# Dene traditional knowledge about caribou cycles in the Northwest Territories<sup>1</sup>

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#### Introduction

My name is Danny Beaulieu. I am a descendent of François Beaulieu, who came to Fort Resolution, Northwest Territories in 1752 from what is now the Manitoba area. There he married a Denesuliné woman, my seventh-generation grandmother, and remained there until he died.

I was born on the trapline. I hunted and trapped and raised a family in the bush for twenty-five years. Ten years ago the trapping industry really bottomed out. People were making \$100 000 to \$120 000 a year trapping, and then all of a sudden with the anti-fur movement group, that went away. I was one of those people who lost that livelihood. So I became a wildlife officer. After working in Yellowknife for a number of years, I recently moved to Fort Providence.

This paper is about what I have learned about the caribou cycle over the past one hundred and ten years or so, talking to Denesuliné elders in Fort Resolution, Łutselk'e, and Yellowknife. Mostly I've learned from my grandmother, my grandparents, and my parents.

I'd like to start with a story that my grandmother told me many, many times. It never had any meaning to me, it was just a story. But I heard it so many times, I can hear her voice when I tell it. I just thought it was one of those fairy tales that old people tell. But the more I hear it, the more meaningful it



Fig. 1. My grandmother Judith Giroux, Fort Resolution, circa 1970. Danny Beaulieu collection.

becomes. It takes a little while. I guess that's why elders tell stories over and over until they think you've got it. That's why I told this story twice at the North American Caribou Workshop (Fig. 1).

<sup>1</sup> This paper is compiled from the NACW presentation of the same name, as well as contributions to the NACW Aboriginal Talking Circles.

### My Grandmother's story

A long time ago people and animals spoke the same language. They could communicate easily. One day long ago in the fall time, a bull caribou came down from the tundra heading for the tree line. When it got there, the caribou noticed there was a tent pitched along the tree line. He could hear a woman crying in the tent.

As most caribou hunters know, the caribou is a very curious animal. He wanted to really know what was going on. So he turned himself into a man and walked into the tent. There was a woman in there with two daughters. He asked the woman what was wrong. And she said, "Well, there was no caribou for a long time and all my people died. There's just me and my daughters left. Once we're gone, the people will be gone."

So the caribou thought, "Well, I've got to help her out." So he asked her if she would want him to live with her and to help build a nation again. He said, "The only condition would be that I'll have to leave some day." So he moved into the tent and lived with her for years and years and years until the people were strong again. He taught people to respect animals. He taught people how to hunt caribou. He taught people the ways of the land.

Finally, the day came that he felt the people didn't need him anymore, so he told the woman that he had to go. That was the agreement she had made, she knew he had to go, so she agreed.

So he left. They said goodbye, and he walked out and left. A few moments after he left, the woman decided, "Well, I don't want him to go." So she chased him. She followed him. She followed the moccasin tracks down the hill onto the ice. A little ways onto the ice, she noticed that his tracks turned into caribou tracks and headed north.

That's the end of the story. I always wondered what it meant. Today when we're in a period when caribou are declining, I think a lot about this story, about caribou. That's one story that keeps coming back to me because I think it's our turn to help the caribou. In reading this paper, maybe you'll figure out what it means.

# A history of caribou cycles

The knowledge about the caribou cycle that I'm going to share with you comes from the people of Rocher River and Fort Resolution, Délɨne, Łutselk'e, Yellowknife, a lot of people I've talked with over the years who know most of the southern areas where the caribou winter. Caribou are important to us. The barren-ground caribou are what people lived with.

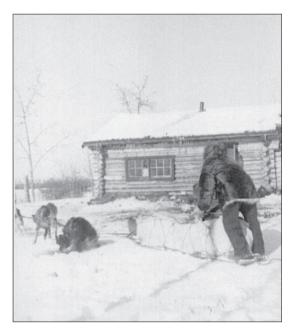


Fig. 2. I believe this is a photo of my great great grandfather Paul Beaulieu driving a dogteam in Fort Resolution. Date unknown. Danny Beaulieu collection

You hear many, many stories about how people had really rough times when caribou numbers were low. Caribou populations go up and down. Scientists have spent thirty years trying to figure out why caribou go up and down. They can pound their head on the cement block as they'll never figure it out. It's a thirty-year cycle, up and down.

Paul Beaulieu was my great-grandfather (Fig. 2). He said when he was around twenty years old there were lots of caribou around Fort Resolution. That must have been in the 1890s. The elders don't tell you what year, but I was able to figure out the year because he said he was about twenty years old and that would have been in 1892. When elders tell me stories they think of events. Like somebody's birthday or an important event that people don't forget. So that's how the cycle is put together.

At that time there was so much caribou in Fort Resolution in the bay, all they had to do was hook up a couple of dogs and go out on the bay and shoot a caribou and bring it home. There are many stories about how many caribou were around in those years. If I have to tell all the stories we wouldn't have enough time in the day.

My grandfather said that there was no caribou during the First World War. That would have been around 1915. As you know the war lasted until 1919. He said that in those days, people had a hard time.

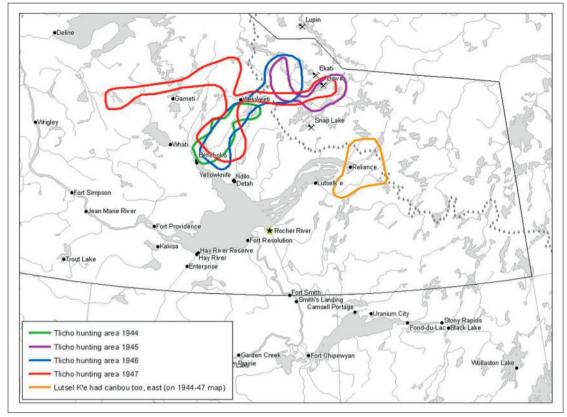


Fig. 3. Winter hunting areas 1944-1947. Thcho hunting areas adapted from Whaèhdoò Nàowoò Kò (2001). Lutselk'e hunting area from information gathered by Danny Beaulieu through conversations with elders. Caribou were likely lowest in population in 1945, when the hunting area was smallest and furthest away from the communities, past the treeline into the barrenlands.

They all used dog team to travel, snowshoes, and there were many stories of hard times. Like stories of a father who would leave the family to go hunting on the barrenlands and not come back.

My grandmother told me that when she was about nine years old, when my great-uncle John was born, one morning in the winter time she heard thunder; by great-uncle's birthdate, this was in 1924. She also heard something that sounded like rattling dog chains. She said she went to the window and there were so many caribou moving through the community, the ground shook. In the former community of Rocher River where I was born, there were about a hundred people. There was an island on the river, and they said it was full of caribou migrating south. The migration went all day through the communities. Again there was a lot of caribou for the people.

My father was an Aboriginal trapper and hunter. I didn't come out of the bush until I was nine years old. My father said after the Second World War, that would have been in 1945 probably until 1950, there

were no caribou around Rocher River where we lived (Fig. 3). People had to travel almost to the tree line by dog team to find caribou. Again there were hard times. To survive, people hunted moose, buffalo, fish and traded fur for dry goods.

There were airplanes. I think Punch Dickens came around one time with a little airplane and busted his propeller. My great-grandfather had to make him another prop so he could leave again. That's all we had for an airplane, so people couldn't really look for caribou. They just used dog teams. There were no skidoos either. That was after the Second World War.

In 1953, the year I was born, my father told me that there were a lot of caribou again at Rocher River. There are a lot of stories of that time. I'd like to tell you one about my uncle and my father:

My father told me they were trapping and they had to chase caribou off the lake to get the dog teams to the other shore where they have to set traps. So my uncle had these big fur mitts. They have these strings, we call them idiot strings, that go around

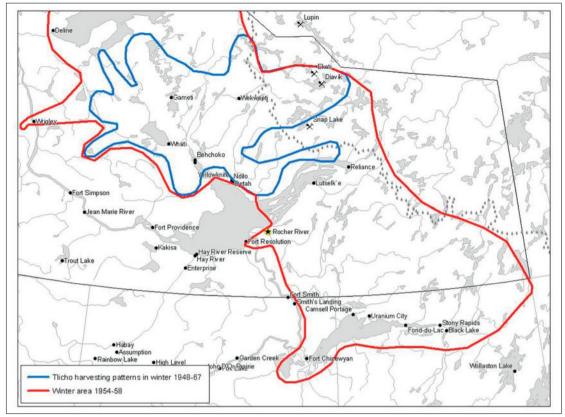


Fig. 4. Winter hunting areas 1948-1967. Tłącho harvesting areas 1948-1967 adapted from Whaèhdoò Nàowoò Kò (2001). Winter area boundary 1954-1958 gathered by Danny Beaulieu through conversations with elders. The population is high, and the caribou are spread out. Everybody had easy access to caribou in these years.

your neck and have a little pom-pom on the end. So he was using that to chase the caribou off.

He had a hold of the pom-pom and was twirling it and getting the caribou off the ice and walking his dog team across the lake. The pom-pom broke. The mitts landed around the antlers of a big cow caribou and the animal took off. So he ran back to the sled and he was trying to shoot that particular caribou. My dad said he was just jumping all over the ice trying to get a shot and this caribou was running with the mitts like a cowboy kicking a horse. It disappeared in the bush. He never did get his mitts back.

Those years there were a lot of caribou. My aunt and uncle Dorothy and Angus Beaulieu told me that there were caribou on the prairies east of Fort Resolution and on the ice on Fort Resolution Bay for seven years, until about 1958. There are buffalo there now. A lot of elders believe the caribou don't use that area now because of the buffalo.

During those years, the Thcho hunted at the end of Great Slave Lake, where Reliance is, down to Yel-

lowknife and up to the barrenlands. The mapping of this history was done by Tłįchǫ researchers.

In Déline, they had lots of caribou between 1954 and 1958. I talked to an elder from the Fort Simpson area, his name is Jonas Antoine, and he said that in 1954 the caribou crossed the Mackenzie River into the mountains and stayed there for about seven weeks. When they returned, the caribou travelled single-file across the river, which is about a mile and a half wide. All day they were coming in a line that stretched all the way across that river. Thousands of them.

In those years there were a lot of caribou. There were caribou in Yellowknife and across the lake at Fort Resolution, and in Fort Smith. Caribou used to graze in Fort Chipewyan, Alberta, at the delta of the Athabasca River. I haven't talked to people in Black Lake, Saskatchewan but that area would have been the wintering grounds of the caribou in those years (Fig. 4).

The Thcho mapping project with elders for the 1970-1975 period shows that caribou didn't migrate

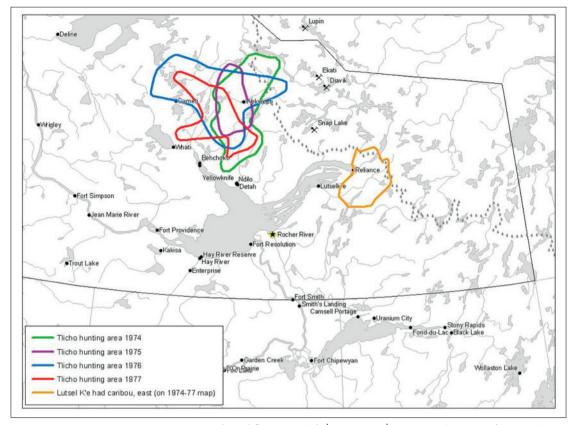


Fig. 5. Winter hunting areas 1975-1977. Adapted from Whaèhdoò Nàowoò Kò 2001. The lowest caribou population was in 1975. The expanded range in 1976 may show that the population has begun to rise again.

very far when the numbers were low, but for some reason the caribou liked the area around Indin Lake, between Gamètì and Wekweètì. What we call the Eastern caribou (known by scientists as the Beverly and Ahiak) hang out between Artillery Lake and Łutselk'e when they're in low numbers. We still had to travel many miles to hunt from where I was living at Fort Resolution.

In 1975, I was working in a community called Pine Point where there was a lead-zinc mine. My father was in Fort Smith. From being a trapper, my father became a wildlife officer. I followed in his footsteps. I gave him a call one day and asked him if he wanted to go hunting. He told me there were very few caribou and the Commissioner of the Northwest Territories allowed only five tags to any people that hunted in the southern NWT. But I was told that this only lasted two or three years (Fig. 5).

In the 1970s, skidoos were new. There was a snow-mobile they called a snow cruiser. It weighed about seven hundred pounds. You never want to get it stuck, so you just drive it around on the lake. Most people really couldn't afford to go hunting with air-



Fig. 6. My father Jim Beaulieu, training young trappers with his 1967 Snow Cruiser.

planes. There weren't that many jobs. There was no mining, and there were no winter roads. There were very few non-aboriginal hunters. There was no outfitting. So there wasn't much impact on the caribou in the 1970s. The animals returned fairly quickly (Fig. 6).

In 1984 there were a lot of caribou again in Rocher River, the community that was located at the mouth of the Taltson River. I was trapping at Little Rat River in those days, and I hunted caribou at Taltson

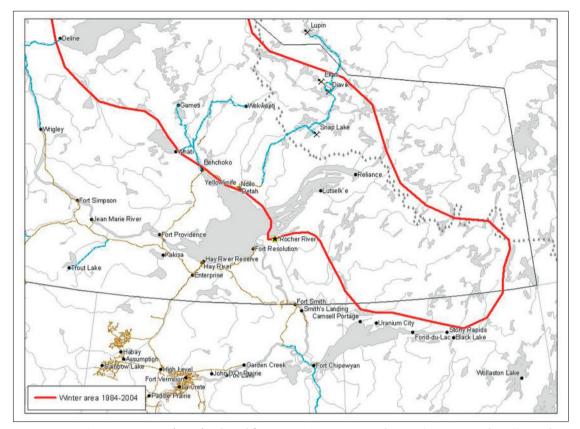


Fig. 7. Winter hunting areas 1984-2004. Adapted from NWT Environment and Natural Resources radio collaring data.

Bay. I think that's the first time that I killed a caribou. I usually hunt buffalo and moose. My uncle was down at Rocher River and it was only about a half hour drive from where my cabin was by skidoo. So I went down and I got to the Taltson Bay. The bay was just covered with caribou. I shot one and it was real easy to skin because it was so small. I put it in the sled and I got back to my cabin. Again there were a lot of caribou in the area. Since 1984, the caribou have moved to the northeast, further away from the community every year. By the 1990s, we had to go all the way to Łutselk'e to hunt caribou.

From 1984 to 2004, the wintering grounds were around Déline, Yellowknife, Rocher River, down to Stony Rapids (Fig. 7). I know this partly from traditional knowledge, partly from radio-collaring. The caribou didn't go as far south as they did in the 1950s. I don't know the reason for it, because we didn't fly around and count. I think when the numbers are lower they just don't go as far. Some people say it's because of forest fires. Whatever the case, the range extended that far south (into southern Saskatchewan) the last time the population size was high.

From 2002 to 2008, I did a lot of patrols travelling on the land, just talking with hunters and travelling with hunters where the caribou wintered when they were in the low numbers. Again they were on Tłącho land around Indin Lake (Fig. 8). In 2005, the caribou were just east of Yellowknife, but that was it. They moved out and around north of Łutselk'e in those years.

#### Cumulative impacts

In 2005, we started talking about low numbers again, especially with respect to one particular herd, the herd that we call the Northern herd. Most biologists know them as the Bathurst herd. In 1984, this herd apparently numbered about half a million. Today they're about 30 000. The cumulative impact on them is unreal. There are about ten outfitter lodges that concentrate on the range of the Bathurst herd, three diamond mines, and about one thousand kilometres of ice road. I've been on that ice road between late January and mid March and every five minutes a big truck are going by you, where caribou migrate. The mine sites are very noisy.

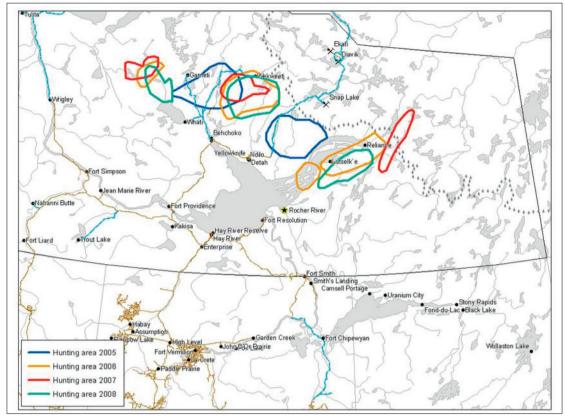


Fig. 8. Winter hunting areas 2005-2008. Adapted from NWT Environment and Natural Resources radio collaring data, and incorporating information gathered by Danny Beaulieu through conversations with hunters. The population was low during the entire period. Note the winter roads to Gamètì, Wekweètì and the Snap Lake, Diavik and Ekati diamond mines now influencing where people hunt.

The caribou are easy to find, they can no longer hide from us. We've got skidoos. I bought a skidoo two years ago, and I've never even run it wide open yet because I'm too scared, that's how fast they travel. We have lots of people nowadays. We have good jobs. We're working at the diamond mines. We get a couple of weeks off and we can rent airplanes and go find them. We have two ice roads that go into the heart of the wintering ground of the Bathurst herd. Since 1996, we have satellite collars on caribou in the herd, so if someone wanted to go hunting, they could just look on the computer to know where they are. After 2007, when numbers were getting low, the maps were no longer published on the website to help conserve caribou.

There's been a lot of hunting. There are ten outfitter lodges that concentrate on the Bathurst herd. We have more than 20 000 people in Yellowknife. Half of them are non-aboriginal people. There were up to a thousand non-aboriginal hunters that hunt the Bathurst herd. Both aboriginal and non-aboriginal

hunters use the ice roads that go to the diamond mines. There are a lot of things that impact this one particular herd. There are other herds that don't experience as much impact because there are no roads cutting across their ranges.

There was a Denesuliné prophet from Łutselk'e who said, "One day we're going to walk on the caribou trails with tears in our eyes." Sometimes you hope he's wrong, but the way that development is happening and the way our hunting practices are going, I just don't think he's wrong.

When I use traditional knowledge to predict the future of caribou, it doesn't look good for our grand-children, our children. The future for the caribou is not good. Only we can help them. I think the big thing is to control development across our land, across Canada and the Northwest Territories. I hope that my son's children and his children's children will see caribou herds migrating through our land. But this will take the kind of help that biologist Jan Adamczewski shows in his painting of a human

hand, holding a female caribou and her calf. If you think about the meaning of that story I just told you, maybe it's our turn to help.

## Predicting the future

Traditional knowledge tells us that caribou herds increase quickly and decline more slowly. Where I lived is at the edge of the range used by the caribou. Elders tell me that when there are lots of caribou, they use all of their land. That is why we saw them in Rocher River when numbers were high, every thirty years. In the 1920s and 1950s, elders told me that caribou wintered as far south as Fort Chip and Fort Smith. During the peak in 1984, elders say there were not as many caribou as before because they only went as far as Rocher River.

So the way I see it, using traditional knowledge from the 1890s, 1924, 1954 and 1984, the caribou were in high numbers. Thirty years apart roughly. Someone told me one time I was wrong. They said it was twenty-seven years. And then somebody else told me ite was thirty-three years. So you take an average. The same thing happened to the buffalo in this area.

In 1915 and 1945 (during the two world wars), and then 1975 and 2005, caribou were in low numbers. Now, there are all kinds of reasons why numbers decline. My explanation is that decline is a natural phenomenon. And in the future, they are going to be in high numbers in the Bathurst herd and most caribou herds across our country.

The next time there will be a large population size will be four or five years from now. And the next low will be in 2035. So using traditional knowledge, my prediction is that they'll peak in 2014. When I look at the cycle that is from the 1970s when they started doing scientific counts, and in the 1980s when they really got the counts right, if you put their line on a graph it's pretty well identical with what I'm saying.

I think the caribou do move. But from a traditional knowledge perspective, the herd divisions don't really matter. The caribou on the east side, the Beverley, the Ahiak, to us they're one herd. We have a Northern herd that they call the Bathurst. Then there's the herd from the west, the Bluenose East and Bluenose West. But we don't split them up. People know where the calving grounds are. People know the caribou. When the caribou want to give the calving ground a rest from all the trampling and that the nutrients grow back, they will move. It's been proven with the Bathurst herd.

I'm confident in traditional knowledge and I love working with scientists. When traditional knowledge holders sit together, we come with different opinions.

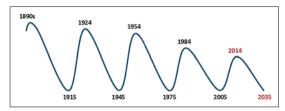


Fig. 9. Caribou cycle over 110 years. Graph by Danny Beaulieu. Caribou populations tend to increase quickly and decline more gradually. The peak population was significantly lower in 1984, likely because of cumulative impacts. Counts and studies by biologists have documented roughly the same cycle since 1975.

But if we talk about it long enough, we can work it out. It's no different for the biologists when they sit together. But beyond all these arguments, we have to work together to make plans for the future.

## Helping the caribou

If we want the caribou to be strong, we have to reduce the hunting. We need to take a look at development, and maybe do some other things to help them along. For example, in 2010 the Bathurst herd, the Northern herd, came down very slowly. They didn't get to the fall hunting area at all that year. They stopped at the north side of the diamond mines. So they were about a hundred kilometres north of where they should have been in the fall. I find that in the last few years when the caribou numbers are low, they move slowly. I think they're not as brave when they're numbering in the thousands, and they move fast. But the calves are born on the calving ground where it's nice and quiet. When their mother takes them away from the calving ground and just goes a few miles on their migration in the fall, they start hearing these rock trucks and dynamite and other noises. It really slows them down. They stop. Looking at the satellite collars, they were at a standstill for about three or four weeks this year. They never moved until last week when they started going. They had to shut down the road to let them go over.

We need a management plan for the decline that's going to happen in 2035. We have twenty years to come up with a good plan so that caribou can increase again. We could work with developers like BHP and Diavik. Last year, for example, Diavik closed the mine down for six weeks at Christmas and had planned another six weeks during the summer, to save money. The diamond prices were down a bit. They had a workshop a couple of weeks ago and I suggested that they should shut down from the

beginning of September until the middle of October instead, if they're going to do it again.

In 2035, when the caribou are going to be low again - and I hope I don't have to sit here and say, well, I told you so – we should be able to get together and figure out a plan. The caribou are on the increase. They're going to go up. They're going to start going up for the next four or five years. They'll level off. How quickly, how many is a mystery. I think the caribou in the east and the caribou in the west have a better chance than the Bathurst herd. They're very impacted and I know there are going to be more diamond mines going in there. I know our children need to work there, but I think we should really limit how many diamond mines we have running at once. We should talk to the companies that start these diamond mines and ask them to shut down the mine for a few years from 2037 to 2042. Because if they do that, if they put it in the plan and commit to it, then they'll help the caribou.

According to the stories that come from my seventh-generation grandfather François Beaulieu and my great-great-grandparents, there were hard times when the caribou populations declined, but they always came back. In my language they call the caribou "2etthën", which also means "star." When the caribou come back, they come back so quickly, our people say "2etthën-nedele," and it means "the caribou will land."

I'm so confident about the caribou cycle that I've learned about from my elders that I made a bet with a biologist. His model predicts that if there's no hunting, no pressure the Bathurst herd, it will go up to about forty or fifty thousand by 2014. I told him it's going to be over a hundred thousand. So I bet him a thousand bucks, but I told him to make it easy on himself, to give me \$250 a year over the next four years.

But just one more thing I want to say to everybody. You know, sometimes your body gets tired. You need to lay down and rest. Without anybody bothering you, just rest. When you wake up you feel good. We need to do this for the Earth, let it rest for a little while. For example, they study the dust that comes out from the trucks at the diamond mines, as far as thirty kilometres from the mine. They tell us there's more dust every year. If they don't shut that mine down and let it sit for a few years, or they get a hell of



Fig. 10. "Our Turn to Help." Painting by Jan Adamczewski. Reproduced by permission of the artist.

a good vacuum cleaner, that's not going to clean up. You have to stop the activities so the Earth can rest.

My grandfather had a really good story. He said if you take a perfectly balanced log and put the insects on one end of it and human beings on the other end they'd balance. If you kill all the insects, the earth will end in three years. But if you kill all the human beings, the earth will recover in fifteen years.

For the sake of my grandson and your children, think about cumulative impacts on the caribou, so we can make wise choices now. And remember the caribou helped us a long time ago, when we needed help. Now it's our turn to help.

Marsi cho, thank you.

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