



Maternal Penning to Enhance Survival of Caribou within the Klinse-Za Herd

External: Issued April 01st, 2019



Days in pen → 12

Days until release → 125

Capture results

Capture for the 2019 maternity pen was a booming success! Although starting on a slow note (poor weather delayed the capture crew from getting airborne until mid-day on Tuesday), a top-notch team was able to bring in five caribou with the remaining time available. Wednesday saw an unprecedented, nine animals brought into the pen! Thursday was plagued with poor weather and the efforts were called off at noon. The last day of capture was a success, with four more animals brought into the pen for a total of 18 penned animals (16 cows, 1 juvenile, 1 calf).



Figure 1. Vectronic GPS collars were fitted on all captured caribou. Note the rot-away section on the left hand side, ensuring if a collar stops working, that it will not be permanently fixed to the animal.



Figure 2. A new member of the capture crew, Starr Gauthier, is holding the caribou head while Bryan Macbeth, one of our veterinarian team, collects blood.

Veterinarians on site, said that the condition of the caribou (temperature wise) were the best they have ever seen during a maternity pen project. The newly added oxygen therapy during flight seemed to combat rising temperatures that are anticipated with transport. One calf that was captured alongside its mother had a very high body temperature, but with close care from the field vet, Owen Slater, including the use of oxygen, her body temperature was brought down to an acceptable level by the time she entered the maternity pen gates.

In addition to having a record number of animals in the pen this year, the history and demographics of the animals is of special note! This year we have a much higher number of young cows in the pen, compared to previous years. Five of the cows captured were previously born inside the pen. We are hoping that a younger age demographic will lead to a higher likelihood of more female calves. As cows mature, we think there is a tendency to have more male calves – sex ratios in the pen have always been skewed to male calves, but hopefully with younger cows this year we will see a change!



Figure 3. We take pictures of the caribou teeth to help estimate their age class (left) and Veterinarian, Bryan Macbeth, removes the blindfold and hobbles, allowing the caribou to be released safely into the pen (right).



Pregnancy results

Blood collected from the caribou was tested to confirm pregnancy; the results (determined by PSPB, a pregnancy specific protein) indicated that 14 of the 17 cows were pregnant. One of the pregnant cows is C369K – a calf that was born in the pen during the 2017 season.

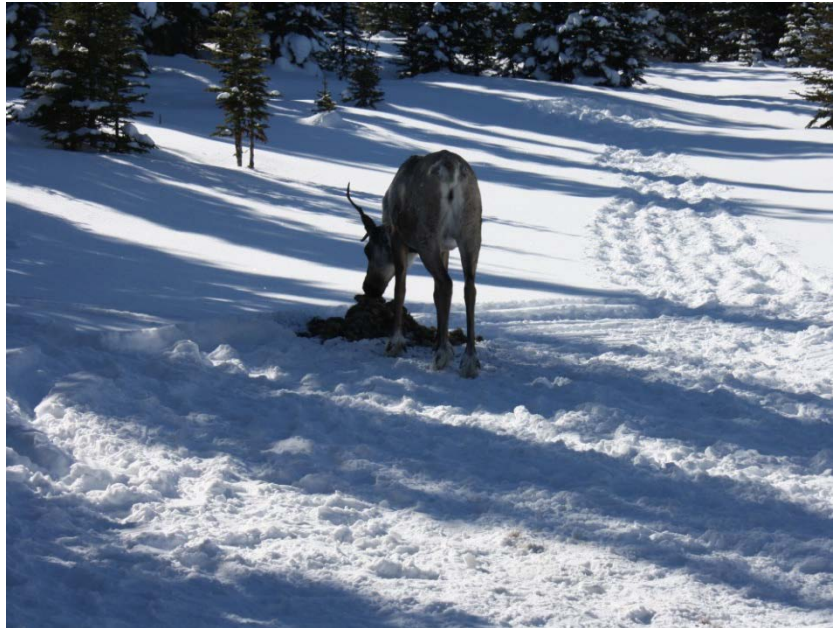


Figure 4. A newly released caribou begins the year by taking a few bites of lichen within the first few steps after being released safely inside the pen.

Pregnancy of juvenile cows is rare; however, the nutritious head start the maternity pen provides may just be enough to

give them a better chance! We keep our fingers crossed she is able to produce a healthy calf this May. One of the residents this year, C311K, continues to produce – having successfully raised four calves in the past five years, she is pregnant again this year. There were three cows not pregnant, one is a younger cow and two are more than nine years old.

Some sad news



Figure 5. C360K as a calf with her mother C319K in June 2016.

While capture was a great success... there was tragedy inside the pen during the second week. C360K (a calf born inside the pen in 2016) was found dead on March 20th. A necropsy performed on March 28th concluded that her death resulted because she consumed an excess of pellets and lichen. This excess became lodged in her throat and so she was subsequently unable to expel the food and suffocated. There are reports of similar behavior occurring in the Revelstoke maternity pen but without death. While it is possible that the lack of fresh water



increases the potential for choking (i.e., animals are not able to wash the food down as easily) this has not been proven. Also, free-ranging caribou do not generally have access to free-flowing water at this time of year. There are other possible factors contributing to her death including, but not limited to, changes this past year in: pelleted food manufacturer and the manner in which lichens were stored over winter.

Other potentially contributing factors are related to individual feeding behavior. When animals are brought into the pen there is a slow transition between a diet entirely of hand-picked lichen- to that of a specially formulated pellet ration. In this specific case: 1) C360K was born in the pen and was familiar with pelleted food, 2) she was a young female, sub-dominant, and may have been trying to feed quickly before a dominant female pushed her away, and/or 3) In the wild, caribou are on very poor diets- she was in poor body condition and likely very hungry.

This mortality serves an example that while we can reduce the risk of injury/mortality as much as possible; we cannot eliminate that risk. We have since introduced several precautionary steps to further reduce the risk that this may occur again. Fresh water is now being provided in a large trough, we have gone back to food from our original manufacturer, lichen are being moistened prior to feeding and not left in large clumps, and large rocks have been added to the feeders in attempts to slow feeding. Under the close observation of the guardians, there has been no other observations of choking.

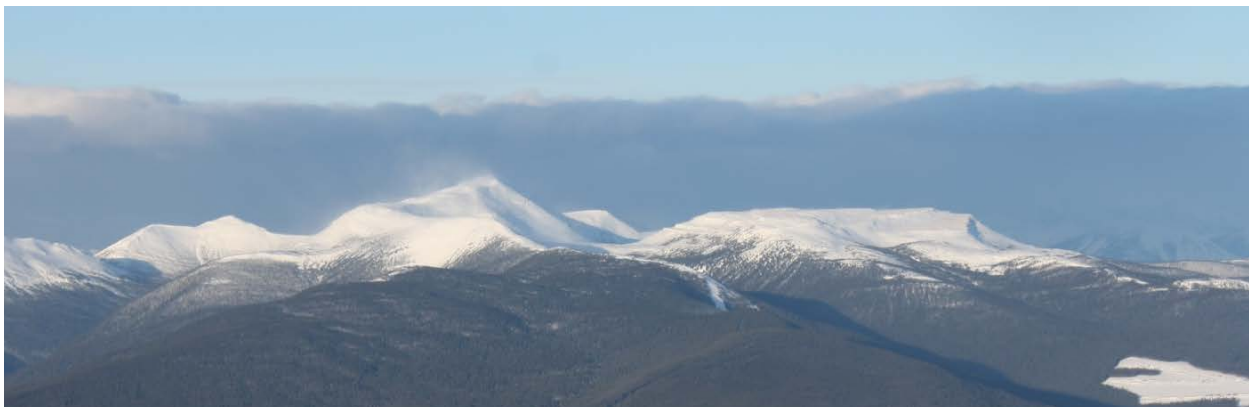


Figure 6. The maternity pen, located just below the alpine habitat (center of the picture), is where the 17 penned caribou will be spending their next 4 months.



Current status

The remaining 17 caribou appear to be in fantastic shape, and we remain positive and hopeful there will be about 14 new calves to add to the population come calving season!

Thank you to all those involved in the capture process, and all those who make this project possible through continued funding!



Figure 7. All 17 remaining animals hanging out in one big group in the feeding meadow!

Next news will contain an update on population demographics – stay tuned.



The teams:

- Níkanêse Wah tzee Stewardship Society
 - West Moberly First Nations (Chief Roland Willson/Tamara Dokkie)
 - Saulteau First Nations (Estelle Lavis/Naomi Owens)
- Caribou Mat Pen Working Group¹
 - West Moberly First Nations (Tamara Dokkie)
 - Saulteau First Nations (Naomi Owens)
 - Wildlife Infometrics (Scott McNay/Matt Erickson, alt - Line Giguere)
- Mat Pen Technical Advisory Team²
 - Revelstoke penning (Rob Serrouya)
 - FLNRO (Helen Schwantje)
 - MOE (Dale Seip)
- Support teams – capture specialists, veterinarian team, shepherds, lichen collectors

Thanks to our sponsors³



¹ The Caribou Mat Pen Working Group is a committee appointed by the Níkanêse Wah tzee Stewardship Society.

² The Mat Pen Technical Advisory Team is an ad hoc committee chosen by the Working Group to obtain technical advice.

³ Current and historic