

## Project Profile

<b>Project Name:</b>	Monitoring Functional Restoration of Parker Range—Image Analysis
<b>Project Number:</b>	BCIP-2019-21
<b>Proponent:</b>	Jonah Keim
<b>Funding Envelope:</b>	Boreal Caribou
<b>Timeframe:</b>	August 15, 2018 to November 30, 2018

### Background

This project carries out the analysis of animal use data captured by motion-triggered cameras deployed in a second BC OGRIS funded study started in 2015. That project was setup to design, develop and test the efficacy of a habitat mitigation strategy to facilitate the functional restoration of caribou habitat in the Parker Caribou Range in NE British Columbia. More information on this previous project titled “Developing and Monitoring the Efficacy of Functional Restoration of Linear Features for Boreal Woodland Caribou” and conducted by Matrix Solutions can be found on the BC OGRIS website at: <http://www.bcogris.ca/boreal-caribou/projects/>.

### Project objectives

The objectives of this project are to conduct spatiotemporal statistical analyses of the animal use data captured by motion-triggered cameras.

### Project description

This project analyzes the animal use data collected pre- and post-habitat restoration activities in the Parker Caribou Range in Northeast BC to:

- 1) inform the development of mitigation strategies that facilitate the functional restoration of linear disturbances in caribou range; and
- 2) measure the success of habitat mitigation strategies.

The analysis will help answer the questions: “Does the restoration treatment reduce predator use?”; and “are predators leaving treatment areas?”. These questions are key to measuring how successful functional restoration is at reducing predator use and predator-caribou overlap. Mitigation success will be measured and defined based on whether:

- 1) the rate of predator use on linear features is lower in the treatment area than in similar control areas;
- 2) the rate of predator use on linear features in the treatment area approaches the rate of use on game trails; and
- 3) if the rate of predator use on game trails within the treatment area remains constant or declines.

### **Project approach**

The project involves the following three steps:

- 1) Data Compilation and Exploration—review, format and clean the data files containing animal use data.
- 2) Statistical Analyses—repeat the statistical methods used in the analyses of interim data (2015-16) and render statistical models for five response variables—counts of humans, moose, caribou, wolf and black bear.
- 3) Communication and Delivery of Final Results—complete the final report. A presentation on the project methods, findings and implications may also be prepared and delivered to BC OGRIS and invited guests.

### **Project deliverables**

The deliverables from this project include the following:

1. Final report describing the analytical methods used, findings and implications.