

# DRAFT MANAGEMENT PLAN FOR NORTHERN MOUNTAIN CARIBOU

in the Northwest Territories



***SPECIES AT RISK (NWT) ACT***

Management Plan and Recovery Strategy Series 2023

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

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**Cover illustration:** Northern mountain caribou, Norman Barichello

### **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 NWT that share responsibility for the conservation and recovery 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. The Conference also reviews management plans and recovery strategies every five years and reports on progress toward meeting objectives. Only Management Authorities that have jurisdiction for a species are involved in making decisions.

### **What is a species of Special Concern?**

Under the Act, a species of Special Concern is a species that may become Threatened or Endangered in the NWT because of a combination of biological characteristics and identified threats. A management plan must be completed for species of Special Concern within two years of the species being added to the NWT List of Species at Risk.

### **What is a management plan?**

Under the Act, a management plan is a document that recommends objectives for the management of a species of Special Concern. It also recommends approaches to achieve those objectives. It includes a description of threats and positive influences on the species and its habitat.

Under the *Accord for the Protection of Species at Risk* (1996), the federal, provincial, and territorial governments agreed to work together on legislation, programs and policies to protect wildlife species at risk throughout Canada.

In the spirit of cooperation of the Accord, Environment and Climate Change Canada has given permission to the Conference of Management Authorities to adopt the *Management Plan for the Northern Mountain Caribou Population of Woodland Caribou* (*Rangifer tarandus caribou*) in Canada under Section 63 of the *Species at Risk (NWT) Act*. The Conference of Management Authorities has included a Northwest Territories addition (Part 1) which completes the *Species at Risk (NWT) Act* requirements for this management plan.

This management plan consists of two parts:

1. Part 1 – Northwest Territories addition to the *Management Plan for the Northern Mountain Caribou Population of Woodland Caribou* (*Rangifer tarandus caribou*) in Canada, prepared by the Conference of Management Authorities.
2. Part 2 – *Management Plan for the Northern Mountain Caribou Population of Woodland Caribou* (*Rangifer tarandus caribou*) in Canada, prepared by Environment and Climate Change Canada.

## PREFACE

This *Management Plan for Northern Mountain Caribou in the Northwest Territories* (management plan) has been prepared by the Management Authorities responsible for northern mountain caribou (woodland caribou [northern mountain population]) (*Rangifer tarandus caribou*), in accordance with the *Species at Risk (NWT) Act*. This management plan will guide management of northern mountain caribou in the Northwest Territories (NWT).

This management plan constitutes advice to:

- Other jurisdictions with management and guardianship responsibilities for northern mountain caribou and their habitats;
- All potential partners or organizations whose activities may impact northern mountain caribou or their habitats, including industry, communities, and individuals; and
- Organizations that play a role in influencing the extent to which northern mountain caribou are impacted, including community organizations, co-management boards, environmental assessment and regulatory bodies, and environmental non-government organizations.

Section 63 of the *Species at Risk (NWT) Act* allows the Conference of Management Authorities to incorporate into a management plan all or part of an existing plan prepared by any person or body. This management plan adopts the federal *Management Plan for the Northern Mountain Caribou Population of Woodland Caribou (Rangifer tarandus caribou) in Canada*,<sup>1</sup> which outlines the overall goals, objectives, and approaches for northern mountain caribou management across the NWT. This management plan also includes a Northwest Territories addition which presents additional information that is not included in the federal plan and points to the Sahtú community-led plan (*Níó Nę P'ęñę Begháré Shúhta ęepę Narehǵá – Trails of the Mountain Caribou Management Plan*<sup>2</sup>) as an important regional initiative that gives advice on how to conserve caribou in the area of the Sahtú that is covered by the management plan. This approach recognizes and supports the good work that has already been completed, and that is underway, to plan for northern mountain caribou conservation in the NWT. This will allow more time and resources to be focused on the implementation of northern mountain caribou conservation actions rather than developing a new management plan. This management plan applies to all northern mountain caribou subpopulations that occur either entirely or partially in the NWT.

This management plan consists of two parts:

1. Part 1 – Northwest Territories addition to the *Management Plan for the Northern Mountain Caribou Population of Woodland Caribou (Rangifer tarandus caribou) in Canada*, prepared by the Conference of Management Authorities.
2. Part 2 – *Management Plan for the Northern Mountain Caribou Population of Woodland Caribou (Rangifer tarandus caribou) in Canada*, prepared by Environment and Climate Change Canada.

Under subsection 61(9) of the *Species at Risk (NWT) Act*, four sections are required in an NWT management plan:

1. A description of existing and potential threats to the species and its habitat;
2. A description of existing and potential positive influences on the species and its habitat;
3. Recommendations on objectives for the management of the species; and
4. Recommended approaches to achieve those objectives.

Three out of the four required sections are found in the federal management plan. Information on threats, goals and objectives, as well as recommended approaches to achieve those goals can be found in section 1.5 and section 2 of the federal management plan. The missing requirement (description of positive influences on the species and its habitat) is included in Part 1 of this management plan. The Conference of Management Authorities also chose to add information about community-led planning and knowledge gaps, and to refer to the NWT Species at Risk Committee's 2020 *Species Status Report for Northern Mountain Caribou (Woodland Caribou [Northern Mountain Population]) (Rangifer tarandus caribou) in the Northwest Territories*<sup>3</sup> for updated information specific to the NWT. Adopting the federal management plan with these additions will meet the requirements under the *Species at Risk (NWT) Act*.

This management plan does not commit any party to actions or resource expenditures; implementation of this plan is subject to the appropriations, priorities and budgetary constraints of the participating Management Authorities.

Success in the management of northern mountain caribou depends on the commitment and cooperation of the many groups who will be involved in implementing the approaches set out in this plan and cannot be achieved by the Management Authorities (Gwich'in Renewable Resources Board, ʔehdzo Got'Inę Gots'ę Nákedı [Sahtú Renewable Resources Board], and Government of the Northwest Territories) or any other group alone. All NWT residents and others who use NWT lands and waters are encouraged to join in supporting and implementing this plan for the benefit of northern mountain caribou, communities that have traditionally relied on northern mountain caribou, and NWT society as a whole.

## ACCEPTANCE STATEMENT

[To be completed as a final step once the management plan is finalized.]

The Gwich'in Renewable Resources Board, Sahtú Renewable Resources Board and Government of the Northwest Territories accepted Part 1 and adopted Part 2 of this management plan on **Month Day, Year** through a Conference of Management Authorities consensus agreement under the *Species at Risk (NWT) Act*.

## ACKNOWLEDGEMENTS

### Development of the Northwest Territories Management Plan

Preparation of this plan was funded by Environment and Natural Resources (ENR). We would like to thank the Species at Risk Secretariat for addressing the requirements of a management plan, as required by the *Species at Risk (NWT) Act*. The principal preparers of this management plan were Mélanie Routh (Species at Risk Implementation Specialist) and Michele Grabke (Species at Risk Implementation Supervisor).

Background information in Part 1 of this document is summarized from the NWT Species at Risk Committee's (SARC) 2020 *Species Status Report for Northern Mountain Caribou (Woodland Caribou [Northern Mountain Population]) (Rangifer tarandus caribou) in the Northwest Territories*.<sup>3</sup> To avoid repetitive citations, it can be assumed that the information was taken from these reports unless another reference is given. We would like to thank SARC for its work on this detailed and extensive assessment of the status of northern mountain caribou in the NWT.

Finally, we thank the many individuals and organizations who reviewed and provided input on earlier drafts, which significantly improved the management plan:

- Gwich'in Renewable Resources Board
- Sahtú Renewable Resources Board
- Wek'èezhìi Renewable Resources Board
- Government of the Northwest Territories
- Acho Dene Koe First Nation
- To be completed

[The list of acknowledgements will be updated following consultation and engagement.]

### Development of the Federal Management Plan

We are grateful to the many agencies, jurisdictions and organizations that were involved in the development of the federal management plan for northern mountain caribou:

- Environment Canada
- Parks Canada Agency
- Government of Yukon
- Government of British Columbia
- Government of the Northwest Territories
- Yukon Fish and Wildlife Management Board
- Sahtú Renewable Resources Board
- Gwich'in Renewable Resources Board

The federal management plan was drafted through an inclusive process whereby the responsible agencies and jurisdictions invited participation from all governments and First Nations within the range of the northern mountain caribou. A technical team (the



Technical Working Group) with expert knowledge researched and drafted the management plan while receiving guidance and assistance from a steering committee (the Steering Committee) comprised of representatives from responsible agencies, jurisdictions and governments. A subgroup of the Steering Committee (the Co-chairs Committee) was responsible for coordination, ensuring the most inclusive and timely process possible. After the draft management plan was completed, formal consultations occurred with all governments, boards and agencies within the range of northern mountain caribou. A complete list of participants in the Technical Working Group and Steering Committee is found in Appendix 1 of the federal management plan.



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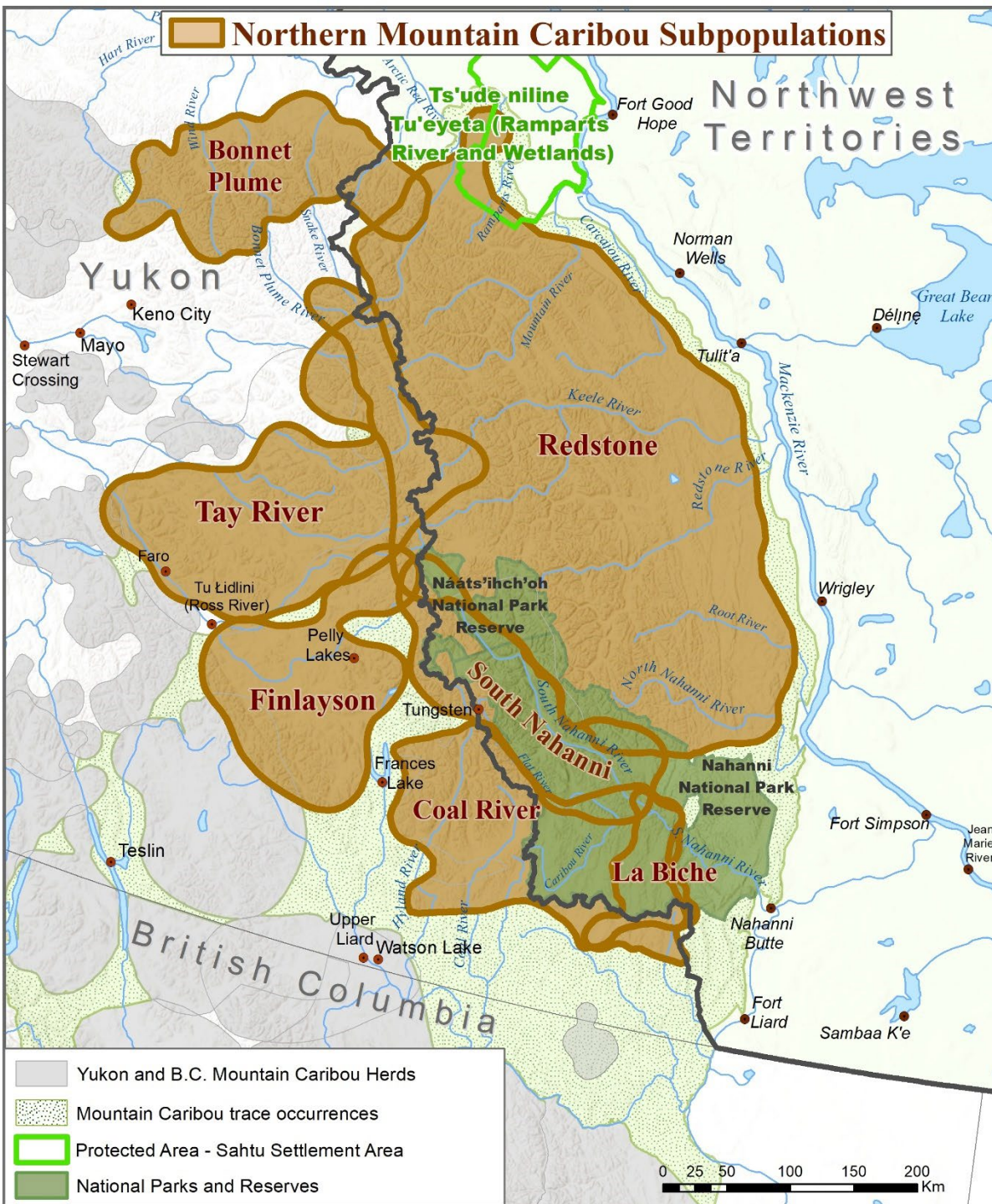
## EXECUTIVE SUMMARY

Northern mountain caribou were added to the NWT List of Species at Risk as a species of Special Concern in July 2021 under the *Species at Risk (NWT) Act*, owing to their vulnerability to climate change and human disturbance. Species listed as Special Concern require a management plan within two years of listing. This *Management Plan for Northern Mountain Caribou in the Northwest Territories* was prepared by the Conference of Management Authorities and is designed to meet this requirement under the *Species at Risk (NWT) Act*. The management plan emphasizes collaboration among co-management boards, Indigenous governments and Indigenous organizations, territorial/provincial/federal governments, and communities.

This management plan adopts the federal *Management Plan for the Northern Mountain Caribou Population of Woodland Caribou (Rangifer tarandus caribou) in Canada*, which outlines the overall goals, objectives and approaches for northern mountain caribou management. This management plan also includes an NWT addition which presents more information on positive influences, community-led planning and knowledge gaps that is not included in the federal plan and refers to the Species at Risk Committee's (SARC) status report for updated information on northern mountain caribou in the NWT.

### Species Information

Northern mountain caribou are a distinct population of woodland caribou. In the NWT, they are found almost exclusively in the Mackenzie Mountains. There are 36 subpopulations of northern mountain caribou in western Canada (in British Columbia, NWT and Yukon). Of these, six subpopulations reside partially or entirely in the NWT: Bonnet Plume, Redstone, Tay River, South Nahanni, Coal River and La Biche. Most individuals undergo long distance migrations up to 250 kilometres between their winter and summer ranges, while some individuals remain close to their winter ranges all year round. During calving, females are highly dispersed in the Mackenzie Mountains where they use subalpine open woodland, spruce lichen woodland, subalpine shrubland and alpine habitats. Northern mountain caribou are of cultural and subsistence importance to the Shúhta Dene, Teetl'it Gwich'in and Gwichya Gwich'in, although the use of northern mountain caribou was disrupted several generations ago in the Gwich'in region. Shúhta Dene tend to see themselves as part of the landscape and draw very strong connections between the health of people, the health of caribou, and the health of the land.



**Figure 1: Distribution of northern mountain caribou in the NWT.** Caribou range data from GNWT (R. Gau, N. Larter, R. Popko), Government of Alberta (L. Neufeld, D. Hervieux, D. Cichowski), Government of BC (D. Seip, T.M. Williams), and Government of Yukon (T. Hegel, K. Russell). Map courtesy of B. Fournier, GNWT.

## Threats and Positive Influences

Northern mountain caribou are vulnerable to the effects of climate change. Ice patches, used to escape insects and cool down in the summer, are declining noticeably in the Mackenzie and Selwyn Mountains. These areas are considered critical habitat. Other potential threats include harvesting, recreation activities, resource development and disrespectful harvesting behaviour. Although most human-caused stressors are localized, they are expected to result in measurable negative impacts in some parts of the range, including within the calving and summer range of the Redstone subpopulation, the largest subpopulation in the NWT.

The remote and undisturbed nature of the Mackenzie Mountains, as well as a relatively low predation rate, are significant positive influences on northern mountain caribou in the NWT. Protected areas (Nahanni and Nááts'ihch'oh National Park Reserves and Ts'udé Níłı́né Tuyeta Territorial Protected Area) and conservation zones (Shúhtagot'ı́ne Néné [Mountain Dene Land] and Fałfa Níłı́ne [Mountain River Extension]) help to preserve northern mountain caribou habitat in the NWT are another major positive influence.

## Knowledge Gaps

Most subpopulation estimates for northern mountain caribou are outdated and population trend is unknown for most subpopulations and for the NWT population as a whole. Further investigation is needed for subpopulation and genetic structure of northern mountain caribou using the northern portion of the Mackenzie Mountains, range boundaries, documentation of critical caribou habitat (e.g. calving and summer ranges), rate of wolf predation and wolf densities, effects of industrial development and climate change on northern mountain caribou and its habitat, as well as improved harvest information from Indigenous and non-Indigenous hunters.

## Management Goals and Objectives

The overall goal of the adopted federal *Management Plan for the Northern Mountain Caribou Population of Woodland Caribou (Rangifer tarandus caribou) in Canada* is to prevent northern mountain caribou from becoming Threatened or Endangered, by having responsible agencies cooperatively work together to carefully manage these caribou and their habitat.

The management plan seeks to accomplish this goal by achieving the following results:

1. Populations of each northern mountain caribou subpopulation are maintained or recovered, such that the population operates within its natural range of variability;
2. Ecological integrity of key habitats and ecosystems required by northern mountain caribou are maintained; and
3. Stewardship of northern mountain caribou and its habitat are promoted among Indigenous governments and organizations, co-management boards, government agencies, and other interested parties.



Eight management objectives are recommended in the management plan, as well as 17 recovery measures and associated priorities and timelines. Progress toward achieving these objectives will be evaluated at least every five years.

The plan recommends the following objectives:

1. Determine subpopulation status and trends over time.
2. Manage harvest for sustainable use.
3. Assess health risks and maintain caribou health.
4. Understand the dynamics of predator-prey systems and potential competition with other herbivores.
5. Identify and assess the quality, quantity, and distribution of important habitats.
6. Manage and conserve important habitats to support caribou subpopulations.
7. Promote conservation of northern mountain caribou through environmental and cumulative effects assessments.
8. Foster opportunities to share knowledge and information, as well as develop education and stewardship programs.

### **Community-led Planning**

In addition to the adopted management plan, community-led plans provide advice on northern mountain caribou stewardship in the Mackenzie Mountains and beyond the NWT borders in Yukon and British Columbia.

The Sahtú community-led plan (*Níó Nę P'ęnę Begháré Shúhta Go?epę Nareh?á – Trails of the Mountain Caribou Management Plan*<sup>2</sup>) aims to achieve healthy communities and healthy caribou within the Shúhtaot'įnę, Métis and Tu Łidlini (Ross River) Dena territory in the Yukon and NWT. Regional land use plans provide direction on where certain activities can take place. Where caribou management objectives are integrated into regional land use plans, land use plans may support habitat protection and conservation through the application of zoning and other development conditions.

# **PART 1 – NORTHWEST TERRITORIES ADDITION TO THE MANAGEMENT PLAN FOR THE NORTHERN MOUNTAIN CARIBOU POPULATION OF WOODLAND CARIBOU (RANGIFER TARANDUS CARIBOU) IN CANADA**

## **1. UPDATED INFORMATION FOR THE NWT**

Updated information on northern mountain caribou in the NWT can be found in the Species at Risk Committee's 2020 *Species Status Report for Northern Mountain Caribou (Woodland Caribou [Northern Mountain Population]) (Rangifer tarandus caribou) in the Northwest Territories*.<sup>3</sup> This document includes extensive information from scientific knowledge and Indigenous and community knowledge up to 2020; an additional eight years of information since the publication of the federal management plan. The status report includes information about population, distribution, habitat, biology, interactions, threats and limiting factors, positive influences, as well as the cultural and spiritual importance of northern mountain caribou to the Shúhta Dene, Teetł'it Gwich'in, and Gwichya Gwich'in of the NWT.

## **2. COMMUNITY-LED PLANNING**

Shúhtaot'ıne, Métis, Tu Łidlini (Ross River) Dena, and other Indigenous knowledge holders in the Yukon and NWT have been drawing attention to northern mountain caribou conservation issues in the Mackenzie Mountains for many years. In 2017, a Working Group including delegates from Tulı́t'a, Norman Wells and Tu Łidlini, as well as co-management, government and non-governmental partners, drafted the *Nıo Nę P'ęne Begháre Shúhta Goęepę Narehǵá – Trails of the Mountain Caribou Management Plan*.<sup>2</sup>

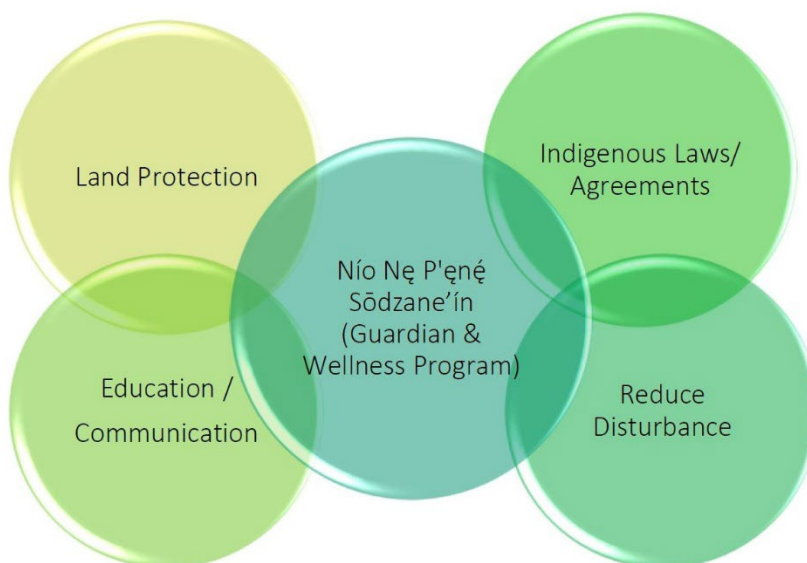
The plan provides a collaborative approach and process for caribou conservation and stewardship. Rooted in Dene values, principles and knowledge, it aims to achieve healthy communities and healthy caribou through five main program areas addressing nine objectives (Figure 1).

The management plan's vision is:

- Shúhtaot'ıne, Métis and Tu Łidlini Dena continue to peacefully co-exist with shúhta goęepę / bedzih / gūdzih (northern mountain caribou) in an ecologically diverse and healthy mountain landscape as they have for thousands of years.
- Shúhtaot'ıne, Métis, and Tu Łidlini Dena are travelling, harvesting, sharing and gathering throughout their territory, keeping Dene kədə / k'e (language), Dene ts'ıłı / Dene k'e (ways of life), and Dene ǵǵa / a' nı́zın (law / respect) strong.

*Nıo Nę P'ęne Begháre Shúhta Goęepę Narehǵá – Trails of the Mountain Caribou Management Plan* evolved through extensive community engagement and the current

draft is being implemented through research and work towards the creation of the proposed Tu Łidlini and Nío Nę P'ęné Indigenous Protected and Conserved Area.



**Figure 2. Five main program areas identified in the Nío Nę P'ęné Begháré Shúhta Goǝpę Narehǝá – Trails of the Mountain Caribou Management Plan.**

In addition to the Sahtú community-led plan, other management instruments are already in place for northern mountain caribou. The Gwich'in and Sahtú regions of the NWT have established legally-binding land use plans (in 2003 and 2013, respectively). The Dehcho Land Use Planning Committee is also developing a regional land use plan for the Dehcho region.

In 2007, the *Doi T'oh Territorial Park and CANOL Heritage Trail Management Plan*<sup>6</sup> was approved by the NWT Minister of Industry, Tourism and Investment. Implementation of this management plan awaits transfer of responsibility from federal to territorial jurisdiction pending an extensive cleanup of contaminated sites.

In British Columbia, the Dena Kayeh Institute developed the *Kaska Dena Management Practices: Kaska Dena Land Use Framework*<sup>5</sup> in 2010, which identifies a network of Kaska protected areas, special management areas, and site-specific features with specific management approaches for the area south of the Ross River area. This framework used a combination of community-based natural resource development policies, management practices, and land use zoning. In Yukon, the Tu Łidlini (Ross River) Dena Council (RRDC) developed a harvest regulation protocol and took an educational approach to working with visiting harvesters.<sup>7</sup>

Overall, these community-led initiatives are viable conservation approaches that give advice on northern mountain caribou stewardship in the Mackenzie Mountains and beyond. Although the federal management plan provides overarching goals, objectives, and approaches to manage northern mountain caribou across its entire range (NWT, Yukon and British Columbia), all NWT residents and others who use NWT lands and waters, including the NWT public, management partners, municipalities, industry, and



other organizations, are encouraged to contribute to the approaches and guidelines outlined in these community-led plans. These actions will further benefit the management of northern mountain caribou in the NWT.

### 3. FACTORS THAT MAY HAVE A POSITIVE INFLUENCE

The greatest positive influences on northern mountain caribou in the NWT are the remote and undisturbed nature of a large portion of its range, and the relatively low predation rate.

Although there are industrial activities in the Mackenzie Mountains, these activities are occurring or have occurred along the periphery of the northern mountain caribou range, leaving large areas of undisturbed and inaccessible land. This situation is in contrast to the southern range in British Columbia, where northern mountain caribou face significant threats from altered predator-prey interactions caused by extensive habitat change from industrial activities. Large mammals such as moose and deer provide alternate prey for predators such as wolves and grizzlies, which also prey on caribou. However, there are relatively low densities of these species in northern mountain caribou range in the NWT.

Habitat protection for northern mountain caribou in the NWT is currently provided through existing protected areas and conservation zoning in regional land use plans covering a total area of more than 55,000 km<sup>2</sup> (Nahanni and Nááts'ihch'oh National Park Reserves, Ts'udé Níłjné Tuyeta Protected Area and Shúhtagot'ine Néné [Mountain Dene Land] and FaɁfa Níłjné [Mountain River Extension] Conservation Zones). These areas are in and adjacent to the South Nahanni, Coal River, La Biche and Redstone ranges. The Shúhtagot'ine Néné Conservation Zone protects important migration routes, calving grounds, and rutting/wintering grounds for the Redstone and Bonnet Plume subpopulations. The FaɁfa Níłjné Conservation Zone is along the Bonnet Plume migration path and is part of its general habitat. The entire Nááts'ihch'oh National Park Reserve is northern mountain caribou habitat and protects the calving grounds of the South Nahanni subpopulation and important habitat for the Redstone subpopulation. The Sahtú and Gwich'in Land Use Plans also contribute more broadly to the protection of this region, through conformity requirements on regulators and proponents proposing land use activities.

Establishment and proposals for other protected areas may offer additional future protection if implemented; this includes the proposed Tu Łidlini and Nío Nę P'ęnę Indigenous Protected and Conservation Area identified in the *Nío Nę P'ęnę Begháré Shúhta Goxepę Narehǎ – Trails of the Mountain Caribou Management Plan*. Doi T'oh Territorial Park and CANOL Heritage Trail are also proposed under the NWT *Territorial Parks Act*.

Remediation activities of the CANOL Heritage Trail have been undertaken to address environmental and human health concerns. The Doi T'oh Territorial Park Corporation led a three-year wire clean-up program that was completed in 2017. During the clean-up, 80 tons of copper-coated steel wire was cut, coiled and securely stored at transfer locations. Englobe Corporation, on behalf of Crown Indigenous Relations and Northern

Affairs Canada (CIRNAC), removed remnants of the pipeline's construction and operation remain scattered along the trail, including oil tanks, buildings and bridges in disrepair, abandoned pipeline, contaminated soil, and rusted machinery. As of 2020, CIRNAC is conducting a long-term monitoring program of the area.

#### 4. KNOWLEDGE GAPS

1. **Population estimates/trends:** Most subpopulation estimates are outdated and population trend is unknown for most subpopulations and for the NWT population as a whole. Enhanced monitoring and updated population estimates are essential to understand trends and detect possible declines in subpopulations. Knowledge holders have noticed a significant decline over the last 10-12 years for the Redstone subpopulation. Currently it is unknown if the declines observed by knowledge holders represent a change in distribution (i.e. caribou are now unpredictable on the land) or population size.
2. **Genetic clusters:** Ten radio-collared female caribou in the early 2000s suggest there may be three different groups within the Redstone subpopulation (two migratory groups and one sedentary [non-migratory] group). However, there is not enough evidence to confidently conclude that these groupings represent separate subpopulations. Also, a genetic study in 2012 found no distinct genetic clusters among caribou sampled in the Redstone subpopulation, indicating the subpopulation likely functions as one large diverse population. More genetic information is needed to properly understand the dynamics of the Redstone subpopulation in the NWT; this is particularly important when considering sedentary groups as they are more vulnerable to localized threats.
3. **Distribution:** Known distribution of northern mountain caribou in the NWT is based on periodic aerial surveys and radio-collared caribou studies. Radio-collared caribou in and around the Prairie Creek area in Nahanni National Park Reserve in 2015 suggest there are sedentary groups that do not fall within any of the currently delineated ranges. Increased radio-collared studies in the Yukon have resulted in an expansion of the Tay River subpopulation into the NWT. Further refinement of range boundaries is needed for northern mountain caribou management in the NWT, but also to assess whether the currently defined range differs from the historical distribution. Further scientific and Indigenous knowledge research to document critical caribou habitat, such as calving grounds, is also needed.
4. **Predation:** The primary cause of adult mortality in northern mountain caribou in the NWT is unknown, but wolf predation, with bear, wolverine, and cougar predation locally and seasonally important, is responsible for adult mortality in ranges south of the NWT. The rate of wolf predation and wolf densities within northern mountain caribou range are poorly understood, including the possible linkages between anthropogenic [human] disturbances and increased predation on caribou which has been inferred south of the NWT (i.e. habitat-mediated apparent competition).
5. **Anthropogenic disturbances:** Industrial development is considered an important factor affecting northern mountain caribou; yet there is limited information about

the effects of industrial activities on northern mountain caribou in the NWT, including factors such as population, trends, movements and behaviour. Mineral and hydrocarbon exploration and development may lead to habitat alteration, displacement of caribou, direct and indirect mortality associated with access roads (i.e. improved access for hunters), increased moose densities, and increased wolf travel/kill rates on linear features. Additional information is needed.

6. **Harvesting:** Harvest has direct impacts on northern mountain caribou, especially those who use localized areas, such as sedentary groups and groups that demonstrate a high degree of fidelity to traditional rutting areas. Improved harvest information from Indigenous and non-Indigenous hunters would help guide management actions for northern mountain caribou in the NWT.
7. **Climate change:** Climate change is already significantly reducing the amount of ice patch habitat available in the Mackenzie and Selwyn Mountains, which is important for northern mountain caribou to escape insects and cool down in the summer. Climate change may also lead to changes in vegetation composition (e.g. shrubification) and distribution of other ungulates, as well as increases in rain/freeze events, disease and parasites, and summer heat stress. Degradation of permafrost, as well as increased frequency and severity of wildfires may exacerbate these changes. Enhanced research on the effects of climate change on seasonal habitat, as well as caribou health and behaviour, is required.

## 5. NEXT STEPS

Management partners will use this management plan to help assign priorities and allocate resources to manage for northern mountain caribou in the NWT, as well as for engaging other parties (e.g. communities, industry, co-management boards, regulators and non-government organizations).

This management plan will be followed by a consensus agreement by the Conference of Management Authorities that will identify the actions that participating Management Authorities intend to implement. At least every five years, there will be a report on the actions undertaken to implement the management plan and the progress made towards meeting its objectives. The first report will be due in 2028.

Success in the management of northern mountain caribou depends on the commitment and cooperation of various groups involved in directing this plan and cannot be achieved by any one agency alone. All NWT residents and others who use NWT lands and waters, including the NWT public, management partners, municipalities, industry, and other organizations, are encouraged to join in supporting and implementing this plan for the benefit of northern mountain caribou, communities that have traditionally relied on this species, and NWT society as a whole.

## 6. REFERENCES

Background information in Part 1 of this document is summarized from the NWT Species at Risk Committee's 2020 *Species Status Report for Northern Mountain Caribou (Woodland Caribou [Northern Mountain Population]) (Rangifer tarandus caribou) in the Northwest Territories*.<sup>3</sup> To avoid repetitive citations, it can be assumed that the information was taken from this report unless another reference is given.

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**PART 2 – MANAGEMENT PLAN FOR THE NORTHERN  
MOUNTAIN POPULATION OF WOODLAND CARIBOU  
(RANGIFER TARANDUS CARIBOU) IN CANADA**

[To be included once the management plan is finalized. Available for reference [here](#).]

## APPENDIX A – PLANNING PARTNERS

This section describes the groups and organizations from the Conference of Management Authorities that were involved in the adoption of this management plan. This section does not include the groups and organizations that were involved in the development of the federal management plan.

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.

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

The **Government of the Northwest Territories** (GNWT), represented by the Minister of Environment and Natural Resources (ENR), has ultimate responsibility for the conservation and management of wildlife, wildlife habitat, and forest resources in the NWT, subject to land claims and self-government agreements. It is the Minister of ENR's ultimate responsibility to prepare and complete management plans and recovery strategies under the *Species at Risk (NWT) Act*. Other GNWT departments also have responsibilities, including for land management, resources, communities, public infrastructure, and economic development. ENR 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.

## APPENDIX B – GUIDING PRINCIPLES

The following principles guided the development of Part 1 and the adoption of Part 2 of this management plan:

- Recognize that the biological diversity of the NWT is a legacy to be preserved, and that all NWT residents and others who use NWT lands and waters have a shared responsibility for the protection and conservation of species at risk:
  - Recognize the shared responsibility of the Management Authorities, seek collaborative partnerships, and expect that all responsible parties will contribute.
  - Respect Treaty and Aboriginal rights as well as land claim and self-government agreements.
  - Involve interested parties in developing the plan, including engagement at the community level throughout the process, especially for culturally sensitive species.
  - Promote engagement by all parties in playing a meaningful role in implementing this plan and supporting long-term management of northern mountain caribou.
- Recognize that conservation measures may have social, economic or ecological implications.
- Use adaptive management, which is a systematic approach for continually improving management policies or practices by deliberately learning from the outcomes of management actions.
- Be guided by and implement the Precautionary Principle, which states that a lack of scientific certainty will not be used as a reason to delay measures to alleviate a threat to a species at risk.
- Make full use of the best available information, including traditional, community, and scientific knowledge:
  - Recognize and respect differences and similarities in approaches to the collection and analysis of different types of knowledge.
  - Recognize and address information gaps.
- Have a clear goal and clear, measurable objectives:
  - Include only management approaches that are realistic and biologically feasible.
  - Recognize that management can take a long time; therefore long-term approaches are needed.
- Management actions will be taken at the subpopulation level to maintain population numbers, distribution, and range use of each northern mountain



caribou subpopulation, such that no subpopulation is lost and sufficient high quality habitat is maintained to allow for subpopulation recovery into historic range.

- Each northern mountain caribou subpopulation has value to one or more NWT Indigenous governments and organizations and to others outside the NWT, and should be maintained in a healthy state on the landscape.
- Collaboration among governments, co-management boards, communities, and, where needed, with neighbouring jurisdictions, is essential to ensuring successful and effective management for northern mountain caribou in the NWT.
- Public education will be necessary to promote respect for northern mountain caribou and awareness of traditional Indigenous practices so that all NWT residents and others who use NWT lands and waters know how and are encouraged to contribute to the management of northern mountain caribou.