

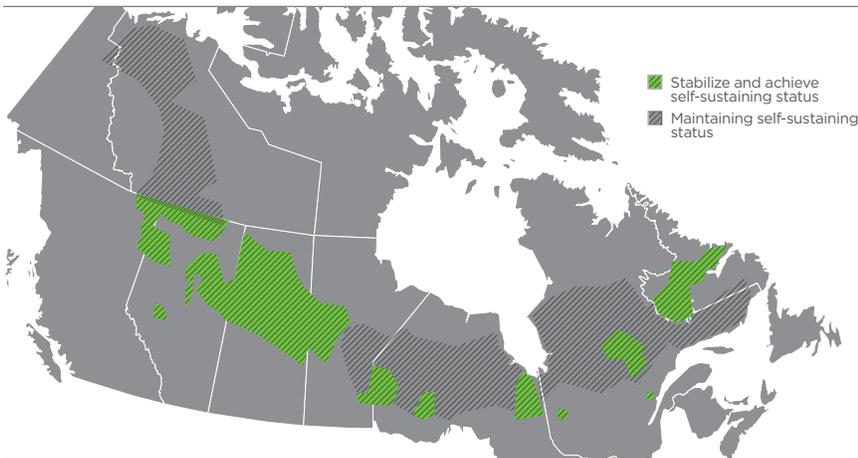
CANADA'S BOREAL CARIBOU

INDUSTRY CHARACTER



Boreal caribou are one of Canada's most recognizable national symbols, but their populations are falling across Canada. Declining caribou herds are a complex issue and all stakeholders, as well as the provincial and federal governments, have a role to play in working towards collective and broad-based solutions.

POPULATION AND DISTRIBUTION OF BOREAL CARIBOU IN CANADA



CARIBOU BY THE NUMBERS

- 51** ranges across Canada
- 34,000** national population
- Caribou ranges in Canada cover over **233 million hectares**

THINGS TO CONSIDER

HABITAT ALTERATION

Caribou are affected by changes to their habitat. These natural and man-made disturbances can range from seismic lines used to explore the underlying geology to forest fires that naturally regenerate the forest.

INCREASED PREDATION

Large animals like moose, deer and caribou use old seismic lines as transportation corridors as they are easier to move through and have edible shrubs along the edges. However, these corridors serve to concentrate predator-prey interactions as predators learn to use them to hunt more efficiently.

LOW REPRODUCTION RATES

Caribou have low reproduction rates. Females don't produce young until three years of age, and then have only one calf per year. This means boreal caribou herds can't compensate for large swings in population.

The oil and natural gas industry recognizes there is an opportunity to take a leadership role in regions where oil and natural gas exploration and development overlap caribou ranges.

COLLABORATION IS KEY

The oil and natural gas industry are collaborating to increase the pace of recovery of the national population of boreal caribou over the long-term and are willing to go beyond the confines of their immediate lease areas to do so. Industry will continue to use collaborative engagement and innovative problem solving to restore caribou habitat, augment caribou population and implement operational mitigation measures.



CONSIDERING ALL LEVERS

1. OPERATIONS

Wide, linear seismic lines are a legacy to an earlier time. Nowadays, companies use low-impact seismic exploration where cut lines are much narrower and intentionally meander (i.e., they're non-linear). Forest regrowth is faster and studies have shown that large mammals don't use these lines very much.

Oil and natural gas companies are also working to minimize the land footprint of current operations. For instance, companies are collaborating with other land users for shared land access, to minimize the building of roads, and are drilling multiple wells from a single site. These approaches allow movement and connectivity of the wildlife and consider core intact habitat areas.

2. HABITAT RESTORATION

Habitat restoration is the first priority for increasing caribou population numbers and includes the restoration and reclamation of legacy linear disturbances. Many of the seismic lines cut 20-30 years ago during exploration are too wide and too well used by wildlife to restore themselves. While there are other options for increasing caribou population numbers, doing so without first making progress on habitat restoration wouldn't address one of the main issues in the decline of caribou populations.

3. POPULATION AUGMENTATION

Population augmentation considers alternative methods to effect healthy caribou populations. Habitat restoration is a long term strategy and using short term complimentary processes, like population augmentation, is an important component to caribou management. Technologies like predator exclusion fencing and captive breeding are other ways industry may be able to work to restore caribou numbers. Industry is investigating these approaches further to determine which have the most positive influence to caribou in the near term.

INDUSTRY CHARACTER

INDUSTRY IN ACTION:

Through Canada's Oil Sands Innovation Alliance (COSIA)

initiatives are underway to address legacy linear disturbances and return the boreal forest to high quality caribou habitat.

The LiDea Project uses innovative techniques to restore some of the original characteristics of the forest to areas of linear disturbance. During the spring and summer, conifer seedlings are planted along older seismic lines using specially prepared mounds. The mounds protect the seedlings from invasive grasses, which could impair their growth. Recently 100 per cent of the 237 km of legacy linear features within the LiDea area have been restored.

The Regional Industry Caribou Collaboration (RICC)

members are working with academia, the Government of Alberta and the Alberta Biodiversity Monitoring Institute (ABMI) Caribou Monitoring Unit to prioritize areas for caribou habitat restoration and coordinate research and monitoring efforts at a regional scale.

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