

CARIBOU PATROL

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EduKit

PUBLIC VERSION

Woodland caribou (*Rangifer tarandus caribou*) are a federally listed Species at Risk, and many people are unaware that we are in danger of losing them. Its status as a Species at Risk means that strategies are in place to try to help caribou populations recover.

Caribou inhabit the northern part of the globe and play an important role in maintaining a healthy and diverse landscape.

This EduKit is designed to help you learn a bit about the Caribou Patrol Program, caribou, their habitat, and the threats they face, as well as some of the things that we can do to help manage and recover this iconic species.



J.D. Robert Wiebe Photography



CARIBOU PATROL
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ABOUT THE PROGRAM

In 2012, the Aseniwuche Winewak Nation (AWN) started this grassroots program in response to the declining caribou herd populations in west-central Alberta. Caribou Patrol is an Indigenous-led stewardship program that promotes caribou conservation within AWN's Traditional Territory.



CARIBOU PATROL

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The objectives of this program are to:

- Reduce the potential of vehicle collisions with woodland caribou on area roadways through road patrols.
- Increase public safety by providing the public with wildlife road sharing information and tips.
- Enhance awareness of caribou management through education and outreach initiatives for three specific user groups: the public, industry, and students (school groups).
- Collect data on wildlife sightings.

Road patrols involve driving the Caribou Corridor, which is a 40 km stretch of highway between Muskeg River and Big Berland River, and occasionally other roads that fall

inside caribou ranges, looking for caribou, other wildlife and potential hazards to people or wildlife. Patrols focus on reducing the potential of caribou-vehicle collisions and are conducted daily during caribou migrations, and semi-regularly during the rest of the year depending on sightings and abundance.

If caribou are sighted on or near the road, Caribou Patrol Crews will use various techniques to either help the caribou cross safely or encourage them away from the road and danger.

Crews will speak with and provide information to travellers as well as placing road signs to warn motorists when and where caribou are regularly seen, encouraging them to slow down and watch for wildlife in those areas.

Caribou Patrol also spends a lot of time providing education about the

program as well as the caribou and their threats by attending public events, providing presentations and information sessions and through the creation of our Edukits. There are five versions of our Edukit, including this one, directed at different audiences: junior for young children, student for older children, public for young adults and adults, a shorter version in French, and a booklet aimed at people working in the industry sector.

Digital versions of all our EduKits are available free for download on our web page.



resources

Check out Caribou Patrol's website for the latest updates on our stewardship program at <https://www.cariboupatrol.ca/>

Check out the Caribou Program at fRI Research for updates on local caribou research at <https://friresearch.ca/program/caribou-program>

For other caribou-related current events, news, videos, and reports, go to the Land-use Knowledge Network website at <https://landusekn.ca/>

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WHY DO WE CARE

Caribou are an important species in our Alberta boreal forest and play a significant role in maintaining the structure of the ecosystem in their habitat. Boreal forests have extremely rich soils that can store two times the carbon compared to the same area of tropical forests. This is due to the incredibly slow decomposition of organic matter caused by cold temperatures and a higher content of fresh water. Disturbance to our boreal forests can cause a reduction in its ability to absorb carbon or even a release of stored carbon to the atmosphere, potentially increasing the effects of climate change.¹

Woodland caribou are sensitive to disturbance and thrive in intact forest and isolation. As such, woodland caribou are a strong indicator species for the health of the broader boreal forest.¹ Declines in caribou populations are primarily caused by habitat changes resulting from both human-caused and natural disturbances. Because caribou depend on the health of old growth boreal forests and the ability to live in areas that historically didn't support alternate prey, the widespread declines reflect the many changes to the land that have happened in our lifetime. Caribou are herbivores, so they only eat plants, and they have a big impact on the plant species in the forest. Their foraging and droppings changes the nutrients and decomposition in the soil and water. Caribou are also prey for many animals like wolves, bears, cougars, and wolverines, and for scavengers like ravens and eagles.



Caribou Patrol November 2021

Woodland caribou mean different things to different people. For instance, they are a cultural keystone species for Indigenous Peoples, who used caribou for food, clothing, artwork, and tools at one time. A cultural keystone species is a species whose existence and symbolic value shape in a major way and over time, the cultural identity of a people, as reflected in the fundamental roles these species

have in diet, materials, medicine, and/or spiritual practices.³

Woodland caribou hold various meanings such as food, a spiritual ancestor, a gift from the Creator, a totem spirit, and a neighbour.⁴ Caribou are a living connection to Indigenous Peoples' cultural heritage, which goes back for many hundreds of years.⁵



CULTURAL IMPORTANCE OF CARIBOU

Aseniwuche Winewak Nation of Canada (AWN)⁵

We are the Aseniwuche Winewak. We come from the mountains. Our people exercised a high degree of personal freedom and, like many Indigenous Peoples, welcomed in individuals from other Indigenous groups, most often through marriage or adoption. Our ancestors include the Beaver, Sekani, and Shuswap peoples, who originally lived on the Eastern slopes of the Rocky Mountains, the Cree and Ojibwa peoples, and, as most recorded and recognized by outsiders, Iroquois hunters who journeyed west from Kahnawake in the employ of the North West Company, the Montreal-based fur trade competitor of the Hudson's Bay Company, in the last decade of the eighteenth century and the early years of the nineteenth.

Aseniwuche Winewak is Cree for Rocky Mountain People. The members of the Aseniwuche Winewak Nation of Canada (AWN) are non-status Indians from the northern Rocky Mountains, which is now Jasper National Park, Willmore Wilderness Park, and the Grande Cache area.

A handful of years ago, our People were as much a part of the natural system as the wolf or caribou. We functioned as an integrated part of a sustainable ecosystem. Our Elders know that one environmental change or impact is never an isolated event,



Aseniwuche Winewak Nation

but the first in a chain of interrelated events that ultimately affect the entire environment. Science tests this theory in laboratories or test sites; our People experienced it as an integral part of the landscape. Such intimate knowledge and understanding of the natural world are irreplaceable and invaluable; it is our Traditional Knowledge.

Traditional Knowledge (TK) is learned by countless generations. Inclusion of TK in land management strategies has a vital role in managing a sustainable landscape. Traditional Knowledge is inclusive: it includes qualities that can be measured such as which creeks contain spawning bull trout, and immeasurable qualities like knowing moose hide makes more durable moccasins.

DID YOU KNOW?

Sustainability and integration of knowledge are not new concepts to Indigenous people. Understanding these concepts is a part of who we are. It is how we survived.



Our Traditional Knowledge is:

- listening to our Elders when they tell us that we need to think of our children and grandchildren.
- knowing where and when to hunt, how to skin an animal, how to prepare meat, how to tan a hide, how to make tools, how to survive.
- knowing that all things are interconnected; one thing can't be changed without changing the whole.
- sharing our stories and our history because we have always been here,
- having a vision for the future, knowing that our collective future depends on cooperation.

The integration of Traditional Knowledge and Western Scientific Knowledge can reduce environmental impact and create balance.

Our Traditional Territory is a prime area for oil and gas development, coal mining, and forestry activities. As a result, much of the land is segmented and broken up by the disturbance caused by these activities, as well as other human caused land disturbance. There is little consideration for the cumulative effects that these activities have on the land and the effect they have on the ability for Indigenous people to practice our traditional way of life.

Many of the plants that we rely on for food or medicines are often sprayed with herbicides and pesticides used by industry both during operation and reclamation to preserve and promote the growth of desired plant species. Edible and medicinal plants are also often removed during operation and are not returned after reclamation if they are not viewed as a required species. Both these activities discourage the natural regeneration of the land after disturbance.

Increased disturbance on the land also has an impact on water. Chemicals and minerals not naturally found here often find their way into watercourses and waterbodies. Changes in the land around these waters also change the composition of the plants and animals able to live here, changing the natural balance.



AWN PERSPECTIVE ON CARIBOU ⁵

Our concern for the woodland caribou is founded in the belief that the Creator made all things and that all living things have a right to be here. We live by the Cree principles of Manâcihtâwin and Wakhôtowin. Living according to the principle of Manâcihtâwin entails responsibilities and obligations related to the respect, care, and attention toward all of creation. Respect and reciprocity guide the relationship that Cree people hold with the land; natural laws dictate that there are consequences to the treatment of the land which may have an impact on future generations. Within the concept of Wakhôtowin is the recognition that all beings are related and connected in the world, and it encourages all peoples (Indigenous and non-Indigenous) to show respect for one another and for all other relations, including plants, animals, the land, and the spiritual beings.

Our Traditional Territory contains the ranges of six Woodland Caribou herds, the Little Smoky, the A La Peche, the Red-Rock Prairie Creek, and the Narraway, as well as the Brazeau, and the Tonquin herds in Jasper National Park. A third Jasper herd, the Maligne herd, was declared extirpated in 2020.

Caribou used to be an important part of the diet of many of the families living here and most parts of the caribou were used for several things.



Caribou Patrol October 2021

Hides/Furs	Hooves/ Lower Legs	Brain	Antlers	Bone	Meat
Sinue Clothing Shelters Storage Rugs Bedding A larger duffle bag could also be made that would double as a pillow and blanket Crafts	A little storage bag	Used to tan hides	Tools Crafts	Hide scrapers (only when collected in the fall when the bone was more solid) Other tools Crafts	Food

In Alberta, only Indigenous Peoples are still allowed to hunt caribou, but many choose not to. We were the first to notice a decline in the caribou herds we hunted in the 1970's and we put a voluntary moratorium on the hunting of caribou until the herds have recovered.

Decades later, we still do not hunt the caribou in our traditional territory.

As Caretakers Of The Earth, we have a unique role in responding to the declining caribou populations. We hold the stories of where caribou used to be and how they were used and are now able to provide programs that help to paint the current picture. The AWN is supportive of finding a reasonable balance between economic interests and the environment; however, the Alberta government has done little to protect the Caribou and its habitat until recent years. Selling natural resources without full consideration of the impact on environmental land values has put caribou, and other aspects of the land, in jeopardy. There is an immediate need for concrete solutions.



Our Elders teach us that we must “speak for those who have no voice”. For decades, we have been speaking up for the preservation of caribou to anyone who would listen. We have been active in many caribou-recovery strategies. AWN views caribou as an indicator species, and when the environment cannot sustain the caribou, it signals an unhealthy ecosystem.

AWN Elders have shared these observations about caribou:

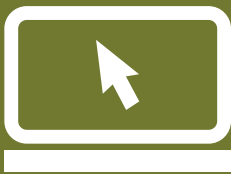
We used to see caribou and their calves all the time. Now it is very rare.

Caribou were never just in one spot or one area, they were everywhere.

All the animals around here used to be fatter and healthier than they are now.

The Little Smoky is a boreal herd and they do not move around to different areas. They need muskeg and old forest to live.

We can tell if the caribou are boreal or mountain based on the size of their footprints. Boreal caribou have bigger feet because they have to travel through deeper snow and muskeg—it's like snowshoes.



resources

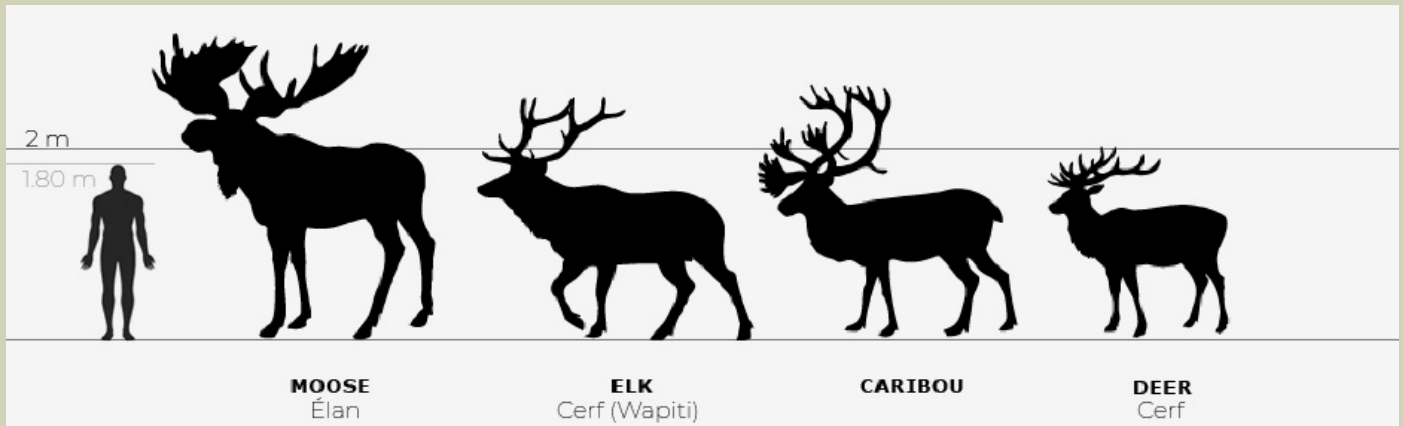
To find out more about the AWN, visit <https://www.aseniwuche.ca/>

To find out more about AWN's perspective on caribou, visit <https://www.cariboupatrol.ca/information-and-resources>

To learn more about the environmental solutions that integrate scientific and Indigenous Traditional Knowledge, please see the Aseniwuche Environmental Corporation website <https://www.aseniwuche.ca/adc-and-aec/>

WHAT ARE CARIBOU?

Caribou are an ungulate (hoofed mammal) and a medium sized member of the deer (Cervidae) family.



These stately animals were once one of Canada's most widespread wildlife species, found in over 80% of the country.¹⁸ Today though, their numbers in many herds are dropping, some by more than 90%.¹⁷

Types of Caribou

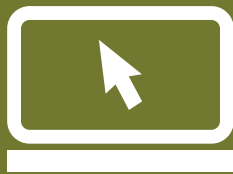
Caribou and reindeer are actually the same species (*Rangifer tarandus*), despite having different appearances, behaviours, and habitats.

"Reindeer" is the name given to all caribou subspecies in Eurasia, as well as domesticated caribou in North America.

"Caribou" refers to wild members of the species located in North America.

A subspecies is a group within a species that has become somewhat physically and genetically different from the rest of the group. There are three subspecies of caribou in Canada, woodland, barren-ground, and peary caribou. They are all caribou, but groups in different areas look a little different and behave in different ways. Woodland caribou (*Rangifer tarandus caribou*) is the subspecies we have in Alberta.

An ecotype is a group of animals within a species that has adapted to particular environmental conditions and habitat and acts differently from the other ecotypes. In Alberta, woodland caribou have two ecotypes, the boreal forest ecotype, which does not migrate seasonally, and the mountain ecotype which does.



resources

Check out this 2023 report that provides an update on the status of woodland caribou in Alberta.

Title: First report on the implementation of the Section 11 agreement for the conservation and recovery of the woodland caribou in Alberta.

View the report at:

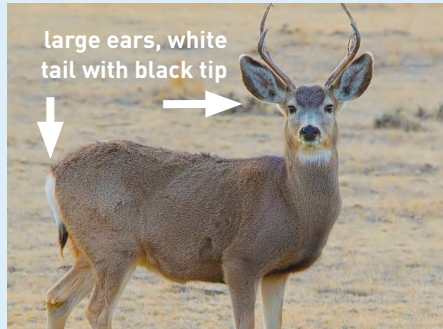
<https://open.alberta.ca/publications/first-report-implementation-section-11-agreement-conservation-recovery-woodland-caribou-in-alberta>

ABOUT CARIBOU

What Do Caribou Look Like?

The woodland caribou is a medium-sized member of the deer family, but caribou don't look like deer.

www.wikipedia.org, March 3, 2014



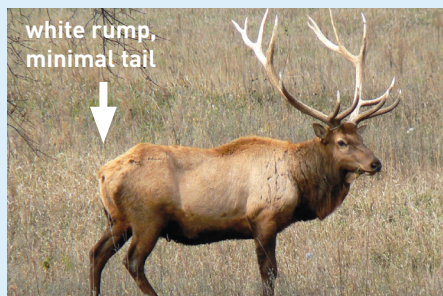
This is a mule deer.

Gordon Cooke, Calgary, AB, February 28, 2015



This is a white-tailed deer.

www.wikipedia.org, March 3, 2014



This is an elk.

www.wikipedia.org, March 3, 2014



This is a moose.



J.D. Robert Wiebe Photography

DID YOU KNOW?

The hair that covers the body of the caribou is called the pelage. The pelage changes colour throughout the year and is darkest in the summer.

Caribou have a brown body with a cream-coloured neck, mane, tail, and rump. Their coat is really dense and heavy to protect them from the cold winters and high winds. They have two layers of fur—fine, crinkly underfur and a thick coat of guard hairs on top. The guard hairs are hollow and have air cells in the hair that act like insulation, keeping the caribou's body heat in. They have small tails, short ears, and compact bodies, and that keeps them protected too. These features reduce the amount of heat that can be lost through the skin.⁶ Caribou are the only member of the deer family to have a fur covered muzzle which allows them to regulate their body temperature. The muzzle acts as a heat exchanger, warming and cooling air to reduce heat and moisture loss as they breathe in and out.¹⁹

Woodland caribou, found throughout the boreal forests of Canada, are the largest and darkest of the caribou subspecies.²³ They have long legs to help them move through deep snow, and their hooves are large with four toes, two in the back (dew

claws) which increase the weight-bearing area, and two in the front (hoof) which are hollow underneath and can grow to remarkable lengths in the winter. This gives the caribou firm footing on ice and crusty snow while also allowing them to use their feet like shovels for digging for lichen under snow up to a meter deep.²³ In the summer, these hollow hooves also make caribou efficient swimmers, which allows them to jump quickly into the water to escape from predators. Caribou can find their way straight across a lake that is too wide to see the other side. Caribou hooves also spread out quite wide, working like snowshoes in snow and muskeg and paddles in the water, they also are hairy underneath, giving them a good grip when walking on frozen ground, ice, mud, and snow.¹⁹

Antler Growth

Caribou antlers are really big, and they curve forward. One thing that sets them apart from other members of the deer family is that the female caribou has antlers too, although hers are smaller than those of the male. A male's antlers can grow to be more than 1m long and weigh up to 33 lbs (15 kg). Compared to their body size, caribou have the largest and heaviest antlers of all living deer species. Female antlers only reach

half a meter in length.²¹

Males will lose their antlers after the rut in late autumn to early winter while non-pregnant females will lose their antlers a little later during the winter. However, pregnant females will not drop their antlers until after they give birth in the spring. Because animals with antlers are dominant over those without, this adaptation allows a pregnant female to protect

DID YOU KNOW?

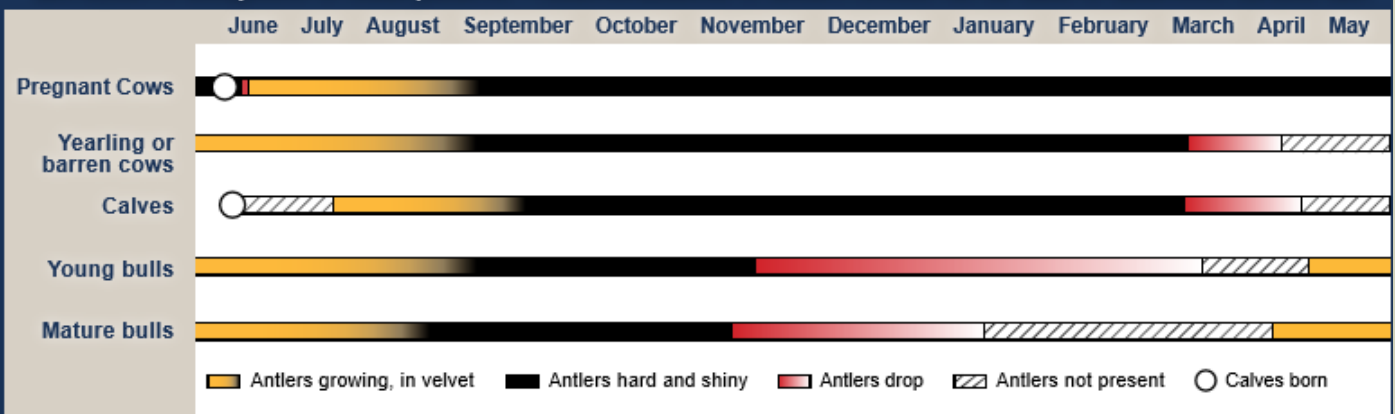
Antlers can weigh up to 16 kilograms, which is 10 percent of a caribou's body weight.

her food resources during scarce winter conditions and while nursing, ensuring adequate nutrition for the continued development of her calf.²⁰

The Alaska Department of Fish and Game, Division of Wildlife Conservation

When do caribou usually drop their antlers?

***This is a simplified illustration to represent most caribou in Alaska. Keep in mind that each herd is different and there are ALWAYS exceptions to these patterns. Presence/absence of antlers should not be used to determine caribou sex.**



Male and female caribou both grow antlers every year. However, they shed them at different times. Males lose them in the winter while females lose them after calving.

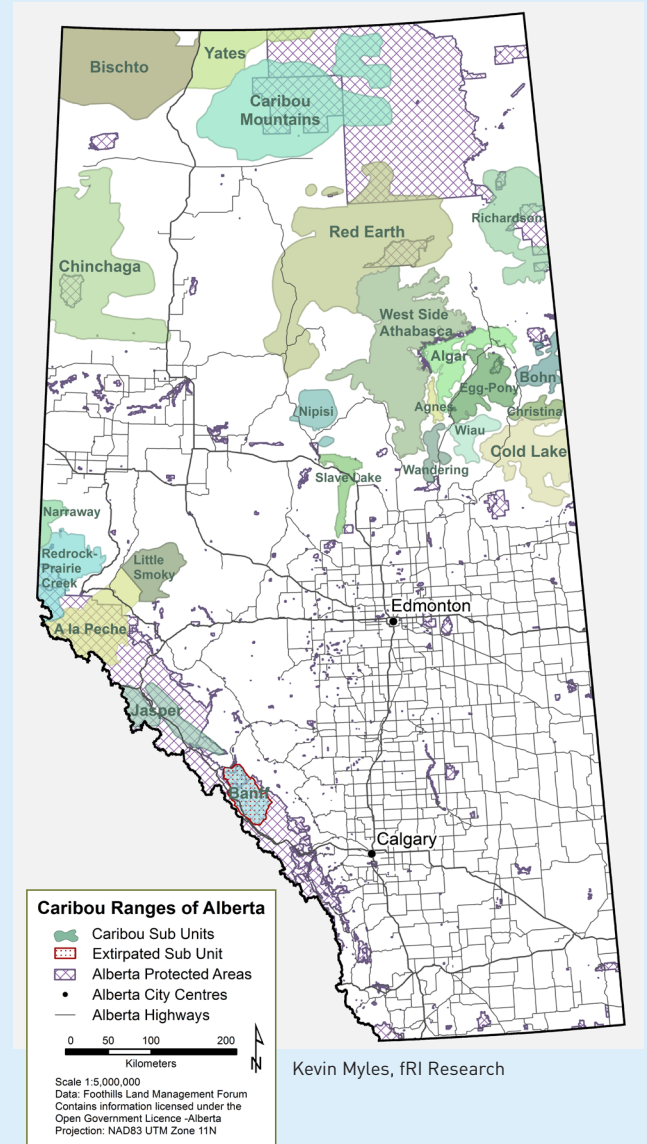


Where Do Caribou Live?

Like any other plant or animal, caribou need certain things in order to live. These include food, water, shelter, and space. Caribou need to be able to do two things at once: they need to eat, and they need to keep watch for predators. Like many other animals, caribou fill this need by gathering in herds. When caribou are in a group, several animals will be looking up and around while others are eating. They sniff the air regularly and can alert other caribou to danger.

At one time, caribou were considered one of the most abundant large ungulates on earth, and current estimates suggest there are more than 5 million worldwide. A 2013 study indicates that caribou populations in Alberta have declined by approximately 50% every 8 years²² with some herds having seen an 80% reduction in their population to date. Current population estimates suggest Alberta currently has around 2000 caribou.¹¹

There are more than 2.4 million caribou in Canada.²³ Some dwell in forests, some in mountains, some migrate each year between the sparse forests and tundra of the far north, and others remain on the tundra all year. Woodland Caribou are found throughout much of the boreal, or northern, forests from British Columbia and the Yukon Territory to Newfoundland and Labrador. They require large areas comprised of continuous tracts of undisturbed habitat rich in mature to old-growth coniferous forest, lichens, muskegs, peat lands, and upland, hilly, or mountainous areas.



DID YOU KNOW?

Half of Canada is covered by boreal forest.

DID YOU KNOW?

Caribou find the food that is covered by snow by pushing their long, wide snouts into the snow, searching for food smells before beginning the difficult work of digging. Just as we can smell brownies in the oven, a caribou can easily smell food under one foot (30 cm) of snow. Caribou also use their noses to recognize each other and to detect danger.¹⁰





Jill Thorburn in 2019

DID YOU KNOW?

Lichens live a long time. The oldest lichens found in the boreal forest can be over 1,000 years old.

What Do Caribou Eat?

The woodland caribou lives in large areas of mature boreal forest and in muskegs that have lots of lichens, which are an important part of the caribou diet. Caribou are the only large mammals that can use lichens as a primary source of food. They have specialized stomachs that efficiently digest the lichens, allowing them to use this food source that is available during the winter when other foods are limited. The average caribou must eat at least three kilograms of food every day, which is about two garbage bags full.⁶

Lichens are non-vascular and are a complex symbiotic relationship between a fungus and an alga, sometimes containing more than one variety of each type. The fungus is the dominant partner, allowing the lichen to share its shape and fruiting bodies, while the alga allows the lichen to create its own food through

photosynthesis and thus does not have or need roots.⁸

Lichen is very slow growing. It typically takes forests 50-100 years to have enough lichen to support a group of caribou. This is why large areas of unbroken mature forests are essential for caribou survival. Lichens are rich in carbohydrates but poor in protein (nitrogen) which is why the caribou focus on grasses, flowers, shrubs, mushrooms, and leaves in the spring and summer to balance their diet.

There are many different kinds of lichens that caribou like. These include the aptly named reindeer lichen that grows in large patches as well as the colourful, crusty plants that sometimes grow on rocks in the forest. There are lichens that grow on trees too. Those are the long, dry green or black strings that you see.⁹



Chantelle Bambrick 2023



Chantelle Bambrick 2023



resources

To find out more about caribou in Canada, visit <https://www.canada.ca/en/environment-climate-change/services/species-risk-education-centre/caribou.html>

Health and Mortality in west-central Alberta
<https://landusekn.ca/resource/video-caribou-health-and-mortality-west-central-alberta-laura-finnegan>

NEW LIFE

In late September to mid-November, males, called bulls, engage in frequent and furious antler sparring battles to determine which is the most dominant male, which then gets the opportunity to mate with the females, called cows. This is called the rut.

Woodland caribou are much more solitary than their northern counterparts. Prior to calving, pregnant cows may separate from the herd to give birth and raise their calves in secluded patches of forest, small islands, or in muskeg, because those areas can be safer from predators. Caribou are the most scattered across their range during the summer. They do, however, band together in the fall when males are courting females. Cows and young caribou of both sexes travel in small bands throughout the winter, while mature bulls separate.

Pregnancy in female caribou, lasts around seven and a half months or 230 days, and baby caribou, called calves, are normally born in mid-June. Cows almost only ever have one calf per year, so each one is precious and important.

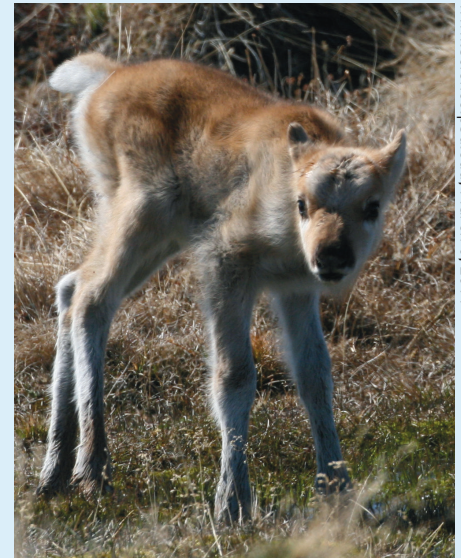
Calves are very small when they are born, barely larger than a full-grown house cat, and that makes them very

DID YOU KNOW?

Caribou have really sharp hearing. They must always stay alert to danger, even when they're sleeping or resting. They collect sounds from near and far. Caribou swivel their ears in almost any direction without turning their heads.¹⁰



www.gorshkov-photo.com, March 5, 2014



www.science.psu.edu, March 6, 2014

vulnerable. On average, 50-80%²⁴ of caribou calves die in their first year, meaning if 100 calves are born, 50-80 of them will die before their first year is over. That is not good for caribou survival.

Some things that can affect calf survival are:

- quality and amount of food for females while pregnant and the calves during their first year,
- the number of predators,
- the weather.

The calves who survive grow up fast. They can stand and walk a few steps about an hour after they are born. After a day, they can run and trot, and after a couple of days, they can even swim across streams. All calves are born at about the same time and grow up at similar rates, learning to keep up with their moms.⁶



resources

The 14th North American Caribou Workshop (NACW) was held in September 2012 in Fort St. John, B.C. The theme was Caribou in Managed Landscapes, and participants discussed the unique challenges facing caribou in multi-use landscapes across Canada.

Three videos were created with the generous donations of the 2012 NACW. View them at https://www.youtube.com/watch?v=XQmG4dkde50&list=PLUCpol2hyThVA0rNc_f0mGb5JutES1LLi

MIGRATION

Unlike the caribou that inhabit the tundra, woodland caribou do not migrate long distances between seasons, instead staying in the forest, either alone or in small groups.²⁵ Woodland caribou make short seasonal movements from summer to winter ranges. In the spring, the pregnant cows travel to their calving areas while the other caribou move to open mountain meadows and open spruce and pine forests. Caribou are always on the move to not overgraze their habitat, and they eat different lichens, grasses, herbs, shrubs, and mushrooms in different areas. During the summer, they travel and eat so they can build up their fat reserves for the long winter. In the fall, the caribou begin moving back to their winter ranges. These areas are often at lower elevations where they can easily dig through the snow for the lichen they rely on to get through the long, cold months.²

In our area, much of the caribou winter range is in the same place as roads, highways, and resource development, and that is very dangerous for caribou. The A la Pêche herd migrates across Highway

40 in spring and fall. Caribou Patrol crews reduce the potential of vehicle collisions with caribou by patrolling local roads and encouraging caribou off the roadways. The patrol also works to increase awareness of caribou concerns with the people who use roads in caribou areas.



Steven Fick/Canadian Geographic



Caribou Patrol



International Boreal Conservation Campaign



J.D. Robert Weibe

DID YOU KNOW?

While caribou occasionally snort, grunt, pant, and bellow, they are generally silent animals. The most common sound associated with them is a curious clicking noise. This clicking sound is produced when caribou walk. It is caused by tendons slipping over bones in the feet.⁷

Hear it here: <https://vimeo.com/81341806>



resources

Watch the documentary Being Caribou made by two Canadians who spent five months on foot with the endangered Porcupine Caribou herd. <https://www.youtube.com/watch?v=SsJ3w7hUfLs>

Watch the video clip Animated Movements of the Porcupine Caribou to see how caribou move through various habitats throughout the year: <https://www.youtube.com/watch?v=oJh02mN94fc>

ADAPTATIONS

All animals and plants have adapted to their environment. Adaptations increase the species likelihood of surviving in their habitat. When a habitat changes, either slowly or disastrously, the species with adaptations that allow them many options are the ones most likely to survive. Species that have adapted to a very narrow range of habitat conditions are extremely vulnerable to change and may be more susceptible than other animals to death or extinction.

Caribou are adapted to very specific conditions, which make them very vulnerable when those conditions change.⁶



DID YOU KNOW?

Caribou can run up to 60 kilometres per hour for short periods. When they sense danger, they run into open areas. Speed is their best defence against predators, but they don't always escape.



Richard T Wright

THREATS

There are many landscape-related challenges affecting caribou survival and their habitat. The following discusses threats that may be affecting caribou in Alberta.

Although each threat is discussed separately, the cumulative impact contributes significantly to the overall effects on caribou populations and habitats.

- **Habitat Change / Loss of Habitat.** Caribou habitat has been changing through timber harvest, oil and gas development and mining. The progressive alteration of these large contiguous forests to a younger, more fragmented forest and climate conditions, short and long term, are thought to have facilitated an increase in primary prey species other than woodland caribou (moose, elk, and deer). These changes have resulted in higher densities of predators, particularly in areas immediately adjacent to caribou range. Increased predator densities typically result in increased mortality of woodland caribou.
- Predation is acknowledged to be

one of the main limiting factors for caribou throughout Canada. Caribou that can spatially separate themselves from other ungulate prey are less susceptible to predation. In our area, predators include wolves, grizzly bears, black bears, cougars, bobcats, lynx, golden eagles, coyotes, and wolverines. In Alberta, there has been widespread predator control through trapping and various periodic intensive predator control programs.

- **Vehicle Collision.** Caribou struck by any vehicle traveling at highway speed do not survive. Every loss is detrimental to the herd. For more information on wildlife roadsharing, visit <https://wildliferoadsharing.tirf.ca/road-safety-and-wildlife/road-safety/>
- **Insects/Parasites/Diseases.** Other, much smaller members of caribou's habitat can affect their health. Many different insects,

parasites, and diseases affect caribou health. Their health and stress levels in turn affect their ability to survive and breed.

- **Climate change.** The changing climate is changing the growth and abundance of lichen, which could negatively affect caribou. It is also making winters less severe, which helps moose, elk, and deer to move into areas that caribou previously had to themselves. Climate change may also affect the frequency of wildfires, avalanches, more extreme weather, and insect outbreaks, which alter caribou habitat.
- **Pollution.** Air pollutants and contaminants collect in lichen. This may negatively affect caribou health. More research is required to determine how much of a threat this is in our area.⁶



HABITAT LOSS/ FRAGMENTATION

Increased development, logging, oil and gas and wildfires reduce the amount of mature forest available to caribou.



PREDATION & POACHING

Increased road, trail and seismic line densities facilitate travel for other ungulates, predators and human hunters into caribou habitat.



VEHICLE COLLISION

A La Peche caribou migrate across Highway 40 to travel between their winter and summer ranges.



CLIMATE CHANGE

Changes in climate negatively affect the production of lichen as well as increase chances of extreme weather, wildfire avalanches, and forest pests.

HOW MANY CARIBOU ARE THERE?

Exactly how lucky are you to see a caribou here in the Grande Cache, Hinton, or Grande Prairie areas?

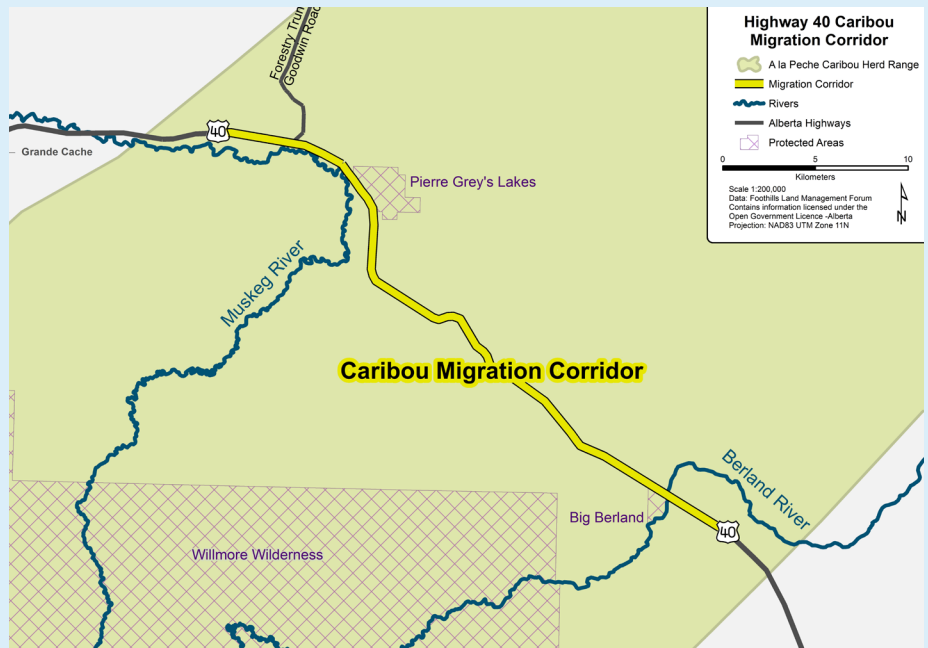
Of the four herds closest to Grande Cache, along the Highway 40 corridor and west into the mountains, only one herd is the boreal ecotype (Little Smoky), and the other three herds are the mountain ecotype (A la Peche, Redrock-Prairie Creek, and Narraway). According to the Report on the implementation of the Section 11 agreement for the conservation and recovery of the woodland caribou in Alberta (published in 2024), population estimates for each herd are as follows.¹¹

Range Name	Population Size Estimate	Year	Population Trend
Little Smoky	94	2012-13	Stable*
A la Peche	152	2017-18	Stable*
Redrock-Prairie Creek (RRPC)	153	2018-19	Stable*
Narraway	56	2018-19	Stable*

*Caribou populations are only stable due to extensive predator culling in caribou ranges.

Warning: Graphic Content

In 2018/19 there were a series of avalanches that killed 27 caribou in the RRPC range. In 2021 another 2 caribou were killed in an avalanche. The reasons for the apparent increase in avalanche deaths are uncertain but are not suspected to be related to climate change but rather fewer caribou migrating to the low elevation winter range. This change in caribou movement is likely due to the increase in disturbance in caribou ranges. As a result, they are staying in the mountainous summer range more, during winter, essentially, making the trade off between an increased predation risk by wolves at low elevations or an increased risk of avalanches at high elevations.¹²



Government of Alberta

SPECIES AT RISK – THE LAW

Definitions:

STATUS	DEFINITION
Extinct	A species that no longer exists.
Extirpated	A species no longer existing in the wild in Canada but do occur elsewhere.
Endangered	A species facing imminent extirpation or extinction.
Threatened	A species likely to become endangered if limiting factors are not reversed.
Special Concern	A species that may become a threatened or an endangered wildlife species because of a combination of biological characteristics and identified threats.

Federal Species at Risk Act (SARA)¹³

The purposes of the Species at Risk Act (SARA) are to prevent wildlife species in Canada from disappearing, to provide for the recovery of wildlife species that are extirpated, endangered, or threatened as a result of human activity, and to manage species of special concern to prevent them from becoming endangered or threatened.

The Act establishes a process for conducting scientific assessments of the status of individual wildlife species and a mechanism for listing extirpated, endangered, threatened and special-concern species. SARA also includes provisions for the protection, recovery and management of listed wildlife species, and their critical habitats and residences. The responsibility for conservation of species at risk is shared by all jurisdictions in Canada. The Act recognizes this joint responsibility and that all Canadians have a role to play in the protection of wildlife.

Alberta Wildlife Act¹⁴

The Wildlife Act is the primary provincial Law governing species and species at risk in Alberta. Species that are designated as endangered or threatened are legally identified as such under this Act.

This makes the harvesting or trafficking of that species illegal, punishable by a fine of up to \$100,000, imprisonment for a term of not more than 2 years, or both. There is also a year-round prohibition against disturbing the nest or den of an animal listed as endangered or threatened.

To find the list of endangered or threatened species in Alberta, see Schedule 6 of the Wildlife Regulation.

DID YOU KNOW?

There are 671 species (as of 2024) listed on Schedule 1 of SARA.

DID YOU KNOW?

Listing a species under an endangered, threatened or extirpated status triggers mandatory recovery planning, by the competent minister, in order to address threats to the survival or recovery of these listed species.

DID YOU KNOW?

It has been recommended both provincially and federally that Woodland caribou's "threatened" status be changed to the more dire "endangered" status.

WOODLAND CARIBOU RECOVERY IN ALBERTA

Section 11 Agreement¹⁵

In October 2020, a conservation agreement was signed between the Government of Canada and the Government of Alberta for woodland caribou, under Section 11 of the federal Species at Risk Act. The agreement sets out clear caribou conservation, management and recovery actions with timelines for achieving naturally self-sustaining woodland caribou populations and critical habitat outcomes.

PURPOSE

The purpose of this Agreement is to set out measures that will be taken by the Parties to support conservation and recovery of woodland caribou local populations in Alberta. Conservation, management, and recovery measures will include management and monitoring of important areas for woodland caribou, biophysical habitat attributes, and achievement and maintenance of a minimum 65% undisturbed habitat. These measures will align with Environment and Climate Change Canada's Range Plan Guidance for Woodland Caribou, Boreal Population (2016) and



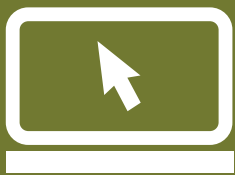
Jackie Urchyshyn

include: landscape planning; habitat conservation, management and recovery; mortality and population management; and population and habitat monitoring.

First Report¹⁶

In January 2024, the provincial government released the first report on the Section 11 Agreement. The report was three years late and only included data up to 2021. It also indicated that little progress had been made towards the goal of caribou conservation in Alberta during the first two years of the agreement.

- 23 of the 28 caribou subranges saw an increase in human disturbance between 2018 and 2021.
- The average amount of undisturbed habitat in caribou range is 19% when the Federal Recovery Strategy recommends a minimum of 65%.
- Of the 250,000 km of seismic lines on caribou ranges, 138 km were reclaimed by 2021 and work had started on a further 763 km.
- 824 wolves were killed by helicopter gunning and strychnine poisoning in 2020 and 2021.



resources

Agreement for the Conservation and Recovery of the Woodland Caribou in Alberta, between the Minister of the Environment (Canada) and the Minister of Environment and Parks (Alberta)
<https://open.alberta.ca/publications/agreement-for-the-conservation-and-recovery-of-the-woodland-caribou-in-alberta#summary>

Report on the implementation of the Section 11 agreement for the conservation and recovery of the woodland caribou in Alberta - 2024
<https://open.alberta.ca/publications/first-report-implementation-section-11-agreement-conservation-recovery-woodland-caribou-in-alberta>

WHAT CAN I DO?

One way you can help protect caribou is by learning more about them, their habitat, and the threats to their survival. Without public support, wildlife management programs have limited success.

You can become involved in caribou and other wildlife issues by participating in public consultations regarding issues that affect caribou.

You can also contact local government and conservation groups for ideas on how to help caribou and their habitat.

People face important choices, now and in the future, about how we use and affect the natural world. These choices can affect caribou and other living things.

If you access caribou ranges while enjoying outdoor recreation, avoid creating new trails/paths.

It is also best to avoid caribou habitat during calving season wherever possible.

Share what you learn with your friends.

When we all work together, change can happen.



Motor vehicle drivers should slow down to 70 kilometres per hour when there are caribou on the road to prevent caribou being killed in vehicle collisions.

Please visit the Wildlife Road sharing Resource Centre (<https://wildliferoadsharing.tirf.ca/road-safety-and-wildlife/road-safety/>) for excellent information and tips. Stay safe out there!

Become familiar with appropriate legislation, such as Alberta's Wildlife Act (www.qp.alberta.ca/documents/acts/w10.pdf) and Canada's Species at Risk Act (<https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>).

Learn more about the caribou herd that lives closest to you.

#CareAboutCaribou

PLEASE report all caribou sightings in west-central Alberta!

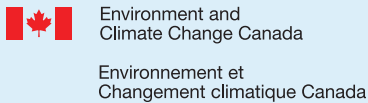
When our Caribou Patrol crews are alerted to caribou lingering on a roadway, they put up these signs a few kilometres apart and patrol the area until the caribou have moved away. They may also incorporate other diversion tactics.

DID YOU KNOW?

As of 2023, there were 37 species listed on Schedule 6 of Alberta's Wildlife Regulation, which classifies those species as being either endangered or threatened.



PROGRAM PARTNERS:



Foothills Landscape Management Forum

The FLMF provides a progressive forum for industrial companies who have recognized the importance of integrated land management and are committed to practicing environmental stewardship. The FLMF provides annual funding and in-kind support to the Caribou Patrol Program and has since its inception. The FLMF is funded by the following industrial companies:



SOURCE CREDITS



No	Source Credits
1	https://cpawsemb.org/campaigns/woodland-caribou/
	https://yukon.ca/en/woodland-caribou
3	https://www.ipbes.net/glossary-tag/cultural-keystone-species
4	https://cpaws-sask.org/caribou-the-iconic-species-with-many-roles/
5	Aseniwuche Winewak Nation of Canada (AWN)
6	https://www.cariboupatrol.ca/information-and-resources
7	https://journeynorth.org/tm/caribou/Walking.html
8	https://www.fs.usda.gov/wildflowers/beauty/lichens/about.shtml
9	Rick Bonar, Biologist, West Fraser 2014
10	<i>Caribou</i> (Our Wild World Series) by Julia Vogel
11	https://open.alberta.ca/publications/first-report-implementation-section-11-agreement-conservation-recovery-woodland-caribou-in-alberta
12	Robin Steenweg, Biologist, Government of Alberta 2019
13	https://www.canada.ca/en/environment-climate-change/services/environmental-enforcement/acts-regulations/about-species-at-risk-act.html
14	https://open.alberta.ca/publications/w10
15	https://open.alberta.ca/publications/agreement-for-the-conservation-and-recovery-of-the-woodland-caribou-in-alberta
16	https://open.alberta.ca/publications/first-report-implementation-section-11-agreement-conservation-recovery-woodland-caribou-in-alberta
17	https://canadiangeographic.ca/articles/at-risk-of-extinction/
18	https://news.gov.bc.ca/releases/2017PREM0019-000223
19	https://www.northerncaribou.ca/site/assets/files/1526/projectcaribou.pdf
20	https://canadiangeographic.ca/articles/animal-facts-caribou/
21	https://www.pbs.org/wnet/nature/blog/reindeer-fact-sheet/
22	Widespread declines in woodland caribou (<i>Rangifer tarandus caribou</i>) continue in Alberta https://cdnsiencepub.com/doi/10.1139/cjz-2013-0123
23	https://www.hww.ca/en/wildlife/mammals/caribou.html
24	https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_woodland_caribou_e.pdf
25	https://natural-resources.canada.ca/our-natural-resources/forests/sustainable-forest-management/conservation-and-protection-canadas-forests/woodland-caribou-boreal-population/13201

This version was primarily compiled by Stephanie Leonard at Aseniwuche Winewak Nation with assistance from Chantelle Bambrick. Previous versions were compiled by Chantelle Bambrick and Fran Hanington at fRI Research with updates provided by Stephanie Leonard at AWN and Celie Interling at Aseniwuche Environmental Corporation.



Aseniwuche Winewak
Nation of Canada



CARIBOU PATROL

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Caribou Patrol Program

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www.youtube.com/user/CaribouPatrol

