

No evidence that predator control will save mountain caribou, study says

July 14 2020



Credit: CC0 Public Domain

Addressing potential threats from predators has not slowed the dramatic decline of mountain caribou in British Columbia and Alberta, according to a new study by scientists from the University of Alberta and two other

western Canadian universities.

Biologists reassessed data from research published in the *Proceedings of the National Academy of Sciences (PNAS)* in 2019. The original research has been cited as showing that killing wolves and fencing pregnant caribou are solutions to saving the [endangered animals](#).

The scientists looked closely at the data provided in the 2019 study, and found that when routine statistical tests were included, [predator control](#) lacked statistical support. They found that some of the steepest declines in [caribou populations](#) were in southern British Columbia, areas where wolves are not major caribou predators.

"No matter how you calculate it, the statistics don't back up culling wolves or fencing in caribou," said Viktoria Wagner, assistant professor in University of Alberta's Department of Biological Sciences and co-author.

Instead, the authors found that statistically caribou declines tracked closely with specific mountain caribou ecotypes. The deep-snow mountain caribou found from Wells Gray Park into the Kootenays experienced the steepest declines despite having a low number of caribou killed by wolves.

"This means something is going on that's killing off an [endangered species](#) and it isn't being addressed by [predator](#) management," said Toby Spribille, assistant professor in the Department of Biological Sciences and co-author on the study. He noted that although focusing on predator threats is simple and easy to communicate, it does not capture the interactions that are causing mountain caribou to go extinct. For instance, the loss of habitat to logging, snowpack variation and snowmobiling are factors that need to be addressed, the authors say.

"This is an uncomfortable conversation to have but it should not be left out of scientific models," noted Spribille. "If decision-makers are going to be serious about species conservation, it's really critical that they get all the information."

"Forests provide caribou with refuge from [wolves](#) and separation from other prey animals, including elk, moose, and deer," said Lee Harding, retired Canadian Wildlife Service biologist and lead author on the study. "Without them, [caribou](#) must constantly be on the move to find food, exposing them on all sides. Predators are just one of the hazards."

Chris Darimont, professor at University of Victoria, Mathieu Bourbonnais, assistant professor at University of British Columbia Okanagan, and Andrew Cook, Ph.D. student in UAlberta's Department of Biological Sciences, collaborated on this research.

The study is published in *Biodiversity and Conservation*.

More information: Lee E. Harding et al. No statistical support for wolf control and maternal penning as conservation measures for endangered mountain caribou, *Biodiversity and Conservation* (2020). DOI: [10.1007/s10531-020-02008-3](https://doi.org/10.1007/s10531-020-02008-3)

Provided by University of Alberta

Citation: No evidence that predator control will save mountain caribou, study says (2020, July 14) retrieved 23 April 2024 from <https://phys.org/news/2020-07-evidence-predator-mountain-caribou.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.