

Gwich'in Knowledge of Grizzly Bears



Prepared by Kristi Benson, GSCI

Gwich'in Interviewees:

Robert Alexie Sr., Walter Alexie, Noel Andre, Woody Elias, Freddy Furlong, Eddie Greenland, Eddy McLeod, William Modeste, George Niditchie Sr., John Norbert, Abe Peterson, Ernest Vittrekwa, and Abe Wilson

Gwich'in Social and Cultural Institute / Gwich'in Renewable Resources Board

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A part of the

Nin Nihlinehch'iy – Łi' hàh Guk'àndeht'inahtii

(Animals at Risk – animals we are watching closely)

2012-2014 Project

Dedication

This report is dedicated to the knowledgeable Gwich'in Elders, land-users, trappers, and hunters, both past and present, who contributed to this and other GSCI and GRRB projects.

By sharing their knowledge about animals at risk, they are helping to keep this knowledge alive to benefit future generations.

Mahsi' choo!



Acknowledgements

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Transcribers Louise Nazon, Leighanna Lennie, and Mary Clark worked with a tight timeline to complete the transcripts. A special thanks to Mary Clark for organizing

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Walter Alexie being interviewed in Fort McPherson Band Office, 2012.

Photo: J. Edwards, GRRB.

Cover photograph credit: Lawrence Norbert

Report prepared by Kristi Benson, Gwich'in Social and Cultural Institute

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Executive Summary

The GSCI and GRRB conducted a study to gather and present Gwich'in Traditional Knowledge of grizzly bears. There is a now-stable population of grizzly bears in the Gwich'in Settlement Area and surrounding regions which are encountered by Gwich'in living in Inuvik, Aklavik, Fort McPherson, and Tsiigehtchic. The Canadian population is classified as Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), as their population is sensitive to development (such as mining and road-building) and cumulative impacts due to low reproductive rates and poor conditions in parts of their natural range. The study involved searching the digital archives of GSCI for relevant primary and secondary data, and conducting 13 traditional knowledge interviews with Gwich'in hunters and Elders. Verification sessions were also conducted to review the final report.



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Introduction

Description of project

The Gwich'in Renewable Resources Board (GRRB) and Gwich'in Social and Cultural Institute (GSCI) applied for funding to undertake a multi-component Gwich'in Knowledge of Species at Risk project in late 2011, and were awarded funding from the Aboriginal Funds for Species at Risk (Environment Canada) program in late summer of 2012. The program included funding for separate Gwich'in TK studies for grizzly bears, wolverine, and mountain woodland caribou. The grizzly bear study is the first component of this project.

The study is led by a four-member steering committee: John Norbert (Tsiigehtchic), James Andre (Fort McPherson), Fanny Greenland (Aklavik), and William Francis (Inuvik), representing all NWT Gwich'in communities. The committee met for the first time on November 21, 2012 in Inuvik. The meeting included a review of the project goals and background, informed consent statement (see Appendix A) and all questionnaires (see Appendix B for grizzly bear questionnaire). They also selected potential interviewees.

Building on existing sources of Gwich'in TK, this study included interviews with 13 Gwich'in hunters and Elders to compile information about grizzly habitat, behaviour, threats, and population.

Previous TK studies on grizzly bears in the region

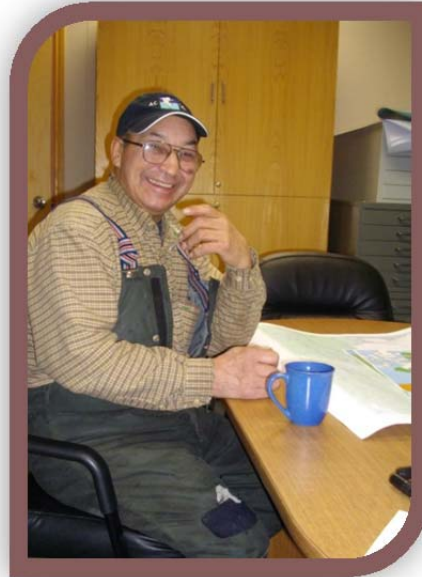
Gwich'in TK of Grizzly bears was specifically targeted in four previous studies. Additionally, information about grizzlies has been collected incidentally in various other Gwich'in Social and Cultural Institute and Gwich'in Renewable Resource Board projects. In footnotes in this report, the acronym GTK 2012-3 will be added after interviewees names to indicate information was provided during the current project.

Traditional Use Of Grizzly Bear in the Richardson Mountains - 1987

In 1987, Sam Bullock of the Department of Renewable Resources, Government of the Northwest Territories, conducted interviews with Aklavik residents about grizzly bears. A short report "Questionnaire Summary: Traditional Use Of Grizzly Bear in the Richardson Mountains N.W.T." was produced with information from Aklavik and Fort McPherson hunters (Bullock 1987).

Gwich'in Environmental Knowledge Project – 1996-7

The Gwich'in Environmental Knowledge Project of the GRRB included eight Elder interviews about grizzly bears and one community review session, completed in 1996 and 1997. These interviews were conducted to increase the use of traditional knowledge in resource



William Modeste being interviewed in GRRB Office, 2012.

Photo: J. Edwards, GRRB.



management. Information from the interview transcripts is included in this report, and in the footnotes, the acronym GEKP 1996-7 will be added to interviewee's names to indicate information supplied during this project.

Local Knowledge of Grizzly and Black Bears – 1999

The GRRB and the Department of Environment and Natural Resources, Government of the Northwest Territories conducted a local knowledge study on bears, focussing on hunting, identifying range and denning, and instances of problem bears at camps. Twenty-six people were interviewed in Aklavik, and 45 people were interviewed in Fort McPherson. The study began in 1999 and draft reports are available (Wildlife Management, Department of Resources, Wildlife and Economic Development 2003a, b).

Dall Sheep, Grizzly Bear and Wolf Project – 2006-2011

From 2006-2011, Catherine Lambert-Koizumi of the Gwich'in Renewable Resources Board completed a Gwich'in knowledge study on Dall sheep, grizzly bear, and wolf interactions. Twenty one interviews from this project are also included in this report. They focus on the predator-prey relationships between wolves, grizzlies and Dall sheep (Lambert-Koizumi 2011). The acronym DSGBW 2006-11 indicates information was provided during this project.

Methodology

The GRRB and GSCI worked together to carry out this project. A total of 13 semi-structured interviews were carried out by the project director and a local co-ordinator hired for the work. Interviews were conducted in all four NWT Gwich'in communities (Aklavik, Fort McPherson, Inuvik, and Tsiigehtchic). An informed consent statement (Appendix A) was reviewed with the interviewees, which described the project fully, including the use of the information. A questionnaire was used by interviewers to guide the interviews (Appendix B). All interviews were recorded using a Phillips Conference Recording System Model # LFH 0955 digital sound recorder, which stores the sound file in MP3 format. Sound files were later transcribed to GSCI standards. All transcripts and sound files are held by GSCI and GRRB, and original research materials will be placed in storage in the GSCI's storage area in the NWT Archives when the project is complete. Interviewees were given the option of receiving a copy of the sound recording or typed transcript, which was delivered in person where possible. After the interviews were complete, a series of verification sessions were held in Tsiigehtchic (two participants) and Fort McPherson (three participants). Sessions were planned in Inuvik and Aklavik but a coordinator was unavailable at the time. The report was read aloud in the session and the participants provided feedback as appropriate.



Gwich'in Traditional Knowledge: Grizzly Bears

In the Teet'it Gwich'in dialect spoken in the community of Fort McPherson, grizzly bears are known as **Shih**. In the Gwichya Gwich'in dialect spoken in Tsiigehtchic, grizzly bears are known as **Sheh**.

Special significance of grizzly bears

Interviewees were taught that it is not appropriate to say bad things or 'talk smart' about grizzly bears – this animal should be respected. **"[An] old timer would say not to talk smart about bear, and it's true too, ... if I was talking smart about bear ... some time in my life I'll run into it all alone and it'll attack me... if you see the little kids talking about bear, talking smart, just go over there and tell them not to talk about that animal like that. Because ... they're listening to you."**¹ If the bear does not attack you, it may target your camp, or your luck may change.² They may also target your camp if you try to kill them with poison.³

Grizzly bears are very intelligent and they can hear disrespectful talk about them even if they are hibernating – **"...there's a lot of old timers, before these old people died, like Johnny Kay, ... Abraham Francis, George Robert. Sometimes I go and visit them. Nothing to do so they tell me stories. They talk about this bear, grizzly. They say it was sleeping in the winter [so if] we are talking about him, ... [the Elders]**

¹ Abe Peterson GTK 2012-3

² Abe Peterson GTK 2012-3, Abe Stewart DSGBW 2006-11

³ Abe Stewart DSGBW 2006-11

tell me, He's listening to us. ...It was true. They say even if he is sleeping, he knows you are talking about him."⁴



Abe Peterson being interviewed in Band Office in Fort McPherson, 2012.

Photo: J. Edwards, GRRB.

According to most interviewees, grizzly bears should be respected, not bothered, and left alone if they are seen, which is how Elders say to be respectful of them.

In the past, traditional management practises were decided upon by an Elder who was the law-maker:

... my dad and my granddad and everybody, [long ago], our ancestors, they make a law [for] everything. [They decide when] not to kill, when to kill, what kind to kill and all that, so people would know what to do. They don't break the law. They just follow that old man, what he tells them.

⁴ Abe Stewart DSGBW 2006-11

*He tells them not to kill grizzly bear unless it bothers you. If it's going to make you stuck, then you could kill it. Because out in the country where you walk, it's going to be lots of the meat on it and you're alone, you can't pack everything yourself. So we were told not to bother it, but just to talk to it and to tell them to go away.*⁵

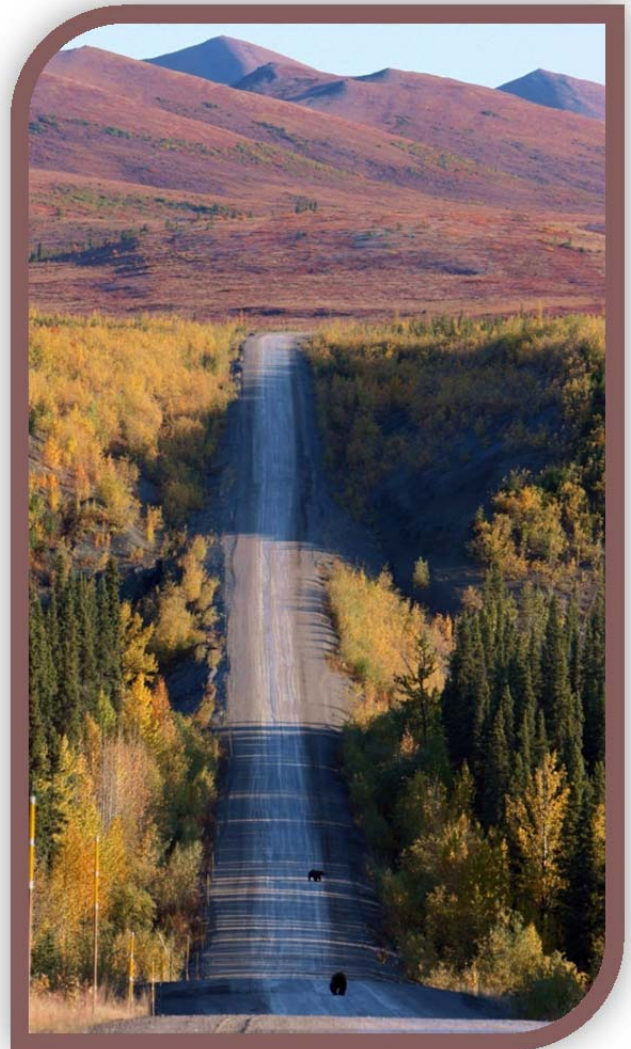
Legends and old-time stories refer to a time long ago when grizzlies were equal to people – **“long ago they used... to be people too, you know. They been a human being one time.”**⁶ To this day, having a grizzly bear appear in a dream has special meaning.⁷

Like all animals, grizzly bears should be respected if they are hunted. This generally means that the right tools should be used, the tools should be sharp and well-cared-for, and the animal should be properly butchered with waste disposed of carefully. No blood or other waste should be left around to be walked through.⁸ When a bear is being butchered, **“you don't step over it, or any parts, ... you have to make sure you walk around it clock-wise.”**⁹

Although grizzly bears may not have had particular importance in the past, they are economically important in recent days as their furs are particularly valuable.¹⁰

Grizzly bear fat can be used medicinally as well. **“The grease ... if you have sore**

throat... it's just like ointment. You put it on your skin, on your rheumatism or arthritis, you put that [on it]. Just rub it on and they say if you're getting bald-headed, that is where you put it.”¹¹



Grizzly Bears on Dempster Highway.
Photo: L. Norbert.

⁵ Mary Kendi DSGBW 2006-11

⁶ Antoine Andre GEKP 1996-7

⁷ Mabel English, William Teya GEKP 1996-7

⁸ Mary Kendi, Robert Alexie Sr., Gabe Andre, Alfred Semple GEKP 1996-7

⁹ Mabel English GEKP 1996-7

¹⁰ William Modeste GTK 2012-3

¹¹ Mabel English GEKP 1996-7



Legends

Many legends include grizzly bears. A few examples are included in this report.

Asleep in a Bear Den

-Mary Kendi, Ehdiiat Gwich'in¹²

[I'll] tell old time story. Two boys were hunting caribou or looking for caribou, and they go to Black Mountain. They don't see caribou and they can't go back, it's too late. So they camp around looking for a place to sleep. They find bear den, they went in there to rest, it was in the fall.



Mary Kendi in her home in Aklavik in 2007.
Photo: K. Benson, GSCI.

They went in there to rest, and they fell asleep and they never got up until springtime!

You know how bear sleep. They went like that, they slept all winter. Next springtime in April, when the

snow start melting and dripping in front of that den, dripping at the doorway, they woke up. And then from there they went back home. The others thought they were dead or animal had killed them or something like that.

They slept all winter. That's why they say they're not supposed to go into a bear den and have a rest! They'll sleep for one year.

Now you know how to catch up on your sleep.

The Young Man and the Grizzly Bear

-Laura Pascal, Teet'it Gwich'in¹³

This story took place many years ago. A large tribe of Indians were living by a big lake during early fall. The Indians were planning a big feast and all kinds of food was gathered. Soon there was every kind of animal except porcupine, so two young men were told to go out and get some.

The two young men walked many miles before they found a porcupine and killed it. It was getting late in the evening so they built a fire and cooked the porcupine. They ate the porcupine then went to sleep by the fire. Sometime during early morning, one of them woke up to a sound. He was covered by a caribou blanket and could

¹² Ehdiiat Gwich'in Place Names Workshop January 1999, Tape 21, slightly edited by K. Benson

¹³ COPE Story, date unknown.

hear bones being eaten by what sounded like a dog. Very slowly he peeked and saw a big grizzly bear. The bear was all covered with ice and when it is covered by ice, it is very hard to kill. He tried to wake his friend but he was very hard to wake. He did not want [to make] any noise so he pinched him, hoping he would get up quietly. The young man kicked and got the grizzly bear on the leg and in a second the huge bear was attacking him. It was useless to try to save him, so his friend ran to the nearest tree and climbed it. Here he sat while the ugly old bear ate his friend, little by little.

The bear ate and after some time it went down to a lake which was not too far away. The bear drank water from an overflow of water on the ice. Then he came back to continue eating and he knew another man was sitting in the tree nearby. After some time the bear started for the lake again and while he was away, the young man jumped down and grabbed his blanket. He rolled it up to make it look like a figure of a man. He also got his bow and arrow ready. He sat and waited in the tree for the bear to come back. Again the grizzly bear started eating. He ate more of the body then started down to the lake again. As soon as the bear disappeared into the bushes towards the lake, the young man set the blanket up in his place in the tree and started down the tree. As soon as he got down he crept very quietly away as fast as he could.

The bear drank, then rolled around in the slushy snow by the lake and once more climbed the little bank and made his way through the bush to the fire place. By this time he had eaten about half of the young man's body. He started to eat again and afterwards he went to drink and came back again, ate again, then made another trip to the lake. He was in no great rush. At last, the whole body was gone and the old grizzly looked up into the tree where the figure remained motionless. The bear started toward the tree.

In the meantime, the young man was miles away, running towards home. He had no way to kill this big animal. He knew the grizzly would look for him when he was through with his friend. He had a whole bunch of arrows. He had his own plus the ones that belonged to his friend. What he would do if the bear came along behind him was already forming in his mind. He would shoot an arrow into bushes on the other side of his trail and he knew the bear would chase it. That would take the bear away from his trail for a while. So, with this thought running through his mind, the young man ran on towards home.

When the bear got to the tree back at the fire place, he climbed and reached for the figure he thought was a young man. But it was only the man's caribou skin blanket. When the grizzly bear got hold of it, he tore it to pieces. After this, he started looking around, sniffing. Soon he found the



trail the young man followed and went after him.

The young man was running along the trail and soon heard the sound behind him, so he stopped just long enough to shoot an arrow into a big tree far away. The arrow hit the tree and it made a sharp sound. The grizzly bear stopped then went off the trail towards the sound he heard. He went to the tree and looked all around it expecting to see something. While the bear checked, the young man put a good distance between himself and the bear. Soon as the bear was sure no one was around the tall tree, he went back to the trail the young man had taken. But as soon as he was near enough, the young man shot at another tree and again the bear went to check out the sound. This went on all the way and just when they reached the big lake where the people lived, the young man shot his last arrow into the bushes. Then he hit the lake and ran as fast as he could and called for help. The people heard his cry for help and immediately help was on the way. In the meantime, the bear came upon an open area behind the man. The young man let him come pretty close then threw his bow as far as he could backwards and to his left. The bear ran toward the bow and gave the young man a chance to get further ahead. The next item he had to throw was one side of his mitts and then the other side, all this the bear tried to eat but

when he could taste no meat, he just left them and went on.

By this time, the people at the camp were all ready to meet the grizzly bear. About six men were on their way to rescue the young man coming towards them on the lake. When they reached him, he fell to his feet. The six strong men picked him up and ran. They got him home safely but he became unconscious. In the meantime, the grizzly bear, not knowing what lay ahead of him, came across the lake towards the camp. The men at the camp made a big hole in the ice just below the bank where the big camp was. It did not take long, as the work was started as soon as the man first called for help from across the lake. There were a lot of men and by the time the grizzly bear was near enough, the hole in the ice was ready and so were the men. Up the hill at the same time, wood was gathered and a big fire was built near two strong old trees. The people were going to finish off the grizzly bear. The bear killed one of their young men and it had chased the other one all the way home. The people were terrified but they were going to try their best to kill the bear. The bear was now only a few yards away.

Two men, very smart, fast and strong, were waiting with a large bag made of moose hide. They stood half way up the hill. The grizzly bear got to the big hole in the ice, it fell in and swam clumsily across. It came out and



just as its head came out of the water, the men ran to it and put the bag over his head. As soon as this was done, all the men waiting up the hill came down and grabbed the bear and took it up the hill. The grizzly bear was tied to a long pole and they tied up the legs and arms as well. The bear was then tied onto the two big trees with its stomach toward the fire. The ice was all melting off from the heat. The people got out their drums and started drumming. The bear was kicking furiously and groaning. As soon as the ice was all gone and more wood was thrown on to the fire, the grizzly bear died eventually.

The people were all satisfied, they had killed the grizzly bear. They had no way to kill it except by fire and it was done successfully.

Old timer and grizzly bears

-Thomas Mitchell, Gwichya Gwich'in¹⁴

An old timer, he killed 30 grizzly bears in his life. But after that, he got scared of it. He sneaked up to grizzly bear on the mountain, but the grizzly, he just acted like a human, so the old timer got scared. What the grizzly showed him, was that he had killed human beings. So he never shot any more after that. The grizzly bear lay down like this, on the side of the mountain, then once in a while he look all over. The old timer said he never shot another one. All the grizzly bear he shot, it was just like he killed people, [because they] act like humans.

¹⁴ Thomas Mitchell GEKP 1996-7, re-worded slightly by K. Benson. 06/02/96.



Place names and trails

Maps on the following pages show places mentioned in this report, and trails associated with grizzly bear hunting. The trails map is based on data gathered during the Dene Mapping Project in the 1970s and 1980s. The trails were noted as dating to as early as 1900.

Gwich'in names

Several Gwich'in place names referring to grizzly bears have been recorded by the GSCI in the Gwich'in area. These maps are included in a map on the following pages.

1. **Shih Han** (Grizzly bear-River) or Bear Creek. This place name refers to a creek that flows into the Rat River. It was named for fighting bears – **“...there’s a creek called Bear Creek, right through where the mouth come out, around there, two grizzly been killing one another that’s why they call it Bear Creek, this was years ago.”**¹⁵ Both Bear Creek and East Bear Creek are referred to as Shih Han by Ehdiitat Gwich'in.

2. **Shih Han** (Grizzly bear-river) or Bear River. This place name refers to a creek which flows into the Wind River.

3. **Sheh Nèekàì'** (Grizzly bear-wounded) or Wounded Bear Lake. This place name refers to a lake located near Bathing Lake.

Physical description

Grizzly bears are generally easily distinguished from black bears. Grizzlies are lighter in colour with silver or cream-yellow sheen, have a shinier coat, and are

larger.¹⁶ They can rarely be ‘cinnamon’ coloured.¹⁷ Grizzlies have a large hump on their neck.¹⁸ Black bears may also be brown in colour though, which can cause confusion from a distance.¹⁹ Grizzlies walk in a distinctive way.²⁰ They also have different tracks – **“the [grizzly bear’s] tracks are bigger and you could see the toenails clearly; they have big toe nails, and the back should be smaller.”**²¹ The back of the grizzly’s foot is known as kaih t’ee tr’uu’ (‘under the foot – rough’). It is deeper than a black bear’s.²² Grizzlies’ large claws can be three inches long, and are used for digging roots from the ground and around stumps – they can dig an extraordinary amount of dirt with their claws.²³

Grizzly bears in the Delta are smaller than those found in the mountains.²⁴

¹⁵ Walter Alexie GTK 2012-3

¹⁶ Eddy McLeod, William Modeste GTK 2012-3

¹⁷ Wildlife Management, Department of Resources, Wildlife and Economic Development 2003a, b

¹⁸ Noel Andre GTK 2012-3, many others

¹⁹ William Modeste GTK 2012-3

²⁰ Walter Alexie GTK 2012-3

²¹ William Modeste GTK 2012-3

²² Verification session Fort McPherson

²³ Antoine Andre GEKP 1996-7

²⁴ Steering Committee meeting March 26, 2014.

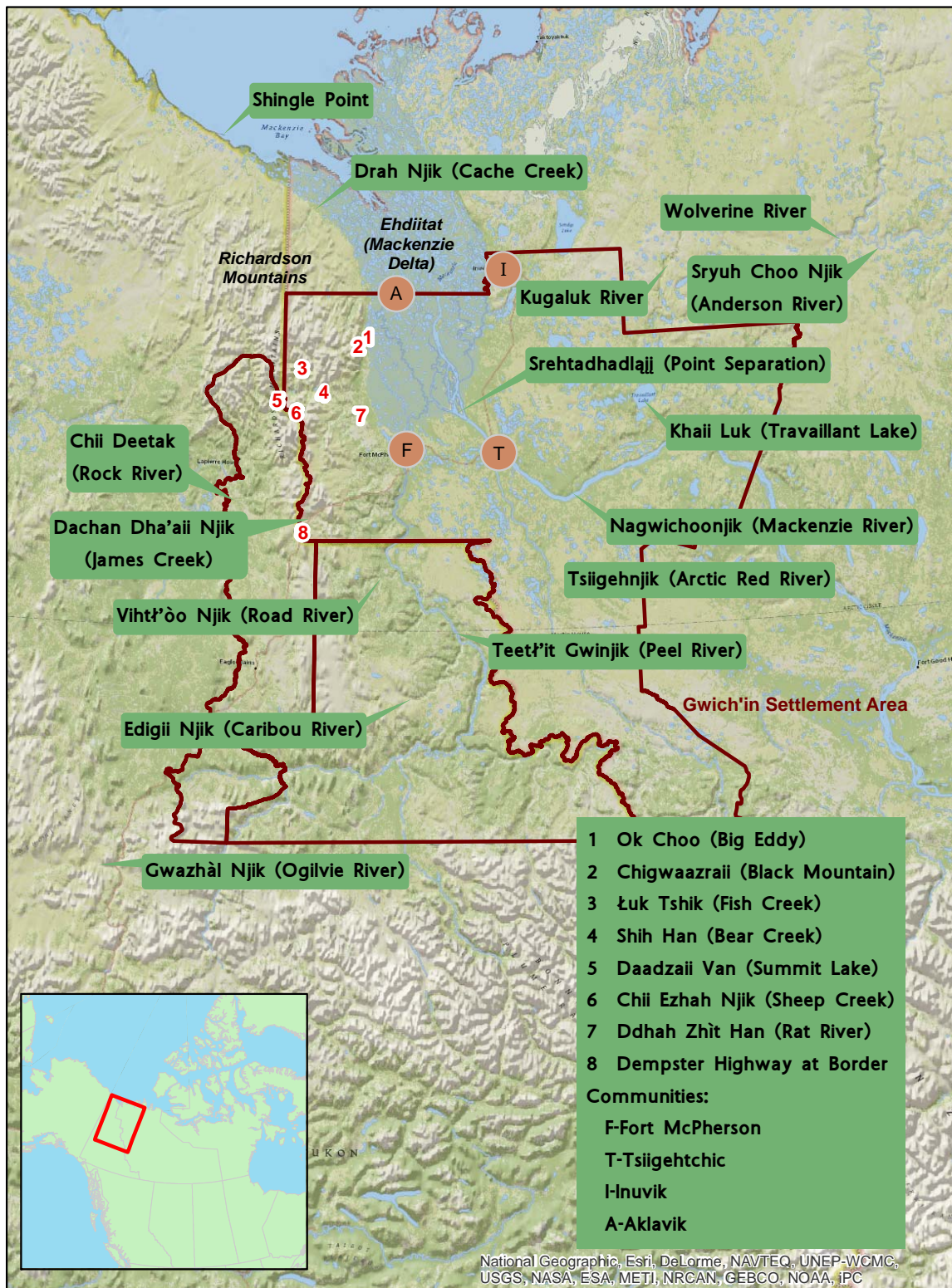


Figure 1. Map of Gwich'in Settlement Area showing names used in this report.

Names in this map are from the GSCI's Gwich'in Place Names Database. This database includes Gwichya Gwich'in, Teet'it Gwich'in, Nihtat Gwich'in, and Ehdiitat Gwich'in names.

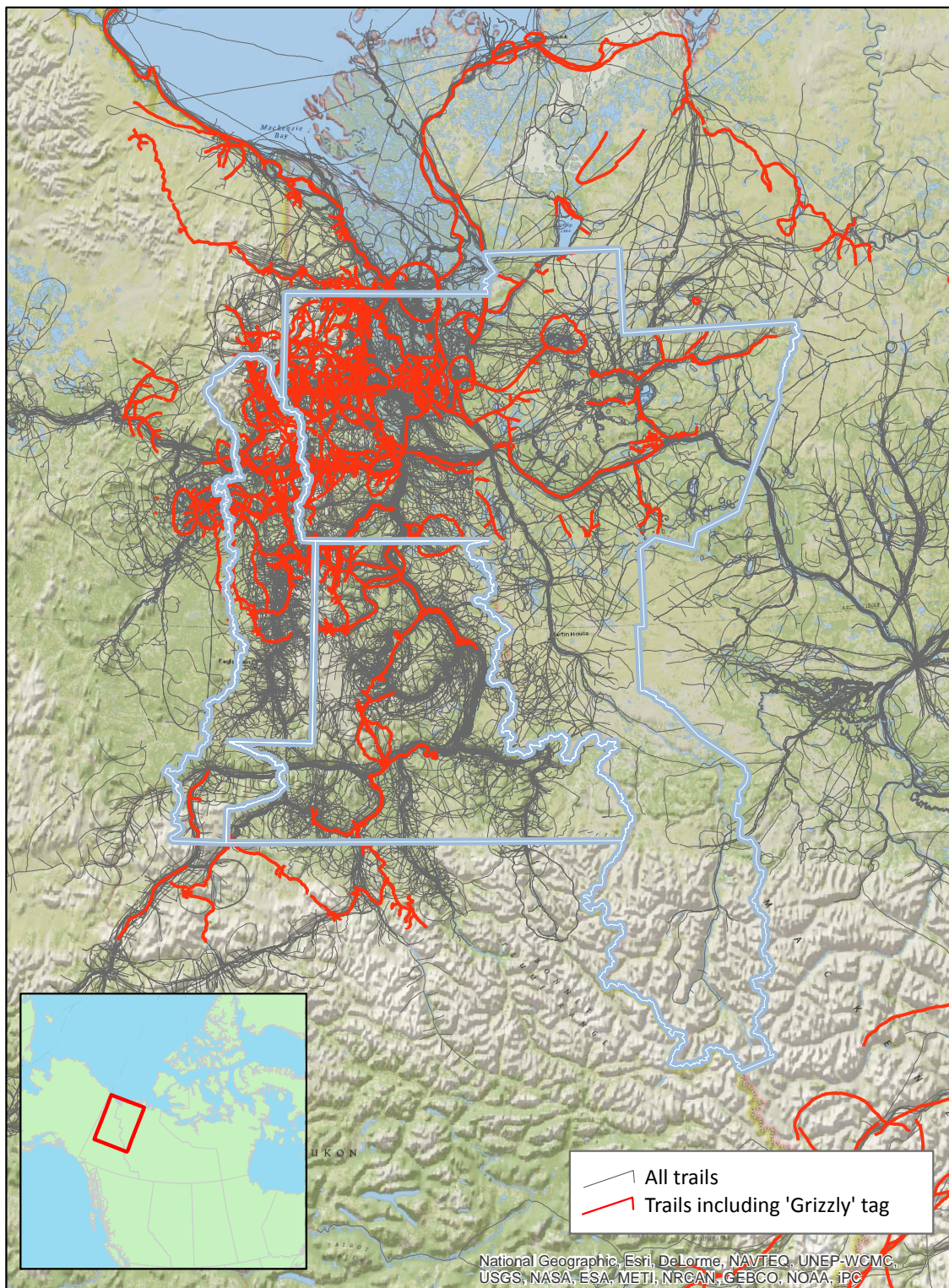


Figure 2. Map of Dene Mapping Project trails.

Note: The 'Grizzly' tag on the trails indicates that the trail was used to harvest grizzly bears. The Dene Mapping Project was a large Mackenzie Valley-wide project undertaken by the Dene Nation in the 1970s and 1980s to gather traditional use information for use in negotiating the Denendeh Claim.



Figure 3. Map of traditional Gwich'in place names referencing grizzly bears.



Grizzly bears seen in the Mackenzie Delta appear to be the same as those seen in the mountains.²⁵ However, grizzlies in Alaska, and around Dawson, are larger than those in the NWT or further north in the Yukon.²⁶ There appears to have been no changes in grizzly bear appearance over the last few decades.²⁷ However, it is getting harder to find large bears (those worth hunting) around Aklavik in the last few years – “...it is **harder to find the big bears. Maybe they get up earlier in the spring and start travelling right away. Move to where they're eating, good eating ... The small ones wake up later. The bigger you are, the more you have to eat.**”²⁸

The larger bears around Aklavik may also experience greater hunting pressure.²⁹ With the combined tags for the Gwich'in and Inuvialuit at around 10 grizzlies, “**they are always taking the biggest bears. You can't find any eight-footers or any big bears anymore. We used to have a lot of big bears.**”³⁰

Grizzly bears are known to be able to move very fast for their size.³¹ An adult, before it goes into the den, can range from five to eight feet in length, or more.³²

Grizzlies have an excellent sense of smell, and can smell a carcass from a long distance.³³ They can also smell bear roots in the ground.³⁴ Their eyesight, however, is poor.³⁵

Grizzly bear meat is good for dogs when the bear is in good shape or fat. However, when they are in poor shape, they are not good for consumption even by dogs and the meat has a strong odor.³⁶ For example, an old, toothless bear shot at a fish camp smelled so strongly that in order to skin it, the hunter had to stand down-wind. A black bear that wandered near the meat left and never returned to the camp.³⁷ More information on use of grizzly meat is within the human interaction section, below.

Female grizzly bears, and younger bears, may have a lighter coat colour than adult males.³⁸ However, colour may not be the best indicator of age or if they are male or female, as all adults can be a range of colours.³⁹ Males are larger and stouter than the smaller, slimmer females. Males have sharper faces, larger noses, and can look better kept – nicer teeth, nicer coat.⁴⁰ Grizzlies shed their coats in the summer, making them look shaggy. They have a new

²⁵ Aklavik Hunter GTK 2012-3

²⁶ Walter Alexie GTK 2012-3, Alfred Semple DSGBW 2006-11

²⁷ Abe Wilson GTK 2012-3

²⁸ Eddie Greenland GTK 2012-3

²⁹ Eddy McLeod GTK 2012-3, also mentioned by Patrick Gordon DSGBW 2006-11 and others

³⁰ Dale Semple DSGBW 2006-11

³¹ Abe Peterson GTK 2012-3, Woody Elias DSGBW 2006-11, many others

³² Antoine Andre, Gabe Andre GEKP 1996-7

³³ Abe Peterson, Woody Elias GTK 2012-3

³⁴ Antoine Andre GEKP 1996-7

³⁵ William Modeste GTK 2012-3

³⁶ Abe Peterson, Woody Elias GTK 2012-3

³⁷ Douglas Kendo, Tsiigehtchic verification session

³⁸ Eddie Greenland, Freddie Furlong GTK 2012-3

³⁹ Antoine Andre GEKP 1996-7

⁴⁰ William Modeste GTK 2012-3, Antoine Andre, Elizabeth Greenland, Gabe Andre GEKP 1996-7, Thomas Mitchell GEKP 1996-7

coat by fall.⁴¹ Grizzlies can get bald patches, either from rubbing or fighting.⁴² They may also shed before winter and have a new coat by the time they emerge from their dens.⁴³ Before they shed, their hair may look to be a different colour.⁴⁴

Robert Alexie identified three types of bears in the area – black bears, grizzly bears, and an intermediate bear: **“there’s three kinds here, ... there’s black bear and there’s between black and ... grizzly bear, in between there’s ...half brown half black, like different color, they got name for it to Gwich’in... it’s between black and brown bear ... its partly black and partly brown. Half, might as well say its half breed.”**⁴⁵ These bears are closer in size to grizzlies. The name for these bears in Gwich’in is *Shoh Tsik* (bear-brown).⁴⁶

⁴¹ Elizabeth Greenland GEKP 1996-7, Thomas Mitchell GEKP 1996-7

⁴² Freddy Furlong GTK 2012-3

⁴³ Mabel English GEKP 1996-7

⁴⁴ Gabe Andre GEKP 1996-7

⁴⁵ Robert Alexie Sr. GTK 2012-3

⁴⁶ William G. Firth, pers. comm. March 2014.



Diet

The following food sources were mentioned by interviewees:

Noted as important:

- Tthaa (T/G) Ground Squirrels, *Spermophilus parryii* (important)
- Trih (T) Treh (G⁴⁷) Roots (bear roots) (important) *Hedysarum alpinum*
- Jak Berries (important)
 - ✧ Nat'at Cranberries *Vaccinium vitis-idaea*
 - ✧ Nakàl (G) Nakal (T) yellowberries *Rubus chamaemorus*
 - ✧ Ja'k zheii (G) jak naalyuu or jak zheii (T) blueberries *Vaccinium uliginosum*
 - ✧ K'aii Kw'uth (T) Red Osier Dogwood (white berries) *Cornus stolonifera*
 - ✧ Dineech'ùh (G) dineech'uh (T) Blackberries (crowberries) *Empetrum nigrum*
 - ✧ Nichijh (G) Nichih (T) Rosehips *Rosa acicularis*
 - ✧ Others
- Vàdzaih Caribou *Rangifer tarandus* (important)
- Łuk Fish (Important)
 - ✧ Dhik'ii Rat River Dolly Varden char *Salvelinus malma*
 - ✧ Srijjaa Greyling *Thymallus arcticus*
 - ✧ Eltyin Jackfish *Esox lucius*
 - ✧ Łuk dagaii; Łuk dagajj (G); Łuk zheii (T), dalts'an (T); dalts'in (G) Whitefish *Coregonus spp.*
 - ✧ Ineelu' Minnows
 - ✧ Others

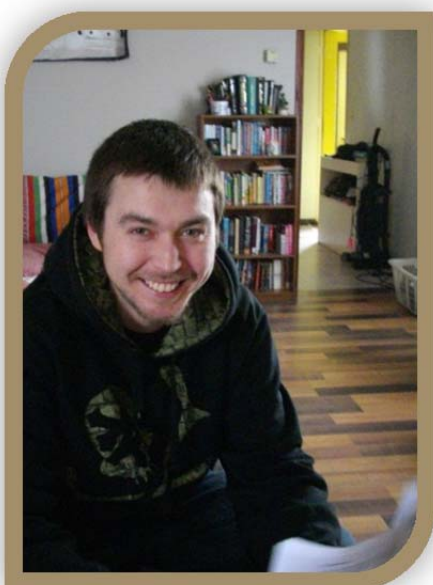
Others:

- Dinjik Moose *Alces alces*
- Divii Dall sheep *Ovis dalli*
- Dats'an Ducks
- Dzan Muskrats *Ondatra zibethicus*
- Leaves/vegetation/grass/seeds
 - ✧ Willows (pussy willows)
 - ✧ Silverberry seeds (grizzly berries) *Elaeagnus commutate*⁴⁸
- Geh Rabbit/Hare *Lepus americanus*
- Tsè' (G) Tsèè' (T) Beaver *Castor canadensis*
- Insects
- Daagoo Ptarmigan (possibly) *Lagopus lagopus*

⁴⁷ Plant names from Alestine Andre and Alan Fehr (2002) Gwich'in Ethnobotany: Plants used by the Gwich'in for Food, Medicine, Shelter and Tools. Second edition. Inuvik: Gwich'in Social and Cultural Institute and Aurora Research Institute, and Alestine Andre (*pers.comm.*).

⁴⁸ Mrs. Sarah Simon, *pers. comm.* Ingrid Kritsch 2001.

Roots are commonly found in the Mackenzie Delta in the riverbanks, and throughout the mountains.⁴⁹ They are **“good in the fall, and starting to be getting juicy in September.”**⁵⁰ People travelling on the land often see where grizzlies have been digging for roots and ground squirrels.⁵¹ Evidence of digging is often seen on the sand bars and gravel bars up the Peel River.⁵² The grizzlies will keep eating the roots until ‘they’re fat’ and ready for their dens.⁵³



Freddy Furlong in Inuvik, 2013.

Photo: D. Firth, GRRB.

Berries are also an important food source for grizzlies, as indicated by many interviewees. Grizzlies will eat berries in the mountains while waiting for the caribou

to arrive.⁵⁴ When asked if there were any special plant or mineral a grizzly needed to survive, some interviewees said ‘berries.’

*And now I have the American dogwood. ... But we don't use the berry. The berries are white and waxy. And we always notice that before the bears go into hibernation in the fall, this is the last berry crop that they will eat, if they can get it because they really put on the fat with the dogwood berry.*⁵⁵

Berries may be more available to grizzlies as fewer people are picking them.⁵⁶ Grizzlies’ reliance on vegetation for food is one reason why they grow so slowly.⁵⁷

The Porcupine caribou herd is an important food source for grizzly bears, and for many other animals as well. When the caribou herds migrate close to the community, it’s good for people and many animals in the region as well – **“...good thing for everything, people, bear, wolves, fox...everybody’s happy, everything eat, [even] martens and all that, marten they live on a wolf kill ... bear kill or something.”**⁵⁸

Ground squirrels were mentioned by numerous interviewees as an important food source. **“Little ground squirrels ...lots of time, if you walk around up in the hills, you see where [there are] lots of ground squirrels, you’ll see where [the grizzly bear] digs all the ground up. He just sticks his hand inside and he just lift it up until he**

⁴⁹ Aklavik Hunter GTK 2012-3

⁵⁰ Robert Alexie Sr. GTK 2012-3

⁵¹ Eddy McLeod GTK 2012-3

⁵² Robert Alexie Sr. GTK 2012-3

⁵³ Walter Alexie GTK 2012-3

⁵⁴ Ernest Vittrekwa GTK 2012-3

⁵⁵ Ruth Welsh 2002 in Andre 2006.

⁵⁶ Mary Kendi DSGBW 2006-11

⁵⁷ Ryan McLeod DSGBW 2006-11

⁵⁸ Walter Alexie GTK 2012-3

gets to where those little ground squirrels and kill them all."⁵⁹ Grizzlies can smell the ground squirrels, which come out of their burrows in May and so are an important spring food source for the bears.⁶⁰ Grizzlies may also hunt other small mammals – **"...they catch rabbit like nothing."**⁶¹

In the late summer and fall time (August and September), grizzlies will eat whatever they can to fatten up before they go to sleep for the winter. **"By the time he go in the hole you see his stomach is just about touching the ground, so fat. That is for all winter ah, he lives on his fat."**⁶² They may focus more on hunting in the fall for this reason. **"Well, depends if they're, they probably eat berries, grass, and vegetation like that. Probably fall time they move to fish and meat, caribou ... if it's around I guess, if they're fat enough, get fattened up for their hibernation."**⁶³ They may also eat a lot of berries – when berries become available as a food source, bears will focus their efforts on the berries to the point that they leave people's camps alone.⁶⁴ Grizzlies will also eat grass and gorge on bear roots in the fall.⁶⁵

Grizzlies eat a lot of fish in their habitat north of the Mackenzie River around the Kugaluk River.⁶⁶ They also eat grayling,

Dolly Varden char, and other fish in the Richardson Mountains. They knock the fish out of the water and then eat the whole thing.⁶⁷ Grizzlies can even 'dive' for fish.⁶⁸ They may get nutrients from fish that are not available in other feed sources.⁶⁹

Grizzlies sometimes feed on stranded fish in the fall as creeks dry, **"I saw it in the fall time, where this creek would sort of dry up, and the fish get caught in there. ... there's a lot of fish in the creek [that] get trapped in there, so [the grizzly bear was] tearing up the ice and taking fish, eating fish."**⁷⁰



Woody Elias in his home in Fort McPherson, 2013.

Photo: D. Firth, GRRB.

In the spring, grizzlies emerge from their dens hungry. **"I think then they just look for anything they could find to eat [for example,] something left over from a wolf kill or something. They're just like scavengers in the spring time."**⁷¹ This is

⁵⁹ Aklavik Hunter GTK 2012-3

⁶⁰ Abe Peterson, Woody Elias, Freddy Furlong GTK 2012-3

⁶¹ Walter Alexie GTK 2012-3

⁶² William Teya GEKP 1996-7

⁶³ Eddie Greenland GTK 2012-3, also mentioned by Lloyd Nerysoo DSGBW 2006-11

⁶⁴ Eddy McLeod, Ernest Vittrekwa GTK 2012-3

⁶⁵ Woody Elias GTK 2012-3

⁶⁶ John Norbert GTK 2012-3

⁶⁷ Walter Alexie GTK 2012-3

⁶⁸ Gabe Andre GEKP 1996-7

⁶⁹ Woody Elias GTK 2012-3

⁷⁰ William Modeste GTK 2012-3

⁷¹ Eddy McLeod GTK 2012-3

compounded by the lack of fish runs such as greyling in the mountains.⁷² Grizzlies may head to hill sides that are exposed to the sun and melt earlier than other locations, to eat exposed vegetation and dig for roots.⁷³ In the spring, grizzlies also eat pussy willows and seek out cranberries, which are left on the bushes frozen under the snow.⁷⁴

Grizzly bears will wait around a muskrat push-up and when the rats emerge, quickly snatch them.⁷⁵ One Elder felt that grizzlies prefer to eat muskrats and beavers – animals that spend time in the water.⁷⁶

Grizzlies have to compete somewhat with other predators – especially for Dolly Varden char. In general they compete with black bears, wolverines and wolves.⁷⁷ Although black bears may eat the same food as grizzly bears, an individual black bear could be chased away by a grizzly bear.⁷⁸

Grizzly bears also scavenge from wolf kills around caribou herds, and scavenge animals that died from natural causes such as drowning or being caught in the ice.⁷⁹ However, the majority of the meat they eat is from live kills, rather than scavenging.⁸⁰

Insects are also a part of their diet. **“Where there is rotten wood, [with] ants ...**

Sometimes they just smash the rotten wood, just for ants, or else they find bee-hive, they got to find the honey too. They eat bees. [The bees may] sting them I guess, but it don't bother them.”⁸¹

Biology and Behaviour

Behaviour

Grizzly hunting behaviour is described more fully in the interactions section below.

Denning behaviour and timing is included in the Dens section below.

Grizzly bears are known to cache food by leaving food on the ground and piling dirt and moss over it. They will protect the cache by chasing or attacking, so it is wise to leave a cache alone. Hunters often see (and smell) caches in the mountains around caribou,⁸² but if caribou are not around, the caches are not seen.⁸³ They may cache food in the fall and return to dig it out in the spring when they are very hungry.⁸⁴

After a successful hunt, grizzlies may lay around the carcass.⁸⁵

Grizzlies are a wise animal – they will stay in areas where there is a good supply of food such as ground squirrels, berries, and roots, or caribou.⁸⁶ During berry season, they may shift to areas of good berry production.⁸⁷

Grizzlies mark their territory by climbing trees and breaking branches off, and by

⁷² Walter Alexie GTK 2012-3

⁷³ Robert Alexie Sr., Freddy Furlong GTK 2012-3

⁷⁴ George Niditchie and Noel Andre GTK 2012-3,

William Modeste GTK 2012-3

⁷⁵ Abe Peterson GTK 2012-3

⁷⁶ Antoine Andre GEKP 1996-7

⁷⁷ Eddie Greenland, Freddy Furlong GTK 2012-3

⁷⁸ William Modeste GTK 2012-3

⁷⁹ Ernest Vittrekwa GTK 2012-3

⁸⁰ Walter Alexie GTK 2012-3

⁸¹ Gabe Andre GEKP 1996-7

⁸² Abe Peterson, Robert Alexie Sr. GTK 2012-3

⁸³ Abe Peterson GTK 2012-3

⁸⁴ Steering Committee meeting March 26, 2014.

⁸⁵ Abe Peterson GTK 2012-3

⁸⁶ Abe Peterson GTK 2012-3

⁸⁷ Eddy McLeod GTK 2012-3

stripping bark from trees as they travel around.⁸⁸ They mark their territory on the trees with their claws.⁸⁹

If people approach a grizzly bear, the bear will generally leave the area quickly. They are usually scared of people and **“they don’t take chances.”**⁹⁰ However, they are also curious about people – a grizzly bear stole a package of cigarettes from a jacket laying on the trail, eating the paper and everything.⁹¹

In the summer and fall, grizzlies need to build up their fat stores and they eat more, and are less picky about what they’re eating – they act ‘hungrier.’⁹² They need to build up fat as they do not eat anything over the winter **“that is why they get fat, so they’ll never eat all winter... that is why they make themselves really fat, their fat is thick.”**⁹³

Grizzlies are active at night and during the day, and they may nap during the day – although they do not sleep for long stretches.⁹⁴ They’re often up in the mornings, and have been seen feeding on berries on the bluffs around the Peel River, emerging as night falls.⁹⁵ They may even be active ‘24 hours a day’.⁹⁶ **“A few years ago I was hunting in the Willow River area, and came across a bear. He was sleeping, and**

this was two in the afternoon I guess, so maybe he’s having a nap and enjoying the warm sun. But it’s hard to say.”⁹⁷ They seem to bother camps at night as well.⁹⁸ They get a lot of the sleep they need over the winter when they hibernate.⁹⁹



*Photo: Brian Wright 2009
Creative Commons license by SA 2.0 Ba.*

*Summer he is... just like now, early in the morning we get up and tonight the sun set... that is the way grizzly is...early in the spring he get up and he got long day of work to do, all summer... they been doing this and never sleep. Sometime he have little rest without sleeping, [then] he's up.*¹⁰⁰

Grizzlies sometimes descend mountains by going backwards.¹⁰¹ Contrary to popular opinion, grizzlies can move very fast uphill

⁸⁸ William Teya GEKP 1996-7

⁸⁹ Fort McPherson verification session.

⁹⁰ Charlie Stewart DSGBW 2006-11

⁹¹ Eddie Greenland DSGBW 2006-11

⁹² Abe Wilson GTK 2012-3

⁹³ Elizabeth Greenland GEKP 1996-7

⁹⁴ Aklavik Hunter, Eddie Greenland, William Modeste GTK 2012-3

⁹⁵ Robert Alexie Sr. GTK 2012-3, GEKP 1996-7

⁹⁶ George Niditchie GTK 2012-3

⁹⁷ Eddie Greenland GTK 2012-3

⁹⁸ Eddy McLeod GTK 2012-3

⁹⁹ Aklavik Hunter GTK 2012-3

¹⁰⁰ Antoine Andre GEKP 1996-7

¹⁰¹ Ernest Vittrekwa GTK 2012-3

and downhill.¹⁰² They can climb up even steep slopes as well – “...**he can climb trees, he can climb cliffs, he can run on the side of cliffs, 40 gallops. Just the same action as sheep. I seen it running on the side of a cliff, when he got shot he slide right to the bottom.**”¹⁰³

There are different sounds made by grizzlies to communicate. A cub makes a sound to its mother if it becomes separated from her, which sounds like a baby saying ‘mama, mama.’¹⁰⁴ Mabel English was warned to ask her children to call her Mabel instead of mama in the mountains for this reason.¹⁰⁵ The mother may let her cubs know about danger with a ‘woo woo’ sound – the cubs know to stay still and quiet when the mother tells them to.¹⁰⁶ Also, adult grizzlies make a strong or loud blowing noise.¹⁰⁷ They’ll growl at a person who has approached too close.¹⁰⁸

Grizzly bears and black bears may have the ability to make a person or animal sick with their breath – their breath can be poisonous due to the rotting meat they eat.¹⁰⁹

When travelling up the Peel in the past, Robert Alexie would generally see grizzlies in the spring and fall.¹¹⁰ Many other Elders agreed that grizzlies are most often encountered during at these times.

A grizzly bear may push a tree over to get at a squirrel or other small mammal in the top branches, and “**if the tree is not that big they’ll grab it and then push the tree over.**”¹¹¹

*...grizzly; we shot one in September. They’re really big, you know... We were watching it, from way up, way down the river. But him, he don’t know we’re there. It’s quite a ways down and he go in ... Bear Creek. He go this [demonstrates how grizzly bear was moving around between the bank and the creek], and he go back and he go down the river. We was wondering what he’s doing. Then we finally went down, and every time I hear that grizzly, I hid. So, anyway we shot it and cut the stomach open and [it was] full of roots. So that means the roots is good for you. You see, his stomach is full of it. What he was doing, was washing the roots. He go ashore and he take them out and he go down and wash it. Then, that way I know the roots is good for you. Roots, is pretty big. He must swallow ... never chew it, and his stomach is full of it. You see, he fill his stomach up before he go in the den.*¹¹²

Atsanh or ice-covered bears

Atsanh is a Gwich'in word referring to ice-covered bears. In the fall and early winter, a grizzly bear may get wet and roll in sand and gravel to make an impenetrable armour of ice – “**...all winter they’re all iced up, you know they roll in that sand and they roll in the water and they make their self full of ice so you can’t kill them.**”¹¹³ The ice even

¹⁰² William Modeste GTK 2012-3

¹⁰³ Thomas Mitchell GEKP 1996-7

¹⁰⁴ Catherine Mitchell, Antoine Andre GEKP 1996-7

¹⁰⁵ Mabel English GEKP 1996-7

¹⁰⁶ Gabe Andre, Mabel English GEKP 1996-7

¹⁰⁷ Antoine Andre, Thomas Mitchell GEKP 1996-7

¹⁰⁸ Elizabeth Greenland GEKP 1996-7

¹⁰⁹ Woody Elias GTK 2012-3

¹¹⁰ Robert Alexie Sr. GTK 2012-3

¹¹¹ William Modeste GTK 2012-3

¹¹² Woody Elias GTK 2012-3

¹¹³ Abe Peterson GTK 2012-3, also mentioned by many others. Steering Committee clarified it was fall and early winter, March 26, 2014.

makes a noise when the bears move.¹¹⁴ These bears sometimes stay out all winter long, according to Elders' stories.¹¹⁵ **"I hear old time people say, [that a grizzly can] pull out another bear, they find a den and black bear, they just pull it out and kill it. That's what they eat, most of the time."**¹¹⁶

Generally grizzly bears hibernate in the winters, so a grizzly seen out of their den in the winter may be dangerous – they may still be hungry, perhaps old and unable to hunt. They're difficult to hunt when they have this armor on as the only place to shoot them is in under their arms (where there is less ice), in the eye, or where their neck creases.¹¹⁷ The bears may also use the ice covering as protection from the cold, to allow themselves to stay out longer.¹¹⁸

A bear that is disturbed from sleeping in the winter may come out of its den and become iced up as well.¹¹⁹

Habitat use and requirements

Interviewees noted that good habitat for grizzlies is in the mountains – for example, around Black Mountain near Aklavik in the Richardson Mountains, around Summit Lake, and south to the Dempster Highway at the NWT-Yukon border and James Creek.¹²⁰ The mountains are considered to be the bear's country, and the same bear

may be seen multiple times over the years in one location.¹²¹ The mountains have a lot of berries and ground squirrels, important for grizzly survival.¹²² Also, the snow melts quickly in the mountains in the spring, having been blown off some faces by the wind.¹²³ The early thaw provides food for the grizzlies in the form of bear roots.¹²⁴

Ground squirrels need soft gravel to dig into, and aren't found in muskeg. This brings grizzlies to the slopes of the mountains where ground squirrels can thrive.¹²⁵ There are also ground squirrels present in the Kugaluk River area and near the Arctic coast, which is part of the reason why it is good grizzly territory there as well.¹²⁶



Robert Alexie Sr. in the band office in Fort McPherson, 2012.

Photo: J. Edwards, GRRB.

¹¹⁴ Elizabeth Greenland GEKP 1996-7

¹¹⁵ John Norbert, Robert Alexie Sr. GTK 2012-3

¹¹⁶ Gabe Andre GEKP 1996-7

¹¹⁷ Abe Peterson, Ernest Vittrekwa, George Niditchie GTK 2012-3

¹¹⁸ Robert Alexie Sr. GTK 2012-3

¹¹⁹ Woody Elias GTK 2012-3

¹²⁰ Abe Peterson, Abe Wilson, Ernest Vittrekwa, Robert Alexie Sr. GTK 2012-3

¹²¹ Abe Peterson GTK 2012-3

¹²² Abe Peterson, Ernest Vittrekwa, George Niditchie GTK 2012-3

¹²³ Ernest Vittrekwa GTK 2012-3

¹²⁴ Robert Alexie Sr. GTK 2012-3

¹²⁵ Ian McLeod DSGBW 2006-11

¹²⁶ George Niditchie GTK 2012-3

Areas with wooded hills and creeks often have grizzlies.¹²⁷ Grizzlies may run to a wooded area if they are startled or scared.¹²⁸ Fish holes in the mountains may also be good for grizzly bears, such as the spawning area for Rat River Dolly Varden char on Fish Creek.¹²⁹



George Niditchie in Noel Andre's home in Tsiigehtchic, 2012.

Photo: J. Edwards, GRRB.

Although there are a lot of bears around Point Separation in the Mackenzie Delta, it is not considered to be as good of habitat as other areas such as the mountains. The Delta has a lot of willows and in general is considered to be poorer habitat than the mountains.¹³⁰ Brushy areas are not good for grizzlies, although black bears may use them – grizzlies prefer territory where there are open areas, such as the mountains and the coast.¹³¹ There is less food for grizzlies in brushy areas – although they do eat

willows.¹³² One interviewee suggested that grizzlies with cubs may move to the Delta more often, to avoid males – “...**you see lots of females with cubs in the Delta. Maybe the males bother them too much and they kept them out in the Delta. I've never seen a big male bear in the Delta. I always see females with cubs.**”¹³³ Males more than females will also venture in open areas – there is increased danger for the cubs without stands of trees nearby.¹³⁴

Interviewees did not generally feel that there were any special areas or places that needed protection to ensure the future survival of grizzly bears, except large zones such as the mountains, or areas where they can find enough to eat. The bears are widely dispersed across the Gwich'in Settlement Region and individual bears travel widely.¹³⁵

Lakes and rivers are particularly important in areas where grizzly bears rely more heavily on fish.¹³⁶

Black bears, and possibly grizzly bears, can use the snow condition to predict the weather, “**Another thing [that] I learned from black bear anyway, he come out of den in May, and this guy told me, I told him I seen a bear dancing. ... a black bear, a grizzly bear too I guess, he touch snow like this. You'll see his paw on there. So what he's doing? He's checking weather, see? That's quite a thing... He touch the**

¹²⁷ Eddy McLeod GTK 2012-3

¹²⁸ Eddy McLeod GTK 2012-3

¹²⁹ Eddie Greenland GTK 2012-3

¹³⁰ Eddy McLeod GTK 2012-3, Freddie Greenland DSGBW 2006-11

¹³¹ George Niditchie GTK 2012-3

¹³² Woody Elias, John Norbert GTK 2012-3, Peter James Kay DSGBW 2006-11

¹³³ Ian McLeod DSGBW 2006-11

¹³⁴ Lloyd Nerysoo DSGBW 2006-11

¹³⁵ Eddie Greenland GTK 2012-3

¹³⁶ John Norbert GTK 2012-3

snow like this, ...he just put his paw print like this and, in the snow. He knows the weather like that. It's quite a thing."¹³⁷

Dens

Grizzlies make their dens in hills, mountains, and in the Mackenzie Delta. Dens are often on the south slope of a mountain, which catches the sun in the springtime.¹³⁸ They are also likely to be near creeks.¹³⁹ Grizzlies may excavate dens from the area where they have dug roots to eat.¹⁴⁰ They find hills if they can, in particular near a gravel beach of a lake.¹⁴¹

*I'll give you an idea of what I'm talking about: it's just a small little hill, you'll find they'll have their den on that, or else sometimes right on a lake just where the bank goes up. If there's no hills, or anything like that, they'll have it right in on the side of a lake or side of a creek, but they [choose slightly] steep banks. You could tell they got a den there because there's a big mountain in front of the hole, and the ground that they take out of hole to make the den, they'll just scoop it out in front of the [door], until you see a ... mound there.*¹⁴²

The dens can be identified by the backdirt from the digging the bear must do to create the den, "**he really works on the outside of it.**"¹⁴³ Sometimes, a den can be identified by sign around it – there may be hair, and in

some areas the bear will break willows around the opening, mark trees, or remove lichen (caribou moss).¹⁴⁴ Some of the signs are 'a show', possibly to let others know a den is there.¹⁴⁵ Other times, the den is kept well hidden with no sign, with the mud or dirt pile flattened out.¹⁴⁶ Before they head into their dens, the grizzlies may shake off the snow to hide their tracks – "**...when they don't want nobody to see their tracks, when they're going to go in the den, they shake in the snow. That's what it does.**"¹⁴⁷

A den may also be excavated in the snow and lined with grass – Elder Woody Elias has seen a den like this. It may be a temporary warm spring sleeping location.¹⁴⁸

Grizzlies may cover up the entrance to their dens from the inside, often using branches broken from surrounding trees.¹⁴⁹ You may not be able to see the entrance during the winter. They may also bring branches inside for bedding material, because you can see branches stuck to the hair on their backs as they emerge in the spring.¹⁵⁰ In the "**you could tell a bear den because, before they go in, they usually break willows and grass and they plug ... the doorway of their hole... [There will be] broken willows and that, on top of it, from [the bear] plugging the doorway when they're going in.**"¹⁵¹ After they emerge you

¹³⁷ Woody Elias GTK 2012-3

¹³⁸ Eddie Greenland, Walter Alexie GTK 2012-3

¹³⁹ Eddie Greenland GTK 2012-3

¹⁴⁰ Eddy McLeod GTK 2012-3

¹⁴¹ John Norbert GTK 2012-3, Mabel English GEKP 1996-7

¹⁴² William Modeste GTK 2012-3

¹⁴³ Aklavik Hunter GTK 2012-3

¹⁴⁴ Eddie Greenland, Eddy McLeod, John Norbert GTK 2012-3, Antoine Andre GEKP 1996-7

¹⁴⁵ John Norbert GTK 2012-3

¹⁴⁶ Gabe Andre GEKP 1996-7

¹⁴⁷ Mary Kendi DSGBW 2006-11

¹⁴⁸ Woody Elias DSGBW 2006-11

¹⁴⁹ Thomas Mitchell GEKP 1996-7

¹⁵⁰ Freddy Furlong GTK 2012-3

¹⁵¹ Eddy McLeod GTK 2012-3

can see the entrance/exit.¹⁵² As the tops of bear dens may be thin and not able to hold your weight, a person should never go on top of a grizzly den.¹⁵³

“Some of them are not very deep, you know, just enough to cover themselves up and that’s where they sleep. Some of them are deep, maybe three feet. I know we run into one den, it was not very deep, maybe two feet I guess. I guess the snow done the rest, covered him up and went to bed.”¹⁵⁴ The dens may be large enough for the grizzly to move around a bit, enough room to turn over once in the winter if needed – **“older people said [that] if it gets warm in winter, he’ll get up and turn over. So just turn over once.”**¹⁵⁵ This is in January.¹⁵⁶

A den built on a flatter area may resemble a hill. If the grizzly in it leaves or is removed, it can collapse and disappear.¹⁵⁷ However, a grizzly den in a flat area may also be excavated deep into the earth.¹⁵⁸ There are stories of grizzlies using a cave to stay in as well.¹⁵⁹

Grizzlies hibernate in the dens and have their young ones there.¹⁶⁰ They may start building their dens in July when the ground is warm enough to dig easily. They dig as much as possible and leave for several weeks, allowing the surface to thaw. They’ll

then return and continue digging.¹⁶¹ Many interviewees agreed that dens may be used for multiple years. However, if the den is not good, the grizzly may move on to a better location next year.¹⁶² A grizzly may even switch dens in the early winter if it is not suitable.

*Sometimes their dens are not comfortable, so they want to move to another den. That’s why sometimes, I heard in Aklavik there’s some bears around in November, end of November. Down the West Channel. So maybe he came out because he’s not comfortable where he was. So he move some other place. That’s how some people see the tracks of it. It happens a lot of times I know that, I heard about it.*¹⁶³

Females with cubs may also have more than one den that they use in sequence.

*My grandmother say they have about two-three dens, the ones that are having cubs. Because they come out and then, you know, like it’s winter one, [so it becomes] frosted. So it will go to another den that is clean.... Then the last one will be the summer one. It has three dens and my grandmother said it.*¹⁶⁴

When the weather gets cold, the grizzlies get sleepy and head to their dens.¹⁶⁵ **“If the weather gets cold quick, they go in quick.”**¹⁶⁶ They’re usually in their dens

¹⁵² Abe Peterson, Eddie Greenland GTK 2012-3

¹⁵³ Thomas Mitchell GEKP 1996-7

¹⁵⁴ Eddie Greenland GTK 2012-3

¹⁵⁵ Woody Elias GTK 2012-3

¹⁵⁶ Mary Kendi DSGBW 2006-11

¹⁵⁷ Woody Elias GTK 2012-3

¹⁵⁸ Woody Elias GTK 2012-3

¹⁵⁹ Antoine Andre GEKP 1996-7

¹⁶⁰ Aklavik Hunter GTK 2012-3

¹⁶¹ Antoine Andre GEKP 1996-7

¹⁶² Antoine Andre GEKP 1996-7

¹⁶³ Alfred Semple(?) GEKP 1996-7

¹⁶⁴ Mabel English GEKP 1996-7

¹⁶⁵ Abe Wilson, Eddy McLeod, William Modeste GTK 2012-3

¹⁶⁶ Mary Kendi, also noted by Ryan McLeod DSGBW 2006-11

when the temperatures are around -26 to -28 Celsius/-15 to -20 Fahrenheit.¹⁶⁷ Grizzlies go into their dens in September, October, and November. **“When the first snow come down... you don’t see their tracks, you don’t see them too much after October. So they start going in.”**¹⁶⁸ Robert Alexie Sr. does see their tracks in the early fall snow in October when he’s trapping.¹⁶⁹ Grizzlies may stay out several weeks later if the weather is warmer than usual.¹⁷⁰ When they first go into their dens, they may spend some time with their heads out, watching, before they head inside for the winter.¹⁷¹

One Aklavik hunter has seen a silvertip grizzly out on November 10th at an open creek where there were **“lots of minnows, and that’s what he was after”**¹⁷² The bear stayed out for the easily accessible food – once the food was gone, it would likely go to the den (see above section on ice-covered bears as well). Another Aklavik hunter has seen a grizzly on November 15th, but never any later. One grizzly bear in poor shape was reported stealing trap bait on December 14, 1989, and was seen again in February when it tried to raid a camp.¹⁷³ It appears that male grizzlies are more often out late. Females are known to leave the garbage dump earlier than males, and bears seen out late in the year are often males.¹⁷⁴

¹⁶⁷ William Modeste GTK 2012-3

¹⁶⁸ George Niditchie GTK 2012-3

¹⁶⁹ Robert Alexie Sr. GTK 2012-3

¹⁷⁰ Abe Wilson GTK 2012-3, Ryan McLeod DSGBW 2006-11

¹⁷¹ Thomas Mitchell GEKP 1996-7

¹⁷² Aklavik Hunter GTK 2012-3

¹⁷³ Ian McLeod, Johnny Charlie DSGBW 2006-11

¹⁷⁴ Ian McLeod DSGBW 2006-11

Grizzlies head in their dens after black bears.¹⁷⁵

Bears that stay out late may be in good shape, or may be in poor shape. **“It was really good, fat, the ones that I seen. Maybe that’s why they’re out too. They’re so fat, the cold doesn’t bother them.”**¹⁷⁶



Eddy McLeod in Aklavik, 2004.

Photo: K. Benson, GSCI.

Another reason for grizzlies staying out late is that they’re in too poor shape to last the winter, so they are trying to fatten up, **“I think that a couple of times I saw bears out late, and they think the reason why they were out late is because they weren’t fat enough to go in the den. They were trying to get more [food]. Like this one I was telling you about on November 7th on the Wolverine River ...he was pretty thin ... he wasn’t fat bear.”**¹⁷⁷

¹⁷⁵ Verification session Fort McPherson

¹⁷⁶ Eddy McLeod GTK 2012-3

¹⁷⁷ William Modeste GTK 2012-3, also noted by John Carmichael DSGBW 2006-11

Grizzly bears will come out of their dens as early as March, if the weather warms up.¹⁷⁸ A Chinook may encourage them to come out.¹⁷⁹ One hunter has even seen one in March.¹⁸⁰ They're common to see by May.¹⁸¹

Grizzlies may come out of their dens when they first hear a shot from a spring-time hunting trip.¹⁸² **“Well, if you hear some stories from the Elders, the ground squirrels wake them up. Well, they're noisy, and [when] it's warm, [they] make a lot of noise and that's when the grizzly bears wake up they say. Listening to Elders anyway.”**¹⁸³ Elders also say that they come out when the snow and ice starts melting and dripping – they can hear the dripping around the door of their dens.¹⁸⁴

When they first come out, a grizzly may purge by eating a lot of snow, to 'take the fat off'.¹⁸⁵ They may also stay around the den for a short time before leaving for the season – **“...like when it gets pretty warm they come out of the hole, and they start looking around... a little bit, first they hang around the ... den then after that they go a little further. Towards the end, if it gets really warm ... they're out for spring.”**¹⁸⁶ A

female may have a trail set around her den to show the young cubs where to go.¹⁸⁷

Grizzlies can also come out of their dens mid-winter, if the weather warms dramatically:

*During the winter, if it gets warm, they come out and go right back in. Because I have seen tracks when it's warm. I went out to my cabin one time in February. There was one week of Chinook ... There were some caribou bones there. They were on [the bones], chewing.*¹⁸⁸

However, grizzly bears sleep very soundly in their dens.

*One time I remember me and David [Charlie] we trap up the Road River, there is one bear hole right beside our trail; all the time we pass it. See steam coming out, cold, when he breathe. So finally he went over and opened the door, grass he got ah. He put his hand... “Holy smoke! It's hot in here,” he said. He put his hand in there, he is not scared to. And he could just hear him snoring. Well, he is sleeping so finally he put his hand [in and], pull [the grizzly bear's] hand...he never even wake up, never even wake up. Then he closed it back, so he just really sleep, boy.*¹⁸⁹

Males and females may prepare their dens differently. Males may leave the preparation later than pregnant females or mothers with cubs, who start preparing earlier.¹⁹⁰ Young bears may also go in

¹⁷⁸ Steering committee clarified month when bears can emerge, March 26, 2014.

¹⁷⁹ William Modeste GTK 2012-3

¹⁸⁰ Dale Semple DSGBW 2006-11

¹⁸¹ Aklavik Hunter, Abe Peterson GTK 2012-3

¹⁸² Abe Wilson GTK 2012-3

¹⁸³ Eddie Greenland GTK 2012-3

¹⁸⁴ Eddy McLeod, Robert Alexie Sr. GTK 2012-3, Catherine Mitchell GEKP 1996-7

¹⁸⁵ Thomas Mitchell GEKP 1996-7

¹⁸⁶ William Modeste GTK 2012-3

¹⁸⁷ Antoine Andre GEKP 1996-7

¹⁸⁸ Johnny Charlie DSGBW 2006-11

¹⁸⁹ William Teya GEKP 1996-7

¹⁹⁰ Eddie Greenland GTK 2012-3

earlier – **“they go in their dens [at] different times, young ones I guess they go in quick, Elders I guess they’re tough and they stay out.”**¹⁹¹

It is possible that two adult grizzlies will share a den – two large grizzlies were shot out of a bear den once. It was not clear if they were males or females – but it may have been a female with a large, older cub. Other stories have been told about up to four large bears sharing a den.¹⁹²

Occupied grizzly dens can be identified by the lack of small animal tracks in the immediate vicinity – the small animals know to stay away. If there are small animal tracks, the den is likely unoccupied.¹⁹³

Movement

Many interviewees described how grizzly bears moved around their habitat for different sources of food, or to return to good denning territory.

Grizzlies move between the Mackenzie Delta and the mountains, especially during high water.¹⁹⁴ They also move north in the spring and summer, towards the ocean – **“I kind of think that the grizzly bears go north in the spring time, summer time, towards the ocean.”**¹⁹⁵ They move north for the cooler temperatures and fewer mosquitoes.¹⁹⁶ There also might be more

abundant food along the coast, such as dead seals along the shore.¹⁹⁷

From the Black Mountain area, they also go southwest towards the Rat River watershed, in particular when the Rat River Dolly Varden char run arrives.¹⁹⁸ The bears pass spring and fall in the Black Mountain area due to food availability – including vegetation and ground squirrels in the spring.¹⁹⁹ The bears return in the fall to denning sites in the mountains around Black Mountain where there are many sheep.²⁰⁰

Many interviewees indicated that grizzly bears are known to follow the Porcupine Caribou Herd, or at least congregate around the herd as they migrate. It seems likely that at least some of the bears follow the herd full-time.²⁰¹ Interviewees did not consider this to be the same as a migration, and grizzlies were not said to have a migration similar to a caribou herd. Although some grizzlies follow the caribou herds, some do not and stay in their own area.²⁰²

Grizzly bears do not seem to have trails in the mountains which are used over and over, they travel all over the place.²⁰³ They do have passage areas or routes though, leading between areas of abundance for

¹⁹¹ Walter Alexie GTK 2012-3

¹⁹² Mary Kendi, Robert Alexie Sr. GEKP 1996-7

¹⁹³ William Modeste GTK 2012-3

¹⁹⁴ Aklavik Hunter GTK 2012-3, Mary Kendi DSGBW 2006-11

¹⁹⁵ Eddie Greenland GTK 2012-3

¹⁹⁶ Ernest Vittrekwa GTK 2012-3

¹⁹⁷ Walter Alexie GTK 2012-3

¹⁹⁸ Dale Semple DSGBW 2006-11

¹⁹⁹ Freddie Greenland, John Carmichael DSGBW 2006-11

²⁰⁰ Eddie Greenland, Ernest Vittrekwa GTK 2012-3, Dale Semple DSGBW 2006-11

²⁰¹ Abe Peterson, Freddy Furlong GTK 2012-3, others

²⁰² George Niditchie GTK 2012-3

²⁰³ Eddie Greenland GTK 2012-3

different food resources.²⁰⁴ They will travel across open areas but do not stay out in the open, they seem to prefer the protection of an area with wooded patches and creeks.²⁰⁵



Photo: Frank Kovalchek 2008 CC BY 2.0

In the Delta, **“you see them along the river banks and along creeks, you could see where they’ve walked quite a bit over the same trail sometime. Along the creeks and lakes, edges of the lakes, they have trail.”**²⁰⁶ Bears also make trails around lake shores in the Gwichya Gwich'in areas to the east of the Mackenzie Delta and up the Arctic Red River.²⁰⁷ Grizzly tracks are often seen along the shores of large rivers like the Kugaluk River²⁰⁸ and Peel River.²⁰⁹ In the Kugaluk area, grizzly bears are often seen at camps in the spring when they first come out of their dens and are looking for food, and in the fall when they are possibly looking for a den, but during the summer

²⁰⁴ Woody Elias GTK 2012-3

²⁰⁵ Eddy McLeod GTK 2012-3

²⁰⁶ Eddy McLeod GTK 2012-3

²⁰⁷ John Norbert GTK 2012-3, Gabe Andre GEKP 1996-7

²⁰⁸ William Modeste GTK 2012-3

²⁰⁹ Robert Alexie Sr. DSGBW 2006-11

times they are moving around and not seen.²¹⁰

Most interviewees indicated that grizzlies can move great distances **“they travel, they’re moving, they’ll just keep on going ...they don’t stop.”**²¹¹ The bears will stay at a good food resource for a time though, **“grizzly bears are hanging out where there is good food”**²¹² like the caribou herd.²¹³

Life cycle and reproduction

Grizzlies are generally seen alone, or a female may be seen with her cubs.²¹⁴

Sometimes when hunting, they are seen together, as described in the interactions section below.

A mother grizzly trains her young ones how to hunt and gather the food they need.²¹⁵

In the spring, there are berries left over from the summer before, and they are the first food that a grizzly bear will have her cubs eat.²¹⁶ Fish is also fed to the cubs early on, as it is easier to eat than meat, which is tougher.²¹⁷ The mother will teach young ones how to hunt ground squirrels by sitting nearby and showing them how to catch the squirrel when it comes out.²¹⁸ Interviewees generally agreed that cubs are with their mothers for two or three years.²¹⁹ Cubs are born in dens, “they always run out with

²¹⁰ George Niditchie GTK 2012-3

²¹¹ George Niditchie GTK 2012-3

²¹² Abe Peterson DSGBW 2006-11

²¹³ Mary Kendi DSGBW 2006-11

²¹⁴ Aklavik Hunter GTK 2012-3

²¹⁵ Aklavik Hunter GTK 2012-3

²¹⁶ Mabel English GEKP 1996-7

²¹⁷ Thomas Mitchell GEKP 1996-7

²¹⁸ Ernest Vittrekwa GTK 2012-3

²¹⁹ Noel Andre and George Niditchie GTK 2012-3

their mother when [she] comes out.”²²⁰
They are known to play with each other.²²¹

Cubs are known to wander away from their mothers, and are curious – which can make them approach an empty camp.²²² One Aklavik hunter startled a mother with two yearling cubs – the mother ran off in one direction and the cubs in another, for quite a long distance.²²³ The mother bear will also leave her cubs to assess if a situation is dangerous. A Fort McPherson hunter saw a mother hide her cubs before coming out and taking a recently killed caribou.²²⁴ Another strategy the mother will use is to send the cubs up a tree and stay at the bottom, if danger threatens.²²⁵ They won't come down until she makes a special sound to tell them it's safe.²²⁶

Grizzlies are known to have two cubs, sometimes only one, and rarely three.²²⁷ When three cubs are seen, they are not small or otherwise impacted from coming from a large family.²²⁸ According to Elders, the cubs are born in January or February in the den.²²⁹

Grizzlies can live for a long time in the wild. As they age, they get larger and their tracks are larger.²³⁰ They also wear down their

teeth – checking the teeth of a dead bear is the only way to tell their age.²³¹ When a grizzly bear is old and has bad teeth or few teeth, it can wander around constantly just looking for food:

I remember in early fifties, my uncle Peter Alexie stay at ... Caribou Creek, he got a camp there, trapping area. He had [a] four pole stage. A grizzly went and threw the one end up, and knocked that stage down... my uncle had lots of stuff, there was grocery [supplies] like lard, ...things like that. [The grizzly] just chewed all the cans, whatever's there, like jam or whatever he's got there. After that, we got it, we got that grizzly ... cut it up, [the bear] had hardly any teeth [it was] so old. But [in] them days, there's no meat in the store or no canned meat, we can't afford canned meat anyway, and we cut it up and pack it down to the, back to the boat and we cook some. It didn't taste too good. He was so old... no taste to it”²³²

An old toothless grizzly was spotted in the Delta once, stuck in a fish net.²³³ Old grizzlies may be slower than younger bears, but they still move very fast. They're also known to be dangerous, as when **“they're poor, they can't hunt, that's why they get pretty wicked.”**²³⁴ Younger grizzlies may attack and kill an old bear.²³⁵

A grizzly may go into a den or hole to die, and even be buried by another grizzly. **“Well, after they die, they die in the hole. They put themselves away, where nobody**

²²⁰ George Niditchie GTK 2012-3

²²¹ Aklavik Hunter GTK 2012-3

²²² Aklavik Hunter GTK 2012-3

²²³ Eddie Greenland GTK 2012-3

²²⁴ Ernest Vittrekwa GTK 2012-3

²²⁵ Gabe Andre GEKP 1996-7

²²⁶ Mabel English GEKP 1996-7

²²⁷ Aklavik Hunter, Abe Peterson, Eddie Greenland,

Walter Alexie GTK 2012-3

²²⁸ Eddy McLeod, Walter Alexie GTK 2012-3

²²⁹ Fort McPherson verification session

²³⁰ Eddie Greenland GTK 2012-3

²³¹ Mabel English GEKP 1996-7

²³² Walter Alexie GTK 2012-3

²³³ Ian McLeod DSGBW 2006-11

²³⁴ Walter Alexie GTK 2012-3

²³⁵ Abe Peterson DSGBW 2006-11

can get a hold of them, not even flies. Some other grizzly come around and just bury them ... Just like human beings they bury them, just the same thing.”²³⁶

Physiology and adaptability

Grizzly bears are not scared of much, but they can be frightened by people and consequently they may attack.²³⁷ Robert Alexie Sr. frightened a grizzly eating from a drowned moose carcass in the Peel River, and the bear ran away when it heard the motor on their canoe. The next day they floated by again, and again the bear ran – it was likely that the frightened grizzly had never seen a person before, unlike the habituated bears closer to the highway.²³⁸ Bears were more likely to be scared of people and motor sounds in the past but have become ‘less wild’ during more recent years. **“They’re not wild like they used to be.. too much people now, helicopter, plane, trucks, skidoos, four wheelers, anything.”**²³⁹

As noted in the Movement section above, grizzlies are skilled at moving across their territory. They will follow trails and seismic lines, and are excellent swimmers.²⁴⁰

Grizzly bears do not seem particularly pestered by insects, although they prefer the mountains where the cool temperature keep the mosquitos down.²⁴¹ They will also

seek windswept open areas in the mountains to avoid insects.²⁴²

Interactions

According to many interviewees, most or all animals are frightened of grizzly bears, **“pretty sure they’re all scared of him.”**²⁴³



Noel Andre in Alestine Andre’s home in Tsiigehtchic, 2004.

Photo: K. Benson, GSCI.

Grizzly bear co-operation

Two or three adult grizzlies may collaborate and hunt together. This behaviour is seen around the NWT-Yukon border on the Dempster Highway.²⁴⁴

Once after a successful hunt, two grizzly bears were observed sharing a bull caribou.²⁴⁵

As noted above in the Life cycle and reproduction section, mothers are very commonly seen with their cubs as well.

²³⁶ Antoine Andre GEKP 1996-7

²³⁷ Aklavik Hunter GTK 2012-3

²³⁸ Robert Alexie Sr. GTK 2012-3

²³⁹ Walter Alexie GTK 2012-3

²⁴⁰ Aklavik Hunter, Eddy McLeod GTK 2012-3

²⁴¹ Abe Peterson, Abe Wilson GTK 2012-3

²⁴² Dale Semple DSGBW 2006-11

²⁴³ Noel Andre GTK 2012-3, many others as well

²⁴⁴ Abe Peterson GTK 2012-3

²⁴⁵ Abe Peterson GTK 2012-3

Grizzly bears can exist peaceably around other grizzlies. At one point, an Aklavik hunter was watching six bears eating berries around Black Mountain.²⁴⁶ **“I don’t think they mind being around others bears, because you see them when they fish and ... they just kind of ignore each other. But the big ones usually chase the smaller ones away.”**²⁴⁷

Hunting caribou, sheep, and moose

Grizzly bears hunt caribou, sheep, and moose. Many interviewees indicated that grizzlies will ambush their prey at water crossings while hiding in the willows. For example, when hunting sheep in the mountains, a grizzly may find an area where the sheep will cross a creek, an area where there is good cover such as shrubs or trees to hide in. A bear may wait for a herd of animals to cross and use a sneak attack – (although the rate of success might not be very high.)²⁴⁸ Grizzlies are smart – they are always watching crossings for possible opportunities.²⁴⁹ Grizzlies also hide in willows and wait for caribou to come close.²⁵⁰

Sheep have to come down from high cliffs for water, which they’ll do at first light in the morning. Sheep use established trails, which allow grizzlies to wait for them in hiding.²⁵¹ They may hunt caribou this way, too – **“they’ll wait for them, certain place they cross, and they’ll grab them”** as caribou can generally run faster than grizzly

bears.²⁵² A grizzly bear was observed hiding and watching a caribou as it entered a creek, and then approaching and catching the caribou from upstream.²⁵³ The bears may focus their efforts on lambs, calves, and sick animals.²⁵⁴ During a survey of the Dempster Highway, a grizzly bear was observed lying down and stalking three caribou. The bear was barely visible, it was crouching so low. The three caribou were wounded and healing, which is why they stayed back from the rest of the herd. The caribou spotted the bear and quickly ran away.²⁵⁵

In some areas in the Richardson Mountains, the creek valleys are too steep for the grizzlies to move through them easily, and often boulders are present.²⁵⁶

Grizzlies can sneak up on an animal such as a sheep, or corner them.²⁵⁷ Sheep may flee to high cliffs to protect themselves from grizzly predation.²⁵⁸ They also carefully watch grizzlies from the safety of the high cliffs. **“I have seen the sheep up ... part way [and the grizzly bears were] kind of sneaking around and going around. The sheep would be watching them.”**²⁵⁹

A mother bear can use her cubs to help her hunt sheep:

²⁵² Eddie Greenland GTK 2012-3

²⁵³ Billy Wilson DSGBW 2006-11

²⁵⁴ Glen Alexie DSGBW 2006-11

²⁵⁵ William Francis, Steering Committee meeting March 26, 2014.

²⁵⁶ Billy Wilson DSGBW 2006-11

²⁵⁷ Abe Peterson DSGBW 2006-11

²⁵⁸ Billy Wilson DSGBW 2006-11

²⁵⁹ John Carmichael DSGBW 2006-11

²⁴⁶ Eddie Greenland GTK 2012-3

²⁴⁷ Eddy McLeod GTK 2012-3

²⁴⁸ Aklavik Hunter GTK 2012-3

²⁴⁹ John Carmichael DSGBW 2006-11

²⁵⁰ Charlie Stewart DSGBW 2006-11

²⁵¹ Billy Wilson, Ernest Vittreka DSGBW 2006-11



*And I did see a bear actually hunting sheep, using their cubs... She had two cubs. And she used them for crawling up the hill there, and once [the cubs] scared the sheep, she went around this mountain and she killed one over there... She used her young ones to distract them.*²⁶⁰

Porcupine Caribou near Fort McPherson are becoming 'wilder' or more likely to flee, and therefore harder to hunt, due to pressure from wolves and grizzlies. “[Grizzly] bears they’re chasing [the caribou], they could [get] close, but that caribou knows about bears, he know they’re going to chase him, so they’re wild. As soon as they see bear they just take off.”²⁶¹ Grizzlies have been reported to kill young caribou and leave the carcass.²⁶² They leave it until they are in need of food, and then return.²⁶³ Increased grizzly bear presence around the border may be keeping the Porcupine Caribou Herd away from the area.²⁶⁴

Around the NWT-Yukon border on the Dempster Highway, Gwich'in hunters have seen grizzly bears kill adult caribou. “[The bear] sort of grab him around the neck like and just hung right on... big bull too... Didn’t take him very long knock him down and it’s dead.” The caribou had been cornered by two bears, and one chewed the muscles in the caribou’s neck area and paralyzed it.²⁶⁵ Grizzlies also sneak up on moose or caribou – one Fort McPherson

hunter has seen a grizzly sneak up close to a caribou using a creek valley.²⁶⁶

Like human hunters, a grizzly can select and kill caribou that are ‘fat’ or in good shape.²⁶⁷

Alternatively, grizzlies will finish off a caribou that was wounded by a hunter.²⁶⁸ In fact, human hunting of caribou may be an important vector for grizzly bears to feed on them – “usually, if there are lots of caribou in the winter and there are lots of guts around, there’re lots of bears around.”²⁶⁹

Grizzlies can wrestle and kill even a large bull moose. One Fort McPherson hunter has seen a grizzly bear chase a moose into a river to try and kill it.²⁷⁰ If a grizzly comes across an animal in the water, it is easier for the bear to kill its prey.²⁷¹

Grizzlies should not be chased on skidoo due to their ability to turn very quickly and attack. It is extremely dangerous to do so.²⁷²

Dogs

Grizzlies may kill dogs by ‘whacking’ them – indeed, a grizzly killed three dogs at a camp recently.²⁷³ Usually, though, the bears avoid dogs when they can.²⁷⁴ Leaving dogs loose at a camp may keep grizzly bears

²⁶⁰ Dale Semple DSGBW 2006-11

²⁶¹ Abe Peterson GTK 2012-3

²⁶² Peter Francis DSGBW 2006-11

²⁶³ Fort McPherson verification session

²⁶⁴ Tsiigehtchic verification session

²⁶⁵ Abe Peterson GTK 2012-3

²⁶⁶ Abe Wilson GTK 2012-3

²⁶⁷ Abe Peterson GTK 2012-3

²⁶⁸ Abe Peterson GTK 2012-3

²⁶⁹ Ian McLeod DSGBW 2006-11

²⁷⁰ Abe Wilson GTK 2012-3

²⁷¹ Johnny Charlie DSGBW 2006-11

²⁷² Steering Committee meeting March 26, 2014.

²⁷³ William Modeste GTK 2012-3

²⁷⁴ Aklavik Hunter GTK 2012-3

away as they will chase them.²⁷⁵ John Norbert remembers a story of Joe Natsie regretting turning his hunting dogs on to a grizzly,

So this old man, old Joe Natsie, he told me a story about that. ... I don't know ... what he was doing, he was paddling to his camp or something like that, and he run into grizzly bear and he said he turned his dogs loose. And he said he made a mistake... they made that grizzly bear mad and he said he had one heck of a time to kill it. So, that's why the elders always say, leave it alone. Don't ... bother it if it's not bothering you.

Human-Grizzly interactions

Generally, Gwich'in are told to leave grizzlies alone. Long ago, people had very detailed knowledge of how to avoid grizzlies due to their time spent on the land.²⁷⁶ **“He don't bother you, just don't bother him.”**²⁷⁷ If they are left alone, they will generally leave you alone. When berry-picking, it is a good idea to take care to watch for grizzly bears and leave if required.²⁷⁸

If a grizzly is going to be shot, great care must be taken that the shot is a good one, as a wounded grizzly is a dangerous and fast animal.²⁷⁹ If they attack a person, they swing and hit with their large claws, and then bite.²⁸⁰

Mother bears with cubs are known to be dangerous and should be avoided,

²⁷⁵ George Niditchie GTK 2012-3

²⁷⁶ John Norbert GTK 2012-3

²⁷⁷ Abe Peterson GTK 2012-3

²⁷⁸ Mabel English GEKP 1996-7

²⁷⁹ Aklavik Hunter, Abe Wilson, John Norbert GTK 2012-3

²⁸⁰ Elizabeth Greenland GEKP 1996-7

according to all interviewees. Grizzlies in their dens are also dangerous, as are startled bears.²⁸¹ If a grizzly is seen, for example eating berries, it may be a female with cubs hidden out of view – so even if there are no cubs seen, it is best to avoid grizzly bears.²⁸² However, female grizzlies are more adept at hiding themselves, and the majority of grizzly sightings are male bears.²⁸³

Grizzlies that are protecting a carcass or cache are also considered very dangerous and wild,²⁸⁴ as are hungry bears when there are no caribou, berries, or other good food sources available.²⁸⁵

Grizzlies will even jump into trucks if there is a caribou carcass in the box.²⁸⁶ A grizzly jumped into the empty box of a truck after it was carrying fish.²⁸⁷

Robert Alexie of Fort McPherson recalls rarely seeing grizzlies in the days before the Dempster Highway, when they travelled mainly by the Peel River to their camp. Since the highway was built, more grizzlies are seen as people are more often going into grizzly country in the mountains.²⁸⁸

Old timers say that grizzlies do not approach or attack women.²⁸⁹ **“For a woman they say if you see a grizzly bear**

²⁸¹ Antoine Andre, Catherine Mitchell GEKP 1996-7

²⁸² George Niditchie GTK 2012-3

²⁸³ Wildlife Management, Department of Resources, Wildlife and Economic Development 2003a, b

²⁸⁴ Abe Peterson GTK 2012-3

²⁸⁵ Elizabeth Greenland GEKP 1996-7

²⁸⁶ Walter Alexie GTK 2012-3

²⁸⁷ Aklavik Hunter GTK 2012-3

²⁸⁸ Robert Alexie Sr. GTK 2012-3

²⁸⁹ Woody Elias GTK 2012-3

coming, you just say, 'Brother-in-law it's your sister here,' ... Mom said it usually just stop and stand up and look at you, and then you turn the other way."²⁹⁰ This is based on legendary times when people and animals were equal, and a bear was married to a person.²⁹¹

Grizzlies may be less likely to charge or attack people now than in the past.²⁹² A grizzly bear was once startled by a Gwich'in hunter, and charged. The hunter grabbed his rifle and was forced to jumper over top of the bear. As the bear ran, the hunter was able to shoot him in the neck.²⁹³

Grizzlies approaching hunters

After a successful caribou hunt, Gwich'in know to be wary, work quickly, and watch for approaching grizzlies, especially in the spring when the grizzlies are first coming out of their dens, and in the fall when they're storing fat. They smell the blood or hear the shot and may try to chase a hunter off. If a hunter is not careful, a grizzly bear could 'sneak right up'.²⁹⁴ Grizzlies may have learned that people generally will not shoot them when they approach hunters after a successful hunt.²⁹⁵ When a grizzly approaches a hunter, sometimes it can be scared off by shooting and waving, sometimes it's best for the hunter to walk away, and sometimes the grizzly must be

shot.²⁹⁶ Grizzlies may stalk and chase people who are hunting, and in these cases, the bears must be shot.²⁹⁷ Elders used to say that a grizzly could hear a shot from 20 miles away.²⁹⁸ Multiple bears may approach if they hear gunshots.²⁹⁹ Ernest Vittrekwa shot two bulls near the Dempster Highway one year, went to get his skidoo, and upon his return, two grizzlies were walking away with his caribou, each bear carrying one caribou under an arm.³⁰⁰ Older bears are the most likely to approach hunters, according to Elders.³⁰¹

When travelling in grizzly country, it is important to have a gun and to make sure that you do not startle a grizzly bear. If you see one, let them know where you are.³⁰² Having a fire in your camp will also keep grizzly bears away.³⁰³

Elders have indicated that grizzlies will not approach if they think you are taller than they are. **"[Elders] say when you go way [out] on the flats, you carry a long stick with you, a dry stick. When you're going to skin, you stick it in the ground ...[with a] plastic bag or something sitting on top ... and any visitors wouldn't come. They see something higher than it, they won't come to you. This happened to couple of boys, they tried it out, it works. These are from traditional [practises] ... from Elders."**³⁰⁴

²⁹⁰ Catherine Mitchell GEKP 1996-7

²⁹¹ Gabe Andre GEKP 1996-7

²⁹² Ernest Vittrekwa DSGBW 2006-11

²⁹³ William Francis, Steering Committee meeting, March 26, 2014.

²⁹⁴ Abe Peterson, Abe Wilson, Ernest Vittrekwa GTK 2012-3

²⁹⁵ Billy Wilson DSGBW 2006-11

²⁹⁶ Abe Wilson GTK 2012-3

²⁹⁷ Abe Peterson GTK 2012-3

²⁹⁸ Abe Wilson GTK 2012-3

²⁹⁹ Abe Wilson GTK 2012-3

³⁰⁰ Ernest Vittrekwa GTK 2012-3

³⁰¹ Eddy McLeod GTK 2012-3

³⁰² Robert Alexie Sr. GTK 2012-3

³⁰³ Thomas Mitchell GEKP 1996-7

³⁰⁴ Abe Wilson GTK 2012-3

This knowledge saved Ernest Vittrewa's life when a grizzly charged him.



Ernest Vittrewa demonstrates holding a piece of driftwood up, in Band Office in Fort McPherson, 2012.

Photo: J. Edwards, GRRB

A grizzly bear charged me one time, Rock River. Right here, right in front of me. And I had a .30-30 on me. [The grizzly] stopped, and I was so close to it. ...it stop right there and it was staring at me. I stare at him too. And if I took my gun out, he's going to attack me, I know it. So I stared at him too. Never took my eye off him. There was four guys behind me too, and I heard them putting shell in the gun. I told them, "don't put shell in your gun you guys. Don't move. Don't even move," I told them. And there was a drift wood laying on the ground in a little creek. I made it, that's only chance I got too. I didn't want to take my gun off. I know he's going to grab me. I made it down to that drift wood, got hold of it. All that time I'm looking at him too. And then I went like this [stands showing how he held

*up the driftwood]. Put it right up, and he just looked up at me and made a big grunt. He turned around and walked away.*³⁰⁵

Grizzlies do not seem to approach hunters as much around Aklavik, perhaps because they use skidoos to hunt grizzlies. The noise from the skidoos may scare the bears away, and with the skidoos, the hunters can go up quickly to the caribou for skinning and butchering them. In the past when hunters camped out and used dogs, grizzlies were more likely to approach a camp, and scavenge guts or try to steal meat.³⁰⁶

The problem of grizzlies approaching hunters may be a more recent phenomena. There are more bears, and they are less afraid of people. It is difficult and dangerous to hunt caribou in the mountains by the highway now.³⁰⁷ Once a grizzly bear approaches the carcass, it will always come back for it.³⁰⁸

Other animals, such as wolverines and wolves, may also know to approach an area when they hear gunshots.³⁰⁹

Problem bears at camps

Problem bears at camps in the Delta were often mentioned by interviewees. **"Long ago, when I was growing up, ... nobody had a problem with bears. You know, people leaving everything in their camp, cabins, and you go back there in couple months' time, it's still the same."**³¹⁰ Things started

³⁰⁵ Ernest Vittrewa GTK 2012-3

³⁰⁶ Eddie Greenland GTK 2012-3

³⁰⁷ George Niditchie GTK 2012-3

³⁰⁸ Robert Alexie Sr. GTK 2012-3

³⁰⁹ Woody Elias GTK 2012-3

³¹⁰ Aklavik Hunter GTK 2012-3

changing about 15-20 years ago, when any amount of food left in a camp, or even a truck, may cause a grizzly to damage property to get at the food. Black bears are more of a problem in the Delta, and grizzly bears are a problem in the mountains.³¹¹

Bears will even break into empty camps, just to check. There seems to be several reasons for the change. In the past, problem bears were more likely to be controlled as people would be at camps if they approached and would kill them to protect the camp, and take the skin.³¹² People were active about dealing with problem grizzly bears to protect camps, and to protect the family members who might be left behind at camps during hunting trips.³¹³ People also stayed at camps much more often.

*...[we have to] keep [camps] cleaner, and you got to bring everything into town now. You can't leave anything in your camps anymore ... we used to leave everything at our camp just about, and bears never used to bother [it]. But now maybe there's getting more bears, or I don't know how come ... maybe they're getting used to breaking into camps because nobody is out anymore? So every time they come across a camp they seem to want to break in.*³¹⁴

...again that depends on how you take care of your garbage and everything is burnt. The cans and jars that don't burn are taken

³¹¹ Steering Committee meeting March 26, 2014.

³¹² Aklavik Hunter, Eddy McLeod GTK 2012-3

³¹³ William Modeste GTK 2012-3

³¹⁴ Eddy McLeod GTK 2012-3

*to Fort McPherson with the dump. And prior to that being there the, you know, the public dump. Ah, they were buried. They were crushed or broken and buried. We saved every jar that we knew we could use again. But everything else was always buried. During fish drying season you might find one or two bears come in over the summer. But then again your fish houses have all the smoke and everything's kept clean again.*³¹⁵

Having food left at some camps has taught grizzlies that they can get their meals from people more easily than getting it by hunting, berry-picking, or digging for roots.³¹⁶ This may have caused bears to learn to break into camps just to check, even if the camp is very clean.³¹⁷

The bears can be very destructive and are known to smash through doors and windows.³¹⁸ Grizzlies are known to have an excellent sense of smell, which leads them to food in the cabins – especially food like muskrat or beaver meat.³¹⁹ A problem bear will return to the same camp over and over. They 'make rounds' or go 'from house to house' and visit the same camps, often coming at night.³²⁰

Grizzlies can access food (or even inedible items like gas jerry cans) and chew them up from a stage.³²¹ **"I know back in the fifties**

³¹⁵ Ruth Welsh 2002, in Andre 2006

³¹⁶ William Modeste GTK 2012-3

³¹⁷ Freddie Greenland DSGBW 2006-11

³¹⁸ Aklavik Hunter, Abe Peterson GTK 2012-3

³¹⁹ Abe Peterson GTK 2012-3

³²⁰ Abe Peterson, Eddy McLeod, William Modeste GTK 2012-3

³²¹ Abe Peterson GTK 2012-3

there, my father he made stage like that... pretty high, and put maybe one moose on top there. They got back there a week later, [and a] grizzly bear took it down, just knocked it down. [The] stage it fell down, make a big mess [that was the] only time I seen grizzly bear do that."³²² More than 40 years ago, George Niditchie's father killed seven grizzlies who had taken meat from a dryfish cache at his camp in the Kugaluk River area. The meat from the grizzlies was used to replace the dryfish as dog food.³²³

Problem bears at camps will even smash plywood-covered windows, and Plexiglas windows, to enter a cabin.³²⁴

Grizzlies are not often actually spotted in the Delta and around camps. They may sense when people are approaching or nearby and leave an area.³²⁵ Grizzlies will usually not approach inhabited camps, **"well, if you're there, he don't bother it."**³²⁶ However, they may come right up to occupied camp buildings.³²⁷ The bears may sit just out of sight from a camp and watch it, waiting for the inhabitants to leave.³²⁸ Orphaned cubs may also come into camps.³²⁹

Grizzly bears have even come into town on occasion.³³⁰ Most bear encounters are at

camps, though, with a small number of encounters happening while out hunting. If bears approach a camp when it is inhabited, even having dogs will not deter the bear.³³¹

In the past, nuisance bears were occasionally tracked to their dens and killed, to protect life and property.³³²

Camps must be kept very clean, including burning waste. Food at temporary camps should be stored far up off the ground.³³³ Sometimes keeping a very clean camp will keep bears away, but in some cases it seems that habituated bears will break into camps left with no food at all. Electric fences will successfully keep black bears and grizzlies out of camps.³³⁴ One Fort McPherson hunter leaves his cabin empty with the door open, to prevent curious bears from destroying doors and windows to get in and check.³³⁵ Other advice includes to bury or burn garbage and waste.³³⁶ Noise-makers such as empty pop cans tied in the trees around the camp may also help keep the bears away.³³⁷ Plywood with nails driven through and sticking up ('nailboards'), or fishing nets strategically placed in front of windows and doors, may be a barrier to grizzly bears.³³⁸

Bears will generally leave camps alone when berries become available after the

³²² Robert Alexie Sr. GTK 2012-3

³²³ Noel Andre GTK 2012-3

³²⁴ Abe Peterson, Robert Alexie Sr., Woody Elias GTK 2012-3

³²⁵ Abe Peterson GTK 2012-3

³²⁶ George Niditchie GTK 2012-3

³²⁷ William Modeste GTK 2012-3

³²⁸ Woody Elias GTK 2012-3

³²⁹ Wildlife Management, Department of Resources, Wildlife and Economic Development 2003a, b

³³⁰ Abe Peterson GTK 2012-3

³³¹ Wildlife Management, Department of Resources, Wildlife and Economic Development 2003a, b

³³² Abe Peterson GTK 2012-3

³³³ Ruth Welsh 2002, in Andre 2006

³³⁴ William Modeste GTK 2012-3

³³⁵ Abe Peterson GTK 2012-3

³³⁶ Walter Alexie, Robert Alexie Sr. GTK 2012-3

³³⁷ Walter Alexie GTK 2012-3

³³⁸ William Modeste GTK 2012-3

end of July.³³⁹ They are the biggest problem when they first come out of hibernation in the spring.³⁴⁰ In the Kugaluk area, they are most often seen in the spring and fall, and during the summer times, **“they’re all over the country.”**³⁴¹

As the number of problem grizzly bears increase, there is a corresponding decrease in problem black bears.³⁴²

Long ago, in the mountains, people would make extensive caches in the ground covered by rocks and logs tied together with babiche. **“Make a hole in the ground. They call it ice holes. Deep holes... it stays frozen down below. [We would] put a log, this way and that way. And they can’t get under the big log too. Grizzly bear try to chew it, but it’s too big for them to chew it so they really just leave it alone.”**³⁴³

Robert Alexie Sr. has seen this type of cache being excavated in an archaeological site. The grizzly bears would not be able to get into these caches.³⁴⁴

Dumps

Grizzly bears are seen at the Aklavik dump. It is considered a ‘new thing.’³⁴⁵ People even sit in their cars with the engines running and watch the bears.³⁴⁶ There are three bears that are regulars at the Aklavik dump, according to one Aklavik hunter. The same three – a mother and two cubs –

come back and eat at the dump. This has been happening for a number of years. There used to be black bears at the dump as well.³⁴⁷ The bears may be attracted to the garbage for several reasons: people might be throwing away more food in their garbage, and the dump does not burn as much garbage as it used to.³⁴⁸

Grizzlies have also been seen at the Inuvik dump, and have wandered into town nearby on the pedestrian trails between the dump and the town.³⁴⁹

Hunting grizzly bears

Grizzlies were not often hunted in the past. People started to hunt them more recently when the value of the fur made it worthwhile, although many hunters today still keep the furs for themselves as rugs as well.³⁵⁰ Hunters look for either silver-tip or gold-tip fur when they are hunting for the skins.³⁵¹ If anyone kills a bear, they should take and use all the meat.³⁵² This is how bears were traditionally hunted – **“you just can’t shoot a bear and leave it. You just can’t shoot a bear and just take the skin and leave the meat. You got to take everything, [that’s] what people did in the past, if they wanted a bear they get it, and they use it, use it up the whole thing.”**³⁵³

In the days before guns, black bears were

³³⁹ Eddy McLeod GTK 2012-3

³⁴⁰ John Norbert, William Modeste GTK 2012-3

³⁴¹ George Niditchie GTK 2012-3

³⁴² George Niditchie GTK 2012-3

³⁴³ Thomas Stewart DSGBW 2006-11

³⁴⁴ Robert Alexie Sr. GTK 2012-3

³⁴⁵ Freddie Greenland DSGBW 2006-11

³⁴⁶ Aklavik Hunter, Eddie Greenland GTK 2012-3

³⁴⁷ Aklavik Hunter GTK 2012-3

³⁴⁸ Eddy McLeod GTK 2012-3

³⁴⁹ John Norbert GTK 2012-3

³⁵⁰ Aklavik Hunter GTK 2012-3, Wildlife Management, Department of Resources, Wildlife and Economic Development 2003a, b

³⁵¹ William Teya GEKP 1996-7

³⁵² Abe Peterson GTK 2012-3

³⁵³ Robert Alexie Sr. GTK 2012-3

sometimes caught using snares.³⁵⁴ In recent times, when grizzlies are hunted to keep or sell their skins, the carcass is sometimes left out on the land.³⁵⁵ There may also be a market for certain parts such as the gall bladder.³⁵⁶

Grizzly coats are usually nice and clean when they emerge from their dens in April or May, and the lack of fat makes skinning them easier.³⁵⁷ However, a grizzly may also emerge from its den looking very poor.³⁵⁸ It is easier to hunt the bears in the spring due to warmer conditions, better travelling conditions, and the ability to track them as they come out of their dens.³⁵⁹ Smaller grizzlies are not worth hunting. They are generally left alone, or should be – this is why it's important to stop and assess the size before taking a shot.³⁶⁰ Hunters focus on larger bears without cubs, which are generally males.³⁶¹

During times of scarcity in the past, people would hunt grizzlies for meat. **“Because it's hard to get caribou sometimes, and [so] they kill a nice fat grizzly bear, big grizzly bear, it's good meat [when you] smoke it... clean, you know [it's a] clean animal, just kill a ground squirrel and eat roots and caribou meat, fish.”**³⁶² Black bear meat, when smoked, can resemble ham, **“[if] you**

eat ham, you could eat bear.”³⁶³ Black bear is considered better to eat than grizzly, and grizzly meat is not consumed today.³⁶⁴

In the past, the skins (unless it was too poor to be used) were dried, smoked, then tanned and prepared by women and used to make clothing, rugs, sleigh packs, and other items.³⁶⁵ **“All the time they use young bear skin for kids parky or something like that. It's not so long hair and not so thick.”**³⁶⁶ With the fur removed, the strong leather was also used for dog harnesses and traces.³⁶⁷ Today, people sell the fur, keep them as sleeping pads or rugs, or give them away.³⁶⁸

Unlike caribou and moose, the intestines of bears were not used for eating, and they, along with the bones would be properly disposed of, perhaps by burning.³⁶⁹ Long ago, the guts were used to store the rendered fat which was like lard.³⁷⁰ Meat was dried to preserve it,

I know the meat they dry it, they dry it and that is the only way we could have it for a while. We don't have freezers, so we have to dry it and then if we want to cook it, we have to put it in water and soak it and then boil it. That is the way we used to keep our meat unless we have an ice house, you

³⁵⁴ Walter Alexie GTK 2012-3

³⁵⁵ Woody Elias, Freddy Furlong GTK 2012-3

³⁵⁶ William Teya GEKP 1996-7

³⁵⁷ Abe Peterson, Eddie Greenland GTK 2012-3

³⁵⁸ John Norbert GTK 2012-3

³⁵⁹ Eddie Greenland GTK 2012-3

³⁶⁰ Eddie Greenland, Eddy McLeod GTK 2012-3

³⁶¹ Eddie Greenland GTK 2012-3

³⁶² Abe Peterson GTK 2012-3

³⁶³ Robert Alexie Sr. GTK 2012-3

³⁶⁴ Steering Committee meeting March 26, 2014.

³⁶⁵ Antoine Andre GEKP 1996-7 Alfred Semple DSGBW 2006-11, William Teya GEKP 1996-7

³⁶⁶ Gabe Andre GEKP 1996-7

³⁶⁷ Thomas Mitchell GEKP 1996-7

³⁶⁸ Wildlife Management, Department of Resources, Wildlife and Economic Development 2003a, b

³⁶⁹ Elizabeth Greenland GEKP 1996-7

³⁷⁰ Bella Alexie, COPE Story, “Early 1900s As I Remember It”

*know we make a big pit in the ground. That is the only way. Even now ...They boil it and they can fry it, and you can roast it to fire, ribs, and they're good. You know that is when you're hungry you kill it, you got no food you can kill it.*³⁷¹

The meat is particularly good in the fall when the animal is fat before hibernation – **“they're really fat and they're eating fresh stuff in the fall, so [just] about anything is good eating after they eat, like fresh berries.”**³⁷² Both raw and cooked meat was shared with friends and relatives.³⁷³ Eddy McLeod recalls bringing meat into town for Elders when he was younger; the feet were considered a delicacy.³⁷⁴ Young bears may be preferred over older animals.³⁷⁵ Spring bears are not considered as good, especially if they are killed in the dens,

*Somebody was telling me that her husband shot grizzly in the spring time and they cut the meat and they start to fry it, it was so awful smell. But you see, there I learned something, because when the bear is in the den, you know, the...because it don't wake up and, you know, the urine and everything goes into the body ah. So that is why it smells really bad.*³⁷⁶

In the past, the fat was rendered into lard and was considered the most valuable part of the animal, although the meat was also divided up and shared.³⁷⁷ Grizzly bear fat

can be used for cooking and it is as nice as lard – doughnuts and bannock fried in the fat are particularly nice.³⁷⁸

Long ago, people may have hunted bears from their dens by smoking them out, although this should only be done in times of starvation.³⁷⁹ **“They used to, when they come across a bear den, grizzly bear den or bear den, they smoke the bear out ... that's how they take them. Get the bear out of the den. Make a fire and throw it in the den and bear's got to come out, and they shoot it that way. That's how they get their bear.”**³⁸⁰ Before firearms were available, a club made from a moose antler was used to club the sleeping bear to death.³⁸¹

Another way to lure a grizzly from its den is to throw your gun case in front of the den's door, according to Elders.³⁸² Generally speaking, a grizzly won't come out of its den if it is being poked or prodded, but this will make it angry enough to watch for you to leave and attack from behind.³⁸³ However, one story tells of how two strong women were able to poke and prod a grizzly out of its den:

The Fearless Group [Excerpt]

-Johnny Kaye³⁸⁴

One day, a bunch of boys went out to hunt. When they came home, they said there was a grizzly bear den nearby. So everyone,

³⁷¹ Elizabeth Greenland GEKP 1996-7

³⁷² Eddy McLeod GTK 2012-3

³⁷³ Elizabeth Greenland GEKP 1996-7

³⁷⁴ Eddy McLeod GTK 2012-3

³⁷⁵ John Norbert GTK 2012-3

³⁷⁶ Mabel English GEKP 1996-7

³⁷⁷ Robert Alexie Sr. GTK 2012-3

³⁷⁸ Abe Peterson GTK 2012-3

³⁷⁹ Antoine Andre GEKP 1996-7

³⁸⁰ Eddie Greenland GTK 2012-3

³⁸¹ Antoine Andre GEKP 1996-7

³⁸² Alfred Semple GEKP 1996-7

³⁸³ Thomas Mitchell GEKP 1996-7

³⁸⁴ COPE Story

including the women, was to go to the den and kill the bear. My grandmother and her older sister were chosen to poke at the bear to get it out of its den (these two were strong women). With two long, sharpened poles in hand, they made their way to the den, along with everyone else. At the den, they each got on a side of the opening of the den. They began poking and soon the bear came out. Before it was all the way out, they barred its way securely with the poles. At this instant, the men went down at it with their hatchets and killed the bear.

The people continued to live and hunt in the area without fear of the grizzly bear. This ends the story.

Safety is very important when hunting grizzly bears. A grizzly may stay still and 'play dead' after being shot, so it is important to make sure it is dead before approaching.³⁸⁵ Several young men in Aklavik approached a bear on skidoo after shooting it, and it rose and took a bite out of the skidoo's seat.³⁸⁶ One Aklavik hunter received valuable lessons from Elders about hunting safely,

When you hunt the grizzly bear in the spring time, never get ahead of it. Never go in front of the bear, or if the bear is up on the hill and you're down here, you get the heck away, because the bear will turn to a ball and just roll right down to you. That's how they'll, that's how they get away, some of

*them, fast, they turn into a ball if they're on a hill, they just roll down.*³⁸⁷

The best place to aim for most bears is through the ribs into the heart.³⁸⁸ They may also be shot in the neck or head.³⁸⁹ A very fat bear should be shot in the neck, as the fat may deflect a bullet from all but a large firearm.³⁹⁰ Elders have said that if a person is being attacked, the best place to aim is the left arm, which is the dominant strong arm used to hunt and harvest berries.³⁹¹ If you are close to a grizzly bear either due to an attack or you've already shot it once, the best course of action is to shoot it again under the arm.³⁹²

Grizzly bears fighting other grizzlies

During the mating season, male grizzly bears fight and sometimes kill each other, although this is rare as one will usually run off.³⁹³ Grizzly bears also fight over resources such as fish.³⁹⁴ Occasionally though, death may result;

I've seen ... in the foothills, when I go around and pick berries, I see one place where they fight and tear at the ground. That's at the foot of the mountains, you know. I was scared. I was alone walking around, hunting rabbits and I got scared so I just sneaked away. Right where I come from. It's dangerous and they have big feet. ... they killed one another. There was fur and

³⁸⁷ Eddie Greenland GTK 2012-3

³⁸⁸ Eddie Greenland GTK 2012-3

³⁸⁹ Elizabeth Greenland GEKP 1996-7

³⁹⁰ Thomas Mitchell GEKP 1996-7

³⁹¹ Ernest Vittrekwa GTK 2012-3

³⁹² Robert Alexie Sr. GTK 2012-3

³⁹³ Abe Wilson GTK 2012-3, Abe Peterson GTK 2012-3, Eddie Greenland GTK 2012-3

³⁹⁴ Steering Committee meeting March 26, 2014.

³⁸⁵ Robert Alexie Sr., Woody Elias GTK 2012-3, William Teya GEKP 1996-7, also others

³⁸⁶ Eddy McLeod GTK 2012-3

*everything, the skeleton, everything there. But the worms ate it up. It was just piled up.*³⁹⁵

Predation on grizzly cubs

A wolverine might be able to kill a grizzly cub if the mother were not around, or if the cub had wandered off.³⁹⁶ Many interviewees indicated that adult male grizzlies are also known to kill cubs, which is why mother bears are so protective over them. The mother bear will keep the cubs away from other grizzlies, although in some areas they can be quite close together – **“actually, I’ve seen it before, within less than a mile radius, there were seven bears. Females with cubs and big, big, big bears.”**³⁹⁷ A male grizzly can smell the cubs from some distance.³⁹⁸

Grizzly bears and black bears

According to old timers, the mountains are considered to be grizzly territory, and if a black bear comes into the mountains, then a grizzly would kill it or chase it away (unless there are no grizzlies around).³⁹⁹ Black bears do live low on the slopes, and have been seen as far into the mountains as around Eagle Plains.⁴⁰⁰ The grizzly bears can smell black bears.⁴⁰¹ However, grizzlies and black bears do live together in the Mackenzie Delta. Grizzly tracks and black bear tracks have been spotted in the same

areas.⁴⁰² There were different views on the number of black bears in the Delta – some hunters felt there were quite a few black bears in the Delta, but some felt there were not many.⁴⁰³

Grizzlies and black bears also share habitat in the Tsiigehtchic area, north and east of the Mackenzie River/Delta and up the Arctic Red River.⁴⁰⁴ However, the increase in grizzly bears between Fort McPherson and Tsiigehtchic and around Tsiigehtchic has caused a decrease in black bears in the same area.⁴⁰⁵ **“Long time ago, we used to, every little trip you make, you see black bear. Now [there’s] nothing.”**⁴⁰⁶



John Norbert in Training Centre in Tsiigehtchic, 2012.

Photo: J. Edwards, GRRB

³⁹⁵ Mary Kendi DSGBW 2006-11

³⁹⁶ Aklavik Hunter GTK 2012-3

³⁹⁷ Dale Semple DSGBW 2006-11

³⁹⁸ Abe Peterson GTK 2012-3

³⁹⁹ Walter Alexie GTK 2012-3

⁴⁰⁰ Eddie Greenland GTK 2012-3, Wildlife Management, Department of Resources, Wildlife and Economic Development 2003b

⁴⁰¹ Abe Peterson GTK 2012-3

⁴⁰² William Modeste GTK 2012-3

⁴⁰³ Abe Peterson, Abe Wilson GTK 2012-3

⁴⁰⁴ John Norbert GTK 2012-3

⁴⁰⁵ George Niditchie and Noel Andre GTK 2012-3

⁴⁰⁶ Noel Andre GTK 2012-3

Grizzly bears and wolves

Grizzly bears and wolves both predate on the Porcupine Caribou Herd and an increase in wolves has been noted. Wolves and grizzlies can both hunt in the same area without issue.⁴⁰⁷ However, grizzlies and wolves may occasionally fight, and the bears are the usual victor.⁴⁰⁸ Wolves may scavenge carcasses when a grizzly leaves.⁴⁰⁹ Grizzlies, among other carnivores like foxes and wolverines, may also scavenge from wolf kills around the caribou herd.⁴¹⁰

Wolves in a pack have been known to kill a grizzly bear as shown by the following stories:

*[The] only one I hear is wolf. Wolf is the only one that kills him. Otherwise, nothing bothers him. [They can] kill anything, wolves. My dad travel lots around the coast. He say one year, right on top the hill, two wolves killing grizzly bear down there. Chew up all his legs and then grab ... him by the throat and then just throw it right off. And that's how they got him. ... they eat that. The wolves kill anything [they will] eat it. They don't kill it for nothing.*⁴¹¹

A single wolf could not kill a grizzly, it would have to be a several or more.⁴¹² Two wolves were seen killing a grizzly bear in the Yukon by Woody Elias' father. One wolf herded the bear towards the other wolf that was hiding. When the bear was close enough, the hidden wolf jumped out and

grabbed the bear's snout, and the other wolf attacked from the rear. The grizzly died from lack of air.⁴¹³ Wolves are also known to bite the ankles of the grizzly to cripple it and then attack.⁴¹⁴ Wolves may hunt grizzlies if they are hungry.⁴¹⁵ Grizzlies can be chased off a carcass by a pack of wolves.⁴¹⁶

*I have seen one wolf one time running from a grizzly bear. A grizzly bear was chasing it. And the wolf was limping. I think they were fighting over a caribou, because the grizzly bear was carrying a caribou in his mouth, one whole one, and the wolf was running away from it.*⁴¹⁷

Other interactions

A porcupine may be able to kill a grizzly bear. **"I heard ... a story [and] I believe it too [where a] grizzly bear got killed by a porcupine. Well this is an old story, he went and met this old porcupine. I don't know, he just gave him a big slap and [the grizzly didn't] know what happened, [so] the other side he gave him big slap too, [and then the bear] bit it. And that's the end of it there. Quills ... killed the grizzly bear."**⁴¹⁸

In the early 2000s, a grizzly bear reportedly killed a polar bear and consumed a part of the carcass.⁴¹⁹

⁴⁰⁷ Abe Peterson GTK 2012-3

⁴⁰⁸ Billy Wilson DSGBW 2006-11

⁴⁰⁹ Eddie Greenland GTK 2012-3

⁴¹⁰ Ernest Vittrekwa GTK 2012-3

⁴¹¹ George Niditchie GTK 2012-3

⁴¹² Walter Alexie GTK 2012-3

⁴¹³ Woody Elias GTK 2012-3, similar story from William Teya GEKP 1996-7

⁴¹⁴ Antoine Andre GEKP 1996-7

⁴¹⁵ Peter Francis DSGBW 2006-11

⁴¹⁶ Abe Peterson DSGBW 2006-11

⁴¹⁷ Lloyd Nerysoo DSGBW 2006-11

⁴¹⁸ Robert Alexie Sr. GTK 2012-3

⁴¹⁹ Lloyd Nerysoo DSGBW 2006-11

Grizzlies may sit beside the entrance to a beaver house, and when the beaver emerges, the grizzly will grab it and kill it. Grizzlies may also dig up a beaver house to get at the beaver inside.⁴²⁰

Distribution

Interviewees agreed that grizzly bears are seen all over the Richardson Mountains (they are seen particularly often around the NWT-Yukon border on the Dempster Highway) and Mackenzie Delta. They're seen commonly around Black Mountain near Aklavik and Cache Creek, and north to the coast, south throughout the Rat River watershed to the Rock River area, all the way to Ogilvie River. They're seen in the Travaillant Lake watershed, and around the Kugaluk, Wolverine, Arctic Red and Anderson rivers (see Range Maps, below). Most interviewees indicated that there are no areas in the Gwich'in Settlement area where grizzlies have either appeared or disappeared over their lifetimes.

When asked about a large number of grizzlies in the front ranges, Aklavik Elder Charlie Stewart indicated that it is food supply and openness that keeps the bears in this area, **“there's more feed up there. They can see long ways ahead of them. They see wolves or anything else around there, well they spot them right away.”**⁴²¹

However, grizzly bear distribution or range is changing to the north in the Inuvialuit Settlement Area. Grizzlies appear to be increasing in population and moving north, possibly crossing ocean ice and even

interbreeding with polar bears.⁴²² Grizzlies are already common on the Arctic coast - one hunter saw four bears in the Shingle Point/Blow River area just before freeze-up in 2011. People are saying that grizzlies are learning to hunt seals, and have been shot on the sea ice.⁴²³ The warmer temperatures in the summer may be driving grizzlies further north.⁴²⁴

There are more grizzlies in the Richardson Mountains than in the Mackenzie Delta.⁴²⁵ As noted in the Habitat use and requirements section above, grizzlies are often encountered in the mountains, in particular in an area well-used by Aklavik and Fort McPherson hunters extending from Black Mountain to the Rat River watershed including Sheep Creek and Big Eddy, and further south to the Dempster Highway. Many interviewees mentioned how Black Mountain is known in particular for having grizzlies, perhaps due to the open areas and abundance of berries. **“Big flat there, Black Mountain. ...there were about 11 grizzlies... eating berries.”**⁴²⁶

Grizzly bears are often seen around the NWT-Yukon border on the Dempster Highway from June to September.⁴²⁷ Even when they are not following the caribou herds, they find ground squirrels and berries in the area.⁴²⁸

⁴²² Aklavik Hunter, Abe Wilson, Ernest Vittrekwa GTK 2012-3

⁴²³ Eddy McLeod GTK 2012-3

⁴²⁴ Woody Elias GTK 2012-3

⁴²⁵ Eddie Greenland, Eddy McLeod, Walter Alexie GTK 2012-3, John Carmichael DSGBW 2006-11

⁴²⁶ Abe Stewart DSGBW 2006-11

⁴²⁷ Ernest Vittrekwa GTK 2012-3

⁴²⁸ Abe Peterson GTK 2012-3

⁴²⁰ Antoine Andre GEKP 1996-7

⁴²¹ Charlie Stewart DSGBW 2006-11



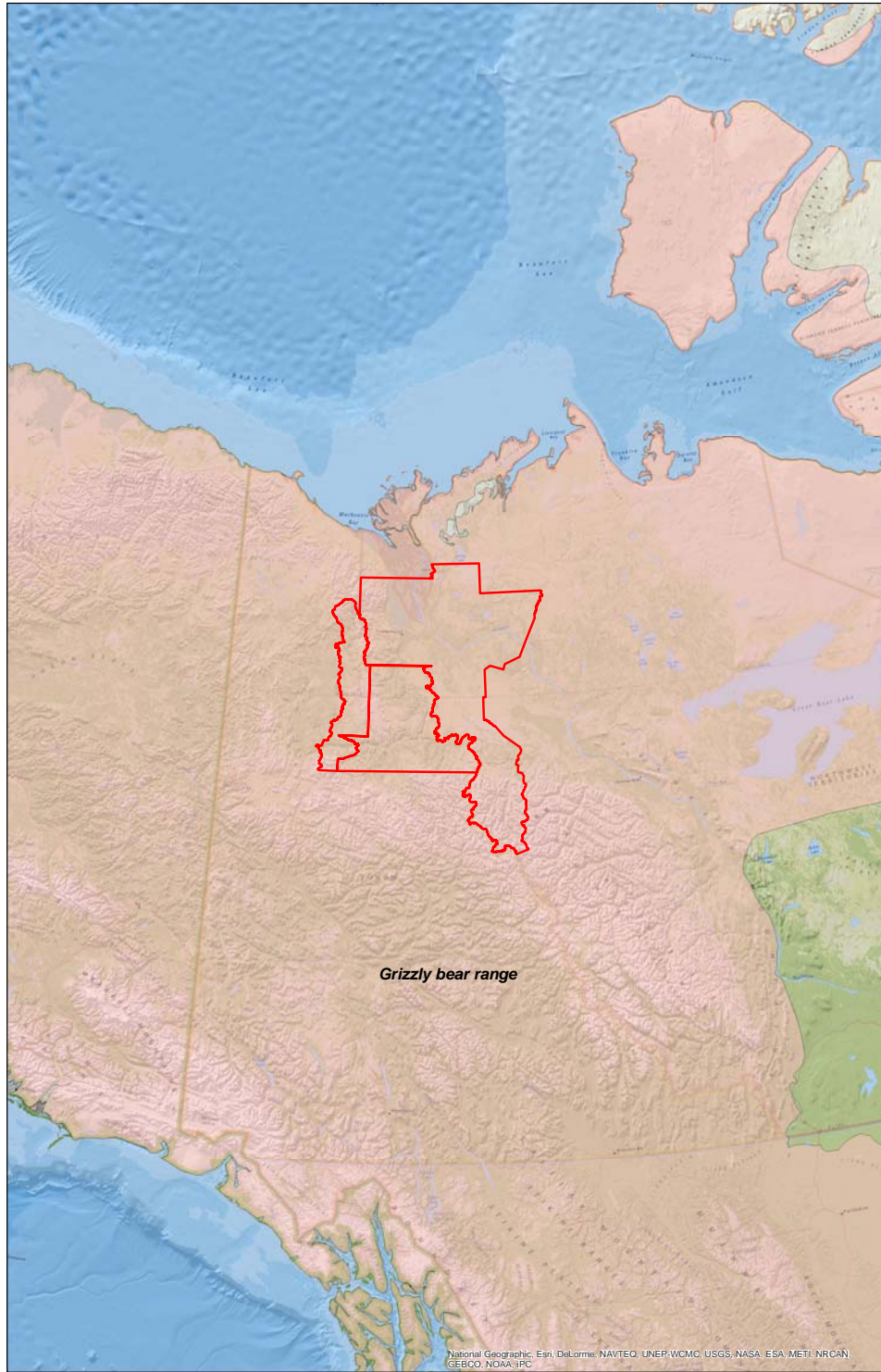


Figure 4. Grizzly Bear Range Map⁴²⁹

⁴²⁹ ENR. 2012 Grizzly Shapefile map. GNWT, ENR, Yellowknife, NT



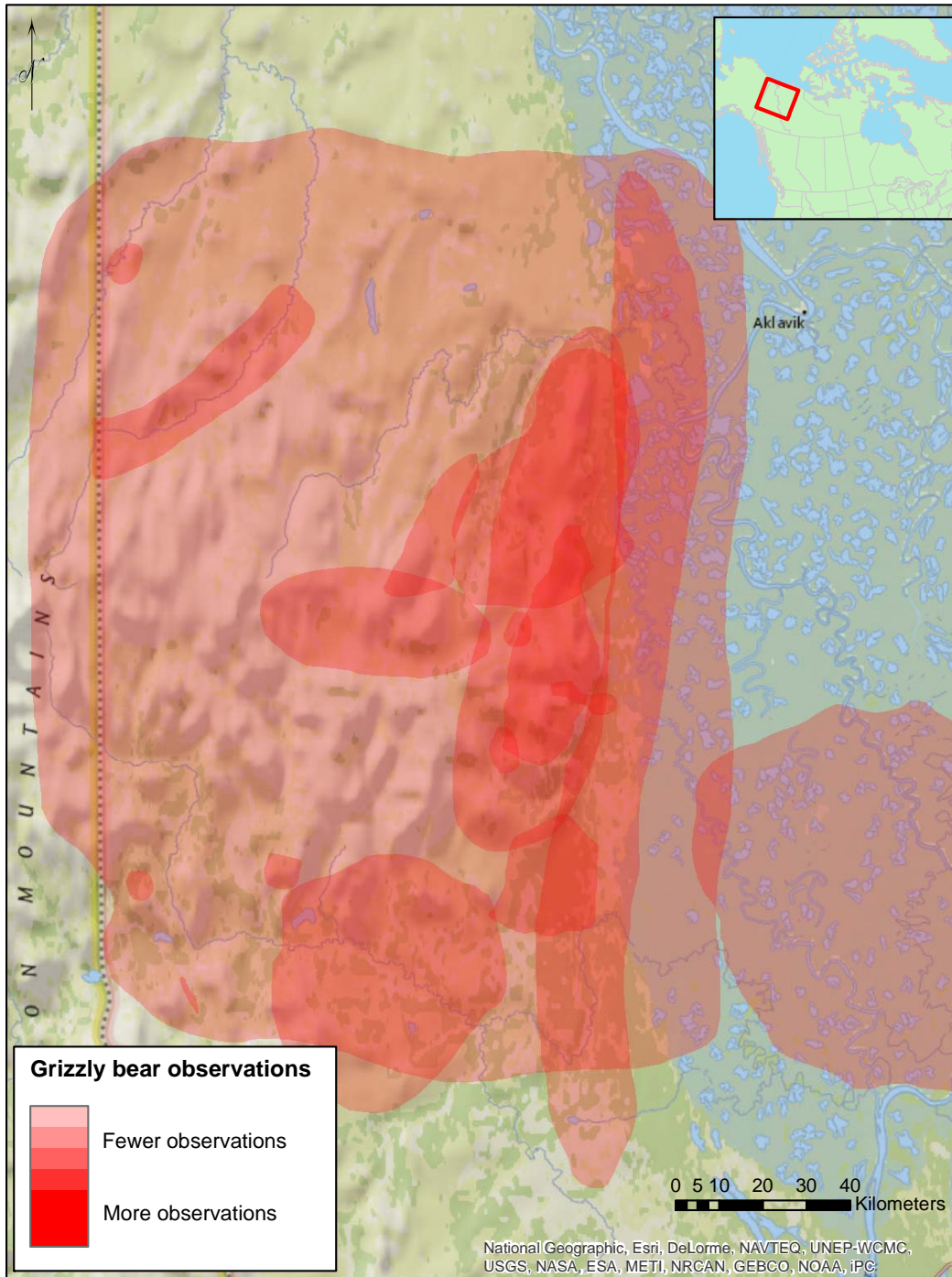


Figure 5. Gwich'in Grizzly Bear Observations⁴³⁰

⁴³⁰ Gwich'in Social and Cultural Institute TK/TLU Database, largely from Lambert 2012.



Grizzlies are also often seen during the May goose hunt around Point Separation and a Fort McPherson trapper has seen them between Fort McPherson and Tsiigehtchic during the spring when he's trapping beavers.⁴³¹

Grizzlies are also common around the Kugaluk River, as shown by William Modeste who has seen grizzly tracks along the bank of the river from his cabin all the way down the length of the river.⁴³² **"Because it's their hunting ground, you know. They come up the Kugaluk River and go down in all these places, and there's fish all through, and they fish there in the summer time."**⁴³³ Grizzlies are also present around the Wolverine River and Anderson River.⁴³⁴

As noted in the Physical Description section above, there may be fewer grizzly bears, and in particular, fewer large male grizzlies, immediately around Aklavik due to hunting pressure. The smaller bears seen are likely younger bears.⁴³⁵ Further in the mountains where people are less likely to travel, there are more. People have not been making a trail into the mountains in recent years due to the lack of Porcupine Caribou in the area.⁴³⁶ The lack of large grizzly bears may be impacting people's ability to hunt, as indicated by returned tags. **"I don't know if there's less [grizzly bears around], but I know from work, they used to fill all the**

tags all the time. But now, even the Inuvialuit are returning tags. Usually, they fill theirs right away."⁴³⁷

Grizzlies are not often seen up the Arctic Red River, "You don't see them on that way... They're always close to the highway, that's where you see them."⁴³⁸ The bears may be following the Dempster Highway out of the mountains, and are more often seen between Fort McPherson and Tsiigehtchic.⁴³⁹ Earlier interviews (in 1996-97) indicated that grizzlies were rarely seen around Tsiigehtchic during that time.⁴⁴⁰ It is likely that there were always grizzly bears in the area at least to some degree though, and the highway is allowing the bears to be seen more often.⁴⁴¹

Grizzlies aren't common around Travailant Lake, although they are seen.⁴⁴² There are also bears up the Mackenzie River from Tsiigehtchic – at least four have been killed around Tree River.⁴⁴³ There are also bears in the Wolverine River area.⁴⁴⁴

Changes to food supply, for example, berry availability, can cause a shift in grizzly bear distribution. Some years the berry crop is better in the mountains, some years it is better in the Delta – the bears may shift to accommodate these changes as berries are a very important food resource for grizzlies.⁴⁴⁵ Caribou and ground squirrels

⁴³¹ Eddy McLeod GTK 2012-3, Ernest Vittrekwa GTK 2012-3

⁴³² William Modeste GTK 2012-3

⁴³³ John Norbert GTK 2012-3

⁴³⁴ William Modeste GTK 2012-3

⁴³⁵ Ryan McLeod DSGBW 2006-11

⁴³⁶ Eddy McLeod GTK 2012-3

⁴³⁷ Ian McLeod DSGBW 2006-11

⁴³⁸ George Niditchie GTK 2012-3

⁴³⁹ George Niditchie GTK 2012-3

⁴⁴⁰ Gabe Andre GEKP 1996-7

⁴⁴¹ Fort McPherson verification session

⁴⁴² George Niditchie, William Modeste GTK 2012-3

⁴⁴³ Gabe Andre GEKP 1996-7

⁴⁴⁴ William Modeste GTK 2012-3

⁴⁴⁵ Eddy McLeod GTK 2012-3



(both important food sources for the grizzly bear) also eat berries.⁴⁴⁶

Population size and trend

There have been several population declines noted by interviewees. Long ago (perhaps in the 1940s, 1950s,⁴⁴⁷ 1960s⁴⁴⁸), there were fewer grizzly bears, relating to a period of scarcity of moose and caribou.⁴⁴⁹ Another change in grizzly population may relate to when skidoos became affordable in the late 1960s or so, which allow easier access to spring hunting areas – “...before skidoos came in... there were quite a bit of bears.”⁴⁵⁰

Grizzly populations also dropped in the 1980s-1990s, and possibly as late as the early 2000s.⁴⁵¹ Many interviewees indicated this drop was due to hunting pressure. It may have also related to the opening of the Dempster Highway.⁴⁵² At that point, there was no tag system in place. One winter in Aklavik, when the price for the skins was high, hunters harvested many grizzlies.⁴⁵³ When the population dropped, a management plan with a tag system was implemented, and the population recovered and is now stable, or even rising.⁴⁵⁴ In the mid-90s, the population around Summit Lake near the headwaters of the Rat River was up – John Carmichael felt that perhaps the grizzlies

had moved from the front ranges back further in the mountains.⁴⁵⁵



John Carmichael in his home in Aklavik, 2007.
Photo: K. Callaghan, GRRB

There were some interesting differences in the 2006 and 2012 interviews: many interviewees in 2012 felt that the population of grizzly bears was increasing or high. This may be because the Porcupine Caribou Herd was closer to the community at that time. In 2006, several interviewees indicated that although in general the bear population was good or increasing, there was a noticeable lack of grizzly bears due to the migration path of the Porcupine Caribou Herd which was further away from Fort McPherson at that time. The grizzlies may have focussed more on moose in the Delta during that time.⁴⁵⁶

Many interviewees felt that the grizzly population was stable or increasing. In particular, the area around the Yukon-NWT border on the Dempster Highway has seen

⁴⁴⁶ Woody Elias GTK 2012-3

⁴⁴⁷ Freddie Greenland, Peter Francis DSGBW 2006-11

⁴⁴⁸ Abe Peterson DSGBW 2006-11

⁴⁴⁹ Abe Peterson GTK 2012-3

⁴⁵⁰ Eddie Greenland DSGBW 2006-11

⁴⁵¹ Lloyd Nerysoo DSGBW 2006-11

⁴⁵² Glen Alexie DSGBW 2006-11

⁴⁵³ Freddie Greenland DSGBW 2006-11

⁴⁵⁴ Eddie Greenland, William Modeste GTK 2012-3

⁴⁵⁵ John Carmichael DSGBW 2006-11

⁴⁵⁶ Peter James Kay DSGBW 2006-11

an increase in bear population, and it is worrisome.⁴⁵⁷ Some interviewees felt that there are 'too many' grizzly bears now, especially those following or hunting the caribou herds, and related to the introduction of the tag system.⁴⁵⁸ Some interviewees felt it may be time to re-assess the tags. In particular, the short period of time a hunter is allowed to kill a grizzly after obtaining a tag (they must go hunting within two days) is an issue for people who spend longer periods of time undertaking traditional activities on the land.⁴⁵⁹ One interviewee felt the population of grizzlies was in fact declining.⁴⁶⁰

Interviewees agreed that grizzly bears do not seem to have a population cycle, like rabbits and lynx have. Ground squirrels, an important source of food for the bears, do not seem to cycle either.⁴⁶¹

There may be more silver-tip or old grizzlies in the mountains around Fort McPherson.⁴⁶² However, there are fewer grizzly bears in general in that area, during years when the caribou herd does not migrate nearby.⁴⁶³

There may be an increasing population in the Mackenzie Delta and around Tsiigehtchic in recent years. Although grizzlies have always been in the Delta, they used to be much scarcer than they are

now.⁴⁶⁴ This may relate to changing land-use patterns in the Delta and other areas in the Gwich'in Settlement Area. In the past, there was a camp every five miles, and people staying out in their camps more often and for longer stretches. Often the camps would have to kill a bear in the spring if one was trying to take food from the camp. Since the camps are not being used as much, the grizzly population in some areas is increasing.⁴⁶⁵ However, there are still considered to be fewer grizzly bears in the Delta than the mountains.⁴⁶⁶ As noted in the Habitat use and requirements section and the Distribution section above, grizzlies are also increasing their population and range northward along the Arctic coast.

Grizzly bears may continue to increase in population over the next decade if they are not hunted.⁴⁶⁷

It is difficult to compare grizzly bear population today with the population from long ago, due to the differences in travel and lifestyle. People can now travel very quickly using skidoos and outboard motors, and see a lot more of the country very quickly.⁴⁶⁸

Limiting factors and threats

Hunting has, in the past, been the main limiting factor for grizzlies. Hunting is now controlled through a tag system under a management plan, and at this time, hunting does not pose a threat. Hunting still affects grizzlies in the area immediately around

⁴⁵⁷ Steering Committee meeting, March 26, 2014.

⁴⁵⁸ Abe Peterson, Ernest Vittrekwa, John Norbert GTK 2012-3

⁴⁵⁹ Billy Wilson DSGBW 2006-11

⁴⁶⁰ Freddy Furlong GTK 2012-3

⁴⁶¹ Eddy McLeod GTK 2012-3

⁴⁶² Ernest Vittrekwa GTK 2012-3

⁴⁶³ Abe Peterson GTK 2012-3

⁴⁶⁴ Eddy McLeod, John Norbert GTK 2012-3

⁴⁶⁵ Eddy McLeod, John Norbert GTK 2012-3

⁴⁶⁶ Johnny Charlie DSGBW 2006-11

⁴⁶⁷ Abe Peterson, George Niditchie GTK 2012-3

⁴⁶⁸ William Modeste GTK 2012-3

Aklavik into the mountains, where access is easier for hunters. One hunter felt that a size restriction on hunting tags may help the bears around Aklavik to 'size up' to the large bears that were historically found there.⁴⁶⁹ Additionally, a winter trail from Aklavik into the mountains for caribou hunting has not been set in recent years due to a lack of Porcupine Caribou in the area. When the caribou herd returns, a trail may again be used, which may alter where people hunt.⁴⁷⁰ As hunting is now controlled, shooting bears for protection of life and property is the next largest threat, especially as grizzlies are becoming bolder with hunters.⁴⁷¹



Walter Alexie in Band Office in Fort McPherson, 2012.

Photo: J. Edwards, GRRB

⁴⁶⁹ Ryan McLeod DSGBW 2006-11

⁴⁷⁰ Eddy McLeod GTK 2012-3

⁴⁷¹ Walter Alexie GTK 2012-3

Grizzly bears do not find roads, even busy roads like the Dempster Highway, or large rivers to be a barrier to movement, nor do they prevent the bears from using an area.⁴⁷² Some interviewees felt that human activity and noise may not prevent a grizzly from moving through an area, but they will likely not stay if there is, for example, a loud generator.

Some interviewees felt that noises would not bother a grizzly bear, and pointed out that they are known to habituate to being around a town. Hunting noise (and possibly even other human noises) may actually attract a bear to an area (see Interactions section above).⁴⁷³ One bear, in poor shape in the fall time, returned to a camp after being hit non-fatally with a bullet.⁴⁷⁴ However, bears may be spooked by some engine noises, such as skidoos, or planes.⁴⁷⁵

Grizzlies, along with other animals such as moose and sheep, took decades to get used to the highway. Seeing these animals close to or on the road is a relatively recent phenomenon and the road has been open to Fort McPherson since the late 1970s.⁴⁷⁶ Interviewees did not feel that vehicles struck and killed grizzly bears.⁴⁷⁷

Forest fires will cause grizzly bears to leave an area. When they see the smoke from the fire, they leave the area, especially if they have young ones to protect.⁴⁷⁸ The

⁴⁷² Aklavik Hunter, Abe Wilson GTK 2012-3

⁴⁷³ Eddy McLeod, George Niditchie GTK 2012-3

⁴⁷⁴ Robert Alexie Sr. DSGBW 2006-11

⁴⁷⁵ Freddy Furlong GTK 2012-3

⁴⁷⁶ Robert Alexie Sr. GTK 2012-3

⁴⁷⁷ Abe Peterson, Abe Wilson GTK 2012-3

⁴⁷⁸ Antoine Andre GEKP 1996-7

bears may return when vegetation grows, possibly as soon as a year after the fire, but likely a few years for some vegetation, and more for fish stocks. Fires destroy the bear's food, including vegetation and even fish stocks can be affected.⁴⁷⁹ **"It take a few years, because there [will] be no ground squirrels, and no berries, and no roots. A lot of times they eat leaves too you know, just like moose."**⁴⁸⁰ Elders indicated that bear tracks are not seen in an area where a forest fire has recently burned.⁴⁸¹



Abe Wilson in Fort McPherson, 2013.

Photo: D. Firth, GRRB

A lack of caribou is considered to be a possible threat for grizzlies.⁴⁸² A lack of berries is also hard on them – a bad berry year came once when a bad snowstorm

occurred in June.⁴⁸³ Some interviewees felt starvation was a major threat to grizzlies.⁴⁸⁴

Flooding events in the Mackenzie Delta may have reduced the number of bears in the last several years – there seems to be fewer and they might have drowned, or moved into the mountains. The flooding may have also reduced the grizzlies' food supply, and they could have starved.⁴⁸⁵

With fewer people living out on the land than in the past, there is a need for further studies on grizzly bears to understand their populations.⁴⁸⁶

A grizzly bear was shot east of Tsiigehtchic one year that had a festering wound from an ear tag. The animal had been tagged around Tuktoyaktuk. The wound had made the bear 'crazy.'⁴⁸⁷

Male grizzlies may kill cubs in the spring when they come upon them, which could affect the population levels.⁴⁸⁸

Animal Health

Grizzlies have a nice coat when they emerge from their dens in May, although they may be in poorer shape at that time until they start eating well again.⁴⁸⁹ Their coat shows how healthy the animal is – a nice shiny coat means the bear is healthy. An 'ugly'

⁴⁷⁹ Aklavik Hunter, Eddy McLeod, John Norbert GTK 2012-3

⁴⁸⁰ Gabe Andre GEKP 1996-7

⁴⁸¹ George Niditchie GTK 2012-3

⁴⁸² Aklavik Hunter GTK 2012-3

⁴⁸³ Robert Alexie Sr. GTK 2012-3

⁴⁸⁴ Lloyd Nerysoo DSGBW 2006-11

⁴⁸⁵ Abe Peterson GTK 2012-3, Fort McPherson verification session

⁴⁸⁶ John Norbert GTK 2012-3

⁴⁸⁷ Nap Norbert GEKP 1996-7

⁴⁸⁸ Eddie Greenland DSGBW 2006-11

⁴⁸⁹ Abe Peterson, Eddie Greenland GTK 2012-3

coat means it is not healthy.⁴⁹⁰ Skinny bears may be hungry, or sick.⁴⁹¹

Grizzly bears are, in general, a healthy animal.⁴⁹² Bears in the Delta and in the mountains are equally healthy. In the mountains, the bears have access to ground squirrels, berries, and hunting opportunities. In the Delta, the bears have good access to fish and berries as well.⁴⁹³

Ernest Vittrekwa once saw an infection, a large deep cyst in the muscle of a grizzly bear.⁴⁹⁴ Bears may also get injured in fights. **“I have seen one limping, probably from fighting.”**⁴⁹⁵

Alfred Semple indicated that old bears may starve due to poor teeth and an inability to provide for themselves. He once shot a bear that was stealing from a cache. The bear’s stomach was empty except for the fish it had taken, not even berries were present. The bear had no hair on its belly and was obviously not healthy. It had no fat, and ‘no teeth.’ It would have likely died soon.⁴⁹⁶ Another time, a poor bear was seen – **“it was really skinny like you could see its ribs right through the fur. It looked older. It must be of something stopping him from eating like maybe something wrong with its teeth or its jaw or something.”**⁴⁹⁷

Grizzlies, along with all other animals, also have internal parasites,

*But all these animals that you talk about, the grizzly bears and the wolves. You got to be careful when you handle them, ‘cause they have worms. ...Like the tapeworms that live in the feces, in scats. And if you step on them, dust comes to the air. You can breathe that.*⁴⁹⁸

Old age may be the most important health issue for bears. **“Lots of them are old too, just barely getting by.... Oh, they get so old. They get kind of desperate.”**⁴⁹⁹

Changes to the land

Climate change may be impacting grizzlies. Freeze up is much later than it used to be, for example, in 2012 it was around two weeks late.⁵⁰⁰ If the grizzly comes out of the den too early due to warm weather, there may be no food available if the ground squirrels are not out and the roots are still frozen into the earth.⁵⁰¹ The increase in heat in the summers may also affect grizzlies.⁵⁰² Warmer weather in the fall allows grizzlies to stay out of their dens for a few more weeks – rivers and lakes stay open longer. This may be contributing to the increase in grizzly bear populations.⁵⁰³ As grizzlies are generalists in their eating habits, they may find it easier than some animals to adapt to changes in the land due

⁴⁹⁰ George Niditchie GTK 2012-3

⁴⁹¹ William Modeste GTK 2012-3

⁴⁹² Eddy McLeod GTK 2012-3

⁴⁹³ Eddie Greenland GTK 2012-3

⁴⁹⁴ Ernest Vittrekwa GTK 2012-3

⁴⁹⁵ Lloyd Nerysoo DSGBW 2006-11

⁴⁹⁶ Alfred Semple DSGBW 2006-11

⁴⁹⁷ Ryan McLeod DSGBW 2006-11

⁴⁹⁸ Johnny Charlie DSGBW 2006-11

⁴⁹⁹ Charlie Stewart DSGBW 2006-11

⁵⁰⁰ Aklavik Hunter GTK 2012-3

⁵⁰¹ Eddie Greenland GTK 2012-3

⁵⁰² Abe Peterson GTK 2012-3

⁵⁰³ Abe Wilson GTK 2012-3

to warming temperature.⁵⁰⁴ However, changes to vegetation and mud slides into creeks may negatively impact grizzlies, as may changes that negatively affect caribou populations.⁵⁰⁵ For example, a particularly rainy year and warm spring with a quick melt caused changes in the creek beds and banks:

*That big rain last summer really [messed] up all the creeks too. The creeks were really awful to travel on, full of rocks. Even at Willow River, at the mouth, was all washed out... If the banks are all washed out, [grizzly bears] probably can't find routes [to travel along] anymore. It's just straight rock now in the creek. There would be no fresh roots to dig.*⁵⁰⁶

A major change to the landscape has been the growth of brushy areas and increase in willows. Some brushy patches are practically impenetrable – people on snowshoes cannot pass through them, nor can moose, or grizzlies.⁵⁰⁷

Protection

The grizzly bear management plan is protecting the grizzly population. If the plan and tag system stays in place, the population should remain stable.⁵⁰⁸ Not all interviewees agreed with the management plan. Some felt that it interfered with hunting rights, and that allowing an animal to reproduce without being hunted could

produce an over-population of that animal.⁵⁰⁹

However, most agreed that the plan was protecting grizzly bears from the higher harvests that were happening before it was implemented. **“Before they put the quota, you’d just go and shoot three or four bears and get your money.”**⁵¹⁰

⁵⁰⁴ Abe Peterson, Eddie Greenland, William Modeste GTK 2012-3

⁵⁰⁵ Eddie Greenland, Ernest Vittrekwa GTK 2012-3

⁵⁰⁶ Ian McLeod DSGBW 2006-11

⁵⁰⁷ Walter Alexie GTK 2012-3

⁵⁰⁸ Eddie Greenland, Robert Alexie Sr. GTK 2012-3

⁵⁰⁹ Woody Elias GTK 2012-3

⁵¹⁰ Eddie Greenland DSGBW 2006-11



Credits: Interviewees

This report was possible due to the knowledge and generosity of the interviewees in various projects.

Mahsi' choo.

Gwich'in Knowledge of Grizzly Bears 2012-2013:

- Robert Alexie Sr.
- Walter Alexie
- Noel Andre
- Woody Elias
- Freddie Furlong
- Eddie Greenland
- Eddy McLeod
- William Modeste
- George Niditchie Sr.
- John Norbert
- Abe Peterson
- Ernest Vittrekwa
- Abe Wilson

Grizzly Interviewees, Gwich'in Environmental Knowledge Study 1996-1997:

- Antoine Andre (D⁵¹¹)
- Gabe Andre
- Mabel English
- Malcolm Firth (D)
- Elizabeth Greenland
- Catherine Mitchell (D)
- Thomas Mitchell (D)
- William Teya (D)

Dall Sheep, Grizzly Bear and Wolf Project – 2006-2011:

- Glen Alexie
- Robert Alexie Sr.
- Donald Aviugana
- John Carmichael
- Johnny Charlie
- Woody Elias
- Peter Francis
- Eddie Greenland
- Patrick Gordon
- Freddie Greenland
- Archie Jerome
- Peter James Kay
- Mary Kendi
- Ian McLeod
- Ryan McLeod
- Abraham Peterson
- Alfred Semple (D)
- Dale Semple
- Abe Stewart Sr.
- Charlie Stewart
- Ernest Vittrekwa
- Billy Wilson

⁵¹¹ (D) – Deceased.



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Gwich'in Environmental Knowledge Project (GEKP) – 1996-7. Traditional knowledge study conducted by the Gwich'in Renewable Resources Board. Transcripts on file: Gwich'in Social and Cultural Institute.

Dall Sheep, Grizzly Bear and Wolf Project – 2006-2011. Traditional knowledge study conducted by the Gwich'in Renewable Resources Board. Transcripts on file: Gwich'in Social and Cultural Institute.

Appendix A informed consent statement

Gwich'in Traditional Knowledge of Species at Risk 2012-2014

Interviewee: _____

Date: _____

Community: _____

Location: _____

Interviewer(s): _____

Translator: _____

Others Individuals Present: _____

Background

The Gwich'in Renewable Resource Board and the Gwich'in Social and Cultural Institute are interviewing holders of Gwich'in traditional knowledge to gather information that will be used in various species at risk processes. For example, this could include reviewing and providing information for territorial and federal status reports, and creation of plans to help the species at risk. This interview is about

Wolverine Grizzly bear Mountain woodland caribou

Study Goals

The objectives of this study are to collect Gwich'in knowledge about species at risk including observations on the land, special significance, physical description, distribution, habitat, population size and trend, limiting factors and threats, and animal health. This knowledge will benefit the communities in that it will be a permanent record available for future generations and that it will be useful in assessing species at risk, recovery planning, and resource management.

Recording of interview

With your permission, the interview will be recorded and a transcript made. The transcript is a typed record of the interview and is useful for report writing and extracting information later on. The information marked on the maps will be digitized or traced into a computerized mapping system.



Verification of information

The interviews will be transcribed and a summary report will be completed. Following the interview you will receive a copy of the transcript if you wish and will have opportunity to correct any of the information that was recorded. There will be a verification meeting at a later date to go over the TK study results, which will include knowledgeable Gwich'in Elders and harvesters from all Gwich'in communities. Corrections and changes can be made at the meeting.

Language

If you would prefer to be interviewed in Gwich'in, we can arrange for a translator.

YES (I want a translator) NO (I don't want a translator)

Data Storage

Original materials, which may include audio files, written notes, transcripts, translations, maps, videos, and photographs, will be kept at Gwich'in Social and Cultural Institute offices and eventually placed in secure storage at the GSCI's archives in Yellowknife. A copy of the final report will be distributed to each organization identified by the Aurora Research Institute for consultation. Copies of all research materials will be stored on a secure computer at the GRRB office in Inuvik as well.

Use of information

The information collected in the study will be used to write a report that will be distributed to community organizations, each participant if desired, and will be made public.

This summary report may be shared with the Northwest Territories Species at Risk Committee for the creation of Species Status Reports, to the federal Committee on the Status of Endangered Wildlife in Canada (COSEWIC) for their use in assessing species at risk, and to the federal government for use in the recovery planning, among others, so that they can benefit from this knowledge and avoid asking knowledge holders for the same information. In the future, other researchers may be interested in using this information. Access to the original materials will be controlled by the GSCI and GRRB.

Funding

The funding for this study has been provided through a contribution agreement from the Aboriginal Funds for Species at Risk through Environment Canada, with in-kind support from GRRB and GSCI.

Payment

You will be compensated for your time and knowledge at a rate of \$XX. You will be paid by cheque from the GRRB office in Inuvik, and it will be mailed to you within two weeks. An invoice will be filled out at the end of the interview.

Confidentiality



Gwich'in Elders and participants interviewed will have credit in the report for the valuable information they provide. Gwich'in like to know who provided traditional knowledge information and their names on tapes and/or transcripts and final reports will add credibility to the traditional knowledge provided. If confidentiality is requested, then the interviewees name will be removed from the report and they will not receive credit for their information.

Participation

Your participation in this interview is completely voluntary. You have the right to refuse to answer questions you are not comfortable with. You also have the right to stop the interview at any time and withdraw your participation from the study at any time, even after the interview is complete.

You do not have to answer any questions you do not want to, and you can stop the interview at any time.

May we interview you for this report? YES NO [INTERVIEW ENDS]

Do you wish to be given credit for the information you provide? That is, have your name in the report? If not, confidentiality of your name is ensured.

- I want to be acknowledged specifically (such as at the end of quotes).
- I want to be acknowledged generally: my name will not be associated with specific comments but I will be acknowledged as a contributor.
- I do not want my name used or associated with the information I give or included in the report; I want to remain anonymous.

May we record this interview for the report and for future generations to use?

- YES NO

May we take your photo for use in this report and other GSCI or GRRB materials?

- YES NO

Would you like a copy of the taped interview on CD?

- YES NO

Would you like a copy of the transcript?

- YES NO

By signing below, you give informed consent for this interview. We respect the choices you made filling this consent form.

Signature of interviewee

X _____



Date: _____

Signature of interviewer(s)

X _____

Date: _____

Contact:

Kristi Benson

Sharon Snowshoe

Amy Thompson



Appendix B Questionnaire

Questionnaire/interview guide for Gwich'in Traditional Knowledge Interviews on Grizzly Bear

Gwich'in Social and Cultural Institute/Gwich'in Renewable Resources Board

[Informed Consent statement reviewed/signed]

What do you generally do out on the land and about how many days or weeks?

Have you seen grizzly bears your whole life? If not, when in general have you seen or not seen them?

There will be a map question later, but in general, where do you usually see grizzlies?

What are you usually doing when you see them?

Can you easily tell if the bear you see are grizzly bears? If so, what makes them distinctive?

Is there a separate name for grizzly bears in Gwich'in? What is it?

-grizzly bear: sheh, shih

-black bear: shoh

Do female bears have a different name?

Do male bears?

Young bears?

Are there any names for grizzly bears which should be recorded?

-young bear/cub: sheh gii; shih gii



-ice-covered bear: atsanh and/or luu tun

How important are grizzly bears to the Gwich'in and why?

How did people used to treat grizzly bears in the past?

How did people used to hunt grizzly bears in the past?

How did people used to take care of their camps and hunting sites in the past?

Mapping Exercise:

Can you mark on this map (fine-scale map of the local area):

- the areas where you spend time on the land, now and in the past? Outline the areas that you know best. If the areas are discreet, indicate how long your experience is in each.
- Mark locations where you have encountered grizzlies. For each location, indicate:
 - What year?
 - What season?
 - What were you doing?
 - Was it you that seen it? If not, who?
 - Did you see a bear itself or bear sign? If so, please describe what you saw
 - Was it a male or female? Cubs?
- Would you consider any areas to be important to grizzly bears during the **summer**? For each location:
 - Why?
- Would you consider any areas important to grizzly during the **spring**?
 - Why?
- Winter?
 - Why?
- Fall or freeze up?
 - Why?
- Have you ever seen a grizzly den? Mark all on map. For each:
 - When did you see it?
 - Was it being used at that time?
 - Is it special or important?
- Mark any areas that you feel are the most important to protect for the long-term survival of grizzly bears



Range Boundaries

The whole GSR is considered to be within grizzly bear range [*show range map*]. In some areas they're considered transient or passing through, in others, they're common. Do you think this is correct?

Was there a time in the past when you couldn't find grizzlies across their whole range?

Are they found everywhere equally across the GSR or are there spots where there are more?

Do you think grizzlies are kept separated from each other because of rivers, roads, poor habitat, or anything like that? Or do their ranges overlap at all? In other words, could different populations become totally separated or do they always mix up?

Behaviour and biology

Habitat Use and requirements

What do grizzly bears eat in the summer? Fall? *Winter*? Spring?

Describe a grizzly bear den –

- Where do grizzlies like to den?
- How do you know it's a grizzly den? What kind of sign?
- Have you ever looked inside it? If so, what did you see?
- Do the bears use anything inside or around the den?
- Are there different types of dens?
- Do they use the same dens year after year?

Are there any landscape features (provide example: hills, woods, caves, valleys) that grizzly bears use? For what, and when?



What sort of area would support a lot of grizzly bears?

Do you think the whole area used by grizzlies is good habitat for them? Or are any areas poorer? If so, why are they using those areas?

Is there anything a grizzly needs to stay healthy, such as a particular plant or mineral? Stream or lake? Food type?

If you consider the plants, animals, and other natural things that a grizzly bear requires to live well, is it likely that grizzly bear populations will change in the future? Why?

Movements

Do grizzlies move around in a particular pattern daily or migrate seasonally? Describe.

Do they move far away from their mothers as they grow?

What stops them from moving freely – for example, open areas or treed areas, roads, mountains?

Do they come together at any time of year, for example, to mate?

Life cycle and reproduction

How old are grizzlies when they first have young ones?

Do you know how long grizzly bears can live?

How many cubs? Do they usually live to be adults?



Any other information about their life cycle? *[have you ever observed cubs with their mothers and can tell us anything about how they grow up]*

What do grizzlies usually die from? Have you seen any carcasses?

Physiology and adaptability

Do any areas have better-fed bears, or under-fed bears? What causes these things?

Can grizzlies tolerate changes to their habitats? If so, how much and what types of changes?

Interactions

How do grizzlies get along with other animals?

Do grizzlies fight with each other?

With any other animals?

Do they hunt? If so, what animals, and at what times?

Can any animal kill a grizzly or a grizzly cub?

Do grizzlies have to compete with any other animals for their food?

Population

What is the population like now? What has made it at its current point – such as management plans, changes in how people hunt, etc.



Does the grizzly bear population have a cycle? If so, is it related to other animals or plants?

Is the population stable? Was there ever a time when there were very few? Way more?

If there were ever changes, what could have caused the changes?

Do grizzly bears look the same as always?

Did you hunt, or hear of anyone hunting, grizzly bears?

Does anyone still hunt them?

Have hunting practises changed, and if so, why?

Does anyone hunt for black bears?

[IF APPROPRIATE] If grizzly bear –people interactions are more likely, is it because the grizzly population is too large? Or is it because people or grizzlies are behaving differently?

Distribution trends

Do grizzlies generally live across their whole range, year after year? Or is there cycles or changes in their range?

If grizzlies became extinct in an area, would you imagine that nearby grizzlies would move in? Do you think the new grizzlies would be different enough that they would find it hard to adapt to life?

If the grizzly were gone from an area for a long time, would the land change in such a way that it would be hard for the grizzly to return? How?



Threats

Habitat

What would make an area no good for grizzlies?

Are there any changes in the land around you which are good for grizzlies?

- Bad for grizzlies?

Forest fires

How do forest fires affect grizzlies?

Do grizzlies return to burned out areas? If yes, how long does it take for them to come back?

What are they doing there?

Industry and Development

Have you observed grizzly bears using or avoiding areas that have been altered by industrial activity or developments? Can you provide specific examples? For example, seismic lines, roads, etc.?

Predation



Are there changes to the number of predators (such as wolves, or lynx) in areas where grizzlies live? How do these effect grizzlies?

If there are any animals that grizzlies rely on for food, are there any changes to those animals? Describe effects on grizzlies.

Grizzly parasites and disease

How can you tell if a bear is healthy, either from a distance or if it's being skinned/butchered?

Have you seen a change in grizzly bear health in your region?

If so, what do you think is the cause?

Noise and light disturbance

Have you observed noise or light disturbance from aircraft, skidoos, ATVs, or industry affecting grizzly bears in your area?

Do you notice areas where it is more of a problem?

Do you have suggestions for how to address this?

Harvesting and traditional practises

[IF APPROPRIATE] Are grizzly bears being shot or killed too often in your area? Describe. If yes, what could be done to stop it?

Are you familiar with the Grizzly Bear Management Plan in the GSA?



How do 'problem' bears come to be? (those that pester people, roads, fish camps, etc, and have to be killed in protection of life and property).

As killing "problem" bears could be very hard on grizzly bear populations, how should young people be taught to avoid creating 'problem' bears?

Are grizzly bears competing with hunters? Why, and how can it be avoided?

Vehicle collisions

Do vehicles strike and kill grizzlies?

Climate change

Have you observed any changes related to climate change such as changes in snow condition, temperature, or rainfall in your area?

If so, have you noticed if these changes have affected grizzly bears or their habitat? How?

Threats - general

Are there any other things that negatively affect grizzly bears that we haven't already discussed?

Which of these threats stand out to you as having the most impact upon grizzly bears?



Are there potential solutions to these threats?

[IF APPROPRIATE] were there any threats to grizzlies in the past that have been resolved, and are no longer a threat? [use peregrine falcon example].

[IF APPROPRIATE] are there any threats that might happen in the next ten years that will affect grizzlies?

Other observations or beneficial practices

Do you know of any traditional Gwich'in conservation practices or activities which would preserve grizzly bears now or in the past?

Has there been anything done by people or governments that have been good for grizzlies, such as the creation of a park, or rules about hunting?

Stories

Do you know any old time stories about grizzly bears?

