

BOREAL WOODLAND CARIBOU IN SASKATCHEWAN

- UPHOLDING EXPECTATIONS -



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 **CPAWS**
CANADIAN PARKS AND WILDERNESS SOCIETY
SASKATCHEWAN CHAPTER

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EXECUTIVE SUMMARY

For over two decades, Boreal Woodland Caribou (*Rangifer tarandus caribou*) have been a threatened species. This iconic Canadian species is a cultural keystone for Indigenous communities across our nation and the health of the caribou is indicative of the overall health of the boreal forests that act as the lungs of our planet—storing billions of tons of carbon in their trees and in their soil.

Requiring large, untouched areas of old-growth boreal forest to survive, Woodland caribou are particularly sensitive to disturbances. Over recent decades, cumulative impacts of anthropogenic disturbances have done severe damage to Woodland caribou populations.

The boreal population of the Woodland caribou was listed as threatened by COSEWIC in 2000 and by the Species At Risk Act (SARA) in 2003. In accordance with Section 65 of SARA, the Government of Canada released a Recovery Strategy in 2012, while the Government of Saskatchewan released a Conservation Strategy in 2013.

In addition to these provincial and federal recovery strategies, the Government of Canada and the Government of Saskatchewan signed a Conservation Agreement that falls under Section 11 allowances of SARA in which stewardship and recovery of a local population of an at-risk-species may be undertaken by a local government or group if agreed upon by all parties affected. Within this Agreement, range plans have been developed in Saskatchewan that are the first of their kind across all provinces.

How these range plans are used and adhered to sets the standard for caribou conservation across the country. Thus, it is imperative that the Government of Saskatchewan takes the opportunities presented by their Section 11 Agreement and embraces wholeheartedly the protection of Woodland caribou in areas whose continued disturbance would mean extirpation of the species from the province.

While the range plans were first considered as a hopeful step, recent actions made by both provincial and federal governments have made it clear that the range plans and the intentions behind them are eroding. **As a national organization, Canadian Parks and Wilderness Society (CPAWS) is concerned about protecting the integrity of these range plans in Saskatchewan, the Section 11 Agreement, and the processes that protect endangered species in Canada.**

The lack of adherence to the range plans presents problems far broader than just those that will impact populations of Woodland caribou within Saskatchewan. Current actions by the Government of Saskatchewan (as permitted by the Government of Canada) are creating troubling precedents for caribou conservation across Canada. The plans set in place as outlined in the Section 11 Agreement are failing to provide adequate habitat protection for the species.

CPAWS has provided formal recommendations for both the provincial and federal government on how to move forward in caribou conservation across the nation with the goal of achieving the long-term persistence of the species.



KEY RECOMMENDATIONS

With the trajectory we are on, Woodland caribou populations will not show a path to reaching self-sustaining herds by 2023, or any time after this. There are no consequences holding industry to protect the integrity of these conservation agreements. Stricter measures are needed if the Section 11 Agreement is going to be of any kind of use to the long-term wellbeing of Woodland caribou in Canada.

It is our formal recommendation that the Government of Canada:

1. Suspend caribou section 11's

Suspend the creation of all future Boreal Woodland caribou Section 11 agreements with any provinces, territories, and hold current signatories accountable and existing agreements firm to avoid any re-negotiations;

2. Consider funding agreements

Consider other funding agreements with Indigenous Nations, ENGOs, and governments for processes that protect critical habitat and improve outcomes for caribou;

& the Government of Saskatchewan:

3. Complete range plans

Prioritize the completion of all remaining range plans as a primary tool to protect critical Woodland caribou habitat in Saskatchewan;

4. Establish protected areas

Undertake the establishment of protected areas, including Indigenous Protected and Conserved Areas (IPCAs), as effective tools for habitat management as stated in the Agreement;

5. Align Forest management plans

Ensure that Forest Management Plans are designed to support the stated goals of the range plans and the Agreement.



KEY TERMS

Woodland Caribou are listed as “threatened” in Schedule 1 of SARA, requiring the development of a **national recovery strategy**.

The federal “Recovery Strategy for the Woodland Caribou, Boreal Population (*Rangifer tarandus caribou*) in Canada” released in 2012 requires the development of **range plans**.

Woodland Caribou Conservation Units (WCCU)

In Saskatchewan, there are two ecologically distinct regions that caribou occur. The **Boreal Plain (SK2)**, and the **Boreal Shield (SK1)**, which is located further north and has fewer anthropogenic disturbances. These two regions are considered as separate **Woodland Caribou Conservation Units**.

Caribou administration unit

Woodland caribou that reside in the Boreal Plains (SK2) region are more at risk due to elevated levels of industrial development in the regions.

This region encompasses a large area, and as such, three sub-sections called **Caribou Administrative Units** have been created in order to better assess range conditions and planning. The three units created are: SK2 West, SK2 Central, and SK2 East.

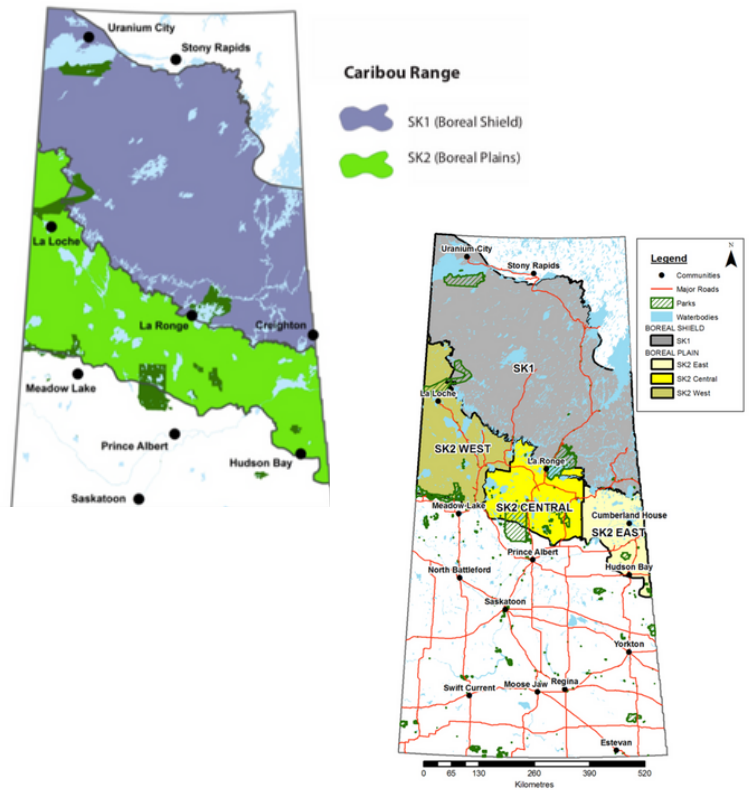
Caribou Habitat Management Areas

The SK2 unit is further divided into three kinds of caribou habitat management areas on provincial crown land: **Tier 1, 2 and 3**. Each Tier has specific management objectives pending on their importance and use by caribou.

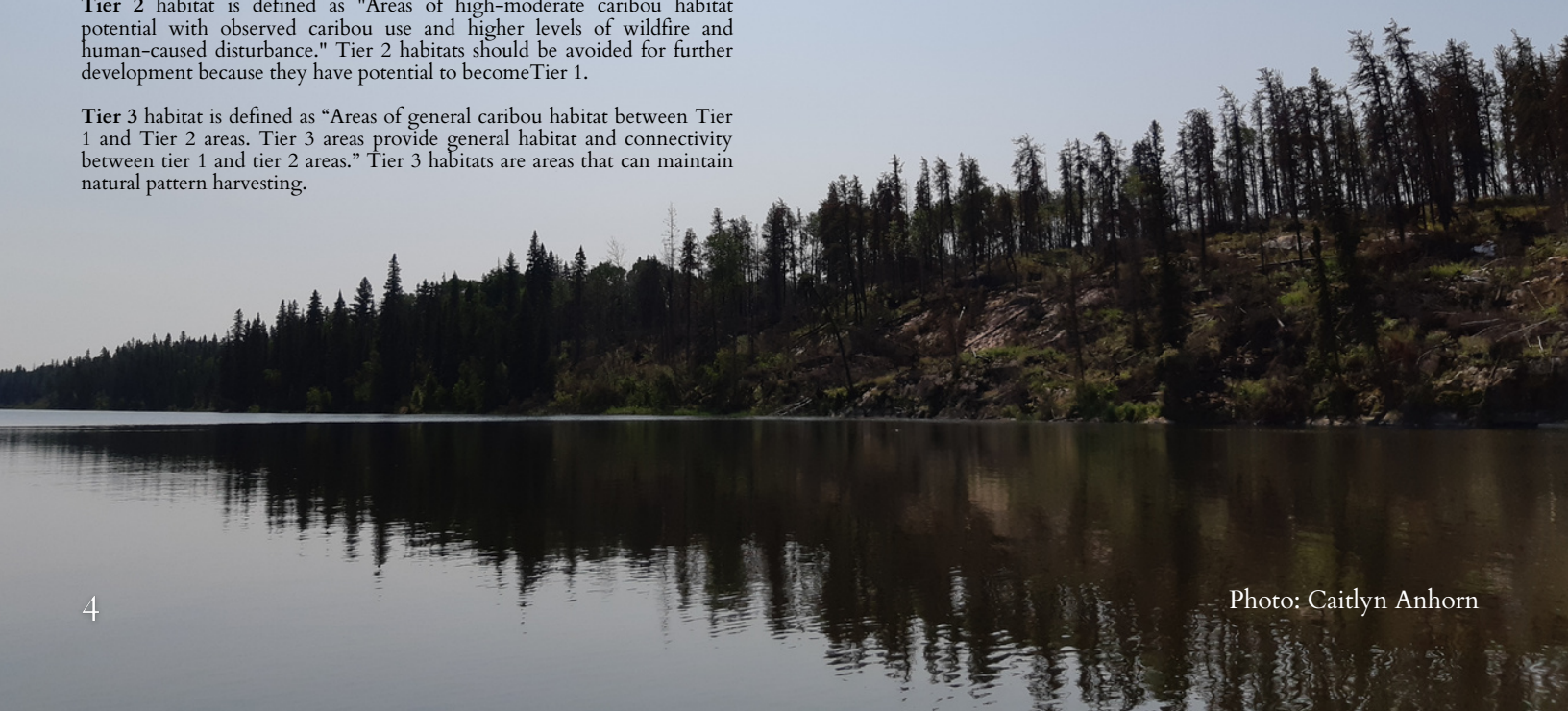
Tier 1 habitat is defined as “Areas of high-moderate caribou habitat potential with high levels of observed caribou use and low levels of human-caused disturbance.” Tier 1 habitats are areas that should be avoided for industrial development.

Tier 2 habitat is defined as “Areas of high-moderate caribou habitat potential with observed caribou use and higher levels of wildfire and human-caused disturbance.” Tier 2 habitats should be avoided for further development because they have potential to become Tier 1.

Tier 3 habitat is defined as “Areas of general caribou habitat between Tier 1 and Tier 2 areas. Tier 3 areas provide general habitat and connectivity between tier 1 and tier 2 areas.” Tier 3 habitats are areas that can maintain natural pattern harvesting.



Range plans are defined as “land use plans that show how habitat conditions will be maintained in space and time, to ensure that boreal caribou critical habitat is protected from destruction, and resulting in populations remaining or becoming self-sustaining.” (Saskatchewan Ministry of Environment, 2013)



EXPECTATIONS IN SASKATCHEWAN

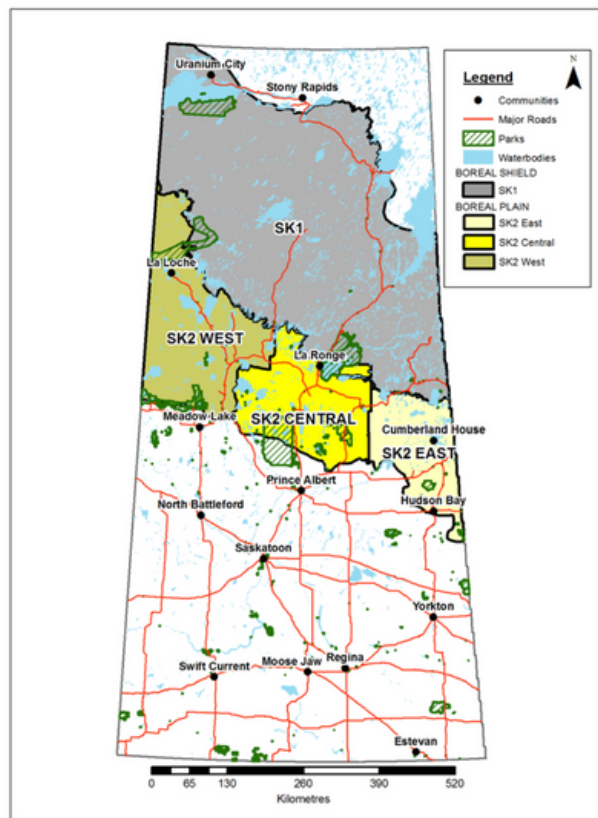
While range plans and the conservation agreements developed to support them were first considered a hopeful step, recent actions have raised concern that the original intentions behind them may be eroding. **Nation-wide, Canadian Parks and Wilderness Society (CPAWS)** is gravely concerned about the integrity of these processes that are meant to protect species at risk in Canada.

The Government of Saskatchewan has surpassed many self-inflicted deadlines for Woodland Caribou and its habitat's protection. Most notably, the central unit of SK2 was meant to be finalized by October 2017 but was not completed until December 2019. The Eastern unit was meant to be finalized by March 2020 but is only still in its draft stages. Lastly, the western unit was meant to be finalized by November 2019, but has not yet started.

Ideally, range plans provide the means for effective critical habitat protection in order to achieve and maintain a self-sustaining Woodland caribou population. As a part of landscape level management, strategies are deployed and prioritized based on specific conditions of habitat and their suitability to support caribou. As such, the landscape in the planning areas has been further sub-divided into three tiers, to better understand the habitat value and use by Woodland caribou. Habitats represented by Tier 1 are of critical importance to the survival of Woodland caribou and are areas where habitat retention is the primary objective, as stated in the range plans.

Time and effort have gone into ensuring that Tier 1 Woodland caribou habitat is established and remains untouched within Saskatchewan. Despite the importance of protecting Tier 1 caribou habitat, forestry companies and other proponents continue to include these areas in their proposed operating plans and continue to be unwilling to assume accountability or responsibility for their important role in the conservation of these critical landscapes. Allowing forest companies access to critical habitat in the absence of any information indicating positive population trends is clearly out of step with the objectives agreed to within the Agreement, essentially rendering the Agreement of no use in achieving protection of critical habitat or self-sustaining populations.

An important milestone of the Agreement is that by 2023, the province will identify a pathway to sustainable Woodland caribou populations over the medium term (40 years). This 40-year window assumes that disturbed habitat is considered “undisturbed” after a 40-year recovery period. Another important milestone of the Agreement is that in the medium term (40 years), the province will increase the amount of undisturbed habitat from current levels to levels that will support the medium term population objective and that in the long term (80 years), the province will achieve undisturbed habitat levels consistent with critical habitat thresholds as identified in the recovery strategy. For the Boreal Plain Conservation Unit (SK2), this threshold is 65%. CPAWS-SK is aware that the province is considering Forest Management Plans and Amendments from forestry companies that do not show trends towards these habitat and population goals. This is an extremely troubling precedent that, if approved, will not only impede Boreal Woodland caribou recovery in Saskatchewan, but could threaten Species at Risk recovery across Canada.



The Federal Recovery Strategy makes several recommendations to guide Boreal Woodland caribou conservation across Canada, including the target that 65% of critical habitat remain undisturbed, based on a minimum habitat recovery age of 40 years. Collectively, these objectives are believed to give the species a 60% probability of persistence. Any plan that chips away at the edges of this rapidly reduces the probability of persistence and brings us to place where we would not be able to consider it an effective conservation plan.

At the early implementation stages of the ‘Boreal Plain Ecozone – SK2 Central Caribou Administration Unit’ range plan, it is imperative that Tier 1 caribou habitat is respected. Moving forward, the main goal of protecting endangered species must be central to decisions surrounding caribou habitats.



BACKGROUND INFORMATION

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oodland caribou are an iconic Canadian species that can be found across the country in the boreal forest. Within the boreal forest, they occupy about 2.4 million km² of habitat. While this may seem large, it is only half of the habitat that they occupied in the 19th century. Because Woodland caribou require large swaths of untouched, old growth forests to survive, the encroachment of industrialization throughout the boreal has devastated populations across the country.

Being so vulnerable to disturbances within their natural habitat, caribou are known to be an “umbrella species,” such that the health of caribou is linked to the overall health of the boreal forest. The fact that caribou herds are declining at such a fast rate indicates that the boreal forest ecosystem is deteriorating.

Canada has some of the largest and most intact boreal forests left in the world today. However, the decline of Woodland caribou populations indicates that even the health of Canadian forests is declining rapidly. Protecting these forests and the habitats within them is no longer an option, but an emergency.

Boreal Woodland caribou have been listed as threatened on the federal Species At Risk Act (SARA) since 2003, but they have yet to be listed in Saskatchewan's Wildlife Act.

In 2017, Saskatchewan released one of the first draft Caribou Range Plans in the country. By December 2019, Saskatchewan had released the final version of the SK2 Central range plan and a draft version of the West range plan.

The purpose of these range plans is to achieve and maintain self-sustaining Woodland caribou populations by effectively managing habitat while also allowing industrial activities to exist. In Saskatchewan, the three-tiered system of designation within the range plans indicates that Tier 1 habitats are critical to Woodland caribou survival and industry should avoid these areas at all costs (Government of Saskatchewan, 2019).

By June 19, 2019, the Governments of Canada and Saskatchewan entered into a section 11 conservation agreement under SARA: the Woodland caribou: Boreal Population Conservation Agreement. One of many elements of the Agreement is the completion of the Range Plans, which has been completed for SK2 Central as mentioned above, but has yet to be completed for SK2 East and West despite commitments to do so by March 2020 and November 2019 respectively. Multiple deadlines in the Agreement have been missed.



Photo: Ron Thiessen

CARIBOU & CULTURE

There are over 300 First Nations communities across Canada that share land with caribou (Assembly of First Nations & David Suzuki Foundation, 2013). For thousands of years, people have hunted and relied on caribou since they are a vital source of sustenance and nutrition.

To this day, caribou represent a cultural keystone species to many communities. Especially in northern, remote communities where food is more expensive, caribou remain an important part of people’s diets. Many health issues that First Nations communities face such as diabetes are related to the lack of a traditional diet based on local foods. Caribou hunting contributes to nutritious food, active lifestyle, and fulfillment of social and spiritual relationship, leading towards an overall increase in health and wellness (Assembly of First Nations & David Suzuki Foundation, 2013).

Moreover, the spiritual and social importance of hunting caribou keeps Indigenous people connected to their traditional way of life, which is subsequently passed down to future generations.

It is critical to include First Nations communities in caribou management plans, as they have been living in co-existence with the species for millennia and are the true stewards of the land. Furthermore, since caribou are rooted in First Nations’ connection to the land, their persistence is a critical part of First Nations’ self-determination.

CARIBOU NUMBERS

The latest estimates from 2014 suggest that there are between 33,000 and 34,000 Boreal Woodland caribou in Canada (Environment Canada, 2020a). In Saskatchewan’s SK1 Woodland caribou conservation unit, the population is expected to be stable, with at least 4,000 individuals as per 2019 estimates (McLoughlin et al., 2019). The SK2 conservation unit is not being adequately monitored (Environment Canada, 2020a), however, it is expected that these populations are not self-sustaining (Government of Saskatchewan, 2019).

To be self-sustaining, a local population requires more than 300 individual Woodland caribou. This said, an area of 10,000 to 15,000 km² is required per local population. Within their local populations, Woodland caribou live in groups of less than 15 individuals and do not gather in large numbers as do Barren ground caribou (Environment Canada, 2020a).

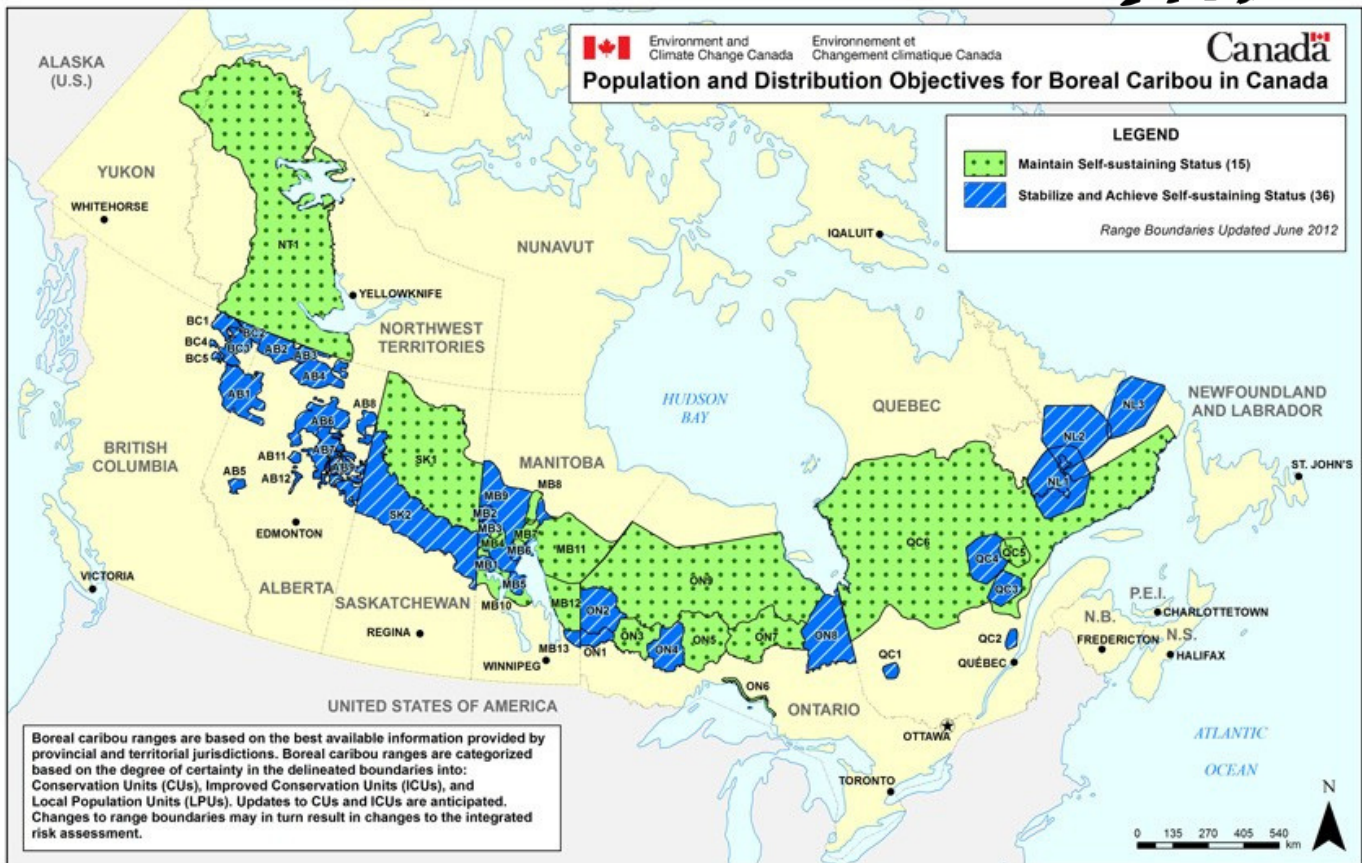


Figure 1. This map demonstrates the population and distribution objectives for Boreal caribou across Canada. SK1 must maintain self-sustaining status and SK2 must stabilize and achieve self-sustaining status. (Environment Canada, 2020a).

THREATS TO WOODLAND CARIBOU

The decline of caribou populations is tightly linked to the encroachment of industrial development of the boreal forest. Oil and gas, forestry, and mining operations have fragmented much of the forest, opening networks of roads and seismic lines that serve as useful corridors for predators such as wolves. Increased access is also utilized by hunters, poachers, and off-road vehicle recreation, all of which impact the movement and habitat of caribou. Disturbances such as these often force caribou to relocate outside of their preferred habitat, retracting their already shrinking range.

Not only do predators have increased access to caribou and their habitat, but other ungulate competitors have been increasing throughout their range. As the forest is disturbed and regenerated, it creates conditions that attract moose, elk, and deer who prefer younger trees and openings within the forest. An increase in ungulates further attracts the attention from predators. Moreover, as deer increase in caribou's range, the chances of disease transmission become higher. Deer can be infected with meningeal worms and chronic wasting disease, both of which are lethal to caribou.

Another factor influencing the influx of ungulates is the increase in frequency and intensity of forest fires. Although forest fires are a natural part of the boreal ecosystem, the rate and intensity at which they are occurring is not. While old-growth forests used to be able to withstand smaller fires that cleared away thick underbrush, fires are now burning everything in their tracks, killing the old-growth trees that harbor lichen that caribou rely on. Post-fire regeneration vegetation is very suitable habitat for deer and moose populations.

Matters are made worse by the biology of the caribou; low birth rates coupled with high calf mortality leave caribou populations in a highly vulnerable situation.

CWD

Ungulate competitors that move into the newly forested areas may also bring disease with them. Chronic Wasting Disease (CWD) primarily infects moose, elk, and deer, but transmission to caribou is likely possible.

The disease spreads between individuals through bodily fluids, infected animals, and contaminated areas. It is fatal as it infects the central nervous system; abnormal proteins gather in the brain and tissues and eventually severely impact regular activity (Government of Saskatchewan, 2021).

Though there has not been any cases found in humans, it is best to take precautionary measures when CWD is suspected to avoid infection (Fischer, 2019).



BARREN GROUND CARIBOU

Barren ground caribou also reside in Saskatchewan; they live primarily in its most northern parts, but their territory also overlaps with that of the Woodland caribou.

Barren ground caribou live in large herds and are migratory creatures. They are especially important to the Denesūliné.

Barren ground caribou are listed as Threatened on the North West Territories Species at Risk Act are under consideration for addition to the Federal Species at Risk Act (NWT Species at Risk, 2021).

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