

NWT  
Species  
at Risk

# Are Caribou Important to You?

Photo by John Nagy

**Boreal Caribou**  
Conservation in the Northwest Territories

# NWT Species at Risk

## Boreal Caribou Conservation in the Northwest Territories

### What threats are Boreal Caribou facing in the NWT?

We can look at what has happened and what is happening to boreal caribou in other parts of Canada to give us some idea of the current and potential threats to boreal caribou in the Northwest Territories.

Boreal caribou (*Rangifer tarandus caribou*) live in the boreal forest across much of northern Canada. They are a valuable economic and cultural resource to NWT residents as their meat is used for food and their hides are used for clothing and other crafts.

Outside the NWT, declining numbers and habitat loss has meant that boreal caribou are no longer found in some areas where they used to live. Concern about boreal caribou in much of Canada led to their being listed as *Threatened* under the federal *Species at Risk Act* in 2004. They are now protected on federal lands and a national *Recovery Strategy* is being developed to conserve and recover boreal caribou populations and their habitat across Canada. Under this national strategy, the Department of Environment and Natural Resources is developing an *Action Plan* for the conservation of boreal caribou in the NWT.

In the NWT, boreal caribou are found in low numbers. They have a low reproductive rate, as cows do not usually calve until their third year. This makes boreal caribou particularly sensitive to human activities because even a small change in the rate of survival for adults could cause a population decline.

We would like to hear your opinions on what we should do to make sure boreal caribou remain in the NWT for a very long time. Our goal is to give everyone interested in boreal caribou the opportunity to work together to maintain local populations of boreal caribou and their habitat. Although boreal caribou are not currently in danger of being eliminated from the NWT, they are vulnerable to human activities and we need to work together to make sure they don't disappear.

**Biologists from Environment and Natural Resources will be discussing boreal caribou at community and co-management meetings throughout the NWT. We want to hear from you!**



Photo by Boyan Tracz

Can you spot the Boreal Caribou?

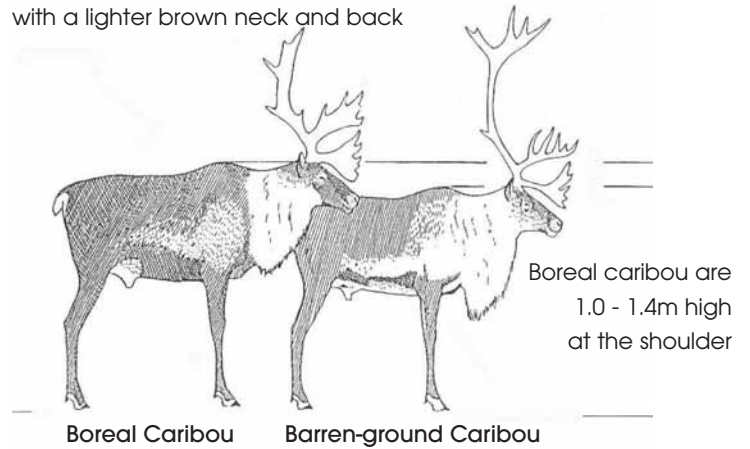
# What are Boreal Caribou?

Boreal caribou are different from the barren-ground caribou that live in large migratory herds. Boreal caribou are larger than barren-ground caribou and have thicker, broader antlers. They are darker brown, and have longer legs and longer faces. Boreal caribou spend most of the year within the forest rather than travelling the long distances typical of barren-ground caribou migrations.

Boreal caribou are genetically similar to the mountain caribou that live in the Mackenzie Mountains but they have different *lifestyles*. Mountain caribou are found in groups that may number in the thousands during late summer to late spring and have distinct seasonal migrations, using different elevations during the changing seasons. Boreal caribou do not migrate, tend to live in small groups and prefer different forest habitat types from mountain caribou.

People in the NWT usually describe boreal caribou as smart, secretive and difficult to hunt. When disturbed, boreal caribou generally disappear quickly into the forest rather than running onto frozen lakes like barren-ground caribou.

Boreal caribou have dark brown legs and face with a lighter brown neck and back



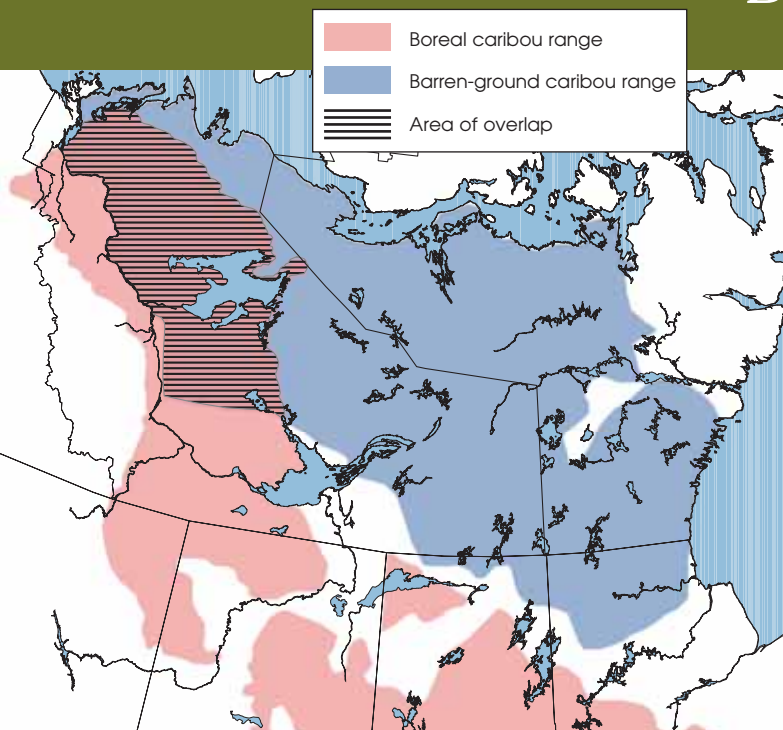
## Hunters have described boreal caribou as:

*"...Smaller than moose, but bigger than bull barren-ground caribou. They are strong and fast. You can only pack one into a sled."*

*"They walk like a moose...thicker hides than barren-ground caribou."*

*"They are big and way taller, like a moose. They are darker, bigger antlers, and stronger (than barren-ground caribou). Boreal caribou are hard to see."*

# Where can you find Boreal Caribou in the NWT?



Large undisturbed areas of old-growth spruce forests mixed with treed peat-lands are important for boreal caribou, particularly during winter. Caribou eat different types of plants during the year, including sedges and horsetails, but their most important food are lichens. In winter, caribou depend on lichens they find beneath the snow and will eat lichens growing on the ground or on trees.

Generally, boreal caribou are found south of Great Slave Lake east to Little Buffalo River, down the Mackenzie Valley to the Delta, east to Great Bear Lake, and west to the Mackenzie Mountains. The map shows the areas that boreal caribou could be expected to use. Notice that there is some overlap between areas used by barren-ground caribou and boreal caribou. Local knowledge suggests that boreal caribou are still found in most of the same areas they have been found in the past.

# Developing an Action Plan to Conserve Boreal Caribou

## Studies

The first step in developing an *Action Plan* for conserving boreal caribou is to understand the NWT boreal caribou population. Because they live in small groups, boreal caribou are difficult to count so we don't know how many animals there are. Although Aboriginal hunters have lived with boreal caribou for generations, scientific studies in the

NWT only started in 2001. So far, hunters have been interviewed in the Inuvialuit, Gwich'in, and Sahtu regions to find out where boreal caribou have been seen in the past. Dehcho First Nations have provided information on boreal caribou harvesting and observations and similar work is planned for Wek'èezhii. Biologists have also put radio collars

on boreal caribou in the Inuvialuit, Dehcho, Sahtu, and South Slave regions to collect information on where the animals go, what kind of habitat they use, and how the population might be changing. This information will help identify what steps might be needed to help manage the current and potential threats to boreal caribou.

## Tell us what you think...

Are there areas you know of that are especially important to boreal caribou?

Have you seen any changes in the way caribou use the land near roads or seismic lines?

How should the use of land be monitored or controlled to make sure boreal caribou habitat is protected?

How can we balance protection of habitat for boreal caribou with industrial development?

## Habitat Changes and Loss

In Alberta, agriculture, timber harvesting and especially oil and gas development have resulted in vast changes to the northern boreal forest. These activities require trees to be removed, new roads to be built, and seismic lines and pipeline right-of-ways to be cleared. It has been shown that some boreal caribou avoid habitats they like if there are roads and seismic lines nearby. This indirectly results in a further loss of habitat. Also, boreal caribou using areas near roads and seismic lines are more vulnerable to harvest and predation. All of these types of activities are expected to increase in the NWT. In the near future, development may break boreal caribou habitat up into small isolated areas or cause the loss of important habitat in the NWT.

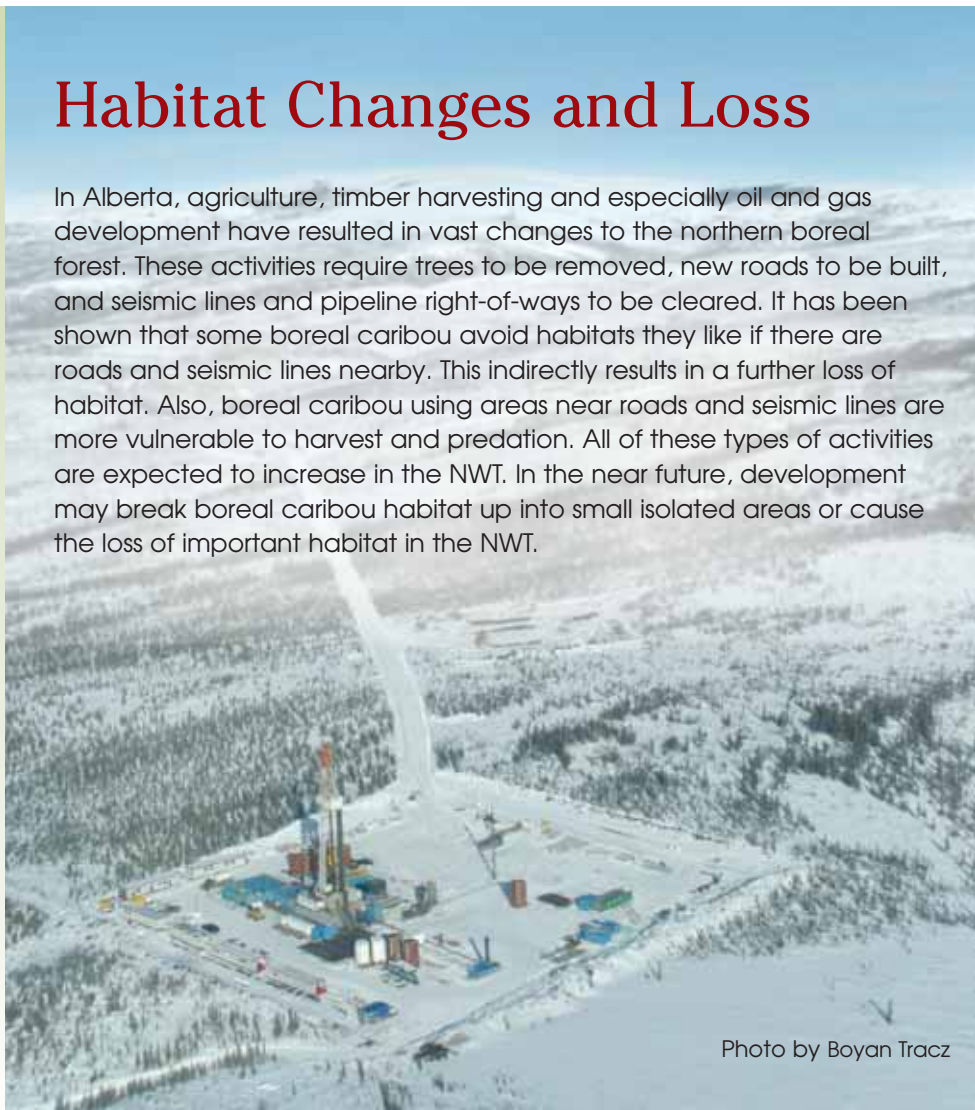


Photo by Boyan Tracz



Photo by Mike Bly

## Predator and Prey Changes

Boreal caribou have always co-existed with predators. However, cleared areas, especially long clearings like roads and seismic lines, make it easier for wolves and bears to travel through the forest and locate prey. Food attractants like commercial waste fish piles and remote garbage dumps may increase the number of predators in some areas and increase the risk of predators finding boreal caribou. Clearings and wildfires also allow other plant species like willow to increase, which can improve conditions for moose and deer. More moose, deer and other prey species usually mean more predators in the boreal forest.

### Tell us what you think...

Are there more beaver, white-tailed deer, muskox, bison or barren-ground caribou than there used to be in areas where there are boreal caribou?

Have you seen any new prey species in the forest?

Are there more wolves or bears than there used to be in areas where there are boreal caribou?

Should we limit the number of long clearings or roads and seismic lines?

## Wildfire

Caribou have always existed with wildfire. However, the result of increased habitat change from development along with natural disturbances such as wildfire is not well understood.

## Climate Change

There is a complex relationship between boreal caribou and climate. It is not known how climate change will affect boreal caribou and their habitat but snowfall patterns, summer temperatures, and food supplies are expected to change. For example, warm winters can result in freeze and thaw cycles that create crusts on the snow. This can make it difficult for caribou to reach their food. Wet summers can result in higher numbers of biting insects.

### Tell us what you think...

Do caribou use different habitat types when snow conditions change?

Is boreal caribou behaviour affected by the number of mosquitoes and black flies?

### Tell us what you think...

How does wildfire change the way caribou use the land?

How can the forest be managed to improve boreal caribou habitat?



# Parasites and Diseases

The effect of diseases, parasites, and insect harassment is unknown for boreal caribou. Wildlife species expanding their range northwards could bring unknown diseases or parasites to boreal caribou. We need to sample more animals to find out what diseases and parasites occur in boreal caribou.



Photo by Gary Wobeser

## Tell us what you think...

How should we collect samples to test for disease and parasites in boreal caribou?

Should there be a rule that all boreal caribou harvested by all hunters must be inspected?

## Tell us what you think...

Should harvest information be collected from all hunters? If so, how should information be collected and who should do it?

Have there been changes in the number, location, or condition of boreal caribou being hunted?

Have there been any changes in how difficult it is to hunt boreal caribou?



Photo by John Nagy

## Vehicle Collisions

Boreal caribou can be killed or injured by collisions with vehicles. Over the past 10 years, heavy truck traffic has increased on NWT highways, including winter roads. Heavy winter road use related to industrial activity and the Mackenzie Valley pipeline might increase the number of collisions between boreal caribou and vehicles.



Photo by Richard Popko

## Harvesting

The NWT has a limit of one woodland caribou per year (either boreal or mountain, but not both) for resident hunters; non-residents can only hunt woodland caribou in the Mackenzie Mountains. There is no limit or closed season for boreal caribou for Aboriginal hunters. We think the total boreal caribou harvest is low, but we don't collect harvest information from all hunters so we cannot be certain.

## Tell us what you think...

Should we monitor the number and locations of collisions with caribou?

Are there any highway sections that boreal caribou frequently cross?

Are more signs needed to show where caribou and other wildlife cross all-season and winter roads?



Photo by John Nagy

## Tell us what you think...

Have we identified all the current and potential threats to boreal caribou in the NWT?

What can we do to conserve and maintain boreal caribou populations in the NWT?

These are important questions that we need your help to answer. The largest challenge involves identifying and managing impacts from oil and gas exploration and development. Other activities like forestry, tourism, mining, and agriculture, and their interactions with each other also pose a challenge. Government, communities, co-management boards, and industry need to work together to manage boreal caribou and their habitats in the NWT.

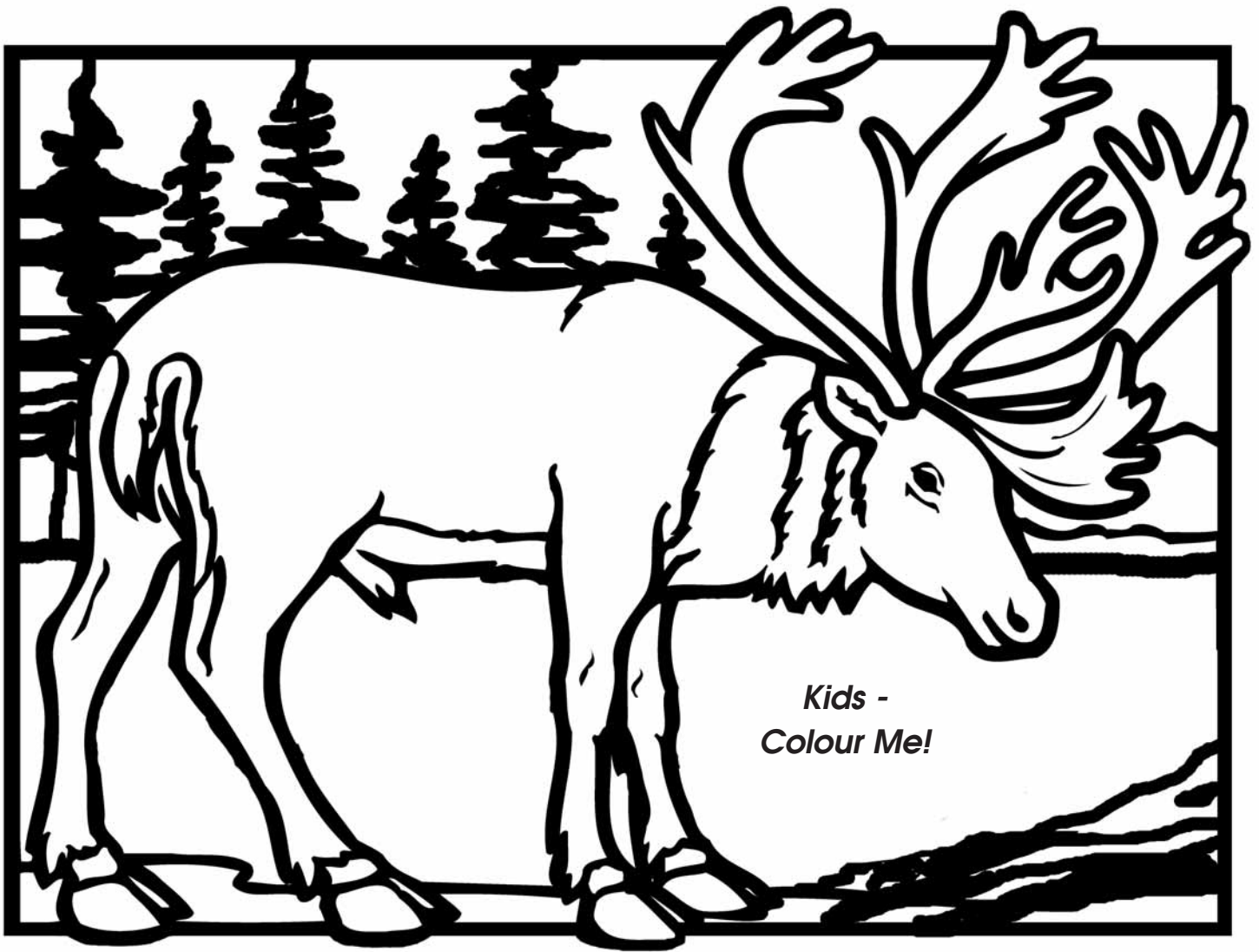
## We want to hear from *YOU!*

Biologists from Environment and Natural Resources will be discussing boreal caribou at community and co-management meetings throughout the NWT. We want to hear from you so please attend and make your opinions heard. If you cannot attend a meeting, then please contact your local ENR office to provide information that you think is important for boreal caribou management.

**Please contact your regional Environment and Natural Resources office or:**

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