

# arctic borderlands ecological knowledge co-op



## Community Reports 2006-2007

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Steve Cockney, Mildred Allen, Randall Tetlich,  
Robert Buckle, Allen Firth, Jenny Andre,  
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## Community Reports

2006-2007

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# The many faces of the Arctic Borderlands Co-op



# introduction

by Annie B. Gordon (Aklavik, NWT)

When I first heard about the Arctic Borderlands, I really didn't know what it was all about. There were other people that went around interviewing but this was something new. We were wondering what Arctic Borderlands was doing the interviewing for. And then, a few years later, I started to do the interviewing myself.

As time went on, it got kind of easier for me and I started understanding it more. When I first started to interview, we had a lot of Elders and we got a lot of good information from them. I just wish it would have started maybe 30 or 25 years ago, because we would have a lot of really helpful information now. A lot of our good information is all gone. It's all buried so we lost all of that. But the Elders we have left, they share what they have with us. Even that helps a lot. Now, when I go around to interview people, sometimes they say they never been out on the land this year so have nothing much to say. But I say, just tell me whatever. It all helps because whatever information we get, we don't just write it down, and then, forget about it. We make use of all the information we receive. We use it later on as we put everything together. We use it in the schools. We use it for people that need to know we lived out on the land.

I see our young people are not living the same kind of life that we grew up in, staying out on the land, trapping, and setting snares. They are living a different life because they were not taught like we were taught. We had a lot of good teachers. Anywhere you went, if you asked, "How do you do this?" somebody will tell you. If it wasn't for our Elders, I don't think many of us would be able to survive. I am really thankful there were a lot of Elders around in my growing-up years. What few Elders we have left don't go out on the land like a long time ago. It's not their fault. They want to go out there, but how can they go out there when there's nobody to take them out there? I remember when we were growing up, an old lady would have one or two dogs, and that's her vehicle or her transportation there. And those two dogs, no matter even if it was one dog, they'll haul wood, they'll go fishing, they'll go trapping, they'll do anything. And they'll get everywhere with it. Now today, Elders are missing their life out on the land. That's part of their medicine. They can't sit at home in town, because right away, you are going to hear them saying, "Oh, I feel sick. I don't know what is making me sick." But when they go out on the land, they don't feel sick at all. There's not enough time when you are spending your time out there on the land. There's not enough time in the whole day. You know, it's a going thing.

I noticed that many people are spending less time out on the land. But whatever time is spent out there is very valuable to them. They notice the changes. People notice that when you travel on the rivers or along the coast, you're going to see the banks falling in and just different things like this. They see it with their eyes or they talk about it. Even for us, when we go out, we know right away that there are changes out there. There are changes in the animals, even in the fish. A few years ago, everybody was reporting that fish were soft and soggy. You can't eat fish



because it's not even good enough to eat. Now, the fish are changing again, and everybody seems to be happy and say, "Oh, we've got good fish!" You know, they get excited about that.

The work that I do with Arctic Borderlands is really interesting. I think as time goes on, we're going to be learning more and more. Everything is changing; nothing is going to be the same. We talk about all these things - weather, caribou, even animals out on the land - and they're not the same. Sometimes we get really lots of animals out on the land, and then, sometimes, there's hardly any. I've been doing these interviews for Arctic Borderlands for 11 or 12 years. From the time that I started talking with people, there has been a lot of change.

It's not an easy life for our trappers to be out on the land. We don't have dog teams like long ago. We don't find it so easy to travel out there because we don't know what the weather is going to be like. We don't know how the freeze-up is going to be and how to travel out there. Sometimes the ice might be thin in some places and sometimes we may find it harder. We are using skidoos for travelling and some of us have a hard time to get gas. The price of gas in our communities is so high that even though a lot of trappers want to get out there, how are they going to get their gas to travel? You're lucky if you can get enough gas to go caribou hunting. Caribou hunting is one of the things that everybody tries to do.

In this job that we do as community monitors, it's just like going back to school every year. I always wanted to go back to school. So here are 20 people I interview that are my teachers. I learn from them. I learn something different all the time. That's why I like doing it, because every year, when we do the interviews, we get answers back from them. They give us information, and you know it's not the same. It's always different.



# the arctic borderlands ecological knowledge co-op

The Arctic Borderlands Ecological Knowledge Co-op monitors and assesses ecosystem change in an area that covers the range of the Porcupine caribou herd and adjacent coastal and marine areas, in Yukon, Alaska and the Northwest Territories.

The Co-op was founded in 1994 when representatives of different First Nations, Inuvialuit and co-management groups, along with several government agencies, met in Dawson City, Yukon, to start a co-operative ecological monitoring program. Participants at the meeting identified the three main areas of focus for ecological monitoring: climate change, contaminants and regional development. Participants at this founding meeting also decided that an important role of the Co-op should be to bring together science and local/traditional knowledge.

The Co-op compiles and shares information about ecosystems. No management decisions or advocacy positions are taken. Since its beginning, the Co-op has encouraged and supported the use of both science-based studies and studies based on local and traditional knowledge in the monitoring and management of ecosystems. The Co-op seeks to improve communications and understanding among governments, aboriginal and non-aboriginal communities and scientists with regard to ecosystem knowledge and management and to foster capacity building and training opportunities in northern communities.

There are currently four main components to the Borderland Co-op's Programs:

- 1 Indicators:** Track and communicate indicators of ecosystem change
- 2 Community-based ecological monitoring:** Record, synthesize and communicate local knowledge about the environment
- 3 Projects:** Facilitate and develop ecological monitoring projects
- 4 Information sources:** Provide a central point for finding information

The Borderlands Co-op has a flat organizational structure, with decisions being reached by consensus at the Annual Gatherings. The Gatherings provide an opportunity for participants to discuss and make decisions about the Co-op's activities, in order to maintain and enhance a system of ecological monitoring that is relevant and feasible to the its members. Sharing information about the Co-op's projects, including the Community-based Monitoring Program, is a major component of the Gatherings. To date, Gatherings have been held in Whitehorse, Inuvik, Old Crow, Aklavik and Fort McPherson.



The Borderlands Co-op is administered by the Arctic Borderlands Ecological Knowledge Society, a non-profit society, incorporated in the Yukon. The Society's Board of Directors is elected each year at the Annual General Meeting.

**The Directors for 2006-2007 are:**

Randall Tetlich (President)  
Joanne Ahlfs (Vice-president)  
Sheila Nasogaluak (Treasurer)  
Mike Gill  
Kenneth Frank  
Michelle Sicotte  
Dorothy Cooley  
Charlie Snowshoe  
Ian McDonald  
Gary Kofinas

Environment Canada (Yukon) provides overall coordination and support to the Co-op. Funding is from various sources including government agencies and co-management boards and councils. In-kind support is also provided through staff support from various agencies and the sharing of data and knowledge. Membership is open and includes representatives of government agencies, co-management boards and councils, aboriginal government agencies, and academic institutions from northern Canada and Alaska.

Further information on the Co-op and all of its programs can be found on its website [www.taiga.net/coop](http://www.taiga.net/coop).

**The Arctic Borderlands Ecological Knowledge Co-op would like to thank the following agencies for their funding support in 2006-2007:**

Environment Canada  
Department of Fisheries and Oceans  
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Parks Canada (Western Arctic Field Unit and Yukon Field Unit)  
University of Alaska Fairbanks - LTER Program  
Heritage Canada  
Government of Northwest Territories  
Indian & Northern Affairs – CIMP  
Wildlife Management Advisory Council (North Slope)

**Photos courtesy of:**

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# 2006-2007 Community Reports

The Arctic Borderlands Ecological Knowledge Co-op Community Reports are based on the findings of an ongoing community-based monitoring program in the communities of Old Crow, Yukon; Fort McPherson, Aklavik, Tsiigehtchic, Inuvik and Tuktoyaktuk, Northwest Territories; and Arctic Village and Kaktovik, Alaska.

The objective of this program is to document observations based on local knowledge of the land, plants, animals, and community life. These observations contribute to a broader regional ecosystem monitoring program, intended to assist in the understanding of what is changing and why. It was the community residents themselves who initiated and who continue to support the inclusion of local knowledge in regional monitoring.

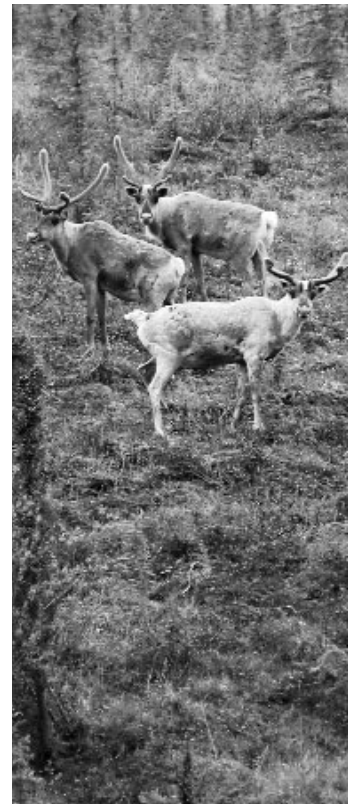
This is the eleventh year that the program has been running in Old Crow, Aklavik and Fort McPherson. It is the seventh year in Arctic Village and the fourth in Tuktoyaktuk. Tsiigehtchic has participated three years in the last four. In Inuvik, both Inuvialuit and Gwich'in experts took part in the monitoring program this year. Kaktovik participated again after an absence of several years.

This year the Community Monitors were Randall Tetlich (Old Crow), May Andre (Fort McPherson), Annie B. Gordon (Aklavik - Inuvialuit), Robert Buckle (Aklavik - Gwich'in), Mildred Allen and Matthew Gilbert (Arctic Village), Butch Kaglik (Inuvik - Inuvialuit), Steve Cockney (Tuktoyaktuk), Allen Firth (Inuvik - Gwich'in), Jenny Andre (Tsiigehtchic), and Bruce Iglangasak and Flora Rexford (Kaktovik, Alaska).

Each community monitor interviewed an average of 20 experts in their community using a questionnaire which asked for observations about weather, berries, caribou, fish, other animals and life in the communities themselves. A slightly different method was used this year in Kaktovik (see the Kaktovik section for more details).

This report contains written summaries of the information each of the Community Monitors obtained from the interviews they conducted in their communities in January and February 2007. It also includes additional information drawn directly from the completed interview forms.

More information on the Arctic Borderlands Ecological Knowledge Co-op's Community-based Monitoring Program, including examples of the questionnaires, can be found at [www.taiga.net/coop/community/index.html](http://www.taiga.net/coop/community/index.html)



**Aklavik** is located in an area that falls within both the Gwich'in Settlement Area and the Inuvialuit Settlement Region. It is situated on the Peel Channel of the MacKenzie Delta, approximately 100 kilometres south of the Beaufort Sea. Aklavik means "place of the barren land grizzly bear". About 730 people live in the community, with ninety percent of the population being Inuvialuit or Gwich'in. In the winter, Aklavik is accessible by ice road from Inuvik. In the summer, residents and visitors must travel to the town by boat or plane.



Annie B. Gordon  
Community Monitor

## Aklavik, Northwest Territories – Inuvialuit

### Community Monitoring Summary Report

by Annie B. Gordon

**Weather:** People mentioned that it didn't rain much last year. There were too many hot days and cooler some days as well. In the fall, we had lots of overcast. It was kind of warm then slowly got cooler. December was a bit warmer than past years, but by the end of December it really got cold. This past year there was lots of **snow**. Not too many changes were noticed this year. It seems to be the same as previous years.

**Freeze-up** in the lakes seemed early, but the rivers took a while. People spent freeze-up in town. There was lots of overflow in the rivers, which made it hard to trust when trying to travel. There was lots of overflow until the end of January.

This year some people said they noticed that the **activity on the land** has decreased, some said there was no change, and some just didn't know. This difference is because people were in different areas, where there may have been some activity or no activity. When there is any activity, right away people say there are hardly any animals. If there is no activity, they see more animals. So any activity will have an affect on the animals. There was hardly any **research** going on. Herschel Island is getting more **tourists** over the years.

Some people say that there were few **berries**. Some say that the berries didn't grow too well this year although there were some areas where the berries did grow good. The weather was kind of cold.

Everybody has their own areas where they **fish**, so some people had good fishing and some had poor fishing. Some loche livers were reported with red and black spots. The numbers of **Arctic char** were very low this year again. People do try and do their best to not fish when there is a closure.

In our area, right after the ice moved down river, you would get your **caribou**, if you were lucky. The caribou seemed to be skinny. Also, some hunters are reporting that they have seen killed caribou scattered on banks and hills. So harvesters are only taking the hind legs and leaving the rest. This is very bad.

Some other observations were that there were lots of small **crows** and **songbirds**. These were noticed at Herschel Island. One person thinks that he saw a merlin. **Muskox** were seen in the hills along the coast. **Wolverine** and **wolves** were spotted in the hills and around the coast line areas. Lots of **bowhead** whales were spotted on the north side of Hershel Island.

People do like to go **out on the land**, but sometimes they have no equipment to go out. But they try hard. This year I got some new people to interview. There were some single parents who were willing to get interviewed. They provided information about their time out on the land and their observations. This was really good.

This is my report for this year. It has been a difficult year, but I did try and do a good report. Thanks to everyone.



## Additional comments noted during the Aklavik (Inuvialuit) interviews

- We're getting warmer weather, and not many clear, cold days. During the summer months we're getting different birds from different countries. This summer, there was a different swan (Whooper swan) from Asia. Different seals too. A skeleton was found. We've never seen that before. It had a double set of teeth. The shoreline is really eroding more and more.
- We caught about 50 loche and about 20 of them had spots on their liver. We saw this wherever we ice fished in the Delta.
- I harvested 15 caribou from last April until now [January]. None of them looked sick or unhealthy.
- The flat fish we got this summer seemed to be bigger.
- During the spring migration, the caribou were scattered all over by small rivers and lakes.
- This year, in the winter, the caribou came close to foothills which made it kind of easy for some people to hunt. There was hardly any snow so the feeding was good. When the days get long, they are going to move again.
- We see a lot of waterfowl whenever we travel by boat in Delta or along the coast. All we know is all waterfowl starts coming in the spring and fly all over. They never stay in one place. I hardly see any small birds anymore.
- When there are lots of caribou then lots of hunters go out to hunt for food. We had caribou above Aklavik in the hills for a long time during the fall migration. People had a chance to hunt all fall this year. In the winter, they were close for a while. But then there were too many hunters so the caribou all moved in the mountains.
- We are seeing more wolves in the Delta. There are lots more tracks around, too.
- There's more erosion on rivers, creeks and lakes.
- The vegetation is thriving. The moose population has risen a lot. Every year we are getting more and more moose.
- The rabbits are just starting to come back.
- I can't go too far to go trapping. Gas costs too much to go far.
- Because of health reasons, I don't hunt like long ago but people always give us caribou.
- You can see lots of birds of prey when you travel out on land.
- Planes and choppers are always flying in the summer time. When planes and choppers fly too low it scares the caribou and then there are hardly any caribou around. When they stop flying we start seeing caribou again. Caribou are in very good shape this year.
- I only see ground squirrels in the hills and in the spring time when I hunt for grizzly bears. There are lots of beaver. Everywhere you go there's beaver sign.
- The weather was really good for berries this year.
- Ducks, geese, swans and cranes are all over the Delta and along the coast. We see them everywhere we travel. There are getting to be more owls and some hawks and eagles.

The Gwich'in and the Inuvialuit have traditionally used the town's location as a meeting and trading place. In 1912, the Hudson's Bay Company established a post in Aklavik and by the 1920s the community had become the chief trapping, trading and transportation centre for the Mackenzie Delta. Aklavik remained the region's main trading hub until Inuvik was established in 1958. Many residents still spend time in their camps in the mountains, along the coast and in the delta, in order to hunt, fish, trap and spend time with family.



- There are getting to be fewer animals on the land. We live out on the land and see these changes and wonder what will happen in a few years from now. Maybe they will start coming back again.
- There are more jackfish and they are getting bigger. Conneys are bigger too.
- It's good to keep the planes at a certain height above water or land as we feel they are harassing the animals and fowls.
- We had good weather for salmonberries to grow. It was good for cranberries, too. We found quite a lot.
- We think these interviews are good for educational purposes.
- Too much overflow and ice dropping in creeks made it very dangerous for travel. It's hard to travel in overflow. There's hardly any snow so we have a lot of high cut banks. I notice more willows in some places. Caribou were late coming.
- River banks are really falling down when it gets really warm in the summer. Rivers are getting wider.
- We saw a few beluga whales in the East Whitefish River. We went out hunting once but never got anything. It's hard to get or even see whales. It's unusual that we never hardly saw any whales this year.



# Aklavik, Northwest Territories – Gwich'in

## Community Monitoring Summary Report

by Robert Buckle

The majority of people interviewed said they spent a week or more **on the land** at a time. A few went for only occasional overnights and only one spent more than half their time or more on the land.

**Weather:** Almost everyone said this **summer** was warm, not too hot. They noticed more lightning storms this summer. They noted there was not much rain but enough for the berries. The rain levels were mostly thought to be normal or slightly drier. The **fall** was mild with not much wind or cold weather. No big storms like the past. There was very little snow until after **freeze-up**. People were able to set their nets on the ice after the ice froze on the rivers. The lakes froze fast and the river took a bit longer to freeze because of the mild fall weather. Most mentioned the snow came later in November and December. In the **winter**, January and February were about 10 to 15 degrees warmer than normal. The few real cold days allowed the ice road to thicken well. But then the weather got mild again. It got colder in February and especially in March. Spring has been colder and falls milder.

The **freeze-up** of our lakes went well and was at the normal time. The lack of snow meant there was very little **overflow**. The absence of wind also made the freeze-up very smooth, that is, not much in the way of rough ice. Somebody noted that some of the bigger lakes had air holes present. People have to be very cautious and aware of these air holes. Some speculated they could be caused by lower water levels preventing the ice from freezing properly and maybe gas released from under the trees.

The river took a few nights of cooler weather to freeze after the lakes froze. Some thought the river freeze-up was a bit later than normal. They all said the river froze well and quick as the water cooled. The river froze flat with no jagged ice due to the lack of high winds and no snow.

**Problems from weather:** Everyone said the lack of snow made it easier for them to travel on the lakes and rivers. One person said they had to watch carefully for thin spots in the river ice where it took longer to freeze. People hunting in the mountains said the lack of snow made travelling rough because a lot of rocks were exposed. The people cutting firewood said the lack of snow helped in getting wood and was a lot easier than past years.

**Changes affecting people's way of life:** Trappers are wondering about the real effects of global warming on our lives that are happening now. Lots of people noticed the river banks falling in. One trapper wondered if permafrost melting and the banks falling in on the lakes could be the main reason why the muskrat have seemed to disappear lately because their dens are in the banks. In some places the bush is lush and thick. The willows are growing in the portage trails and the land is sliding in some places making travel to camps on these trails no longer available. Some trappers wanted to know how they can get help to try to clear these old trails or make new ones.



Robert Buckle  
Community Monitor



The only noted **human activity** affecting hunting and the animals is this year's gravel haul about 10 miles west of Aklavik using trucks, loader and a cat. They work 24/7, keeping the caribou and other animals from coming closer to Aklavik. There is no other industrial work in the area.

A few people went **berry** picking. Some picked yellowberries, some cranberries and some both. Yellowberries are available first for picking and everyone seem to meet their needs. But all said they could have done with more yellowberries. The berries were good quality but there weren't too many around Aklavik. Everyone picking cranberries got enough and they were also of good quality.

We have a few people that **fish** for their family and some also for sled dogs. Everyone met their needs for fish. They caught their supply of whitefish and coney for the winter, setting nets in the summer and under the ice in the fall. Lots of people caught loche and coney and jackfish by ice fishing this year. Most everyone said the fish caught were of good quality and in good health. The whitefish and coney were in very good shape with good sizes. But people noticed fewer eggs in the whitefish. Some noted jackfish were getting bigger and more of them. People noted fewer or no char, herring, and suckers. Nobody reported catching any salmon this year. One fisherman asked if the banks falling in affects the fish because more mud is in the river. Does this prevent the char and herring and others from coming up the river?

A few hunters travelled further from town towards the coast to get **caribou** this summer. This year, in the fall, the caribou migration was close to Aklavik – within 10 miles. The caribou harvested were in good shape, most often fat and no noticeable sickness or diseases. The caribou harvested this year have all been in good shape, many with a good layer of fat. People met their needs. They reported the caribou were broken into smaller herds – from 10 to 100 caribou in a group to over 500 in only the larger groups. They were mostly mixed groups (males and females) with calves included. Hunters think the wolves chased the caribou, breaking them up onto smaller groups. Also the caribou stuck around feeding. The caribou began moving further south in December. They have mainly stayed around the mountainous areas feeding.

During the flood of the Delta in the spring of 2006, people saw **moose** floating on ice packs going down the river. The moose have also travelled to higher ground toward the hills. Elders say the animals know that a flood will happen and head toward higher ground. Moose populations are on the increase now. People are noticing tracks all over.

Some hunters have seen the **muskox** this year while out hunting for caribou. There is a herd estimated at 30-40 animals on top of Black Mountain. People don't like them. They think they scare away the caribou and would rather not have the muskox in the area.

For the first time in several years **wolves** have been spotted in the Hamlet of Aklavik. In the past years, wolves have been in the Delta hunting moose – but not near the community. They may have been hungry. These sightings were in the fall. Wolves were seen by hunters in the mountains this winter around the herds of caribou. One hunter got eight wolves this year.



People noticed fewer **squirrels** around their camps lately. The trappers say it might be because more **marten** are around. The marten may have cleaned out the squirrels.

There seems to be a lot of **wolverine** around the Aklavik area. Some trappers have caught them this year. Also more have been spotted in the foothills.

There are less **foxes** this year. The dog mushers are the ones reporting this as they monitor the foxes around their dogs. We usually have all three species (red, silver and white) but only a few red foxes were seen this year and one silver fox. The mushers think the wolves might have got them. Plus the flood this spring may have drowned some.

The numbers of **lynx** are good and the trappers believe they are getting more of them as the rabbits come back. The warmer winter season has delayed the priming of fur. The trappers also noticed the thickness of pelts is less and guard hair is shorter.

**Snowshoe hare** are around more in the foothills and less in the Delta. Maybe the decline is caused by last year's flood. They are slowly increasing as noticed by the tracks in the snow this spring.

There are not many **muskkrats**. However some isolated lakes were getting rat houses (push-ups) on them this fall. There are many opinions amongst trappers and hunters as to why there are not many rats. Some are noticing more otters and martens in the country. They are possibly preying on the rats. Also, there are more bald eagles are nesting in the Delta and they are preying on the rats. Trappers also noticed an increase in size of the jackfish and that enables the jacks to take young rats. Global warming is thought to affect the muskrats' dens in the banks alongside the lakes and creeks. The permafrost is melting fast and in some areas the banks are sliding into the water.

**Beavers**, beavers everywhere. Lots of beavers were taken this spring. The sightings of beavers seem to be all over. There was even a beaver in the mountains (Canoe Lake area). Also the size of the beavers has increased. Some nearing 60 lbs. have been spotted. Almost every bend in the Husky River has some beaver cuttings.

Some sightings of **bears** were noted. They are spotted at the dump more often since we quit burning garbage.

**Waterfowl**: Some hunters think the geese are travelling more by the mountains and by Anderson River and avoiding the Mackenzie River.

There were normal levels of **mosquitoes** this year. They were only bad for a week or so till the dragonflies hatched.

**Unusual sightings**: Tracks of a possible cougar were sent out to the NWT government Department of Natural Resources for identification. The tracks were seen in the Delta. At the end of February a seagull was killed by ravens in town. This may be the white bird some people were seeing lately.

**Furbearers and trapping**: Only one person trapped full-time. He found he had fewer furs this year. The fall was too mild and he waited for the fur to prime. He thinks the flood affected the amount of furbearers. He noticed that there are hardly any





houses for muskrat trapping this spring. A few others only trap part-time and they noted less fur around. People want to get into trapping and would like help to get started, traps, stretchers and assistance for building a cabin and purchasing a snowmobile. A couple of people thought that if more people are involved, the trails would be better and trapping might come back.

**Final words:** Almost everyone said they have participated before and believe this should continue. Its good for all the regions and a few people mentioned that they look forward to seeing what people have reported and noticed out on the land.

I would like to thank the participants and coordinators from Arctic Borderlands in this year's monitoring program. I would like to acknowledge and say a big thank you to our Elders for their traditional knowledge. Their knowledge is valuable and all decisions concerning the land, animals, birds, marine mammals and fish must include their input. I have learned new things listening to them for this I am very thankful.

*Mashi Cho*

### Additional comments noted during the Aklavik (Gwich'in) interviews

- There were very few Arctic char. I tried sinking nets, but still no char. There are more eagles every year. The moose population has gone up.
- There are lots of wolves. The fur is in good condition. There are more wolves than ever before. The population is booming. A few more people are trapping because it's a good year. There are lots of marten.
- I'm concerned about the banks falling in and the permafrost melting. Willows are blocking the trails and had to be cut out. The ice knocked down lots of willows. There are a lower number of rabbits and not many muskrats. I am noticing more rat houses this year.
- There's no char anymore. I don't know what is happened to them.
- The weather is warmer and there are more willows. Willows are growing on portage trails and need regular cutting. Slides on the land are affecting trapping.
- It was a bad year for trapping for me because there were no mink and few lynx.
- Riverbanks are falling in quite a bit. There's lots of erosion and its happening faster.
- This year caribou migration patterns are different. They are not travelling and were in bunches. There are more wolves in the Delta and in mountains – over 20 in a pack. The caribou aren't moving in the winter. Wolves are breaking up the big herd and there are small bunches are around.
- The geese are flying by the hills, avoiding the Mackenzie River.



# The many faces of the Arctic Borderlands Co-op



**Fort McPherson** is located in the Gwich'in Settlement Area, on the east bank of the Peel River. The town is 115 kilometres south of Inuvik, along the Dempster Highway. Fort McPherson is the home of the Teetl'it Gwich'in First Nation. Teetl'it Gwich'in means "people of the head waters".

Fort McPherson was established in the mid-1800s as a trading post for Gwich'in trappers. The town was named after Murdoch McPherson who was a trader for the Hudson's Bay Company. The Gwich'in name for Fort McPherson is Teetl'it Zheh. The economy of the community is based local businesses such as the Fort McPherson Tent & Canvas factory as well as on hunting, fishing, and trapping.



May Andre  
Community Monitor

## Fort McPherson, Northwest Territories

### Community Monitoring Summary Report

by *May Andre*

The **weather** in June was warm with some rain. In July there was a mix of rain and good weather. There were some storms. There was some good weather in August and then it rained for two weeks straight (last two weeks of August). It was wetter and warmer than most years. Some Elders say it was unusually windy. The majority of people said there were fewer storms. It was warm in September and October. In October the temperatures ranged from minus 2 to minus 8, and there was very little snow. November was warm too with an average amount of snow. It was wetter and warmer than most years. It was unusually calm with fewer storms. December was also unusually warm. Whenever it snowed the snowfall was light, not heavy. We finally had some cold days in January. Other days were unusually warm. It was dryer and warmer than most years. Most people reported lots of north winds.

**Freeze-up** of lakes was later than most years. Freeze-up of rivers was later and slow. There was not much overflow this year because there was not much snow. Now into February there is some overflow in some areas. Weather conditions created problems for getting out on the land. The ice did not freeze well. There were some open areas on the river and also lots of places that had thin ice. It was dangerous to travel making it stressful for people used to being out on the land. Some people could not trap because there was not enough snow.

**Changes seen:** The weather was too warm this fall. The ice did not freeze well. Lots of people had to stay in town or go to 8-mile to fish as it was too dangerous to travel on the river and go to their camps. Not much snow this fall; this is unusual. Fall was also unusually warm.

There are too many willows growing all over, especially along the banks. Too much growth makes it hard to walk through and also makes it hard to see the river from some cabins. The old trails are grown over. Willows grow fast. One Elder nearly got lost looking for her old berry-picking place. Lots of banks are falling into the river. Lakes are breaking open near the rivers and drying up. Willows are growing on them at a fast rate. Some people believe all the roots are soaking up the moisture and water. Because of erosion the rivers seem to be getting wider.

The temperature is too warm for this time of year [February]. Long ago, the winter temperatures ranged from minus 40 to minus 65 or more. Now we say it's cold when it's only minus 30. These changes are not normal and will be drastic in the near future. Weather is very unpredictable also. Weather changes fast. Storms happen suddenly. Weather is having a lot of bad effects on our wildlife. If there is too much snow the caribou can not make it to the calving grounds. They usually lose their calves to predators. Spring seems to be coming much earlier. This means the trappers have to pick up their traps much earlier. This fall the leaves stayed green longer. The Arctic char were later than usual. There's not much wildlife like past years. There are no muskrats. Their houses are sinking. Water levels are low and there are lots of cutbanks and sandbars. Some people have to go further away from their cabins to get up the hill because of the cutbanks.



Unusually warm weather packed the snow down hard. This makes it hard for animals to feed and travel. Lots of creeks did not freeze over well this fall. This also made travel dangerous.

Weather conditions created a lot of frost all over the land. This made it hard for trapping as the frost covers the traps and they freeze. Frost also covers the bait making it hard for the animals to smell the bait. Permafrost is melting fast causing a lot of cutbanks. Trees and willows are falling into lakes and rivers. Someone said a lake behind his cabin was always dry but this summer there was a lot of water in it. This is due to melting permafrost.

**Human Activities:** There's too much noise and pollution on the land. Most people say there's no change in airplane and helicopter traffic. Airplanes and helicopters can cause pollution and make too much noise. Most say snowmobile use is increasing. Too much use causes pollution in the air, on the land, lakes and rivers. No change in ATV use. Hunting for food by local people is increasing. No change in local tourism. Research by scientists on land or water seems to be increasing due to climate change and the potential of a Mackenzie Valley pipeline to Alberta. When all of these activities are put together, there are some affects on our environment, animals, hunting, fishing and trapping. Too much noise and traffic disrupts everything. All these cause pollution to our environment. Too much research is being done on animals.

We had a lot of berry pickers this year. The **berries** picked this year were salmon berries, cranberries and blueberries. There were other berries like blackberries, red currents, and rose hips. Nearly everyone met their needs. It was an exceptionally good year for all berries. There were lots and most were sweet and juicy.

Most fishermen met their needs for **fish**. The most harvested fish were whitefish and coney. Over the past 5 years, **jackfish** have been getting bigger, fatter and are increasing in numbers. This year some people did not catch many jackfish. This depended on their location. Some **salmon** were caught around the McPherson area. Those that were caught were healthy. Some say water temperature may be causing them to come to our area; others don't know why. There were not as many **loche** as last year. People went jigging much later than other years. The loche came much later than other years. Some loche had bluish livers. Most people said that there were lots of **whitefish**. Some said there were not as many as last year. Most said the main run was from the end of June to the first week in July. Most people reported that the runs were late. The size was average to larger than usual. The quality was as usual. Some whitefish had parasites and some were mushy. Most people said there were lots of **coney**, but less up river. The main run was at the end of June. The size ranged from average to larger than usual. The quality was as usual with no parasites.

**General comments on fish:** Some crooked-backs and whitefish had lumps on the guts (fish pipes). Some people reported fewer fish than last year. This depended on where they fished and if the water was low. The Arctic char numbers fell from 12,000 to 3,500. The reason is unknown. They were more "pinkish" than their usual orange colour. There were a lot more worms in the flesh and they looked like small tapeworms. The fishing for Arctic char was closed except for char monitors. Usually female fish go up Rat River first, then males. This year they were mixed.

Highway access to the community is interrupted in the spring and fall when the Peel River (to the south) and the Mackenzie River (to the north) freeze and thaw. In the summer, ferries are in place at these river crossings and in the winter travelers cross on an ice road.

The community has a population of about 900, making it the largest Gwich'in settlement in the Northwest Territories.





Between April and the end of June, most **caribou** were not close and it required lots of effort to get to them. Lots were at Ogilvie. Most of them were cows. The snow was soft and deep, making it hard for caribou to travel and in some places it was hard and icy making it hard for caribou to feed. Last spring there was a mix of some fat and some skinny caribou. The spring migration route was far away on the Yukon side, past Engineer Creek and the caribou were very late coming. The foetuses of the pregnant cows were much larger than other years. From early July to early November, the caribou were close by and easily found. Most people met their needs. The caribou migrated very early – as early as the first week in August. Most caribou were bulls. There were lots (more than 500). Most people reported that the caribou were in good shape and had lots of rump fat. Some reported fewer caribou than usual. The migration route changed.

In the winter, from November to February, caribou were close by and easily found. There were lots of caribou up in the foothills and even across the Peel from McPherson (on the river). Lots went by and came back. Maybe they did that because a lot of the Yukon is burnt up. Not much snow in our area, around McPherson, making good feeding grounds for the caribou. It's easy access to food for them. There were more on the east of mountains, some even around Old Fort. Most groups were mixed. There were really lots (more than 500). The people interviewed said that wintering location is affected by snow conditions and amount (not much snow), other weather conditions (such as warmth) and good feeding. Caribou have not been this close since the 1980's. Since the beginning of the rut, there was a mix of some fat caribou and some skinny caribou. Most people reported the herd as healthy. Some say "no"; they say caribou are declining mainly due to weather.

**Unusual sightings:** A few people reported they saw birds that looked like robins in September and October. This bird has a red body, with grey wings, and was the same size as a robin. This bird sang a different song than a robin. A pickerel was caught at 8-mile. It had quill like fins on its back. One person saw a grey caribou with black spots and curly horns.

**Beavers** are building their houses on the sides of rivers. Some beavers are living in holes on the sides of rivers. **Otters** used to be only on the mountains but now they are down in the Delta, up the Peel River and on the Preserve. These otters are killing fish, beavers, muskrats. Some trappers report otters stealing catches from their traps. Otters are really dangerous, even to humans.

There are hardly any **grouse** or **ptarmigan**. There are a little more down in the Delta. In the early 1900's, there were thousands of ptarmigan. Most reported fewer to about the same number of **ducks, geese, swans** and **cranes**. One Elder reported he did not see any Snow geese going south. He said they probably took a different route via Alaska. He has never seen this before.

Mackenzie ice moved first this year. Most waterfowl went down the other river following the ice. There were lots of **eagles** all over. Fewer **hawks** were seen than usual. No **owls** were seen or heard around McPherson but lots around Jay Goodies. There were hardly any **small birds**. It was a very quiet spring and summer. No blackbirds or snipes were seen.



Reports varied on the **mosquitoes**. Some people said there were few, others said there were lots. As for **other insects**, people reported that the sunflies were bad. There were hardly any bulldogs, dragonflies, flies and ants due to dry spells.

There were some **lemmings** at 8-mile. Then they all disappeared. Not many **mice** around McPherson but lots at Carl Bets and other areas of the Delta and Preserve. There are very few **ground squirrels** and fewer **rabbits**. There were fewer **moose** than last year. Wolves are killing some and some are moving up to the foothills. No one saw any **muskox**.

People reported few to no **muskrats** in the Delta and the Preserve. There were more around Jay Goodies. Lots of muskrat houses sank and the otters are killing them. There are lots of **beavers** in the Delta and fewer in the Preserve. One Elder saw a huge beaver house. There are hardly any **wolverines**. There are lots of **marten**, but they are hard to catch. Not much **mink** or **weasels** around. There are less red **fox** than last year. One trapper caught a pure white fox in the Delta. Some people say there are hardly any **lynx**. Some say they are coming back. People reported lots of **black bears** in most places and lots of **grizzlies** in the mountains. There were lots of cubs this year. There were more **wolves** than last year. These may be killing moose. Lots of tracks were seen in the Delta but less around Jay Goodies.

Most peoples reported that it was a good year for **trapping** because of the fur prices, the warm weather and easy access. Some reported trapping season was bad because of the price of gas, and the weather was too warm making for difficult access. People trapped few marten, squirrels, mink, and lynx. Flooding drove lots of animals away.

Lots of people said the interview was too long. They said these interviews are worthwhile and need to be continued. Thank you to everyone that welcomed me into their homes and gave me all of this valuable information.

## Additional comments noted during the Fort McPherson interviews

- There's lots of climate change happening and this for sure will affect the land, animals and birds. We need to continue monitoring what is going on.
- The weather was too warm this fall. The ice did not freeze well and it was dangerous to cross rivers. Fall was too late, so instead of going to my place down the river to fish, I fished at 8-mile .
- Caribou are coming closer to McPherson. They are across the river on lakes. The temperature is too warm for this time of year. I predict a very big storm in the near future. I did not see any snow geese going south. They took a different route via Alaska. I've never seen this before.
- Lot of caribou went south in August but they all came back and we figure it's because we had a warm fall and good feed. The Yukon is all burnt up.
- There was too much frost on willows and trees due to warm then cold weather. Too many willows and trees could be soaking up water.
- It's unusual to see beavers making houses on sides of rivers in the Delta and creeks. I saw one seagull that is from around the coast. It has a black bill and feet.



- It was a very warm fall with a slow freeze-up. I noticed a lot of slides in mountains due to climate change. Permafrost is melting. Mud is sliding into the creeks. The weather is changing everything and animals may be confused.
- There are lots of beavers around. The feed pile around one beaver lodge is as big as my house. There are lots of beaver houses on creeks and rivers.
- There are too many willows growing all over. Lots of banks are falling in the river. The river seems to be getting wider. Too much growth makes it hard to walk through and see the river from my cabin. All my old trails are all grown in making it hard to find my old berry picking grounds. I nearly got lost this summer. Even towards the mountains, the willows are getting really thick. Days seem to be going faster. Daylight seems to arrive faster in the winter.
- Hunting caribou was easier than other years. Trapping for marten has increased. There are a lot more marten. The muskrat died off last year. There were very few rat houses this year but they are increasing.
- Char stocks have dropped and are dangerously low. This season the char fishery was closed to fisherman. Whitefish stocks were way down compared to last year. I believe they took another river. My catch this season was way down. Loche stocks were way down. This year there were not as many jackfish. Jackfish follow Arctic char. I never caught many jackfish which was good.
- The snow is packed down hard which makes it hard for animals to feed and travel. Creeks are not freezing over and the very thin ice makes for dangerous travelling. A lot of frost on traps makes it hard for trapping. Traps could freeze. Frost covers the bait and the animals can't smell it.
- The river has really changed. There are lots of cut banks that make it hard to get up. You have to work hard to get up, shoveling and cutting a trail. The vegetation is thriving. It's having a big effect on caribou, making them go elsewhere. The moose population has risen a lot. Every year we are getting more and more moose.
- All our old trails are grown in. There are too many willows. This created slow freeze-up on rivers, making it dangerous to travel. Don't see animals like moose when there's a slow freeze-up. Spring seems to be coming much earlier. I have to pick up traps earlier. Banks are falling into the rivers.
- The leaves stayed green longer. Arctic char was later than usual. Berries were good. I haven't seen a lot of wildlife as in past years (bears, moose). The caribou migration was late and a lot of caribou came close to town now.



# Inuvik, Northwest Territories – Gwich'in

## Community Monitoring Summary Report

by Allen Firth

This is the first time I've done the Arctic Borderlands report. I thought it would be a lot easier than it was. When I heard about the interviews, I thought it was a very good idea and should be easy to interview 20 Inuvik Gwich'in people. I was wrong. People are busy doing other things and some don't have the time to sit with you for a few hours. However, I did complete 10 interviews and recommend the continuation of this very important project.

The summer **weather** started off hot in June and continued hot for the month of July. It started to get normal about mid-July until the end of August. The weather stayed warm during September and October, making for a late freeze-up at the end of October. The winter weather was a bit warmer than usual from the beginning of November right up until Christmas. After that the weather was about normal with the usual amount of snow.

**Freeze-up** was later than usually around this area. There was very little snow on the ground and the river finally started to freeze safely at the end of October. There was not much overflow because of lack of snow on the ice. The overflow came later in the winter.

Most of the comments received were about the weather and how you have to adapt to the weather **changes**. Harvesters highly depend on the weather for success, but the weather is getting harder to predict.

**Human Activities** – Airplane and helicopter use are increasing in our area as more research is being done for the Mackenzie Gas Project. Snowmobile use has increased in the area. More people have them. There's been no increase in use of ATVs and four-wheelers. Sport hunting has stayed the same. Hunting for food by local people has remained the same. Tourism has remained the same. Oil and gas exploration has its peaks and valleys in this area and last year was slower than usual. Scientific research has stayed the same. Some of the above activities leave very little footprint on the land, but can still have an effect on harvesting. For example, air traffic cannot damage the land, but can spook animals, which start running, and lose vital body fat stored for the hard winter months.

The general comment from all the people that picked **berries** last year was that they were plentiful all over. There were lots of blueberries all over the area and they were plump and juicy. Cranberries were numerous and it was a good year for them. It was the same for cloudberry. The weather was a big factor in the good berry crop.

**Fishing** was normal for the summer and fall months. Some people said the fish were soft while the weather was hot at the start of summer. The whitefish and coney runs were around schedule. The water levels seemed to be lower than usual. Jiggling for loche was later than usual. The river froze late so people were out later in the season than normal.

**Caribou** hunting for Inuvik Gwich'in was for the most part good. There were a lot of

**Inuvik** is located in an area that overlaps the Gwich'in Settlement Area and the Inuvialuit Settlement Region, on the East Channel of the Mackenzie Delta. Inuvik means "living place" in Inuvialuktun, the language of the Inuvialuit. With a population of 3,300 people, Inuvik is the largest town north of the Arctic Circle in Canada. Inuvik is the home of the Nihtat Gwich'in First Nation. Its members make up about 14 percent of the community's population. Inuvialuit make up about 37 percent of the population. Many residents of Inuvik still use traditional gathering places in the Mackenzie Delta and along the coast for hunting and fishing.



The town was originally built in the mid-1950s by the Canadian government to serve as an administrative centre for the Western Arctic region. Aklavik had been the traditional centre of the Mackenzie Delta area but the ongoing threat of flooding and erosion made the community unsuitable for the expanding needs of the region. The Dempster Highway has provided the community with road access since 1979.

Inuvik is a hub for the current oil and gas activity in the Beaufort region as well as being the transportation, health, government and education centre for the area.

Porcupine caribou around the Fort McPherson area of the Dempster Highway during the spring and fall. The round trip there and back is about 400 to 450 kilometres, so some people could not afford to harvest up there. Those that did were usually successful. According to the experts, there were very few Bluenose caribou between Inuvik and Tuk this past year. Those that did harvest them had to travel about 200 kilometres round trip. The snow was very deep back there so that may have deterred the caribou from travelling farther south and closer to town. The caribou in both Porcupine and Bluenose herds were in very good physical shape.

No **unusual sightings** were mentioned other than the fact that there were a lot more moose in the Delta than usual. According to the experts there are also a lot of otters in the Delta today which may have something to do with the muskrat decline.

There was nothing out of the ordinary for **birds** around this area. **Grouse** and **ptarmigan** were normal. **Raptor** sightings were normal. **Waterfowl** and **songbird** numbers seemed normal.

**Mice**, **voles** and **lemmings** were normal. So were the **ground squirrels**. There were very few **rabbits** in the area. Experts mentioned they may be at the bottom of their cycle.

According to the experts, there are **moose** all over the Delta today. You can run into four or five a day when travelling now. A long time ago you were lucky to see one a week.

There were very few **muskrats** in the Delta last year. The numbers have been down for the past few years. They have been down like this in the past, so the experts think that the numbers of muskrats will start to go back up maybe as soon as next year. All of the snow last winter made it hard for trappers to find push-ups during the spring. When the snow started to melt, it dropped the push-up into the water prematurely which possibly caused numbers to be low. **Beaver** numbers are very high in the area right now. With the price low for the fur, hardly anybody is trapping or hunting them, which may explain why the numbers are high.

**Marten** numbers were high. Trappers were getting good prices for marten so a lot were trapped. The prices made it worthwhile. **Mink** and **weasel** numbers were low. **Wolverine** numbers were normal. **Foxes** were all over the place in the fall after the rivers froze. After that the numbers dropped off. The numbers were normal. There are very few **lynx** around the area with the low numbers of rabbits. According to the experts, grizzly, black bear and wolf numbers were normal.

**Final words** – This monitoring program should be continued and expanded to include the Mackenzie Valley communities. Some people thought that the 45 litres of gas was not enough incentive to sit down and give information.

## Additional comments noted during the Inuvik (Gwich'in) interviews

- The seasons used to come like clockwork. Now you never know what the weather will be like for travelling. The animals are also changing habits with the weather because that's what they have to do to survive.
- Some years there are grouse and ptarmigan all over the place and the next year they are not around at all.



- The weather can cause problems. When there's no snow, you can't plan ahead. You have to plan day by day.
- Last spring the snow was hard and very deep. It rained a few times, and then froze again which makes it hard going on a skidoo.
- There were very few muskrat push-ups last spring. We had a bad freeze-up the year before and that may have sunk the push-ups.
- There are too many beavers. They are damming everything up.
- There are more wolves in the Delta. Maybe it's because of the increase in moose.
- There are fewer young people going on the land. Maybe their parents won't teach them the skills.
- Cranberries were good last summer. I still have some left [in February].
- The places we went had lots of berries. Some years those same places don't have very many.
- There are lots of grasshoppers. That's unusual. Where do they come from?
- There are red fox all over. They even come out into town.
- The fall stayed warm later than usual. When it finally froze up there was no snow.
- The changes in the seasons are not the same. It affects fishing, hunting and trapping. Some years you miss the fish run because they went by already. If the summers are too warm, then the fish are softer and don't taste normal.
- The noise from the airplane and helicopter traffic scares the animals. Snowmobiles scarce animals, too.
- Fewer people are going out on the land to hunt for food.
- The noise of machines scares the animals and they travel farther away. The animals get skinny in winter from running away all the time. The warmer weather changes animals.
- The weather is just staying warmer for the last few years and I don't know if that's going to be normal now-a-days or what.
- Like I said about the weather, it is warming up and affecting the land and animals, and that is affecting the harvesters.
- Snow last spring was hard packed from the wind. It rained then froze and got crusty. The rabbits must be at the bottom of their cycle.
- When the water is warm, all the fish are softer and taste different.
- When the geese were passing in spring, it looked like it was mixed flocks flying together. Some were flying real high.
- When we travel on the river, a lot of the banks are falling in and there are sandbars where there never used to be any. You really have to be more alert or awake when travelling on the land today because you don't know what to expect anymore.
- The animals are unpredictable now when they travel.
- All of these human activities affect the land and the animals in some way. Nature is not used to it.
- It seemed there were not as many blueberries as last year.



- I haven't seen any grouse or ptarmigan for the last few years.
- There seems to be more ground squirrels than normal. Last fall, we got a dozen. There have been very few rabbits around for about three to four years now but the trappers are getting lots of marten.
- The water gets so warm in the summer and the fish get soft. That's not what it was like long ago. The banks of the river are still soft even when the ice is forming on the lakes and rivers.
- There were cranberries, blueberries, and blackberries all over the place.
- It is warmer now and that is affecting everything. The snow is not as dry. The ground stays softer longer into the fall. It doesn't hit 40 below anymore or not as much. It's affecting the way animals are behaving.
- I saw a song bird that looked like a robin but had rosy red belly and sounded different. Someone said it was a Pine grosbeak.
- There were lots of mice all over. There are lots of marten too but not many mink.
- Whether you go inland or in the Delta, make sure to keep an eye on the weather. The weather is changing the seasons so I don't know if it will be better or worse for travelling and hunting. You just have to get used to it.
- There were very few rabbits the last few years around my camp.
- I usually go inland behind town and try to stay off the lakes until it is really safe ice. The warm weather makes you wait longer for safe conditions. The snow seems heavier than usual all year round.
- Compared to other years, caribou were in a lot better shape.
- There may be more eagles in the Delta than before.
- There used to be certain land marks that you could use for markers when you travel but the ground is thawing and there are lots of new landslides and some of the markers are now gone. The weather is affecting everything.
- This is a good project and should be done down the Mackenzie Valley also.
- This is a good idea to interview people who use the land and know the land.
- It's a good idea to ask harvesters what they think about these things.



# Inuvik, Northwest Territories – Inuvialuit

## Community Monitoring Summary Report

by Butch Kaglik

**Time on Land** – I interviewed 20 people. The youngest was 17 and the oldest was 92. The people I interviewed only took day trips from town.

Most reported that summer **weather** was mostly warm. Some said it was fair and warm. One person said it was cool. Most said the fall weather was warm. It was cloudy and there was no snow. Most people said the winter weather was warmer. There was hardly any snow. There was a lot of snow by the end of January and early February. The lakes froze up very quick. **Freeze-up** of the rivers was very smooth this year. No one saw any change. Some people reported no change in **human activities**. Others said they didn't know about any increased human activity.

One person said she met her needs for cranberries this year. **Berries** were said to be sweet and ripe. Everyone said they met their needs for **fish** this year: whitefish, coney, herring and loche. Some said the fish had parasites that looked like worms.

No **caribou** were seen last spring. In the fall, the caribou were too far away to hunt. In the winter, caribou were close by and easily found. There were between 100 and 500 in a bunch. One person stated that they were feeding when seen.

## Additional comments noted during the Inuvik (Inuvialuit) interviews

- It was a very good year for cranberries. But some berries were hardly round because it was too dry.
- I caught about 100 loche in the Mackenzie River. There were lots of blotches on the livers. There seemed to be more unusual livers than regular.
- The herring were mushier this year. Why are some fish getting mushier?
- The caribou aren't availability to the community if they are too far away.
- I saw one bull caribou that had been attacked by wolf. It had infected wounds so I put it out of its misery.
- The whitefish run was later than usual. Warm weather is having an effect on the animals. There was hardly any snow so the ice was thick.
- Some of the whitefish I caught had red marks on them. The rivers and the lakes froze up pretty quick. It was a good smooth freeze-up and there wasn't much overflow. All the pollution is disrupting the land and animals.
- The jackfish got smaller. Maybe about 40% of the loche I caught had blotches on their livers. They're no good for eating. I caught about 200. They also had smaller eggs. So did the coney. I'm concerned that the eggs were smaller and it was unusual that the fish had so many worms.
- I harvested 8 caribou from last April until now [January] and they were all healthy. I caught about 200 loche and I didn't see any unusual livers.
- There was hardly any snow in the fall. Even in December there was hardly any. It was milder than usual in January.



Butch Kaglik  
Community Monitor



# The many faces of the Arctic Borderlands Co-op



# Tuktoyaktuk, Northwest Territories

## Community Monitoring Summary Report

by Steve Cockney

I did my survey work in Tuk this year. The first ten interviews were done in January. I took a break after those ten, because at that time hunters were heading out **on the land** to hunt caribou. The people I interviewed gave me information mostly on fish and berries. A few managed to get caribou during the fall and early part of the winter. Overnight trips were made because of the distance of the caribou. Also, there was not much daylight. And it was a very late freeze-up with not much snow at the beginning of the winter.

Summer **weather** was dry and moist with rain at times. Easterly winds were very strong making record low tides. In the fall there was very little rain. Fall seemed to be longer than usual and had a lot of easterly winds. **Freeze-up** was very slow this year. There was not much snow at the beginning of winter and very few storms. When we finally got spring weather, it melted very fast. There was a lot of slush and water over top lakes and creeks. Temperatures soared above normal.

**Human activities** were minimal and mostly around Tuk area. There was a lot of helicopter activity throughout the spring and summer season. There were more snowmobiles active when the caribou were passing through.

We had a mixture of rain and sunshine during the fall, which made it very good for salmonberries (okpiks). Cranberries and blueberries bloomed a bit late this year, which made it hard to find them. Whatever **berries** were picked tasted very juicy and sweet. Good tasting! Berries were picked mostly along the coastline around the Tuk area.

The two or three main **fish** that were caught were whitefish, cisco, herring and trout. Most of the fish caught were very large in size. The unusually low tides and easterly winds made the fish run very minimal. The fish caught by the people were in good shape and good eating. Not very many parasites were found.

**Caribou:** I started my survey work in mid-January. Most of the information I got from the first ten people was mostly about fish and berries. Not much information on caribou because they were quite a ways out, making it hard to hunt. I took a short break after I finished those ten people as at that time people had just started going hunting for caribou. There were not many caribou killed by the first ten interviewed. I went back in February, after the hunters returned. Of the ten interviewed, six people reported getting caribou. Roughly about 130 caribou were killed, including some killed in the early fall season. The caribou killed were in good shape, not too many, if any, were in poor shape. A lot of the caribou killed were northeast of Tuk. Most of the hunters, however, had to spend one or more nights out on the land as the caribou were far away and heading eastward. Some hunters did not go out because of the high cost of gas and supplies.

People interviewed were hesitant in reporting on caribou due to a lot of talk on the shortage of caribou. However, according to the information given, there were a lot of caribou travelling eastward.

**Tuktoyaktuk** is located within the Inuvialuit Settlement Region near the Mackenzie Delta, on the edge of the Beaufort Sea. It is the northernmost community on the Canadian mainland. The name of this town means "looks like a caribou" in the local Inuvialuktun language. The name is believed to come from the reefs near the town that look like caribou and can be seen at low tide. Tuk, as it is commonly called, is 150 kilometres north of Inuvik. The population is just under 900 people. It is accessible by plane year-round. In the winter, ice roads connect the town to Inuvik and Aklavik.



Steve Cockney  
Community Monitor



The area has a long history of use by the Inuvialuit as a traditional place for harvesting caribou and beluga whales. The establishment of a Hudson's Bay trading post in the 1920s brought more people to settle in the area. Residents of Tuk continue to hunt, fish and trap, following a seasonal cycle of harvesting. In recent years, the community has been used as a base for oil and gas exploration in the Beaufort Sea. The Pingo Canadian Landmark lies five kilometres west of the town. This protected area is cooperatively managed by representatives of the community and Parks Canada.

There were a lot of **eagle** sightings right in the community of Tuk. That's very, very unusual. Also more crows were visible. There were usual sightings of other birds and animals in high numbers. Types of fish were lake trout, cisco, broad whitefish, and coney. **Ducks** sighted were mergansers, mallards, scoters, pintails, canvasbacks and oldsquaws. The **geese** were Snow geese, White-fronted geese, Canada geese, and Brant, as well as **swans** and **snowy owls**.

This is my report from the hunters, berry pickers and fisherman from Tuk.

## Additional comments noted during the Tuktoyaktuk interviews

- Beluga whales entered Husky Lakes very late and went too far in.
- September was drier than most years. October was wetter than most years. September and October were warmer than normal and late September was unusually windy.
- Lake trout were in good health and a lot easier to get in early April. There were a lot of bullheads and flounders in certain areas around Tuk area.
- The ocean froze up gradual but when it got cold, it froze quicker. The ice conditions and weather patterns are changing. Also there's erosion on the land.
- There wasn't much activity on the land because of the weather conditions.
- I made a lot of day trips at different times of the year. I spent most of the spring season out on the land. I also spent about a week on the sea ice and coast in the late fall and winter.
- Industry will always have an impact on wildlife.
- The weather was ideal for salmonberries. It was good weather for cranberries too. There were lots around and huge in size. It was too hot for blueberries. They were small and very few. Blackberries were very scarce.
- There are fewer and fewer harbour seals than usual. The ring seals are still in good numbers.
- There are too many helicopters around. The noise can be heard from a long ways. And animals tend to run or fly as far away as possible from the noise.
- After freeze-up, many people go out and check the weather and land conditions on skidoos.
- During the early fall, before freeze-up, the water was very low for a few days. This delayed the fish run for about 2 to 3 weeks. The erosion on the shorelines of the harbor and ocean are rapidly disappearing.
- Low water is changing the fish run. The water is low and the run is late.
- I go out fishing every summer to my fish camp. It's not like it was 10 to 15 years ago. Very poor fishing compared to ten years ago.
- The whitefish were fat all summer long and in good shape.



- There are more ducks flying around, especially right in town. I noticed more eagles around the Tuk area, too.
- Fish runs are getting disrupted because of weather behavior. Erosion of shorelines changes the pattern of the ocean floor. That's changing the fishing run route.
- Low tide was very unusual this late summer. People were picking up garbage from harbor shoreline floor. That's very unusual.
- It was very good trapping this year. The fur condition of marten, foxes and muskrats was all prime. Prices of fur went up.
- This survey is good. It's good to keep track of the animals, birds and the land.
- Climate change has made the fish run very late and not too long.
- There was almost no overflow. It wasn't like other years because there was less snow.
- All the fish I caught were in good condition but the low water made it hard to catch them.
- I saw lots of muskox around in April. Looked like there was a good survival rate for calves.
- The caribou never decline, but move to different areas. The route traveled is different depending on the year.



**Tsiigehtchic** is located within the Gwich'in Settlement Area and is the home of the Gwichya Gwich'in First Nation. Until recently the community was known as Arctic Red River. Tsiigehtchic sits on the east shore of the Arctic Red River where it flows into the Mackenzie River. In the Gwich'in language, Tsiigehtchic means "at the mouth of the iron river". The community has a population of about 200 people. It is accessible by ferry from the Dempster Highway from late May to late October. From early December until early April, access to the community is provided by an ice road built across the Mackenzie River.



Jenny Andre  
Community Monitor

## Tsiigehtchic, Northwest Territories

### Community Monitoring Summary Report

by Jenny Andre

The **weather** in the summer season was hot and drier than most years with fewer storms. The fall weather was warm and mild with hardly any snow. It was drier than most years and unusually calm with fewer storms and very little snow. The beginning of December was very mild with very little snow. In January the weather started to get colder with more snow. It was drier than most years and unusually calm, with fewer storms and more snow.

The fall **freeze-up** on the lakes was late this year due to warm weather. After the lakes began to freeze, it was about average on the lakes. The Mackenzie River froze up pretty late this year also. The weather was very warm mild and there was no snow. We had an average amount of **overflow** in our area. Harvesters said overflow problems didn't make it hard to get out on the land. But some had trouble and said it was harder to go on the land because of the lack of snow. That made it hard for skidoos to travel.

The **climate** is becoming warmer each year with hardly any snow and less snow storms. We notice a lot of landslides in the summer and permafrost thawing more in some places on the rivers. We also notice the caribou are moving closer to the Peel River area due to forest fires on the Yukon side in the mountains. The water levels are **changing** every year.

**Human Activity** – The air traffic is increasing and affects the animals. It is very noisy and disturbing. Snowmobile use has not changed from past years. No one uses ATVs on the land and there is no sport hunting in our area. Harvesting for food by local people is down from past years. There is not as much oil and gas activity and not much tourism in our area. The research and studies of the land and water in our area by scientists has increased over the years.

The **berry** picking season this year in our area was very good for blueberries, cranberries and yellowberries. There were a lot of berries and the quality was sweet and juicy.

As for **fish**, the salmon are coming into the area because of colder waters. People are noticing that the jackfish are getting bigger and there are a lot more around. There was a lot of whitefish. They are getting bigger and are very good eating with no parasites. The crooked-back were plentiful, average in size and good eating with no parasites. There were a lot of coney this year as well, average in size, with no parasites and very good eating. There were a few loche this year, average in size and good eating with no parasites. The fish run was in early October this year. The fish were healthy and very good in size.

The **caribou** spring hunt was good but the caribou were not close by. This created the use of a lot of effort to get to them. There was lots of caribou. They were in groups gathering in the valleys. They were eating and moving southeast. The fall caribou hunting season was good for hunting. At the time of this hunt they



were moving north in mixed groups in the valleys and they were eating as well. There was nothing unusual about their bodies. The winter season hunt was good and they were close by and easy to find. They were moving south more than five hundred in mixed groups. They were feeding and in good shape, with nothing unusual about their bodies. The amount of caribou harvest in our community was around 250-300 animals. This is distributed and shared with other communities as well as with the people of Fort Good Hope.

The harvesters didn't notice any **unusual animals**, birds or fish or insects this year. The **grouse** and **ptarmigan** were not plentiful this year and there were fewer black **ducks**. There are more Canada **geese** and more **swans**. There is an increase in the number of **sandhill cranes** this year. No changes were reported to the migration route this year. There were not many **hawks, falcons** or **owls**, but there are a lot more **eagles** in the area.

The harvesters notice **voles, mice** and **lemmings** are coming back slowly but they hardly noticed any **ground squirrels**. **Rabbits** are fewer this year. There are also fewer **muskrats** in the area. There seems to be more **beaver** and **marten** this year, with good fur quality. Not too many **mink** and **wolverine** were reported.

**Trapping** was reported as good this year because of good fur prices, animal abundance and the good weather. The marten, wolves, fox and mink were in fair and very good condition. There are a lot of red **foxes** in the area and fewer **lynx** to report. Black and grizzly **bears** are not seen much in our area. Harvesters reported seeing about 10 black bears and two cubs each this year. Reports are that they are in the mountains and up in the Arctic Red River area. The **wolves** were reported to be high in numbers and are in good shape. There seems to be more **moose**.

**Other comments** – The harvesters said that these interviews are very good and worthwhile and should be continued every year.

## Additional comments noted during the Tsiigehtchic interviews

- Jackfish seem to be getting bigger and there are getting to be more in the Red River. There are a lot of eagles this year. There are a lot of insects too because of the wet climate. There are a lot of black bears up the Red River.
- There's low water all over. It's harder to get to hunting grounds. There was hardly any snow this year. That makes it harder to travel with skidoos.
- There are fewer snow geese flying down this way.
- I saw a lot of landslides on the Mackenzie and that worries me because it's warming up more. The weather is warmer with less snow this year. Plants are growing faster on land.
- Snowmobile use makes things easier for the hunters which affects the animals. They don't have much chance to get away.
- This weather is not like before. Long ago it used to be minus 60 degrees now it only around 30 degrees.
- The whitefish came with the ice. We harvested late due to freeze-up. All the fish I harvested were in good shape. Some fish were mushier than others but

The town was established in its present location in the mid-1800s where it offers a good harbour for boats in the summer. Many residents continue to follow a traditional lifestyle by hunting, trapping and fishing. Tsiigehtchic is the home of the Gwich'in Social and Cultural Institute, the cultural and heritage arm of the Gwich'in Tribal Council.



not all. There should be a study on the fish that are mushy to determine why they are in this condition. Is it a sickness or some other reason?

- Birds of prey seem to be populating back up around the Tsiigehtchic area.
- There were 13 muskox up-river by Noah's Lake in mid-August. There were lots of young ones. Something is making them move down this way. The normal grounds are up north.
- I never saw any grizzly bears this year but I did see a few black bears. There were lots of wolves this year.
- In spring there aren't hardly many ducks in area. They are changing their route to travel. I see different fish in the area too. Maybe the water is warmer up in a different place. I think different fish are coming this way because the water is colder here. There have been lots more jackfish in the past three years.
- People are getting too lazy to walk. They don't want to walk when they hunt. A hand full of hunters has to hunt for the entire community.
- Animals are moving into a new location. The hunters and trappers have to go farther and it will cost more. There is more permafrost thawing out. I hardly see any grouse or ptarmigan in the area now. There were hardly any ducks this past year in this area. I hardly see any ground squirrels anymore too. Muskrats are poor but they are coming back slowly.
- I saw lots of eagles, few hawks, and three or four owls this year. There are fewer small birds. I trapped some lynx but I hardly saw any tracks. The fur was in fair condition.
- Summers are starting to get longer and winters are starting to get shorter and warmer. You hardly see many tracks around the area.
- The weather is changing every year. Long ago it used to be minus 40 or 50 degrees. Now it's only around minus 30 degrees.
- The water level was okay on the river. I noticed more landslides along the river in the summer time.
- Cranberries were very good this year. They were big. It was a good year for blueberries and yellowberries too.
- The weather is changing. It's a lot warmer. Animals are coming into town. I've never see that before. There are more moose and caribou in the area.
- Keep up this monitor program every year so there is a general knowledge of what is happening. Continue it for the long haul.



# Old Crow, Yukon

## Community Monitoring Summary Report

by *Randall Tetlich*

This year the majority of people spent weekends or day trips out **on the land** because of weather conditions and travel.

The **weather** last spring and into the summer was very hot and dry, not much rain and not much wind. It started to rain at the end of June and the water level in the rivers was very high. The fall weather was mild, cool and very dry with lots of west wind, and few storms. There was also no snow. It was very icy making it hard to travel out on the land because it was very rough. December was also warm and no snow in January. We got a lot of snow. It was cold for a week and had a few wind storms.

Because of no snow, the trappers of Old Crow did not go out **trapping**. It was too rough. The weather was also too warm and the animals were not hungry. The few that set traps stated that it was hard to catch animals because they were not hungry and they were fat. Also there were no **mice** because there was a lot of water on the land and the mice were up higher.

The moose and caribou still had their antlers on in December and January. They're hitting each other to try to knock off the antlers. One person stated that they usually see cow caribou come first in Crow Flats and this year the bulls came first. In all their life, this is the first time they see fat caribou in the spring.

**Human activity:** Airplanes and helicopter traffic is the same as in the past. Skidoo, four-wheelers, and outboard motors are increasing. No tourist or sport hunting. Hunting by local people is about the same. Oil and gas talks are just beginning. People say that all these pollutants and contaminants destroy the land, water, air, and the plant life that we use and that the animals use.

**Berries** were poor this year. Some people didn't get what they needed. The berries were small and had poor taste. Some people stated that even the taste of berries seems to be changing. Some people feel that the hot spring and heat in early June affected the growth of the berries.

The rivers were very high all summer, making it hard to **fish** with nets. This year was a poor year to fish for chinook because the water was too high. The fish stayed in the middle of the river. The fish that people caught were all in good health. Good shape. Very few whitefish were caught last summer. Those that were caught were in good shape. Grayling was also in good shape. There were lots of chum last fall, the run was good and the fish were larger than before with no parasites reported. Few people looked for loche. A few were caught, but not as good as most years. One person stated that they caught about 30 loche and about 9 had bad livers. The livers were black. Fishing for chum was the best last year. This year all people missed out on ice fishing because of the warm weather, late and slow freeze-up. We missed out on the red salmon. The river was not safe to travel on. Most people stated that there wasn't much jackfish around and they were smaller.

**Old Crow** is situated in the Vuntut Gwitchin Traditional Territory and is the home of the Vuntut Gwitchin First Nation. The community is located on the banks of the Porcupine River at the site of a traditional gathering spot for hunting and trade. With a population of about 300, it is the most northerly community in the Yukon. It is also the only Yukon community located north of the Arctic Circle. Old Crow is not accessible by road except occasionally by a temporary winter road.



Randall Tetlich  
Community Monitor



Old Crow was established as a year-round settlement in the 1950s when a store and a school were built.

Archaeological evidence shows that people were living in the area about 15,000 years ago. That means the Old Crow area might be the site of the earliest human occupation in North America. The people of the Vuntut Gwitchin First Nation live a traditional life, relying heavily on the Porcupine caribou herd. Each year from April to June, many of the residents of Old Crow travel north about 35 kilometres to spend time trapping muskrats on the Old Crow Flats. Each family group in Old Crow has their own trapping area that has been passed down from generation to generation.

The spring migration of caribou was good. There were lots of caribou and they were in good shape – better than most years. People got enough to meet their needs. One family spent the spring in Crow Flats and stated that the bulls came before the cows. Caribou were close by and easy to get.

The fall migration was not that good. Caribou again were pretty scattered. There were no large herds. The caribou were pretty fat and in good shape. No unhealthy animals were reported. Everyone got enough to meet their needs.

We didn't see the rut this year. The caribou rutted in Crow Flats. People stated that since they built a rock quarry in Crow Mountain, the caribou never came to rut there anymore.

There were caribou around all winter near Old Crow. They were pretty scattered and easy to get. There are a few caribou in Crow Flats. However, only a few people hunted caribou because most people still had meat and it was also rough to get to them because of no snow. Travelling was hard on snow machines. People feel that the Porcupine herd is healthy body wise, but not as healthy in numbers. Caribou are declining.

The **grouse** and **ptarmigan** are slowly coming back, but there's not as many as a long time ago.

Most people stated that the **waterfowl** are getting fewer and fewer all the time. The migration is unnoticeable. We hardly hear the sounds that we used to hear in the 70's. The younger generation doesn't even eat the birds because of bird flu.

There are getting to be more **birds of prey** along the rivers. People are seeing more nests. There are more bald eagles than golden eagles. People reported a few falcon nests and a few owls. One old Elder said that he saw a huge **owl** which he hadn't seen before.

**Small birds** are about the same. There are not too many around. Some people see some new birds around. Some people who spend most of their time out on the land stated that they feel that the song birds are coming back. People have seen some strange birds and insects around the Old Crow area. They never saw these before. Some people saw some strange red birds around that they have never seen before.

Most people stated that there were hardly any **mosquitoes** last summer, compared to other years. They feel that it was too hot and dry in the spring and early summer. There seems to be more **grasshoppers** around. The **black flies** are coming out early.

People stated that there were a lot of **mice** in the early summer. They disappeared by fall because the ground was too wet and moved to higher ground. People stated that there are a lot of **squirrels** all over the place, wherever they go. **Rabbits** are coming back, good sign, and lots of tracks. Most people set snares last fall.

There are a few **moose** along the rivers and most people got their moose last fall. They were in good shape, good meat. There are lots of moose in the Crow Flats area. One person said that the bull moose still had their antlers on in January. It's global warming. There was no **muskox** reported this year.



There are lots of **muskrats** in the Crow Flats area. They were healthy. **Beavers** are getting fewer and fewer. There's not much sign of them. There are lots of **marten** and **weasels** in the country, even in Crow Flats.

There are lots of **wolverine** in Crow Flats. Most people only see tracks. There are lots of **fox** around, even in town. There was hardly any **lynx** sign. There are a few **bears** around the country. People see mostly grizzly bears. Not many cubs were spotted and very few black bears were sighted. There are lots of grizzly in the Vuntut Park and along the Porcupine River.

**Wolves** are coming back and there are lots of tracks around. One person saw a pack of eight wolves while another spotted wolf pack trails. Some wolf kills were spotted.

**Trapping:** Hardly anyone trapped this year due to warm weather, no snow, and rough country. The river did not freeze up good and there were some open spots throughout. Some creeks did not freeze. The few people that did trap from town stated that the animals were not hungry. The few that they did catch were fat. Trappers were frustrated.

Most people stated that the interviews were good, but more gas would be nice. People were interested in getting interviewed; no one refused this year.

## Additional comments noted during the Old Crow interviews

- In the past we had more snow in November. This fall the snow came late and there was not too much until January 2007. The weather was mostly warmer.
- Out on the land, I'm seeing lots of land slides and permafrost melting. Climate changing has changed my life in the way I do things out on the land.
- In the past five years, the duck migration is early in springtime and late in the same year. This year 2006 was an early year for ducks to come north.
- This fall when I was going to Fort Yukon by boat, I saw lots of rabbits and lynx.
- In the spring time, I spend more time out on land as we trap muskrats. I spend time out on the land with my dad and my grandpa.
- I'm scared to eat birds because of bird flu and scared to eat fish because of mercury.
- There were lots of wolves in my trapline area. There are also lots of caribou in the area so it is a big problem. The caribou population declines due to the large number of wolves. Not very much snow so it's very rough travelling. That's hard on snow machine bodies.
- Last spring I stayed 2 months out on the land.
- It was a dry summer with not much rain for the berries. I'm seeing different birds. The caribou migration is changing. Not too many young people hunting or going out on the land these days. I see a lot of bank erosions along the river and permafrost melt.





- Noise pollution, contaminates, erosion – it destroys the land and the food that we depend on. Younger people are beginning to depend on store food now. People are loosing trust with wild game because of bird flu and mad cow and other things.
- Grouse and ptarmigan are abundant. There are lots of them around on the hills, mountains and in the timber.
- The high water made it hard to catch fish. There was lots of driftwood. Fishing nets get dirty.
- The weather is getting warmer and warmer. Plants are growing faster, especially the willows. The caribou migration is changing. They're going a different route. Young people stay in town more now. The land is drying up and the permafrost is melting fast.
- The younger generation is slowly shying away from using what's on the land because of contaminants and pollution.
- There are more jackfish but they are not as healthy as they used to be.
- The caribou were in good shape in August. I've never seen it like this year for a long time. The fall migration was good. There were big herds along the Porcupine River.
- There are lots of grouse up on the hill. They're slowly coming back. There are lots of squirrels around too. Lots of rabbits this year. They're coming back.
- There was no snow until late December. It was very icy and hard to travel The winds are also warmer. Caribou don't migrate like they used to. They're scattered all over. All the young people have jobs now so there's not too much activity out on the land.
- The weather is getting warmer. Freeze-up is slow. There are lots of willows where ever I go. No ducks. The winds are warmer. Caribou are travelling different routes. I also hear there are lots of wolves around. Berries don't taste the same. Young people are not using the land anymore, including me. Young people are buying from the store.
- I don't see the migration of waterfowl as it used to be. There were a lot; now we don't see any.
- It's getting warmer. We don't see cold weather any more. The animals are not hungry and are hard to trap. The animals are in good shape. There are lots of willows. Lots of growth. Lots of rabbits.
- The berries taste different. It was a good year for salmonberries, but they were small. They didn't last long. There were few cranberries this year. The berries were small. Not like long ago. Not too many blueberries around. The weather is too dry.
- I notice there were a lot of muskrat push-ups in Crow Flats.
- Fur is not prime. It's too warm.



# Arctic Village, Alaska

## Community Monitoring Summary Report

by Mildred Allen and Matthew Gilbert

This has been a very interesting year for interviewing people. Ages ranged from early twenties to over seventy. We interviewed thirty people who harvested fish, caribou, moose, waterfowl, picked berries, and most of all people who have interesting knowledge on weather changes throughout the year.

Global warming is taking a high toll on the land, plants and animals, at a high pace. This is even affecting people's moods, health and daily lives as one or two noted in their survey answers.

All of the interviewees said they went out **on the land** for day trips; few stayed out more than a week at a time. People work and some cannot stay out as long as they want, but they harvested what they needed. Everyone goes out on daily trips when caribou are migrating through our area or when fishing season is here. People put in fish nets at Old John Lake and up river.

In the last few years, in June, July and August, we experienced unpredictable **weather** changes and forest fires. **Summer** started off with dry weather and turned rainy, chilly and smoky from the forest fires. Weather patterns have turned unusually different yearly. **Fall** weather was chilly in the day with no rain. This is not good for plants and small animals because the small game need edible plants and berries to gather supplies for winter. The plants turn brown too early. Fall weather was too warm and people observed that about 19 lakes had dried up from a few years back. People said there was not much overflow to worry about this **winter** because of it. They still had to be very careful when out hunting and hauling wood.

**Snow** came late this year, sometime in November. We barely had a few feet of snow, but the river froze quickly and thawed out some. Snow finally came in December. Fish harvesters said it was not good to put in fish nets due to no snow, which is also not good for snow machines. Some say the lack of snow makes cutting wood easier.

Everyone had their different opinion on **weather change** and how it affects their daily lives. General changes observed by the younger generation were a lot of erosion, more willows and plant growth and very low water levels in the rivers.

Frequent weather changes cause cold symptoms all year round. One of the interviewers said that animals and plants are adapting in their own way to the rapid **weather change**.

The **caribou** are changing their migration course throughout the year. The Elders said they are going different routes each year. Some of the Elders said more studies should be done and updated periodically so we know what is going on. There is a lot of concern from Elders who have witnessed these changes from the old days. Some said they know the caribou are mixing in with the Central Arctic herd. We had an excellent spring with caribou. The question about 'caribou calving' on our questionnaires is not applicable to our way of life, but we were told to leave the question in the survey in case there is a change in migration in the future. As of

**Arctic Village** is situated on the east fork of the Chandalar River, 100 miles north of Fort Yukon and 290 miles north of Fairbanks. It is only accessible by air. The community has a population of about 150 people. Arctic Village is one of the six communities in Alaska that, along with communities in Yukon and the Northwest Territories, form the Gwich'in Nation. It is the home of the Neets'aai Gwich'in, whose name means "residents of the north side".



Mildred Allen  
Community Monitor



# The many faces of the Arctic Borderlands Co-op



December, few caribou were harvested. Some people said they may have scattered out from the main herd. So, hardly anyone met their needs for caribou this fall. The caribou this past winter were same as in the fall. A few were scattered from across Old John Lake and hard to get to. It was too far to hunt. Caribou were healthy, moved easily and dug for lichen without any problems.

No **unusual sightings** of other animals. **Birds** are coming back. There were fewer **ducks, geese, and waterfowl** than previous year, but more swans were observed flying over and coming in groups. It's a very beautiful sight.

**Small animals** are constantly moving around. **Ptarmigan** numbers were similar to other years. They stay in the mountain areas and move into the wooded areas in the spring. In the Arctic Village area, they were all over the valley, mountains, lakes, and around the village.

There have been more **moose** due to forest fires in the flats. This affects the **caribou** as well. The caribou do not move around where moose and **muskox** feed. Wood haulers and people who go out on the land noticed more moose, marten and rabbit tracks and had lots of sightings.

This was a terrible year for **berries**. They did not grow because of lack of rain. We only had two days to pick blueberries. Cranberries were small in size and shape and plants were burnt.

Almost all the people interviewed said **fish** were healthy and the same as other years. Almost all said that the water level was low. The fish did not get a chance to run last spring. Some say the fish had scrapes on their scales. But the fall fish season was good. Fish were abundant. Everyone met their needs. Almost all said jackfish are healthy and everyone had different opinions on the size of the fish. The jackfish move with the grayling and whitefish. No burbot liver problems were reported.

A few people said there are a lot of animals out there. They are constantly moving. About half of the people surveyed said there is not a large enough population to contaminate or disturb the wildlife.

Reports on **human activities** have not changed much, except that gas and grocery prices are again rising. So people hunt and fish more than usual.

More and more younger people are going out and harvesting. This is good so they learn how to live off of the land, respect it and keep it clean. Elders always say, 'Take only what you need'.

Matthew and I enjoyed our interviews with people. They go out on daily basis and enjoy their time on the land. Due to warmer weather more people enjoy nature. Everyone goes out to ice fish and hike. For our future generations we must take good care of the land and keep it clean for the animals. Mahsi.

The Neets'aii Gwich'in lived a highly nomadic life until the 1950's, moving between seasonal camps and semi-permanent settlements such as Arctic Village. There is archaeological evidence that the Arctic Village area was populated as early as 4,500 BC. Now settled in the community, residents of Arctic Village continue to lead a subsistence-based lifestyle, hunting caribou, moose, sheep, and waterfowl as well as fishing.



## Additional comments noted during the Arctic Village interviews

- A couple times, I saw some birds I never saw before. One was reddish, the other colorful. The reddish ones were in flocks. I saw moose on the mountain which is pretty odd.
- I never saw any cranes. Not one. Long time ago, there were lots but no more now. Also, I hardly see snow birds anymore. I used to see big flocks. There are more eagles and more owls due to more mice. They're everywhere, all over.
- Muskrats are coming back more. Some lakes are covered with muskrat houses. I've never seen that before.
- For people my age and before, we had cold winters that were good for the land. It was 60 to 70 below for longtime. Elders like it. It takes care of land. A lot of lakes are drying up. Along river you can see the bank caving in. It's not cold so the permafrost melts. If we don't do anything, the whole bluff will cave in and take the houses with them. You used to be able to drive down behind community hall, but can't anymore. It's going to get worse and worse. Elders said it's good when it's cold.
- Caribou are getting further and further away. They're not sticking to the main migration route. Snow last spring made it hard for caribou to travel because they were on each other's trail. Snow this spring made it hard for caribou to dig in the snow and feed in some areas.
- There were three chum salmon caught in a net. I've never seen them around here before. Also, there were no grayling in some places where they are usually found.
- The caribou change their migration. They sometimes stay in Canada and sometimes they winter different places. Ten years ago they went elsewhere. They have their own cycle.
- When we get an animal for food we pray for it to make it good and then thank God for giving us food. If we see anything unusual we burn it up or boil it for long time for dog food. We don't throw away food and we use every part of animals we kill for food and tools or clothing.
- The lack of snow makes it hard for hunters to travel. So weather is the main problem.
- So all this is global warming. Lakes are drying up. The land drying up causes tremendous forest fire in the Yukon Flats area. But the fishing season for King salmon was good. Fish were smaller.
- Animals are diminishing. Birds and ducks are dying. What they eat (plants) is all dying. Plants are drying up and caribou's food is too dry. No rain, so no berries. They grew, but it was too dry. Even when they grow, they die from no rain and no water. No bugs, either. It was too dry.
- There's an increase in rabbits. They disappear and then return. When I was young, they were not many around. Now there are lots in the village.



- I worry about the whitefish. The skin is bad and fish are skinny. They have white scabs. I asked and they said it is from hitting the ice. But I see too many. Maybe it is from the shallow water. The water level was low. Weather changes. One day it is cold, other days it is too warm.
- There are lots of wolves. They are eating our dogs. Having a wolf problem is very unusual. It never happened before.
- Every year I've notice that the lakes are drying out more and more. They are more shallow than normal. It's an on-going thing over the last five years. Lots of changes. This year there were very few beaver (one or two). The year before were lots of beaver everywhere.
- The vegetation is thriving and having a big effect on caribou. It's making the caribou go elsewhere. The moose population has increased a lot. Every year we are getting more and more moose. The caribou route is changing due to over-growth of vegetation. Moose hunting is increasing.
- The population of rabbits is way up due to the fire in the Yukon Flats last summer.
- I go out and haul wood all winter and go out hiking in summer time.
- The global warming they're talking about is true because as a person who lives out in the bush I feel it. And we also see lakes draining out or see mud slides on the side of a hill or small mountain and are beginning to see animals that come from warmer areas.
- Human activities are disturbing the caribou route. Caribou are very sensitive. Some people need to be educated. Caribou can not be disturbed when migrating.
- Rabbits go anywhere. They do not fear animals or people. They are like puppies.
- No snow. Small animals are freezing. We do not even see sandpipers. Mice are freezing. All the little animals are freezing. It's not good.
- There were no berries. It was too cold and they didn't grow maybe because of late summer.
- Food for the caribou is good but we need to do research to see if there is pollution or something that may be interfering with their food.
- In the spring migration, there were more caribou than I've ever seen around here. Compared to other years, the caribou were in a lot better shape.
- There was little snow so the lakes seem to freeze a bit slow. It's dangerous for snow machines when there's not much snow. I didn't see much overflow this year. It was too dry. No snow till late in the year so it was a bad year for snow machines. There are too many stumps out there. It's not good for small game too, like rabbits. There's no where to hibernate. It gets warm and cold, warm and cold.
- This past year I was hunting ducks October 1st. It's unusual to hunt for ducks at that time of year.
- The weather is very unpredictable. I never know what kind of summer we will have anymore.





- Some people had fish nets freeze into the ice because it got too cold and there was not enough snow.
- Trees are drying out and lakes are drying up. Lots of weather changes compared to twenty years ago. Lots of decline of ducks.
- People need to learn now to preserve land and keep it clean. Most of them do but there are some careless ones.
- Too many different groups of people doing studies for their own information. Our people need to learn about what is going on in our land. All we see is people go through Arctic Village airport and Fort Yukon airport. People going up and coming back who are talking about how many activities are allowed in the Refuge. And all we see is the hunter going up and coming back with trophies and no meat. Us villagers, we are subsistence hunters and most of the time we have no way to harvest out there. We have to work and our kids go to school. How come we don't get help with our subsistence? They do that for people in Canada.
- We had one day of snow in mid-August and in June. That was bad for the blueberries. The unusual weather wasn't good for blueberries or cranberries. I couldn't meet my needs.
- A large amount of people right here in the village did see wolves wandering around in the early morning. This is very dangerous for school kids that are out early in the dark (short daylight) walking to school. We need some wolf control.
- There are hardly any small birds but the swallows are coming back.
- There are lots of marten, mink or weasels out there. I'm seeing more than ever.
- There were lots of ducks and geese last summer. They were all over the lakes. Lots of cranes and swans too.
- With the lack of snow, the animals don't keep warm. Rabbits are dying due to not enough snow.
- I saw a common red poll but it was yellow.
- I noticed more rabbits and ptarmigans. There was less rain. I did not like the lack of snow in the fall to haul wood. The warm weather was good for us. It was warmer than last winter.
- I worry about small game because if there's no snow they freeze. No water for plants to grow in July. The weather was not typical for July. Too chilly and berries did not grow. The water level was too low. That's not good for fish migrating. Climate change is affecting animals, plants and people. People, indigenous people, are connected to the land. Climate change affects them when berries and fish do not come when they are supposed to.
- Wolves are having a hard time getting their prey. They come to the village for food. When we go out there we have to be careful. We want our children to play freely. All our machines, like snow machines, are getting wreck up easily because there is not enough snow and the ground is hard.



- There's not enough snow and when that happens things get colder. Snow works like insulation so that means the animals that hibernate can be disturbed - like the brown and black bears. That puts them in a bad mood and angry and hungry and they can be dangerous. Moose and any rodents freeze out too and ground squirrels and muskrats and beaver. Water in the lakes and rivers and creeks freezes deeper. The fish get retained in a limited area and die.
- Hunting is a big help due to lack of jobs in the village.
- I don't know how many caribou I harvested. It is not how many I harvest. It's how many people I feed.
- Lots of lakes are losing water. Permafrost pockets are melting away.
- Bumble bees never came around until few weeks toward the end of summer. I don't know how our plants pollinated this year. We shall see.
- We've lost a lot of our lakes due to drainage. Because if there is a small strip of land between two bodies of water that's held together by permafrost and that melts, then water rushes out in other lakes or in a river or creek then the lake it drains out.



**Kaktovik** is situated in the ancestral homelands of the Kaktovikmiut on the Beaufort Sea coast of Alaska. It is located on the north shore of Barter Island, between the Okpilak and Jago Rivers. During the 1890's and early 1900's, Barter Island was an important stop for commercial whalers. A permanent settlement was established in 1923. Most of Kaktovik approximately 280 residents are Inupiat. Air travel provides the only year-round access. Kaktovik is the only village located within the Arctic National Wildlife Refuge.



Flora Rexford  
Community Monitor

## Kaktovik, Alaska

*The Native Village of Kaktovik selected the active subsistence harvesters to be interviewed. 15 interviews were completed. Most interviews were conducted in people's homes. The questionnaire was semi-structured and asked about observations of ecological change during the harvester's life time, and the implications of ecological change to subsistence and community life. Spatial observations and notes were documented on a map of the Kaktovik homelands. All interviews were taped. Interviews lasted from 20 minutes to one and a half hours.*

### Community Monitoring Summary Report

*by Bruce Iglangasak and Flora Rexford*

All of the people interviewed have spent **time on the land and sea** for day trips. A little less than half had spent occasional overnights. About half had stayed for a week or more and a few had spent more than half their time on the land. A few of the elders that were interviewed had said that they have gotten too old to travel anymore, but have told us as much as they can remember.

Many people stated that the **weather** was a lot warmer and windier in all the seasons. Thirteen of 15 interviewees said that the weather in the **spring** was a lot warmer and temperature change is a lot different, and much earlier. The majority said that it melts much faster, making it slushy. There is less time to go up to the mountains and less snow makes that it harder to haul heavy sled loads. Also the overflow on the rivers makes it harder to travel. It used to be much colder in the past. There is also more wind and fog these days. One person said that the weather seemed normal and another said that spring was coming later and that it takes longer to melt.

In the **summer** there are strong east and west winds, and there is more rain and thunderstorms. One person reported being hailed on and that was unusual. It is also much foggier. That delays the planes so the produce is late and it goes bad. Some reported there is less ice and that it's farther out and there is a lot less fish than before, as with mosquitoes. One elder reported that when he was young the sun used to rise and stay closer to the horizon and now it's much higher in the sky.

It was reported that in the **fall** there is less ice and it's farther out. There's more water and it doesn't freeze-up like it usually does. One said that people are talking about extending our whaling season because the muktuk and meat go bad from the warmer weather. It used to start freezing up in the third week of September. Now it doesn't freeze until October. It has also been a lot foggier and people are catching fewer ducks because it's too windy.

In the **winter** it takes longer to freeze than long ago. It used to get down to -70 and now it's -40s (Fahrenheit). There is less snow and more wind which makes the snow and ice dirty. The rain freezes and makes a hard layer. Then the winds blow the new snow away leaving less snow depth. There also used to be more snowdrifts. One person said that the snowdrifts used to be higher than the houses and blizzards were so strong that while travelling in 110mph winds his sled flipped 3 times. You



don't see that anymore. There are fewer storms in the winter. A few people said that it was much colder and longer and that spring seems much colder than in January nowadays.

It was also reported that people are seeing a brownish-yellowish smog that appears in the skies above the horizon, saying that it comes from the east near the Prudhoe Bay area or the increasing human activity with more ships, oil rigs etc.

There is not much **ice** during whaling season, due to warmer weather. Ice isn't as thick making it rougher out in the ocean. Not as much **snow** and drifts. In some places there is deeper snow and in others it is not as deep. An Elder stated that the whole north is warming.

Many said it was much warmer and **break-up** is coming a lot earlier. And it's melting faster. Some say it used to be frozen till July. Now it melts in May, as it does in the lagoon. Another person stated that two years ago there was a 100 foot pile of ice that formed from the ice being thin. A few people said it was a little later; one said it was two weeks behind. Most said break-up was early last spring and few said that it was later; few didn't know.

The majority said it was much warmer and **freeze-up** was later. There is also more wind making it harder to freeze-up. It was said one year that it didn't freeze-up until October or November. A couple of people said it was normal.

Half the people interviewed said it was much wetter, more rain and fog. A couple people said it was in-between and one said it was wetter in the summer and dryer in the winter and the other half said it was drier. Most said it was much warmer, a couple people said it was much colder and one person didn't know. Most people said it was windier. A few said it was in-between and few said it was calmer. Almost all the interviewees said that there were fewer storms, one in-between and three didn't know. Half the people interviewed said that there was very little snow, one said little, another said very icy and another said less than average. The weather changes were noticed on average about 10 to 15 years ago. Some say within five years and some between 10 to 20 years.

### What is causing the change?

Here is a list of things that the people thought were the causes of the changes:

- Global warming / global change
- Climate change, warmer weather
- Hotter seasons or humidity
- More open water from thinner ice
- Greenhouse effect
- Others say it's from environmental stuff like pollution from chemicals, oil companies etc.
- One person wasn't sure of what was causing the changes.

The Inupiat of Kaktovik have made their home along this coast for centuries, harvesting from the sea and the land between the Arctic Ocean and the mountains to the south. Caribou play an important part in the subsistence lifestyle of the Inupiat. During the summer months, fish, birds and berries are important food sources. Kaktovik residents also harvest walrus and seal as well as some Bowhead whales.



Bruce Iglangasak  
Community Monitor



### How is it affecting us?

Here is what the people said about the weather and how it affects the people of our community:

- Too stormy to go out camping and hunting
- Our island is being washed away slowly, also campgrounds, cabins, a lot of the coast and many grave sites.
- Caribou aren't coming around as much to our area so we have to travel farther to get some.
- More polar bears due to less ice
- Not as many fish to have and store for the winters
- Whaling season is warmer, making muktuk and meat spoil
- Ice is dangerous for seal hunting or travel
- Warmer in the spring so we can't go anywhere
- We try and make our food last the winter
- Change in weather changes our ability to get off the island
- It changes the duck season for us. We have to wait for winds to die down.

### How are we adapting to the changes?

- We try to go out as much as we can, when we can, for survival
- Knowing where the animals are, look for signs
- Everyone has to adapt to the changes. We have to live off the land and sea

### In what ways is life harder?

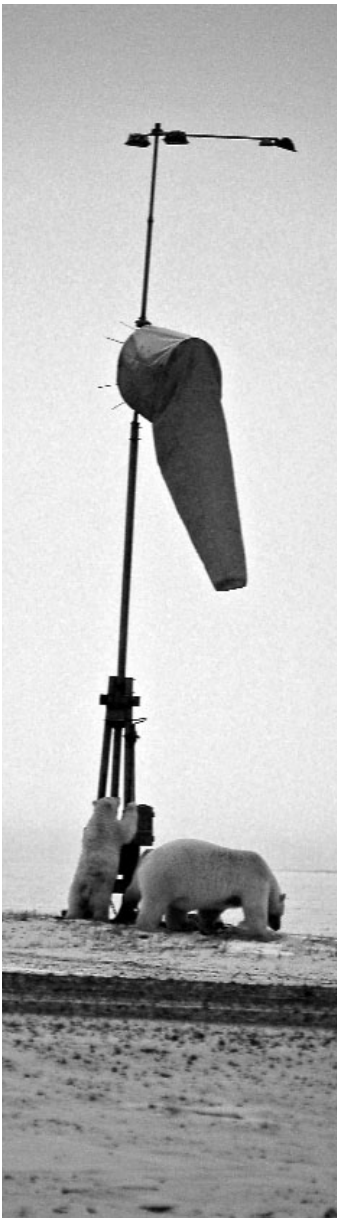
- It is harder to haul loads with a sled in the spring due to less snow
- If its stormy, we stay home
- There are more white-outs making travel harder
- More fog delaying our groceries and mail
- It's slippery and icy
- Ice rotting from the wind blowing sand and dirt. This makes the ice melt faster.
- It didn't cause too much of a problem for a few people who were interviewed.

There is lots of **erosion** on the coast. Some say it is from storms and big waves. It happens all along the shore. Our island has taken quite a beating. Over a 60-year period we have lost about 100 ft of our beaches and the bluffs on the coast have been eroding into the water. Whereas before there was a beach, now, all around the island, there is nothing in some places, exposing the cliffs to the large waves. You can see a wall of **permafrost** clearly and it is melting away every year. On the island there are sink-holes and hidden crevices making certain places dangerous to walk on. Our island is also shrinking slowly; creeks have gotten wider and have moved a lot farther inland. There used to be a pond at Brownlow Point. Now all the water is drained out. The sand-spits are moving around and changing shape. Cultural sites have also been lost to the ocean.



# The many faces of the Arctic Borderlands Co-op





There is a lot of erosion on all the **coastal areas**. Storms in the summer have washed all the beaches away and channel entrances have changed or gotten smaller. Sand bars are changing: new ones are popping up, old ones disappearing. We're getting outer sand bars and inner ones are a lot shallower. Some say beaches are getting longer from the channels disappearing. Now more ice cellars have filled with water and can never be used again. Old cabins and snow fences are falling into the ocean. The glacier at Icy Reef has gotten smaller and now it's about 10 miles inland.

Some people say that there are fewer **flowers** and no **berries** for many years now. It's because it gets too cold for them to grow. There is also not as much rhubarb and they are much smaller. There are fewer honey suckles and more mushrooms and cotton plants. Some also say that it is too dry for the plants to grow. There is also a coat of mist mixed with mud that sticks to the plants that is maybe affecting the feed of many animals.

Some say there are more **willows**. They are closer to the ocean and look to be growing higher. Some say that it is still the same and some didn't notice a change.

People say that the **water levels** are getting higher in the ocean and lower in the rivers. There is a lot more rainfall, but some say it is drying up in some places, or it is not as deep in channel entrances. They say it depends on the snowfall and the rainfall for that year. In the winter, there is not as much water in the rivers for fishing.

#### **When were the changes noticed?**

Not overnight. The currents in the water have been changing and all the erosion on the coast have averaged to about 10 to 11 years. Some say within a few years others say up to 20 years.

#### **Why are these changes happening?**

- Climate change/global warming
- Ozone pollution
- Not enough ice
- Currents are unrepeated
- Shoreline changes from high winds and warmer weather

#### **Is it affecting our community and how are we responding?**

Some people didn't know. Few said not so much now, not yet anyway. And others say that they have to find new ways or routes for travelling. Places we usually go are different now so we have to find new places and go out at the right times. People are also coming home earlier from the mountains because it is too slushy and the snow melts a lot faster. It is mainly affecting the coastal villages. We have to go out hunting or camping earlier, finding new areas to fish and finding where the animals are moving. One person said that one year she only got a handful of berries whereas before she used to get buckets of them. Seals and whales used to be in areas where hunting them was good, but they have either moved somewhere else or are farther out. The Borough or military had tried to



build something to stop the erosion on the island but it wasn't successful. What can we do? We have to adapt to it day by day.

Many people in Kaktovik have gone berry picking in their lifetime, and have noticed a big change in the amount of **berries** harvested on our lands. Berries harvested were mainly the salmonberries and a few people got others such as cranberries, crowberries, rhubarb and rarely blueberries. Changes noticed through the years are that they either moved farther inland or the cold and snow have made them die sooner. Berries have grown along the coast, whereas now people have to walk quite a bit inland and rarely see more than a handful as opposed to long ago when buckets full were gathered. Maybe they get ripe earlier and when we reach them they are too late, or it is too dry. People have noticed the changes between three to 15 years and think these are the cause of the changes:

- Too cold or too much rain, not much sun
- The weather gets hot then cold and the snow kills them
- Global warming
- Too dry
- Exhaust from the oil fields and pollution

It affects us in many ways. Hardly anyone goes berry picking anymore or they have to look somewhere else. But people know that there are less of them than before.

Most people do go out **fishing** and have noticed quite a bit of changes within the last 10 to 20 years. People have caught many types of fish including Arctic char, whitefish, herring, grayling, coney, lake trout, and jackfish. Once in a while people would get flounder and sculpin. The biggest changes that people have noticed are that there are fewer fish than usual. They seem to be softer and not have as much fat. They are smaller and the color is changing. They look more beaten up. One of the biggest changes is that we now get a lot of tom cods or saffron cods. This is very unusual because before they were never here. Also the dog, silvers and humpback salmon are coming more frequently. Before it was rare to catch them. A **very unusual fish** washed up on shore that has never seen in our waters before. It is called the Bering Sea Wolf Fish. People think the changes are caused by warmer waters and weather, pollution, high winds, shoreline changes, channels being blocked off, food shortage and moving farther out, or somewhere else. Maybe the fish are running earlier or the changes are being caused by oil companies or seismic studies going on in our oceans. We are trying to adapt by finding new places to fish, travelling farther which costs more money for supplies and gas, and by buying them from other villages or the stores.

People have noticed many changes with the **caribou** herds that come in our area. They have been noticing the different changes within the past 20 years or so. Some of the changes noticed were that there were fewer of them and we have to travel farther to get them, spending more money on gas. The body fat and the health of the caribou are poorer than unusual. They are skinnier and some had water spots, head spots, or the livers and kidneys would also be bad, some with lumps. Or some caribou travel in different routes or they travel more inland. But overall there are much fewer caribou in our area whereas before we used to get them near or off the



island. People think it is due to many things like mosquitoes chasing them and causing them to eat less, or less food, or more warble flies. There used to be fewer but now their whole bodies may sometimes be covered. Or it also can be from helicopters and planes flying too low. Overall there was a big change in their body fat; they seem to be skinnier than before.

It is affecting us in many ways including having to spend more money on gas, not getting enough caribou to last the winter or give away to seniors, and having to find another source of food from the stores which are expensive up here. We try and get what we can where we can and if it means having to spend more money on gas or food we do what needs to be done to survive.

**Other animals:** People have seen more flies in the caribou, different kinds of fish such as the Bering Sea Wolf Fish, eels, and cod. People have reported seeing new bugs like dragonflies, lady bugs, bigger spiders, flying beetles, also new birds, different ducks and seagulls with black tips on their wings. Some snow geese have purple on them.

There used to be more **ptarmigan**. Now there is less in our area, but still many in the mountains. There are also more flocks of jaegers or Arctic terns.

The **waterfowl** seem to be healthy. People are seeing different kinds of ducks and more cranes. Some people say that there are fewer (big flocks) of Eider ducks and Canada geese.

As for **birds of prey**, people used to see many eagles up in the mountains but now they are rarely seen. A golden eagle was spotted on the island this summer. People have also seen a couple of hawks that come here regularly. There used to be a pair of peregrine falcons that nested on the bluffs and on the military base radars, and satellites but they were torn down and the birds moved on. It seems like there is less owls than before. They are rarely seen; maybe only one or two stay on the island. Some people say that they are coming around more often.

**Ravens** are still the same but it seems like we've been seeing more in the past few years due to the nest on the island. A few people say they hardly see ravens. People are seeing different **small birds** – song birds, mountain birds and robins that haven't been seen here before. One person saw a robin way out in the ocean. People have also seen small black and grey birds. One person reported that a small bluebird and a blue and yellow spotted song bird, which were never seen before. There are also fewer shorebirds.

Some people haven't seen many **small mammals** (lemmings, mice and voles) as much in recent years. Some people say there are more of them. Some said that there are different kinds. There were more **ground squirrels** long ago. Now it seems like there are less of them or they are coming out later and that's why we hardly see them.

Some **marten** were spotted in the more inland mountains long ago, as well as **mink** but it is very rare. Some **weasels** were spotted but it seems like there were more than usual. We used to have more of the **red foxes** but now they are rarely seen here, except in the mountains. More **white foxes** have been seen at the whalebones in the past few years but some, with a rabid-like state, come into the village. People are seeing fewer **wolverines**. But many tracks are seen while in the mountains.



There are still plenty of **moose** seen the mountains. One person saw some near the coast and that was unusual. We had some **muskoxen** here, but they moved to a different area. Now there are very few and rarely seen. **Lynx** are rarely seen. Someone saw one many years ago. Maybe every decade they seem to be spotted. There are still many **wolves** in the mountains.

Dall sheep are caught while in the mountains. There doesn't seem to be much of a change. They are still caught when found. There may be a small decline or they just moved into new areas.

There are more **grizzly bears** in recent years. They come on the island and eat alongside the polar bears and sometimes the grizzlies chase them away. In recent years more and more are seen in our camps and on the land. Some destroy and break into cabins; some are seen all around the island. They rarely enter the town. They seem to be getting bigger. Some people say there are fewer.

There are more **polar bears**. It seems like it is because there is less ice and it is thinner so the bears stay on the island longer and eat from the whalebones in the fall. There are definitely more of them that tend to stay longer. They are entering the village every year. More and more are searching for food. Most of them are in poor shape and skinnier. Some other people say there are less for the same reasons and that there are more with tags and collars. One person's opinion was that there are more of them now. But there will be a decline in our lifetime and it's not a natural situation.

A few people have caught **beluga**. There is less beluga now. People used to see them travelling along the coast but now we rarely see them. Some people say there are more of them out in the ocean. They used to come into the lagoon every now and then, but are rarely seen along the coast as with walrus.

There may be more **seals** towards the coast. Lots were seen last year and they seem to be below average shape. Some say there are less and harder to find. Maybe there is not enough food for them. They seem skinnier and fewer in numbers.

We used to get **bowhead** closer to shore. Now they travel farther out, maybe due to all the human activities.

**Human Activities:** There are more and more people traveling through here and on our lands each year such as tourists, photographers, sport hunters and oil companies. There is A LOT of air traffic in our area, planes, helicopters which scare animals farther away. We are seeing more ships, barges, oil rigs, people doing seismic studies in our oceans, and more exploration off the coast. Since they started to come around there are many changes in our fish and sea mammals and our hunting in the sea.

The changes have been noticed within five to 20 years. We are responding by having to go farther away and buy more food from stores. People have tried to complain, but it falls to deaf ears. We also have money issues, freight and produce cost lots to ship and it is rising, and food in the stores is expensive. It is affecting us in many ways, our bowhead whales, seals and fish are farther away as well as caribou. Our whole hunting style is changing.





**Other changes** include pollution in the air. On certain calm days there is brown smog far as the eye can see. Sometimes there is more than one layer above the horizon. Maybe it's from the east or from the oil activity. Earthquakes have been occurring more frequently and one was as close as 15 miles away and one was in the magnitude of 4.5. That's very weird in our area. We need to also find new alternative energy sources, such as wind energy since we have a lot of wind and solar energy in the summer.

**The most important to our community:**

All the changes are interrelated; our health is affected by not getting our usual nutrients off the plants and animals. Here is a list of what the interviewees thought were most important:

- Weather, all in all it's warmer in all the seasons
- Human activity. There's too much traffic in the air and on the sea
- Fishing, whaling and caribou because they are our main source of food
- Land changing and erosion, especially on the coast
- Ice conditions such as breaking up earlier and freezing up later
- Pollution, in the air and, if a spill occurs in the ocean, it will be devastating
- Seismic studies in the ocean may be affecting the herring for the seals. That's why there seem to be less and why marine mammals are harder and farther away.
- The price of gas and food is rising. Our freight is expensive to get up here and food for stores seems to go bad before it gets up here. Sometimes it's due to the fog which can stay for days delaying our mail and groceries.
- Wind is more one directional for a long period of time before it changes and when its too windy.



- We used to go hunting everyday, but now we hardly go out. The water is changing. Land is washing away and waters are shallower.
- There is too much human activity that interrupts people who are out hunting. Flying too low and close scares the game away.
- We need to continue our culture and our way of life. Hunting our foods is a big part of this community and its health.
- Our island is getting smaller and the weather is bad to go hunting. And it shows that global warming is actually happening through our people and their knowledge of the Arctic.
- We are not getting our usual food and nutrients from hunting and gathering off the land and oceans and it's affecting our health. We need the fat from the animals we feed off of.
- Our lives have been changing quite a bit. It's expensive to travel out of the village. It affects our health and our livelihood. Everything is important. The foods we eat keep us healthy and young. Store-bought food is not as healthy because of the additives and preservatives.

### **Evaluation**

Overall everyone said it was a good interview and it should be continued. We get a lot of good information from here and other communities. If more people are involved, then we can make changes in our homelands. This project will help out in the long run. A translator would be good for the next time; it was hard for some people to understand a few of the questions.



# The many faces of the Arctic Borderlands Co-op



