

## **Alooloo Kautuq –Clyde River**

Where and when were you born?

Alooloo Kautuq, born at Naqsaalukuluk, near the mouth of Sam Ford Fiord in January 11, 1949.

Can you describe the areas you used to frequent during the different seasons and what you did there?

When you were a child? When you were youth?

When you were a young adult? Now?

I spent my childhood until I became a teenager at Naqsaalukuluk. Just before I became a young man, my father died then we moved to Home Bay. Later on, my mother remarried. We lived at Home Bay for awhile, then we moved to Isabella Bay in 1967 and lived at Aulattivik Island.

In 1969 we moved closer to Clyde River then in 1970, we move to Clyde River. Although we lived at Ailaqtalik and other places near Clyde River area. Because the health of my parents we had move to Clyde River.

We went caribou hunting in fall using Clyde River community boat, the snow did not come for longest time that fall. It usually happen so that when the weather warms up the conditions would change.

Do you think the weather has changed since you were a child?

How has it changed? When did you first notice changing in the weather? Did your parent mention any changes in the weather at any time in their lifetime before you were born and started remembering?

Yes my parents use to talk about the weather changing in fall and winter.

How are changes in weather and surrounding land affecting your activities? What changes have you had to make as a result of these changes?

The climate has changed so that I don't spend more time as I would like too do these days to work outside the house. I spend more time indoors this time even when I have some work outside the house.

## **Temperature**

Have you seen any changes in how warm or cold the weather is

in this area? During which season? Is the temperature the same as it was in the past? Can you remember times when it was extremely hot or extremely cold?

During the cold seasons, the doors and window use to ice up. Today we don't see much of that anymore.

When I was a child when the month of December came, it use to get very cold. Today, warm spells do happen from time to time.

Now its not as cold as before, pieces of ice use to melt sooner and there were fewer mosquitoes and bees then and they seem to be changing in a way.

There use to be cold mist hanging round almost to the point where it was hard to see far, you hardly see that anymore.

### **Weather Patterns**

Is there any change in the amount of rain this area receives? What about snow? Is there any change in the amount of blizzards? What about thunder storms? Has there been any change in the prevailing wind? Has there been any change to the frequency with which the wind blows from different directions?

In the past, I didn't see much of rain in spring, instead, the snow would come down.

When Pauloosie Qaqqasiq, our first Anglican Minister said the he came to a land where it doesn't rain. When he said that, I then realized that it was almost true.

Now we didn't get as much snow as we use to. Clyde River use to get a lot more snow in fact at one time some of the houses were completely covered\_ú where only the chimneys were visible. We drove over them accidentally sometime and some on purpose. We had to go down into the houses through a tunnel with steps.

The blizzards we get seem to be less forceful today than in the past. Some people use go wrong direction in blizzards before.

I have heard about a thunder storm that happened here once. Home Bay use to get more thunder storms.

To me the winds have not changed very much. Although the northwest wind has slightly changed direction and when it comes, it usually fouls up today. The weather has changed and I am able to say that

change of weather happens more frequently these days.

### **Seasonal Changes**

Has the length of any of the Inuktitut seasons changed over time?

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

### **Fresh water Ice**

Have there been any changes to the timing of the freeze up and break up of lakes and rivers in this area? Has the thickness of the ice on fishing lakes changed over time? Does it get thick as it use to? Has there been any change to quality of ice?

As a child, I use to tag along on fishing trips and the lake water ice use to be very thick. Today, its not as thick anymore. People who are chiseling fishing holes use to have to make steps in order to get back out.

### **Sea Ice/Polyna**

Have there been any changes to the timing of the freeze up and break up of the sea ice? Does the ice get thick as it did in the past? Is there any changes in the distance to the flow-edge during different seasons when compared to the past?

The change of ice condition is minimal, although it seems to deteriorate more easily nowadays here in Clyde River.

The snow and sea water mixes while its freezing and we call it "punnirujuk" (similar to lard like mix) and that is why it deteriorate so much easily now. The kind of mix will accumulate down wind blocked by the land.

The sea ice doesn't get as thick as it use to although it differs year-to-year.

Sam Ford Fiord area never have flow edge close by. Home Bay area always had flow edge close to the land. Sam Ford Fiord vicinity had too many icebergs.

### **Terrain/Permafrost**

Is there any evidence of permafrost changing in the area?  
Has there been any change in the wet areas?  
Unusual areas of erosion or areas of accelerated erosion?

Last summer the melted terrain seemed to be deeper because we dug into the ground in order to put up a pole. We didn't even reach the

permafrost although we dug little deeper than we usually do.

Tent rings are now very close to the shoreline now because the waves are the cause of land erosion.

As a child when we travel from the north down by Sajjugiaq (the coastal plain), there use\_b to be point after point. Today when you travel in the same area, there are fewer points from erosion.

The muddy and sandy areas are eroding faster than the rest of the land.

### **Snow**

Is there any changes in the amount or depth of snow that this area is receiving? Are there any seasonal changes in the quality of the snow cover?

The spots where people use to camp and made igloos in Clyde Inlet, the snow conditions have changed. The snow is not the type of snow to build igloos now, it is too hard those days.

The original trail to Home Bay had to be followed just exactly where it is because in other part of the trail, there was no snow in early winter.

### **Wildlife**

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these affects impacting on the hunting fishing and trapping?

It seems like more unusual birds are sited in different parts of this area.

More unusual seals have also been seen at Home Bay area, they said something that looks similar to fur seals.

At Home Bay there is fewer seals these day. In the past, at the flow edge there use to be many, many seals.

The use to be more abundance of caribou among the island and the main land. Now the caribou have moved more inland. They use to travel island-to-island in some years.

### **Fish**

Are fish runs or health affected by changes in climate?

The fish don't seem to change at all.

**Vegetation**

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

The plant seems to be the same we see year-to-year. Arctic hare and ptarmigan use to be fatter before the hard snow settled on to the land.

Polar bears are not as fat as they use to be. The fat in polar bear have seem to change from non greasy like fat to greasy fat.\_á

**Health**

Has there been a change in the health of the community that you attribute to changes in the weather? Has there been a change in the health among the local population?

The only thing I have notice are those who have allergies.

Large size (more mature) polar bears and some walruses have been known to be disease carriers where sometimes people have gotten sick from them.

## **APAKQAQ.QAQQASIQ- CLYDE RIVER**

Where and when were you born?

Apak Qaqqasiq and I was born at Sauniqturaarjiut on August 6, 1934 and I grew up there until I was an adult.

Can you describe the areas you used to frequent during the different seasons and what you did there?

When you were a child? When you were youth?

When you were a young adult? Now?

I became aware of climate changing when my father told me to not to be frighten if the weather became different the usual weather pattern or strange. Because of animals we hunted, I was in immediate environment every chance I get and worked hard to keep up the food needed in our camp.

Do you think the weather has changed since you were a child? How has it changed?

At Sauniqtujuq as I was growing up, there were times when the fuel for our seal oil lamps were low. When animals weren't plentiful in the area, we were just able to get by. Every year it situations were different. The area where our camp was more frequently visited by other hunters especially in winter time.

The ammunition was the reason that seem to hold back from the activities we wanted to do in a way of harvesting animals.

When did you first notice changing in the weather?

I now understand more just how much more snow there used to be because the snow used to be very deep. We used snow shoes in stalking seals and to walk over a thin dangerous ice because of ocean currents within the area. Now, the soft deep snow that use to cover the environment isn't there anymore. Today even though when the wind is shifting, the wind doesn't even stop to change. When wind now shifts while its blowing.

The weather in its own strangely way for us but not for itself is changing because it has always meant to take the course of that change. Our elders have somehow seem to know that the climate was going to change.

Did your parent mention any changes in the weather at any time in their lifetime before you were born and started remembering?

Leads from the dogs were there to tell us of the weather change because they rub on to the salt sea ice as we traveled before the snow covers the ice. The coming of the apogee, the peak of the ocean current and the high tide did and does effect the environment the

living and some of the tools people used. The degree of the frozen snow and the mildness of it seem to have changed to a certain degree. Everything that is effected by weather have seem to change to certain degree.

How are changes in weather and surrounding land affecting your activities? What changes have you had to make as a result of these changes?

Today, we need to be more prepared for the weather changes while we travel away from the community because the weather now changes more frequently. The cold doesn't seem to bother our central body as much as it does to our limbs. Bringing extra pair of mittens and sock way of traveling out on the land because the cold and water do get into our limbs first. Flooding of rivers in winter time is effect by the apogee. We always should bring spare mittens and boots for the reason of weather change.

Today the weather isn't what it use to be. At times what when cold that use to linger for long periods of time hasn't happen anymore. When to cold comes one day that could carry on for long time, then it would go away the very next day.

Today the freezing of the sea ice is really noticeable that has changed. I know for the fact that the place where we use to live is that the freeze up comes later and later. I started living in Pangniqtuuq when I became a middle age. Our original camp is definitely getting warmer. Freezing of sea ice is coming later and later. In the past the ice use to freeze sooner. Although the first ice freeze up may not be for certain because beginning of freeze up did freeze and leave for awhile at that place. Nowadays people would loose hope if the ice would ever freeze.

At the time we had dog teams, the freeze up would happen at Christmas and usually now to the end of the month. The last few years we lived there, the thought came to us that it may not freeze at all for Christmas. The sea doesn't seem to be as cold as it use to be.

We remember the area use to just steam before the freeze up and I know it for the fact. Nowadays you see much of that anywhere because the cold has reduce somewhat. Maybe its not as cold as it use to be and that's how I think of it. The sea use to steam while we were out in a boat in fall when we traveled from Pangniqtuuq to our camp.

Today you don't see that very much.

Has the severe cold reduced in time?

Yes the severe cold seems shorter now. Although when the cold comes and it seems that the sea would freeze but the cold doesn't last. That is what is happening today.

Temperature

Have you seen any changes in how warm or cold the weather is in this area? During which season? Is the temperature the same as it was in the past?

Can you remember times when it was extremely hot or extremely cold?

We were taught that warm and cold fluctuates, it may colder in one year and warmer the next, people talked about it. There is no real routine of what is usual every year at the same period of time.

The difference today is that what use to happen at particular month seems to have been carried over to the next month while its still free of ice. Sometime it looks as though it may never freeze at all, that's the way it is now.

### **Weather Patterns**

Is there any change in the amount of rain this area receives?

That also seem to have changed. In the past it use to rain but not as much as it does today. Nowadays when every the rain start, it just seem to continue for longer period of time. As a child, I did not notice many of thunder storms. The area where we lived didn't have thunder storms very much. I have witnessed very few thunder storms.

But is there some thunder storms?

Yes that has been the case in the past, but I didn't see it happening often at all. Today I don't know what its like today.

What about snow?

As I said that there is less snow fall today than before. There use to be a good amount of snow in the past. Now we go to the next month even before the snow comes, that's what it seems like today.

Yes the snow now come at a later time. The arrival of the snow has been late coming and that has been happening from year to year. This may not be happening in some years but the snow is now coming at later times.

Has there been change in the prevailing wind?

The wind direction are not the same anymore. The south west wind and the wind from the ocean (east) are two different kinds of winds all together. I have noticed the changing of the kind of wind from the direction of the ocean (east) usually creates a nice for traveling and smooth along the surface in the past. A surface without ripple like roughness with what is called "isittajaaq". It is more of smoother concaved surface over the area not the sudden kind concave shapes, the was the usual kind of surface it makes. The name of this surfacing was called "isittajaaq". The kind of that makes qamutiik (the sled) run smoother, with the front end bumping and hitting the surface hard.

Later on, I noticed that it has changed after the wind came from the same general direction, we would expect "isittajaaq" kind of surface to be created but nowadays that kind of surface would not be created. I don't know exactly what is going on today.



"Uangnaq" the north west wind usually create bumps (sudden concave surfacing) what it create over the surface is what we call "maniittuliuqti" (creator of a rough surface). The sudden high concaved is what we talk about, they are higher when created by this kind of wind. In the past that wasn't created but more recently that is happening more.

Are those kind of winds you are describing happening more recently?

There is another kind of wind we call "pingangnaq", that is another kind of wind tha\_t creates not so good a surface. These winds we what people talked about, "uangnaq" north west wind, 'nigiq" south east wind, "pingangnaq" south wind and "kanangnaq" east wind.

When the wind comes from east "kanangnaq", this is known as wind that will clean up the weather, that means that it will be nice and stable for a period of time.

When the weather is not so nice for a period of time, the sky doesn't get as blue as it usually is when the weather is at its best.

### **Seasonal Changes**

Has the length of any of the Inuktitut seasons changed over time?

The ice freeze up comes much later now as it did in the past and the it breaks up earlier in the spring. The duration of ice water is much longer today than it was in the past.

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

### **Fresh water Ice**

Have there been any changes to the timing of the freeze up and break up of lakes and rivers in this area?

Has the thickness of the Ice on fishing lakes changed over time? Does it get thick as it use to?  
Has there been any change to quality if ice?

I have not notice much if any with thin or thickness in lakes and rivers and the quality of the fresh water to today.

### **Sea Ice/Polyna**

Have there been any changes to the timing of the freeze up and break up of the sea ice?

The texture of the sea ice ice is now softer. We use harpoon to break the sea ice with, the ice is softer because it doesn't seem to freeze as hard as it use to. I have known the sea ice all my life and the condition of it. Today there is more packed ice, crumbled, the condition of it was not like that before. Today there is more packed ice more than it use to be. Back in the time when we traveled by dog team, the sea ice use to freeze more smoothly and more evenly, but there still are times when it freezes smoothly.

Does the ice get thick as it did in the past?

The thickness of the sea ice has definitely thinned today. Today, it doesn't get as thick as it use to. In have seal nets, we use to see the thickness of ice as well as through leads in the ice to be thicker.

Is there any changes in the distance to the flow-edge during different seasons when compared to the past?

As a child, I use to tag along with hunters to the flow edge. There use to be much more snow the edge because that's where it would break. Nowadays, there much less snow on the ice.

### **Terrain/Permafrost**

Is there any evidence of permafrost changing in the area? Has there been any change in the wet areas? Unusual areas of erosion or areas of accelerated erosion?

The ice caps and glaciers are diminishing, today most of them are gone.

### **Snow**

Is there any changes in the amount or depth of snow that this area is receiving? Are there any seasonal changes in the quality of the snow cover?

What I explained earlier in the interview is what I have noticed about the snow.

### **Travel/Camping**

Have changes in freshwater ice, sea ice, terrain, snow conditions or water levels affected travel at different times of the year?

There is less snow where I have been traveling through out my life. The runners of my qamutiik have hit more rock today than it did in the past. It is also easier traveling today because the snow is much harder now.

### **Wildlife**

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these affects impacting on the hunting fishing and trapping?

Small birds, the size of snow bunting are sometimes sited that we have never seen before.

I also live in the area where there is more abundance of seals. I can't say that seals are becoming endangered species today.

### **Fish**

Are fish runs or health affected by changes in climate?

It is not noticeable.

### **Vegetation**

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

I sometimes see species of plants that I know that did not exist in the area before. Rabbits seems to be fatter today at their shoulder areas. Caribou sometimes have white things in their meat but no one seems to be affected by it in health wise. There is enough food for the animal that graces on land.

### **Water Quantity and Quality**

Are there changes in water in levels in rivers and lakes? Is the water quality as good as in the past?

Some small lake in tundra have dried up due to the warming and melting of permafrost. I have not notice any quality of water to change.

### **Fire**

Has there been any change in the frequency or length of tundra fires?

There are no tundra fires.

### **Health**

Has there been a change in the health of the community that you attribute to changes in the weather? Has there been a change in the health among the local population?

People are very cautious of the animals they catch. Any abnormality of any animals are fed to the dogs. No I have not seen anyone getting sick from any animal.

### **General**

Any additional comments or notes

No additional comments

## **ASHEVAK PALITUQ – CLYDE RIVER**

Where and when were you born?

Ashevak Palituq, born at Qivittuq (near Qikiqtarjuaq) in January 1, 1924.

Can you describe the areas you used to frequent during the different seasons and what you did there?

When you were a child? When you were youth? When you were a young adult? Now?

As a child we moved to Home Bay, Isabella Bay, Inukshun Fiord and Piniraq.

My father had one older brother who accidentally was killed with a gun so I'm named after him, Ashevak.

We lived at Piniraq as I really began to remember, and travel only by dog team.

Seals use to completely leave Inukshun Fiord in winter time.

At Isabella Bay, people use to hunt seals at the flow edge. When a seal is shot, they would cut out a piece of ice and uses it as a boat to retrieve the seal. People before us use to work hard to get things done.

People also use to put boat frame together, skin it with bearded seal and seal skin to use for marine mammal retrieving purposes from the shore. They would hunt bearded seal at Royal Society Peninsula that would be use for skinning boats.

We spent some near Clyde River area after the white man have moved into the community. There were two white men that lived here in Clyde. I don't know which one was the boss.

We then moved to Scott Inlet when I became a young man.

People use to feel Piniraq was too far into the fiord after the snow covered the ice in the area. Then we move to the old Clyde River community site.

We also lived at Buchan Gulf area for couple of years. From there, we then move to Royal Society Fiord. There at Royal Society Fiord, the lake where people fish today was accidentally found while they were hunting caribou.

Iqalukjuaq and his family moved to Clyde River while Pittaittuq's and my family move to Niaqurnaaluk for another year to do more hunting in order to buy a boat.

Since I was a child to today, the climate has changed so much. The place where we live at in fall isn't there anymore. It has been completely washed away.

At Ukuallivruvik (Sam Ford Fiord), the river is flowing through a different route.

The condition of the snow has changed, and the land has changed.

The snow conditions were good in the past without the bottom snow becoming crystallized.

Do you think the weather has changed since you were a child?

The weather wasn't like the way it is today when I was a child.

How has it changed? When did you first notice changing in the weather?

We can not control the climate change. We have been told the climate was to change. Some was to erode and we were cautioned about the climate change so that we would not put our selves in danger.

### **Temperature**

Have you seen any changes in how warm or cold the weather is in this area? During which season? Is the temperature the same as it was in the past? Can you remember times when it was extremely hot or extremely cold?

The cold weather has also changed. We have notice that within the returning season of the sun, if the appears before the moon does, that mean the summer months will be warmer. When that happens the heat is stronger. From the eagerness of the sun to shine on to the earth, the warmth is stronger.

In some years, February and March the cold would come that time and linger for that period.

When the wind pushes the cold away then the warmth would follow just behind that wind.

### **Weather Patterns**

Is there any change in the amount of rain this area receives? What about snow? Is there any change in the amount of blizzards? What about thunder storms? Has there been any change in the prevailing wind? Has there been any change to the frequency with which the wind blows from different directions?

The rain hasn't changed very much. In the month of August the snow does come down at times and we call that Qitiqquusiupuk (the point between the summer and the fall).

While the sun is rising each day, more blizzards will happen especially in areas from the land to the ice.

This area doesn't receive many thunder storms. Those who live north of us do get more thunder storms than we do. When the clouds form like a grain of the sky then people could hear the thunder sometimes.

Yes the prevailing winds have slightly changed but day light hasn't changed.

The windy areas usually pick up more winds while the sun is developing its height for the summer.

When the new moon appears in an angle, it is said to be bring wind or carrying more animals for us.

### **Seasonal Changes**

Has the length of any of the Inuktitut seasons changed over time?

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

### **Sea Ice/Polyna**

Have there been any changes to the timing of the freeze up and break up of the sea ice?

Does the ice get thick as it did in the past? Is there any changes in the distance to the flow-edge during different seasons when compared to the past?

I notice the sea does sometime freezes up late even to the month of Christmas. We use to go to the community where Qallunaat lives in the month of Tusaqtuut (November).

This year the flow edge has forming and freezing throughout the winter. When the wind is blowing the ice will crumble and pack itself. The part of ice that is in the water will form blockage so that it would be harder to more so therefore the ice would settle where it is as packed ice.

March and May usually bring in snow. The may be soft and deep because those months brings that kind of weather. Extra clothing and ground sheet are to be brought on trips out on the land.

### **Terrain/Permafrost**

Is there any evidence of permafrost changing in the area? Has there been any change in the wet areas? Unusual areas of erosion or areas of accelerated erosion?

The land freezes much later than the past. The land use to freeze even before it snows. While the land is free of snow and it freezes, walking on it, feet would break through the crust. Today the snow comes before the ground freezes. Then the snow freezes with the land.

### **Travel/Camping**

Have changes in freshwater ice, sea ice, terrain, snow conditions or water levels affected travel at different times of the year?

The water from the land will flow in winter time when there is too much water on it.

One man from the south once said that you have so much fresh water because you have many ice caps.

**Wildlife**

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these affects impacting on the hunting fishing and trapping?

**Vegetation**

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

We have never seen new vegetations here or notice any new vegetation.

**Water Quantity and Quality**

Are there changes in water in levels in rivers and lakes? Is the water quality as good as in the past?

In traveling by dog team in certain places, when we're thirsty we would find a stream that flows throughout the winter and quench our thirst from it.

**General**

Any additional comments or notes?

I do miss seeing stars at night. When you are close to a light like being in the community, stars are harder to see. Many stars do have names.

## **IIKOO ANGUTIKJUAQ – CLYDE RIVER**

Where and when were you born?

Iikoo Angutikjuak was born at Walker Arm at a place called "Qilanaaqtuutiut Paanga" in October 8, 1942.

Can you describe the areas you used to frequent during the different seasons and what you did there? When you were a child? When you were youth? When you were a young adult? Now?

I grew up at Naqsaalukuluk (mouth of Sam Ford Fiord) with foster parents while his real parents lived in Home Bay area.

By the time I was ready to get married, we lived at Ailaqtalik.

I lived with David Piungituq, Qamaniq. There were also people that lived at Scott Inlet area like Ariak, Iqalukjuak and the rest of the family.

At the age of seventeen when my family moved back to Naqsaalukuluk I didn't want to move back because there were no girls there at the camp. Then in 1960 I with my in-laws moved to Clyde River. Knowing that it will be another year before I see a girl again, that was part of the reason why I decided to stay in this area.

Do you think the weather has changed since you were a child? How has it changed? When did you first notice changing in the weather? Did your parent mention any changes in the weather at any time in their lifetime before you were born and started remembering?

When we were children, we were told to go outdoor as soon as we got out of the bed and look up into the sky. To see the condition of the sky and that Jesus may come at any day or anytime. I still do look outdoor even though I actually do go out that early anymore.

I like the fact that you do check out the weather in that way. I have the habit of doing some like that.

We were asked about the condition of the weather. We didn't have any paper or instrument to really prove anything in those days.

We were told that in future there will be different thing in live and things will change, not only on the weather. It was said the thing would change.

How are changes in weather and surrounding land affecting your activities? What changes have you had to make as a result of these changes?



Yes there no change but we don't have igloos there days when there are tents. People use to say the tents are very cold to use in winter time. Tents are goods too when they have double walls. Quicker to put up and you don't have to mend it or fill the hole created by the heat of the stove and you can get it as warm as you like to.

You need to be more careful with igloos, when tents are more comfortable, better on breathing. It is good to be able to move around, sit up and so on.

### **Temperature**

Have you seen any changes in how warm or cold the weather is in this area? During which season? Is the temperature the same as it was in the past? Can you remember times when it was extremely hot or extremely cold?

In fall today the cold weather came very late, freeze came later. In some years, the freeze up use to come earlier. Once the cold weather comes, it is usually very cold.

In the past, it use to be colder. When peeing, the urine use to just steam.

Today the cold weather does come later in the season.

In spring time after its been cold for awhile, when it tries to catch up the season, it will warms up and melt.

Sometimes when the weather is bad for while, because it is constantly changing when look at the heaven it become crystal clear and it looks as though it will last for awhile but it does not last. The change is like being jerked into it, the change is so sudden sometime. The bad weather sometimes passes by without hitting Clyde River.

The snow that comes down seems to be like one type of snow mainly, the flakes are all small. When the weather is warmed up for awhile then it cools down then warms up again, then the new snow sometimes just melts again.

### **Weather Patterns**

Is there any change in the amount of rain this area receives? What about snow? Is there any change in the amount of blizzards? What about thunder storms? Has there been any change in the prevailing wind? Has there been any change to the frequency with which the wind blows from different directions?

The blizzard doesn't seem to have changed so much but it seemed to have strengthen with the snow harder on the ground.

In summer time when it snows, it cools the air down but it always melts again.

I don't remember any thunderstorm. Down south when there is thunder storm you can hear the thunder. I haven't heard that kind of noise before in this area.

There is really two kinds of winds the happen more often than the other winds, one from north-northwest and one from the northwest.

We don't seem to get more winds than before but these wind do seem to last longer from all of the directions where the wind is coming from.

### **Seasonal Changes**

Has the length of any of the Inuktitut seasons changed over time?

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

### **Fresh water Ice**

Have there been any changes to the timing of the freeze up and break up of lakes and rivers in this area?

Has the thickness of the Ice on fishing lakes changed over time? Does it get thick as it use to?  
Has there been any change to quality if ice?

Lake don't have snow on them anymore, stripped, they do became thicker without the snow. That have been the situation for a long time now.

When there is sudden change, it seems like hurrying when it finally catches up with the season. It almost seems scary, when awaited season finally happens, it comes with a such force that it seems almost frightening when it get here in hurry.

The difference about the spring is that the water that comes from the ice caps, when it comes do fast, hard and it is massive.

There is not much of crystallized snow that lays against the ground anymore. There seems to be only the hard snow these day, when you make tea with it, it turn too dark, just black.

### **Sea Ice/Polyna**

Have there been any changes to the timing of the freeze up and break up of the sea ice?  
Does the ice get thick as it did in the past? Is there any changes in the distance to the flow-edge during different seasons when compared to the past?

The land doesn't get much snow these days and there is too much snow on the ice. The ice doesn't get as thick anymore because the snow insulates the from freezing too much. The snow accumulate on to the ice much more than on to the ground.

There seems to be flow edge that hangs around the area in winter time. This was not the case in the past. Today the ice break up happens more because the ice lacks in thickness and the ice break up happens from the direction of the ocean instead of the land.

The ice break up use to happen from the melt down from the heat that comes from the land, these days the break up starts from the ocean.

### **Terrain/Permafrost**

Is there any evidence of permafrost changing in the area? Has there been any change in the wet areas? Unusual areas of erosion or areas of accelerated erosion?

The snow on the land seems to melt so much more than before which causes the permanent snow and ice to melt. The melt down of the permanent snow and ice is partly from the melt that happens in this area.

There used to be spots when we travel where we used to know when igloo building spots were. Today those kind of snow aren't there anymore.

The snow patches in summer time are where caribou used to hang around for the coolness of it. I sometimes go over to the melting ice where the ice and snow is, I do find so old caribou droppings there just out beyond the community tank farms.

In some parts of the wet areas, some that used to be lakes aren't there anymore, this is caused by the climate change.

It really is noticeable that the area where there was not soil, the soil has developed in areas there were none, there is new soil.

Some of the old tent rings are not there anymore including where we used to have fox traps. This is not just the soil that has left, river beds are included.

### **Snow**

Is there any change in the amount or depth of snow that this area is receiving? Are there any seasonal changes in the quality of the snow cover?

Today there is not much of soft snow anymore, the wind seems to be stronger now. There is still some softer snow in some areas. There seems to be just a little bit more of softer snow than last year.

### **Travel/Camping**

Have changes in freshwater ice, sea ice, terrain, snow conditions or water levels affected travel at different times of the year?

There are some things that are noticeable. There is more wind, the snow on the land is not the kind of snow we used to have.

### **Wildlife**

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these effects impacting on the hunting, fishing and trapping?

It is probably because of the climate changing that there were fewer mosquitoes before, the many more now. The plants are growing to a larger sizes now. The grazing animal do have more weight on them, fatter than before. People have talked about that some grazing animal are like summer animal now, they are so much fatter in winter time. It was very unusual to get a fatter caribou before. We now travel faster and farther than before, that could be the other reason why we are getting more of what we want. Today we are able to look for more of what we want.

There are more geese, the brent that feed on vegetation. "Sajjugiaq" the plain area near Clyde River when traveling on four wheeler, you do come across more of vegetation eating birds.

Narwhales haven't changed in this area.

We do travel much farther these days, whereas in the past we didn't have the kind of equipment we have today.

Country food is not the only kind of food we eat these days, there are stores where we can buy food from. We had aged meat, ptarmigan and arctic hare were the kind of food we had when travel be came harder in certain seasons.

The fish at Walker Arm seems the be smaller in sized although the population has never changed. In the past when we fished with fish spear, to strike a fish, we use to have to spear fish in the thinner area the tail end of the fish because they were larger in size.

Lake do get fish from different lake each year. When you fish you are able to pinpoint where some certain fish came from. We usually know Royal Society Fiord fish, Walker Arm fish, Clyde Inlet fish and so on. The fish also seem to be mixing more than before in different lakes.

Streams are where fish are spawning, not in the main river. Streams are like nursery for the fish.

### **Vegetation**

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

There are new plants we see today that weren't here before. There is much less snow in this are these day which gives plants more time top germinate and they seem to grow into larger size s than before.

Grazing and vegetation eating bird are seem to be fatter now. When Snow and Canada geese prepare to fly south, they fist of all build up fat before they fly south.

During seismic oil explorations some seals use to become deaf. In those days, seals had livers that were infected or livers that don't look normal.

Ring and bearded seals that may have been close to the explosions during the explorations had become deaf from the explosions. I sat on the ship that did the exploration. The ship use to shake when a bomb two miles away exploded especially in more shallow areas. You didn't know the shaking of the ship when explosion happened in the deeper part of the sea.

If we were the only people living in the world, there would be less contaminant that make people sick in the world. At Cape Christian the contaminant have bee left behind by the people who lived there. It is those qallunaat who put more garbage on to our land, to our environment.

The heaven has changed although the weather changes every year. Sam Ford Fiord freezes up late in the season, I remember when we live there that my brother saying "I know that we shouldn't hunt polar bear in Happy New Year, but I shot one polar bear as were cross the fiord that is just freezing over". In different years, the climate is never the same. It will become colder in years to come.

The land and the sea ice usually have about the same amount of snow on it. This year there is not enough snow on land and too much snow on the ice.

### **General**

Any additional comments or notes?

It have been said that the land will erode but the erosion is speeding up these days. Too many people are dying in the sea, not only in this area but all over the world. We have been told that we live in only one world what happens in it effect the rest of the world. That the reason why we need to be educated as one in the world.

We were also told when we moved to Clyde River that house rent will always be low as two dollars per month. The house rental will be close to one hundred dollars per month for the unemployed.

Our population is growing and thing are getting harder to get. The inflation is going up and you have to live with it.

There are new things happening in the world, new ways of doing things. There are people drowning, there is war those are part of the reason that causes the change of climate.

## **JACOBIE PANIPAK – CLYDE RIVER**

Where and when were you born?

Jacobie Panipak was born at Piniraq on December 9, 1935.

Can you describe the areas you used to frequent during the different seasons and what you did there? When you were a child? When you were youth? When you were a young adult? Now?

My childhood was at Sam Ford Fiord until I was about 9 or 10 we went back to Clyde River area.

My youth days were spent around Clyde River area.

We have also lived at Walker Arm and spend few years at Sam Ford Fiord at a place called Ukiallivik.

We use to live at a point between Walker Arm and Sam Ford Fiord in a Igloo in winter time. When seal pups are born, we would move to an island at the mouth of Sam Ford, hunting polar bears and seal pups and mature seals until the tenting season (May).

Piniraq and Ailaqtalik are closer to animal harvesting so we also lived in those place.

Do you think the weather has changed since you were a child?  
How has it changed? When did you first notice changing in the weather? Did your parent mention any changes in the weather at any time in their lifetime before you were born and started remembering?

It wasn't long ago about 1950's that I realize that cloudy days had become longer and longer.

Late in fall in 1960's, the cold hung around, it would be misty from the cold here in Clyde River.

The snow conditions were different then, it use to be soft and deep. There was less wind then, the trail use to be carved right into the snow and all round there was thick soft snow.

In early spring, the snow would become slightly harder in lairs which made more difficult to travel on.

How are changes in weather and surrounding land affecting your activities? What changes have you had to make as a result of these changes?

When we hunted denning seal pups, the snow would be much softer easier to break through. Caved in den were more visible because they weren't covered with new snow. In 1960's, the change of snow condition happened, the snow became harder.

When the condition of the change happened, it hasn't been good for my harvesting activities because caved in dens are usually cover with new snow which make them harder to find.

Seal breathing holes were harder to find when covered with snow but dogs were able to sniff them out.

### **Temperature**

Have you seen any changes in how warm or cold the weather is in this area? During which season? Is the temperature the same as it was in the past? Can you remember times when it was extremely hot or extremely cold?

Both the soft snow and the mist from the have left the area. In spring it use to be warmer (almost hot) because it would become too hot for dogs.

Mountain sorrels and purple saxifrages use to ripe much soon then. Wearing caribou clothing, men use to have more frostbite on there faces.

### **Weather Patterns**

Is there any change in the amount of rain this area receives? What about snow? Is there any change in the amount of blizzards? What about thunder storms? Has there been any change in the prevailing wind? Has there been any change to the frequency with which the wind blows from different directions?

In fall, the snow didn't come down as much as it does today. When ever the snow came down before the ice freeze up, the snow would be soft and deep. With less wind in fall, the water use to be calm. I use to hunt seal in a small rowboat. In those days the water use to be have little bit of snow in it.

In spring puddles use to get sort of like moldy, today with more wind, you notice what use to be there is blown away.

Many of the ice caps or permanent snow have gone now, melted by the wind.

End of the fiord use to be just calm, free of wind.

There were very few mosquitoes in Clyde River then.

Today there is more blizzards in Clyde River. It sometimes looks as though it would be calm, and out of the blue, the wind will come, that is today.

You cannot predict the weather anymore. The prevailing wind from the northwest have slightly changed.

The fiord use to have more softer snow, now gets hard snow.

We would sometime get very strong wind from the northwest, the wind from southwest would take over.

### **Seasonal Changes**

Has the length of any of the Inuktitut seasons changed over time?

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

Fresh water Ice

Have there been any changes to the timing of the freeze up and break up of lakes and rivers in this area? Has the thickness of the Ice on fishing lakes changed over time? Does it get thick as it use to?

Has there been any change to quality if ice?

The lake at Walker Arm has changed too. Today the ice is not as thick as it use to be. People who are chiseling through the ice to make fishing holes use to go way below the surface of the ice so that they have to make steps in order to get back up.

Poles on fish spear use to be longer, then later on, they were made not as long.

Whenever more snow is in Clyde Inlet, our tenting spot use to be farther because there was too much snow elsewhere back in 1959.

Where we use to tent back in 1954 has long been washed away.

Today when you melt snow for drinking, some particles are surfacing in the melt water.

Today, the fume from a stove is more noticeable.

### **Sea Ice/Polyna**

Have there been any changes to the timing of the freeze up and break up of the sea ice? Does the ice get thick as it did in the past? Is there any changes in the distance to the flow-edge during different seasons when compared to the past?

The ice break up is happening earlier and freezing up happens later in fall.

The ocean current was much stronger before and today it has eased.

The ice is much thinner these days.

The ice use to freeze more smoothly. Today it crumbles as it freezes therefore we get much more packed ice.

### **Terrain/Permafrost**

Is there any evidence of permafrost changing in the area? Has there been any change in the wet areas?



Unusual areas of erosion or areas of accelerated erosion?

The plants seems to be growing bigger each year. The mountain sorrels and purple saxifrages seems to be growing later.

Today, it is more noticeable that tent areas have washed away.

### **Snow**

Is there any changes in the amount or depth of snow that this area is receiving? Are there any seasonal changes in the quality of the snow cover?

The usual igloo building spots for overnight camping when we travel still get snow but too hard to build igloos with. The right kind snow condition is not the same anymore because the wind changed all that.

### **Wildlife**

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these affects impacting on the hunting fishing and trapping?

There are many more flies everywhere. Probably because of the climate change, seasons came later are now here earlier which effects the living things.

There were fewer snow geese, now there abundance of them now. We didn't see much of Canada geese, they do come to this area today.

Red-breasted mergansers and sandhill cranes are gone, that use to come around here more often.

### **Fish**

Are fish runs or health affected by changes in climate?

The fish were smaller at Iqalugaarjuit where people fished, at the same lake every year. People stopped fish for awhile then when they fished again, the fish were larger but the population didn't seem the same. This has nothing to do with climate change.

### **Vegetation**

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

Ptarmigan, arctic hare and caribou have not seem to have changed at all in health wise.

**Health**

Has there been a change in the health of the community that you attribute to changes in the weather? Has there been a change in the health among the local population?

Unwanted food was fed to the dogs.

**General**

Any additional comments or notes?

## **LEAH QAQQASIQ – CLYDE RIVER**

Where and when were you born?

Leah Qaqqasiq and I was born at Qipisa across from Pangniqtuuq fiord in Cumberland sound on June 10, 1935 and I grew up there until I was an adult.

Can you describe the areas you used to frequent during the different seasons and what you did there?

As a child, I have never heard any thing about the climate change or I never heard anyone saying anything about the changing of climate. The weather seemed to be the same as always, the wind would come from the same direction as it always has. That is what I learned and I never heard any change of climate from my parents. It is only today that I hear the climate is changing.

When you were a child?

As a child we lived at Qipisa and I remember as a child living there. We would travel to different places, we would travel to my father's father camp by dog team. We lived at Qipisa while they lived at Iqalulik and started remembering as a child during dog team travel days and we would travel back and forth between the two camps.

When you were youth?

I was youth when we lived away from Qipisa. We had move to Iqalulik where my grandfather lived at my youth years.

Have or did you notice when you lived away from Pangniqtuuq when you were young if the climate has changed or not?

I have not notice any change in climate in those days. May I was suppose to pay closer attention to the climate change if I hear about, but haven't notice any climate change.

Know the kind of climate we have today and if you would go back to the same location, would the weather have changed by now?

Definitely, it certainly has changed. In the past when we were young, the wind use to be calm all over as far as you can see for long periods of time. The water would almost be like a glass. Now today people say that the calm weather, calm waters does not last very long with more winds these days. I witnessed the weather to be very calm.

During the winter times where the wind is calm, the snow would be fluffier and at where there is more wind there would be less snow and more pack on to the environment, have you notice any of those changes?

I have notice that too, by way of the snow conditions. When I was a child we use to receive plenty of more snow. Men would stop using dog teams for hunting and would use snow shoes to walk over a very deep and soft snow.

Would that snow condition be different today?

I have not heard if the snow condition in that area is the same as before. I do hear that the soft snow use to be very deep.

Temperature

Have you seen any changes in how warm or cold the weather is in this area? During which season?

Every weather condition seems to have changed. In the past the weather use to get warmer. I use to feel hot in spring time and in fall as the cold comes the would be a cold spell for what seem for short period of time. That is how I remember it to be. Every time the snow comes down on to the ice. We would that the sea ice becomes softer and thinner therefore it would become more dangerous.

Today I hear a different stories about it from those people who lives in the same area.

Every time the snow came down, the sea ice would become more dangerous to walk on?

Because the ocean currents are strong, it was said the ice conditions became dangerous. Sometimes those who are hunting seals would sometime fall through the ice. They would not completely disappear, as children we remember it to be the fact.

Because people used snow shoes, did they use dog teams at all?

For not very long period of time is what I remember and as a child, I remember my father making snow shoes but not often times when the\_ soft snow became very deep. We lived solely on animals people caught, that way, so that he would be able to travel where he wants and has to go to hunt. It became impossible to use dog team because of the deep soft snow. I remember men using "alliraarmik" (a skin with fur, usually polar bear but other skins could be used) pulled by dogs instead of qamutiik because of the snow conditions.

Is the temperature the same as it was in the past? Can you remember times when it was extremely hot or extremely cold?

In winter time, the area where we lived use to be very cold the camp we use to live away from Pangniqtuuq. I have not lived in the area for a period of time. People do say that its not as cold as it use to be. People use to travel by dog team and early in the fall, people don't travel to Pangniqtuuq at the same season because of late freeze up that occurs these days. I think it is now impossible to travel over because the freeze up comes much later now. People use to travel to Pangniqtuuq in December. Today no one travel in that month to Pangniqtuuq because of late freeze up.

## **Weather Patterns**

Is there any change in the amount of rain this area receives?

In summer time there use to be much rain. When you live in a tent, rain drop become severe for a moment at a time. People still talk about that when I hear about it today.

How about the snow fall?

I don't think it snows as much as it use to, the heavy snow use to come in early spring.

Nowadays, I don't about the snow fall if it still comes down as much as it use to or if the snow becoming too deep.

Is there any change in the number of blizzards this area receives?

Yes the blizzard use to come at times but not as much as today. After a blizzard and blizzards didn't happen very often. Playing outdoors, the snow would be carve beautifully and I think they are called "uqalurat" ripples that are carved into beautiful patterns by the wind. There were not numerous time the blizzard came, I don't remember many blizzards at all.

But is there some thunder storms?

Not many time did we receive thunder storms, not every heavy rain fall. It was only at the peak of the rainy season, but there were not many thunder storms.<sup>2</sup>

Has there been change in the prevailing wind?

We use to receive blizzards coming from the prevailing wind. There two mainly two prevailing winds as I remember it. Today, I hear that the wind does come all directions now. Uangnaq and nigiq (south west and east winds) were the two prevailing wind we got in those days.

## **Seasonal Changes**

Has the length of any of the Inuktitut seasons changed over time?

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

## **Fresh water Ice**

Have there been any changes to the timing of the freeze up and break up of lakes and rivers in this area?

Where we use to get water for drinking from have not seem to have changed at all. The only thing is that some small lakes and river have dried up.

Is that because of lack of snow today?

I don't know.

Has the thickness of the Ice on fishing lakes changed over time? Does it get thick as it use to?

I can't answer the question. I don't spend any time at lakes in winter time nor do I fish at lakes in winter. The only time we would travel is in spring time when we move to another camp.

Has there been any change to quality if ice?

Yes the water is still very good in quality, nothing seems to have changed in the quality of water. Maybe they will become different too in future.

Sea Ice/Polyna

Have there been any changes to the timing of the freeze up and break up of the sea ice? Is there any changes in the distance to the flow-edge during different seasons when compared to the past?

Today I have not hear about it so I don't know the condition of the area today. People use to travel quite a distance to find flow edge but there were times when flow edge was not to be found.

Terrain/Permafrost

Is there any evidence of permafrost changing in the area? Has there been any change in the wet areas? Unusual areas of erosion or areas of accelerated erosion?

I have notice that the permafrost is melting more because the land is now melting sooner than before.

Travel/Camping

Have changes in freshwater ice, sea ice, terrain, snow conditions or water levels affected travel at different times of the year?

I didn't pay any attention to any of changes in those days. I thought that it was the way it is because that's the way it has always been in the world. Today I hear that it is changing.

Wildlife

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these affects impacting on the hunting fishing and trapping?

I don't know if the animal have changed very much or if at all. It is the insects the I now see some insect that I have not seen before. I have not notice anything at all about animals. I do sometime see birds that do seem to belong in this area, small birds that are the size of snow bunting. Birds that we have never seen before.

The skins of animals that you work on, has there been any changes in the quality of those skins?

I do work on many skins either removing the fur. We make iqaqtikutik, fur removed that could be used for different purposes. Some don't seem to have the kind of quality that they use to have in the past. Some now have two layers of surface of what makes the skin waterproof or that makes it look black. Some have rough skin that are not so good to use for different purposes, not as a result of scratching. Not so good in quality.

Was the quality of seal skin then?

Yes most of seal skins were much better in quality than today's some seal skins.

There are those that you remove the fur and the black top layer by using hot water to give it a white look. Are they still workable the same way as they use to be?

There are some seal skins that you really can't do anything about when you try to do just that.

Are there seal skin that you select for different purposes and knowing that it will give you exactly what you want?

Silver jar skins are always the very best in spring time but there are those that have been scratched to bitten by other seals that may make the skin not so good.

There are times when you may look forward to a certain season (s) for the best quality of seal skin. Are these happenings unchanging over time?

Yes we do look forward to season for we know the quality of seal skins do change throughout the cycle of the year. Some for skins that we can scrape to a fine thin skins without any trouble. When the peak of the season comes after molting has completed then they become easy to work on. We do look forward to that time when in fact some skins are not like that anymore. Today some are now molting in summer or towards to beginning of fall, that is very late. That didn't seem to happen before, molting use to take place only in spring. Even up to summer or fall some skins will be at their worst to work on.

Bearded seals too?

Bearded seal skins have different cycles for molting. It at early spring that bearded seal skins are the best. Through out the summer months, the fur of such seals is not firmly attached to its skin, it is loose in that season.

How about the quality of meat from caribou or seals because we live on country food?

I don't notice anything like that. What we would take for food and if they look different or if the blubber is more yellow in color, we don't usually take the meat. Also the caribou the good food that we like very much. If there is abnormality about the joints, we don't take the meat. The animal is killed and goes to waste.

Is that reason for health of people that they don't want to get sick?

That is correct. We don't want any meat that may be bad for us.

You do prepare seal skins to sell and you know what or which skin may not be as good at certain time of the year and so on?

Yes there are good and not so good a skins we work on because that is what we do. When we prepare skins and its not fold of holes, that is what we call good skin. Bad skins are fold of holes, those are the ones that we would not sell because of their quality.

#### Vegetation

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

Here we don't see as many of the plants we saw in Pangniqtuuq area. Recently, we started seeing some plants that we have never seen before. Here we don't see too many plants.

Plants do grow differently in different years and that seems to be the cycle.

#### General

Any additional comments or notes

Sometime we are asked to make kamiik or other things as though there are abundance of material that are just reading for that purpose. Many people don't know just how much work is involved.

We bleach seal skins out doors in early spring. There was a year when no one was able to bleach seal skins to its best quality. I don't know why.



## MARY TASSUGAT- CLYDE RIVER

Where and when were you born?

Mary Tassugat born in Qivittuuq (near Qikiqtarjuaq) the summer of August, 1918 birth date was placed by the R.C.M.P.

Can you describe the areas you used to frequent during the different seasons and what you did there? When you were a child? When you were youth? When you were a young adult? Now?

As a child we lived at Qivittuuq then we moved to Home Bay area. Included on this trip was Natanine Kautuq's family. At Home Bay, we lived at this place called Salliarusiq, west of Arvaaqtuuq, between Tuprvialuit and Tikiqqat, Aarrujaaqtuuq, other side of Tikiqqat. We use to hike inland from Sarvalik in summer time. We would spend our spring camping at Saatugaqtuuq. We also lived at Igaliqtuuq, Tingialuit, Iqalugaarjuit, Sarvalik and Knguqsin.

In my youth, we lived at Home Bay area until I became an adult. living with my grandfather Kautuq and grandmother Ningiuraapik, grandfather's other wife named Arnaujaq but he ended up living with only one wife later on.

Do you think the weather has changed since you were a child? How has it changed? When did you first notice changing in the weather?

Couple of times, I remember the sun coming back very early in the year. In the past, the sky use to very blue. Nowadays there seems to be some sort of blockage between earth and the sun but sometimes, but sometimes the sky almost turn that color blue.

### Temperature

Have you seen any changes in how warm or cold the weather is in this area? During which season? Is the temperature the same as it was in the past? Can you remember times when it was extremely hot or extremely cold?

Maybe because of sun has appeared too early in the year, it use to seem too hot. Today, it is still getting warmer. The heat from the sun is strong, the shades seem a little too cool.

It gets very cold in winter time within the last three years. The cold so sharp that it seems to have an edge.

In fall just before the sea ice freeze up it hasn't been cold enough to freeze the salt water whereas at Home Bay, it used to be cold right through the fall season.

The weather would be bad for a long time then it would be good for another long time. Today, it doesn't do that anymore.

The sun is back earlier in the year these days.

#### Weather Patterns

Is there any change in the amount of rain this area receives? What about snow? Is there any change in the amount of blizzards? What about thunder storms? Has there been any change in the prevailing wind? Has there been any change to the frequency with which the wind blows from different directions?

The amount of rain that come down doesn't seem to have changed very much.

Snow that comes down has been decreasing. In winter time the wind has been blowing the snow away.

The amount of blizzards that happens in this area didn't seem to have changed. This area doesn't have much winds.

At Home Bay there is a hill called Niaqurnaarusiq and it has little cove which is sheltered from the wind.

This area has some good wind from the southwest. Clyde has more wind from the northwest than Home Bay does.

Uangnaq (the southwest wind) crouches down when Avannганиq (the northwest wind) takes over.

#### Seasonal Changes

Has the length of any of the Inuktitut seasons changed over time?

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

#### Wildlife

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these affects impacting on the hunting fishing and trapping?

The fish from this area have very strong taste and I have that I really don't want much from this area. There are fewer birds in this area. There use to be more bees but now its not like that anymore. We are getting more mosquitoes. Today many seal are being caught as well as caribou. Arctic hare are fatter today than before.

#### Vegetation

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

I hear this area is getting more vegetation. When mass of arctic cotton grows, that usually mean that crow berries and blue berries are grow for the year too.

#### Health

Has there been a change in the health of the community that you attribute to changes in the weather? Has there been a change in the health among the local population?

I don't hear about it today but some polar bear meat use to get people sick and we did too at one time.

## PETER KUNILIUSIE- CLYDE RIVER

Where and when were you born?

Peter Kuniliusie, I was born at Taliruujaq in March 15, 1930 but the Government gave me July 13, 1934 as a birth date.

Can you describe the areas you used to frequent during the different seasons and what you did there? When you were a child? When you were youth?

When you were a young adult? Now?

We lived in different places in different years. Places like Kangiqtugaapik, Igaliqtuuq and Arvaaqtuuq when i was a child. We also lived at Arvaaqtuuq and wintered at Niaqurnaarusiq then we move to Tikiqqat, Aarrujaaqtuuq, Iglutalik, Kangiqtugaapik, Eastern Sarvalik and Iqalugaajuk. From Sarvalik we traveled to Igaliqtuuq right to the end of the fiord to hike inland to Arvaaqtuuq for the summer. We also use to travel from Igaliqtuuq to Arvaaqtuuq sometimes through Pingualuit or Itillialuk then on to Anarnittuq.

When I was a child, the weather use to be just perfect while the sea ice leaves.

We use to go inland to hunt caribou in July. From Igaliqtuuq, we use to hike to Tasialuk which is near Nunamiut (Dewar Lakes). There is a lake which flow to both sides of Baffin Island and from there, we use to head back to the east side of Baffin Island.

Kapitairaaluk is another place where caribou hunting hikers use to head back from. Pinguajualuk is the one with a long inuksuk where people also use camp while hunting caribou because each side of the hill.

We also use to move to Igaliqtuuq (Isabella Bay) where there is less snow and its not as hard as what Home Bay had.

At Pingualuit, the wind use to come from the direction of northwest and created different lair of snow which is harder to walk on, that was the usual wind direction in that area.

The ice would sometime leave even in the calmest weather especially during the apogee of the month. In the past, people who wanders in the area would sometime never come back.

My wife had tuberculosis so they were brought here to Clyde River. So we moved to Clyde River in 1965 for good.

My dogs were slaughtered by the R.C.M.P. at Cape Christian and buried after being shot, all eighteen of them.

Do you think the weather has changed since you were a child? How has it changed? When did you first notice changing in the weather? Did your parent mention any changes in the weather at any time in their lifetime before you were born and started remembering?

I didn't realize that some of the permanent snow was melting in Henry Kater Peninsula when we lived at Uivariaq. Permanent snow was turning into what we call ijaruvaujait (eyeball shapes, something like hail) and I hear that it's not like that anymore.

Living here in Clyde, Ariak said that the wind is changing the condition of the snow.

How are changes in weather and surrounding land affecting your activities? What changes have you had to make as a result of these changes?

When lead through the ice form, they use to look as though they are tapered in with the ice being so thick. Itirviluk Fiord also had very thick sea ice. Puqtujualuuk at Itirviluk Fiord was the only place where you could get enough snow to build ice from, everywhere else was free of snow.

Home Bay, the sea ice would freeze sooner than Igaliqtuuq. The north shore would not freeze even after sea where the islands freeze. The few ice caps there have melted. Aulattivik had a ice cap at the west end of it. The permanent snow at Cape Henry Kater have melted.

#### Temperature

Have you seen any changes in how warm or cold the weather is in this area? During which season? Is the temperature the same as it was in the past? Can you remember times when it was extremely hot or extremely cold?

Yes it gets cold but not for a long period of time. It has not noticeable that cold is consistent throughout the winter.

One time at Iqiruti, crossing over land from Inukshun to Isabella Bay, we had to force the kerosene with a stick in order to fuel up our stoves.

#### Weather Patterns

Is there any change in the amount of rain this area receives? What about snow? Is there any change in the amount of blizzards? What about thunder storms? Has there been any change in the prevailing wind? Has there been any change to the frequency with which the wind blows from different directions?

One time Joanasie Apak saved his brother from from freezing in blizzard by digging into a snow.

There were no severe cold spells often but with the wind, it was cold.

When southwest wind closes, the northwest wind clouds would form.

Today, there is less snow. Both Clyde River and Isabella Bay had great amount of snow.

This side of Clyde receives more blizzards than the other side, and

doesn't reach the other side at all.

Home Bay, maybe for the fact that it has caribou, there were thunder storms every year, this area doesn't get that kind of weather. My father-in-law once caught a caribou with one side singed. At Saatugaqtuuq during a severe thunder storm, even though we were lit with colman lantern, flashes were much brighter than our light.

#### Seasonal Changes

Has the length of any of the Inuktitut seasons changed over time?

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

#### Fresh water Ice

Have there been any changes to the timing of the freeze up and break up of lakes and rivers in this area? Has the thickness of the Ice on fishing lakes changed over time? Does it get thick as it use to?

Has there been any change to quality if ice?

Qarmaqtalik has two lakes, one the belongs to Kanguqsiti Fiord but it flows into Qarmaqtalik Lake.

Once, long time ago, in fall, the snow melted and it rained until rivers started to flow and turned very murky as they became stronger. That was a hot spell we received in fall, very unusual.

In the past, the northwest wind use to bring clear skin and some blowing snow. Today the wind from the same general direction brings over cast and some snow.

The prevailing wind seem to have slightly changed.

The quality of water doesn't seemed to have changed.

Lake ice must be thinner than before.

#### Sea Ice/Polyna

Have there been any changes to the timing of the freeze up and break up of the sea ice?

Does the ice get as thick as it did in the past? Are there any changes in the distance to the flow-edge during different seasons when compared to the past?

The flow edge use to start at Niaqurna because there were no icebergs in the area.

The sea ice is usually rougher as it forms in fall. The ice use to be much smoother before.

My father talked about how Igaliqtuuq sea ice would have late freeze up most years and how it would steam from the cold water.

#### Terrain/Permafrost

Is there any evidence of permafrost changing in the area? Has there been any change in the wet areas? Unusual areas of erosion or areas of accelerated erosion?

The area of the land where we trapped foxes has worn down somewhat.

#### Snow

Is there any changes in the amount or depth of snow that this area is receiving? Are there any seasonal changes in the quality of the snow cover?

Even in winter time traveling into Itirviluk Fiord, dog use to bleed in paws because of lack of snow from windiness. When you get to an area where there is snow, dog would feel better and pull harder.

There use to be more snow in the past than now at Pingualuit (Cape Henry Kater Peninsula) when we travel to Home Bay.

The sea ice near Alaniq, there use to be some holes where seal had poke their head through in caved in spots which means that here was no ice under the snow.

At Home Bay, you would pitch your tent on the snow free ground but when you get to Isabella Bay, there was no ground free of snow to tent on, just snow as well as in Clyde River.

#### Wildlife

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these affects impacting on the hunting fishing and trapping?

There are also more dovekeys on islands today than before.

#### Fish

Are fish runs or health affected by changes in climate?

The fish were smaller at Iqalugaarjuit where people fished, at the same lake every year. People stopped fish for awhile then when they fished again, the fish were larger but the population didn't seem the same. This has nothing to do with climate change.

#### Vegetation

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

Ptarmigan, arctic hare and caribou have not seem to have changed at all in health wise.

#### Health

Has there been a change in the health of the community that you attribute to changes in the weather? Has there been a change in the health among the local population?

Unwanted food were fed to the dogs.

## REGILEE PIUNGITUQ

Where and when were you born?

Aisa Piungituq (A) was born at Ailaqtalik (20 miles southeast of Clyde River) in February 9, 1954.

Regilee Piungituq (R) was born at Qulliqtalik (Sam Ford Fiord) in May 19, 1953.

Can you describe the areas you used to frequent during the different seasons and what you did there? When you were a child? When you were youth? When you were a young adult? Now?

A I grew up at Naqsaalukuluk (mouth of Sam Ford Fiord).

R Part of my childhood was at Qaurnang north of Pond Inlet, Eglinton Fiord and at Arviqtujuq which is also at Iglinton Fiord.

We move permanently to Clyde River in 1986 from Arviqtujuq.

At the camps where we lived, we carve and hunted for living.

Do you think the weather has changed since you were a child? How has it changed? When did you first notice changing in the weather? Did your parent mention any changes in the weather at any time in their lifetime before you were born and started remembering?

A The arrival of the cold weather does come late nowadays, the warmer air usually bring foul weather. When the snow comes down, its not usually not enough to travel on..

The dirty snow is the cause of rapid melt down of the snow. In spring like June, a crust of snow doesn't form anymore. We use to during the night when the snow is crusted (frozen on the surface) and it made traveling much easier.

With the clean snow, the melt down of the snow use to be much slower and crusted over. Nowadays the dirt quickens the melt down of the snow.



A My father use to talk about climate changing which fluctuates in time because he grew up living with elders. For this area lies within the area where wind does happens more often than other areas. What causes the melt down of the permanent snow and ice caps is the wind, not so much the heat of the sun. He didn't talk about the heat but the wind.

For myself, I can't say that heat is the cause of melt down of snow and ice. The ice and snow from the top of the hills are really melting. The area that is away from the sea is the area where melting is being effected the most.

How are changes in weather and surrounding land affecting your activities? What changes have you had to make as a result of these changes?

R There are some different things that are wrong with seal skins like small hole, impetigo, double hair in wrong seasons and so on.

A Seal skin tent were said to be too hot when the sun shines. Babies had to be put into shade because seal skins were too hot for them.

R Top of the mountains have said to have more winds than the lower area.

We have also witnessed the small amount of rocks were visible on top of some mountains, few years later most of the ice caps in that area melted, the wind strip those mountain tops.

A The mountains are well known by elders who spend lot of time on the land, from their experience, they said ice caps and glacier on the higher area did use to melt faster than lower area because of the wind.

Sometimes people who could no longer go any where because of melt down of the snow or ice would sometime live in the area where they stopped for the time of melting.

My great grandfather and his family did live in the area where the melt down took place while the were traveling from Iglulik and they ended up staying on this side of the island.

R Especially for the animal skins that needs to be dried could not be face directly into the sun for they would become brittle from the kind of heat or something else that the brings to the earth in the last few years.

We use to bleach seal skins outdoors in fall and early spring for those year were the best seasons for bleaching seal skins. Today even in winter has become exception for that kind of activity.

A The wind areas of this region was what my father calls qataangajuq, today those wind area have strengthen and wind comes more frequently.

The air the causes the wind to stay calm has been blown away and for that reason the heat coming from the son is stronger.

After the wind, it is noticeable that the heat coming from the sun is greater.

R It is also noticeable that the snow that use to create more of crystallized called "pukajaaq" against the surface of the ground, the very bottom of the snow.

Today the snow really doesn't have any pukajaaq to it, the today is about the same from top to bottom.

A The snow today is harder to make igloo out of.

R The snow is crystallized in a way from top to bottom where the air could blow through.

When you clear the snow off the ground, the ground is frozen hard and the snow is like clued on to it, stuck right on to it. It like the snow is pasted on to the ground. In the past when you clear the snow off the ground, plants like the northern heather would become free of snow when pukajaaq is present.

#### Temperature

Have you seen any changes in how warm or cold the weather is in this area? During which season? Is the temperature the same as it was in the past? Can you remember times when it was extremely hot or extremely cold?

R To me it has completely changed, the cold use to come more gradually. Today its sudden drop, the cold weather comes suddenly. Same with the warming of the season, it rises with a sudden impact. This would happen after the lingering warm weather in the season and vise-versa.

A I really have notice the cold temperature, this man who originated fro Pond Inlet lived here for long time said "It feels cold but I haven't seen the misty cold in this area". Right after that, when you're traveling with another snowmobile, you couldn't be close to the other machine because of the misty cold the snowmobile created. Just before 1970's, the cold weather had mist with it and today it doesn't happen anymore.

R Seal skins that are placed outdoors would too quickly freeze up.

A The process of melting does not sleep, when it happens, it happens day and night because the wind is the cause of melt down of the snow and ice.

#### Weather Patterns

Is there any change in the amount of rain this area receives? What about snow? Is there any change in the amount of blizzards? What about thunder storms? Has there been any change in the prevailing wind? Has there been any change to the frequency with which the wind blows from different directions?

R The rain is also different today than before. I have never seen the to come down so fast. In those days I have never witnessed any thunder storms. It has been said that the thunder does occur. As a child I have never known it until I became a teenager.

A The rain that happens, my grandmother talk about it and said that there use to be a thunder storm when she was young. She also said that when you take out the human waste, the thunder storm would go away because the thunder doesn't like what is dirty.

She did that more than once before, when she took the human waste out the thunder would leave the area. we have just talked about the speed of the rain in summer time. While the foul weather occurs and it cools down, the good weather is at waiting.

In the August when the top of the mountain covered with snow, then the there to stay for the winter.

Blizzard have also changed, we talked about the snow conditions today and how it is. That snow condition is not easily carved by the wind. Today the wind feels strong enough to create a blizzard, but the snow usually keep itself together firmly. Because of the crystallized texture of the snow sticking together keeps the blizzard storms away.

Blizzards seems to happen less often. The other area or region is probably the same as before. The area where soft snow use to be isn't there anymore. The wind occurs more often now but the snow is packed in more for the blizzard to happen.

R The wind continually happen without any blizzards.

A The original camping spots are not the same as before. When people got to the spot for camping, they did have to search for a good snow to build igloo out of because it was right there. Today that is not what it is.

R There are also sheltered spots we knew in the past, today you go to the same spots and they are windy.

A In the fiord where seal pup were found, the snow conditions are not the same anymore. You can't call the Nattiaqturlik anymore because of the conditions that have changed. Adults, the hunters use to hurry to get to the spot before dark, you fine that anymore.

The snow is blown away and collected in one spot where there is less wind.

The ice doesn't without warning these day which use to happen more often before. Elder tells us never to camp at points.

R We talk about the changed conditions of the wind and the weather, sheltered spots have changed.

In the past Sam Ford and the Scott Inlet regions use to have the ice drift away more often but that is not so anymore.

### Seasonal Changes

Has the length of any of the Inuktitut seasons changed over time?

Upirngaksaaq, upirngaaq, aujaq, ukiaksaaq, Ukiaq and ukiuq.

### Fresh water Ice

Have there been any changes to the timing of the freeze up and break up of lakes and rivers in this area? Has the thickness of the Ice on fishing lakes changed over time? Does it get thick as it use to? Has there been any change to quality if ice?

A The winter river over flows have also changed. I know for the fact that Revoir Pass, traveling through the river use to be better before and it over flow in winter time. Like we said about the lingering warm weather and the sudden cooling, that condition is taking its toll. When the cold weather came early, more water use to be trapped after the water freezes so that later on the water would burst out during the apogee.

R It is probably caused the wind the storms, the lake or snow for drinking, there is too much soil in it for drinking. Fresh water is not as good for drinking anymore. You can't use snow for drinking water anymore. Even fresh water ice are soiled today

A The soiled snow and ice cause rapid melt down. That part of the reason why rivers don't flow as rapidly as before.

R We think the air pressure cause the land to squeeze more of the water out.

We know the even before the storm comes, rivers will start to flow with much more force, more massive from the air pressure. These are the events that we use for weather predictions and today that seemed to have been left behind.

We don't look around enough these days as much as we use to.

A The lake where we fish, as a child it use to be much thicker. Today its not as thick anymore because there isn't much snow that settles on to the ice anymore, therefore the ice thickens more without the snow on it.

People who are making fishing hole use to have to make steps to get back out of the hole they're chiseling.

When melting is taking place, it is hard to find pure water for drinking because of the dirt in the water.

R Today I have to search more for pure cleaner water because there is more of this murky water almost everywhere especially during the melting season. In the past nice clear water was everywhere, you didn't have to search for it, even on the sea ice.

A Puddles on the sea ice use to be more fresh and the ice would be harder, there is more taste of salt in it now and the ice seems softer now.

#### Sea Ice/Polyna

Have there been any changes to the timing of the freeze up and break up of the sea ice? Does the ice get thick as it did in the past? Is there any changes in the distance to the flow-edge during different seasons when compared to the past?

A The ice break up use to happen more in August when we were young. My father also use to talk about that the sea use to freeze soon and while the sun shine during the day, the ice would become softer from the heat of the sun. They use to wait for the sun to go down, that's when it would become safe to walk on. He use to talk about when he travel by dog team, he would be able to puncture a hole through the ice with his heal.

R Today I have realize that it could break upon a condition where it is still thick. The ice would become nice and thin and then it would break up. Now I notice even before too many holes through the ice are formed, it sometime suddenly breaks up.

We don't travel on ice condition where there are so many holes are. We use to travel on that kind of ice condition by dog team. Sometime you could accidentally run into a hole through the ice.

R My father use to say that when the ice freezes being too salty and when its melting, the melt would go right through the ice instead of going through leads or seal breathing holes. Holes are more easily formed while melting when the ice had frozen being too salty.

Those that froze with less salt were called "puktailat" those that had more fresh water added to it.

#### Terrain/Permafrost

Is there any evidence of permafrost changing in the area? Has there been any change in the wet areas? Unusual areas of erosion or areas of accelerated erosion?

A The sod area seem thaw more that the rest of the ground.

The cracks in the ground seems to be little too wide along the roads, the sand.

R The environment, the very ground, we didn't see many of cracks before. Today eve outside the community, more cracks are noticeable.

A Rivers will have more massive flow in spring time and then the summer comes, the flow of these rivers will lessen. For the fact that high mountain are melting much more.

R At the beginning of river flow season, the land is soaked with water, rivers flow rapidly and when it seems the time when flowing should be bigger they then ease up.

A For the land that is not close to the shore is really melting much more earlier, later on there isn't enough water to flow anymore which has been melted by the wind.

The sandy areas are eroding, there is hardly any area to camps anymore. At Walker Arm there is a place where we use to camp, it has been completely washed away by waves.

R The area where we usually camp doesn't have tenting area anymore. Erosion by waves and river seemed to have speed up.

A massive forceful rivers in spring time has cause river beds to straighten.

R The sudden melting has caused rivers to flow much more in shorter period of time. There use to be more curve and bends along the rivers. Now rivers are straighter.

A There is a bolder at the end of Walker Arm that use to sit beside the river, it is now in the sea. The bolder is bigger now that sand has been washed away.

R The sudden melt down of snow and ice has cause rivers to flow straighter in line.

A The wind continually is melting the snow, it never slows down even at nights these days before the summer comes.

Snow

Is there any changes in the amount or depth of snow that this area is receiving? Are there any seasonal changes in the quality of the snow cover?

R "Tingininga", the southeast side of the shore doesn't have much snow at all, there is only ice.

A Blizzards are fewer, when the cold come it snows less, that is part of the reason that there is not enough snow in the area.

Travel/Camping

Have changes in freshwater ice, sea ice, terrain, snow conditions or water levels affected travel at different times of the year?

A Nowadays for the lack of snow, the area that we use to travel through, some old trails are no longer possible to travel through.

The dark season is another thing that our father wanted us to know about because of the climate change. When the season is windier there is more light. When there is less wind it really has the effect of the darkness. We people finds it strange when it is light at the season, the knowledge needs to be passed on to the next generation.

In the past without the moon during the dark season, it use to be too dark. It is usually wind there is less wind for the year. This knowledge was past on from the elders my father lived with.

#### Wildlife

Are there new animal species being seen in the area? Fish? Birds? Insects? Are the native species being affected by changes in the weather, for example migratory patterns of health? Are these affects impacting on the hunting fishing and trapping?

A Insect, birds and fish are noticeable in their change.

R There are uncommon animals that shows up from time-to-time.

A I said that the snow and ice melts more today than the past. Insects shows up more in greater numbers.

R Including uncommon ones.

A Mosquitoes, are more in numbers than before. There use to be fewer mosquitoes before. Wind that cause the melt down of the snow and ice is the cause of more insects to appear, that's how I think about it.

Small birds use to come to the community more in larger numbers. Today there is food for them elsewhere so we don't see them more often here anymore. When birds were more abundance in the community, we use to have bird traps.

The fish, when rivers flow much more for longer period, the fish left the area more. Now the fish seem to have come back to Walker Arm, today there are many fish.

I talked about the time when the ice stayed late and the snow melted later, there were fewer fish. Fish were harder to catch then. When the melting came earlier, fish seem to be easier to catch. When fishing without a gill net, you had to spend more time at the lake. Before that time it was easy to use with lure.

A Birds that eat vegetation like geese are now more numerous because the area melts earlier today than the before. They do settle in this area now for the vegetation is more available. In spring time we collect many eggs now. When we were children we would see snow geese but they use to be very wild. They would fly off when you are long distance away.

R We talk about the earlier melting of the snow, the Snow and the Canada geese do stop to lay eggs in this area today.

When we lived at Scott Inlet there were no geese then. Today you can collect as many eggs as you can. The same area now has many geese. The geese and the mosquitoes are more noticeable because of earlier

melting.

A For there is less snow in winter time in this area, small birds are seen more closer to the shore. Although small birds were seen more inland in winter time. We now know that they spend more time where there is less snow in winter.

There were more snowy owl in the past. No one hunts owls. Owls were almost gone at one time. When we were children, arctic hare use to den to hide from snowy owls.

Animal had been said to extinct when no one needs them, that seems to be true.

In the past birds were harder to catch.

R It seem like all the animal and birds were harder to get and you really had to try hard to catch them. animals were very wild, today you can get closer to most of them.

A There are many more polar bear today.

R They will come right up to you.

Vegetation

Are there new species of plants being seen in the area? Are the native species of plants being affected by changes in the weather? Are these affects impacting on animal species that depends on these plants? Are your gathering activities affected?

R I have seen some uncommon plant on the land although there are plant name that I have heard before. There is also some uncommon plant that I have seen.

There those willows that I wanted to know more about. Today they have grown to be almost like trees. There are now larger willows at the inland of walker arm. I have seen small ones and some have grown to the height of people.

The caribou from Walker Arm use to have very poor bone marrows because they were skinny including arctic hare, Today if there is nothing wrong with them, they are fatter now.

A There use to be a lot more snow before.

The bone marrows of caribou were bad enough so that you use to be able to pour the out of the bone.

R Especially about two years ago, the caribou from that area were fatter, they even had fat on them. Very few time a caribou with more weight were caught form Walker Arm.

It was your mother who got so use to eating bone marrow from the caribou that was caught from that area.



A Arctic hare were harder to find before. We use to look for an area were hare might be found like slopes and so on. There seems to be hare almost everywhere.

General

Any additional comments or notes?

R There seems to be more animals that has some sort of defect on or in them. Like with the skin or other things.

The climate has effect on living things on earth.

A There are those bow head whales that you have to watch out for. You want to speed up your boat but being afraid that you might hit a whale, you just can't speed up