



Summary Report for: Recipient Agreement BCIP-2017-02 for Peace Northern Caribou Plan (PNCP) Projects

In October 2016, the BC Oil and Gas Research and Innovation Society (OGRIS) granted the Ministry of Forests, Lands and Natural Resource Operations with \$150,000 to be used for projects that support better understanding of caribou and caribou recovery. The funds were used to support three different projects:

1. The Sqwawteem owkun (formerly Klinse-Za) maternal pen.

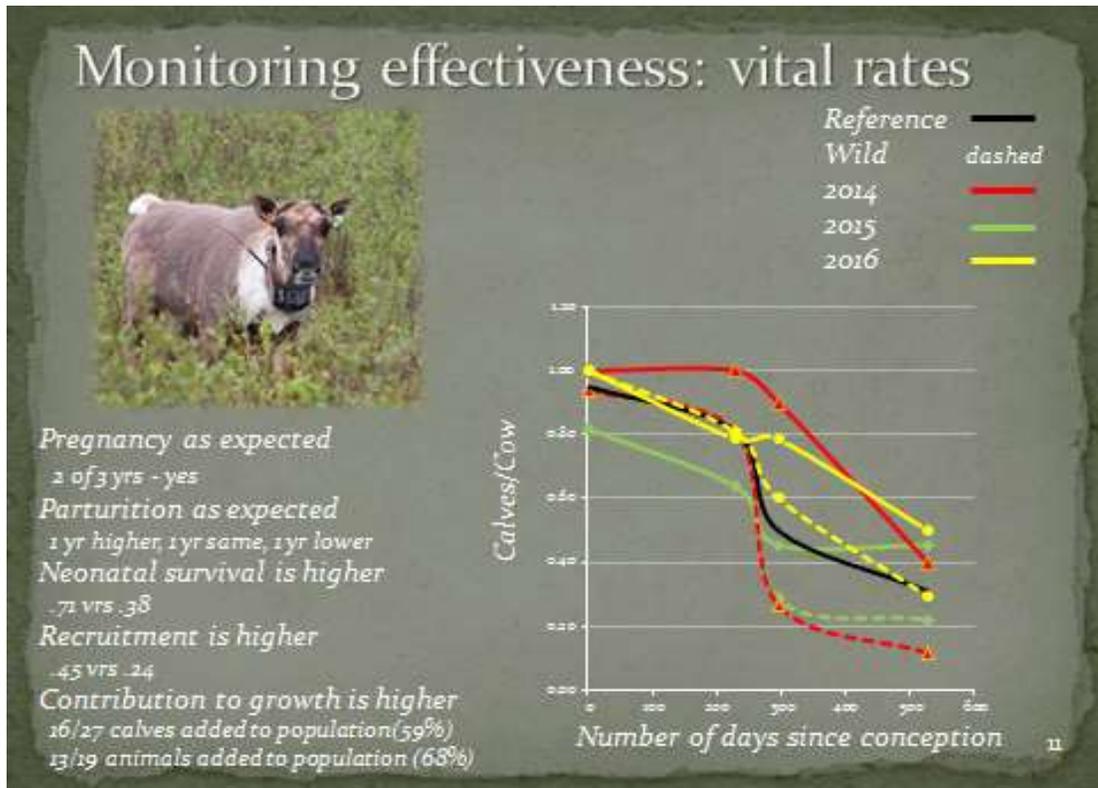
The maternal pen was established by West Moberly and Saulteau First Nations in 2014, in response to the threat of extirpation of the Klinse-Za herd. The operation involves the penning of pregnant caribou cows, and keeping the cows and their calves in the pen until they are less vulnerable to predation. The maternal pen has shown increasing success, with a progressively greater calf survival rate.

The penning program had another successful year in 2016. Nineteen cows were captured in March, 14 of those were taken to the pen and the other 5 were fitted with new collars and released back into the wild. Eleven calves were born in the pen, and all eleven survived their time in the pen. Three cows and two calves escaped the pen, but this was very near the release date, so no effort was made to recapture. The remaining 10 cows and 9 calves were released on July 20, 2016.

While there has been some challenges with the pen, the operations have continued to be refined to remedy any known issues, cows and calves are being released later, predator control around the pen has been enhanced, additional feeding stations have been provided, the pen was enlarged, and woody debris is cleared from the pen area. All of these actions have been implemented in response to pen challenges and have been successful in mitigating the risks.

Overall the project, especially when combined with other management actions (predator control) has been successful in terms of recovering the caribou population, see the statistics in Figure One below, showing the increase in calf survival associated with the pen versus the wild.

Figure One



Source: Wildlife Infometrics

2. Kennedy Siding Supplemental Feeding Program

The Kennedy Siding Supplemental Feeding Program was established in 2015 by a retired caribou biologist to support the Kennedy Siding herd over winter when food resources are limited. The extent to which the caribou's nutritional conditions affect their ability to survive and thrive over the winter months is not well known, and supplementing their food intake may represent a feasible management option to enhance caribou populations. Supplemental feeding may compensate for reduced food quality or quantity and promote population increase.

With the support of the McLeod Lake Indian Band, the program provided 6090 kg (268 bags) of food to the Kennedy Siding herd over the 126 day period from 13 September 2016 to 17



January 2017. Pellet consumption averaged 1.0 kg pellets/caribou/day, which represents about 50% of the total energy requirements for an average-sized Kennedy Siding caribou. Supplementary feeding did not appear to have any adverse impacts as caribou maintained their normal movement/migration pattern and continued to use natural food.

Another key outcome of the program is the improved monitoring data; the program has identified 63 caribou, 27 cows, 18 calves and 18 bulls, based primarily on each animal's unique antler structure, identifiable on motion-sensitive trail camera images from cameras at 6 feeding stations (see Figure Two). The number and sex ratio of adult caribou in 2016 was the almost same as in 2014 and 2015 but there were 3 times as many calves as in the previous 2 years.

Figure Two



Source: Tithonus Wildlife Research



3. Predator-prey dynamics research and effectiveness monitoring

The predator-prey dynamics research and effectiveness monitoring was initiated in 2015 by the Province of BC, to better understand the relationship between caribou survival and the implementation of a variety of management tools, together and in isolation. The program involves the removal of target predator species within a specific area, and comparison with mortality rates within both a treatment and non-treatment areas.

This project has shown some significant results. Last year's control activities resulted in the removal of all the target species within the control areas (100% of the estimated number of animals in that area), and the results in terms of increased caribou calf survival and reduced adult mortality are substantial. Calves in the Quintette Ranges (within the control area) have increased from 14% in previous years, to 18% in 2016. Overall, the Quintette herd demonstrated a 10% increase in population, compared to a predominantly decreasing population for at least the last decade. Other herds in the control area also showed positive trends in calf survival, Kennedy Siding had 28% calves and Klinse-Za (Moberly) had 20% calves, compared to the Graham herd which is outside the control area (no treatment) had 13% calves. This year, approximately 80% of the target animals were removed, but further action in the summer is being considered.

All of the funds allocated to the PNCP project were used to support these three projects.