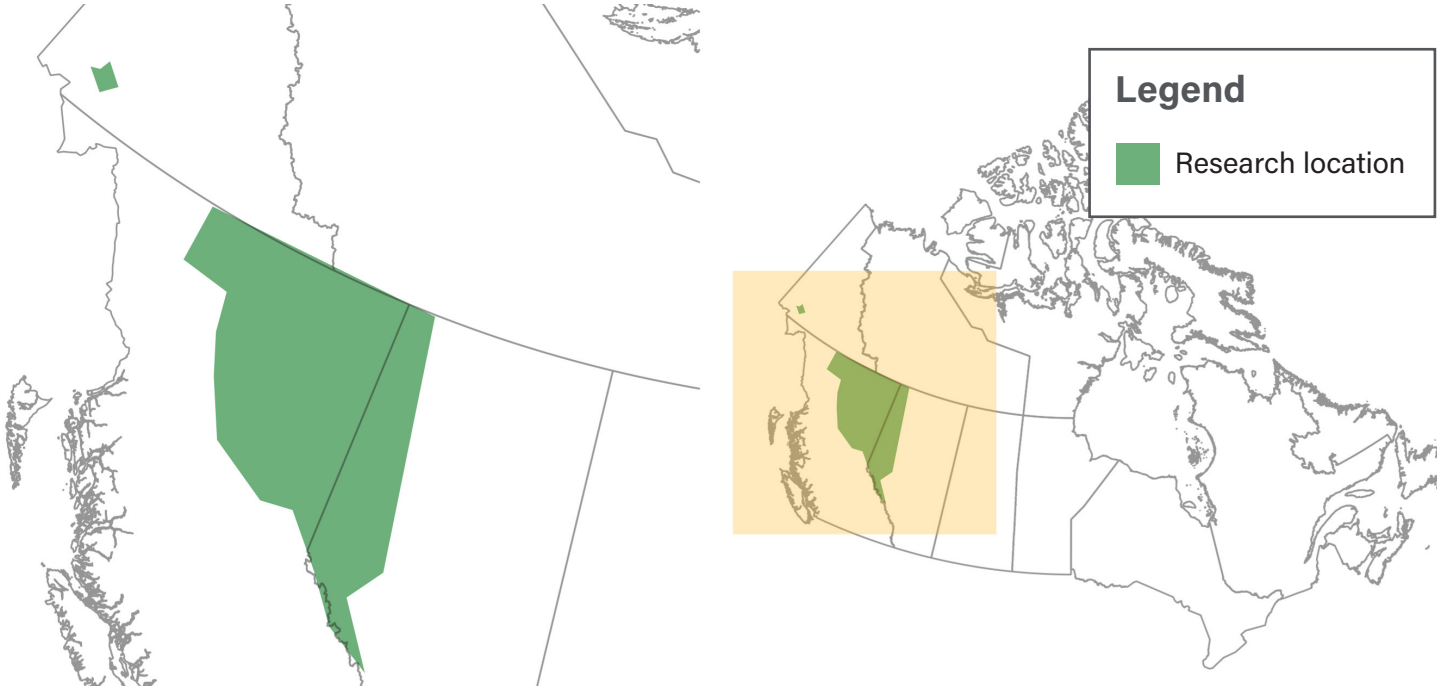


RESEARCH PROJECT SUMMARY

Effects of climate change and human activities on mountain species and ecosystems

This project supported high-quality land- and place-based research that identified and addressed urgent challenges and opportunities important to mountain communities and other knowledge users. Project 1 addressed how Indigenous and scientific partners can come together to identify how and where to successfully restore mountain caribou to ecologically- and culturally-significant numbers. Project 2 addressed the ways that classic Western natural science can move toward two-eyed seeing by training Indigenous and academic trainees to learn how mountain species and ecosystems are changing in response to climate change.

<p>Principal Investigator: Stan Boutin, University of Alberta</p> <p>Trainees: Clayton Lamb (UBC Okanagan), Nicole Humeniuk, Shotaro Shiratsuro, Michael Peers, Emily Studd, Yasmine Majchrzak (University of Alberta)</p> <p>Collaborators: Mark Hebblewhite, University of Montana Tom Jung, Yukon Government Dennis Murray, Trent University Charles Krebs, University of British Columbia</p>	<p>Adam Ford, University of British Columbia Scott McNay, Níkanêse Wah tzee Stewardship Society Chief Roland Willson, West Moberly First Nation Naomi Owens-Beeck, Sauleaux First Nation Andrew McAdam, University of Colorado Ben Dantzer, University of Michigan Shawn Taylor, Government of Yukon Carmen Richter, Sauleaux First Nation</p>
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Project Partners:



Effects of climate change and human activities on mountain species and ecosystems

Objectives

Project 1 saw Indigenous and scientific partners coming together to identify how and where to successfully restore mountain caribou to ecologically- and culturally-significant numbers. The key goal was to work with the West Moberly and Sauleau First Nations to assess the SARA (Species at Risk Act) partnership agreement and efficacy of short-term actions for recovery of the Klinse-Za caribou herd.

Project 2 leveraged data from the Community Ecological Monitoring Program (CEMP), which is a partnership between biologists at Environment Yukon, Yukon College, Squirrel Camp, and the Outpost Research Station at Kluane Lake ongoing since 1977. This data — existing and new — was used to address questions related to the effects of climate change on mountain species and ecosystems. An additional goal of the project was to explore how to effectively exchange ways of knowing between Western natural scientists and Indigenous knowledge holders through Indigenous youth on-the-land learning.



Mount Decoeli across from Kloo Pond
Photo by Andrea Wishart

Key Outcomes & Impact

- Conservation partnerships can work when the Indigenous and Western Science groups have common goals.
- Building trust takes a long time when the parties share the land but not common priorities.
- The work rekindled a culturally-important species, leading to improved and better-supported Indigenous stewardship of lands, as well as protecting subsistence livelihoods that were assured to Indigenous Peoples during treaty signing. The impacts of the work are deeply felt at a local level, but have also impacted Provincial and National perspectives of Indigenous-led conservation and helped reassess what effective endangered species recovery can look like.
- Peer-reviewed scientific publications and presentations resulting from this work further elevated its profile, allowing it to reach a broad new audience including scientists, a science-interested public and policy makers.
- The project identified prescriptive measures that are required to recover caribou (e.g., road density and forest cover targets, specific roads to decommission) and supported collaborative conservation efforts with the Nations and provincial governments on habitat restoration.
- The project also supported Indigenous-led conservation for one of Canada's most imperiled wildlife species in the only part of their range where population recovery is succeeding.

Contacts:

Project contact: Principal Investigator Stan Boutin at sboutin@ualberta.ca

CMN contact: CMN Executive Director, Monique Dubé at monique@cmn-rcm.ca