BC OGRIS Project Profile

Project Name:	Boreal Caribou Telemetry Program Assistance (FY 2015/16)
Project Number:	BCIP-2016-07 (formerly BCIP-2014-01)
Proponent:	Diversified Environmental Services
SCEK Funding Envelope:	Boreal Caribou
Timeframe:	April 1, 2015 to March 31, 2016

Project objectives

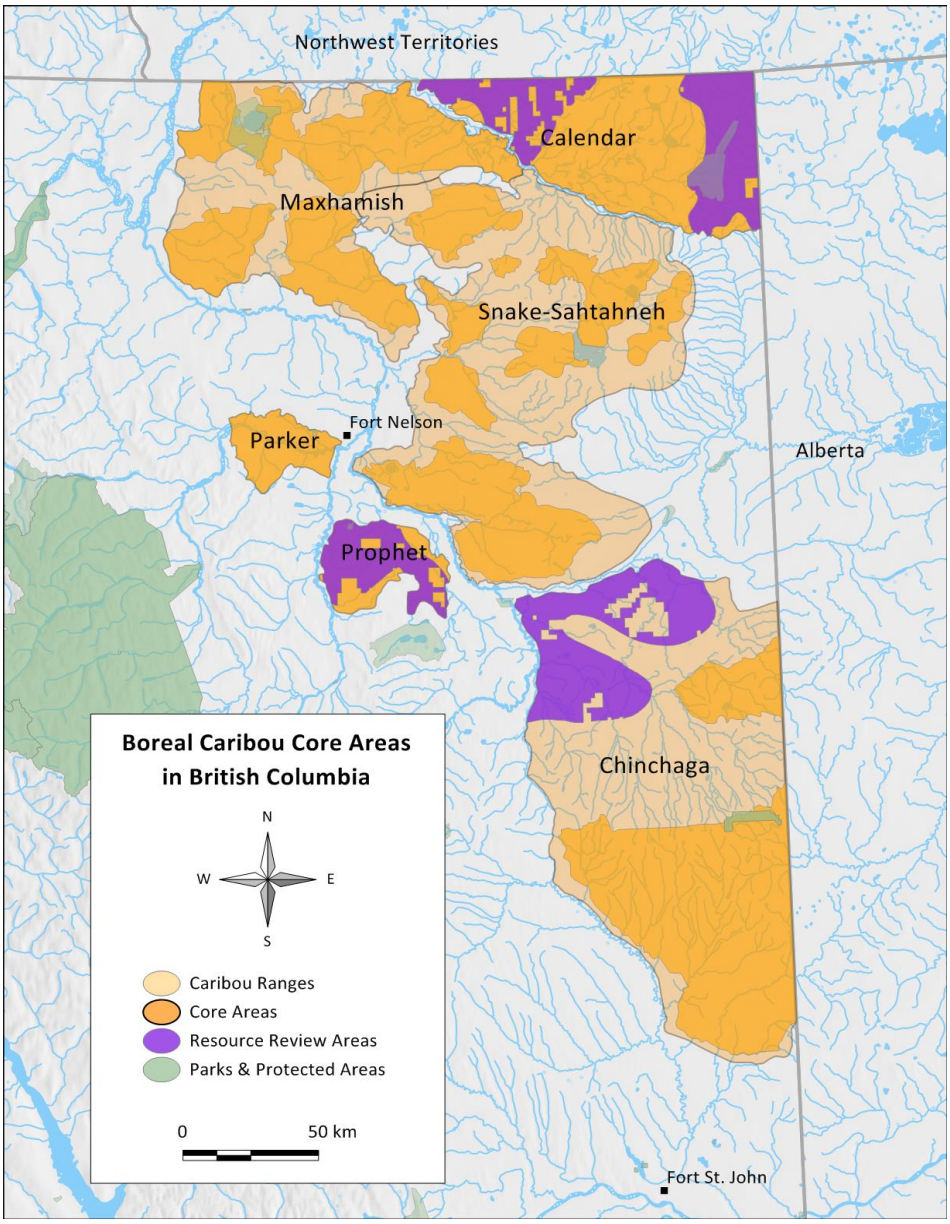
Provide assistance with the Boreal Caribou Telemetry Program in fiscal year 2015/16—specifically:

- Conducting monitoring flights of collared wolf and caribou to obtain approximate locations and to identify mortalities;
- Investigating wolf and collar mortalities to collect relevant data and recover radio-collars;
- Deploying additional radio collars to maintain the target sampling intensity in each of the caribou ranges; and
- Conducting a spring recruitment survey to refine population growth estimates.

Project description

These activities will occur throughout the six caribou ranges and surrounding areas in the North East area of BC—shown on the map below:

- Calendar;
- Chinchaga;
- Maxhamish;
- Parker;
- Prophet; and
- Snake Sahtaneh.



Project approach

Conduct Monitoring Flights

The objectives of this activity are to locate collared caribou and wolves and identify any mortality.

All radio-collared caribou and wolves in and around the six caribou ranges will be located through a fixed wing survey following the method outlined in Thiessen and DeMars (2010). The

Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) will request each monitoring flight. It is envisioned the surveys will be conducted biweekly during late May and June (calving season) and monthly during July through February.

There are approximately 180-200 boreal caribou with collars in the survey area. There are approximately 25 collars on wolves.

Investigate Wolf and Caribou Mortalities:
The objective of this activity is to timely investigate detected mortalities to collect relevant data and to recover radio-collars.

This activity involves the following items:

- Visiting the site of a suspected mortality. The suspected mortality is identified based on mortality signals from radio collars, aerial surveys or other evidence;
- Collecting information and samples from any mortality. The information and samples to collect includes the location, cause of death (if known) and animal identification (e.g., sex, age class, collar number); and
- Collecting the radio-collar and returning for possible re-deployment.

Capture and Redeploy Radio-Collars:
The objective of this activity is to deploy radio-collars on boreal caribou to maintain the target sampling intensity in each range. Deploying collars on wolves may also be requested.

This activity involves the following items:

- Capturing caribou and/or wolves using net gun and tranquillizer guns and installing the radio collar;
- Obtaining blood and hair samples from each animal;
- Injecting an anti-inflammatory drug into each animal; and
- Completing a data card with the GPS location of each capture site plus an estimate of age and condition of each animal.

Conduct Annual Boreal Caribou Recruitment Survey
The objective of this activity is to complete a spring recruitment survey of all collared caribou in northeast BC to:

- Locate all collared caribou;
- Estimate the proportion of the boreal caribou population in northeast BC comprised of calves (i.e., recruitment into the adult population);

- Estimate sex ratios (e.g., bull:100 cows); and
- Locate collared wolf packs.

One spring recruitment survey will be conducted throughout the range of boreal caribou in Northeast BC—likely in March, 2015.

The survey method will follow that outlined in Thiessen and DeMars (2010) for the rut count and late winter composition survey. A helicopter, equipped with antennas and a telemetry receiver, will be used to relocate all collared boreal caribou in northeast BC. The most recent locations of collared caribou and wolves will provide a starting point

All caribou associated with the collared animals are counted and classified according to Level 3 RISC Standards (RISC 2002). Collared wolves are also located, and incidental species (e.g., moose, wolverine, lynx) recorded.

The following information is collected during this survey—as per the RISC standards. This data includes:

- Dates of survey and flight paths;
- Age and gender of boreal caribou—using cow, calf, bull classifications as per the RISC Standards;
- Location of boreal caribou mortalities;
- Estimated size of wolf packs;
- Time and location of observations; and,
- Other species observed while in transit.

Project deliverables

The deliverables from this project include the following:

1. Monitoring Survey Report—covering the following information:
    - Survey area and survey units;
    - Survey method—including flight paths, dates and times;
    - Data and results—including:
        - the location, sex and age class (when available) and collar frequency of all observed caribou and wolves;
        - Location of any boreal caribou mortalities;

- Discussion—including recommendations for improvements to future surveys; and
- Appendix—Incidental observations and locations—other species identified (e.g., moose).

2. Mortality Investigation Report—all information and data collected on the mortality as listed in the Project Approach section above.

3. Collar Re-Deployment Data Card—from the animal on which the collar is deployed along with blood and hair samples collected from the animal.

4. Recruitment Survey Report—covering the following information:
   - Executive summary;
   - Background information—including the survey area and survey units;
   - Survey method—including flight paths, distances, dates and times;
   - Data and results—including:
     - the location, sex and age class (adult or calf), collar frequency (if applicable) of all observed caribou and wolves;
     - Appropriate summary statistics (e.g., calf:cow ratios by range, etc.);
   - Discussion—including recommendations for improvements to future surveys; and
   - Appendix—incidental observations and locations—other species identified (e.g., moose).