

Woodland Caribou:

The Grey Ghosts of the Boreal Forest



Woodland Caribou (*Rangifer tarandus caribou*) are supremely well adapted to life in northern forests. Members of the deer family, caribou have a short stocky body, fur-covered short wide ears and a flat muzzle, a long thick winter coat that protects them from both cold and wind and large concave hooves that help them move through soft snow and muskeg. They are the only large mammal that can survive on a diet of lichens, one of the few readily available food sources in snow-blanketed boreal forests. In fact, woodland caribou have an excellent sense of smell that actually helps them locate lichens beneath snow in winter.

Unlike better-known barren ground caribou that move across the arctic tundra in large herds, woodland caribou are forest dwellers living in small bands or small, scattered groups in Canada's boreal region from Yukon to Newfoundland. Individuals are often dispersed throughout the forest during much of the year. As a result, woodland caribou are notoriously hard to find and their elusive nature has made it difficult to accurately assess population size. Current estimates suggest there may be between 40-50,000 woodland caribou in Canada's boreal forest region.

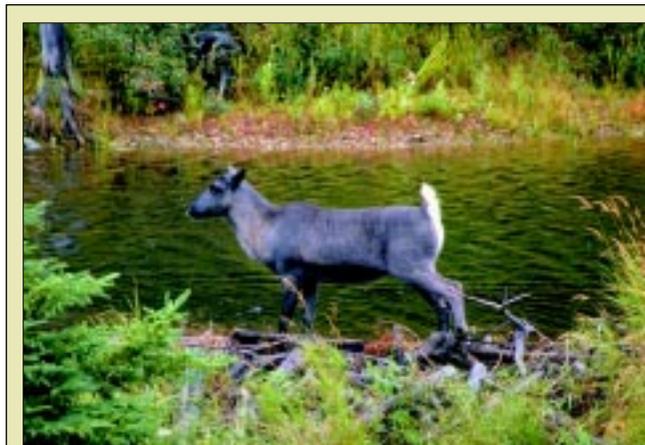
What is clear is that the

number of woodland caribou in our boreal forests is declining due to the gradual but steady reduction of their habitat range in North America over the past century. Woodland caribou have become more and more restricted to the northern limits of the boreal forest, having been pushed out of more southerly areas by development pressures, including logging, oil-and-gas

exploration, mining, road building, and large-scale hydro development.

The fact that caribou are declining in lockstep with large-scale development and conversion of the boreal forest is not in dispute. The precise causes for this decline, however, are somewhat complex, and are still being debated.

What we do know is that where caribou populations are stable, we find large areas of older, intact forest. Where caribou populations are in decline, we find rapidly spreading development, roads, seismic exploration cuts, all-terrain vehicle trails, clearcuts and mine sites. *



The raised tail releases the woodland caribou's alarm scent.

"Woodland caribou are 'our animal' and, if for no other reason, they merit our love and care. We certainly have not repaid them with love and care, but with persecution and theft of habitat. To compound the situation, we know ridiculously little about them or how our actions are affecting them."

Professor Bill Pruitt, Taiga Biological Station, University of Manitoba

First Nations and Woodland Caribou

Woodland caribou have long played a central role in the lives and cultures of First Nations. Historically, caribou hide was valued for many reasons. Its water resistance made good dog packs and its softness made comfortable moccasins. It was also used for drums because the thin hide could be easily stretched.

Today, caribou remain an important food source for Aboriginal

people. But recognizing the fragile state of many woodland caribou populations, many First Nations have chosen not to pursue the grey ghosts of the boreal and are actively expressing concern about the impact of industrial developments on their traditional lands and on long revered species such as caribou.



Caribou prefer areas without roads or other developments.

Caribou depend on intact Boreal Forests

Woodland caribou require large areas of old forest in which they can find shelter, protection from predators and good supplies of lichens, which make up 60-70% of their diet. Biologists in Alberta say that it takes 100 years to produce sufficient amounts of lichen to get woodland caribou herds through hard winters. They base this finding on the observation that caribou move to forests that are more than 150 years old in winters with deep snow.

Caribou move through the forest in small groups or individually to avoid predators. Their highly dispersed populations make it difficult for predators to find enough food to survive, thereby limiting predator populations in areas inhabited by caribou. Woodland caribou also avoid upland habitat where deer and moose may be more abundant and are more commonly found in low densely forested areas with muskeg and boggy ground that makes it more difficult for predators to mount a pursuit.

When forests are opened up by logging, roads, seismic lines and other disturbances, this strategy is quickly compromised. Hunting or poaching may increase along with increased motorized access. Moose and deer may move into an area where old forests have been replaced by the younger vegetation they prefer. This in turn will draw in wolves, which take the opportunity to prey on the more vulnerable caribou. Deer also bring with them a neurological condition that causes death in caribou. These pressures, added to the direct loss of habitat and critical food sources such as lichens found only in old forests, can be a deadly combination for caribou.

The low reproductive rate of woodland caribou (see page 3) makes them especially vulnerable to such sudden increases in threats to their survival and populations can quickly become threatened. ✱

Woodland caribou require extensive areas of old forest where they can find food sources such as lichens and protection from predators.

Quick facts:



✱ Woodland caribou are mostly brown in summer and grayer in winter. They sport dark brown fur over the face, back and sides, which is contrasted by white over the neck, chest, belly and rump. They are slightly larger than barren ground caribou. Males weigh on average 180 kilograms with the smaller females weighing roughly 50 kilograms less.

✱ Both males and females have antlers. The antlers grow rapidly and bucks can produce metre-long antlers in as little as four months. Males shed antlers in November and December, but females and younger animals may keep their antlers right through the winter.

✱ Shovel-like hooves are excellent for digging through snow in search of lichens. In summer, hoof pads are enlarged to cushion travel. In winter, the pads shrink and become covered in tufts of fur leaving only the sharp edges of the hooves touching the

ground. Wide hooves can also be used as paddles. Woodland caribou are strong swimmers and get added buoyancy from their hollow hairs.

✱ Woodland caribou form their largest groups during the breeding season and again in late winter when food supplies are restricted.

✱ Woodland caribou have different habitat requirements depending on the time of year and will move distances of up to 80 kilometres between calving and wintering ranges. Bands will return year after year to their traditional wintering and calving areas.

✱ Caribou have substantially different requirements for forest condition, larger home ranges, and lower reproductive rates than other ungulates such as deer and moose.



Woodland caribou have wide hooves well suited to travel and foraging in deep snow.

Fragile populations

Woodland caribou breed in early to mid-October and the calves are usually born between late May and early June. A cow does not mate or breed until she is two-and-a-half years old and will usually produce only one calf a year. Caribou productivity is low compared to other members of the deer family that breed at younger ages and often produce twins. For woodland caribou, a normal birth after a gestation of about 240 days usually means a single calf weighing five to nine kilograms. The cows calve alone while widely dispersed over their summer range on islands or peninsulas to minimize the risk of predation.

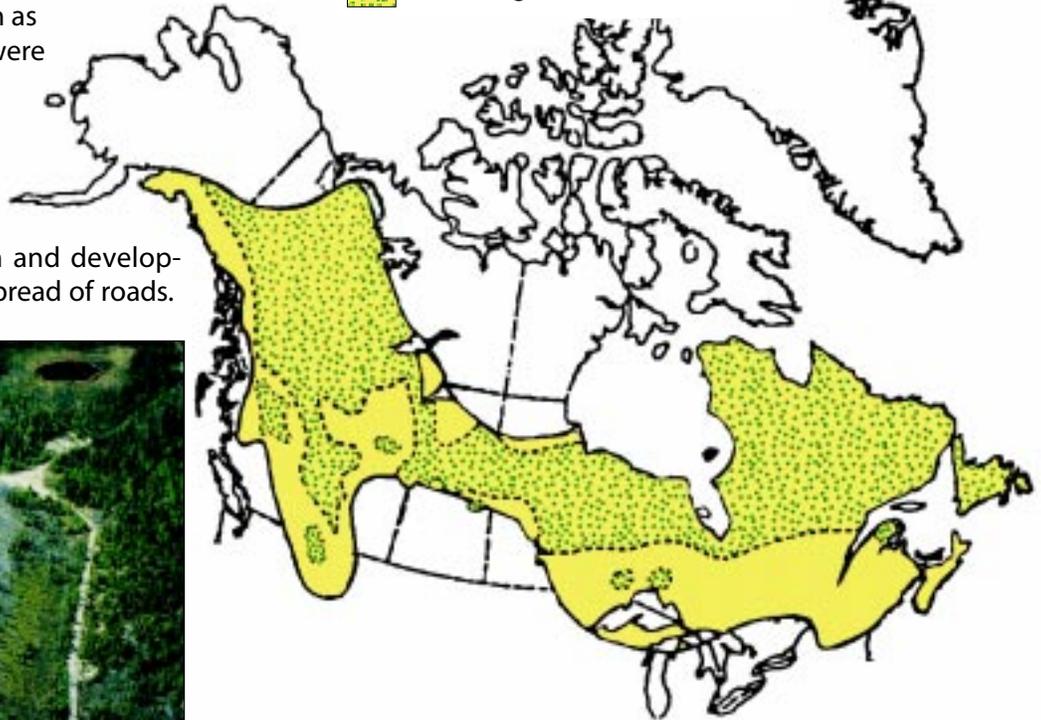


Woodland caribou reproduce more slowly than other ungulates like deer and moose.

Woodland Caribou distribution

The distribution of woodland caribou in North America has become increasingly limited since the turn of the century. Woodland caribou once could be found as far south as Algonquin Park in Ontario and were found in Nova Scotia and New Brunswick up until the 1920s. Populations in western Canada have also lost habitat to the conversion of forest by agriculture, oil-and-gas exploration and development, forestry, mining and the spread of roads.

 historical distribution (including remaining distribution)
 remaining distribution as of 1984



Woodland caribou do poorly in areas that have been broken up by roads and clearcuts. Few populations have survived in areas of active forest development.

Population Status

Atlantic Population: Endangered

Boreal Population (BC, AB, SK, MB, NT, ON, Labrador, Ungava): Threatened

Southern Mountain Population (BC, AB): Threatened

Northern Mountain Population (BC, YT, NT): Special Concern

See the Committee on the Status of Endangered Species in Canada website at www.cosewic.gc.ca for more details on categories, status and recovery efforts.



Woodland caribou breed at an older age than other ungulates such as deer and moose.



Bulls weigh 180 kilograms on average.

The boreal forest is suffering from a thousand cuts — from clearcut logging and road building to pipelines, oil-and-gas seismic lines, power corridors, mining operations and rapidly increasing off-road vehicle use — and woodland caribou populations from coast to coast are paying the price. Woodland caribou require large areas of intact old forest.

The rapid and often

irreversible changes that we are making to the boreal forest have left these fascinating creatures highly vulnerable.

Shrinking woodland caribou populations are a clear sign that we need to change our approach to development in the boreal region. Our first priority should be to protect the increasingly scarce large intact forest areas that woodland caribou depend upon. The best way to do this is through comprehensive land-use planning that emphasizes the maintenance of the wild character of the boreal while reducing the impacts of development. We also need to address the cumulative impacts of many different types of development and stop treating them as separate problems. And we need to find ways to access and use resources more sustainably while reducing the impacts of resource extraction activities.



Boreal threatened



If we destroy or fragment more intact forest areas in the boreal with clearcuts, roads, seismic lines, mine sites and large hydro developments, we run the risk of pushing woodland caribou to the point of extinction.

Most of us may never get to see a woodland caribou, thanks to this creature's elusive nature. But we will all be better off knowing that they continue to inhabit our forests. *



 We need to manage caribou across broad landscapes, protect southern herds, maintain caribou habitat as a part of continuous range, maintain large contiguous tracts of older forest and ensure habitat links between habitat nodes.

 Write to your premier and minister of natural resources and urge them to implement conservation-orientated land-use planning that takes into account the needs of wide-ranging habitat specialists such as woodland caribou before allowing any further development in the Boreal.

 Do your part at home; conserve paper, energy and other resources and ask for FSC-certified wood and paper products.

 Visit our website at www.cpaaws.org/boreal to learn more about the boreal forest and about what you can do or call us at **1-800-333-WILD**.

What can you do?



This caribou factsheet is one of a series of boreal forest factsheets published by CPAWS.

Gary McGuffin

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