

Caribou Hunting Stories and Sustainable Co-living

Shahidur Molla, Angelina Jerome, Joyce Conley, Jesse Israel, and Austin Van Loon

ABSTRACT

This work was created by students at East Three Secondary School in Inuvik, NWT, as part of the Experiential Science 30 course.

INTRODUCTION

Caribou (*Rangifer tarandus*) are large, hoofed animals of Holarctic taiga and tundra that belong to the deer family and usually have palmate antlers in both sexes. Caribou and reindeer are the same species. From hooves to the shoulder, male caribou typically grow between 2.3 to 4.8 feet. They are around 5.9 to 6.8 feet long. Larger male caribou can grow more than 3.9 feet tall. Males weigh between 143 to 529 pounds. Larger male caribou can be heavier than 550 pounds. Female caribou are smaller than males and grow between around 5.5 to 6.2 feet long. The weight range for female caribou is between 121 to 308 pounds (Afroz, 2022).

Caribou neck, mane, underbelly, rump, and hoof patch are creamy white in all seasons; however, the brown summer coat of the rest of their body turns greyish in winter. Caribou have thick fur coats to protect them from the cold harsh winters. Caribou hooves help them to walk through deep snow, tall branches, and soft ground; throughout the fall, the hooves grow sharp thick edges to break through ground ice in search of food. The caribou fur coats of the woodland caribou vary from white Peary to dark brown. The coats are dense with hollow hairs, which keep them warm in extreme cold weather conditions. In the Northwest Territories (NWT), there are five different subspecies of caribou. These include the Peary caribou, Dolphin and Union caribou, Northern Mountain caribou, Boreal caribou, and Barren-ground caribou (Environment and Climate Change, 2023c, 2023a). Peary, Dolphin, and Union caribou live in the northernmost, on the Arctic islands, and the mainland. The Northern Mountain caribou live in the Mackenzie Mountains, and they make seasonal migrations between the higher ground and forested areas in lower altitudes. Boreal caribou live in the boreal and taiga forest, and they move around but do not migrate seasonally (Environment and Climate Change, 2023a). Barren-ground caribou make long-distance migrations from wintering areas to summering areas north of the tree line (Environment and Climate Change, 2023b). The spatial distribution of the subspecies in terms of ecology is shown in Figure 1. Among all subspecies, the Boreal caribou are the most abundant and widespread subspecies in the NWT.

People co-exist with the land and wildlife across the Northwest Territories. Caribou are extremely popular in the NWT because they travel in large herds, which makes it easier to hunt. Most Indigenous people have a strong connection to caribou for their traditional living and healthy diet. Caribou also hold important spiritual and cultural significance to the Indigenous people who harvest them. An Indigenous elder, Albert Elias, explains the relationship between Indigenous and caribou. For instance, he mentions that Tuktoyaktuk was known as Port Brabant after British colonization; and in 1950, the Indigenous people reclaimed its traditional name “Tuktoyaktuk”, which means caribou or resembling a caribou. It is particularly important for the people living in NWT to conserve caribou habitat and ecological balance.

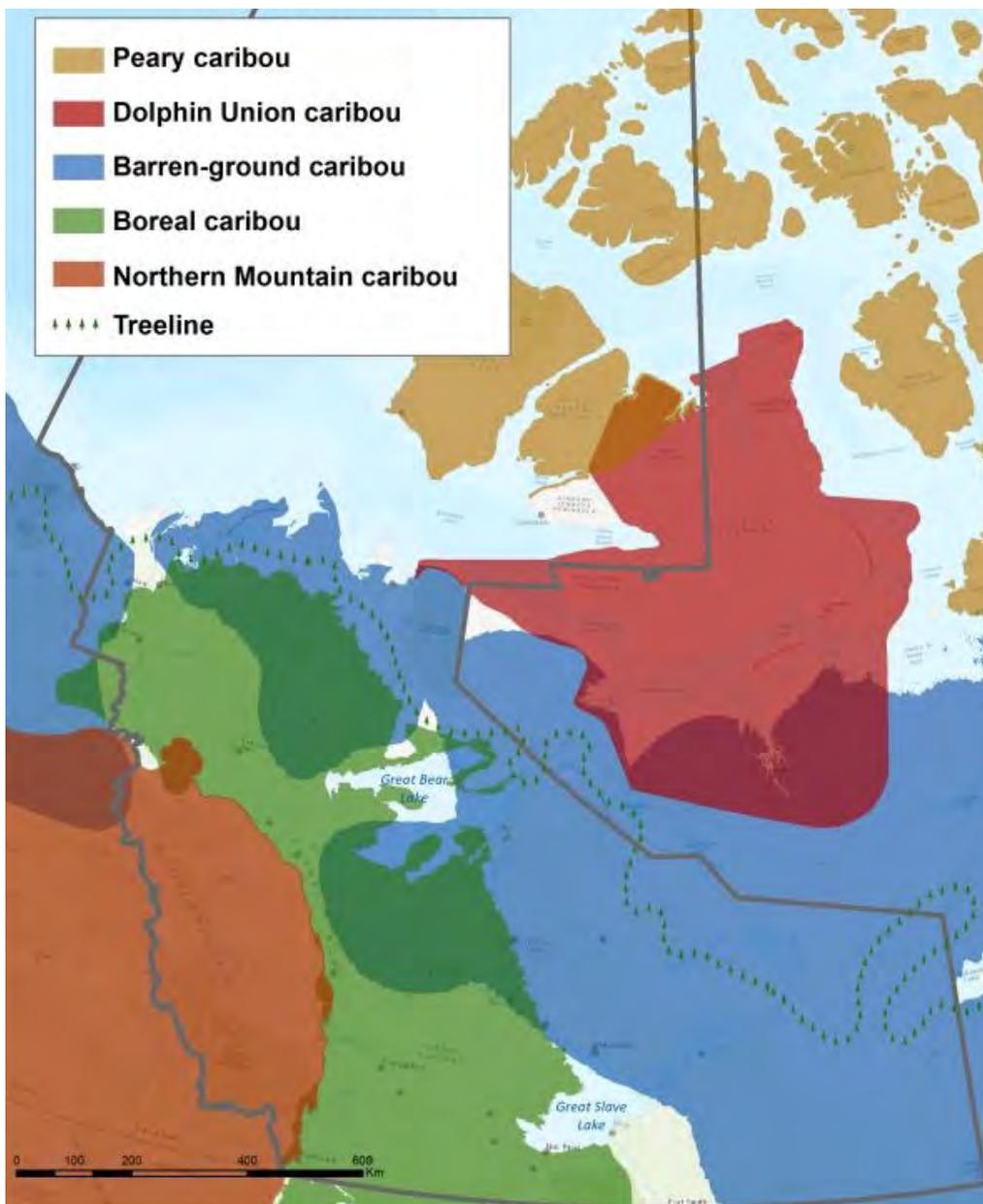


FIGURE 1

Ecological types of caribou in the Northwest Territories. Map by the Government of the Northwest Territories department of Environment and Climate Change.

CARIBOU HUNTING STORIES OF THE INDIGENOUS COMMUNITY

Since ancient times, caribou contribute to the lives and cultures of Indigenous Peoples in the Northwest Territories. The caribou have always been a great friend to the Inuit. They believe caribou are not only living on their land but also appear to them as a spirit. Some Indigenous communities believe that if they do not show respect to the spirit of caribou, it might become harmful to them (Alaska Extreme, 2023).

Caribou hunting has been in the Indigenous culture for decades, which play social and spiritual roles in maintaining kinship and community relationships (Viswanathan, 2023). Spears have traditionally been used to hunt caribou. The hunting nature has changed in recent years. The authors narrate their recent caribou hunting experiences with photographs or stories shared by their elders. The first story gives a first-hand account of Boreal caribou hunting with a family member near the Dempster Highway along the NWT and Yukon border. The other two stories are about Boreal caribou hunting at Aklavik, a hamlet located in the Inuvik region of the Northwest Territories.

STORY ONE

Elders in the Inuvik Native Band are always telling us to let the leaders of the herd pass first before we shoot the caribou for food. Every year as I am growing up, I see my father getting ready for caribou hunting. Every year I ask if I can go for caribou hunting with him and he always says “No”. However, there was one time my father let me go with him. I was eager and excited the night before the hunt. I spent that evening gathering things to be needed in the morning, such as, my hat, gloves, wind pants, jacket, warm socks, etc. On the day of hunting, my father woke me up early in the morning to eat breakfast. Before we left, my father picked up a bag of bannock from a friendly elder, saying “bannock is always good for the road, it keeps you full for a long time.” We left home, travelling along the Dempster Highway. As caribou herd migrate down their routes, they pass through the Dempster Highway. It usually takes about six hours of driving along the Dempster from Inuvik to reach the passing point of the caribou, and longer if the caribou is away from the highway. Driving the highway for six hours is usually long, but it is good to spend time with my father as he is always cheering.

As we passed the Northwest Territories and Yukon border, the clock moved back one hour. We were getting closer. We continued to travel down the windy road past the hill. On both sides of the road, it is an open valley before the mountains. My father instructed me to keep a lookout for caribou. Since it was my first caribou hunt, I asked my father so many questions about hunting. I wanted to know how long it will take to harvest a caribou, how to tell the age of caribou, and how does one feel when harvesting a caribou. He told me, it takes time to harvest a caribou since we are providing for our family. He explained that we must shoot a caribou, skin it, cut it in parts, and haul it to the truck. He said, it is quite an experience. As my father and I were talking, he yelled “CARIBOU” and stepped on the brakes making me fly forward. At that moment all these happy, exciting, and scaring feelings hit me, it happened so fast. The next minute, I saw my father on the road pointing his gun at the caribou and heard a loud BOOM! He then reloaded the 230 and again, BOOM!



FIGURE 2

*Boreal caribou hunting near the Dempster highway along the NWT and Yukon border
(Photo Credit: Joyce Conley)*

My father's facial expression was glorious when he saw the first caribou drop. He knew then that the family was going to eat well for the rest of the season. I jumped out of the truck and seeing my father's smile so big made my heart warm. His satisfaction was reflected by raising the hands up in the air and yelled "HELL, YES BABY, we got our food for the season." We both breathed heavily and got a drink of water. We then got the knife bag, meat bag, and sled out of the truck to use to get the caribou and harvest it. I cut the throat of the caribou (Figure 2). It was a Porcupine or ecotype of barren-ground caribou (Wikipedia.org, 2023).

STORY TWO

When Inuit spend the winter inland, they would start to leave the coast towards the beginning of September to go for the hunt. The weather is usually cooler by this time. The warble flies are gone and therefore, the meat is free of warble fly larvae. Caribou skins are at their best, too, as the hair is neither too thick nor too thin; they are at a perfect stage for making clothing and the skin texture is free of blemishes (National Park & Preserve Alaska, 2023). Caribou currently are in every way good for clothing and food, and because they are fat the meat is suitable for caching.

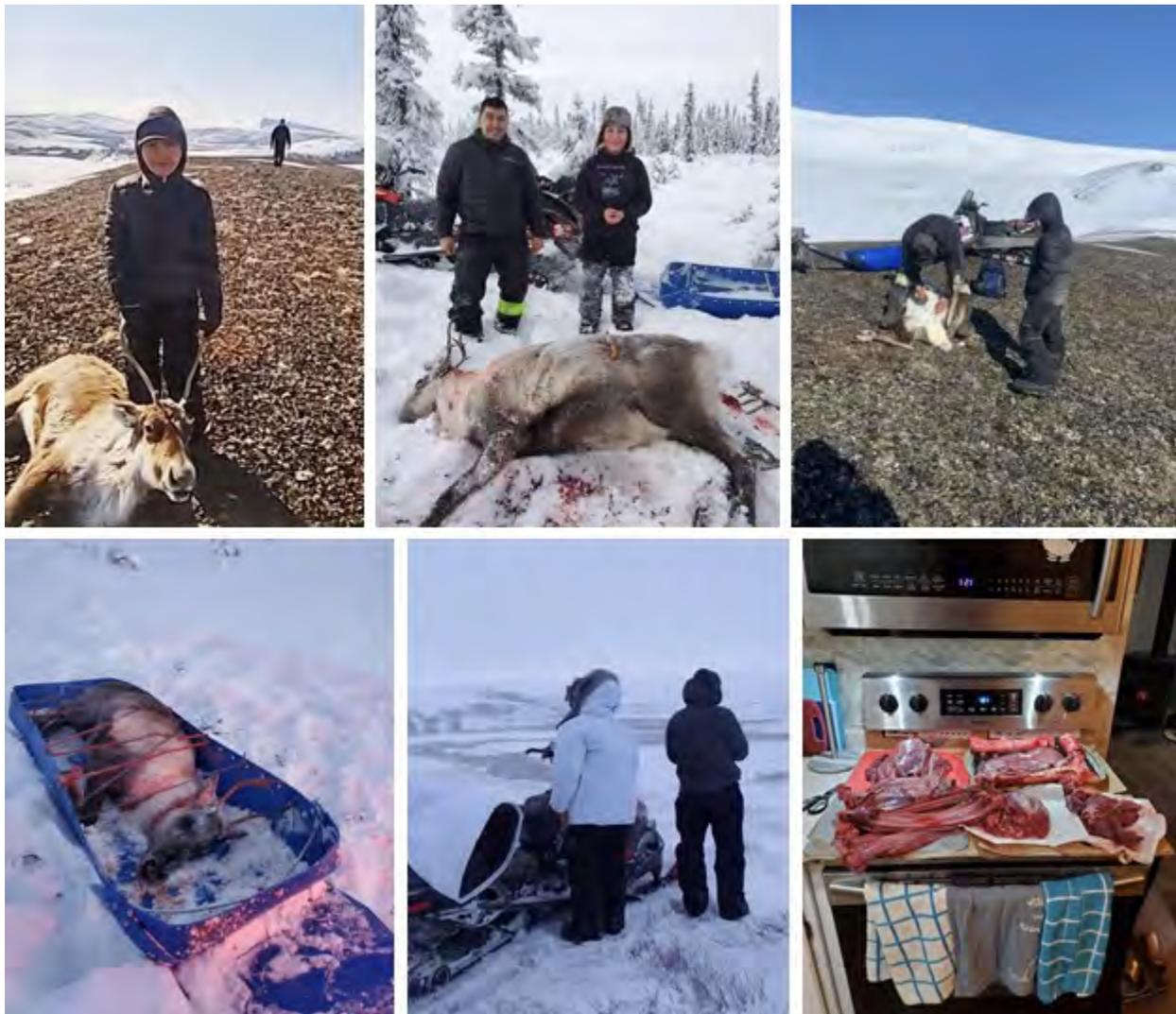


FIGURE 3

Boreal caribou hunting in Aklavik (Photo Credit: Angelina Jerome)

During nomadic times when Inuit men hunted on foot, they would sometimes leave their coastal permanent camps for some days to hunt caribou to get skins for clothing and to cache (i.e., store away the meat in a hidden place for future use (YouTube CA, 2023)). The men who hunted caribou specifically to cache meat would select an area where there were rocks suitable for building the cache. There were several ways of caching meat. For example, after the caribou was skinned, one way was to leave the guts intact, although the head and legs were removed from the carcass. This kind of meat carcass was not cut up much. One had to puncture the belly with a knife to let all the air out. When the caribou was skinned, the hunter selected a suitable place and removed the bigger stones from the surface to form a hollow in which to place the meat. It was even better if, at the bottom of the hollow, where the meat would be resting, there were all medium-sized stones, to allow plenty of space for air to circulate once the meat was covered with stones. The hunters also had a way of making the cached meat to get at during the winter months when everything is frozen solid to the ground. According to one of the elders, the technique was, “before laying the meat in a hollowed-out spot, place a flat stone directly under the chest of the carcass. This is so the meat would be easier to pry loose when it was pulled from its place”.

When it is a big hunt, twenty or more hunters are expected to go together, but at times there are only up to six people going for the hunt. There is not a lot of community hunting, but friends and family go together. There can be upwards of 20,000 caribou travelling together. As we saw the caribou, we followed and shoot. We separated the gut of the caribou by cutting and taking out the stomach, intestines, and colon. Then we loaded the rest part of the caribou into the toboggan and hauled it back into the town. Bringing the caribou back home, we skinned the fur, cut off the head, removed the entire skin from the meat to keep the meat clean, cut the antlers, cut off arms and legs, and started cutting off all the meat into pieces. It is observed that Inuit people of our community may save the skin and fur, and stretch it and use it for sewing or art.

Many Indigenous hunters still harvest caribou for the community and their families. The hunting stories I heard from my elders confirm that the caribou have always been important to the Inuit. Caribou provided food, shelter, clothing, tools, implements, and games. Clothing made from caribou skins are the warmest for northern winters. Hunting caribou is still very important to Indigenous people of Canada. I am fortunate enough to have many hunters in my family, including my uncles, father, and a brother. They hunt caribou in the Richardson mountains which is outside of Aklavik, in the Northwest Territories. The journey to the caribou hunting ground begins by driving from Inuvik to Aklavik by the ice road. Once in Aklavik, the hunters offload the skidoos (snowmobiles) from the trailer and get the food, gas, guns, ammunition, knives, toboggans and ensure they have all the proper winter gear in preparation for the hunt. The hunters then drive into the mountains with the skidoos. It may take 2-3 hours before seeing a herd of caribou. Figure 3 shows pictures taken during a Boreal caribou hunting in Aklavik.



FIGURE 4

Caribou hunting in the Aklavik Range (Photo Credit: Austin Van Loon).

STORY THREE

In February 2023, it was around -50°C in the mountains near Aklavik. With my friends and family, I went for caribou hunting. It was about a one-hour skidoo ride to the hunting spot from Inuvik. When we arrived, there was a herd of hundreds of caribou. We shot twelve and skinned off, gutted, and cut meat in the freezing weather. We used to keep our hands warm inside the animal while working with the caribou meat. It took about 2-3 hours to complete cutting the meat and packing them in the truck. Figure 4 shows pictures taken during our caribou hunt in the Aklavik Range.

SUSTAINABLE HARVESTING

People living in the Northwest Territories could live well with the Boreal caribou by implementing a sustainable harvesting strategy. The Government of Northwest Territories (GNWT), Indigenous governments and organizations, and other co-management partners monitor the caribou population trends in the Dehcho, North Slave, and South Slave and in other regions of the Northwest Territories. According to ECC (Government of Northwest Territories, 2021), adult female survival and calf recruitment rates are measured on an annual basis to calculate a population growth index for increasing, stabilizing, or decreasing patterns. Information collected for Boreal caribou was used to develop population and harvest models by the GNWT in 2019 and to identify where sustainable harvest levels were focused across southern NWT (Rettie, 2020). The models show an increasing population trend of Boreal caribou in most areas of the NWT, and therefore, sustainable harvest can be continued to some levels.

Assuming the absence of any harvesting over 10 years, the Boreal caribou population trend was observed as stable in the Hay River Lowlands and Pine Point/Buffalo Lake areas, but is slowly decreasing in the Dehcho South and the Mackenzie River South (Rettie, 2020). Therefore, any level of harvesting in these areas might contribute to a further declining trend in the Boreal caribou population in the two areas. This information will guide working with co-management partners to conserve and recover Boreal caribou.

CLIMATE CHANGE AND CARIBOU

In the Northwest Territories, humans and caribou have been living on the same land and in the same ranges for thousands of years (Environment and Climate Change, 2023b). The living of humans and caribou in the same areas has made the caribou migrate due to all the constructions taking place on the land. The Northwest Territories has enormous mining resources and exploration of mines, along with deforestation and construction threaten the survival of the wildlife, including caribou. The changes in climate due to greenhouse gases and other increasing human activities are the main reason for the rise in temperatures, and the melting ice cap (National Geographic, 2023).

The Arctic is facing a great problem with climate change and is getting most of the effects of rising temperatures (National Geographic, 2023). The changes are forcing animals to find new places to live because the natural places where they live are being wiped out by the constant and rapid rising water levels (Mahdavi, 2023). In an interview with Canadian Broadcasting Corporation (CBC), Penn State University biologists Eric Post and Jeffery Kerby unravelled the links between sea ice loss, the timing of plant growth on land and caribou breeding. They discovered that as the Arctic climate warms, plants are emerging earlier, and therefore, the land becomes less nutritious by the time caribou arrive for the breeding stage and giving birth (CBC, 2013). Therefore, the climate change has made it harder for the caribou to travel to their breeding grounds and is making them change their migration patterns. Caribou have been taking new travel routes, and it is probably traumatizing for them to travel longer distances up to 1,350 kilometers per year and along different routes (Bates, 2019). Climate change is making it harder for the caribou and every species on the planet, including humans, because we are losing land to live on every year. Therefore, climate change affects caribou's traditional ways of eating, breeding, and travelling. Observing the drop in caribou populations, scientists predict that after a million years or so, the caribou will face global extinction (Kylie, 2022).

BOREAL CARIBOU AT RISK

An estimated 6,000 to 7,000 Boreal caribou live in small groups across a large and continuous range, mostly in the intact boreal forest in the Northwest Territories (Environment and Climate Change, 2023a; Government of Northwest Territories, 2021). Caribou are harvested by both Indigenous and non-Indigenous people for food. However, there is limited information available on the total levels of harvest. It is observed that the Boreal caribou declined by more than 30 percent over the last few decades across Canada due primarily to the loss of boreal forest habitat and its fragmentation, including other anthropogenic activities like mining, seismic lines, forest harvesting, and industrial and urban development (Government of Northwest Territories, 2021). It was listed as a threatened species under the NWT Species at Risk Act in 2014, and an NWT Recovery Strategy was prepared to guide the recovery actions (Government of Northwest Territories, 2021).

CONCLUSION

Co-living of Boreal caribou and the Indigenous people of Northwest Territories is hundreds of years old. Caribou hunting is an integral part of the northern people. Caribou meat is the most important sources of protein for the Indigenous people, and they use the skins for clothing and handicrafts, from the past till today. Over the decades, studies show that the overall caribou population has declined in the Northwest Territories for several reasons, including climate change, mining, construction and seismic lines. The Government of Northwest Territories has taken measures to save the land and prescribed hunting models to keep the traditional living practices for a sustainable caribou population. An integrated approach to caribou recovery should begin with listening to community priorities. In land-use planning and extractive industry environmental impact assessment, Canada should collaborate more closely with Indigenous partners and respect Indigenous knowledge to improve caribou conservation planning.

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Co-Authors Angelina Jerome, Joyce Conley, Jesse Israel and Austin Van Loon graduated from East Three Secondary School in Inuvik, NWT in 2023. They worked on this project as a part of their Experiential Science 30 course. Participating in a job fair hosted by Aurora College, this project came to the group's attention and the students worked hard in sharing the Inuit community and their own caribou hunting experiences as well as historical co-living with the animal.

Lead Author Shahidur Molla earned several years of teaching experiences in Indigenous schools across Canada. He is a co-author of a book on nanotechnology and other papers. His current research interests lie primarily in the area of land-based education for the Indigenous students. He completed his Masters of Commerce in Australia under the World Bank Scholarship as well as a Masters of Science in Canada.

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