

Caribou herds dwindling worldwide: Alberta study

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Some of Canada's caribou herds migrate into other countries. (Canadian Press)

Populations of caribou and reindeer, which northern peoples have long relied on, have fallen drastically worldwide over the past three decades, a Canadian study has found.

While researchers knew that Canadian caribou populations had been plunging, University of Alberta biologists Liv Vors and Mark Boyce believe their study is the first worldwide analysis. It shows the problem spans the north from Alaska to Scandinavia to Siberia.

"This is happening all around the world," Vors said Friday, adding that this is important because some of Canada's herds migrate into the United States.

"If we protect caribou habitat in one area, but they're only there for part of the year and then they migrate somewhere where there's no such protection, then it essentially undoes any effort that we have tried to make."

The study, published in the latest issue of the journal *Global Change Biology*, warned that the loss of caribou would remove an important source of meat and income for northern people as well as hurt their traditional culture and spiritual life. The population decline could also affect plants and invertebrates that rely on caribou grazing and feces for access to nutrients.

Vors and Boyce combed through data on 58 caribou and reindeer herds around the world from scientific papers, government databases and other sources, finding figures on all but 16. Among the rest, 34 of the herds were declining in population and only eight were increasing.

Available data showed herds down 57 per cent from their maximum population over roughly the past 20 years.

Human industry, climate change blamed

A comprehensive survey of recent studies found human activity such as logging and oil and gas extraction have hurt non-migratory woodland caribou the most. For migratory Arctic caribou, the main problems are the effects of climate change, the study suggested.

Warmer summers have boosted the number of insects, Vors said, leading the animals to run around and shake themselves instead of feeding.

"There are some nasty, nasty parasites that actually lay eggs under their skin and it drives them crazy," she said. If they don't put on enough fat before winter, they won't survive and the females can't conceive.

Warmer winters have led to more freezing rain, which forms a layer over the lichens that the animals eat.

"They can't dig through it, and often mass starvation can follow." While there is little Canada can do about climate change that has already happened, Vors said, it can and should protect the habitat of non-migratory caribou.

Canada designated its boreal caribou herds as "endangered" earlier this year after a report found more than half were in decline.

Earlier this week, a committee responsible for finding ways to save Alberta's few remaining caribou herds recommended protecting thousands of square kilometres in the northeast of the province. Otherwise, the animals are expected to all but disappear within the next 20 to 40 years.