kulpa, E. Lamontagne, L.-M. Leclerc, S. McCarthy, A. McLaren, A.D. Melin and S.J. Kutz. 2025. [Widespread geographic distribution of filarioid nematodes in caribou \(*Rangifer tarandus* spp.\) in Canada](#). International Journal for Parasitology: Parasites and Wildlife, 26: 101030. DOI: <https://doi.org/10.1016/j.ijppaw.2024.101030>.
- Matias, M. T., J.M. Ramage, E. Gurarie and M.J. Brodzik. 2024. [Snowmelt onset and caribou \(*Rangifer tarandus*\) spring migration](#). Remote Sensing, 16(13): 2391. DOI: [10.3390/rs16132391](https://doi.org/10.3390/rs16132391).
- Mavrot, F., O.A. Aleuy, T. Forde and S.J. Kutz. 2022. [Erysipelas in Arctic and Northern Regions](#) [in M. Tryland, Eds. (Arctic One Health)]. DOI: https://doi.org/10.1007/978-3-030-87853-5_16.
- McConnell, M. and W.F. Fagan (in prep). [Drivers of periodicity in population dynamic models of long-lived, large mammals](#). 54pp. [submitted for publication]
- McKnight, E. 2025. [Defining Calving Ground Selection for the Bathurst Herd of Barren-Ground Caribou](#). Master's thesis, Department of Geography and Planning, Queen's University, Kingston, ON. 105pp.
- Mennell, R. 2021. [Spatial and Temporal Trends in Range-use by the Bathurst Caribou During a Population Decline, 1997-2019](#). Master's thesis, Department of Geography and Planning, Queen's University, Kingston, ON. 132pp.
- Miller, C.J., 2025. [Restricting Oil and Gas Leases through Withdrawals under OCSLA: Can a President Rescind?](#) Environmental Law Reporter, 55:10153.
- Molla, S., A. Jerome, J. Conley, J. Israel and A. Van Loon. 2024. [Caribou Hunting Stories and Sustainable Co-living](#). Xàgots'eèhk'ò Journal, 2(2): 52-61.

- Muir, D., M.J. Gunnarsdóttir, K. Koziol, F.A. von Hippel, D. Szumińska, N. Ademollo, S. Corsolini, A. De Silva, G. Gabrielsen, R. Kallenborn, Ž. Polkowska, E. Krümmel and K. Vorkamp. 2025. [Local sources versus long-range transport of organic contaminants in the Arctic: future developments related to climate change](#). *Environmental Science: Advances*, 4(3), pp.355-408. DOI: <https://doi.org/10.1039/D4VA00240G>.
- Nagy, J.A. 2009. Population Estimates for the Cape Bathurst and Bluenose-West Barren-ground Caribou Herds Using Post-calving Photography. Unpublished GNWT Manuscript Report. Environment and Natural Resources, Yellowknife, NT. 212pp.
- Nagy, J.A., and D. Johnson. 2006. [Estimates of the Number of Barren-ground Caribou in the Cape Bathurst and Bluenose-West Herds and Reindeer/Caribou on the Upper Tuktoyaktuk Peninsula Derived Using Post Calving Photography, July 2006](#). GNWT Manuscript Report 171. Environment and Natural Resources, Yellowknife, NT. 66pp.
- Nettles, J.M., C.M. Abramowitz, W.W. Boone, S.N. Harris, C.E. Horton, M.P. Keating, D.L. Nelson, S.N. Smith, K.N. Steen, E.K. Buchholtz and D.S. Jachowski. 2025. [The American Black Bear \(*Ursus americanus*\) as an Apex Predator: Investigating the Ecological Role of the World's Most Abundant Large Carnivore](#). *Mammal Review*, 56(1): e70014. DOI: <https://doi.org/10.1111/mam.70014>.
- Nishi, J., R. Mulders, K. Clark, S. Behrens, R. Abernethy, S. Shiga, D. Cluff, R. Kite and J. Shaw. 2024. [Wolf \(Diga\) Management Pilot Program Technical Report 2020](#). GNWT Manuscript Report 313. 254pp.
- North Slave Métis Alliance. 2025. [Traditional Knowledge Protocols](#). North Slave Métis Alliance, Yellowknife, NT. 7pp.
- NWT Cumulative Monitoring Program (NWT CIMP). 2022. [Bridging Traditional and Scientific Knowledge to understand the role of pathogens in the decline of an Arctic species – Quantitative Modeling Workshop February 1-2, 2022](#). NWT Cumulative Monitoring Program. 9pp.
- NWT Grizzly Bear and Wolverine Biological and Management Feasibility Working Group. 2022. [Wolverine Biological Assessment for the Range of the Bathurst and Bluenose-East Barren-ground Caribou Herds](#). Yellowknife, NT. 37pp.
- Olson, J.R.M. 2025. [Investigating Pestivirus Infections in Barren-ground and Dolphin Union Caribou: Strain Identification and Diagnostic Test Refinement](#). Master's thesis, Veterinary Medical Sciences, University of Calgary, Calgary, AB.
- Orndahl, K.M., L.P.W. Ehlers, J.D. Herriges, R.E. Pernick, M. Hebblewhite and S.J. Goetz. 2022. [Mapping tundra ecosystem plant functional type cover, height, and aboveground biomass in Alaska and northwest Canada using unmanned aerial vehicles](#). *Arctic Science*, 8(4): 1165-1180. DOI: 10.1139/AS-2021-0044.
- Orndahl, K., L. Berner, M.J. Macander, M.F. Arndal, H.D. Alexander, E.R. Humphreys, M.M. Loranty, S. Ludwig, J. Nyman, S. Juutinen, M. Aurela, M. Juha, M.C. Mack, M. Rose, M. Vankoughnett, C. Iversen, V.G. Salmon, J. Kumar, D. Yang, P. Grogan, R.K. Danby, N. Scott, G. Pold, J.

- Olofsson, M.B. Siewert, L. Deschamps, E. Lévesque, V. Maire, G. Gauthier, S. Boudreau, A. Gaspard, M.S. Bret-Harte, M.K. Reynolds, D. Walker, A. Michelsen, T. Kumpula, M.I. Villoslada, H. Yläanne, M. Luoto, T. Virtanen, H.E. Greaves, B.C. Forbes, R.J. Heim, N. Hölzel, H.E. Epstein, A.G. Bunn, R.M. Holmes, S. Natali, A.-M. Virkkala and S.J. Goetz. 2024a. [Next Generation Arctic Vegetation Maps: Aboveground Plant Biomass and Woody Dominance Mapped at 30m Resolution Across the Tundra Biome](#). *Remote Sensing of Environment*, 323: 114717. DOI:10.1016/j.rse.2024.114717.
- Orndahl, K.M., T.W. Bentzen, L.T. Berner, L.P.W. Ehlers, M. Hebblewhite, J.D. Herriges, K. Joly, M.J. Macander, E.C. Palm, M.J. Sutor and S.J. Goetz. 2025. [Shifting and expanding ranges of a sub-Arctic caribou herd and associated changes in vegetation](#). *Ecological Applications*, 35(4):e70038. DOI: <https://doi.org/10.1002/eap.70038>.
- Pellissey, J. and M. Routh. 2023. [New decision-support tools for understanding cumulative impacts on barren-ground caribou in the NWT](#). CIMP-207. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 8(55).
- Perra, M., A. Kelly, S. Chamaillé-Jammes, E. Çoban and E. Gurarie. 2025. Listening to Barren-ground Caribou (Ekwò, Tuktu): Using Animal-Borne Audio to Monitor Fine Scale Behavior. Presentation given at [The Wildlife Society Conference](#) in Edmonton, AB in October 2025.
- Phelan, O. 2024. [NSMA Winter Road Monitoring Interim Report 2024](#). North Slave Métis Alliance, Yellowknife, NT. 31pp.
- Phelan, O. and A. Cox. 2025. Quantifying Harvest off the Tibbitt to Contwoyto Winter Road on Barren-ground Caribou in the Northwest Territories – An Indigenous Guardian-led Initiative. Presentation given at [The Wildlife Society Conference](#) in Edmonton, AB in October 2025.
- Porcupine Caribou Technical Committee (PCTC). 1993. [Sensitive Habitats of the Porcupine Caribou Herd](#). Prepared for the International Porcupine Caribou Board (IPCB), January 1993. 29pp.
- Porcupine Caribou Technical Committee (PCTC). 2021. [Porcupine Caribou Annual Summary Report 2020 – 2021](#). Prepared for the Porcupine Caribou Management Board (PCMB), December 9, 2021. 38pp.
- Porcupine Caribou Technical Committee (PCTC). 2022. [Porcupine Caribou Annual Summary Report 2021 – 2022](#). Prepared for the Porcupine Caribou Management Board (PCMB), November 15, 2022. 40pp.
- Porcupine Caribou Technical Committee (PCTC). 2024. [Porcupine Caribou Annual Monitoring Update, Annual Summary Report 2022 – 2023](#). Prepared for the Porcupine Caribou Management Board (PCMB). 24pp.
- Porcupine Caribou Technical Committee (PCTC). 2025. [Porcupine Caribou Annual Monitoring Update, Annual Summary Report 2023 – 2024](#). Prepared for the Porcupine Caribou Management Board (PCMB). 28pp.

- Porcupine Caribou Technical Committee (PCTC). 2026. [Porcupine Caribou Annual Monitoring Update, Annual Summary Report 2024 – 2025](#). Prepared for the Porcupine Caribou Management Board (PCMB). 28pp.
- Post, E., P.S. Bøving, R.C. Higgins, C. John, M. Post, B. O'Connor, J.P. Reimer, N. Williamson and J.T. Kerby. 2025. [A framework for reproductive outcomes of phenological match–mismatch in migratory breeders tested on a declining species, caribou](#). PNAS Nexus, 4(6): pgaf188. DOI: <https://doi.org/10.1093/pnasnexus/pgaf188>.
- Rahman, F. 2024. [What have we learned? Navigating the climate change research landscape in Nunavut \(2004-2021\)](#). Master's thesis, Faculty of Arts, McMaster University, Hamilton, ON. 242pp.
- Rakic, F., X.F. Aguilar, M. Pruvot, D.P. Whiteside, G.F. Mastromonaco, L.-M. Leclerc, N. Jutha and S.J. Kutz. 2023. [Variation of hair cortisol in two herds of migratory caribou \(*Rangifer tarandus*\): implications for health monitoring](#). Conservation Physiology, 11(1). DOI: <https://doi.org/10.1093/conphys/coad030>.
- Rentmeister, C. 2024. [Variation in mainland Northwest Territories late-winter muskox \(*Ovibos moschatus*\) density estimations and habitat associations above and below treeline](#). Master's thesis, Department of Biology, Wilfrid Laurier University, Waterloo, ON. 140pp.
- Russell, D.E., K.R. Whitten, R. Farnell and D. van de Wetering. 1992. [Movements and distribution of the Porcupine Caribou Herd, 1970-1990](#). Technical Report Series No. 138. Canadian Wildlife Service, Pacific and Yukon Region, British Columbia.
- Russell, D., R.G. White, and A. Gunn. 2024. [Understanding productivity of North American migratory tundra caribou \(*Rangifer tarandus*\): Role of vital rates and climate](#). GNWT Manuscript Report 312. 55pp.
- Sahtú Renewable Resources Board (ʔehdzo Got'Inę Gots'ę Nákedı) (SRRB). 2023. [ʔelets'ewéhkwe Godı \(Living with Wildlife\) – Predators and Competitors: Report on the Déljné 2021 Public Listening \(Hearing\) Session](#). Sahtú Renewable Resources Board, Tulı́t'a, NT.
- Sahtú Renewable Resources Board (ʔehdzo Got'Inę Gots'ę Nákedı) (SRRB). 2025a. [Caribou Conservation, Climate Change and Wildfires: Report on Tłegóhı́ \(Norman Wells\) Public Listening \(Hearing\) Session](#). Sahtú Renewable Resources Board, Tulı́t'a, NT.
- Sahtú Renewable Resources Board (ʔehdzo Got'Inę Gots'ę Nákedı) (SRRB). 2025b. Women's Harvest Workshops – Tulı́t'a, NT. Sahtú Renewable Resources Board, Tulı́t'a, NT.
- Smith, A. 2022. [Behavioural, Physiological, and Movement Relationships Between Barren-ground Caribou and Industrial Infrastructure in the Northwest Territories](#). Master's thesis, Natural Resources and Environmental Studies, University of Northern British Columbia, Prince George, BC. 134pp.
- Smith, A. and C. Johnson. 2022. [Why did the caribou cross the road? Barren-ground caribou and an industrial winter road](#). CIMP-208. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 7(44).

- Smith, A., N. Wright, A. Johnson, D. Greenacre, and R. Lemmond. 2024. [Threats to Biodiversity – Climate Change](#). GNWT Manuscript Report 310. 49pp.
- Snyman, J., L.P. Snyman, K.J. Buhler, C.-A. Villeneuve, P.A. Leighton, E.J. Jenkins and A. Kumar. 2023. [California Serogroup Viruses in a Changing Canadian Arctic: A Review](#). *Viruses*, 15(6): 1242. DOI: <https://doi.org/10.3390/v15061242>.
- Species at Risk Committee (SARC). 2017. [Species Status Report for Porcupine Caribou and Barren-ground Caribou \(Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst, Beverly, Ahiak, and Qamanirjuaq herds\) \(*Rangifer tarandus groenlandicus*\) in the Northwest Territories](#). Species at Risk Committee, Yellowknife, NT.
- Species at Risk Committee (SARC) (in prep). Species Status Report for Porcupine Caribou and Barren-ground Caribou (Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst, Beverly, Ahiak, and Qamanirjuaq herds) (*Rangifer tarandus groenlandicus*) in the Northwest Territories. Species at Risk Committee, Yellowknife, NT.
- Stratos, an ERM Group Company. 2023. [2022 Virtual Mackenzie Valley Resource Management Act \(MVRMA\) Workshop Series, Session 4: Climate Change - Workshop Report](#). Submitted to the Mackenzie Valley Environmental Impact Review Board. 37pp.
- Stubbs, T., M. Carlson, and J. Nishi. 2023. [Barren-ground Caribou Range Land-use Scenarios in the NWT 2022 – 2072](#). Prepared for the Cumulative Effects Assessment of Four Barren-ground Caribou Herds in the NWT project funded by NWT CIMP and Environment and Climate Change Canada. Yellowknife, NT. 23pp.
- Tattersall, E., W. Cardinal-McTeague, I. Myers-Smith, D.A. Jenkins and A.C. Burton. 2025. [Affirming Indigenous data sovereignty in collaborative wildlife conservation in the era of open data](#). *People and Nature*, 7, 2659–2677. DOI: <https://doi.org/10.1002/pan3.70161>
- Taylor, R.S., M. Manseau, P. Liu and P.J. Wilson. [Protocol for genetic load analysis in caribou using a modified genomic evolutionary rate profiling](#). *STAR Protocols*, 6(2): 103789. DOI: <https://doi.org/10.1016/j.xpro.2025.103789>.
- Taylor, R.S., M. Manseau, S. Keobouasone, P. Liu, G. Mastro Monaco, K. Solmundson, A. Kelly, N.C. Larter, M. Gamberg, H. Schwantje, C. Thacker, J. Polfus, L. Andrew, D. Hervieux, D. Simmons, P.J. Wilson. 2024. [High genetic load without purging in caribou, a diverse species at risk](#). *Current Biology*, 34(6): 1234-1246. DOI: <https://doi.org/10.1016/j.cub.2024.02.002>.
- Thompson, P.R., P.D. Harrington, C.D. Mallory, S.R. Lele, E.M. Bayne, A.E. Derocher, M.A. Edwards, M. Campbell and M.A. Lewis. 2024. [Simultaneous estimation of the temporal and spatial extent of animal migration using step lengths and turning angles](#). *Movement Ecology*, 12(1). <https://doi.org/10.1186/s40462-023-00444-8>.
- Tłı̄chq̄ Government. 2023. [Tłı̄chq̄ Wenek'e Land Use Plan](#) (Updated). Tłı̄chq̄ Government, Behchok̄, NT. 72pp.

- Trailmark Systems (Trailmark) and Lutsel K'e Dene First Nation (LKDFN). 2022. [Mobilizing Indigenous Knowledge in Resource Management Settings: A Practical Guide](#). Victoria, BC. 133pp.
- Trottier-Lavoie, M., J. Prunier, W. Poisson, A. Carrier, I. Gilbert, G. Mastromonaco, V. Albert, C. Hernandez, V. Bourret, J. Taillon, A. Droit, S.D. Côté, and C. Robert. 2024. [Validation of a 60K SNP chip for caribou \(*Rangifer tarandus*\) for use in wildlife forensics, conservation, and management](#). Forensic Science International: Animals and Environments. 6: 100093. <https://doi.org/10.1016/j.fsiae.2024.100093>
- Turner, J., S. Haché, J. Hodson, P. McLoughlin, T. Micheletti, M. Peers, A. Pelletier and E. McIntire. 2025. [Inferring wildlife population trends from hierarchical habitat selection: a case study with boreal caribou](#). Authorea. DOI: 10.22541/au.175103842.25221138/v2.
- University of Northern British Columbia (UNBC). 2026. [Examining the impacts of large-scale wolf removal in the North](#). Online article. 7 January 2026. www.unbc.ca/our-stories/story/examining-impacts-large-scale-wolf-removal-north.
- Van Driessche, L., J. Ducrocq, S. Kutz, B. Elkin, J. Taillon, S.D. Côté, V. Brodeur, C. Cuyler and S. Lair. 2025. [Besnoitia spp. Infection of the Testis, Peritesticular Structures, and Udder Skin in Migratory Caribou \(*Rangifer tarandus*\)](#). The Journal of Wildlife Diseases, 61(4): 991-1000. DOI: 10.7589/JWD-D-25-00005.
- Vuillaume, B., M. Leblond, M. Festa-Bianchet and S.D. Côté. 2024. [Morphological Traits Are Not Consistently Related to Population Size in Four Migratory Caribou Populations Across North America](#). Ecology and Evolution, 14(10): e70468. DOI: <https://doi.org/10.1002/ece3.70468>.
- Wehr, N.H., H.M. Boone, M. van den Bosch, A.Z. Perez, K.L. Wehr, S.R. Wehr and J.L. Belant. 2025. [Interspecific carnivore competition and ungulate predation correlate with predator species richness](#). Ecology, 106(6): e70136. DOI: <https://doi.org/10.1002/ecy.70136>.
- Wek'èezhii Renewable Resources Board. 2025. [Wek'èezhii Renewable Resources Board Recommendations and Reasons for Decision on Management Actions for Sahti Ekwò \(Bluenose-East Caribou\) Herd](#). 23pp.
- Williams, T.M. 1995. [Beverly Calving Ground Surveys June 5-16, 1993 and June 2-13, 1994](#). File Report No. 114. Government of the Northwest Territories, Department of Renewable Resources, Yellowknife, NT.
- Williams, T.M. 1994. Qamanirjuaq Caribou Calving Ground Survey. Government of the Northwest Territories, Department of Renewable Resources. Unpublished report. Yellowknife, NT.
- Wilson, A., J. Hodson, R. Abernethy, S. Behrens, N. Jutha, J. Nishi and B. Woodworth. 2025. [Technical Report: Wolf \(Diga\) Management Program January – October 2024](#). GNWT Manuscript Report 335. xi + 76pp.
- Wilson, A., J. Nishi, D. Cluff, B. Olson, J. Shaw, R. Kite, S. Behrens, N. Jutha, R. Abernethy, N. Wilson and K. Clark. 2023. [Technical Report: Wolf \(Diga\) Management Program January – June 2022](#). GNWT Manuscript Report 307. xii + 93pp.

- Wilson, A., R. Abernety, D. Cluff, S. Behrens, N. Jutha, J. Nishi, J. Gorrell and B. Woodworth. 2024. [Technical Report: Wolf \(Diga\) Management Program December 2022 – September 2023](#). GNWT Manuscript Report 327. xii + 87pp.
- Wilson, S.F. 2025. [Causal attribution from retrospective data in Canada's woodland caribou system](#). Ecological Applications, 35(3): e70022. DOI: <https://doi.org/10.1002/eap.70022>.
- Winbourne, J. and K. Benson. 2021. [Species Status Report \(Traditional and Community Knowledge Component\) for Muskoxen \(*Ovibos moschatus*\) in the Northwest Territories](#). GNWT Manuscript Report 292. xii + 92pp.
- Yellowknives Dene First Nation (YKDFN). 2022. [Developing a YKDFN Cumulative Effects Framework](#). CIMP-201. NWT Environmental Research Bulletin, NWT Cumulative Impact Monitoring Program, 7(43).
- Yustyniuk, V., G.A. Keller, M.D. Schwabenlander, K.J. Bondo, S.A. Christensen and T.M. Wolf. 2025. [Current Biosecurity Practices in the Handling and Sampling of Cervids: A Cross-Sectional Survey](#). Journal of Wildlife Diseases, 61(4):967-981. DOI: 10.7589/JWD-D-25-00007.
- Zoe, J.B., R.J. Hall, and T.W. Lim. 2025. [Reading mine closure through Tłı̨ chų self-determination](#). Journal of Political Ecology, 32(1). DOI: <https://doi.org/10.2458/jpe.7585>.

APPENDIX A – PROGRESS REPORT PARTNERS

The following management partners were primarily responsible for developing this progress report on barren-ground caribou. See *Section 2 – Management Partners for Barren-ground Caribou* (page 12) for more information on other organizations that contributed to its development.

Wildlife Management Advisory Council (NWT)

The Wildlife Management Advisory Council (NWT) advises governments on wildlife policy, management, regulation and administration of wildlife, habitat, and harvesting in the NWT portion of the Inuvialuit Settlement Region (Inuvialuit Final Agreement, section 14). The Wildlife Management Advisory Council (NWT) works collaboratively with the Inuvialuit Game Council, Hunters and Trappers Committees, and government in research, monitoring and management of wildlife and habitat. The Wildlife Management Advisory Council (NWT) consults regularly with the Inuvialuit Game Council and Hunters and Trappers Committees, and these groups assist the Council in carrying out its functions, upon request.

Gwich'in Renewable Resources Board

The Gwich'in Renewable Resources Board is the main instrument of wildlife management in the Gwich'in Settlement Area. Its powers include approving plans for the management and protection of particular wildlife populations (including endangered species), particular wildlife habitats, and forests (Gwich'in Comprehensive Land Claim Agreement, sections 12 and 13). The Gwich'in Renewable Resources Board works collaboratively with renewable resources councils and government in research, monitoring, and management of wildlife and habitat. The Gwich'in Renewable Resources Board consults regularly with the renewable resources councils, and its management authority may be delegated to renewable resources councils

ʔehdzo Got'įnę Gots'ę Nákedı

ʔehdzo Got'įnę Gots'ę Nákedı (Sahtú Renewable Resources Board) is the main instrument of wildlife management in the Sahtu Settlement Area. Its powers include approving plans for the management and protection of particular wildlife populations (including endangered species), particular wildlife habitats, and forests (Sahtu Dene and Metis Comprehensive Land Claim Agreement, sections 13 and 14). ʔehdzo Got'įnę Gots'ę Nákedı works collaboratively with renewable resources councils and government in research, monitoring, and management of wildlife and habitat. ʔehdzo Got'įnę Gots'ę Nákedı consults regularly with the renewable resources councils, and management authority may be delegated to renewable resources councils.

Wek'èezhii Renewable Resources Board

The Wek'èezhii Renewable Resources Board is the wildlife co-management authority responsible for managing wildlife, wildlife habitat, forests, plants, and protected areas in Wek'èezhii as set out in the Tł̨chq̨ Agreement (Tł̨chq̨ Agreement, sections 12-14 & 16). Responsibilities include making determinations or recommendations on management proposals for activities that may affect wildlife and wildlife habitat. The Wek'èezhii Renewable Resources Board works collaboratively

with the Tłıchǫ communities and Tłıchǫ, territorial, and federal governments in research, monitoring, and management of wildlife and habitat.

Tłıchǫ Government

The Tłıchǫ Government has powers to enact laws in relation to the use, management, administration, and protection of lands and renewable resources on Tłıchǫ lands. This includes laws relating to the management and exercise of harvesting rights for wildlife, plants, and trees (Tłıchǫ Agreement, section 7). The Tłıchǫ Government has prepared the Tłıchǫ Land Use Plan to assist in managing approximately 39,000 km² of Tłıchǫ lands. The Plan provides a guide for future development by outlining how Tłıchǫ land will be protected and how activities and development on Tłıchǫ lands should occur.

Government of the Northwest Territories

The Government of the Northwest Territories (GNWT), represented by the Minister of Environment and Climate Change (ECC), has ultimate responsibility for the conservation and management of wildlife, wildlife habitat and forest resources in the NWT, subject to land claims and self-governance agreements. It is the Minister of ECC's ultimate responsibility to prepare and complete management plans and recovery strategies under the *Species at Risk (NWT) Act*. ECC engages with other GNWT departments on species at risk issues through the Inter-departmental Species at Risk Committee, inter-departmental committees of Directors and Deputy Ministers, and Executive Council.

Government of Canada

The Government of Canada has ultimate responsibility for the management of migratory birds (as described in the *Migratory Birds Convention Act, 1994*), fish, marine mammals, and other aquatic species (as described in the *Fisheries Act*). It also has responsibilities for the implementation of the federal *Species at Risk Act*, including enforcement of the general prohibitions and critical habitat prohibitions where listed species occur on federal lands that belong to his Majesty, in Right of Canada, or under the direct authority of the Minister of the Environment (national wildlife areas and migratory bird sanctuaries) and the Minister responsible for the Parks Canada Agency (national parks, national park reserves and national historic sites). Although identified as a Management Authority in the *Species at Risk (NWT) Act*, the Government of Canada has chosen not to be a signatory to CMA consensus agreements.

Co-management partners for barren-ground caribou

The following governments, advisory boards, councils and committees also have responsibilities for barren-ground caribou that range into the NWT and were invited to contribute to this progress report:

Advisory Committee for Cooperation on Wildlife Management – Established in 2008 to exchange information and make recommendations on the management, conservation and recovery of the Cape Bathurst, Bluenose-West and Bluenose-East caribou herds. Membership includes management partners from across the ranges of these herds.

Aullaviat/Anguniarvik Working Group – The Inuvialuit-led Aullaviat/Anguniarvik Traditional Conservation Area (TCA) was established in June 2024 on the north slope of the Yukon adjacent to Ivvavik National Park to support important wildlife populations, including the Porcupine caribou herd. The Working Group oversees the conservation and protection of Aullaviat/Anguniarvik and is developing a team of Inuvialuit Guardians to monitor, protect, and care for the land and waters. The Working Group is made up of seven representatives from Aklavik, NWT.

Bathurst Caribou Advisory Committee – Formed in 2017, the BCAC is made up of 14 governments and organizations from the NWT, Nunavut and Saskatchewan. The BCAC developed the Bathurst Caribou Management Plan and is responsible for putting it into action.

Beverly and Qamanirjuaq Caribou Management Board – A co-management board established to safeguard the Beverly and Qamanirjuaq barren-ground caribou herds. Created in 1982, the BQCMB was the first caribou co-management board in North America. Members represent Indigenous groups, communities, and government agencies from Nunavut, NWT, Saskatchewan, and Manitoba.

Governments of Nunavut, Yukon, Saskatchewan and Manitoba – Neighbouring provincial and territorial governments are partners in the co-management of NWT barren-ground caribou herds through shared management and monitoring efforts. These governments have management authority for wildlife conservation and/or the recovery of species at risk through provincial and territorial legislation and regulations, and lead or support monitoring for several shared herds, including Porcupine, Beverly, Ahlak and Qamanirjuaq. Co-management boards, such as the Beverly and Qamanirjuaq Caribou Management Board and the Porcupine Caribou Management Board, play a key role in coordination between jurisdictions.

Inuvialuit Game Council – Represents the collective Inuvialuit interest in all matters pertaining to the management of wildlife and their habitat in the Inuvialuit Settlement Region. Duties include advising government agencies, through co-management bodies, on renewable resource policy, legislation, regulation, and on any proposed Canadian position for international purposes that affects wildlife in the Inuvialuit Settlement Region. The IGC also allocates wildlife Inuvialuit quotas among six communities within the Inuvialuit Settlement Region.

Thaidene Nënë Xá Dá Yáłtı – Management board of the Thaidene Nënë Indigenous Protected Area, Thaidene Nënë Xá Dá Yáłtı provides guidance on planning, management, operation, monitoring, and evaluation within the protected area. Board members are appointed by the Łutsël K'é Dene First Nation, Northwest Territory Métis Nation, Parks Canada, and the GNWT.

Tuktut Nogait National Park Management Board – Responsible for managing Tuktut Nogait National Park, it includes representatives from Indigenous communities and governments. The board plays a key role in park planning, operation, and management, ensuring the incorporation of both traditional and scientific knowledge.

Co-management partners for Porcupine caribou

Management of the Porcupine caribou herd is guided by two advisory boards: the Porcupine Caribou Management Board (PCMB) in Canada and the International Porcupine Caribou Board (IPCB).

While the Porcupine caribou herd is not considered a species at risk, these boards play an important role in supporting the sustainable, coordinated management of the herd.

International Porcupine Caribou Board – Administers the Canada-United States [Agreement on the Conservation of the Porcupine Caribou Herd](#) (1987). The Board consists of four members from Canada and four members from the United States and provides advice and recommendations to the governments of Canada, Yukon, Northwest Territories, Alaska and the United States on matters relating to the protection and management of the Porcupine caribou herd.

Porcupine Caribou Management Board – An advisory board established under the [Porcupine Caribou Management Agreement](#) (1985) to communicate information about the herd and provide recommendations to agencies responsible for managing the herd.

Porcupine Caribou Technical Committee – Made up of individuals knowledgeable of Porcupine caribou biology and herd management, the PCTC is responsible for monitoring the health of the herd and its habitat. It is made up of federal, state, and territorial representatives in Alaska, Yukon and the NWT, along with representation from the Porcupine Caribou Management Board.

APPENDIX B – ADDITIONAL RESEARCH

Studies on barren-ground caribou and the factors affecting their well-being are numerous. The following research papers were published within the reporting period (2021-2025). They are listed according to the (most relevant) approach they address and sorted alphabetically by lead author.

While we have attempted to be as comprehensive as possible, we recognize that there may be research conducted on barren-ground caribou within this period that is not listed here.

Approach 2.3: Monitor the impacts of other key factors affecting barren-ground caribou and their habitat, including, for example, diet, contaminants, disease, parasites, insects, and climate change.

Topic	Title	Source
Disease and pathogens	Brucellosis emergence in the Canadian Arctic	Aguilar <i>et al.</i> 2024
Disease and pathogens; climate change	Association of Environmental Factors with Seasonal Intensity of <i>Erysipelothrix rhusiopathiae</i> Seropositivity among Arctic Caribou	Aleuy <i>et al.</i> 2022
Disease and climate change	Environmental stressors and zoonoses in the Arctic: Learning from the past to prepare for the future	Andersen-Ranberg <i>et al.</i> 2024
Diet, migration, climate change	Variation in stable carbon ($\delta^{13}\text{C}$) and nitrogen ($\delta^{15}\text{N}$) isotope compositions along antlers of Qamanirjuaq caribou (<i>Rangifer tarandus groenlandicus</i>)	Brenning <i>et al.</i> 2024
Diet, migration, climate change	Stable Isotopes of Carbon and Nitrogen in Female Qamanirjuaq Caribou (<i>Rangifer tarandus groenlandicus</i>) Antlers in Relation to Diet and Physiology	Brenning <i>et al.</i> 2025
Disease and pathogens	Widespread Exposure to Mosquitoborne California Serogroup Viruses in Caribou, Arctic Fox, Red Fox, and Polar Bears, Canada	Buhler <i>et al.</i> 2023
Disease and pathogens	Widespread exposure to <i>Francisella tularensis</i> in <i>Rangifer tarandus</i> in Canada and Alaska	Buhler <i>et al.</i> 2024

Calving and climate	Continental synchrony and local responses: Climatic effects on spatiotemporal patterns of calving in a social ungulate	Couriot <i>et al.</i> 2023
Factors affecting summer range distribution	Relationship between Climate-Induced Changes and Spatial-Temporal Trends of the Bathurst Caribou Herd During Rapid Population Decline (1997-2017)	Cross 2024
Disease and pathogens; climate change	A call for a coherent One Health strategy for the surveillance of climate-sensitive infectious diseases in the Canadian Arctic and subarctic regions	Daigle <i>et al.</i> 2024
Disease and pathogens	Digital dermatitis-associated <i>Treponema</i> species detection and quantification in migratory tundra caribou (<i>Rangifer tarandus</i>)	Dias <i>et al.</i> 2024
Parasites	Life history matters: Differential effects of abomasal parasites on caribou fitness	Dickinson <i>et al.</i> 2023
Climate change	State of polar climate (2024)	Ding <i>et al.</i> 2025
Climate change	The Arctic	Druckenmiller <i>et al.</i> , Eds. 2024
Diet	Critical summer foraging tradeoffs in a subarctic ungulate	Ehlers <i>et al.</i> 2021
Ice conditions and monitoring methods	Barren-ground caribou in a rapidly changing Arctic: Effects of lake ice phenology and monitoring methods on movement behaviour	Giroux-Bougard 2024
Climate change	Migratory Tundra Caribou in a Warmer Climate	Gunn <i>et al.</i> 2024
Climate change	Arctic tundra ecosystems under fire—Alternative ecosystem states in a changing climate?	Heim <i>et al.</i> 2025
Insects	Mosquito and Oestrid Fly Harassment of Barren-Ground Caribou: Environmental Predictors and Caribou Responses	Hein 2025
Parasites	<i>Toxoplasma gondii</i>: a parasite pollutant in the Arctic	Jenkins <i>et al.</i> 2025

Diet	DNA metabarcoding and video camera collars yield different inferences about the summer diet of an arctic ungulate	Johnson <i>et al.</i> 2025
Factors affecting distribution	Quantifying Ecological Processes Predicting Barren-Ground Caribou (<i>Rangifer tarandus groenlandicus</i>) Occurrence Across a Heterogenous Northern Indigenous Protected and Conserved Area	Jolin 2025
Contaminants	Development and Evaluation of Aquatic and Terrestrial Food Web Bioaccumulation Models for Per- and Polyfluoroalkyl Substances	Kelly <i>et al.</i> 2024
Parasites	How do Parasites Impact Caribou Health and Population Dynamics?	Kutz 2024
Climate change	Arctic Warming: Cascading Climate Impacts and Global Consequences	Malik <i>et al.</i> 2025
Climate change	Existing evidence on the effects of climate variability and climate change on ungulates in North America: a systematic map	Malpeli <i>et al.</i> 2024
Parasites	Determining the geographic distribution of filarioid nematodes in caribou in Canada	Mariyam Thomas 2023
Parasites	Widespread geographic distribution of filarioid nematodes in caribou (<i>Rangifer tarandus</i> spp.) in Canada	Mariyam Thomas <i>et al.</i> 2025
Disease and pathogens	Erysipelas in Arctic and Northern Regions	Mavrot <i>et al.</i> 2022.
Contaminants	Local sources versus long-range transport of organic contaminants in the Arctic: future developments related to climate change	Muir <i>et al.</i> 2025
Disease	Investigating Pestivirus Infections in Barren-ground and Dolphin Union Caribou: Strain Identification and Diagnostic Test Refinement	Olson 2025
Climate change impacts on caribou	A framework for reproductive outcomes of phenological match–mismatch in migratory breeders tested on a declining species, caribou	Post <i>et al.</i> 2025

Climate change	What have we learned? Navigating the climate change research landscape in Nunavut (2004-2021)	Rahman 2024
Hair cortisol/health	Variation of hair cortisol in two herds of migratory caribou (<i>Rangifer tarandus</i>): implications for health monitoring	Rakic et al. 2023
Climate change	Understanding productivity of North American migratory tundra caribou (<i>Rangifer tarandus</i>): Role of vital rates and climate	Russell et al. 2024
Disease and pathogens	California Serogroup Viruses in a Changing Canadian Arctic: A Review	Snyman et al. 2023
Genetic diversity	High genetic load without purging in caribou, a diverse species at risk	Taylor et al. 2024
Migration	Simultaneous estimation of the temporal and spatial extent of animal migration using step lengths and turning angles	Thompson et al. 2024
Health and disease	Besnoitia spp. Infection of the Testis, Peritesticular Structures, and Udder Skin in Migratory Caribou (<i>Rangifer tarandus</i>)	Van Driessche et al. 2025
Biosecurity protocols for cervids	Current Biosecurity Practices in the Handling and Sampling of Cervids: A Cross-Sectional Survey	Yustyniuk et al. 2025

Approach 2.4: Monitor changes in habitat quality, quantity, and availability for caribou resulting from natural and human-caused landscape changes.

Topic	Title	Source
Landscape connectivity	National-scale multispecies connectivity models represent movements for a majority of species tested	Brennan et al. 2025
Monitoring habitat change	The Arctic Plant Aboveground Biomass Synthesis Dataset	Berner et al. 2024
Estimating zone of influence for mines	Estimation of trends in zone of influence of mine sites on barren-ground caribou populations in the Northwest Territories, Canada, using new methods	Boulanger et al. 2021

Approach 2.5: Monitor the status of the relationship between people and caribou as an indicator of caribou well-being.

Topic	Title	Source
Impacts of mineral development on human-caribou relationship	Against Fast-Tracking: Critical Minerals and Indigenous Rights in Nunavut	Bernauer 2025
Human-caribou relationship	Can Archaeologists See Intentional Sustainability? Modeling Dene (Athabaskan) Caribou Hunting to Understand Human Behavior	Black 2024
Human-caribou relationship	Caribou-being beyond the Boreal	Blackburn 2025
Caribou in storytelling	Using storytelling to teach Tłı̨ch̨ Language and culture to young children in the Canadian Northwest Territories	Dryneck <i>et al.</i> 2025
Decline of caribou and impact on human-caribou relationship	Ecological grief as a crisis in dwelling	Fernandez Velasco 2025
Human-caribou relationship	Climate, caribou and human needs linked by analysis of Indigenous and scientific knowledge	Gagnon <i>et al.</i> 2023
Impacts of climate change on human-caribou relationship	Perception of the residents in the Arctic region towards climate change: a case study	Im <i>et al.</i> 2025
Climate change adaptation	Barriers and limits to adaptation in the Arctic	Malik and Ford 2025
Human-caribou relationship	Caribou Hunting Stories and Sustainable Co-living	Molla <i>et al.</i> 2024

Approach 3.1: Update or develop population models using current information.

Topic	Title	Source
Population estimates based on calving ground survey	Estimates of Breeding Females & Adult Herd Size and Analyses of Demographics for the Bathurst Herd of Barren-ground Caribou: 2021 Calving Ground Photographic Survey	Adamczewski <i>et al.</i> 2022a

Estimating pregnancy rates	March 2020 Pregnancy Assessment Using Samples from Bathurst, Bluenose-East and Beverly Barren-ground Caribou Herds	Adamczewski et al. 2024a
Population modeling	Range Dynamics of Barren-ground Caribou Implied by Historical Population Cycles and Logistic Growth	Bongelli et al. 2025
Population modeling	Analysis of Environmental, Temporal and Spatial Factors Affecting Demography of the Bathurst and Bluenose-East Caribou Herds	Boulanger and Adamczewski 2024
Population modeling	Mismatch in reindeer resilience to past and future warming signals ongoing declines	Canteri et al. 2025.
Population modeling	Caribou and Reindeer Population Cycles Are Driven by Top-Down and Bottom-Up Mechanisms Across Space and Time	Clark-Wolf et al. 2025
Population modeling (boreal caribou)	bbousuite: A set of R packages to facilitate analysis of boreal caribou survival and recruitment data	Dalgarno et al. 2025
Disturbance and population modeling (boreal caribou)	Integration of national demographic-disturbance relationships and local data can improve caribou population viability projections and inform monitoring decisions	Hughes et al. 2025
Citizen science and data analysis	Conservation scientist for MoveApps: Innovations and insights from volunteer coders in wildlife conservation	Kölzsch et al. 2025
Disturbance and population modeling	Barren-ground Caribou Range Land-use Scenarios in the NWT 2022 – 2072	Stubbs et al. 2023
Morphology and population size	Morphological Traits Are Not Consistently Related to Population Size in Four Migratory Caribou Populations Across North America	Vuillaume et al. 2024

Approach 3.2: Promote the collection and exchange of information on barren-ground caribou ecology, movements, health, status, and threats.

Topic	Title	Source
Foraging patterns	A taste of space: Remote animal observations and discrete-choice models provide new insights into	Ehlers et al. 2024

	foraging and density dynamics for a large subarctic herbivore	
Migratory behaviour	Origin stories: how does learned migratory behaviour arise in populations?	Fugate <i>et al.</i> 2025
Global status of caribou	Update on the global status of wild reindeer and caribou	Gunn and Russell 2022
Migratory behaviour	Memories of Migrations Past: Sociality and Cognition in Dynamic, Seasonal Environments	Gurarie <i>et al.</i> 2021
Migratory behaviour	Evidence for an Adaptive, Large-Scale Range Shift in a Long-Distance Terrestrial Migrant	Gurarie <i>et al.</i> 2024
Migratory behaviour	On the interface between cultural transmission, phenotypic diversity, demography and the conservation of migratory ungulates	Jesmer <i>et al.</i> 2025
Health and status	Assessing current visual tooth wear age estimation methods for <i>Rangifer tarandus</i> using a known age sample from Canada	Kohut <i>et al.</i> 2024
Health and status	An improved age estimation method for caribou and reindeer using tooth eruption and wear	Kohut <i>et al.</i> 2025
Health and movements	Comparison between strip sampling and laser ablation methods to infer seasonal movements from intra-tooth strontium isotopes profiles in migratory caribou	Le Corre <i>et al.</i> 2023
Historic movements	The ecomorphology of Caribou (<i>Rangifer tarandus</i>): a geometric morphometric study	López <i>et al.</i> 2025
Snowmelt timing and migratory behaviour	Snowmelt onset and caribou (<i>Rangifer tarandus</i>) spring migration	Matias <i>et al.</i> 2024
Migratory behaviour/ range use	Spatial and Temporal Trends in Range-use by the Bathurst Caribou During a Population Decline, 1997-2019	Mennell 2021
Caribou genetics	Protocol for genetic load analysis in caribou using a modified genomic evolutionary rate profiling	Taylor <i>et al.</i> 2025

Approach 3.3: Promote the collection and exchange of information on the relationships among barren-ground caribou, predators, competitors, and their wider environment.

Topic	Title	Source
Predators	Grizzly Bear (<i>Ursus arctos</i>) Harvest Monitoring in Nunavut—Summary Report	Awan 2025
Predators	Grizzly bear DNA mark–recapture sampling in the Western Kitikmeot region of Nunavut, 2021	Awan <i>et al.</i> 2023
Predators	Grizzly bear DNA mark–recapture sampling in the Western Kitikmeot region of Nunavut, 2022–2023	Awan <i>et al.</i> 2025
Predators	Ageing wolves through crown height measurements and its implications for ageing canid	Bieraugle <i>et al.</i> 2024
Predators	Suture obliteration patterns in wolves and a comparison to dogs	Bieraugle <i>et al.</i> 2025a
Predators	Ageing dogs and wolves using x-ray micro-computed tomography (μ-CT): an application to canid remains from the Junction Site, Alberta, Canada	Bieraugle <i>et al.</i> 2025b
Predators	Inuvik-Tuktoyaktuk Highway 2013–2020 Grizzly Bear DNA Inventory: Assessment of Response to Highway Development	Boulanger and D'Eon-Eggertson 2024
Competitors	Investigating potential for competition between migratory caribou and introduced muskoxen	Brodeur <i>et al.</i> 2023
Competitors	Braiding Inuit knowledge and Western science to understand light goose population dynamics under a changing climate	Carter <i>et al.</i> 2025
Predators	Technical Report: Wolf (Diga) Management Program January – May 2021	Clark <i>et al.</i> 2024
Competitors	Technical Status Report for Muskoxen (<i>Ovibos moschatus</i>) in the Northwest Territories	Gunn <i>et al.</i> 2024
Predators	Participatory assessment of aklak (Grizzly bear, <i>Ursus arctos</i>) abundance and distribution in the Kivalliq Region, Nunavut	Harding <i>et al.</i> 2025
Predators	Diet and habitat selection of gray wolves (<i>Canis lupus</i>) during the boreal caribou (<i>Rangifer</i>	Jovtoulia 2025

	tarandus caribou) calving season in the southern Northwest Territories	
Predators	The American Black Bear (Ursus americanus) as an Apex Predator: Investigating the Ecological Role of the World's Most Abundant Large Carnivore	Nettles et al. 2025
Predators	Wolf (Diga) Management Pilot Program Technical Report 2020	Nishi et al. 2024
Predators	Interspecific carnivore competition and ungulate predation correlate with predator species richness	Wehr et al. 2025
Predators	Technical Report: Wolf (Diga) Management Program January – June 2022	Wilson et al. 2023
Predators	Technical Report: Wolf (Diga) Management Program December 2022 – September 2023	Wilson et al. 2024
Predators	Technical Report Wolf (Diga) Management Program January – October 2024	Wilson et al. 2025

Approach 3.4: Assess cumulative impacts of natural and human-caused landscape change on barren-ground caribou and their habitat.

Topic	Title	Source
Impacts of development on caribou/habitat	Against Fast-Tracking: Critical Minerals and Indigenous Rights in Nunavut	Bernauer 2025
Cumulative effects assessment	Forum: cumulative effects assessment state-of-the-art	Blakley and Nobel 2025
Impacts of development on caribou/habitat	Estimating the effects of roads on migration: a barren-ground caribou case study	Boulangier et al. 2024
Impacts of development on caribou/habitat	Behavioral responses of migratory caribou to semi-permeable roads in Arctic Alaska	Fullman et al. 2025
Impacts of development on caribou/habitat	Today's Road to Resources in the Canadian Arctic: An Analysis of the Grays Bay Port and Road Project	Kroker 2025

Impacts of development on caribou/habitat	Northern development and Rangifer risks: A review of the impacts of resource extraction for caribou and reindeer	Lessard <i>et al.</i> 2025
Impacts of development on caribou/habitat	Restricting Oil and Gas Leases Through Withdrawals Under OCSLA: Can A President Rescind?	Miller 2025
Impact of habitat factors on recruitment (boreal caribou)	Causal attribution from retrospective data in Canada's woodland caribou system	Wilson 2025
Impacts of development on caribou/habitat	Reading mine closure through Tłı̨chǫ self-determination	Zoe <i>et al.</i> 2025

Approach 3.5: Promote the collection and exchange of information on barren-ground caribou habitat, including the identification of key areas and habitat features.

Topic	Title	Source
Habitat restoration (boreal caribou)	Endangered species lack research on the outcomes of conservation action	Binley <i>et al.</i> 2025
Changes to habitat	Greening on the Bathurst caribou range in northern Canada: are erect shrubs responsible for remotely sensed trends?	Bonta <i>et al.</i> 2023
Changes to habitat	The Relationship Between Erect Deciduous Shrub Growth and Spectral Greening on the Bathurst Caribou Range	Bonta 2024a
Habitat restoration	Lichen it: Optimizing post-fire caribou lichen transplantation and assessment	Brown-Dussault 2025
Changes to habitat; climate change	Remotely sensed trends in vegetation productivity and phenology during population decline of the Bathurst caribou (<i>Rangifer tarandus groenlandicus</i>) herd	Dearborn and Danby 2021
Habitat selection	Indigenous Knowledge as a sole data source in habitat selection functions	Gryba <i>et al.</i> 2025
Calving ground selection	Defining Calving Ground Selection for the Bathurst Herd of Barren-Ground Caribou	McKnight 2025

Measuring habitat change	Mapping tundra ecosystem plant functional type cover, height, and aboveground biomass in Alaska and northwest Canada using unmanned aerial vehicles	Orndahl <i>et al.</i> 2022
Habitat selection	Shifting and expanding ranges of a sub-Arctic caribou herd and associated changes in vegetation	Orndahl <i>et al.</i> 2025
Measuring habitat change	Next generation Arctic vegetation maps: Aboveground plant biomass and woody dominance mapped at 30 m resolution across the tundra biome	Orndahl <i>et al.</i> 2024
Modeling habitat selection	Inferring wildlife population trends from hierarchical habitat selection: a case study with boreal caribou	Turner <i>et al.</i> 2025