

Revelstoke Maternal Penning Project Year 2

Fall 2015 Update: Penned caribou have higher survival compared to wild animals



Calf in the maternal pen - July 2015

The Revelstoke Caribou Rearing In The Wild (RCRW) project was launched in 2014 to conduct maternal penning. Maternal penning involves placing pregnant caribou in a six-hectare pen, safe from predators, from late March until mid-July, the riskiest time of year for both adult and calf mountain caribou. Come mid-July animals are released back into the wild. Maternal penning is one of many measures recommended for the recovery of caribou populations.

The RCRW is a collaborative, community-led, not for profit society. Representatives from the forest industry, an environmental organization, government, First Nations, and the winter recreation sector have set aside diverse interests and together are taking action to protect this endangered species.

Year Two Mid- Season Update

In March 2015, 18 adult female caribou and one 10-month-old calf were captured. All but two of the adult females were pregnant and 15 calves were born in the pen. All caribou and calves were radio-collared to allow for post-release monitoring via satellite. On July 13th, 17 adult caribou and eleven calves were released

from the pen and moved into typical summer range.

As of October 13th, all adult caribou and all but one calf released from the pen in 2015 are alive.

Preliminary Results from Two Years of Pen Data

Adult survival was 100% during the first-year pilot, including the time in the pen and 8 months after release into the wild. This compares to a range of 62% to 90% for wild caribou from 1993 to 2008 when this population was studied. *In other words, the penned adult survival was higher than ever recorded for this herd.*

Adult survival inside the maternal pen (March to July) was 100% (10/10) in 2014, and 94% (16/17) in 2015 resulting in an average penned survival rate of 96% (26/27). This number is much higher than the survival of wild animals over the same spring period across many years and herds in British Columbia. For example, in the spring of 2015, wild caribou survival was 75% (12/16) in the Quintette herd (another mountain herd with enough collars for comparison).

This is significant because adult female survival is the most important contributor to population growth of a caribou herd and is an unanticipated benefit of the maternal pen project.

In 2014, **calf survival** was 100% in the pen (9/9), and 2 survived in the wild until the end of year 1 (22% survival). This survival rate is similar to the rate of wild born calves that year. While less than what was hoped for, the post-release calf survival rate may have been influenced by an unusually warm winter high in the mountains where caribou live.

In 2015, calf survival was 73% in the pen (11/15), and 10 calves continue to survive 4 months

after birth. There was no single cause for the mortalities that occurred in the pen this season. Causes of mortality varied from infection, to injury and abandonment. This calf survival rate (67% 10/15) is higher than what the wild woodland caribou calf survival rate would be after 4 months of age.

An extended study time of at least three years and ideally five years will allow for the averaging of results on calf recruitment and survival over both typical and atypical years.

Looking to Year Three of Maternal Penning

The health and welfare of caribou, from capture through release is our top priority. Recognizing the risks associated with this type of conservation effort, expert advice and best practices are followed to reduce the possibility of mortalities. We follow professionally reviewed protocols that include:

- Having a wildlife veterinarian on-call.
- Following the highest standards for wildlife capture and care.
- Minimizing wildlife-human contact.
- Constructing high-quality secure fencing.
- Full-time staff monitor the captured caribou and patrol for predators.

We are still in early days, and continue to adjust best practices based on experience and the advice of wildlife veterinarians and biologists to make maternal penning as effective as possible.

Current initiatives the RCRW is working on include:

- Fundraising for year 3, including pen improvements.
- Caribou ecology education in west Kootenay schools (fall 2015).
- Daily monitoring of caribou and calves via satellite collars.
- Recruiting volunteers for lichen harvesting and pen maintenance.



Calves cooling off and playing - July 2015

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To see a full list of supporters and board members please go to rcrw.ca/contributors.

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