

SCEK Project Profile

Project Name:	Boreal Caribou Health Study
Project Number:	BCIP-2014-05
Proponent:	BC Ministry of Forests, Lands and Natural Resource Operations
SCEK Funding Envelope:	Boreal Caribou
Timeframe:	November 1, 2013 to January 31, 2017

Project objectives

The objectives of this project are to:

- Collect baseline data on the health of Boreal Caribou in northeast BC;
- Build a Boreal Caribou Health Model for northeast BC; and
- Identify populations that may be “as risk” from compromised health in NEBC.

Project description

This project proposes to build a collaborative Boreal Caribou Health Model for northeast BC/Western Canada based on samples collected from captured and dead caribou in BC and other locations as available. For example, samples from surrounding jurisdictions such as Alberta and the Northwest Territories may be included in the project for comparison purposes.

The work will be conducted/coordinated by Helen Schwantje DVM, the Provincial Wildlife Veterinarian (FLNRO). Analysis work will be conducted by post-PhD students.

Project approach

The project will involve the following tasks:

1. Inventory all boreal caribou samples currently stored in provincial government archives, regional offices and consultants’ offices;
2. Develop a Boreal Caribou Herd Health Assessment Plan, customized to the samples available and utilizing other caribou health assessment models (barren ground, woodland/mountain);
3. Prepare recommendations for ongoing live and dead sample collections;

4. Ship samples to appropriate laboratories for analysis. The analysis will include fecal, serum and other tissues as available and will include the assessment of a variety of potential pathogens. Additional toxicological and nutritional assessments will be carried out depending on the samples available as inventoried in Task 1;
5. Enter results into the BC Wildlife Health Database/Canadian Cooperative Wildlife Health Centre;
6. Interpret results;
7. Conduct further analysis on results—for example:
 - i) identify populations that might be “at risk” from compromised health in NEBC,
 - ii) Enhance our understanding of the significance of exposure to *Erysipelothrix rhusiopathiae* in boreal caribou,
 - iii) evaluate health biomarkers as potential tools for monitoring boreal caribou health in NEBC,
 - iv) evaluate relationships between boreal caribou health and larger scale (landscape level) features in NEBC; and
8. Prepare a final assessment with recommendations.

Project deliverables

The following project deliverables will be provided.

1. Boreal Caribou Herd Health Assessment Plan—as per Task 2 of the project methodology.
2. Final Report (Boreal Caribou Health Model)—for REMB use covering the following information:
 - Executive Summary—maximum 2 pages;
 - Table of Contents;
 - Background information;
 - Methodology;
 - Data;
 - Results;
 - Discussion;
 - Final assessment;
 - Recommendations—including recommendations for ongoing sample collection and analysis; and
 - References/appendices.
3. BC Wildlife Health Database—updated with lab results from the sample analysis.