

Understanding Caribou Declines in British Columbia

Woodland caribou are a species of great ecological importance and have significant cultural and ecological value for people that call British Columbia (B.C.) home. Once abundant, many caribou herds have declined steeply over the past several decades. The overall population in B.C. has gone from approximately 40,000 animals to 15,500 currently. Caribou recovery is a key priority of the Government of B.C., and a wide range of recovery actions have been implemented in caribou ranges. This document outlines why caribou herds are declining, and what tools biologists are using to help recover caribou populations.

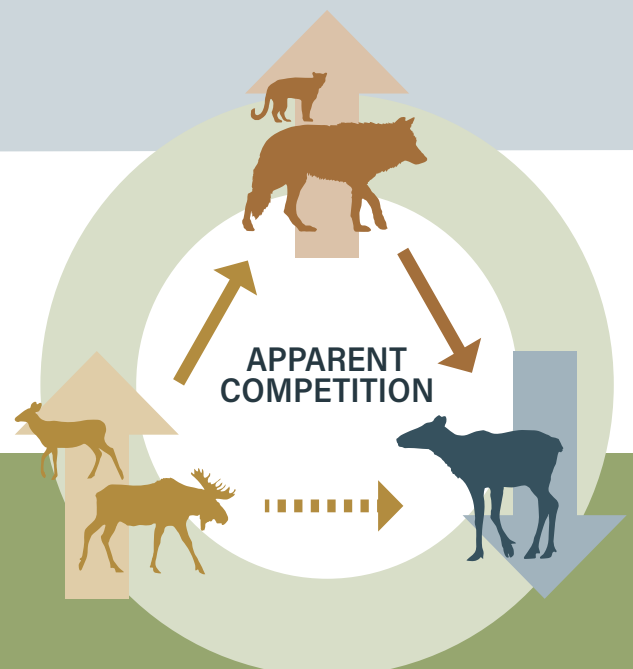
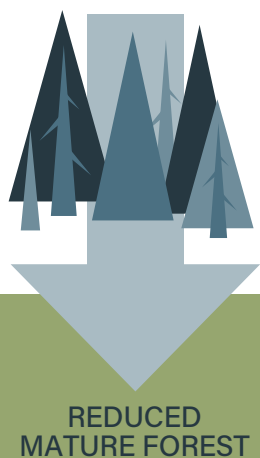
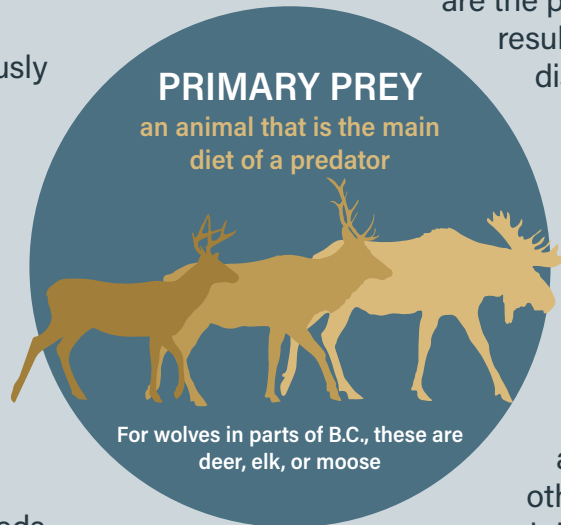
Human-caused landscape change has altered relationships between caribou, primary prey, and their predators

Woodland caribou have previously coexisted with predators by using a strategy of avoidance. Throughout the seasons, caribou inhabit areas that are typically not desirable for predators and other prey species. Caribou are adapted to live in mature coniferous forests, mountainous terrain, peatlands, and areas with deep persistent snowpacks. These habitats sustain their needs, but not those of other prey species.

However, habitat disturbance - often caused by industrial resource development, has severely altered the condition of the landscape in caribou ranges.

When forests are disturbed, through human activity or natural causes like wildfire, the regrowth is initially dominated by leafy shrubs, herbs, and grasses. This surplus of food leads to more moose, elk, and deer, all of which are the primary prey for wolves. This results in a greater abundance and distribution of wolves, and reduced separation between wolves and caribou. Ultimately, this leads to more caribou being predated on by wolves.

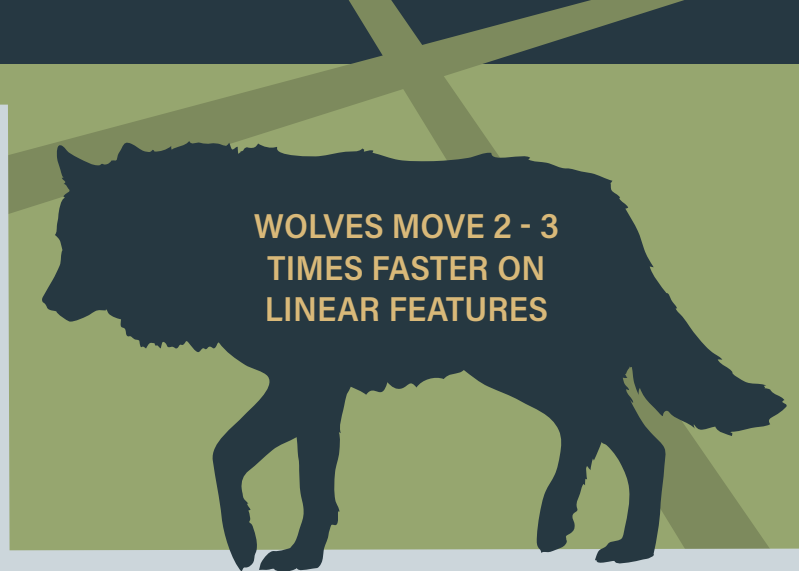
This phenomenon is known as "apparent competition." Caribou are susceptible to predation, and are less productive than other ungulates like moose, elk, and deer. The result of apparent competition leads to fewer caribou.



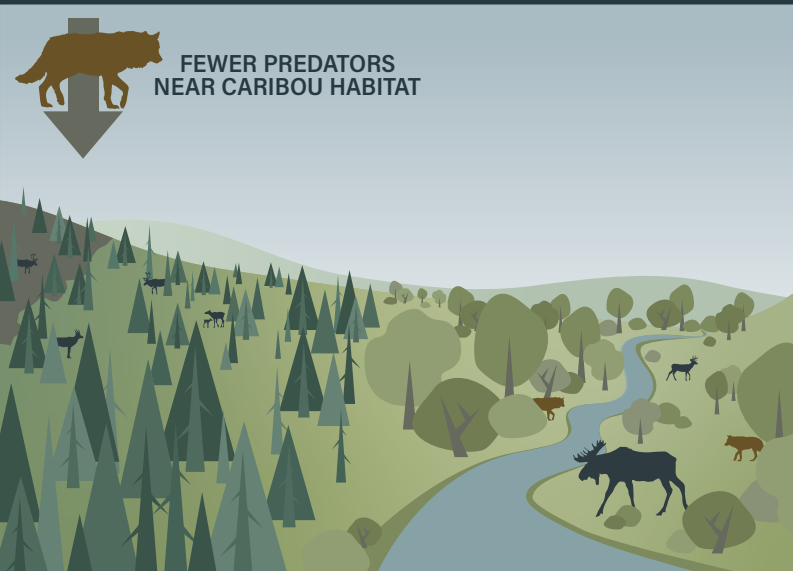
HABITAT ALTERATION

Linear features provide predators easy access into caribou habitat

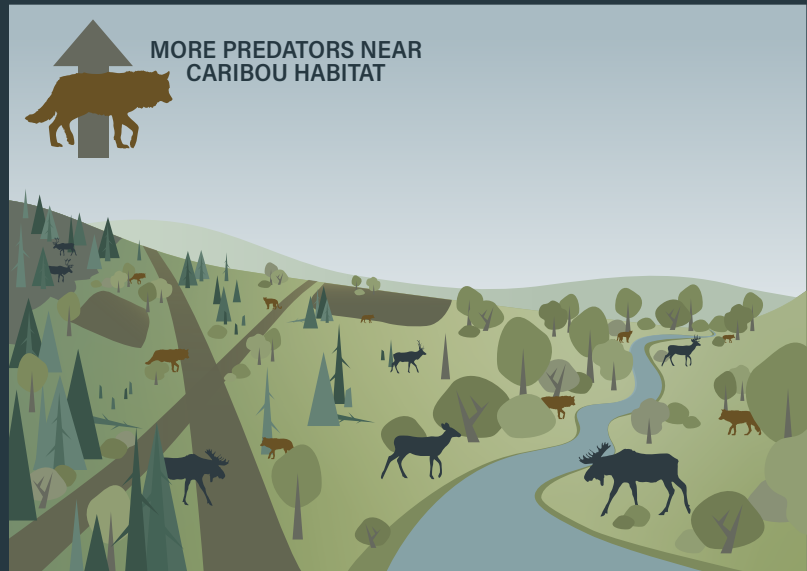
Human activity can also give predators a hunting advantage. Linear features like roads, seismic lines, and pipeline right of ways provide easy access into caribou habitat. Wolves move faster along linear features compared to natural forest, allowing them to search large areas and encounter caribou at a higher rate.



UNDISTURBED



DISTURBED



As a result of these changes to predator-prey dynamics, scientific evidence indicates that habitat change resulting from the extraction of natural resources is the main factor leading to unsustainable predation rates on caribou, and the leading proximate cause of woodland caribou declines.

A multi-lever approach is needed

To address these challenges for caribou populations, the Government of B.C. has adopted both short-term and long-term recovery measures. A few examples of these are shown below. See other summaries for more details on these measures and observed responses of B.C. caribou herds.

SHORT-TERM EXAMPLES

PREDATOR
REDUCTIONS



MATERNAL
PENS



SUPPLEMENTAL
FEEDING



LONG-TERM EXAMPLES

HABITAT
PROTECTION



HABITAT
RESTORATION



CHANGES TO
INDUSTRY
PRACTICES

