

Daily Observations from Sisualik,
Cape Krusenstern National Monument,
Northwest Alaska

Volume 5: 1994



Jaegers

by
William R. Uhl

Daily Observations from Sisualik, Cape Krusenstern National Monument,
Northwest Alaska

Volume 1: 1990

Volume 2: 1991

Volume 3: 1992

Volume 4: 1993

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Volume 6: 1995

Volume 7: 1996

Volume 8: 1997

Volume 9: 1998

Volume 10: 1999 & Appendices

Volume 11: 2000

Volume 12: 2001

Volume 13: 2002

Volume 14: 2003 (with 2004 summary)

In 2004, the NPS printed 50 sets of Volumes 1-10 which were distributed to
libraries.

Volumes 1-10 have also been distributed in PDF format on CD-Rom.

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ABOUT THE UHLS

William R. "Bob" *Kalluchuq* Uhl was born January 4, 1927 in Sacramento, California. His first introduction to northwest Alaska was in February of 1948 as a member of the US Military. While stationed in Kotzebue, he met and married Carrie Williams. His marriage to Carrie and a growing disillusionment with the state of affairs in the Lower 48 lead to his decision to establish a life in northwest Alaska.



Carrie Williams *Qisiliaq* Uhl was born on November 30, 1922 in Kotzebue, Alaska, to Whittier *Kalluchuq* and Edna *Napaktuq* Williams. For most of her lifetime she has lived in the country, away from town and any public services, such as running water or electricity (although her family did spend some time in Kotzebue while the children attended school). Her family led a very subsistence-based lifestyle which meant that they depended on hunting, fishing, and gathering to provide food for themselves and their extended family. Carrie's father was the first Alaska Native pastor at the Friends Church in Kotzebue. In fact, Carrie was named after Carrie Samms, an early Friends Church missionary to the region.

For over five decades, Bob and Carrie have lived in rural camps. Summertimes were spent in a tent (and later in a tiny cabin) on the beach at Sisualik, where they were able to fish and to hunt marine mammals. In the wintertime, they moved inland to a more sheltered cabin where trees provided wood for heat, a stream running under the winter ice provided water, and moose and caribou provided food. These camps were present long before Congress established Cape Krusenstern National Monument through the passage of the Alaska National Interest Lands Conservation Act of 1980.

Since its inception, Carrie, Bob and other local residents have been gracious neighbors to the National Park, its visitors and staff. They and others have openly shared stories, wisdom, insights, and food with those interested in learning about their lifestyles and homelands. In fact, Bob and Carrie authored *Tagiumsinaaqmiit: Ocean Beach Dwellers of the Cape Krusenstern Area: Subsistence Patterns* in 1977, a publication which has aided the National Park Service in the planning and management of the monument.

Where historically many families lived year round at Sisualik and Sealing Point, today only the Williams camp (Carrie's nephews) is occupied in winter. As times have changed, families still maintain summer camps on the Krusenstern beach, but almost all reside in Kotzebue or other villages, taking advantage of educational, employment and other opportunities. Carrie and Bob represent the last family maintaining their historical year round lifestyle within what is now Cape Krusenstern National Monument.

ABOUT THIS SET OF JOURNALS

Bob and Carrie Uhl have maintained a subsistence lifestyle at Cape Krusenstern for 54 years – beginning well before the establishment of Cape Krusenstern National Monument in 1980. In fact, they are the last full time residents of the Monument.

Bob has kept a daily journal of resource observations of the Cape Krusenstern area and its resources since April of 1990. Bob has generously given permission for the National Park Service to edit and publish his journals for library use in order to better share this invaluable insight into a vanishing lifestyle.

Bob Uhl's diaries provide an invaluable `window` into a vanishing culture. They also provide a daily, ten year record of resource observations made by a keen `naturalist` who has spent 54 years observing and documenting the natural processes of the monument and the subsistence practices of the resident Inupiaq people.

The National Park Service is indeed fortunate to have access to this historic record and is pleased to be able to share it with a broader audience through publication. The information in the journals will be of value to students of natural and cultural history, as well as of general interest.

This set consists of the first 10 years of his journal entries: 1990 through 1999. The National Park Service is in the process of editing entries for the years 2000 through 2004.

Various factors lead to the Uhls moving into Kotzebue for several months during the winter of 2003-2004. By June, 2004, they had returned to their coastal summer camp. Many people were pleased once again to hear Carrie back on the CB, greeting her friends and neighbors each morning and evening.

**CAPE KRUSENSTERN
NATIONAL MONUMENT**

RESOURCE REPORTS

1994

WILLIAM R. UHL

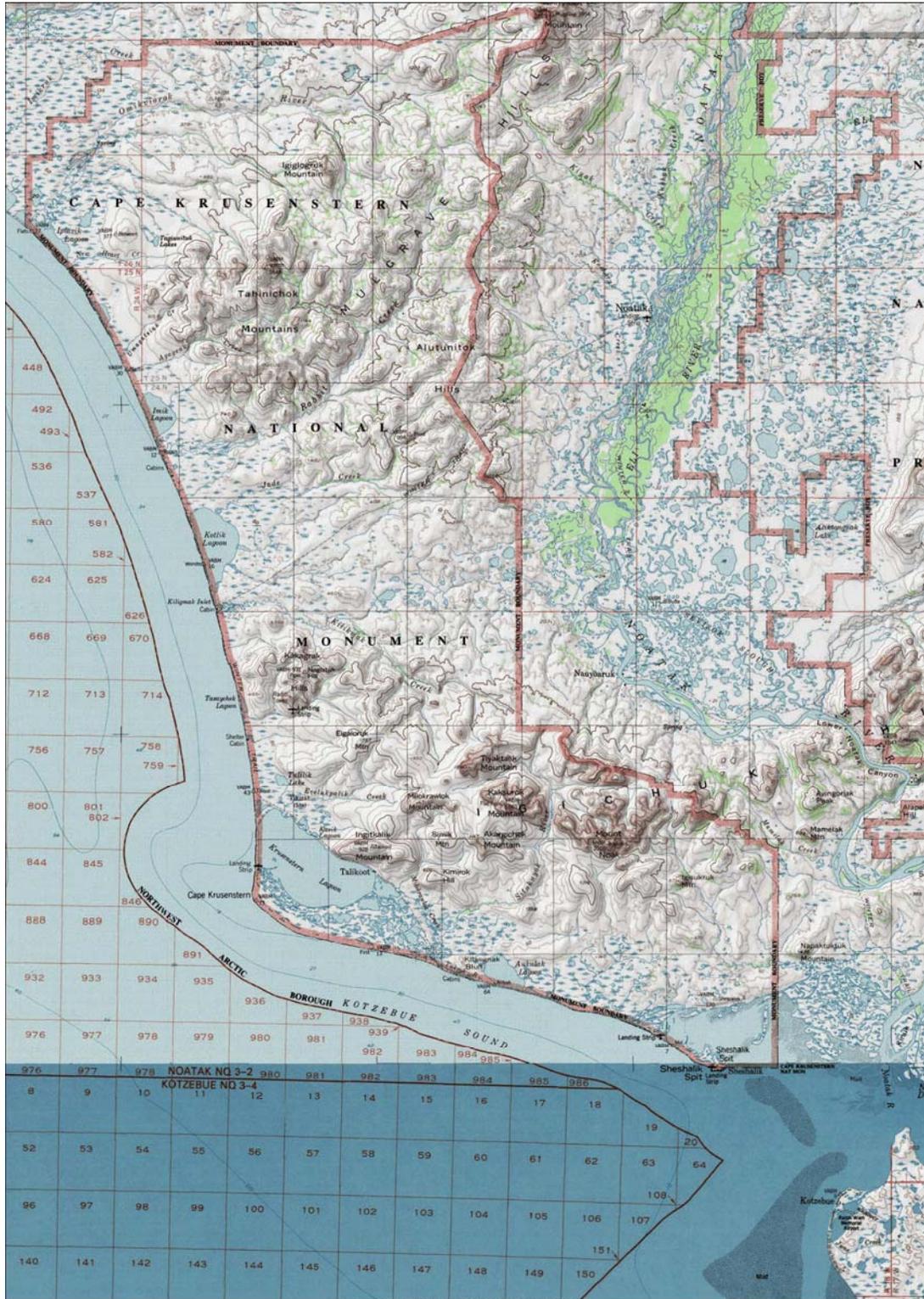


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MONTHLY RESOURCE REPORT

JANUARY

Introduction

The low temperature January 31, 1993 was -47° F. The high temperature on January 31, 1994 was $+39^{\circ}$ F. And maybe that is the way January is. We have before mentioned in this Journal that January is often a month of contrasts in the Kotzebue Sound region. We were speaking then of temperature change within each January. It seems that it is also an apt description, sometimes, between years.

Our low temperature for this January occurred on the seventh at a -31° F and the warmest temperature was the 39° F of the 31st. The twelfth was our most windy day, with forty knot winds from the E and SE.

Except for these extremes, the month was on the whole rather moderate. Temperatures were no doubt milder than usual and winds were probably less extreme than in some years. It seemed a rather good month weather-wise after the rough three months that preceded it.

Influenza among people, including us, was probably one of the events of the month that will be longest remembered. Following the holiday season it seemed there was hardly a family, or hardly a person that missed a siege of some magnitude with this malady. One can only imagine the terror and terribleness of the flu epidemics that decimated populations in the region early on after contact with the outside world.

Wildlife

Though caribou disappeared from our valley and marten ceased to make tracks through our camp and moose either moved off or were harvested, the weather cannot be blamed. Human activity brought on these events and they are no real surprise. The moderate environmental conditions of the month were favorable to all those creatures who call this land home. Again it is notable that for reasons other than environment (maybe), many species often on the scene here remain absent. Most obvious are Varying Hares (Snowshoe Hares) and Willow Ptarmigan. Lynx, wolverine, and wolf tracks can no longer be seen in January in our area. Voles and shrews, after spectacular highs last year, are difficult to locate this year. One expects these variations in this region. Some of them are the normal "wax and wane" of

natural systems. In some cases it is required that some species be few or absent so the land-plant world can replenish itself to bear the hoards when they do return. It is a land of feast and famine. It may always be that way.

Caribou

Though caribou pretty much moved or were moved out of our area in mid December by snow machine activity, there were three reports in January. A group of 10-12 were seen inland from Sealing Point on the 17th. Possibly this same group was seen again on the 19th by a hunter, not many miles east of the first report. Then a group of 20, all bulls, was located several more miles east, nearly behind Sisualik. None were taken in the first two reports, but three were said to be taken from this first reported group on the 28th.

There are reported to be many and fat caribou in the Buckland area again.

Moose

The mildness of the month no doubt favored the region's moose population. A few have again chosen to winter on our little creek and the hillside tree-willow patches.

In the first half of the month at least four different animals were noted. There were two adult bulls, a subadult male and a medium sized female. On the 12th we took the female for our yearly moose and its fat reserve was good, though less than we have come to expect from large cows without calf at this season.

Moose were reported "out of habitat" in open flat country twice around mid month. That is not unusual January through March.

We are not aware of any other moose killed this month on the Monument. Wolf predation on the lower Noatak does not seem to be a problem again this year. Wolf tracks have not been seen often, though rumor has it that a couple have been taken.

Bear

No Bear stories in spite of unseasonably mild weather at month's end.

Sheep

No news.

Musk-ox

No report.

Marine Mammals

After some mild weather with offshore winds, around the 10th of the month we began to pick up rumors of some successful seal hunters. We got the full story later on from one of the participants. There was a two or three mile wide shelf of ice out into the ocean off of Sisualik, with the open water edge extending towards Cape Blossom. A middle- aged hunter went out to the water edge between Sisualik and Kotzebue. He had as an apprentice/partner a young fellow from another local family that grew up in Sisualik-Kotzebue but due to schooling and work after, hasn't been much into winter seal hunting. They got 17 Ringed Seals that short day and that is a remarkable winter catch anytime. The next day (or soon after when conditions were right) the young son of the adult hunter wanted to go out to hunt with the young apprentice from the first hunt. The mother of the apprentice deemed the idea too dangerous for her son to go with the relatively inexperienced other young fellow. The "other young fellow" went alone, and got eleven Ringed Seals!

Now this is an interesting story for several reasons, but the most important is that winter seal hunting, in the past a necessary activity for every family unit, seemed to be fading away. There were only a few old adults that continued to go out when conditions were right, and no young adults or boys to go along to learn the skills of a very exciting and dangerous activity. Now in this incident there are two young men that have not only learned some of the expertise, but were fortunate enough to be out at an especially good time to hunt. Seals are seldom that plentiful in winter hunting. It is predictable that this "high adventure" activity will spread amongst the age group represented by these two young fellows. Winter seal hunting will likely experience a resurgence of participation.

Small Mammals

Sign of a few voles was noted during the month, but even though we have edibles (fish, meat) within reach, they have been bothered little.

Red Squirrels, the same scattered dens noted last fall, showed considerable activity during mild days after the first of the year. Surprisingly, the rather continuous parade of martens through here has not changed the Red Squirrel population much.

Still no check on area where Snowshoe Hares were reported. The Kobuk Delta and Baldwin Peninsula south of Kotzebue are reported to have tracks.

Furbearers

Marten and fox have become the most regular fresh track makers through camp in January. Since the moose kill was not far from the house the scene was increased and prolonged by blood and scraps from that happening.

New single marten tracks have been made through camp every two to four days through the month. This in spite of 3 to 4 taken in a trap set for them by a neighbor two miles down creek. The marten invasion of this territory during my tenure here is quite remarkable and adds to the species - moose, caribou and sheep - that were unknown on the Monument in this century prior to my arrival in 1948.

A relative in Noatak reported taking a wolf on the 6th and rumor has it that a couple were taken on or near the Monument, but date is uncertain. During the last week of the month some wolf-wolverine hunters/campers set up north of Noatak and on the Squirrel River. One wolverine was reported taken from Noatak.

Pack ice has been rather far offshore during January, which explains the absence of many white fox after an early mid fall showing of numbers on the coastal stations of the Monument.

Birds

January, 1994 was outstanding for its lack of birds. Our six camp Gray Jays (sometimes joined by several more until they are driven away by the six) and two regular daily ravens (recognized by the odd voice of one) are our only "regular" birds.

An occasional glimpse of a few Willow Ptarmigan and more often just fresh tracks and the above jays and ravens are our only January birds. It was hoped that the very mild even rainy weather at month's end would bring us some avian diversity from some where.

Plants

The first mild and dry days of January did bring a sprinkling of white spruce seed to the snow surface. For three weeks a few new winged seeds could be noted. Trees on the edge of forested plots seemed to carry more and larger cones. Except for possible jay use, no birds were noted feeding on seeds either in the cones on the tree or on the snow surface.

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One wonders what the effects of the warm air and several days rain at the very end of the month might be on various willows and spruce. It released many saplings bowed to the ground by heavy wet snow earlier in the year. There were a surprising number of these and temperatures were mild enough that they fairly "leaped to their feet" when the snow burden thawed from their boughs. Had there been hares, most would have perished as their branches were eaten.

Fish

Noatak folks began catching char with hooks on the 24th. The last week of January provides sunlight enough to open the season on large "spoon grabbing" fish through out the region. People are a little slow to get at the activity these days, the necessity not being so intense as in the past. Sheefish, Northern Pike, Burbot and Char are the possibilities.

Shee netters on Kobuk Lake had a flurry of greater catches at mid month, on the 14th. Net catches usually drop off quite dramatically as daylight lengthens and brightens.

People

Sealing Point family making a winter of it. Maybe the first over- wintering on the Cape in this century.

Influenza played a large part in people's activities in January. See Journal entry of 3rd for further comments and several other pages through the first two weeks of the month.

The three hours of sunlight we had on the 5th had jumped to 6 hours by the 31st and was increasing by 8 minutes a day. This is a very important fact of life to people living on the land. The sun rays first came back into our humble house on the 8th at 1:35 PM. By the 15th sunrise occurred back before noon, where it should be all the time!

On the 25th it was reported that the huge ice piles-bergs off the tower at Sealing Pt were building. These piles anchor the shelf ice down and make a platform for ice hunters to operate from.

The high temperature readings for the 29th, 30th, and 31st were daily record breakers. A great way to leave January 1994 behind.

MONTHLY RESOURCE REPORT

FEBRUARY

Introduction

February 1994 might be characterized by calling it "short and sweet." It is, of course, our shortest month and this year with relative mild temperatures, little new snowfall, and moderate winds it was quite pleasant with rapidly increasing sun time. The sun remained above the horizon for nearly 10 hours by the 28th. Quite a nice change from the less than 2 hours of late December and early January. In some years February is our very coldest month. In others it can be the month of the most blizzards. This year, as we have seen, it has been quite pleasant - sweet as February's go.

The warmest day was a toasty 38° F on the very first day of the month with a 40 K wind blowing from the SE. This day and the next routed the Ground Hogs out with the highest winds and temperatures for the month. Rain also occurred on both days. A minus 30° F on the 16th and -32° F on the 17th were the lowest temperatures for the month. Quite often our yearly lows of -50° F occur in this month, but not this year.

The local revival of winter seal hunting was probably the one most outstanding happening in this rather moderate, quiet February.

The rains and warm winds of the record breaking temperature days of the first week of February released many sapling white spruce that had been doomed by heavy wet snow early last winter and bent over to the ground by that sticky snow. The thawing of surface snow and ice with the help of gusty warm winds allowed the saplings to spring upright again. There may have been more than fifty in our little spruce patch alone.

A trip to the Lower Canyon of the Noatak River for fishing on the 16th gave an ice thickness of 3 feet in a place where it is sometimes six feet by late February, but usually between 4 and 5 feet. We made two holes where the surface was free of snow and where overflow had occurred and frozen. It is likely that snow-covered areas are much thinner, but because of rains, thawing and overflow through December and January, there may not be any spots on the lower river with original ice that was early on covered with snow. If there are, these places could be quite thin.

Wildlife

The mildness of the month should have been good for most creatures. The rain, freezing drizzle and refreezing could have given some species trouble, but locally there were no problems as mild dry winds blew several days after the icing and dried everything up before refreezing. There was some snow crusting but rain didn't fall long enough to make it a major problem here. It did firm up our heretofore light, deep fluffy snow and probably gives some predators, including man, an advantage..

Caribou

There does seem some evidence that there are at least a few over- wintering caribou on the northwestern section of the Monument. We have no hint that they number more than 100, though that is possible. Two were taken from group of 14 in the Sealing Point area on the 23rd. On the 25th, a group of at least 50 were seen in the hills east of Sealing Point and chased but none were taken. Hard, icy snow and rocks at higher elevations helped the caribou escape without loss. Around this same time a hunter from Noatak reported taking a couple from toward the coast. The quality of the meat from the caribou taken was not clearly reported, but one report that it was good and another that they were lean, would probably mean if they were adult males, that their fat reserve was about normal for adult males for this month. There has been no suggestion region-wide that caribou have had any particular problem this month.

Moose

The few local moose that we have, have been real sedentary this month. There are at least two on our little creek and they hardly move away from where they have found adequate feed. There has been a noticeable lack of sign of moose traveling across open country this month as they sometimes do. Rather deep and twice crusted snow may be a deterrent. Snow cover has not yet been a problem this winter in regards to moose foraging needs in this area. None were known to have been taken this month locally.

Bear

Though the mild weather around Ground Hog Day could have brought some bears out to look for their shadow, it apparently didn't as there have been no bear reports.

There was a report of possible Polar Bear tracks off the ice to the ground near the Ranger Station, but the tracks were nearly obliterated so the informant wasn't real sure by what and when the tracks were made.

Sheep

No sheep reports.

Musk-ox

No report.

Marine Mammals

The mild temperatures, large open water, and plentiful Common Ringed Seals made nearly a whole month of off-and-on winter seal hunt possible. The off times were mostly due to strong or offshore winds. Several local people with dogs to feed or blubber sale in mind kept at the activity whenever conditions were right. Older people (like us) that wanted seal meat and/or skins were given some of the catch. Others were sold in the river villages. Since numbers of seals present was unusual for this season we check stomach content reports and found herring to be the attractant and that makes for some other interesting facts. We have over-wintering herring in the Sound here. Those herring not having anti-freeze enough in their systems to survive winter chilled saltwater must overwinter in the brackish water where marine waters meet freshwater. This meeting of waters occurs roughly in the zone between Sisualik and Kotzebue and fluctuates with marine current and level in or out, depending on weather systems. Usually by the time, ground fast ice has formed in this area and Common Seals cannot reach the herring zone from open outer Sound leads. This year, because of the mildness of the winter and lack of landfast ice in the Sound, seals are getting to overwintering herring stocks and local hunters are getting at seals. And an activity that seemed to be fading away is showing remarkable revival.

Small Mammals

Voles and shrews (the signs of them) seem very, very scarce. Some reports indicate that the Upper Kobuk and maybe some other areas had early midwinter rains that left ice sealing clear down through snow cover to ground. This condition, if very widespread, can be very deadly to microtine populations that depend on a subnival habitat for a life-maintaining environment over winter. There does not seem to be that extreme condition locally, though there is some crusting through the snow stratum. Surface sign of these creatures is very scarce locally, and though we have

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things attractive to these animals in storage, there has been little sign of small mammal feeding or nest making.

Both Short-tailed Weasel and Least Weasel have become increasingly rare as the winter continues. Probably reflecting the lack of prey.

The few Red Squirrel dens that we know of continue to show signs of life and activity during midday when the sun has warmed things a bit, even in the current cold spell.

No new information on hares locally for February. Reports continue to indicate a presence on the Baldwin Peninsula south of Kotzebue and on the Kobuk Delta.

Furbearers

Marten continue to be the most interesting furbearer here this winter. One, at least, has continued to make our camp a regular stop on it's rounds of its Winter territory. It is possible that our camp constitutes a central food source for this graceful white-footed creature because of the general lack of food source in surrounding habitat.

Several Red Foxes have also found our camp excess a continued food oasis in a late winter land of little else for their sustenance.

A single Land Otter continues to pass through on the creek, but not often.

On the 17th, at midday, the marten was observed from the house window making a rather thorough apparent mechanics check on the Ski-doo. Don't know if he learned anything but he did a pretty complete inspection of the machine.

From local radio station "for sale" items it appears that a few wolf and wolverine were taken on the Noatak River above the village through this month. There is no hint of increased activity.

Closer to home, wolf tracks were reported on the Aggie River on the 26th and one track was seen on the 23rd around our wood-hauling trail just north of us.

Birds

February proved to be as bird-less as January. Our six camp Gray Jays continue rivalry over camp scraps and a few Willow Ptarmigan continue to make tracks but are seldom seen. On the 22nd, early morning crowing of ptarmigan reminded that

spring will be soon coming. This was the first early morning crowing heard for many months and was indeed a welcome sound.

On the 19th three birds, "smaller than" Gray Jays were seen feeding on the ground (spruce cones?) by a camp visitor. They were probably redpolls.

No raptors were noted, due, no doubt, to lack of prey. Horned Owl have been heard in the past during this month even though prey is absent. That didn't happen this year.

Out in the open country as well as in town, the Common Raven remains undisputed Winter King of the Airways. Absolutely no competition this year at this season. Thought of Jonathan the Glaucous Gull today and wonder how his winter is going. We will expect him back in another month and a half.

Plants

The record breaking high temperatures of early February, with rain and warm winds, released a large number of sapling white spruce that would have been much more damaged had they been required to wait until May for the thawing of their great loads of snow and ice. There was a record number of these trees put down in our area by heavy wet snow and icing of our nasty late fall and early winter weather. They are fortunate and owe their survival to two unusual, out of the ordinary conditions. Number one: no rabbits. They would have been stripped of their branches and needles while tipped down to snow surface if our hare populations had returned. Number two: enough warm days. Wind and rain usually don't occur in midwinter to release the tremendous load of snow forcing tops of these trees to the ground.

Very few falling spruce seeds were noted in February. Most of the crop for this year came to earth in January and many cones seemed stunted and immature and probably didn't produce viable seed.

Many Felt Leaf Willow do have white "pussy willow" buds showing on their twigs, many without the dark brown casing that usually covers them at this date. Don't know if that condition is due to midwinter thaw or what, but we have taken a few twigs inside to see if normal development will continue with summer-like inside temperatures.

Fish

Due to the unusual midwinter warmth and offshore winds, the first open water lead edge is so close to the Kotzebue Channel freshwater outflow where Pacific Herring

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must overwinter, that there has been an unusually heavy concentration of Common Ringed Seals. This has been good for the revival of a long standing winter seal hunting tradition, but may be hard on local herring stocks. Seals taken by hunters were pretty well stuffed with herring. Usually by January, the first lead of open water is far out into the marine system and traveling groups of Common Ringed Seal cannot access herring wintering grounds.

Our first ice fishing try (for Burbot) was on the 16th in the Lower Noatak Canyon. Two holes were made in only 3 feet of ice and there was no sign of fish of any kind being attracted to our spoons. It was a foggy morning that turned into a bright, but very much colder, afternoon. It was a very poor day for fishing and a very first time of no February catch at this place of the stone images. The Stone Lady with baby on her back has not gained any distance on the pursuing bowman still on the opposite side of the river. The only change from previous years is the lack of feeding fish between the two.

Some good hook and line catches of Sheefish were made through the month along the east shore of Kobuk Lake.

People

There were still only four winter camps occupied full time through Sisualik and one at Sealing Pt. However, through February a number of people went to their summer camps for an overnight or weekend stay for various purposes. One of the most common was for a warm up place or preparation place for seal hunting. Some use of other distant camps inland (Noatak-up river, etc) have caused more trails and travel to occur through the NE section of the Monument.

With the developing good cross-country trail surface through the month, the mild weather, and longer days many hunting sorties were made across the Monument. Results of the hunts have probably been pretty poor, though a few caribou were in the Sealing Pt. to Port Site zone. Moose have been available scattered through the area, with concentrations on the Noatak Flats upriver towards the village and beyond. We are not aware of any February kills, though the season remains open. Few people regularly take Moose in February and March not wanting to chance the possibility of taking one of poor meat quality. Exceptions are those that have not taken a moose at that season before, or relative newcomers that just want to fill out their licensed share before the season ends.

By the end of the month those folks that had spent a good deal of the month outdoors were showing it in their suntanned faces.

MONTHLY RESOURCE REPORT

MARCH

Introduction

Well, we ended up having our mid winter cold spell in March this year. Late in March too, and it caused some inconvenience to the travelers and partakers at Friends Mid Year Conference at Noatak. There were 19 days in the month when the daily low was a -20° F or less. The Intense Cold Monster stalked the land for the first time this winter from the 14th to the 24th which enclosed the Noatak conference and NANA annual meeting time. Five hundred or so travelers braved the weather and made it safely to and from Noatak Village from many distant points. Night time temperatures were often between -50° F and -60° F.

Winds were light and NW during the period and through most of the month. Winds of 35 K on the 13th from the NW brought on much of the cold weather and east winds to 25 K on the 27th brought temperatures up to 36° F on the 28th, with a day and half of rain! Our erratic weather systems continue. There were periods of snowfall during mid month and during the last week, new snow was capped and fastened down by an all night rain on the 29th.

Perhaps there were two high points in the month for us. On the afternoon of the 20th, 600 other folks and us shared in a memorial service in the "small" Noatak Village Friends Church for our friends, family and neighbors that have moved on in this past year and this past century.

On the very last day of the month we trekked on a perfect day of early morning fog and later full sunshine to the mouth of Fish Creek on the northwest shore of "Kobuk Lake" for a perfect day of successful Sheefishing. Our trip and catch were much like our trips for that purpose a couple of decades ago when our life and activities were much more intense and when successful Sheefishing was a matter of life and death. It was good to be a part of it again, even if only for a day.

Wildlife

If mortality occurred this winter among our local creatures due to weather extremes, it very likely happened during this late cold spell. We have no hint that any problems developed. A moderating factor in late winter extreme cold spells is the midday

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warmth of Sun that occurs in sheltered places. Most animals seek these places out this time of year and if body energy levels are in good shape, the week of intense cold should not be a problem. When it did warm, it overdid it with rain and all, but warm winds for an extended period after the rain dried everything up in good shape. A sample of caribou taken in late February or early March from the NW tip of the Monument proved to have good bone marrow and good sign of stored energy (fat) normal to the age, sex and season of the animal. This was a pleasant surprise since there are so few overwintering caribou on the Monument.

Caribou

During our trip to Noatak we were given the hind leg of a caribou, which was the basis of the above statement. No mention of caribou on the Monument came to our ears in March, except the one bull taken right at the Tower on the 10th. However, it is likely that a few small groups continue to live in the mid to NW section of the Monument.

People who are wanting fresh caribou meat are making hunting trips to the Candle-Deering-Buckland and Selawik areas where the north edge of the WACH are within reach. This "edge" is or soon will be drifting closer north as we move deeper into April.

Moose

At least two adult moose have remained on our creek through March. A large bull and a cow with calf were seen sporadically as they moved up or down the creek. On our trip to Noatak there were occasional tracks, a couple around the Hatchery-occasional tracks crossing the white "barrens" of the "flats" from E to W or W to E, and moving between the willow patches on the Aggie to the main stem of the Noatak south of the village. We did not hear of any animals being taken in March, though the season remained open till the last day of the month.

It has probably been a good winter for moose in most of the region. There is a good deal of snow from early in the winter but not a lot since Christmas. Access to willows has not been difficult and long mild spells means less energy drain on fat reserves. Wolves have not been plentiful, at least near town or village centers. Both moose and caribou calving may be early reflecting a 10 day early rut beginning last September.

February, March moose kill by humans, locally, seems minimal this year.

Bear

No March bear stories developed, but as this is being written two Brown Bears have been reported "out" walking around on the Monument in the first week of April. They were found in two separate areas and of two sizes.

The taking of a fat Brown Bear, out in February in the Deering area is confirmed.

Sheep

No Sheep information.

Musk-ox

No report.

Marine Mammals

There was no local marine mammal hunting activity in March. Good catches in January-February took care of most winter seal needs and March did not have many good seal hunting days. There have been reports of numerous seals laying on the ice, during warm sunny days, from Sisualik to Port Site. Common Ringed Seals were the only marine mammals to be seen this month off Krusenstern Beaches. We heard that a few small Spotted Seals (Largha) were taken by January/February hunters off Krusenstern with the usual Ringed Seals. This is rare but not too unusual. In years of offshore winds, big open leads and abundant food, some Largha Seals do not retreat south to the ice pack's southern boundary. They are usually sub-adults.

Small Mammals

Least and Short-tailed Weasels have shown up around camp sporadically through the month. Numbers are low.

Voles remain scarce with virtually no snow surface sign.

Scattered Red Squirrels have survived the winter and the invasion of marten and are traveling on the now-crueted snow surface to seek mates. They have, as usual, become hyperactive as we move into April.

Monthly Report

Porcupine numbers seem to be down a bit but no effort has been put into seeking them out, and our travels have not taken us into their habitat much.

Furbearers

Our "year of the marten" came through the fur harvest season with tracks of this species still being made in habitat where they had heretofore been unknown. It is our hope that since they have made a start, this beautiful and graceful species will remain a creature neighbor. Marten are surely worthy of inclusion in our remarkable diversity of life "North of the Circle."

Fox have been our most numerous track makers through March. Their local numbers are quite high.

Land Otter and Least and Short-tailed Weasel made tracks through the month, but sparsely.

No mink, wolverine or wolf tracks were noted in our area through March. It should be noted that we haven't traveled much this March.

Birds

The absence of Willow Ptarmigan in our area during the month of March is probably the biggest birds news. A few were seen from time to time, but this is usually good habitat for ptarmigan and they are not here. No reason is apparent. Some of the mid winter rain spells can be tough on ptarmigan and our Willow Ptarmigan populations have been way down for several years.

A lone Boreal Chickadee was seen around camp on the 29th.

Redpolls were noted on the 9th and a couple of other times, but only in groups of two or three.

Our large group of camp Gray Jays (5-6) continues to protect the camp from any other bird.

The raven with the odd voice and his/her mate probably will nest in this tree patch.

The firewood cut area on Akulisaq Mountain has signs of active woodpeckers. They are probably Three-toed Woodpeckers but have not yet seen to confirm that.

It has been a pretty "bird free" winter. Late April and May will be that much more appreciated this year as spring migration gets underway.

Seal hunters of February did report seeing a single, graying Glaucous Gull. Just now heard the report and it is of course an unusually late Glaucous Gull sight date.

An eider (Common?) was picked up after a successful landing on Kotzebue Airfield during foggy weather the last week of March and was flown south by engine aircraft.

No raptor report in March. Prey for all raptors much lacking.

Plants

Numerous encased "pussy willows" on Felt Leaved Willow plants around the house give a false impression that spring is here. Don't know the cause of this early unsheathing of willow flower buds but there are many this year.

Lots of small White Spruce cones have dropped from trees this month, confirming our fall observation that there seemed many immature cones on tree. There was (Jan-Feb) some mature seed productions, but some factor inhibited that in a large percentage of cones.

There is very little ground left exposed this March due to the amount and nature of snowfall this winter. It will take some strong work by the sun in late April and May this year to expose the smaller plants and their soil to the rejuvenating energy of those rays that bring the growth and reproduction of a new year.

Fish

March brought a good deal of Sheefish action on Kobuk Lake. Close at hand too. First catches were made near the northern outlets on the Kobuk Delta, but during the last week of the month great catches both in size and number were made on the northwest shore of Kobuk Lake in front of Fish Creek. We took a day off to run up there and got our share from that strike. We brought home several hundred pounds on the single day round trip. That would have been impossible prior to mechanization.

Many people took many Sheefish during that last week of March. The activity will continue at least sporadically through April and into May.

Some jigging for Rainbow Smelt and lean Saffron Cod in front of Kotzebue also took place at month's end with only moderate success.

Monthly Report

Char fishing in Noatak was productive during the milder days at beginning and end of the month. Many pots of char "flour soup" were served to the many visitors in Noatak during mid-year conference and NANA Day activities.

People

Four camps in Sisualik and one at Sealing Point continued to be occupied through March and a few other camps were visited or an overnight stay was made. As we move into April more people will be readying their camps for spring and summer use. Two families overwintered on the Monument several miles inland (us and Wilson's).

The overwintering in Sisualik of a family with many school-aged kids and the overwintering by people at Sealing Point may be first for this century.

A British Army cross country team passed through the Monument on March 3rd on their way north.

Spring firewood cutting began to pick up a bit on the 7th and continued sporadically through the month. There seemed less participation in this activity than before at this time. Things may pick up as we get into April.

On the 12th a sled load of Sisualik kids got disoriented in the fog and ended up at Jones Camp. Danger remains under severe weather conditions for the traveling public even on short runs. March is a dangerous month in that respect.

We left for a short stay at Noatak on the 16th (Friends Midyear Conference and NANA Day). Our home thermometer showed -28° F. We thought that was cold enough but it was one of the warmer temperatures there in Noatak where temperatures dropped to -50° F or colder. The day after we got home, temperatures on the Seward Peninsula dropped to a -100° F chill factor as winds joined the already low temperatures to produce some super cold mid March temperatures. This week or so of cold was our most intense of the winter.

Some 500 to 600 visitors shared with 283 Noatak residents and us their songs, music and heartfelt feelings. Remarkably, Noatak housed and fed us all! A credit to the resources of the land and the people willing to do the work of bringing it to harvest.

Our best day of the month was the very last where we touched, for a time, a former lifestyle which brought back many memories. It was a great day of many willing Sheefish and people that know what to do! It was a remnant of the past for us. There are a few more details in the Journal for the 31st.

March

March 1994 was a cold but good month for us and most other creatures on Cape Krusenstern National Monument. The long days of sun and short nights assure the local world of living things that better things are coming and now are not far off!

MONTHLY RESOURCE REPORT

APRIL

Introduction

We had a fine April this year. Some nice warm days, only a couple of snowy days and only three days with wind over 20 knots. There were many days of light winds. We did have our first spring bird reports (few). The bears came out along with the Arctic Ground Squirrels, as expected, and a pleasant surprise on the last day of the month when Carrie won the Sheefish Derby with a 40 inch, 26 pound fish.

The number of Red Foxes in our backyard through the month and the periodic return of a small marten to a feeding station on our house roof were unusual happenings. The sighting of five lively caribou bulls in April, after a winter of so few overwintering animals in this area, was encouraging. There is some hint that both moose and caribou suffered some late winter die off on the Monument, but confirmation has been slow in coming. If there has been some mortality, it may be due to a heavy rain crust formed in March.

Temperatures were in the 40's on several different days and 48° F on the 2nd was our highest reading for the month. Minus temperatures were recorded on about the same number of days, with a minus 24 on the 17th. These extremes kind of balanced out the month and probably leaves April 1994 pretty typical of past, now historical, April's.

Wildlife

April was probably pretty benevolent to most creatures in our area, except for a couple of hints that have come to our attention. If true, it is probably more the result of a strange March that cannot be read till April or May. Snow cover, though ample, is not thought to be great enough to be a problem for any known creatures. Temperatures were relatively moderate through the month, as were winds.

Willow Ptarmigan have not made a showing locally in April when they normally become so obvious with dark heads, lots of "crowing" and the splitting up of flocks as spring mating behavior gets underway toward the end of the month. There were just none in the sections we usually find lots at this season. There are reports of some flocks in other drainage west of us.

Rather large Ringed Seal pups were found dead on offshore ice from Sealing Point. Ringed Seals give birth in the month of March and lack of snow cover on ice and cold weather often results in newborn deaths. These conditions did come together this mid March and local Ringed Seal production may have suffered to a considerable extent. (Much more than the two recovered carcasses indicate since local ocean ice travel by people has been extremely limited through late March and April.)

Many moose were noted in high mountainous areas in early to mid April. Some have suggested that the heavy crust caused by a day and half of rain in late March may have caused the movement out of lowland willow habitat, though every year there is some moose movement to high hillside areas where sun is warmer, ground and rocks absorb and hold heat, but willow forage can be pretty sparse. This year many moose were seen in habitat where normally bears leave their dens. There is one rumored incident on the Monument where a bear was observed killing moose in high country and another incident of a moose in flight from passing dog teams that could not make it up a steep bank it chose to climb and did not rise after sliding some downhill. Full reasons and confirmation of the incidents are not complete. They are hints of some possible problems, though.

Most of the month of April was perfect for the tracking-hunting of bear by snow machine. There was a lot of traffic through the mountains of the Monument throughout the month. Not all of these were bear hunters. Some sought a few stray caribou, some wanted to see bears with no intention of taking, and some were just traveling through the land. Monitoring how many bears are taken in a relatively small area this close to a large population center is difficult. Perhaps the beaches of Krusenstern next summer will reflect the hunter results of this near perfect bear hunting April.

Caribou

The five bulls seen on the first near our wood cutting trail were the only ones known/seen locally. Hunters from Kotzebue-Noatak traveled to the Selawik-Buckland area through the month for successful late spring fresh meat hunts.

Moose

There was only one moose through our creek and normal travel area in April. See comments on moose under heading of "Wildlife".

Monthly Report

Bear

First bear tracks were reported on the sixth. There were two different tracks north of the Ranger Station; one was smaller than the other.

There was rumor of three bears taken locally in mid month.

See Journal entry of 12th for an interesting early bear take in the Deering area.

We gladly report no bear activity "yet" around our vacated winter house. Not like last year!

Sheep

No sheep news.

Musk-ox

ADF & G did do some musk-ox count work this month on the NW section of the Monument. I don't have the results but they are probably available by contacting the local office.

Marine Mammals

There has been little activity by people on the sea ice this month. Distant caribou hunting and closer Sheefishing and bear hunting have been other attractions. There has been no definite lead system information off Krusenstern through the month, but any open water seems to have been far offshore. Many Bearded Seal have been reported off Kivalina and a couple have been taken home from there by a Kotzebue hunter.

Please note comments above on introduction to this section about found dead Ringed Seal pups.

Many seals have been reported laying on the ice on good days from Sisualik through the Ranger Station zone to Sealing Pt. These will have been seals frozen in since the great abundance of February, when the lead and food brought many Ringed Seals into the area.

Some belugas were taken in Point Hope but by month's end only Wales had taken a Bowhead north of Bering Straits.

Small Mammals

Voles and shrews and sign of them continue to be very scarce. There were numerous shrew tracks late in the month on the surface near our garbage dump at the winter place.

It was a great month for our rather scrawny camp Red Squirrel. She was hyperactive around the 15th running up and down trees and all over the place. Then on the 18th a very large and intensely colored Red Squirrel turned up and the two of them began to steal everything Terry the dog had hidden around his place. Marten was into camp off and on during this time but his interest seemed mostly on dried fish.

A first Ground Squirrel was seen out at Kotzebue dump on the 17th. In Sisualik we saw one on the 29th.

Another winter has passed without either of us seeing a Snowshoe Hare track. How long? How long?

Furbearers

We had more Red Fox in the yard around the house nearly every night-day in April than we ever had before. The reasons are readable and involve food in the near area throughout the winter, when little was to be found elsewhere. Very little trapping or hunting of foxes occurred through the winter. Deep snow in the open country and depressed vole populations also contribute.

One fox with its tail naked for 3/4 of its near body length was constantly nearby. No "sickly" foxes were noted.

The lone otter made a last trip up the creek (before we moved out) on the 26th.

Marten sign continued through the month at housetop food station.

Birds

April did not give us as great a change in bird species as we had hoped, though we did get a few new to our few overwinter species. A couple of Pine Grosbeaks turned up on the 3rd. A Three-toed Woodpecker and Boreal Chickadee enlivened the air when the chain saw was silent on the 7th. Canada Geese were reported from Fairbanks at the early date of the 11th. A flock of 50 plus Willow Ptarmigan on the 12th was almost the only W. Ptarmigans seen in the month. A Gyrfalcon on the 21st

Monthly Report

was a winter first and a Golden Eagle seen on the 19th were the only raptors for the month. There was a crane rumor from the Ivik area on the 26th and a Dark-eyed Junco seen at the Hatchery on the 28th was the real first spring passerine. Geese were reported from Noatak Flats on the 29th.

Jonathan didn't make it to the swallow box pad before the month ended, but to ease the suspense I am glad to report that as this is written in the first week of May, he not only got in but proved beyond a shadow of doubt that he was and is the one and only Jonathan among all other Glaucous Gulls in Northwest Alaska.

Plants

Early "under snow" plant growth has great opportunity to demonstrate its value this year. Our flat lands have remained real white most of the month because of the way snow is distributed, all over, rather than just in drifts. Sun-thawed plots of land in late April have been scarce. Still, green flower spikes of *Eriophorum* sp. will be there for first cranes, geese and Willow Ptarmigan (where there are some). "Pussy willows" beginning willow flower buds have been noted on tideland edge as well as inland around the house. We are again poised on the brink of a world changing from all white to all green. What an amazing thing in the annual renewal of the tremendous growth wave that sweeps the land from top to bottom each spring. It is coming close again!

Fish

Kobuk Lake Sheefishing was not as productive in April as it was in March but here was a regular fair catch by those that kept at it. The Shee hooking season has been a good one. It has been most notable for the large number of sub-adult fish probably in the 5- to 6-year old class. There have been good catches of larger fish too, but the numbers of small fish are outstanding.

We made only one trip to the lake in April and that was on the last day of the month so Carrie could win the Annual Sheefish Derby with a 40 inch, 26 lb fish. There were not many big fish caught that day.

People

April was our best visitor month with friends and strangers dropping by with aircraft, snow machine and dog teams. There were no skiers or walkers this year.

April

Several summer camps along the beach were shoveled out towards month's end and loads of wood hauled out to them in preparation for the ice out season. It appears that about the same number of camps will be occupied this summer as last, and generally at the same locations.

We shoveled out and fired up our tent stove on the 26th and 28th but didn't move out till the first week of May. Most other campers follow the same pattern, waiting for drifting snow to cease and water puddles to begin. There was fairly heavy ground drifting snow on the afternoon-evening of the 30th from the NW.

MONTHLY RESOURCE REPORT

MAY

Introduction

It would be difficult to find anything wrong with May 1994 in this region. One couldn't ask for better weather North of the Arctic Circle and there were no extremes. Daylight-sunlight increased as expected, coming within only two days of a full 24 hours. We don't become the Land of the Midnight Sun (sun time) until June second but that is just officially. For most practical purposes the month of May provides 24 hours of sufficient light and the promise was fulfilled again this year. The one factor that would have been a real negative a few years back would be the lack of any near shore (within 50 mi.) lead in the marine waters. This would have been a real hardship 20-30 years ago when many families were still depending on the May-June harvest of marine mammals off Krusenstern Beaches. Seal hunting without open water is of course possible, but is much harder work and much less efficient, as seals must be stalked at their haul-out holes. Also, most of the offshore ice was formed in the cold spell of late March and was relatively thin and bare of snow. These conditions make for a very poor early spring marine mammal hunt and a dangerous hunting ground. No one now depends very heavily on that particular season of marine mammal harvest.

There was no minus temperature in May! The coldest temperature recorded was 2° F on the 18th. The warmest temperature was a warm 61° F on the 12th. We hit the 60° F mark also on the 23rd, which gives a hint of just how pleasant May was. As for wind, remarkably, we had only three days when wind reached 20 k. There were no stronger winds and there were many days of very light variable and calm breezes. We had a first genuine rain on the 19th. There was very little precipitation through the month.

We had a very pleasant moving time this year and it was right on schedule. Moving from our winter tree patch to summer fish camp can be a trying time when weather conditions are bad. After hearing of 1st Glaucous Gulls and having giant icicles on our roof at Sanningaruq on the 1st of May we were pushed into moving on the 2nd when an Yellow-rumped Warbler beat on our morning window, apparently wishing to warm his toes. Our move was easy and timely with no days of drifting snow.

Wildlife

In our area, birds are the creatures drawing the most attention in May and so it was this year. The migration was not spectacular through our area again this year. Rather

heavy snow cover through upland areas and a big winter build up of overflow ice on the mudflat-delta zones caused early migrants to concentrate again just behind our coastal range of mountains on the Noatak Flats instead of the Delta. Kotzebue itself, with early dust, mud, water and exposed grasses is an attractant that holds early local birds. Good for residents there, but it leaves nearby locations rather bird-less comparatively speaking.

Willow Ptarmigan were exceedingly scarce through our area. Perhaps the local population is at a lower ebb than at any year in the past 50.

Red Fox populations had reached near plague proportions around our winter camp before we left.

Sign of larger animals through May in our area was extremely scarce. This may or may not be reason for alarm. It is not different than the end of most winters in this small area. There is no cause for alarm if nearby areas have healthy populations of caribou, moose and bear, for they tend to drift into our areas during the snow free season. There is however, some hint of moose malnutrition, bear predation on adult moose and a very long period of ideal bear hunting conditions that left potential for over harvest of that animal in nearby village locations. These are "gut feelings" based only on rather vague hints.

Marten have survived. Not only within the tree zone, at the cabin, but one visited Sisualik early in the month. (it may have been looking for us!)

Caribou

No caribou report.

Moose

We did not see any moose or tracks in the month of May. What traveling we did was coast wise, and except for the around the house patch of trees, we did not travel through normal late winter moose habitat.

Bear

Neither did we hear of or see any bear sign. Most of the local human-bear interactions took place in April.

Sheep

No sheep news.

Musk-ox

No musk-ox news.

Marine Mammals

It was a rather unusual May with no open lead offshore of Cape Krusenstern, at least not within reasonable snow machine traveling distance. That meant that the few seals taken by those living on the beaches this month had to be taken at the seals' haul out holes. There were a few taken, probably less than 10 Common Ringed Seals and no Bearded Seal. Most campers west of Sisualik were there more for Glaucous Gull eggging and later salmonberry picking than for early sealing. They will hope to meet their seal oil yearly need at boat hunting time for Bearded Seal in mid June.

An unusual, unexplained mystery turned up on the 13th when several parts of seals were found at their breathing holes along a re-frozen crack a mile or so out on the ice from Sisualik. Foxes had eaten all they could get at but $\frac{3}{4}$ of one Common Ringed Seal and $\frac{1}{4}$ of a medium sized Spotted Seal remained intact, apparently due to being underwater. The backbone with skull attached of a third small Spotted Seal made a total of three in a $\frac{3}{4}$ of a mile of crack.

There were four living and active Common Ringed Seals along the same crack. There was no indication of starvation or disease but something more sudden seems apparent. Just what, is not clear. See Journal entry of the 13th for a bit more.

Bowhead Whales were taken in both Barrow and Point Hope on the 4th. Some portions of these catches do eventually get to people in the NANA Region.

There were reported to be a lot of uguruq off shore of Kivalina early in the month and one Kotzebue hunter took home (to Kotzebue) a couple of them. To hunt Bearded Seal that far from home is unusual, but probably not a trend. The hunter may have been in Kivalina for another purpose (maybe whaling?) and took advantage of a good opportunity. Uguruq are highly prized amongst Kotzebue people.

Two Bowhead Whales were taken in Kivalina on the 27th. A great catch for a village that doesn't get a Bowhead every year.

Kotzebue region people are going to have to depend on the mid June boat-ice pack hunt for their yearly seal oil supply. Some are worried that our ocean ice is of poor quality and will not last long enough for a good catch. We will see. If that hunt fails then fall sealing will become more of a priority than it has been for the last few years.

Small Mammals

It appears that enough Tundra Voles (*Microtus oeconomus*) have survived in Sisualik to continue their species on the Spit. There are not many, but after their fashion they will build quite rapidly.

Ground Squirrels maintain a fairly high density and young will soon be out.

Shrews and both weasel species have made no showing this month in Sisualik at all.

Furbearers

Red Foxes around our winter camp had built to near plague numbers by the time we moved out on the 2nd. They did not follow us and though one or two were around camp in Sisualik when we first moved, they have disappeared with the snow. Inland populations probably remain very high and some rabid or otherwise sickly animals have been reported.

A single marten has passed through Sisualik since our move there.

No other fur species made the news during May, not even muskrat, which is odd and a fair hint that local muskrat populations are still depressed for unknown reasons. Since hunting pretty much ceased 15 years ago or so, one would think they would be quite plentiful. The things we don't know about natural systems is always surprising.

Birds

It is May and they are back! First Glaucous Gulls were reported on the first and a beautiful full plumage male Yellow-rumped Warbler was knocking on the window of our winter cabin the last morning we were to be there, the 2nd.

On the 5th a tame gull turned up on the ice in front of camp. We thought it was Jonathan, but on the 9th Jonathan proved beyond doubt that he was indeed back. See Journal entry of the 9th for the account.

Monthly Report

Our Tree Swallow male and an early Savannah Sparrow returned on the 11th. The mate of the swallow was here the next day before noon of a "record for the date" high time.

Lots of "new" bird species on the 13th and Snow Geese were reported on the Noatak Flats on the 16th

We received a gift Greater White-fronted Goose on the 10th. This was our first "pot bird" of the new season and was much appreciated.

Jaegers and Brant were first seen on the 21st along with large flocks of passerines.

A first G. Gull egg was found on the 23rd, the same day that Arctic Terns made a showing.

By the 24th our ice rafted mud surface in the lagoon was covered with hundreds of noisy Bar-tailed Godwits and Northern Pintail. There were many other species of waterfowl and shorebirds but noise-wise, the Godwits out did all others.

The flocked non-breeding Tundra Swans began as a hundred on the 25th and gained numbers through that week. Maximum number probably wasn't over 350 this year. Some years they have exceeded 500 in our back yard. Their noise dominates the Godwits, even when their numbers don't go over 100.

On the last day of the month, incoming Yellow Wagtails and leaving (for farther north molting grounds) Brant brought on the thought of things that happen sometimes on only one day over many years. Check Journal entry of the 31st for more.

Three bird species during this migration month seemed so scarce that some special cause might be suspected. Probably though, with the two waterfowl - Brant and Snow Geese - their migration paths simply did not pass through here this year. The third, Willow Ptarmigan, a more resident species, is probably at a very low point in population fluctuation.

Northern Pintails that have had several years of depressed numbers locally seem fairly plentiful this year.

The number of birds of all species was reported high just west of the Anigaaq Ranger Station by the people camping there. Likewise, northeast of us at Jones Camp, birds were reported in very good numbers through this month. Both of those places are normally much richer in bird numbers during this month than our isolated location on the Spit.

On the 4th a flock of 200+ Slaty-backed Gulls were reported in the Kotzebue area. With a little confirmation this would be a quite remarkable showing of this Asiatic Gull in

our region. It is not especially rare here but usually occurs as sub-adults in small numbers during summer and fall.

Ice mud came up to the water surface on the early date of May 21.

Plants

Plants slowly begin their growing season in this month and by the end of the month green in the midst of fall-winter brown is not hard to find.

There is an interesting report on a very early flower on Journal entry of the 17th.

First green showing around camp inside of brown on the 26th. By the 29th, green had burst through the brown and was common to see whenever you look downed at your feet.

The plant material in the ice rafted mud mentioned as an early food source for waterfowl and shorebirds is *Potamogeton filiformis*; the tubers produce this year's growth of our most plentiful and most used aquatic plant. The insect larvae associated with this aquatic provide forage and probably protein for shorebirds and waterfowl. This aquatic plant and its associated insects is a key forage plant for migrating and staging waterfowl and shorebirds.

On the 11th we noticed a very large (about size of finger nail and first joint of a man's little finger) smooth beetle against the outside wall of the dome. It apparently could fly and had just landed. It looked quite heavily armor-plated and was a glossy lead black. It looked like a water beetle but we have never seen one of that size and though the day was quite warm, water on the land was quite rare.

Fish

First net went into an ocean crack on the 26th in Sisualik and caught a few whitefish. This will be the beginning of a new, long, netting season. The fresh fish was great and the half dried boiled ones three or four days later were better yet.

Netting from the beach at the tip of the point began on the 30th with some very large Sheefish being taken along with the usual whitefish and a couple of very lean Noatak char.

People

There were 18 occupied camps from Sisualik Point to Port Site through May 1994. There were 8 west of the Ranger Station and 10 through the Sisualik Peninsula. Numbers of people in each of the camps varies considerably because of members of families and clans coming and going through the month.

We moved to Sisualik from our winter cabin on the 2nd and most other campers got settled within the next week or ten days as trails softened and water began to run in the country again. Water was getting deep on Kotzebue streets by the 4th. Our last trip to town was on the 14th.

A first boat on a local slough got into Jones Camp on the 16th. A first rain came on the 18th and the noise on the tent roof was wonderful. The channel into the ocean at Anigaaq broke open on the same day. That is an early opening for that important waterway system.

The Noatak River was ice free as far as the Hatchery by the 20th and open to the mouth on the 22nd. On the 23rd the ice moved all the way to Kotzebue and boats were out and up into the Noatak River on the 24th. A barge load of fuel left Kotzebue for Noatak on the 25th.

A boatload of people were able to make it into Kotzebue from Sisualik Point on the 27th through the back slough-Noatak River route.

The number of resident people on the Monument has not changed much in the last few years. There is a continued subtle change of the reasons for being there. Actually their basic reason has not changed. For most it is simply home. But the focus of activities has changed. Out of necessity in the past, most effort and energy in the months of May and June were directed toward the harvesting and processing of marine mammals and their products. Time was short, days were 24 hours long and life was very intense. Everyone was caught up in it. Now that intenseness is gone. Before, harvesting marine mammals meant survival for the upcoming year/winter. Now, though certain products are still much used, it is no longer a matter of survival and there are many substitutes and much variety of other clothing and foodstuffs that can be acquired by other means. The results of that situation is very much less emphasis on marine mammals and much more time put into bird hunting, eggging, fishing and berrying. The rather universal ownership of home freezers has made the preserving and storing of many items possible. Before, these items would either spoil quickly if not used or require special preparation techniques that were very tedious and time consuming. There are both positive and negative effects on the general well being of natural systems brought on by these changes of preservation methods. Most camps located on Krusenstern beaches do now have freezers.

MONTHLY RESOURCE REPORT

JUNE

Introduction

May was warm, June was cold and the reason is not hard to read. We had W to NW winds on 27 days in June and that of course is the direction of the ocean ice pack from here. We had freezing temperatures on 7 days, scattered through the month and consequently our plant and insect life were held back from continuing the surge of growth that was begun in a warm May. Though some flowers and leaves were frost-nipped, no major damage seemed to have been done except to early flowering salmonberries and *Carex* leaf tips. There was an unusually late wave of fresh blossoming of salmonberry plants that may make up for frost loss. This seems a rare or unusual happening.

Precipitation for the month was light. A rare June snowfall happened on the 20th and some rain fell on 7 other days. Fog and moist air from off the ice pack kept the ground moist though cool throughout the month and eased the threat of too early drying of the land. We had a freezing temperature on the 28th, 75° F on the 10th and no sunset for 28 days.

The prolonged cooling was appreciated by most all warm blooded creatures. Who minds a little bit of shivering in June if it preserves you from the little humming blood-sucking monsters that take over the world, temperatures permitting, in June?

Our Tree Swallows had a difficult month as probably did other insectivores that can't turn over leaves or other rubble to seek out cold-stupored insects.

June is a busy month for most creatures, including us, and though fall and winter seem far removed, much of the labor and harvest now go to support life then. The bloom of life in air, water, and even underground produces huge quantities of material that creatures and things can change into stored energy for use in various activities relating to living and perpetuating farther along in the year. For humans in the far north, the oil, meat and other products gleaned from the harvest of marine mammals can go a very long way toward supporting life in months of short days. The 24 hours of daylight-sunlight can be exploited to the limit by the prudent.

Wildlife

A cool June after a warm May is not real rare in the Kotzebue Sound region and most of the living, growing things have built in strategies to cope with the temperature changes. If they didn't, they probably would not have survived as a species to be a part of our far north living community. Our Tree Swallows in their artificial shelter (far from trees) seemed to have suffered at least two catastrophes, but are carrying on and will probably produce at least one or two new swallows by mid July. Salmonberry plants seem to have split their flowering time into two waves, providing more chance of producing a good berry crop. A great number of living things rejoice in late season coolness when it delays the world takeover by insect hoards. The insects themselves may not totally disapprove, because their time of intense living is only compressed and therefore probably more intense when conditions (temperatures, moisture) do become favorable.

June 1994 was probably a mixed bag for the community of the living within Krusenstern National Monument, but no great tragedies were noted, only a few small ones.

Caribou

Only two, probably stray reindeer, were reported in the Noatak Delta area during the month. There was a report of a rather large group of caribou being near the village of Noatak, unknown to the residents of the village. This is normal for this region in June when most caribou are on the North Slope calving areas.

Moose

Only one moose did a run along the beach in June. We are keeping ears and eyes open for living moose this summer because we are still concerned about late winter survival in our local area. The hints of bear predation and forage scarcity in March and April has not been resolved. July will probably give a better reading. Normally, a cool June would bring fewer animals to the flats-coast area than a hot one would.

Bear

The only bear incidents in June are not entered in the Journal as we didn't hear of them when they happened, but later. They did happen in June though. For some reason bears here do not often frequent coastal flatlands in June. Consequently, there has been little contact between humans and bears when traditional coastal campsites are occupied in May, June and July. New land ownership policy and new patterns of

living have brought more people into bear country. When dogs, food drying/storage places, etc., are placed at inland sites on creek and river banks or near mountain ridges that are summer bear trailways, there are more potential causes for conflict. Two bears of different sizes and on different days turned up at Jones Camp in June. Loose puppies chased the one around for awhile, and then the bear chased the puppies for awhile, but soon gave it up and moved off. The other was seen approaching camp but was frightened off by something. No damage occurred and bears made off before they were damaged. This is in an area where bears might have been over-harvested last spring when such good tracking conditions were in place over a long period of time. It is also near where bears were observed preying on moose in late winter/early spring.

No fresh bear sign has turned up yet on Krusenstern beaches.

Sheep

No news.

Musk-ox

No word of musk-ox.

Marine Mammals

Seals move back from muddy, freshwater run off in the Sound and then work their way back here as it lessens and the water clears. We first saw seals returning to the Sisualik area on the 4th. By the 8th a first boat had made it down to Sealing Point and on the 9th the first uguruq were brought home. We ate our first uguruq meat of the season on the 10th.

Ice was out of sight in Sisualik by the 12th but we expected it back. Hunters from our clan were first out on the 14th. They got a couple and gave us one on the 15th. Good catches of one to five per boat were made in the next few days. Our crew gave us another on the 23rd, which filled our needs pretty well. The crew spent nearly a week stuck on the beach at Sealing Point by ice that pushed in after they stopped for engine repair.

The first beluga net was set on the 13th. On the 15th there were rumors of a large group of belugas seen both south and north of us. On the 17th a large group was seen near the Ranger Station acting spooky, traveling rapidly our way. They were not seen here. Two subadult gray-tan belugas were taken in one net near Kotzebue Channel on the 19th. Later that day we saw a large group of beluga in front of our tent. They

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were traveling leisurely and showing well above the surface. See Journal entry of the 19th for details. Belugas were around again in the very early morning of the 21st. On the 23rd a large male white beluga was taken in a net of a Noatak person. One was caught by chasing near Cape Blossom. On the 26th a lactating female of medium white size was taken in a net not far offshore in Sisualik. That one we shared in. On the 30th, a tan-colored yearling was taken in a net west of the Ranger Station. The only news from Elephant Point by the 28th was one drive attempt but no harvest. Kotzebue Sound beluga harvest for June 1994, then, is six: three adults and three yearlings, five in nets and one by chase.

By the 27th Uguruq hunting had pretty much dropped off, even though ice was still present. The catch had been pretty good for most people's needs. Ice moved in close to the beach between the Ranger Station and Sealing Point and some late hunters, some from upriver, took up hunting again. Uguruq continued to be taken in small numbers through the end of the month and into early July. This was in spite of the fact that on the 25th we had our first summer swells which usually signals the end of ocean ice pack (see Journal entry of the 25th).

We thought we were going to have a long summer but a cool June with constant onshore winds changed that. Our ocean ice pack is continuing on to the 4th of July and past, as it usually does.

In summary: uguruq hunting and harvest was good, beluga presence was again very limited and consequently harvest very poor. Most sightings indicate that there may have been one large group of mixed age and sex in the area for awhile and few, if any, strays and smaller groups. Very few Common Ringed Seals or Spotted Seals were taken, though their numbers in the area were quite high at times. This is normal at this season when uguruq are the primary target of all hunters in the Sound.

Two Bowhead Whales taken in Kivalina on the 4th were late catches.

Small Mammals

There are some hints around camp that Tundra Voles are increasing fairly rapidly, probably through early births of young rather than by migration.

Ground Squirrels are maintaining good numbers though no "over summering" Snowy Owl stayed around this year.

The shrews and two weasel species have not revealed any presence.

Furbearers

Fox populations have been reported very high in the area NW of Sealing Point. Egg predation is what sparked this report and most likely the species is red though that is not clear, as Arctic Foxes often move onshore for pupping in that area.

No other furbearers were seen or reported on which is normal for this month.

Birds

Most outstanding bird news for the month was probably an osprey seen plainly near the Sealing Point tower. This is a second sighting of this great fish hunter in that particular area in the last 10 years. A couple of Sanderlings were observed in breeding plumage on the 4th. Our fish scraps were interesting for several days as we had numerous Black-legged Kittiwakes, Arctic Terns, and all three species of jaegers along with incoming Yellow Wagtails on the 3rd. Also found a single Glaucous Gull egg not far behind the tent on that day. It may belong to Jonathan and his mate. A group of twenty non-breeding cranes spent 10 days around this time foraging back and forth through our backyard. By the 6th Black-legged Kittiwake and Loon (Pacific and Red-throated) noise dominated the "still" hours. By the 8th, gull eggging activity had pretty well faded. Large flocks of Red-necked Phalarope were in the area on the 8th. We first heard Aleutian Terns on the 9th and Black-legged Kittiwake noise alone dominated our near shore sound scene on that date.

Word of the taking of an Emperor Goose reached us on the 11th. This species is rarely seen or taken in this area. Gull egg taking was completed by this date. On the 15th, swallows seemed to be feeding hatchlings but heavy icing and strong cold winds that night may have been too much, for the feeding action didn't continue the next day. The adult birds didn't leave but seemed pretty listless for a few days.

On the 21st, terns, kittiwakes and Mew Gulls were feeding very heavily on some kind of fry on the ocean surface, and on the 22nd conditions were right again to compare foraging techniques of Arctic and Aleutian Tern. The differences are obvious. One wonders how and why the difference developed. There were flying young of Savannah Sparrows and Semi-Palmated Sandpiper by the 26th.

A third year Herring Gull was noticed in the camp gull flock on the 28th. That is a rare bird in Sisualik where Glaucous Gulls dominate. He didn't stay long.

By the 30th, Northern Pintails and Wigeon were very conspicuous by their absence, as flight feather molt grounded the species throughout the region.

Plants

June is a real "starting time" for plants. Growth starting and flower starting, leading to maturity and fruition in July and August.

On the 3rd, green was showing in the brown-tan of winter vegetation. By the 5th Dwarf Birch was leafing out on beach ridge tundra and *Pedicularis lanatum* was beginning to bloom. We had our first "greens in oil" on the 8th (*Ligusticum scoticum*). Very good and early. The first salt marsh blooming of *Primula borealis* on the 12th. And first blossoms of salmonberry plant were noticed on the 13th. A lone poppy was seen on the 15th during a trip to Sisualik Pt. On the 16th some aqpiq (salmonberry) flowers were in trouble, being nipped by frost. On the 19th, a day before our June snow fall *Primula* and salmonberry flowers were the most abundant flowers in sight. By the 19th it was noted that coolness night and day was slowing vegetation development. On the 21st, first flowering of Forget-me-nots, Beach Peas, Dandelions, *Potentilla villosa* were noted with additional "camp local" poppies showing their fine light yellow globes of that successful northern plant.

By the 22nd an assessment of salmonberry flowers indicated many less flowers than other years with many petals already dropped off. By the 29th there was a resurgent wave of blooming with large robust flowers. This second wave of flowering has not been noticed before by us and seems a remarkable adaptation to insure a berry-seed crop in spite of untimely frosts. This gives the salmonberry plant a very broad window for required pollination and explains the super abundance of berries in some years.

First *Pedicularis sudetica* flowering noted on the 25th. This is our dominant salt marsh *Pedicularis* and is a quite beautiful "pinwheel of peppermint" on a dark green background.

A possible *Gentianopsis detonsa* plant located and marked on the 26th. This species hard to find as growth begins before buds appear. Flowering doesn't happen till mid or late July.

Also on the 26th our "view scape" was nearing a lush Irish green. Chives, both bluebells (*Mertensia*), *Astragalus* peas, *Potentilla villosa* and *P. Egedii* were blooming.

Primula borealis peak seems just past by the 27th. This is early and clears the way for the slower, more complex (maybe) plants that take much more of the summer to bring forth flowers. *Primula borealis*, Forget-me-nots, *Pedicularis sudetica* and Yellow Paintbrush (*Castilleja caudata*) seem to be having a good year.

A second peak of salmonberry blooming was on by the 29th. The flowers look much more robust than during the first wave.

On the 29th there is in the journal the comment that of the two bluebells, this year *Mertensia paniculata* bloomed several days before *Mertensia maritima*.

Fish

The Hatchery released their fry on the first. Things are not looking good for the continuation of that project. It seems a shame not to make use of what has been learned in the course of this project to enhance a fishery that has potential to be a sustainable local industry that could benefit most local people in one way or another. Salmon are a renewable resource and the only resource, maybe, that is of a quality to bring in outside dollars with minimal risk to the resource. The State of Alaska may lose more in the long run than they are afraid of losing in the short run by continuing this project until it can be expanded and taken over by local private interests.

On the 2nd we found an unprecedented specimen in a medium sized Sheefish stomach. The Shee was taken from the ocean and they usually have a stomach full of juvenile 4" Saffron Cod, Herring or Smelt. This one had a 5" char, a fish we have never before seen in a Shee stomach. We speculate that it is a char because it looks like one and has parr markings on its sides. There is an outside chance that it might be an outgoing King Salmon smolt. We have kept the fingerling frozen for eventual confirmed ID.

Whitefish were running west strongly on the 4th. As they diminished a bit, outgoing char, very lean ones, began a strong movement west on the 6th. Both fishing and marine mammal hunting were put on hold for several days as ice jammed into the shore.

On the 9th we caught a first char that was firm and fat enough to be cooked. And it was good! Spawning herring in the lagoon behind camp were overdue by the 11th. The situation was similar to last year and revolves around water temperatures, which again were kept low for a long time by winter overflow ice buildup on lagoon mud flats.

Flounders became unbelievably thick on the 12th. Fat "Kivalina Char" began moving along shore from the west on the 14th (see Journal for more). These super fine table (cooking) fish continued through to month's end. This was an unusually long window for these fish to be available here. These are fish that overwintered well, are very fat, and whose gonads are nearly half developed toward spawning activity. They are on their way up rivers right now, without spending the summer in salt water

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as much of the rest of the population does. This species has a complex living pattern and we are still far from understanding it completely.

There was some sign of herring spawning in the lagoon by the 20th but only minimal activity.

On the 21st, terns, Black-legged Kittiwakes, and Mew Gulls were feeding heavily on plentiful fry of some kind along tide lines that had extreme warm water on one side and ice cold on the other. These conditions may have rendered the very small fry easy to catch or driven them to the surface. Large gulls were not much interested.

By the 28th a large male char of the incoming fat group was beginning to show color changes (instead of the earlier silver) related to spawning activity.

The first Chum Salmon was taken by a neighbor on the 29th, somewhat later than last year. We did find, by searching, a few *Elymus* grain heads showing to perpetuate the strange relationship between chum arrival time and *Elymus* grain head formation.

East moving fat whitefish began showing on the 30th, beginning their long trek back to spawning and wintering areas.

It was a good month for fishing and char numbers of those in the "this year spawning" mode were both plentiful and in the area for a long period of time.

People

Two situations relating to people that are a bit unusual developed this month. At Sisualik Pt., where not many years ago every resident of Noatak came down for marine mammal hunting and fishing in June, a change has developed. This year, there were only three camping/hunting families. This trend has been developing for a number of years for various reasons. Wage earning jobs (even in Noatak village now), beluga scarcity, and poor and diminishing commercial Chum fishing and the high price of gasoline are some of the many factors. Whether the trend will end in complete disuse of the camp site or whether returning beluga or profitable chum fishing along with a depressed job availability situation will bring some families back is not known at this time. One thing that is known is that Noatak people like to do things together. This is a historical characteristic that is bent considerably this year with only three families participating in what was formerly a total community involvement project. Beluga were the original target for this community move. Without their return in numbers it seems unlikely that the Noatak people will return in numbers. The people are, however, experts in adaptability. They will do what they must to continue into the future. Sisualik - "Place of White Whales" - will retain its name and memories - whales or not.

The second situation is a shortcut return to a historical habit. One family that has roots to the area went boat Uguruq hunting from a Kotzebue base. They had a good hunt, loaded the boat with Uguruq and instead of taking them home they went to their traditional hunt-camp site at Killikmaiq and did their butchering, meat drying and oil making there in temporary shelter free of the dust, oil, fumes and tourists of Kotzebue.

Also of interest to people, the first mosquito was reported at Sisualik Point on the 8th. There were lots of bugs, bumblebees and butterflies on the very warm day of the 10th. On the 11th the only thunder and lightning storm of the month was seen and heard and started a fire on the mountains west of the Hatchery site.

As the month ended there was still much ice in Kotzebue Sound, quite close to the beach from the Ranger Station to Sealing Point. There were no snowbanks in sight from the beach in tablelands but the higher mountains still had numerous white patches.

June 1994 was a quite remarkable month in Sisualik and through out Krusenstern National Monument.

MONTHLY RESOURCE REPORT

JULY

Introduction

In these, my later years, nothing in July seems more important than seeing the first flowering of the unique and rare salt marsh wildflower *Gentianopsis detonsa*. Second in line of importance is how many plants there will be of the species. In two years of the past 15, not even one plant could be found. This year, as in several others in the past 15, there are thousands of the beautiful deep purple-blue almost luminescent flowers. The plant has a fragile weak looking stem, leaves and roots. Locally the plant has no common name. Most people are unaware of its existence. It is not found anywhere in Alaska except in the brackish salt-water portion of the Noatak Delta. The Mackenzie Delta in the Canadian Arctic appears to be the nearest location to the east where it is found again. In the Canadian Arctic it has been given the common name "Shaved Gentian." Its recent change in nomenclature classification makes it one of the "fringed Gentians" with close associations to plants in the High Sierras and Canadian Rockies. Its odd distribution gaps remain a puzzle to modern botany. July 1994 has produced, in Sisualik, a super crop of this interesting plant and with luck, August will allow the maturation of a million seeds that will assure continuation of this northern beauty far into the future.

July 1994 was relatively free of strong winds and quite damp with rather spectacular vegetation growth due to long hours of sun and abundant moisture. Wind to 30 K on the 31st was the windiest day and the hottest day was 80° F on the 16th. The low temperature, on the 8th, was 38°F, the only day in the month that we dipped into the 30's. With light winds and moderate high and low temperatures, July living in a tent was quite pleasant. Mosquitoes were bad on a few days but by the end of the month they were not bad, even when the air was moist and warm. Flood conditions developed a couple of times during the month and that is unusual so early in the summer. Both times were inconvenient (to say the least) to low level living creatures. The first, earlier in the month (the 7th), covered a large island in the lagoon behind our camp that had on it a Glaucous Gull nest with nearly hatched eggs (probably the mate of Jonathan). Had the eggs been hatched there wouldn't have been a problem, but we suspect the worst with a flood over nearly-hatched eggs.

A second flood on the 31st exceeded the level of the first and caught the beautiful little *Gentianopsis detonsa* at peak robust blossom state. The plants are quite fragile

and top heavy, and this unusual early flood may take a heavy toll on a potential seed year for this rare and unique species.

A few snowflakes and hail on the 7th provided some diversity. "Ice pack in sight" on the ocean till the very late date of July 23 may be a "recent times" record for a late date of ice pack in Kotzebue Sound. The first fuel barge into Kotzebue was at least two weeks late and some types of fuel became scarce or had to be flown in.

The amount of rain this July certainly was a change from last July, when near drought conditions prevailed. We wonder what effect this will have on our various varieties of berries, since July is the time berries are in their early forming, expanding stage. They should be large and juicy.

Wildlife

The unusually late ice pack off eastern Krusenstern beaches extended marine mammal presence three weeks longer than usual. It also prevented the usual grounding of unrecovered walrus and uguruq carcasses that for many years have been a source of food for beachcombing groups of bears that consider Krusenstern home. There may be carcasses wash up in August or they may have moved past here while the ice barrier was here. At any rate, bears of this beachcombing group are causing a bit more trouble at camps at this early summer time than has been the case in past years. Sealing Point Camp, Salluq Camp, Jones Camp and the Hatchery have all had visits from bears in late July.

There were some bad mosquito days in July, but again, the near offshore ice pack cooled the air when onshore winds developed. It cooled the air to a temperature that most insects couldn't tolerate. Both people and animals, especially those with very young offspring, were more able to cope through this month because of cool winds. Insects often dominate the outside world in July.

No special threats were noted to living creatures from environmental factors through July.

Caribou

On the 13th a large group of caribou were reported on the beach NW of Sealing Point by boat travelers from Kivalina. To our knowledge no local folks were able to make use of this interesting information and it was the only caribou news for the month of July from Krusenstern. A few caribou/reindeer were seen and some taken on the Baldwin Peninsula east and south of Kotzebue.

Moose

Moose sightings were rare again this July on the beach. A cow with twin calves was reported walking by camps west of the Ranger Station on the 5th. Large bull's tracks were noted around Inland Lake on the sourdock trip of the 29th.

Bear

No report.

Sheep

No report.

Musk-ox

A lone bull musk-ox was reported on the edge of Krusenstern Lagoon on the 25th and probably the same animal passed the two westernmost Sisualik camps on the 26th. Then on the 29th, thirteen musk-ox were reported behind Salluq camps. This group of musk-ox were around the area just west and inland from the Ranger Station for several days.

Marine Mammals

Though the harvest of marine mammals can be expected as long as ice pack remains in the ocean, there was very little hunting done after the 10th. Most hunters that wanted/needed Uguruq got them before July so there were few taken this month, probably less than 10. There was a walrus taken by Kivalina hunters west of Sealing Point on the 2nd and a stripped beluga carcass was noted on the beach west of Sealing Pt. on the same date.

Local beluga nets were taken out on the 9th and we had no report of any beluga at all taken at Elephant Pt. this year. Kotzebue and Sisualik catch, all in June, was six. Five in nets and one by chase. This was another very poor year for beluga presence and harvest in Kotzebue Sound.

There was a report of a beluga seen and shot from Sisualik beach on the 16th but the animal was not recovered nor was the report confirmed.

A single Gray Whale was reported west of the Ranger Station in mid month but date was not recorded.

Small Mammals

Many young Tundra Voles have been noted around camp this month, which means their population is on its way up again after reaching very low levels last year.

Ground Squirrel populations remain very high locally and more were moving in from the west late in the month. When populations are high, a redistribution migration usually happens in late July.

Two porcupines were reported from beach camps west of the Ranger Station. Both were eaten.

Furbearers

A beaver was taken on the 19th, swimming west. This is only the second beaver to be seen in Sisualik in at least the past 46 years!

Except for the report of many Red Foxes NW of Sealing Point, no other furbearers came to our attention. Muskrats continue to be notable due to their scarcity.

Birds

There are two interesting examples of extended long term bird occurrences on Krusenstern this summer. There was the osprey on the 29th of June which was only the second in 46 years; and on July 11th, a Golden Eagle turned up on Sisualik beaches and for nearly 10 days acted very un-Golden Eagle-like by sitting around on the beach high waterline, facing the sod banks around different camps along the spit. Golden Eagles, of course, are not rare here but their usual habitat orbit does not include Sisualik Spit beaches. Their hunting and nesting habitat is back against the spines of the Coastal Mountains and the foothills at their base. Most sightings are of birds sailing high in the air or perched on a rock near cliffs or nest sites. This Sisualik eagle was never seen to fly high. It seemed to be hunting Ground Squirrels on the ground. No other hints were given to explain this unusual behavior which had not been noted before during the past 46 years.

N. Pintail and A. Wigeon were noticeably absent throughout the salt marsh this month, as usual when flight feathers are being changed. A flock of 30 still flightless Wigeon were noted at inland lake site on the 29th, but on the 31st there were both

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ducks and geese out on the tidewater flats of the Noatak Delta in numbers. This great staging area for waterfowl has reflected, in the last few years, the general scarcity of N. Pintail within the Pacific Flyway. One hopes things will be getting better for this species, as it is the most valued waterfowl in this region. We have seen nothing in the line of production this year to base those hopes on.

Our box of Tree Swallows was gone by the 18th. Possibly because of the gull, Jonathan, they did not present their family of the year for our inspection for a day or two as usual. They left the same day the two youngsters could fly. They did have a stressful reproductive season but made at least a limited go of it.

I witnessed a very intense aerial attack by a Black Turnstone on a hapless Short-eared Owl on the 7th. The hapless owl apparently blundered into the nesting site of the either hatched or near hatched turnstones. The owl moved on and out with all haste.

The only Snowy Owl report this summer was a single bird seen near the south edge of Krusenstern Lagoon.

Plants

As mentioned in the introduction, July is the month each year in which we find out what kind of crop year it is going to be for our exquisite, beautiful and rare salt marsh wildflower called *Gentianopsis detonsa*, a fringed gentian. I did locate and mark a plant that seemed to be of this species on June 26th in an area that had lots of plants two years ago but none last year. On a visit to the marked plot on July 17 it was confirmed that it was the right plant and that there were others. Buds were large and confirmed the ID but no color was yet showing. By the 27th, the beautiful deep purple-blue of the corolla, with a few open ones, were noted and became Gentian day '94 for Sisualik. There turned out to be a super crop for '94 and even though severe flooding began the day after peak bloom on the 31st, it seems that there will be millions of seeds produced this year. A new plot, not known before, was located with thousands of plants. At least one plot south of Kotzebue was reported to have many plants through the last week of the month.

The long wait to see this neat little flower again was well rewarded this year, and the moist ground, flood, and generally moist July has given us a far larger window of time to enjoy the aesthetic pleasure of its beauty. Last year with very dry conditions the flowers faded away in less than a week. Many were still opening their corolla under the hot sun as we got into the first week of August this year.

Interest in this plant is at this point purely aesthetic, there being no known useful properties. It is difficult to explain the high value I personally have placed on this

plant. It has had a very good year this July-August and the long wait will soon begin again. One never knows from year to year whether there will be any to see as July comes on. In two years of the past twelve I could not find even one. This July has been the other side of the coin. There are thousands in our back yard!

The salmonberry plant, a much more pragmatic, valuable, and productive plant has had a very poor year. Things didn't look so bad earlier in the month as the two waves of flowering seemed to have set at least a possible crop on the female plants. However it is now (at the end of the month) becoming clear that even most of those plants on which the sepals remain closed (a sign of successful fertilization) have not produced a ripening berry. They seem to have rotted and then dried up. The only "spur of the moment" explanation of this would seem to be **too much** rain/moisture at some critical point in berry maturation. Too bad! But not unexpected after two years in a row of heavy production.

There is still hope for other species. At month's end blueberries look fewer than last year but larger. Blackberries look exceedingly good but of course unripe at this early date. They have produced poorly in the last two years. This maybe their "comeback year" and that will be appreciated as they can be very large and sweet in Sisualik.

Other vegetation generally did well in this warm humid July, so different than the desert dry heat of last July. *Elymus* grain heads appeared on time to coincide with beginning Chum run and pollen in that plant began to fly on the 13th. The seed stalks are an inch or so taller than the still standing stalks of last year.

The last local species to come into flower, Star Gentian (*Lomatogonium rotatum*), did so on the 26th.

First iris bloom was on the 17th and first tall fireweed blossoms opened on the 24th. First Grass-of-Parnassus flowers on the 20th. Both the camp white-petaled *Epilobium latifolium* and those at the Point were in bloom on the same day. Our two camp plants of this species did flower, but plants were small and weak looking. One wonders how old this perennial can come to be. The mass of plant growth varies between years as does the number and size of flowers.

The first trip inland for Sourdock (*Rumex arcticus*) didn't happen until the late date of July 29. Often a first trip is made by the 15th and then a second before the month is over. Various things influence the time of going: wind, air temperatures, rain, convenience, and probable size of leaf growth. Grasses have taken over a good deal of the island site that was such good picking over several years. There is still a lot of Sourdock on the little island but each year there is less and a new site would be great. This is a simple typical plant succession situation around dynamic high banked inland lakes. There was a red freckling on many leaves, which makes for a little toughness but no other problems. Out of 35-40 lbs. of green leaves we made two $\frac{3}{4}$

filled five gallon buckets. There is hope to make a second trip in early August as extra sourdock will help make up for missing salmonberries.

Fish

The Chum Salmon run started a little late but they were there in fair numbers on the first few days of the month. They were very nice bright fish and increased daily (catch reports) up to the first commercial opening on July 11. Numbers of Chum increased right along through the month and though prices were low compared to past years, things were going pretty well for fishermen until buyers began to have trouble moving fish through channels to market. The last few days of the month brought near chaos and some wastage occurred when more fish were taken than could be handled. To recover from the lack of market, buyer capacity determined fishing period time for the first time ever. Ten hour, six-hour periods were in effect as we move into August.

After so much talk and argument about Chum Salmon stocks in Western Alaska, their allocation etc., now it seems fish have turned up in numbers that can't be handled and prices remain at such a low ebb that motivation to develop markets seems lacking. The Hatchery seems to have contributed a pretty good percentage of caught fish and the figure has been mentioned by the media, which is a good new twist.

There were a large number of "pinks" (Humpback Salmon) in the water through more than half of the month, after which they dropped off. This species is in some years quite plentiful through July but are of a rather small size. A net with 4 ½ " stretched mesh is most efficient for this stock of "pinks." A 6" mesh is used for Chums.

Char in fat reproductive mode for the coming egg laying season were plentiful early in the month and continued to turn up in small numbers in the "table net" (4 ½ " mesh) through to month's end. This segment of local char stocks are separate from the later group that passes through Sisualik mid to late June on a feeding migration to the open sea. The later in-migrants will not begin the trek back to freshwater overwintering locations until mid August. (Earliest expected arrival would be August 10. These fish can be identified by the relatively undeveloped ovaries and gonads.) The number of these egg-laying mode char was very high again this year. They were numerous last year too, which should be good news for char stocks in the region.

Numbers of subadult shee turned up in the table net early in the month and a few remained till the end. These are in ocean waters, out of normal habitat this month, and are generally unwanted as accidental catch while fishing other species. There seems a change in the numbers of these rearing Shee in Sisualik ocean waters, i.e.,

they are present in much greater quantity than in the historic past. There is no known explanation.

By the end of the month all indications are that the Chum Salmon run in Kotzebue Sound for 1994 is quite healthy. Four year olds have dominated the run and a few three year olds were beginning to show in the last couple of days. Five year olds seem to have made a normal showing early in the month.

Although large waves with swells have developed twice in late July, both outlets at Akulaaq and Anigaaq remain open, allowing whitefish to migrate out at will. We hope that they will close before mid-August so enough whitefish will be trapped inside to make fall (Sept.-Oct.) fishing worthwhile.

People

First and foremost this year with respect to people is the lack of Noatak people in their historic camp site in Sisualik. Fifteen to twenty years ago most Noatak families left their sheltered houses 60-70 miles upriver at the village site to camp for a couple of months at Sisualik Point. They spent the time there hunting marine mammals (beluga and uguruq), fishing, and berry picking. All these activities benefit their fall, winter, and early spring living at their village. There has been at least a 20 year trend towards more families spending this time at home in the village. Diminishing beluga and salmon and increasing employment opportunities have meant fewer families each year making the move to camp in June. This year there were only two families from Noatak camped at the Point.

Around our camp we had about the usual number of non-resident visitors (2 to 4) and resident friends and family. On the 15th a young Japanese lady spent a few days in camp and then on the 21st a whole family from California spent nearly a week with us. Except for Seasonal NPS folks we did not have any other non-resident visitor use of Krusenstern National Monument. Visitor use has again, in this July '94, been very light to date.

Resident camps occupied in Sisualik were seventeen, including the two Noatak families. From the Ranger Station west to Port Site there were eight occupied camps including the Ranger Station. Several other camps were visited/used over short periods of time.

Visits to various camps by bears began early in the month and frequency was definitely increasing by the end of the month. Berry picking will begin in August and the presence of bears will be of concern to all camps. To our knowledge no bears have been killed this year yet, but unusual behavior by one especially large bear may provoke action at any time. As the nights grow longer in August, most bear activity

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around camps will be at night. There have been few drifted-in dead sea mammals thus far this summer and since our local bear group seems to have been founded on beachcombing, this may be a reason for the unseasonably early large number of camp-bear incidents.

MONTHLY RESOURCE REPORT

AUGUST

Introduction

August is supposed to be our "rainy month." It was, this year! Coming after a fairly wet July, we in the whole NW region have been kind of overwhelmed with wetness. The interior upriver zones were hit the hardest in so far as material damages goes. Three Koyukuk River villages and one on the Kobuk suffered extreme property damage that may result in the relocation of some communities. On the Noatak, erosion of the high ground that the village is situated on may cause future property problems with immediate losses of building materials from caving riverbank soil. Waves, during high water and high winds, caused considerable erosion damage on Front Street in Kotzebue.

These are the damages that made the news through the month. There were other losses that are not quite so obvious and some that won't be known till farther down the line of time.

Catastrophe along the banks of a river system of course means disruption of the normal activities of the creatures that live in and around the river. Spawning activity of salmon is affected. Resident species of fish and animals find their normal feeding and resting places turned upside down or worse. As the water drops, some will be trapped in unusual places in which they may not be able to survive. Water tables have risen, a condition which may continue into freeze time before it can get back to normal. What seemed a fair salmonberry crop after a "two wave" flowering situation apparently failed due to constant soaking during berry forming time. Fishing by bears becomes impossible during flood conditions. Seed production-maturation of some salt marsh or other low lying area plants becomes impossible when long term flooding prevails at critical flowering, fertilization and seed forming time. To some unreadable degree all these things happened this August. Other more subtle effects of a wet month are also notable. August is berry picking month. Berry picking often means camping out and being out in the field all day and every day. Many days of steady rain, wind that makes boat travel difficult and delayed, does much to discourage those that were looking forward to this time out on the land again before it is back to school and winter freeze-up. There was much human disappointment in this month and no doubt much creature catastrophe of one kind or another.

We had a warm spell during the first week of the month with three days of 70°F or warmer with 77°F on the 6th for a monthly high. We had frost on the 22nd, freezing

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on the 27th, and a record low for the day and the month on the 28th as the temperature dropped to 25° F. There was rain or showers on 19 days of the month, with a few snowflakes on the 26th. High winds were common and from a variety of directions. Winds of 40 knots on the 26th were the highest. They were from the north and there were many days of wind between 20 and 30 knots.

It was a very messy month, weather-wise, and quite remarkably there was a bumper crop of very large, if a little soft, blackberries to be harvested before the frosts of September make that impossible. At this writing we are in pretty good shape for winter berries in spite of low numbers of some species.

There were several outstanding depressing events during the month of August. A very good and long time friend and neighbor died suddenly on the 12th. The only eagle to take up residence on the Spit in more than 40 years was found dead on the 11th. A possible salmonberry crop didn't materialize. A huge number of flowering *Gentianopsis detonsa* were drowned in flood waters several times at critical fertilization-seed forming time. Production of seed of this rare mysterious plant of the salt marsh was slated to be tremendous. Because of its usual low elevation growth zone it may be that the flood effects of this August did not allow viable seed production at all, even though there were thousands upon thousands of plants on the Spit this season. Some of the survival characteristic of this species are unfolding in this year of catastrophic environmental conditions.

The near complete absence on this Spit this month and year of the clear raucous whistle of the Whimbrel is also of concern. This bird used to be quite plentiful here. If not here where are they?

Then of course there is the failure of the two lagoon outlets west of us at Anigaaq and Akulaaq to close during the month, which leaves us without hope for fall whitefish. The reason of course is excessive rainfall. Akulaaq did close for a few days but re-opened itself as waters overflowed the gravel dam. This leaves all whitefish free access to wintering areas on the Noatak, Kobuk and Selawik Deltas.

Marketing of Chum Salmon, our only real commercial fishery broke down in early August. For the first time in the history of the fishery, open fishing time was determined by how many salmon could be sold by local buyers. There turned out to be lots of salmon, no escapement problems, but there was no one in all the wide world that wanted to buy fine quality Kotzebue Chum Salmon, even for a ridiculously low price. This was a terribly low blow to Kotzebue Sound commercial fisherman. Now the floods of August may have further impact on production this year in spite of large escapement. If watershed flow drops through this month, reproductive success may yet be accomplished.

Wildlife

The very wet summer does, of course, have its impact on wild things as well as the human element. Events following flooding of streams and elevated water tables throughout the region aren't so easily readable either in the short term or farther down the line. The young of most creatures are a month or two or three old by August and are able, to a remarkable degree, to take care of themselves even in traumatic situations. Heavy rains and a soaked countryside are said to be good for caribou herds. The soaked ground provides lush forage and cool temperatures, and keeps insects down. Waterfowl returning from molt to staging-feeding areas do face problems of access to aquatic plants because of high waters. They do, in most cases, have alternate foods that can sustain them well enough in mid summer but may be insufficient for building migration fat if conditions continue too deep into early fall. Strong and long freshwater outflow from flood waters alters the scene around river deltas where marine waters and the creatures that live in them are continually needing to adjust to the changes of current, salinity and turbidity. Several species of fish are in migration mode during August and just how they are able to cope with the extremes of this August we don't fully understand.

The fall char run, the larger fish, did not give much of an indication of their passing. The run of medium sized fish was a full ten days late.

Bear problems through the region were at high levels this August. During times of flood these animals cannot fish efficiently which, no doubt, leads them to seek other sources of food. Human rural camps offer potential to fill this need. We have then, as a consequence, many more people-bear conflicts.

Caribou

In spite of the Northwest Arctic Herd still being at peak numbers, no "stray" animals were taken through August on the Monument. A cow and calf were reported running from a bear in vicinity of the Ranger Station on the 3rd. Usually there are a few animals encountered on the Monument through August. This year none were taken to our knowledge. Hopefully September will be a different story.

Moose

It is usually hot weather and insects that bring both moose and caribou to coastal habitat where they would be seen. August was short on both hot days and insects, so the lack of both moose and caribou sightings shouldn't be a surprise. We had no reports of moose seen or taken through August.

Bear

There have probably been more "bear in camp" reports this August than in any month in this century in the Cape Krusenstern area. Five were seen in one group between the Tower and Salluq camps on the 7th. A few hours after a scavenged carcass of a Gray Whale landed on the beach just west of Sisualik camps, three bears were noted feeding on it. This was on the 14th. Description of various bears run like this: One very large light colored bear; one very large dark bear; one rather small female with two "this year" cubs; and two lone 2 or 3 year-old small bears.

As the nights grow darker and longer in August, entry into camps during the darkest part of the night becomes more common. Most camps in the Salluq group were visited at least once, and the two most westerly Sisualik camps were visited. Jones Camp was visited many times as they are the only camp a ways inland from the Krusenstern beaches. There were fewer drifted-in marine mammal carcasses this summer than in any recent year in people's memories.

No people were physically harmed in encounters (by hearsay knowledge). One bear was killed. This is rather remarkable considering the number of encounters.

This growing interaction of bears and people on Krusenstern is not much of a mystery. Much of the scene is rather readable but is complex. It does trend towards more incidents each year.

Sheep

No report.

Musk-ox

Eighteen musk-ox spent most of August a few miles inland from Salluq camps, usually on the higher ground of the foothills that lead down to the rocky bluff on the north shore of Krusenstern Lagoon. This is a first for that many animals over such a long period of time. There seems no report of interaction between people and musk-ox. Only viewing at this point. There have been problems in other years with berry pickers. There were few pickers this year.

Marine Mammals

August is the month of least marine mammal occurrence, at least in near shore waters. There are Spotted Seals usually within the mouth of larger rivers and probably some whales (Gray) usually far offshore. A dead, rather broken up Gray Whale drifted in on the 9th. It still had maktak on the bottom and some irregular large chunks seemed missing from the fore parts of the animal. It may have been killed by Killer Whales or partially butchered by people along its path some where. The bones within the carcass were quite loose from deterioration and wave action.

There has been a great lack of dead marine mammals on Krusenstern beaches this summer. Both Walrus and Bearded Seal carcasses, normally quite a few, have been notably absent. This may be due in part to late ice along the beaches facing east and south that would shunt the drifting carcasses around the Point offshore and distribute them along beaches farther north. Also pressure on walrus hunters to not kill for ivory alone may have decreased the number of headless animals that have landed here. This has had an effect on local beachcombing bears that have, over the past few years, become habituated to this source of high energy food.

Small Mammals

Voles that locally seemed on a population build have suffered some set back in August, at least those that set up housekeeping at lower levels in the salt marsh. Flood conditions drowned out and/or made them easy prey for the several creatures that feast on microtines. No doubt the population increase continues on higher ground and tablelands and we will be able to read the magnitude as freeze-up gets underway. We are talking about Tundra Voles here. There is no hint of Red-backed Voles; this is marginal habitat for that species.

Two porcupines were taken during the first week of August at the camps west of the Ranger Station. None were noted in the Sisualik area. Usually they turn up more often on Sisualik beaches in July and August. They did not this year.

Furbearers

Nothing of interest on furbearers for August which is more or less normal. There are some young Red Fox.

Birds

Two outstanding bird events occurred during the month. Our first resident eagle in forty years, first noted in July, turned up dead as drift washed up by the season on August 11. See Journal.

On the 28th, a Gray Jay was noted on the fish racks under the rain catcher roof, apparently seeking refuge from our aggressive Glaucous Gull Jonathan. It stayed a few hours and was gone. We have only seen this species at our ocean beach camps one other time in 45 years. They are common back in spruce forests around our winter camp.

A bird we have come to expect in Sisualik as blueberries ripen in August was absent this year. Whimbrel have been decreasing each year, especially for the last five, and this year we did not see any.

We have a lot of Wigeon and Tundra Swans as August fades into the waterfowl staging month of September. Northern Pintails are scarce again with only a few young birds showing on the salt marshes.

On the 18th a young Merlin nearly landed on my head as I was standing still near a real post. It seemed a bird of the year and was seen again on the 24th and a couple of times after that, leaving again the hint that some nesting of Merlin occurs on Krusenstern, probably in a ground nesting situation.

The Troutbird (Northern Wheatear) were 10 days late showing at beach camps. Not surprisingly the trout (char) were also 10 days late! Who knows what the connection is?

A single tough looking Pomarine Jaeger was intimidating camp gull flock on the 23rd. That is an unseasonable visit for the species.

Snow Buntings on the 31st were early and the young Northern Harrier trying to catch one didn't appear to have much chance.

Subsistence duck hunting, as usual, got underway around August 15 and there was no sound of gun fire again on the first day of September.

Both passerines and shorebirds were scarce as the month ended. Wigeon and Tundra Swan were by far the most numerous birds in the salt marshes by month's end.

Plants

Rain and floods from both fresh and marine water systems had profound and maybe mostly negative effect on salt marsh plants and to some degree upland habitat.

The first flood swept the marshes on the first, just after a new large plot of flowering *G. detonsa* was found. This beginning flood went over the level that most gentians occupy. Some had opened their corollas a few days before the soaking and may have had a chance to produce some viable seed. Another super high marsh water level on the 10th covered everything below *Empetrum* level in the marsh, and finished off a few *G. detonsa* plants that had recovered enough to attempt another corolla opening. Flood again on the 17th pretty much canceled out the forecast potential for superabundant production of seed in this mysterious plant. It did however, reveal an interesting paradox (see Journal entry of 19th) concerning this unique plant, which adds a bit to our understanding of its interesting characteristics.

Other plants of the salt marsh were of course affected but in different ways. Most had already-matured seed heads. The two gentians (*G. detonsa* and *Lomatogonium rotatum*) are the very latest species to flower here, so they were the only species caught in the middle of flowering-fertilization and seed formation.

Another critical aspect of the flood waters was its very low salinity. Though the flood, for the most, is caused by influx of marine waters, heavy flood waters in the rivers in this delta country caused the water over the salt marsh to be more fresh than salt, which is probably a good thing.

One good thing noted through this flood situation is what happens in small ponds and potholes throughout the marsh. A green algae that forms great masses through July and August, especially in ponds with much organic material (of human or natural origin) often chokes out desirable aquatics (*Potamogeton*). This "mattress mat" is floating by August and flood waters lift it entirely out of the pond and drop it over marsh grass zones (*Carex*), where it rots and hosts insect larvae and becomes fertilizer for other plant species. (A kind of natural compost).

We began berry picking on the 5th and continued through the month on dry days, of which there weren't many. Soaked ground did in any salmonberry hope in this area for this summer. There were fair blueberries and good blackberries, but rain soaking softened blueberries early and several August frosts again inhibited what we might have had in blackberry quantity and quality. We did get what we think might be enough freezer blackberries as well as several 5 gallon buckets of our specialty: sourdock-cooked blueberries-uncooked blackberry mixture. Winter berry eating potential looks good, but different than the last two years.

Monthly Report

First frost occurred on the 22nd and heavier freezing on the 27th and 28th made berry picking more tedious, terminating in a complete wind down in early September.

All the wetness produced a big, really big, mushroom crop when the sun warmed a bit. We ate a lot of puffballs around the 17th.

Marsh yellowing was noted on the 21st but contrasts of bright colors was subdued this year. Even our distant cottonwood copse didn't stand out as usual. Too much soaking ground and air seems to have caused molded leaf surfaces which in turn caused less than bright color changes.

Fish

Kotzebue Sound commercial Chum fishery suffered an unprecedented failure in late July and August. The short and bitter story is, from the fishermen's perspective, the fish were there but there was no market. It is the worst possible scenario for the fisherman. It is his/her chance to catch up, pay bills, maybe have a little extra for once - what a bummer! An unpredicted abundance of natural fish plus a good percentage of Hatchery produced fish and nothing to do with them! Ugh! Short fishing periods (4 to 6 hours) were ADF&G's response to lack of market. For the first time ever, August commercial fishing period times were determined by number of fish for which there was potential market. Escapement was no longer a factor as it seemed assured with small number of fishers and short time of openings.

Then there is the flood waters of August. That means disruption of fish habitat for at least a full month. The first salmon to lay eggs may have put them way up in the tussocks somewhere.

Flood waters faded as the month ended and September began quite dry. This should make for a great production year barring further stream catastrophes. There are lots of salmon in the river to lay eggs in September.

It was the 23rd before we had a good fall char catch. That is a full 10 days later than some years. There was a real heavy run on the 24th, but of a size that would go through salmon gear (6" mesh). Our trout net (4 ½ " mesh) was completely loaded and everything sunk after a three hour set on the 24th.

Another big disappointment of August was the failure of the sea to close the outlets at Anigaaq and Akulaaq, allowing the great mass of fattening whitefish to escape and swim back to wintering areas in the Noatak, Kobuk and Selawik Deltas. We are left with nowhere to fish for fall whitefish. Akulaaq did close for a few days on the 16th but again, rainwater runoff overflowed the dam and the channel quickly re-opened.

Half of Akulaaq did remain closed after rain waters overflowed for awhile. There is some hope for netting a few from there. In September we will see.

A large King Salmon was taken at Salluq on the 26th. This is a late catch for that species. Very few Kings were taken this year in the commercial Chum fishery. Fewer than in any recent year.

Subsistence fishers had their problems through August with lots of dirt in the water, strong currents and big waves, not to mention sky and air too wet to dry anything, including fish.

People

People, like everything else, were just plain overwhelmed by the rains of August. Probably the biggest difference this made on Krusenstern was a near complete absence of August berry pickers. The past two years produced bumper crops of salmonberries and people to pick them during August - a lot of berries and a lot of visiting people to pick them. This year with the failure of the salmonberry crop, due in part to too much rain, the people had not enough reason to come. The people in camps already (west of Sisualik) picked what few berries there were on the few days that were dry enough to do that.

Non-resident visitors to the area other than NPS related people were pretty much nil in so far as we know.

The second biggest problem residents faced in August, especially those west of Sisualik, was bears. Many incidents of bears in camp at night (as nights got longer and darker) developed. No one was hurt and little damage was done, but peace of mind for some people in the camps was a bit difficult to maintain. Activity did diminish toward month's end on the west side, but picked up around the first four most-westerly Sisualik camps as tracks appeared very close around those camps. It is possible that at least one bear was destroyed and others probably were not, only because of lack of opportunity. For this group of habituated beachcombing bears there seems little other option when people or possessions are threatened. There are a number of readable reasons why the bear/people confrontations were more numerous this year than in the past.

The Tower (Naapaksak) at Sealing Point grew tired of standing-leaning. Sometime between the 10th and 15th it laid down on the tundra. It is our understanding that it is all still there, but is reclining.

Because of high water and waves we spent the night of the 11th in the dome as its 3-4 ft. higher floor elevation seemed safer than the tent floor. Some other families on the

Monthly Report

Spit overnigheted with neighbors on a bit higher ground. Though Kotzebue Front Street was damaged considerably, erosion was minimal in Sisualik this time.

A very dear friend and neighbor unexpectedly passed on at a berry picking camp on the 11th. Two graves were dug in Sisualik as the first on lower ground filled with water before it could be used. Burial sites are becoming more of a regional problem both in and out of communities as land ownership becomes more established. With much permafrost and poorly drained soils, suitable locations for graves are becoming a problem.

August with its berry picking and fishing camping-out potential is often a great family activity month. In some families it may be the month of the year when its members are closest both to the land and to each other. Sadly August 1994 was kind of a bust.

MONTHLY RESOURCE REPORT

SEPTEMBER

Introduction

After such a soggy and traumatic August, September just had to be better and it was.

Outstanding events included 1,000 or more Tundra Swans in our back salt marsh for nearly 10 days. A large rare (for here) fish washed up on a Sisualik beach. (A Pacific or Gray Cod, *Gadus macrocephalus* of 43 inches.) And on the negative side, the non-appearance of any caribou from the NW Arctic herd through the month, when all other people groups in the NANA region had fairly easy access to the animals while the bulls were sweet and fat, was a disappointment. We personally had a bear in camp on two different nights.

We had progressively harder freezes from the 23rd to the 26th with a low of 20° F on the 26th for the monthly low. The high for the month, 58° F, occurred on the 13th, with warm sun and was a very beautiful day. There were several days with wind stronger than 20 knots; the 25th was our windiest days, with winds from the north up to 35 K. Wind-wise, September '94 was fairly mild.

One of the special treats of September is the coloring of the various leaves as their green function shuts down for the season. That event was subdued this year, lacking in the intense contrasts of most Septembers. The reason seems to have been a kind of molding or early break down of tissue due to the constant wet air of August. The colors and changes were there all right, but without their usual intensity.

Wildlife

Some of the early freezing temperatures may have inconvenienced some Tundra Swans with late hatched cygnets, loons with non-flying young, and late nesting Red-breasted Mergansers. The freezing periods were short termed and the creatures probably were able to cope, but moving was probably the name of the game.

Three bird species are conspicuous by their absence this September in Sisualik. Whimbrel, Red-breasted Mergansers and Willow Ptarmigan. These species that are often very numerous here in September were virtually absent this year. Speculation

on why is much discussed, but for the most part must remain only speculation as we don't really have any data "handles."

Caribou

Rumors, rumors and more rumors is all the human residents of Krusenstern say of caribou through September 1994. From very early in the month word was around that caribou were moving into the large river zones and people began putting away good fresh meat. The north side of the Kobuk and south and east side of the Noatak were at times reported to have lots of caribou moving towards us. They must cross the lower Noatak River to reach Krusenstern when they come that route.

Many boats on the river hunting caribou tend to prevent a general crossing, though some bunches may make it. We heard that some did. Later in the month the herds nearly over ran the village of Noatak, crossing to our side above and below the village. Later we heard many of these were on the south side of the Red Dog haul road and that traffic on the road had caused them to head south toward us. Later we heard these circled back and moved north past the mine camp itself thereby missing the haul road altogether.

At month's end not one caribou had been reported seen by resident Krusenstern people. Most of us did have meat from family and friends that did go up either river, as most hunters that did go came back with good loads. There was some lack of mature bulls, the usual target at this season in those hunting areas that were boat accessible. This results in less fat and more meat.

It is expected that caribou will be through our area as the rut gets underway in early October. Females without calves and young males will be the targeted animals at that time. They could of course miss us altogether. It has happened before.

Moose

Moose seemed to be at least as scarce as caribou near coastal habitat locations of the Monument. Some folks that penetrated inland a few miles did report fresh sign but no animals were seen. Late in the month one large bull was seen, but too far inland west of Sealing Point to consider taking.

On the 9th a young bull taken on the north end of Kobuk Lake was reported to have "sickly looking" insides. Water or pus and/or cyst around the liver and lungs. Some of the meat was salvaged and eaten, but other folks thought it best not to eat from it. Have not heard this kind of report before on moose.

Bear

This whole ice free season has had a plague of bear stories. They continued through September but not at the rate of our wet and flooding August.

We did have three visits from bears at our camp in September though they didn't come this far down the Spit in August. On the 5th, 13th and 23rd at least two different bears made tracks near or around things in our immediate camp site during the night while we were sleeping.

Camps on and around the Noatak Delta all had visiting bears with some packing off of stored salmon, caribou meat and in one case damage was done to a snow machine seat and four wheeler soft parts. We did not hear for sure that any of the these bears were killed. Warning shots were fired but in a couple of cases it was only a temporary interruption to the bear's mischief.

Tracks pretty much disappeared from western camp beaches probably because of caribou hunting activities along the Noatak as well as river and stream levels becoming low and permitting fishing activities by bears.

On the 28th, however, a large "golden colored" bear was seen at Akulaaq moving towards Sisualik. It was not seen here at Sisualik.

There are a number of fairly simple reasons for so much people-bear interaction this September. But there are also some unexplained more complex issues involved concerning comparisons from a historical perspective.

Sheep

No sheep reports. With populations down, this extra limited sheep habitat is probably not being used.

Musk-ox

Nine musk-ox were seen on the 15th and one the next day NW of Sealing Pt. Those that were around Salluq and the Ranger Station area most of the summer may be moving back to the Rabbit Creek area.

Marine Mammals

Monthly Report

A dead and half-dried, very small Harbor Porpoise was found in the salt marsh-lagoon area. Probably the result of a stranding during storm-flood times of late August. This doesn't happen every year but there is a regular pattern of one or two of this species every two or three years.

On the 7th a whale (probably Gray) was seen at Salluq headed toward Sisualik. It was not seen here.

Spotted Seals began to show around Sealing Point on the 22nd. Two were caught by folks that live there.

A stray baby walrus was taken at Sealing Point on the 28th. From this time through October stray walrus of various ages turn up and sometime "haul out." Some years there are none and there can be as many as three taken in a season.

Small Mammals

There are some Voles and Shrews on the higher ground of Sisualik but generally are pretty scarce on these lowlands. Many were casualties of the floods of August. Three half grown shrews turned up in a shallow box well that we have covered, but apparently not covered well enough to save three of the worlds smallest carnivores.

Ground Squirrels locally remain numerous in spite of all the bears and eagles making news in our sector.

Furbearers

Red foxes are leaving a lot of sign about Sisualik as the production of the year range more widely from their natal dens. No other furbearers give much of an indication of a presence on our coastal zone.

Birds

September was probably the best bird month of 1994 in Sisualik, particularly with respect to waterfowl. Numbers started increasing in the first few days of the month, peaked in mid month, and began dropping off by the 20th. Most were gone by the 30th. Tundra Swan and American Wigeon were the most numerous species. Northern Pintails were numerous, but numbers way down from late historic population. A fine flock of 20 Mallards showed up on the 30th and gained some in numbers the first few

days of October. This was rather unusual. There are always a few just at freeze-up, usually mixed with late Pintails and Wigeons.

Tundra Swans numbered 1,000 and more in our near back salt marsh lagoon area for more than a week before and after the 12th. It was on this date that we first began to note family groups (parents with cygnets) joining with the all-white birds of the flocked non-breeding group. Production seems good for the year with parents with 3 and 4 cygnets noted on the 24th. There were still a few families (3 or 4) by the 30th in spite of hard freezing during the last week. Wigeon, Mallards and the few swans numbered altogether less than 50, which was all the waterfowl left going into October.

There was a bird surprise on the 19th when a Long-billed Dowitcher, a Pectoral Sandpiper and Lesser Golden Plover were seen. Large flocks of Snow Buntings were moving in at the same time.

Cranes were still passing on the 13th and most flocked non-breeding Tundra Swans were gone by the 22nd.

An eagle was seen and watched for awhile on the 24th. Check the Journal for details.

A very large, dark Gyrfalcon was seen at fairly close range on the 12th. It had a very prominent single whisker, much like the Siberian Sacker Falcon. It was an unusual form of Gyrfalcon for this region.

A first Snowy Owl was seen at Salluq on the 25th. One was eaten there on the 30th.

Our salt marsh had gotten quite empty of birds by the 26th due to some heavy freezing. First walked on new ice on the 27th.

We did have a juvenile plumage Northern Harrier hunting around the high front of camp sites all day on the 28th. This is a record late date for this species, according to our sources.

Five Dunlin on the 29th must have been wearing their long underwear.

Total absence of Whimbrel, Red-breasted Merganser and Willow Ptarmigan this month in Sisualik is very disturbing.

Plants

It was an early closing and rather incomplete season for some species this year. Frosts in August and early September brought berry harvest to a near halt in the first week. Leaf coloring and loss was subdued this year as discussed previously.

Some plants seem to have had a super good year for seed production: *Salix* and *Castilleja* (Yellow Paintbrush). Others had probably little or no success: *Gentiana* sp. and *Lomatogonium rotatum*.

Most blackberry picking shut down after the first week of the month, but lots were picked in that week. Local cranberries did very poorly being so small that they would not be of much use. This is unusual as we usually have large Cranberries and blackberry picking often continues nearly through the month.

The only flowers noted in September were a few white "chickweed" (*Cerastrium*) around the camp. Usually there are many more of various species but either we didn't get around much or the floods of August inhibited late flowering.

Our unusually high number of waterfowl, especially Tundra Swans and Wigeon, have pulled up such a huge quantity of plants over the back *Potamogeton* beds to get at the corms, that there are great mattresses of leaf material winnowed along the shores of favorite feeding places. Swans and Pintails do most of the pulling depending on water level, with Wigeon picking up the leftover tender parts. This is nearly our only utilized salt marsh aquatic plant, and this process produces each year a very large mass of detritus that composts along shore edges and enriches the marsh in many ways. We have little understanding of this "Arctic web of life" and how necessary each part is to other parts. Because of the few species, relatively speaking, the dependency must be pretty intense. Our second most common aquatic *Hippuris tetraphylla* is very sparsely, if at all, used by local fowl.

Fish

Another break through on the identification and recording of rare fish in Kotzebue Sound, at least in inshore waters. A large (43 inches) cod-like fish was found by a neighbor, dead, in between camps on September 25. This fish is not uncommon in the Bering Sea. Like the Walleyed Pollack found a year or so ago and recorded in this journal, these fish are common to the Bering Sea but little known to occur north of the Bering Straits.

As mentioned throughout the summer, both Akulaaq and the channel outlet at Anigaaq failed to be closed by sea-gravel action. This is of course a hardship on people here as those two water systems can provide many tons of whitefish during

fall netting or fish trap use. When these channels remain open the fish trickle out through the summer and by freezing time there are none left. This summer there was a new twist in this situation. The east half of Akulaaq Lagoon was sealed off from both the ocean and the West half on the lagoon. This is the smaller portion of the water body and erosion and gravel deposition is what sealed it off. During the heavy rains of August some water did overflow and ran out for a short while over sod and turf that wasn't cut down by the current, as gravel does. This left that portion of Akulaaq with a fish population. On the 9th a neighbor put a net in and got a surprisingly good catch of Humpback Whitefish (the expected catch) and a lot of small (up to 5 lbs) Sheefish, which was unexpected. On the 14th we put a whitefish net in. The first night's catch was disappointing, only 3 or 4 small Shee. We moved the net to the other end of the lake and got a super catch the next morning (a couple of hundred pounds). The next night we got only ¼ of that and took our net out, figuring we had our share and maybe more. The weather was dry and looked like it might stay that way for a few days so we cut all of those fish. They are a treat preserved that way, when they dry well. This was a great bonus. We thought we would not have any whitefish this all.

Those folks with dog team to feed kept their nets in through the month but the catch never picked up as it is a pretty small impoundment. We are very thankful for what we did get. Anigaaq finally did close in early October, but much too late for fishing.

Some good catches of salmon were made in early September and Noatak River, particularly at the Hatchery, was said to have a real lot of fish.

We made several good catches of Saffron Cod late in the month to full our needs for that species. We tried several test sets for herring but never got enough together to salt any down. There were always too many small Saffron Cod to leave the herring size mesh out long. We'll keep trying on into October when water is free of slush.

People

Three resources can bring numbers of regional subsistence users to the north shore of Kotzebue Sound (Sisualik, Anigaaq, Salluq and Sealing Point) in the month of September. They are salmonberries, whitefish in quantity, and caribou in numbers. None of these things were available this September so people other than residents were few.

There remained only four occupied camps west of Sisualik and nine occupied camps in Sisualik.

The ALC Teacher visited Sealing Point and two camps in Sisualik once a week through the month.

Monthly Report

On the 8th we had some very interesting visitors from New Mexico. Our daughter-in-law is a Navajo from that region and for the first time her parents and some family visited their daughter in Kotzebue. They came to visit us for a day and enjoyed seeing our way of life. We shared a very interesting Thanksgiving ceremony with them involving of all things, corn pollen from their home country. It was a simple expression of thankfulness for the bounty of the sea, the land, the mountains and the rivers. We had a fair flock of Swans in the back yard and the old man walked out towards them to get some pictures. They allowed him to get surprisingly close. He returned to the tent without causing them to fly. Don't know if corn pollen has ever before mixed with the waters of Kotzebue Sound.

As usual, the legal opening of the migratory bird season was very quiet here, though birds were very plentiful. Caribou were near both river systems from the first through Labor Day and off and on through the month, so most hunting activity was directed toward them instead of birds. This has become a local pattern for the past few years. The Noatak Delta does attract a few regular waterfowl hunters because of it's easy access from town and plentiful sloughs, lakes and mudflats.

MONTHLY RESOURCE REPORT

OCTOBER

Introduction

Some days stand out greater than any other in a month of time. October 18 was an example of that this year. Jonathan, the camp watch gull left Sisualik on that date. We moved to winter cabin, the temperature dropped to a -10° F and the caribou turned up in fast moving numbers just west and through the Noatak Delta on their drive south. We knew all these things would happen in October, but little did we know that they would all happen on the same day. We have been awaiting the arrival of the caribou since August. We have yearned for a warm house and spruce shelter since October 1 and looked forward to Jonathan's leaving with poignant regret. Jonathan is summer!

The first half of the month had some very windy days and an accumulation of snow very unusual for this early in the season. The temperatures were seasonal and moderate, that is, they lacked extremes. It got neither too warm nor too cold, so ice remained relatively thin and snow cover was slow to shrink and firm up. Travel was further complicated by lack of strong winds until the first major blizzard on the 31st.

We had a temperature of -12° F on the 23rd, 26th, and 27th for our coldest days which helped thicken the ice for necessary travel in spite of snow cover. Our warmest day was a 44° F on the 3rd. Daily highs did not rise above freezing after the 5th.

We had winds to 30 K or more on seven days, with the SE blizzard of the 31st producing 50 K winds. The Red Dog Mine site recorded winds to 80 K during that period.

The first half of October was rough tent living this year. We were quite fortunate to have a sufficient firewood supply and oh how good the warm cabin in the spruce patch was after the 18th! We express much gratitude towards the local bear population, for they left our isolated cabin intact and at the same time cleared the surrounding yard of edible trash.

Wildlife

Monthly Report

We did get to see a lot of wildlife in October, large wildlife, in numbers that are spectacular in a land and seascape that is empty of such marvelous creatures for much of the year. On October 10, with swells and slush, the first "pan ice" from inner waterways came floating out into the waters of the open Sound right in front of our tent. They were about three gunshot lengths offshore. On these rising and falling pans were hundreds of seals. They were mostly the beautifully Spotted Larga Seal with a mix of short yearling Bearded Seal (Uguruq) and first year Common Ringed Seal. There could have been amongst the multitudes one or two Ribbon Seals (our most rare local species). Since this was the first and probably only mass of new season ice in deep salt water, it is likely that what we were seeing for a few hours were nearly all the seals in inner Kotzebue Sound on this particular day. We were again treated to, for a short time, the remarkable abundance of beautiful and specialized life forms that at most other times are seen by ones and twos, if seen at all.

On the 18th caribou finally turned up in numbers in our sector, at Jones Camp, just east of our summer and winter camps. We were in process of moving and missed that event as it was several miles away, but on the 20th, as we climbed the hill to leave our winter home valley, a pause to look back over our shoulders caused gasps to escape both of us. Several thousand caribou were massed just across the creek from our spruce patch home. The view from this point has probably not contained any caribou to speak of since last year at this time.

These two scenes, one on the sea, one on the land, are expected each October but they don't always happen. The year that either or both don't happen is very much poorer for it, but then there is memory to keep hope/faith alive. The sight of great herds in the north is a great privilege and balances the reality of the tremendous expanses of landscape void of any large living creature for much of the year.

The unseasonably heavy snow of October '94 certainly has caused altered movement patterns for many creatures, but probably hasn't had negative impact in the short run. In the longer view, if snow accumulation continues to build, there may be hard times down the line when too much ground cover can be a problem in mid winter. Those creatures (salmon, mosquitoes, voles, shrews) that benefit by early insulation of snow have it this year.

Caribou

Nearly all other peopled places were visited by caribou herds sometime in September. Our sector remained caribou free till the 6th when we saw two animals come down nearly to the beach. I was waiting for them on the beach but the newly formed ice in the slough didn't allow them to cross to my side nor me to cross to their side so all we got was to see them, no fresh meat.

On the 15th two bulls turned up at the same place and a neighbor following my newly made slough crossing trail was able to get both. Fresh meat finally. These animals, being isolated from main herds, had rut swollen necks but were not yet strong smelling. On the same day many thousands of caribou passed through the Hatchery on their way down to the mouth of the Noatak River. On the 18th they turned up around Jones Camp and everybody spent the next few days putting up a winter meat supply. Many, many thousands of caribou passed through on this date and came on through till the end of the month and into November. At this writing it is not clear if there will be remnants overwintering here or not. Most that passed here crossed the frozen inland part of the Sound to the Baldwin Peninsula around Pipe Spit and on towards wintering grounds south of Selawik and Buckland.

Dry cows, known to have the most fat and best meat as soon as bulls are known to be strong, are targeted at this point in time. From the samples we saw, handled and heard of, it appears that the animals were not as fat as in most recent years. There are several possible reasons for this. Some animals were noted to have heavy parasite loads (cysts) and a few "unhealthy" appearing animal were noted. Not more than is normal when thousands of animals are moving through.

We waited long for caribou this year, but when they came, numbers may have exceeded anything we have had in previous recent years.

The heavy early snow cover that we had could account for the unusual travel pattern this year as well as the apparent relative lack of fat.

Moose

Since our move to moose habitat on the 18th we have seen only two moose. We have word from others that there were many moose in the highlands just north of us early in the month. Those that live on the inland side of coastal waterways had good, abundant snow access routes to early October moose grounds. There are few camps that fall into this category. We know of two moose taken.

As this is written we have not had time to travel back through better moose habitat so we don't yet have anything to compare with other years, except that we have not seen nearly as much sign around our camp as in most recent years.

Bear

Monthly Report

Unusual bear stories continue. For the first time ever there were very large bear tracks in all that deep snow around our cabin when we moved up on the 18th. The tracks had been made only a few days before at the end of a mild heavy snowfall period. It had been scrounging in last year's garbage area, chewing cans.

The day after we moved into the house we began hauling fresh caribou meat in and hoped very strongly that the big fellow did not drop by again. He hasn't yet.

Remarkably, with all the bear activity this summer, our cabin was not damaged. We are grateful to the bear clan for this lack of destructive mischief, for we know that they can break in if they choose to.

Our first visitor from the Hatchery on the 23rd reported that a few days before, they still had bears fishing salmon on their creek.

We hope that with October coming to an end, so have the bear stories for 1994.

Sheep

No report.

Musk-ox

One musk-ox was seen from Salluq on the 4th. The seasonal pattern that these animals have developed is interesting. They seem to travel quite widely during the snow free season but apparently retire to "unpeopled" locations for winter months.

Marine Mammals

We had an extravagant front row seat to a scene involving hundreds of Kotzebue Sound marine mammals for a few hours on the morning of October 10. This episode is mentioned in the introduction and on the Journal entry of the 10th. It was quite a treat to view such a concentration of creatures in their whole bodily form. Usually the glimpse of a bobbing head or a wet back and one individual at a time is all that one sees of these sea creatures.

Early in the month a very few seals were taken by a couple of Sisualik based boats. Compared to past years, there was very little effort put into this fall boat seal hunt. Weather was one factor, as fall sealing requires near perfect wind and water conditions, but the primary factor is simple lack of interest. In recent years other activities and substitute materials have replaced former needs.

We did not eat fresh yearling uguruq meat this October. Probably for the first time in 46 years. Not only were there few seen but effort and opportunity never came together.

Small Mammals

Tundra Voles and shrew numbers in Sisualik, though staging a slow comeback in numbers, have not really gained much after flood damage to habitat and individual colonies. After our move inland on the 18th it was not difficult to see microtine activity signs during a short walk in any direction. It is likely that most of these are Red-backed Voles, though Tundra Voles also occur at this location, with tundra making islands of white spruce patches. Trash from living pretty much assures a population of shrews and voles in the immediate vicinity of our winter cabin. Short-tailed Weasels and Least Weasels are a control factor.

Furbearers

Several different tracks of Land Otter and tracks of one large Mink greeted us on the creek near the house. Red Fox populations continue high especially as the long period of caribou hunting developed.

One wolf track was noted before the end of the month. One would expect more wolf tracks, and maybe even wolverine in November, after the masses of caribou have passed.

The hope for a local population of marten to take root after the invasion of last winter seems not to have materialized. We have not yet seen any marten tracks.

Birds

Willow Ptarmigan and Red-breasted Mergansers continued absent from the immediate Sisualik area through the first half of the month, a time when they are expected to be seen there.

Waterfowl - Mallards, Wigeon, and Pintail - remained through the first week of October. A combination of cold weather and heavy snows beginning in the second week quickly terminated the presence of any freshwater fowl. The last Tundra Swans, seven, were seen on the 6th.

Monthly Report

Heavy inshore winds on the 7th and 8th gave rare bird sightings at Salluq (Ross' Gull, Ivory Gull, Short-tailed Shearwater) and dead seabird pick up in Sisualik (four juvenile Horned Puffins, two Short-tailed Shearwaters and one Common Murre)

Large flocks (40-50) of Snow Buntings were in the area during the rough weather that finally closed Anigaaq Channel.

See Journal entry of the 12th for the story of an annual pathetic occurrence.

We last saw Jonathan on the 16th with one other adult-plumaged gull.

We had our Snowy Owl traps set for a week with no catch. We heard of one taken at Sisualik Point and one in September at Salluq. These two are the only ones we heard of being taken this fall. Three creatures that we eat every fall in Sisualik we did not get this year: yearling Uguruq, Willow Ptarmigan and Snowy Owl.

After our move on the 18th our daily bird visitors changed as always. Three very lively Gray Jays rule the cabin site. Small flocks of White-winged Crossbills and redpolls pass by daily. Caribou harvest assures an abundance of very busy Common Ravens. Probably even some of those that have become "city slickers" are out visiting their country cousins for this time of plenty.

We saw yearling Glaucous Gulls in Sisualik on the 23rd.

Plants

If one did not have enough blackberries more could have been picked during the first week before snow and after the berries remained frozen most of the day. We don't know of any who took advantage of this situation. Some folks would have in times past.

After our move on the 18th to white spruce habitat we were surprised to note a good deal of spruce seed on the snow. This seemed early in the season for this release of seeds by the cones. Timing seems to vary much from year to year, depending on cone maturity, humidity and temperature contrasts. The cone crop is moderate with some very large individual cones. There are a lot of interesting things to know about our farthest north growing evergreen tree and how it manages a strategy to maintain itself as a species at the very limit of growth and seed production. Our local population of Red Squirrels show by their every day industrious peeling away of cone leaves (scales) that they appreciate this year's crop of mature nuts. White-winged Crossbills, redpolls and Boreal Chickadees have been noted joining in the feast.

All vegetation in our area is getting a heavy work over from the 18th on as unprecedented numbers of caribou march through the area stop to feed and rest and dig through the snow with sharp hooves for lichens and any other forage that suits their taste. This feeding technique can be very disrupting to plant species' inter-relationships, that is their "in place" situation. It probably is not all negative in its effect and may show invigorating benefits, like plowing or pruning in domestic agriculture. It can of course be overdone, and some specific locations will probably suffer that this year.

Fish

With Anigaaq not closing till after freeze up and Akulaaq not closing at all, fishing on Krusenstern was limited to late moving Saffron Cod before ocean slush during the first week of the month. There were lots of nice big ones available then, and again during the last week of the month, by hook through the ice at Norton Camp on the Noatak Delta. One day, the 26th, fishing there gave us over 100 lbs. for eating frozen with oil through early winter.

Several folks living in Sisualik set Shee nets in the westernmost part of Kobuk Lake as soon as travel was possible to the home grounds of overwintering Shee. The last week of October produced trail conditions good enough for this Shee net setting activity. We benefited almost immediately with a gift fish from friends and neighbors. A good sized (10-15 lb) fat Sheefish in the fall is a real treat.

We did have something new on the 25th. Hatchery folks brought us a fresh caught salmon dipped from their creek. These are returnees that were released from there three or four years ago. They are colored like the typical Chum coloration on the outside and have lost their inside "salmon pink" to a near white color, but the flesh is firm and tasty and very good boiled and eaten with a choice dip. Fresh caught salmon on this late date in this region is another triumph of technology.

We took a rare (for this inshore area) Longhead Dab on the first. This is a small flounder that adds to the diversity of that group known to be present, at least sometimes, in Sisualik waters.

People

There was some shifting around of people in October. At Sealing Point two families were living in the two houses there. The elders from one left to fill a pastorate in Fairbanks, but some of the younger generation continued on there through the month and into November. All of the occupants of the other camp moved back into Kotzebue in mid month.

The two families left at Salluq early in the month moved back east one to Sisualik, one to Kotzebue, around the 18th. That leaves only the one occupied camp, at Sealing Point, on the whole section of beach from Sisualik to the Red Dog port site.

There remained through the month eight occupied camps in Sisualik. There are small children at three of these camps and the ALC teacher makes periodic rounds for some schooling.

The first snow machine crossing to Kotzebue was made on the 19th. The historic early record date for this crossing is October 12 by dog team and snow machine, and a bicycle made it once on the 10th.

The first Shee nets were set by Sisualik-based people in Kobuk Lake a few days after the initial crossing to town. This is a recent Sisualik subsistence activity impossible in the past, but becoming common practice with new transportation technology.

A boat trip from Sealing Point to Kotzebue was successfully completed on the 16th. This may be the last boat crossing accomplished, though seal hunters both from Kotzebue and Sisualik could have been out boating some later.

We made first vehicle crossing to tablelands on the 15th and moved to winter quarters on the 18th. We had our first visitor to winter camp on the 23rd.

Jonathan, Sisualik Camp watch gull, was last seen on the 16th. He doesn't know where we go and we don't know where he goes but hopefully we will meet again in May, 1995.

MONTHLY RESOURCE REPORT

NOVEMBER

Introduction

Wind and caribou, that was November 1994 within and around Krusenstern National Monument. Both of them in excess of normal reality that causes one in remembrance to think, "could the winds really have been that strong and lasted that long?" "Could the caribou really be so plentiful that day after day, for such a long time, they passed en masse through the narrow coastal corridor adjacent to Sisualik?"

Then, coming out of the dream world, one must wonder about the future. That many hooves, that many stomachs, what of our berry picking grounds? What of the animals themselves? Is this, then the repeat of the elder's tale which states that caribou came each year in greater and greater numbers and then one year passed to the south in packed masses and never returned? (In the span of one person's life time?) Well, let's hope we see them again! The great herd animals of the earth are a particular treasure that must be experienced to understand their full value.

We had eleven days in November in which the wind blew at 30 K or more. On five days winds blew to 40 K or better. On the 14th, winds blew to 50 K from the SE-E with higher gusts. Prior to that, on the first, when we had a 40 K blizzard, it was reported that gusts up to 84 K were recorded at the Red Dog Mine site. Most of these strong winds have been from E to SE, with a couple from NW and N.

There has been some snow with each storm but not a lot in any one. Because of the strong winds, much of the snow is concentrated in creeks and draws and sheltered places. By month's end moose were "belly dragging" in some feeding places.

We had a few days of record-breaking cold, but frequent winds did not allow that for long periods. A -40° F on the 20th brought us to the bottom of our recording thermometer (it bottoms out at -40° F) in November, which may not have happened since we got the thing.

November 1994, a month of extremes? Well, yes. At least in the categories of wind, caribou and cold temperatures. Most other things seemed more in the line of "normal."

Wildlife

We started off the month with a very strong blizzard that dumped most of the blanket of deep snow (which had been a definite problem to migrating creatures, chiefly caribou, through much of October) into low places. That cleared the land for caribou movement and feeding, but in creeks, draws, willows and white spruce islands moose were nearly up to their arm pits in snow at their usual feeding areas. This situation has caused an early movement of moose out of prime highland feeding areas at an early date. No real problems have developed within the month, but the stage is set for developing problems in later winter months.

Because of winds and the great numbers of caribou over an extended interval of time, much of local winter caribou habitat has been rendered unusable through this winter. It has been hoof and wind packed to an icy hardness and much of the usual choice lichens are already consumed.

Willow Ptarmigan and Red Foxes have increased locally through the month. Wolves and wolverines have been a disappointment. It was thought that with so many caribou passing through wolves and wolverines would become more numerous locally. A few wolves turned up, but to our knowledge no wolverines were encountered or taken through the month.

Temperatures never warmed enough through the storms to produce much icing or rain, which is a good thing.

Caribou

We have had many caribou pass through here in past years when there is a movement through coastal sections. We think numbers are very much greater this year and this month than at any time in this century. There was a good deal of movement back and forth because of the geographic location and the path the caribou chose. Following the land through Sisualik and the tablelands directly behind, the south-southeast moving caribou faced 9 to 12 miles of open ice crossing to make landfall on the Baldwin Peninsula. Kotzebue is on one edge of this corridor and Sisualik on the other. All of the ice within the corridor was thick and snow covered through the month. It was ideal traveling for both caribou and snow machines. The results were that many large bands returned to northern land edge, and some may have tried crossing several times only to be turned back by either hunters or just regular travelers or "joy riders." Early in the month and throughout it, large bands of animals could be seen leaving Sisualik land, traveling E-SE, while a few miles inland equally large bands could be seen moving back W or NW. Late in the month there was a report from Kivalina that caribou were moving N behind their village.

It is hard to read from one locality just what and how much has happened here this month. It seems that most all of the NW Arctic Herd could have been through here from October 18 to November 30.

Some antlerless bulls were noted as early as the 7th. Some dry cows carried considerable back fat from some groups. In some years in this time frame, all dry cows can be counted on to have back and internal fat. That was not so this year.

On the 11th some caribou were seen offshore of Sisualik in heavy slush and on young ice pans. Those that made the report believed that some perished.

Numbers of caribou peaked around mid month and dwindled down through to the last week.

We were surprised to hear at mid-month that these caribou did not pass through Sealing Point. A family person that was there through the first half on the month did not see any. Quite remarkable.

Moose

Have not traveled much this month in moose habitat. A few have passed through our tree patch but none that we would want for our winter moose meat.

On the 11th a cow with calf dropped by and stayed a few days. On the 14th she was joined by an antlered bull. On the 19th a moose stood up from its bed near the house and was seen only momentarily. It was probably the antlered bull.

On the 29th the only real moose adventure for the month occurred. It is detailed on the Journal entry for that date.

As mentioned earlier in this report, moose are only inconvenienced by snow cover to date, but the stage is set early for a potentially tough winter. We still have an eye out for an adult cow without calf.

Bear

No November encounters.

Sheep

No report. Heavy early snow may have been tough on those animals in some areas.

Musk-ox

No report.

Marine Mammals

There was a great lack of marine mammals in near shore waters of Kotzebue Sound in November 1994. This is not unusual. Spotted Seal (Largha) have mostly moved south with the building of ice in the Sound and Bearded Seal (Uguruq) have moved offshore and/or north as ice conditions that favor their needs have by this time become well developed. That leaves Common Ringed Seal. Arctic Cod, present or absent, often determines where Common Ringed Seals spend their time in the month of November. It is said that this species provides the greatest biomass of fin fish material across the Arctic. The species is however very gregarious. That is, they tend to school up (especially in November) and form huge dark masses, often very close to shore. This may be related to spawning. This situation leaves widely spaced areas of super abundant marine mammal feed and relatively sterile waters in between. Thus, most often in November where the food is, the seals are. They are in need of putting on thick blubber layering to meet mid-winter cold weather needs, as well as extra reserves for March pupping.

We had word from Point Hope this November that Arctic Cod were extremely plentiful in that sector. There was no indication off Krusenstern that there were any here. Thus seals in waters off Sisualik through November were very scarce.

There was report from people living on the edge of the still open Sea on the 13th that Ivory Gulls and eiders were commonly seen for a few days. This gave hint that Arctic Cod might be present or incoming but Common Seal presence never confirmed this. By month's end all waters near shore were iced over in Sisualik to an undetermined point just east of Sealing Pt.

Small Mammals

Red-backed Voles have remained common on inland habitat. There was lots of surface sign of voles through the last week of the month. The reasons are not clear but some possibilities are a continued build up of snow caused settling that disrupts subnivian tunnels and considerable white spruce seed availability on snow surface

from opened cones. This cone seed availability is triggered by temperatures and humidity.

Red Squirrels seem considerably increased from last year and though cone crop is only moderate the cones are big and well developed with well developed seed.

Both weasel species seem very scarce.

Porcupine are unusually scarce in areas covered to this point in time.

Shrews are present but in low numbers.

Furbearers

November and fur - how those words used to "shine" and evoke lively conversation in many directions. Much has happened in the past decade or so and now, in this area at least, it is only "old timers" whose eyes shine with the sparkle of youth as remembrance brings thoughts of how it used to be.

Under Territorial status, November 15 opened the new season of fur trapping for many years. Lots of activity, lots of talk, and in the mail, numerous price lists with incentive offers for delivering all of your season's catch to your favorite fur buyer.

Later, under Statehood, the opening was moved back to November 1 with trappers generally happy but buyers having to hedge a bit because of some less-than-prime furs coming in by that early date.

All that has pretty much faded from the scene. We don't know of anyone who has set a trap on Cape Krusenstern through the month.

There are lots of Red Fox and more coming - the result of caribou multitudes and somewhat depressed vole populations.

Three wolves were taken in our sector. No wolverine tracks were reported. Both of these were disappointments. It was expected that these animals would be coming through in greater numbers with the multitude of caribou. It hasn't happened. At least not yet.

Another disappointment was the lack of marten sign. After the influx of a number of these graceful animals last fall-winter it was hoped that they would become a regular part of the creature community of this region. It apparently is not to be. One track was reported by a person from the Hatchery. It was on Mamailiug Creek.

Monthly Report

Land Otter have passed through on the creek about once a week. There seems four or five in one group. Probably a complete family.

A single large mink makes an occasional pass through the creek.

Birds

Birds are not plentiful again this first month of winter. There are spruce cones in moderate numbers, with a good load of mature seed that are an attractant for White-winged Crossbills, Boreal Chickadees, Common Redpolls and to some degree, Gray Jays.

We have had mixed small (8-10) flocks of redpolls and crossbills through the month, but not every day.

Bright on the horizon is continuing growth in numbers of Willow Ptarmigan. That has continued all month, and though there are not lots we see them quite regularly.

Common Ravens have probably had as good a late fall as the species has ever had. Theirs for the finding has been a continual supply of fresh blood, inside fat and soft meat.

Most interesting of bird happenings during the month were multiple Ivory Gulls in the open water at Sisualik on the 13th; numbers of a large eider (probably Common) were reported through the same week. The reporter said there were as many as three Ivory Gulls together, sometimes one at a time and sometimes two together.

The only Boreal Chickadees seen were a large group feeding on white spruce seed on the snow surface. This sighting was on the 8th. After having this species around the house all Winter for many years we wonder why not last year and now this year?

We have not seen a woodpecker yet either.

Plants

Caribou hoof and feeding damage to plant communities is going to be extensive. We don't know how to predict the negatives and positives of this general disruption of the tundra surface. There may be certain aspects of it that are invigorating and growth stimulating, but there is also uprooting and trampling as well as some fertilization and urea deposition. The one sure thing is that a large portion of Krusenstern National Monument has hosted this year more caribou, for a longer time, than since at least the early 1800's. We will see some of the results next

summer since much of the action was right on and through many coastal Native allotments.

White spruce seeds seem to be shedding, dropping from cones quite early this year. On the 8th and continuing through the month, the snow surface was at times quite speckled by the rich little nuts. Voles, chickadees, crossbills, squirrels, grosbeaks and even Gray Jays often spent time picking up this treasure.

Tree patches, islands of white spruce surrounded by tundra, are again suffering some mortality due to blow downs and pile up of heavy drifted snow stuck on one side that bends the sapling to the ground.

Fish

Shee netting continued good for those that kept nets out in western Kobuk Lake.

Excess Hatchery fish (Chum Salmon) could still be dipped out of the return creek through most of the month.

Just what is to be done with the Hatchery may be on the table. Decisions may be made in December.

A real heavy concentration of Arctic Cod (*Boreogadus Saida*) was reported from the Point Hope area around mid month. When this happens on Krusenstern beaches it is a sight to see. Dark masses of the little fish can be seen in the clear water and a little wind chop often strands thousands on the beach to freeze almost immediately. Seals, eiders and some late gulls stuff themselves day after day and get super fat. No hint of that happening here this November, but Point Hope did have the treasure.

People

We had a good day of visitors on the 13th. Some folks from Sisualik and Jones Camp and an Iditarod dog team down from the Hatchery for a visit.

During the week of the 17th more than 10 pups strayed from their home camp and were lost for several days. These were potential race dogs being firmed out. Some were deemed quite valuable. With the multitudes of caribou moving through Sisualik at the time it is remarkable that they were found. They all were found within the week.

Monthly Report

At month's end occupied camps on Krusenstern beaches had dwindled to eight. Sealing Pt cabins also were unoccupied, though one person had been there through most of November.

The staking of trails was late again and the many blizzards through the month led to some pressure to get it done. Between village coastal travel usually gets underway around Thanksgiving time and of course camp families do much traveling in and out of Kotzebue. The 9 miles between Kotzebue and Sisualik Point is particularly dangerous in November when visibility is poor, since the ocean remains in various states of unfrozenness, sometimes less than a mile west of the normal trailway. A neighbor's son was probably drowned after straying too far off that trail a few years ago.

A burial needed to be done in Sisualik soon after Thanksgiving which brought many more travelers. They began staking the trail on the 28th and finished the next day. Sadly when we really needed to use it on December 2, blizzard and overflow wiped out much of the staked zone. That usually happens when the stakes are in a straight line. It passes right over shallow area where overflow always occurs. With a "dog leg" angle in the trail (just like summer boating) all the stakes are then over deep water which normally does not overflow.

All things considered, concerning people and caribou this November there seemed little waste or misuse of the resource, at least in the Krusenstern area. If there has been overkill it probably won't surface till next spring's clean out time, as most hunters seem to have taken home most of their catch. With so many caribou in the herd there were many that did not physically meet usual requirements for human consumption. What was done or will be done with these "sickly" animals will be interesting to see. Actually it will be best if they remain unseen. This issue with caribou is a gray area that doesn't have easy open answers. The larger the caribou herds grow the higher the percentage of "sickly" animals there is to contend with.

With reference to caribou and people, it is not likely that the handful of people that were in residence in Sisualik this November will ever in their lifetime see that many Caribou on their land again.

MONTHLY RESOURCE REPORT

DECEMBER

Introduction

One may wonder if, out of the twelve months of the year, December might be there to test the durability, the "suitability" of the various species (including man) for their environment. December 1994 was a great example of this possibility. It was a test for creatures great and small.

There were 9 days of wind blowing to 30 K or more. On the 23rd the daily high was a -38° F, the low a -44° F. On the 11th, wind velocity reached 51 K and got up to 45 K on the 1st, 25th, and 28th, all from the E and SE. Considering chill factors and drifting snow (blizzards) one can understand that the resident species which can survive these conditions will probably find the other 11 months easier to live with. Sunlight, of course has a place in this December equation, being the very sustainer of life on earth. We had as little as 1 hour and 43 minutes on the 20th and 21st. The great and remarkable upswing in the daily length of life sustaining sunlight time comes within the same week that we celebrate the Birth of Christ. We stand in awe, in this week of December, at the importance of Light in our life. All we creatures, great and small.

The warmest day was on the 2nd at 28° F.

Wildlife

Very often the minor tragedies of December cannot be read until snow and ice melt in May, and by that time many details of the event are unclear or distorted. For instance, what happened to the four adult Red-backed Voles found dry but frozen, huddled together in an old bird nest three feet above the snow surface? (I hope I might be forgiven for calling this a "minor" tragedy - it was not, to the four participants.)

It is certain that there were tragedies involving individuals of some species through December. It is to be expected with the harsh conditions. The fit and/or lucky survive. We did not have wet and warm thawing conditions that can spell disaster when body insulation is lost.

Monthly Report

Caribou range condition (lots of hard and icy snow) and above usual snow accumulation in moose browsing areas may be developing difficult times for those animals later in the winter. No December die-off due to range condition has come to be known. Caribou habitat is icy, not because of rain, but by heavy use by animals during warm blizzards. General fat reserves seem low in the few caribou sampled in December.

Seed eating, overwintering birds (White-winged Crossbills especially, and Pine Grosbeaks and redpolls) can become disoriented in blizzards and lose contact with spruce habitat which they need for winter survival. They may perish in the "badlands."

Caribou

The above mentioned range conditions and small sample of low fat reserve in a few animals are hints of possible later winter problems for caribou. The number of overwintering animals on Krusenstern is not clear. Through December there have been movements both east and west, and south and north involving at least a few hundred animals. It is expected that groups of animals are scattered through the western $\frac{3}{4}$ of the Monument as snow machine disturbance has been minimal through that portion, due to short daylight hours and frequent storms. Number of caribou, by grapevine and rumor, seem much greater from Selawik north to Point Hope than in any recent December. On the 4th, a large group of caribou were seen headed on ocean ice towards Cape Espenberg from Sisualik.

Two dry cows taken on the 11th were "good meat" with a little show of back fat and good inside fat. Two males taken later in the month were of very poor quality with mesentery fat and watery marrow.

On Journal entry for the 12th there is a theory of why there were many not fat dry cows through here during migration.

There have been caribou in our valley in sight every December day, but in small numbers, except for a couple of times of movement when several hundred could be seen.

The two cows taken on the 11th had grapefruit size, well-developed fetuses.

Moose

A cow moose with calf is the only moose that we know of in our area for this month. We have not traveled in moose habitat much.

The cow and calf came by twice in the month. They are quite tame and the last time through they finished up the exposed willow clumps right in the yard by the house, snow machine and 10 feet from the chained Superdog.

Our snow has covered most willows available to moose in the upland areas. Since the beginning of snow buildup last fall, the higher and more inland zones have considerably more snow than coastal or even more inland lowlands. Moose have moved on to larger river course zones. It may be difficult for moose in some areas of this region this winter. They are already absent from many places where they are usually found through this month.

Bear

No winter bear stories yet except from coastal polar bear villages, where early heavy ice may have brought some bears into village sites earlier than usual.

Sheep

No report. Wonder how sheep range is this winter after the early heavy snow of last fall?

Musk-ox

No word of musk-ox.

Marine Mammals

As explained before, it is usually too dangerous to hunt offshore leads in December. There is, in fact, a cultural taboo against doing so. Mild weather and a good lead system will give opportunity next month.

Small Mammals

Red-backed Voles continue to indicate their presence by open tunnel doorways, tracks on snow surface and an occasional drop in a plastic bucket in the store house. With meat and meat scraps around, shrews can also be rather easily seen in camp.

Porcupines seem unusually scarce.

Red squirrels are much more abundant than they were last winter. A fair white spruce cone crop is keeping them in good shape. They are probably also glad for the absence of marten this winter in this area.

Furbearers

Red fox continue fairly common, though some local trapping and chasing took place through December. Numbers of animals taken has not been talked about much, which likely means that no unusual catches were made.

No hint of marten anywhere near here this December. That is a disappointment after last year.

Short-tailed and least weasels have not made an appearance around camp this month either, which is unusual considering the amount of meat we have laying around.

On Journal entry of the 19th there is a run down of pre-Christmas fox hunting/trapping and its importance in years past.

At least one, and maybe several wolves were taken by local hunters in December. There have not been many around and hard rough snow surface has made sign difficult to see. With longer days and a better snow surface, wolves within one or two day's travel distance of Kotzebue will be at risk.

Birds

It has been a sparse winter where birds are concerned. Willow Ptarmigan come and go, giving apparently false hope that their numbers are building. There is a fair white spruce cone crop and at least one group of 20-30 White-winged Crossbills pass through the cabin clearing trees every few days. Our three Gray Jays are sometimes visited by three strangers and a general war breaks out for a few hours till the strangers leave. Lena Jones has one Boreal Chickadee around her camp, and except for a half dozen passing ravens each day that is pretty much the bird picture for

December. We have had no report even of Snow Buntings from the coast and have not seen any in our short passes through there.

We did a little talking in town about doing our CBC, but weather, trail conditions and other holiday activities pretty much killed hope of a bigger crew out of Kotzebue. Hatchery folks were short handed too, with dog races on, so Carrie and I will probably do the Sanningaruq CBC this year on the 1st or 2nd of January.

Plants

We do have a white spruce cone crop, but not heavy. The redeeming feature is that what cones there are, are big and fat and have good meaty seeds. During each of the warm spells we've had since mid-October there has been good spruce seed drop to the snow surface. Red squirrels are back to peeling their own cones again and account for about the only disturbance on the fresh snow surface as one walks through the spruce forest. The absence of snowshoe hares, willow ptarmigan, moose, marten, spruce hen, porcupine, lynx and the two weasels pretty much leave the marking of new snow that indicates life, pretty much to the red squirrel.

The various willow species (*Salix* sp.) especially at higher elevations are having another winter of near absolute protection from creatures that eat them. Most are now safe under the snow.

Some zones of plant communities where there are overwintering caribou continue to take a rather unprecedented scratching and tramping, most especially those windswept places where snow cover is thin or absent.

Picked up a bucket of sourdock and berries from Sisualik storage on the 8th and while having some for supper, was able to relive the day of gathering last summer with the greens, flowers, bugs and birds of the Inland Lake coming alive in reminiscence.

Fish

Sheefish netting has remained pretty good through December along the west shore of Kobuk Lake and friends that maintain nets have been very generous with their catch. We have had some very large, very fat Sheefish to eat through December.

People

In a way, December may be, in northern regions, more of a "people month" than any of the other eleven. Short days, blizzards, and tough traveling/hunting conditions tend to keep people more oriented around their family, their community. Friends and family, even those far away, are brought closer by thoughts of Christmas and New Year's. Receiving and sending mail becomes intense. Villagers and rural people flock into town for shopping and often you find yourself "rubbing shoulders" with friends you haven't seen all year - in stores, at various holiday activities, or on the trail to or from camps or communities. The people-to-people relationships seem to build through the year to a final climax at Christmas and New Year's and then fade into the depth of winter, revived, slowly, by increasing sunshine and daylight.

Trail stakes were pretty much in place around the region early in December. This fact is always important to the traveling public. Even aircraft can use surface visibility situations. Have noticed even ravens "following the line" during fog or other times of poor visibility.

People began to drop off the CB circuit early in the month and by the end there were only three and sometimes four, regulars. As more camps get remote phones, CB may fade out altogether except for summer boat use.

There were seven active camps on the Monument through December and two of these were rather "off and on." Two were younger families with children. One of these has several school age kids and are taught by the camp school teacher from the school district office.

There was some hunter-trapper activity through December with a wolf or two and some foxes taken. The level of effort towards fur harvest is still low, but with some excitement developing over some successful wolf taking through the region. Early heavy snow, the multitudes of caribou, and an occasional wolf taken near camps is setting the stage for possible heavy wolf hunting activity as daylight hours lengthen.

Travel through Krusenstern to northern villages has occurred through the month, but levels may even be down from last year, probably due to persistent blizzard conditions. That is a bad run in stormy conditions.

CAPE KRUSENTSTERN JOURNAL

JANUARY

January 1

High 0° F
Low -16° F
Clear, bright
N-NE wind to 18

A great day to begin the new year. It is a little colder, more normal and very bright both day and night with the still near full moon. Early morning (1 to 3 AM) travel home was very beautiful and free of problems. Inside of house was just beginning to freeze with the subzero temperatures of last night.

Marten around camp last night. It is a small one. Two foxes coming in each night to see if there is anything to steal.

No indication of new moose tracks and no time to check around to see what is going on.

Hatchery dog teams came by for a change, seeking longer trails to build muscles for upcoming long distance races. Deep snow and warm wet weather over a long period has set them back much in training schedule. They will overnight down in the Sealing Point area.

Some spruce seed showing on the snow for the first time. Some trees evidently do have mature seed.

Hope to check out rabbit tracks and pocket of Pine Grosbeak located by CBC this coming week.

Journal

January 2

High 4° F
Low -6° F
Clear
NE wind to 15

A beautiful bright day with sun again, seven more minutes of it.

A few visitors today with such nice weather and trails in place.

We seem to have brought the flu home with us. Hope it doesn't hang on too long.

Fresh moose tracks through camp last night. We would have seen it through the window if we had looked out. Did see two moose at the upper end of the spruce patch. They seem to be two bulls, one darker and larger.

Willow Ptarmigan tracks, marten and fox, all fresh from last night. Country looking pretty good again with numerous tracks, including Red Squirrel.

It was a pretty restful day after the hubbub of the holidays. Most town folks will get back to their routines and we will continue to try to catch up on work, hauling, we didn't do earlier this fall.

Some spruce cones seem finally to be opening and dropping seed.

A few vole tracks beginning to show on snow surface. Will need to check storehouse things since our year has thus far been mouse free.

Ate our last Snowy Owl today. Probably will not have another till next October.

January 3

High 10° F
Low -8° F
Clear/scattered clouds
NE wind to 20

A very nice dry mild day with some ground drift in the open.

Lots of moose and ptarmigan tracks in our spruce patch. It is hard to find out how many and what kind as the snow is crusted. Followed a couple around on snowshoes.

Quite a lot of Red Squirrel activity around dens with this dry, breezy and mild weather.

Our bout with the flu picked up during the holiday season, and continues with Carrie having some rather odd symptoms. Up to this point I have fared better. Sickness in isolated households is always a worrisome "specter in the wings" on the stage of life.

A single otter track was noted in the creek today and fresh marten sign continues in the area.

Caribou seem to be really gone from the near local area. The single weekend of traveling-hunting public a couple of weeks back was the end for this year.

The increase in Willow Ptarmigan tracks is quite impressive. We may even have some to eat soon!

January 4

High 10° F

Low 4° F

A few snow showers

E wind to 25

Flu continues. Two days now pretty much given over to rest, favorite cold remedies, and miserableness for both of us. Carrie is much better today.

On a short walk to the north section of our spruce patch today I was surprised to see four moose from a distance. Even though the distance was considerable, all were already aware of me before I saw them, which means very little chance to get any closer. One at least seems to be a female and has a long rope-like bell. Will probably shoot that one, given the opportunity.

Marten was into things in the storage cabin last night.

W. Ptarmigan tracks continue to appear like magic, and the mild weather has sparked a good lot of Red Squirrels to be out and making tracks, littering the snow with peeled cones.

A few Short-tailed Weasel and occasional a Least Weasel pass by. Marten, surprisingly, are the most regular new tracks to be seen after each new snow.

No more caribou close and no more news of local caribou anywhere. This is a surprise too. The front of the herd pushed far past Unalakleet River at last word. We may have a better reading on caribou toward the end of this month as we get longer daylight hours.

Had a birthday again today. Not much of a chance to stay young with so many piling up and little time in between them.

Journal

January 5

High 10° F
Low -20° F
Clear, few clouds
NE wind to 10

A very bright day and a good deal of sunshine for the short time it was up. We are already approaching 3 hours of sunlight, up from 1 hour 43 minutes on December 21.

Got a small load of wood today and found the trails in very good shape.

Continuing flu symptoms preclude any attempt at greater adventures like moose hunting or a search for rabbit tracks.

No hint that the four moose in our tree patch have gone any where. I think that one of them would qualify as our winter moose.

Squirrels, foxes and the camp Gray Jays remain about the camp area. Marten comes by every couple of days.

Numerous spruce cones are appearing under trees. Often this is an early sign that crossbills or Pine Grosbeaks have drifted in.

A sharp drop in temperatures this PM; our cold weather for the winter may be on the way.

January 6

High -16° F
Low -30° F
Clear, sun
Light winds

A very quiet day here, trying to beat the flu bug. For what appears to be the beginning of a first winter cold spell, it is very nice and warm and snug inside the cabin and so beautifully bright and inviting outside. The cold air though, hits flu ravaged lungs, sinuses and even bare skin like an invisible wall.

This reaffirms our thought that to enjoy outdoors life at a -20° F and on down one must not only have a healthy body but proper clothing. At temperatures warmer than -20° F neither clothes nor health are so critical.

Our Gray Jay flock is fluffed up double size today and those creatures that have grown thick hair or fur or dug in for hibernation now have a chance to test the results of their weatherization.

News this evening of a wolf catch made by a Noatak relative. As the days get longer, snow machine hunting of wolves and wolverine will be good with this snow cover and may be a bit more intense, as winter job availability has dropped some on the village scene.

Fox and marten continue to be the major track makers through local spruce and willow patches.

January 7

High 2° F
Low -31° F
Clear
N-NE wind to 20

The flu and the clear weather continue. We seem to be surviving and got around to a more normal day, though symptoms continue. We need to make a town trip but will wait till next week, fearing a set back at this flu stage. How terrible the early flu epidemics must have been in this region!

Regarding the continuing clear weather - if it continues, we expect a yearly milestone tomorrow. It will be the first day of the New Year that the sun's rays come back into the house after nearly a month of absence.

As the temperatures dropped quickly into the minus 30's last night we expected the worst: a long spell of super low temperatures. We were quite surprised to see the frost melted from windows and hinges, and a very mild 0° F outside this morning. From cold stagnant air, a steady NE breeze has given a reprieve.

Ran Terry the dog down to the tide flats and picked up a few chunks of ice for the water bucket. Very hard to find clear clean ice in large chunks so far this year.

January 8

High 5° F
Low -10° F
Clear
N-NE wind to 20

Well, we found today that it really is the day each year that the rays of the sun do come back into the house from our high small windows. Without a cloud in the sky we anxiously awaited a small band of yellow Sunlight to appear on the wall. Finally at 1:35 PM (11:35 sun time) the thin streak appeared on the wall. With it, the promise of another full year of the various miracles the sun performs for us and all other living creatures and plants on earth is renewed. We will have a new year: the proof is in our humble cabin!

Journal

The flu continues to reign, controlling our outdoor activities. We seem to be on the improvement side.

More spruce seeds on the snow daily with the dry windy air. This late in the season, dispersal of seed is interesting. Also the change that cones go through from late September till early January needs a closer look. Most spruce cones noted in mid October seemed too immature, as if the growing season had been too short.

We are glad for the constant movement of air the last few days, which has kept temperatures above the -30° F mark. Calm air and clear skies present cold weather problems in January.

January 9

High 8° F
Low -16° F
Clear
N-NE wind to 15

The sunbeams a little broader and lasting a minute or two longer in the house window today.

A couple of visitors came by and Carrie's condition is a little worse today, mine is better. We shall have to get her to town tomorrow for some medical attention. Her problems seem more than simple flu.

Hatchery getting rid of a few dog feed salmon again, now that trail conditions have gotten more stable. There probably won't be nearly as many as last year. There is a report of many fox holes and foxes by a covered cache of salmon up there. There may be few whole fish left.

There are a few more spruce seeds with wings on the snow again from this dry moving air. Some investigation shows isolated individual trees heavy laden with cones, while most have very few.

W. Ptarmigan tracks continue to be made, but few birds.

Some of the Sealing Point family made it into town yesterday. The forecast is for gale NW winds down that way.

Our sun will be up at 12:14 tomorrow, which means in a few days our sunrise will be in the AM, where it is supposed to be all year. This is our continued plea to return to natural sun time instead of the 2 hour advance we still labor under for political reasons.

January 10

High 0° F
Low -30° F
Clear
NE wind to 15

Town trip for medical check for Carrie. She seems better this morning, we're glad to say, and the rough trip to town on a sled looks possible, though probably not pleasant. It is a bit colder today as wind tends to die for long periods, leading to the cold stagnant air that we seldom look forward to with pleasure this time of the year.

We did make it to town in fine shape if not comfortably. And best of all, the doctor, after some tests, concluded that Carrie's points of pain and discomfort were most likely due to the flu. She should be in good shape with a few more days of rest.

Finally broke our full straight trail to Kotzebue on the way home and it was great. Seemed so short to go straight home. (We have been using Jones Camp trail or Sisualik summer camp trail, both much out of the way.)

Found a marten in the storehouse this morning. He panicked again, feeling trapped and made his escape through a very small torn hole in a plastic bag window cover. The noise of his exodus scared both me and him as the window cover is rather "drum head" tight. Never dreamed that I would one day share living quarters with the marten clan. What an unexpected privilege and an experience to treasure, forever.

January 11

High -10° F
Low -30° F
Clear
Light NE winds to 15

Town trip to take a down generator and pick up Carrie who now feels well enough to make the trip home. It is a short trip having made a straight trail coming home yesterday. It is also quite smooth, so travel time is cut to one hour or so. It is by far the best trail conditions we've had so far this season and it feels great!

The -30° F temperatures are not pleasant for travel but brightness and lack of wind help one forget the residual flu symptoms.

Not many creatures moving or showing in this first real cold spell of winter. Ravens of course, their black glossiness enhanced by whiteness of the world and glorified by the gilding of the returning golden sun, continue their searching flights between town and camp.

Journal

We are making ice around the region with this clear weather. Even cracks are beginning to show on the surface of lakes where snow is thinner. We may yet find an easy place to get ice for household water.

Rumors are rising again. A couple of hunters have caught a pile of Ringed Seals. Buckland caribou are very fat. A lot of rabbits (hares) on the Kobuk Delta. Time will tell what is behind the rumors.

January 12

High 10° F
Low -11° F
Cloudy, snow
E to SE wind 40

Wind, fresh snow and milder weather again.

Finally shot our medium sized lone female moose today. It is probably the same one that we first saw when we moved up last fall. It is good meat but with less fat reserve than any barren cow we have taken in the past. There was considerable inside fat but no outside back fat. No obvious reason for relative lack of fat, though worn and chipped hooves indicate distant traveling. We now have a lot of fresh moose meat.

The moose was taken within 500 yards of the house in our tree patch, and I suppose she has been our neighbor for some time. It is also another lesson in living in harmony with nature. Neighbors often eat one another. We will have many meals to celebrate her passing.

Outside the tree patch today was quite miserable, with ground drift and fairly low chill factor temperatures.

The close to camp kill will give our camp followers (fox, marten, Gray Jay, weasels) a fresh source of sustenance.

When the sun shows again without clouds, it will be noticeably higher in the sky, and any day now (maybe day after tomorrow) the sun will rise in the AM instead of the PM, as it is naturally always supposed to do! Yea Diomedea!

January 13

High 10° F
Low 8° F
Cloudy, snow
E wind to 30

Above zero temperatures again. It was a great day to work the moose meat up, and that is what it was used for. A moose, even a medium sized one, is a large animal and processing takes awhile when done alone.

After the killing late yesterday afternoon, the animal was put on its' back (with ropes) and skinned, using knife all the way, as far down the sides from the center of the belly as possible. It was then tipped to one side after slitting the abdomen open and innards were pulled out and removed. The animal was a little easier to handle then, as moose have quite a lot of weight in their digestive and blood system. The animal was then tipped with its back up, hind legs stretched out. The skin was still whole and attached to head, neck and about ¼ down the rib cage and most of the upper hind legs. The carcass was left overnight to drain and "age." The lower edge of the skin draped over the carcass tightly to the snow surface. This retains body heat and prevents freezing. This morning, the head was cut off. A slit in the skin was made all the way from neck to tail on the back and with knife the skin was worked all the way down the sides. Each of the two side were taken down to where the skinning stopped yesterday. The halves of the removed skin then make a clean "floor" to cut up the meat in manageable pieces, which were put in plastic bags ready for hauling home. All this was accomplished just before dusk settled down. It was a full day's work and some effort will be made to keep the meat from freezing hard for a couple of days, to allow for more "aging" and tenderness. It is a good piece of meat. We were quite fortunate and grateful to have such a fine January animal within 500 yards of the house.

Parts of today were quite stormy, with a little fresh and flying snow out the open, but people continued traveling with the blessing of staked trails and mild temperatures.

January 14

High 12° F
Low -14° F
Clear
Light winds

A real work day today. The wood pile down to a few sticks and ice for water gone too.

Found that the strong east wind yesterday was much stronger south of us and moved a lot of snow, exposing tussocks again and leaving a high centered trail with some

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washboard spots. Our hope for a long lasting "good" trail to town, like it was when we came home last, is not to be fulfilled.

Our sun getting higher and brighter and a first quarter moon is showing at sundown this evening. It may also be that tomorrow the sun will rise a few minutes before 12 noon. It will be good to know that the sun is rising in the AM.

Yesterday was fairly nice here in the trees. Between here and Kotzebue must have been pretty stormy.

Red Squirrel was very active yesterday while the temperatures were above 0° F.

Moose tracks down the creek today from our side.

Overnight fox tracks around the house and the trails to the moose kill site again make us look like a fox farm.

No fresh marten tracks since moose kill.

Kobuk Lake Shee netters report a good catch again.

January 15

High 4° F
Low -26° F
Clear, cloudy p.m.
N-NE wind to 10

A cool but pretty bright day with a lot of orange, yellow, pink-purple sun. Today our sunrise happened before noon! Hurrah!

Ran up the hill to get a few more sticks of firewood while trail is still there. Trails seem to disappear easily and quickly this year.

Terry the "Superdog" went along and developed a problem. Broke a shortcut trail for a ways which left a soft stretch (compared to the hard packed trail) for him. He worked harder to keep up on the softer trail, which caused his tongue to flop farther out of his mouth, where apparently a portion froze to the metal ring on his collar. This may have happened more than once. It wasn't noticed till he started cleaning his feet at the wood cutting place where blood around his feet attracted attention. There were no cuts on the feet and bleeding was traced to the tongue. Never saw this problem before and -20° F temperatures are required to cause it to happen.

Most of the foxes for miles around are in our tree patch at the moose kill site. The marten tracks were there too today.

Carrie is finally back on line today in recovery from the flu. It has taken us a full two weeks to deal with this flu episode.

Cross country travel by snow machine has gotten very much better since the first of the month. Most lakes and other large bodies of water are safe enough again, except where under ice currents remain strong.

January 16

High 12° F
Low 2° F
Clear
NE-NE wind to 18

A beautiful January day above 0° F!

Carrie came down with a bad nose bleed at lunch time. It stopped just about the time we began making ready to run into town. We are not starting off this year with our usual healthiness.

We did hear that the rumor of a good Ringed Seal catch a week or so ago off Kotzebue and the Monument was true. A couple of local hunters got as many as 17 in one day. They were probably out several other days but day catch would be much smaller. A couple of other hunters may also have gone out as news got around and a few more seals could have been taken. Usually at this season conditions and seals are right for one good catch and other days and hunters produce only one or two seals. This mid winter hunt only continues because of a few still-active near elders. Few younger folk have the skills or the desire for the adventure, although this particular incident does include a young "apprentice" learning the ropes.

Foxes and one small marten continue to clean up the moose guts and blood.

The sunbeams reached our indoor prisms today and made beautiful "rainbows" for the first time in 1994.

January 17

High 10° F
Low -6° F
Cloudy
NE wind to 10

Lots of visitors today. Good weather, but bumpy trail. Some visitors looking for caribou, some just looking. Did a good deal of talking and visiting and enjoyed a rather social afternoon.

The country duller looking today under cloudy skies.

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Broke trail down almost halfway to Kotzebue stakes.

Not much new in the country today.

Mouse work noted to be entirely absent. There are a few "chew holes" in stuff stored in the log shack.

Caribou hunters found a small group of 10 or 12 behind Sealing Point. No shooting and no hint of other animals. Snow is very hard and unmarkable by hooves at some higher elevations.

Several moose were also seen by the hunters. Some in wide open places out of habitat again.

Cross country travel more normal than before Christmas. Wind blown snow and spells of cold temperatures have hardened surfaces all over the region. Only areas of strong under-ice currents might continue to present some danger of thin ice.

Quite a few travelers today due to the three day weekend and fine weather.

January 18

High 12° F
Low 6° F
Cloudy, snow
Light winds

Very fine, light snow all day with less than 1" accumulation. Mild temperatures.

A dull wet day without sun. Also hard to see the ground. Had planned to go to Sisualik today for some things but due to the whiteout I just got a sack of ice instead and will await a brighter day.

Tracks (fox, marten) have diminished around camp as they are focusing on fat, bloody guts at the moose kill site.

Our six Gray Jays continue in residence.

The fresh moose meat is a wonderful addition to our diet. The fine flavored fat and bone marrow remind one of the abundant foliage of summer, of lake margins, of sourdock picking trips and yes even abundant mosquitoes and flies. Truly a time when "life" is all around, in contrast to the near sterile outdoor air now. It takes some searching to turn up examples of active life in January.

January 19

High 10° F

January

Low -24° F
Clear, few clouds
Light winds

Lots of visitors today. Good to see old and young friends again. One hunter through the coastal hills reported a group of 10-12 caribou between here and Sealing Pt. Maybe the same reported Monday. No catch as they got to high, rough slopes.

Another young hunter turns out to be a seal hunting apprentice that went out alone the day after his dad was out and got eleven seals! This was a surprise to us, and to his dad too no doubt! He is probably not an apprentice anymore. Also with these couple of young fellows taking part in active winter seal hunting, it is not likely the activity will fade away any time soon.

On a trip to Sisualik today, found the trail in fair shape and was able to use the lagoon trail again. We do need to go to town tomorrow or soon, and trail condition is of great importance.

Finally got the washing machine up today. After the town trip we will do a washing of all our long dirty clothes.

We had a very sudden deep drop in temperature this afternoon. We went from about zero to -24° F in a few hours of clearing.

January 20

High -6° F
Low -20° F
Thin clouds
NE wind to 15

Town trip today. Kind of bumpy and cool, but otherwise it was a pleasant trip. Our "straight" town trail is really straight right now. Raven couldn't make it straighter.

Not much new in the country. There are to be dog races this weekend and they have staked the route to make a circle off of the Sisualik staked trail toward the Noatak River Delta.

There are many fresh Willow Ptarmigan tracks on the N and W sides of our tree patch while there are none on the south.

There are no recent moose or caribou tracks nearby our tree patch on the town route.

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Carrie bothered by severe nosebleed this earlier morning but it stopped again after 10 minutes or so. Doctor has indicated that they seem to be "after flu" symptoms.

Afternoons getting longer and longer! Much daylight still after 5:00 PM.

January 21

High 10° F
Low -8° F
Cloudy, snow
Blizzard, warm
NE wind to 20

A fairly good early day, but blizzard conditions building toward evening. Fresh snow began in earnest!

Got load of ice today from the big lake which overflowed on the straight town-trail. Overflow has frozen solid and cracks have formed through it down into the clear ice. With a pick, chunks can be broken out on the cracks and the reddish brown overflow ice can be broken off and the clear ice retained for drinking water. Work it is relatively slow, but productive.

Marten was back to the storage shed today. Foxes still coming into camp each night.

Sealing Point family went back down to their house today and Sisualik Point tip houses have had overnight occupants this week.

Kotzebue winds have blasted up into the 40-50 K range again this evening. Ours remains between 15 and 20.

New snow of more than 1" already.

January 22

High 12° F
Low -2° F
Broken clouds
NE wind to 15

After the short blizzard of yesterday evening, today was pretty good weather with long range visibility.

We had a visitor from the Hatchery, and our nearest neighbors visited later in the day.

Though the sun was visible most of the day it never really got out of the clouds. Had it come clear it would have been very bright with our two inches of fresh snow all

over. It, the sun, gets quite high on the horizon now and tomorrow Point Barrow will probably see the Sun for the first time since November.

Not much in the way of game in the country to report on with the fresh snow. One small marten and several fox tracks close to the cabin. Nothing to report toward the Hatchery.

Some trapping and hunting effort north of Noatak Village and on Squirrel River. A Kotzebue hunter passed through with one wolverine and an empty gas drum from NE of Noatak.

Serious wolf and wolverine hunters generally have to go upriver from the village of Noatak these days. Timing for these wolf-wolverine hunting sorties has gotten later in the year. The last week of January till the end of March, because of daylight and snow cover, has become the favored time. Formerly, mid-November through February was trap time.

January 23

High 10° F
Low -2° F
Cloudy, snow
NE wind to 15

A full day of very small snow flakes and continued mild weather.

Dog races today that were postponed because of the blizzard.

Not many weekend travelers due to poor visibility. The weather is nice and mild and trails are still visible.

There has not been much travel these last few days either by us or others and there has been poor visibility. Consequently there hasn't been much to report.

If we remember dates right, Barrow's first sunrise in this year should have happened today.

We are very fortunate to have had so many mild days in January. As stated before in this Journal, it is easier to handle long spells of still, intense cold in the long daylight hours of February and March. February may really be our coldest month this year. Both December and January have been relatively mild.

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January 24

High 10° F
Low 6° F
Cloudy, light snow
Light winds

Not much variation in temperatures this 24 hour period. No sun and no moon due to cloud cover. Though snow has been continuous, less than one inch has accumulated.

Went up for a load of firewood today and Terry the Superdog found a porcupine. It was under a large dry spruce with many bottom branches which acted like a cage and kept them separated. For that I am glad!

No sign of other game in the country except the foxes around the house. Probably one of the most surprising things about the north country is how there can be so many thousands of square miles of various suitable habitats devoid of living creatures that might exploit that habitat.

A first hook and line fishing try for char out of Noatak Village reported to us today! They did catch some and some were large. Fresh baked char or flour soup in Noatak this evening will make all that hear of the catch envious. The last week of January is becoming better known for the potential of catching the large "spoon grabbing" fish of the region. For char, Northern Pike, Sheefish and Burbot, the return of the sun means increased feeding action and more light to see prey or "spoons" by. Thin ice this year will probably mean increased fishing effort.

January 25

High 10° F
Low 8° F
Cloudy, light snow
W to NW wind 18

Town trip today turned out pretty good, though whiteout conditions prevailed. Wind much stronger both ways on the Kotzebue side, with ground drift and waving red trail stakes.

Sealing Point gang also in town and planning to make a round trip. Their overwinter plans on the Cape are coming to be reality. First large icebergs that hold shelf ice in that area have just formed this week. Thus far, ice there has been unsafe to hunt from. Though a couple of seal hunters did real well earlier in the month, they were hunting off Kotzebue and Sisualik where there is a few miles of safe (more or less) shelf ice to hunt from.

Town crossing was a little smoother and softer; maybe a touch of water under snow in a couple of places.

We haven't seen the sun or nearly full moon for several days due to constant cloud cover. When we do, the sun will be much higher in the sky than we remember last week and the moon will be very bright with the new white snow all over. The accumulation of fresh snow from all this snow fall is still less than 3 inches.

January 26

High 8° F
Low 4° F
Cloudy, light snow
N wind to 15

Another day without seeing the sun, though clouds began to break a little in late afternoon.

Got some ice today but we are back to square one with ice gathering. Due to continued mild weather and snow fall, cracks have all closed up. A "chip-out" basin, using the shovel and a plastic bag to gather pure clear ice, is tough slow work.

The moon is nearly full, as we saw plainly last night, in an early evening partial clearing.

The ground remains in "white out" mode. It was hard to see any recent tracks even if there were some. We have kind of settled into our mid winter doldrums, which attack in those winters when there are few creatures living in the vicinity.

This is the week of the year, when you can see the sun each day, that you can notice the rapid increase in sunlight and sun height on the horizon at midday.

Our camp jays remain the only camp birds except when a pair of ravens come by.

Neighbors came by for lunch. Our human visitor group has increased this week as our animal neighbor group has decreased.

Temperatures remain mild for the season, but cooling is expected this week.

January 27

High 4° F
Low -6° F
Clear
N to NW wind 18

A day of sunshine for a change. There was ground drift under the mountains on south slopes, but pretty calm at ocean level.

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Made a trip to Sisualik today to shovel snow off the tent and pick up a couple of sacks of frozen whitefish. After loading up I started the engine and unsnapped Terry the Superdog, expecting him to follow home. Got across the lagoon to tablelands and waited awhile, but no Terry. Had to unhook the sled and go back down to summer camp to see what happened to him. After getting to the camp and not finding the dog, went west following his tracks. He wasn't there, but when I turned back toward the camp I met him roaring down the trail all frosted up, looking for his family.

A few new fox tracks around the country. Tracks of one fair bunch of Willow Ptarmigan were near our creek crossing. There was also a Least Weasel track along the creek.

There is, every few days, a traveler or two along the coast trail to or from Kivalina or Sealing Point. Traffic will increase as days continue to lengthen.

A very big full moon tonight, following a quite "high on the horizon" sun.

January 28

High 10° F
Low -22° F
Cloudy, snow
NE wind to 15

We lost our sunshine and cooling trend to milder, moister air. We thought January might be our cold month this year but that is not to be. February and March may both be cold to make up for the mildness of December and January. We will have cold weather! You can depend on it.

Caribou in the news again today. A Sisualik family in their camp for the week end ran into some a few miles inland from the far west Sisualik cabin. A kill was made, but numbers were not immediately made known. It may be the group of 10-12 reported near that area last week or there may be more that have come from somewhere. No report on meat quality. Bulls that have been where feed is good will have good meat by now.

The end of the marten parade seems to have come. There have been no new tracks since the last fresh snow more than a week ago.

Several "camp" foxes are around and the six Gray Jays continue to pick on each other throughout the gleaning day. Ravens are quite common and fly many miles right now.

Our thermometer made quite a broad jump this 24 hour period. The cold was in the early AM hours and the warm was still moving up in the very late PM.

January 29

High 27° F
Low 5° F
Cloudy
N wind to 18

A nice warm wind today. January north of the Arctic Circle can be a moderate month except for daylight, and that is increasing at the rate of nine minutes a day right now.

There is an update on the caribou catch of yesterday. Three were taken from a group of near 20, all bulls. The remainder of the group returned to where they came from, apparently west of here. There is as yet no indication of other bunches or if this bunch is the same single bunch that has been seen twice this month within this general area.

Another marten caught down creek today. There have not been tracks around here for more than a week.

Very warm air over much of Alaska today.

Saw a few Willow Ptarmigan today, the first for a long while again.

The one or two inches of snow, new snow from yesterday and last night, is a very good tracking snow. Hunters of wolverine and wolves have great conditions with mild weather, new snow and longer daylight hours.

Another Least Weasel track noted today.

A different bird would look pretty good right now. Raven, Gray Jay, and an occasional Willow Ptarmigan are the only species we've seen for some time.

January 30

High 34° F
Low 10° F
Cloudy, snow
N-NE wind to 18

MILD, MILD, MILD! Snow began in the late afternoon. The wind was quite warm all morning. Large chunks of icy snow, which have been collecting since early fall, are finally releasing the trees. Some that are bent over to the ground can now try to stand up. Many are broken. There are a surprising number of green branched tree casualties as the mild and gentle winds expose the results of wet sticky snows of early winter.

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A snowshoe walk around our tree patch today didn't reveal a lot of active winter life during this unseasonable warm spell. There were at least two very vocal Red Squirrels. These were here last fall when we came up and seemed unaffected by the rather constant parade of marten.

The longing to see a bird other than Gray Jay, Common Raven or Willow Ptarmigan was not alleviated during the walk. The thought of past years and the sometime multitudes of creatures in those years inevitably came into one's mind. Hundreds of rabbits, ptarmigan, cone and seed eating birds, red-backed voles, shrews and smaller animals, moose and caribou, were once here. Not all at the same time but they are not here now and one must believe that they will be back, sometime. In the meantime, the food to sustain these multitudes when they are here is replenishing.

It began to rain about 9 PM. The weatherman says that we may break record highs tomorrow.

January 31

High 39° F
Low 30° F
Cloudy, showers
E-SE wind to 35

We did break high temperature records by far and the contrast in temperature from last January 31 is remarkable. It was a reported -47° F in Kotzebue January 31, 1994.

There are many open water holes in our creek again, but the snow bridge crossing remains intact. The warm air mass is forecast to hold over Alaska for another couple of days.

This kind of a mid-winter thaw spell is not too rare ,but it doesn't happen to this magnitude every year. Seal hunting should be good after the wind drops off.

Ravens and Gray Jays probably enjoy the mid winter thaw as much or more than most creatures. Many food sources too hard for them to handle while frozen go fast when thawed.

An extended period of good winter seal hunting conditions may follow this unseasonable mildness.

One might expect to see a few different bird species around due to displacement by strange weather conditions.

CAPE KRUSENSTERN JOURNAL

FEBRUARY

February 1

High 38° F
Low 34° F
Broken clouds
Mixed rain, snow
E-SE wind to 40

We continue to break daily high record temperatures pretty much across the state, except for the North Slope and Southeastern.

During the strong warm winds of the past two days and the relative warm water in the rain that has fallen, our ground has warmed considerably. Hillside rocks, mud cut banks, snow free elevated tussocks and dead tree stumps have all taken on new character. Terry the Superdog barked at a man sized tree stump that he has been looking at from his chained place all winter. It had dropped its snow cap and the exposed wood, being very dark, made it look like a man-sized monster entering camp. Terry was really spooked and I had to walk up to the stump before he would quit barking.

Climbed the hill to look at the ocean this evening. It is a very big place of open water with some shelf ice off Kotzebue Channel and on the Sisualik-Anigaaq side. If wind gradually dies down it will be great for seal hunting.

Again wonder what exposed willows and conifers might do towards growth on an extended mid winter thaw like this. Roots, of course, remain frozen but stem and upper branches become quite thawed and active in the wind.

Many small saplings pressed nearly to ground by snow load have dumped the snow with the thaw and try again to stand straight.

February 2

High 36° F
Low 34° F
Cloudy, rain, snow
E-SE wind to 40
S wind to 30 late p.m.

A very unsettled day weather wise. Very mild, but the surface snow (old snow) was slightly frozen on top and when squalls of new snow came along with the strong winds an instant blizzard developed. As this drifted snow hit and stuck to dark or warm things (clothes, tools) it immediately melted and made more drift stick and melt. A very dangerous time for hypothermia. Broken clouds allowed the sun to shine through for several short intervals. It definitely was not a day for traveling or working outdoors.

I had to get some lake ice for household water and it was not easy! Don't remember a winter in which it was so hard to keep the house water needs filled.

A switch in wind direction from east to south late evening brought some heavy wet snow. It might also have brought some overflow into marine systems. We hope trails to town are not too long impaired.

Gray Jays, ravens and foxes well pleased with the thawing temperatures.

February 3

High 32° F
Low 24° F
Broken clouds
SE wind to 18

The surface is frozen again and after a three inch new, wet snowfall last evening, things look more normal for us this season.

There is a good deal of over flow on our straight Kotzebue trail and some on the beach in front of Kotzebue. We have not heard yet how traveling was today, though we know some folks did start off from camps. If we hear that it is good we may go in tomorrow.

Cross country travel is great today since the snow has compacted and freezing.

The country took on a beautiful look late this evening as the sun broke through a hole in the cloud.

A few foxes made overnight tracks between here and the lagoon.

A small marten was in camp last night so the invasion continues. One still hopes that once in this "new area," the population will establish itself as a local species.

Our long mild, wet spell has not to this point brought us any change in local wintering species.

February 4

High 26° F
Low 22° F
Cloudy, foggy
Light winds

Another warm winter day. Dull and with poor visibility too, but we made a town trip and a fine easy one it was. We had to revert to the long way in again for fear of overflow on the shorter routes. We went through the summer camp at Sisualik and into town on the main staked trail. It was dry as a bone and smoother than before the last drifting snow. It was a real good trail.

A lot of mid winter activity in town. The atmosphere is summer-like in its buzz of busy people and equipment.

Raven activity has picked up too, though numbers still seem depressed.

Saw a lot of old friends and some new ones and as usual it was a refreshing time, as well as a time to reflect on the peace and quiet of the homestead.

Seal hunters were out today from Sisualik and had some success. One young fellow reported that he couldn't shoot straight but brought four home anyway (an indication that chances to shoot were abundant).

A very strange low ceiling of fog on our way home just at dusk. Greenish masses of fog moved across the line of travel at distant points. The color and movement reminds one of toxic gases released in warfare. Certainly not a pretty phenomenon, whatever its cause.

February 5

High 26° F
Low 18° F
Broken clouds
E wind to 40 late p.m.

A very nice, sometimes sunny day with winds increasing after dark.

Went through the hard process of getting a couple of bags of ice in mild weather again. Ice cutting-hauling used to be such an easy chore! Also got a few sticks of

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firewood. We still don't have a good woodcutting trail. Firewood for Sisualik will be one of our major concerns this month and next.

Seal hunters had a good day yesterday and several went out again this morning, but stronger offshore winds caused them to go home early without much catch I suppose.

A good flock of Willow Ptarmigan passed through our creek willows between ice haul and wood haul. They weren't seen. Tracks only. We have gone all winter without a ptarmigan on the table. That is unusual.

Our run of mild weather continues and one wonders how we will get used to cold weather when it returns.

Marten has found the sack of dried fish again. Moved it to top of the main house this time, but expect he will find it there sooner or later.

February 6

High 25° F
Low 15° F
Cloudy, clearing p.m.
E to NE wind 20

The greatest thing about today was a near total clearing of the sky by mid afternoon and the bright warm sun. Snow was melting on dark objects, which is one of the better gifts - expected of February.

Ran the trail (with sno-go) down to the tide flats with Terry. I saw the "down creek" moose trying to run away from our noise disturbance through deep crusted snow. He wasn't doing real well and Terry missed the whole show, being interested in something else. Perhaps the young bull will continue up the creek towards our house patch of trees.

Kotzebue winds have been gusting to 40 again today.

The benefits of living in a spruce patch in the Arctic? Sounds are one, in the winter at least. Regular bird noise (even if they are only made by Gray Jay and raven); wind in trees and willows, very different than the roar past your ear drums which is typical out in the flat lands or tundra country; Red Squirrel chattering; woodpecker pounding. It was an active day for our nearest Red Squirrel den. Temperature, sun warmth and the approaching of Valentine's Day may be the reason.

February 7

High 24° F
Low 20° F
Cloudy, snow
E wind to 30

Light and drifting snow all day. Mild temperatures continue.

A warning this afternoon that southern Kotzebue Sound has open water, maybe right up to the beach. It is possible that some ice that was being used as trail in the Buckland-Deering area moved out.

There is a report from yesterday that there are/were a lot of seals in the open water out in front of Anigaaq and the Ranger Station.

Wanted to go to Sisualik today to shovel around a bit, get snow off of the tent and look for a few things in the dome, but drift was a little too much.

Only the Gray Jay and ravens again today.

No sight of the sun again though we have passed the 7 hour milestone and we are still gaining 7 minutes daily.

People have been traveling today using staked trails.

Microtines very scarce around the camp and vicinity.

February 8

High 23° F
Low 22° F
Cloudy, snow
Light winds

A very nice day but mostly ground whiteout conditions again, except for a brighter time around mid-day. We made a trip to Sisualik for some things.

Saw the current small marten this afternoon. He had gotten himself into trouble by stealing a piece of dried seal ribs tied together with a string. He had gotten it down on the ground and was well on his way when the loosely tied piece of rib got stuck as he went under the next tree. Our little old dog and I had caught him in the act, in broad daylight, and he didn't really want to leave his prize. He left it and went up and down the tree several times, while grumbling (vocalizing) and then decided he was not being too smart and took off without his prize of dried seal meat, the like of which he had probably never seen before. He was quite dark and quite small.

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Most of the new tracks in the fresh snow around this valley are in our tree patch. Food for scavengers, predators is scarce in other places.

Carried the shotgun today instead of the usual rifle hoping we would see a ptarmigan, but we did not. Not even tracks.

Our thermometer didn't move much this last 24 hours. Wonder when winter will begin again.

February 9

High 20° F
Low 14° F
Cloudy, fog
Snow showers
W-NW wind to 18

A town trip that went smoothly. It was difficult to see the ground, but trails could be followed and everywhere are pretty smooth.

Town was busy.

A relative, friend seal hunter told us to pick up a seal from his camp at the point which we gladly did on the way home. This was a freshly killed animal and will be good as boiled meat. The skin is very shiny, long-haired and brightly colored. Most Common Ringed Seals skins are prime at this mid winter time.

Weather hasn't cooled much, but it will when it clears.

A dog team is to follow us home and overnight. We will have a good visit with our friend that we have not seen for ages. May be lot of dog team talk.

Some seal hunters were out again today but haven't heard their luck.

No sign of Willow Ptarmigan again on the fresh snow surface.

February 10

High 14° F
Low 0° F
Clear, bright sun!
N wind to 20

A very beautiful, bright day with unlimited visibility, though some ground drift on the south slopes of the hills. It has been a long while since we have seen the sun through its full day course. The track has gotten high and broad. Good daylight continued after 6 pm, beginning 9:30 am.

Ran one of the trails with Terry, for his exercise, after our dog mushing visitor left for home.

It looks like our weather may get down to the serious business of freezing the country up or down.

Tried to find today, without success, a place to get ice from - cracks in a lake, any lake. Finally hauled water from the creek to wash the Spotted Seal skin Carrie removed and cleaned for drying today.

It seems that except for seal hunting, which will wind down now as cold weather moves in, there is little excitement in the country. Fishing has not yet picked up much, caribou seem far away, there are no rabbits or ptarmigans, and visitors are pretty scarce. If this weather holds and it doesn't get too cold, we may have visitors this weekend.

February 11

High 4° F
Low -5° F
Clear
N-NE wind to 30

Another bright day. Strong northerly winds kept temperature up and ground drift going in channeled areas. Sheltered spruce patches on the side of a hill facing the sun were very nice today.

Got a few sticks of firewood again today.

The only non-human living creatures seen today were our two dogs, six Gray Jays and two Common Ravens.

Sealing Point family all into town for an Anchorage trip.

The north wind did make some snow bumps but they are widely spaced; with good visibility they can all be missed. So the trail leveled by the last strong E winds remains exceptionally good. Our straight town trail over the frozen overflow will be good for traveling now, and town will be only one hour away.

We are eating fresh seal meat tonight. It has been a long time since we have had what used to be a regular winter treat. Freshly boiled seal meat has been a winter favorite and often a staple among northern coastal people. Re-activation of winter seal hunting this past couple of weeks allows the privilege to continue.

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February 12

High 4° F
Low -2° F
Clear, few clouds
N wind to 20

A very beautiful day. Wind gusty with long periods of quiet air and warm sun in sheltered places.

We had a good visit with a Hatchery person and welcome having a trail between here and there, finally.

Seal hunters still going out, with relatively mild temperatures and windy nights that keep fresh open water available. Some success every day no doubt. Even one seal a day is a good catch at this season and worth the time.

Some sculptured snow piles have been forming with strong cold night winds, but they are scattered and easily missed when visibility is good. Cross country and normal regular trails are in superb traveling shape.

There is some icy crust that has cut down, greatly, drifting snow potential.

Our camp Red Squirrel pretty busy, and noisy, as we work through February.

The marten doesn't seem to have been around for a couple of nights. The last time in camp he did finally find the sack of dried whitefish again on the main house roof.

Still, life other than human or camp community is very "winter scarce."

We have nearly 8 hours of sun this day and more than 8 tomorrow. Our rate of gain is 8 minutes per day.

February 13

High 2° F
Low -18° F
Clear, fog
N-NW wind to 20

A rare weekend town trip. Carrie to catch a Monday morning plane to Anchorage for Native Musicale.

Rather heavy fog in huge patches over the country and a fallout of very fine granular snow. Both the fog and the "snow dust" are probably caused by winds blowing across large areas of open ocean water to the west and northwest.

The trail is good. Some icy spots and some bumps, but for February it is good. We used the "straight in" trail as all overflow is now frozen. It makes a short trip again. Just a little over an hour.

Town ravens seem few but very energetic this time around.

Our six Gray Jays were all in camp together for awhile today. They have been coming in individually. They will be showing more aggression toward each other soon.

Some hunters on the trail today and up through our mountain areas. No hint of what was seen or taken. One looked like he might have had a wolf in a small sled. It could have also been just a rolled up caribou skin.

Weather has cut off a very thin slice seal of hunting efforts. Northern Lights have been pretty active and beautiful this week.

February 14

High 2° F
Low -10° F
Clear, lots of sun
N-NW gusts to 18

Carrie to Anchorage for a vacation. Me to Sisualik for nails to stretch seal skins. It was a very beautiful bright day and a very firm icy trail. The whiteness of the mountains and the contrasting blackness of snow-free spruce tree patches with the clarity of the air paint the landscape to spring-like picture. Beautiful! Both moon and Northern Lights at night.

Hope to make a first fishing trip up to the Lower Noatak Canyon one of these fine days.

It is very hard to see any living creature in our immediate area right now. There are a few fox tracks but they are now "machine-wise" and those that are left tend to keep out of sight. Camp Red Squirrel, Gray Jays and a Common Raven are the only regular living creatures that one can expect to see each day.

Noatak char fishing continues. No word yet of Kobuk Lake Shee catching. Weather has gotten too cold for seal hunting.

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February 15

High -10° F
Low -22° F
Clear
Light winds

A very nice bright day in the uplands with sunrays you could feel through mid day. The lowlands-sea level had some fog patches and cool westerly winds.

Made a trail into the Noatak River today a few miles below the Lower Canyon. Hope to get up to the Canyon tomorrow for a fresh fish.

There is a lot of snow and the rain that compacted it and iced the top has left the portion between here and there the best trail I have known by this date.

There is a distressing lack of game sign up that way. There seemed to be only a wandering fox or two, nothing else. Wonder if there are any moose at all on the lower Noatak.

From high ground there are a lot of houses in sight along the riverbank, more each summer.

The ice surface on lakes and river look strange due to strong winds before and after the spell of warmth and rain.

February 16

High 12° F
Low -30° F
Fog, clearing p.m.
Light winds

A foggy morning and not so cold. Thought it would get warmer as sun got higher. So took off early on yesterday's trail to Noatak Canyon. Got fooled. The temperature dropped all day as the fog cleared out.

Very cold in the Canyon and not a sign of a fish. Made two holes and fished without a touch till almost frozen. Very unusual.

Ice was near 3 feet thick, more than expected from the mild winter, but this was on ice nearly free of snow. Under early snow, ice may be much thinner.

It was a bad day for February fishing. Too cold and current from the wrong direction. May try again some time.

The trail up that way was exceptionally good.

There were a few old moose tracks around the usual major islands in the river. The stone images, seemingly unchanged, remain in place. The mother and child have not gained any distance on the Indian Bowman.

February 17

High -14° F
Low -32° F
Clear
Light winds

Cold weather continues and builds. This must be it. Hope it doesn't last too long; it takes some getting use to again.

Had the first trouble all winter with the snow machine today. Turned out to be oil soaked plugs, which is a common cold weather problem. Dry plugs cure it quickly.

Saw some of our camp animals today. Looking out the window I noticed a movement that turned out to be the dark little marten exploring around in the middle of the day. He passed the parked sled and snow machine and then turned back and went directly under the ski portion of the machine as if to inspect the engine. He came back out and continued his check of the peripheries of the camp. Such a gracefully moving creature. They seem much less nocturnal than most furbearers. When he got out of sight I opened the door and went out just in time to see a very heavily furred but fading red fox either following the marten or doing his own round of daylight inspection. Both red fox and marten prime up early in Fall and tend to fade in color and quality of fur by mid to late February.

Temperatures warmed mid afternoon partly from sun and breeze. At higher elevations, the wood cutting area was quite comfortable for working.

February 18

High -7° F
Low -26° F
Clear, warming p.m.
N to NE wind 10

Town trip for outgoing mail. Cold trip over but late afternoon warming made the return trip pleasant though bumpy. It is a pretty good straight trail. It is about an hour twenty minute trip.

In spite of the cold weather a couple of Sisualik seal hunters were out. The open water steams or smokes with vapor when air temperature is 15-20 below. It is a bit scary to hunt seals in open water at cold temperatures. These hunters saw seals but did not shoot any. Sometimes it is hard to launch your kayak because of thin ice out near the edge of the water where the seal is. It takes experience and considerable bravado, or great need to hunt seals under these conditions.

Journal

Not much new around camp. Foxes are still here; no sign of marten today.

There was a fine group of thirty Willow Ptarmigan in the willows on our in trail yesterday evening. It is very good to see them since they have been so scarce this winter.

February 19

High -2° F
Low -20° F
Clear
E wind to 20

Temperatures warmed in response to the wind without clouds. A very pleasant day in the sun out of the wind.

Took Terry for a run up toward the Hatchery and found lots of snow machine trails. Rather a surprise and is probably the '94 wood haul trails to Akulisaaq Mountain spruce patch.

There is a rumor report today that there may be some caribou in the hills between the Hatchery and Rabbit Creek on the coast.

Marten made tracks around the house but didn't get into much.

Saw a group of three birds through the window today that were not Gray Jays. Went out with binocs but couldn't locate them again. They were small and were most likely redpolls. It has been awhile since a different bird has been seen.

Overwintering Sealing Point family has been hauling much stuff down that way this week. These are things from their Kotzebue house, which they lost in an inheritance deal. Sealing Point will now be their only house.

Dog races scheduled for today were called off due to cold strong winds in Kotzebue.

February 20

High 0° F
Low -10° F
Clear
NE-E wind to 18

A quiet Sunday here. Dog races canceled again due to high winds and low chill factors in Kotzebue. Kind of hard to believe it has been so nice here. Out of the wind the sun warms dark things pretty nicely.

There seem to be few travelers this way. Some may be intimidated by chill factors. Snow drift is at a minimum due to lack of "light" snow. Most of it is packed down and won't be moved with only 20 mph winds.

Keep seeing fresh small marten tracks around camp, but don't know what it is working on.

Signs of active live creatures other than yourself are again becoming "pearls of great price" about this time in winter. It seems that not only humans are affected by this winter isolation from other creatures. It can be read easily in non-gregarious animal and birds (moose, porcupine, woodpeckers, jay, lynx, squirrels).

The moon is growing fast and Northern Lights are often with it. That, along with more than 8 hours of sunlight, makes one wonder what the darkness of December and January were all about.

February 21

High -2° F
Low -24° F
Clear
NE wind to 15

Lots of sun and clear blue sky with pleasant warming at midday. We are having rather typical late February weather in spite of the anomalous weather patterns of December and January. It is bright and nice and only a little chilly.

A great treat today. Saw marten leaving the camp in broad sunlight carefully covering his trail by running a short ways up the trunk of each tree in his path, circling to peer nose and eyes only at his back trail to see if by chance anything is following him. What a great treasure this winter, to have a marten around the house that can sometimes be seen even out the window. The treasure is twice valued since this has not been heretofore marten habitat. What a graceful animal and quite fearless.

On a snowshoe walk through our tree patch today couldn't help but notice the damage done to many spruce trees by heavy wet snow and wind through the winter. With such clear bright weather nothing is hidden. Growing live willows above snow surface are also in short supply. Our willows generally seem on the low, new growth stage of succession.

Seal hunters out again today close to Sisualik. Herring seem to be what is attracting the seals in great numbers. This is an interesting development that will be discussed more in monthly report.

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February 22

High -6° F
Low -26° F
Clear
Light wind

A town trip (on one cylinder) to pick up Carrie, home from her Anchorage trip and to get the snow machine to the shop. Came home with a borrowed machine. It was a beautiful day to travel by any means.

The combination of half moon light and abundant aurora makes the nights and early morning very bright and a bit unusual.

There was a "crowing" of several Willow Ptarmigan just after dawn but before sunup. Haven't heard the sound all winter till now. It is most certainly a spring sound.

February 23

High -8° F
Low -26° F
Clear
Light winds

Continued cool and bright.

Went up towards the mountains today to get a small load of wood. Fine working weather at higher elevations.

There are quite a few fresh snow machine trails up in that area. It is not immediately clear what the travelers are up to. They could be simply wood hauling trips. Rather surprised at large number of fresh tracks, most of them from yesterday.

Report of two caribou taken at Sealing Point today.

A single set of wolf tracks were visible around the woodcutting place. Wolf sign has been scarce in this area so far this winter.

February 24

High 10° F
Low -24° F
Clear
N wind to 30

Warmer because of the wind and still full February bright, though the air is a little hazy, due no doubt, to dust from mountain tops in the high north winds.

There was a large healthy looking female moose in the trail at the second creek crossing this morning. She initiated the aggressive stance when Terry got within 50 feet of her. Almost scared him to death!

Another surprise this afternoon. A plane buzzed us once and then got out of sight. We thought it had passed on. A few minutes later a very good friend and a pilot came walking up the trail. How good to see an old friend again, completely unexpected!

The couple of caribou taken yesterday at Sealing Point were from a group of 12-14. The meat was reported to be good. They were down on the beach ridges when they were first seen.

Very wide open water today by plane report. Very strong north winds off western capes.

February 25

High 4° F
Low -12° F
Clear
N wind to 15

A quick trip to town to pick up repaired sno-go. It is good that the trail is fine.

No open water for seal hunters, so they headed up to the mountains and saw around 50 caribou in a single bunch. This is the largest group reported since mid December. It also means that there may be other overwintering animals west and north of here. Caribou presence apparently becoming more common on the Monument.

Marten and foxes still making trails around camp.

A few more people using their summer camps in Sisualik for a weekend out of town as the weather and daylight hours have gotten so good.

There is rumored reports of some good sheefish catches on hook and line from north Kobuk Lake.

Bird situation remains the same.

February 26

High 4° F
Low -16° F
Clear
N-NW wind to 35

It is a good thing that there is no loose snow around. With the very strong north wind today our spruce patch pocket would catch lots of snow. There was some ground drift out in the open but there is very little snow that is not "rain crusted" down.

Visitors today report wolf tracks in the Aggie and a few moose, but not much else.

People traveling around the country in spite of strong cold wind. Visibility has remained good.

The longer that we go without fresh snow, the more impressive the creature tracks around our house, other than human, get. Foxes, marten, Red Squirrel, Least and Short-tailed Weasel and ptarmigan have tracked up the snow pretty thoroughly, in great contrast to most areas away from camp, where any kind of a snow track is pretty rare.

People's faces are beginning to show definite signs of our near 10 hours of sunlight now. Those that live outdoors can already be picked out from their indoor friends and family.

February 27

High 2° F
Low -16° F
Clear
N wind to 18

Another beautiful bright cool February day. Midday sun makes a difference. We have had a pretty good stretch of bright days in this last half of February.

Well, a great day with friend marten this morning. Noticed him moving between trees on the ground right in camp. The hard packed frozen snow made loud crunching sound as I walked toward the tree where he was. He seemed unafraid but nervous, continually vocalizing with a kind of cross between a growl and a purr. He moved around rather continually, sometimes jumping from one tree to another and always keeping track of my exact position and action. Vocalizing was continuous if I stayed in place or moved toward his position. If I moved away the vocalization stopped. Had a beautiful look with binocs, at 100-200 feet, in the sunlight. The paws on his front feet are white nearly $\frac{1}{4}$ of distance from toenail to shoulder - the whole foot to a little above the wrist. The total front of the ears, the open part always toward you, also was white, and there were some white hairs around the nose. The rest of the animal was a rather rich reddish brown (in the early morning red sunlight).

Marten prime up early in the fall but brittleness of hair and fading are noticeable in February. I later found the animal did have something he was eating on the ground which he couldn't move and maybe vocalizing and advancing, rather than running, was a bluff to protect food source. This was a very small marten but gave a priceless fifteen minute close-up of a very graceful animal active in trees. It was a kind of wilderness Olympic figure skating trace. It was a great privilege to be on the scene.

February 28

High 0° F
Low -10° F
Clear
N-NE wind to 25

Town trip for some unfinished chores. Trail good, wind behind going over, nice traveling, chilly coming home. Town streets extremely slippery. The sled with plastic runners tends to move sideways on the icy surface, blocking the whole street.

Had to dash up and get a few sticks of firewood after returning home as we were nearly out. Found a lot of random traveling snow machine tracks up that way, apparently from weekend travelers. It is not likely any creature would escape the three side-by-side super power sleds with the trail conditions that we now have. The potential for manmade snow machines to have total control over the escape flight of any animal is nearly 100% as we go into the month of March. It is at this time, with these conditions, that many arctic and subarctic creatures are at risk for overkill - legal and/or illegal.

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March 1

High -6° F
Low -26° F
Clear
N wind to 15

The amount of daylight is not usually a problem in the month of March unless it is one of there being too much and thereby not allowing enough darkness for sleep.

Had a dog team visitor today and wouldn't you know it, marten came bounding, across the snow toward the tethered team, in the middle of the day. Not a very smart action for a valuable fur animal, even on the first of March.

The marten had been here on top of the house earlier this morning, stealing dried white fish from a sack. His leap from the house to the second tree (not the first) was quite spectacular. The "first" tree would have left him with no escape route away from camp. The "second" tree allows escape through the trees. How graceful and how beautiful in the morning sun. What a treasure and privilege to have a more or less constant marten in this land where they are not supposed to be.

Three small birds were noted eating spruce seeds off of the snow in the camp clearing. The one who saw them thought they might be chickadees or redpolls, though he was not sure without binocs. Hope we see them again!

Report of a resident chickadee in willows in Kotzebue town! Will have to check it out. Hope this is a indication that we may soon be seeing some more variety in our resident bird life.

March 2

High -8° F
Low -17° F
Partly cloudy
N-NE wind to 20

Some very cold chill factor temperatures around the region today. Shishmaref, Wales and Point Hope have winds of 50 knots or more with air temperatures -20° F or so. Locally it is cold to work outdoors but wind is gusty, not steady, and it is not a bad day here.

There is still a sign of a moose or two on our creek. While looking for a place to cut summer firewood at the head of our creek some rather fresh tracks and eating places were seen. On the down creek area the lone female seen a week ago seems camped there. No additional snow through most of February, with the mild temperatures, have made a pretty easy time for moose in the area.

The weather man is talking fresh snow again but we haven't seen it yet. Cross country trails are very icy on top and though this long interlude without fresh and drifting snow has been great, a little fresh snow will soften the riding trail some and keep sleds from sliding sideways.

British Army Expedition to pass through Krusenstern today but we haven't heard by people down there that they did. They were to be traveling with eight Arctic Cats, two people to a rig, on their way from Fairbanks-Nenana to Barrow and Anaktuvik Pass to Bettles.

March 3

High -6° F
Low -30° F
Cloudy but sunny
NW to N wind 15

Very cool night and day but the sun is making a difference. There was ¼" of cold weather snow overnight.

Finally made it up to Akulisaq Mt. today and found that this is where all the lower half of the Hatchery trail goes. It then turns into the Akulisaq patch of spruce. There is no through trail to the Hatchery right now, though the old trail may be seen through timber and willows, but not in open country.

It was again a thrill to enter the fine timber belt on Akulisaq Mountain. It has an old forest atmosphere and indeed is the local counterpart of the old growth forests of more southern climes. It is thick and dark, with fine big white spruce said to be the best timber in this near coastal extremity of interior white spruce forest. The timber is so large and tall and thick that there is very little understory. No willows. It is a rare and rather mystical place, little touched by humans before the advent of the

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chainsaw and snow machine. It has such beautiful, long and dry timber, that for several years now it has been a particular target for local fuel gatherers in spite of its great distance from summer camps.

There is very little surface sign of creature life among the big trees. And there were no tracks on the way there from here in the ¼" of fresh snow that fell last night.

British Army group on their way today.

March 4

High 2° F
Low -26° F
Clear, few clouds
NW wind to 15

Another town trip for gas and mail. Very good town trail right now; we've cut our travel time down to only one hour. It was a cold hour though, with temperature still down near -20° F over there.

The warmth of our higher sheltered camp location very noticeable today. We were much more comfortable outdoors here than on the streets of Kotzebue.

Last night late when I went out to check the thermometer I found it a bit out of line, as if disturbed from the position I was used to finding it in. Then I heard a noise! A growl? Yes but more like a Red Squirrel with laryngitis. Yes, it was marten again - caught stealing dried fish from the top of the house and no easy route for a getaway. His idea was to bluff it out I guess. In the light of the flashlight his ears looked huge and light colored against the dark background, and his muzzle very sharp pointed. He no doubt had bumped the thermometer on the way up and didn't want to chance the distant leap to the second tree from the house that I had seen him make in the daylight. I am surprised at the great distance they can jump between trees and the rather constant vocalizing similar to a cat's purring or Red Squirrel chatter. I expect that it might be Marten-ese for a bluff-warning growl. It did remind me of the rattlesnake of California. A very interesting and graceful animal marten is!

March 5

High -2° F
Low -24° F
Clear
N wind to 15

Clear, cool dry weather continues. Seal skins stretched and hung in the cool breezy, sunny air dry soft and pliable. With hair on they become material for slipper making. With the hair off and soap washed they become the pure white nahlauq skin from which various fancy sewing is done.

Few travelers our way this weekend. Lots of sun but cold air for traveling.

A traveler from the Hatchery this evening reports numerous moose moving this way from the main stem of the Noatak. No immediate reason why that move should occur right now. We shall see.

There is rumor of some starved caribou west of us toward the Port Site. Will need to check more on that.

Marten's visits to camp are certainly unpredictable. Night and day, sunshine and cloud, all and any time, but his stay is never long. And dried whitefish seems his favorite food from all that we have.

March 6

High -4° F
Low -30° F
Clear
Light winds

Continued cold weather but more tolerable because of the bright, and for a few hours, warmer sun.

It was a quiet Sunday up this way with few travelers.

After taking Terry for a run up-creek where he treed a cow and calf moose, we went to look for the single moose antler dropped by the large bull while I was following his tracks last fall. The horn has lost some weight due to dehydration but is still impressively long, broad and a large diameter at base. A friend will have a lot of blade handle material.

Two Search and Rescue cases this weekend. One was found and is in good shape, the other pending.

Red Squirrel very vocal this cool afternoon. He/she is apparently getting tired of waiting for the mating season with all that sun out there.

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Cross country travel conditions are ideal and potential for misuse of snow machine for harassment or chasing game is extremely high.

March 7

High 12° F
Low -26° F
Clear
N wind to 15

A start on spring woodcut today but a rather slow start when chainsaw melted some snow in the fly wheel-fan and then refroze while I was limbing with an axe, rendering the recoil starter useless. Had to go home with empty sled to thaw the saw. Did that, had lunch and went back and started over. Finally got a couple of loads worked up and took one home.

Terry followed on the second trip and when we came home he turned off the trail and didn't show up at the house. I then heard him barking about a quarter of a mile from the house. We haven't had a moose for awhile in our tree patch. I donned snow shoes to go check, but just then he turned up at the house. Later I went out and checked, and sure enough there is moose in our tree patch again.

The wood cutting trail and effort has had much less use than presumed. Only one or two users seem involved (three now!). There are some very beautiful trees in that grove! Both dry and living.

The sun warmed the hillsides to a little warmer temperature as the fairly stiff breeze blew the cold stagnant air out and down.

March 8

High 14° F
Low 0° F
Clear
N wind to 18

Wash day and then a load of wood down from Akulisaq. What nice bright dry weather. Though there has been a little ground drift, trails have remained intact, even over long distances, for quite a while.

A couple of travelers to and from Noatak village through here today left us a nice freshly caught char. We had it for supper as flour soup. It was good! That is a favorite way to prepare fresh char when you haven't had any for awhile. It is a basic and frequent mainstay as a meal at this season in Noatak.

The moose that was downstream yesterday evening moved up stream. Haven't seen it yet so don't know its gender, though if it is the same moose seen down creek a week or so ago it is a female.

The Noatak visitor confirms the lack of caribou in or near Noatak village. With maybe 500 or so visitors due in the village one week from tomorrow to attend Friends Midyear Conference, their supply of "old meat" taken last fall will be their main sustenance for the increase in stomachs. That and fresh char for flour soup.

Today was the warmest "clear" day we have had through this period of fine dry, bright weather. Snow melted a bit at midday on dark objects.

March 9

High 12° F
Low -7° F
Clear, few clouds PM
Light winds

A near perfect day to be in a white spruce patch north of the Arctic Circle! The trees are so dark green and the snow and especially snow banks are so terribly white in the golden rays of the sun. No subtle contrasts here today.

Marten continues to come around every day or night and take his single dried whitefish. He has been very discrete this week, which is good. The visitors we have, and the occasional temporary live-in persons we have, are not used to having live marten around and might be inclined to reduce him to a marten skin.

Saw two small passerines in camp's upper trees today. Didn't get the binocs on them, but their movements seemed redpoll-like. Perhaps they are drifting back in here again.

Some relative travelers were through here again on their way home to Noatak.

Our local entrant in the Iditarod is making a good show, rapidly catching up to the leaders. We wish her the best of luck as she certainly deserves a good race out of this one.

Well, much effort, thoughts and plans are coming to be focused on the Midyear Conference and NANA meetings beginning in Noatak a week from today and continuing through the end of the week. The travelers-visitors to the village will probably outnumber residents. It is quite an annual event and gathers together in one place more NANA region people than any other single event.

March 10

High 16° F
Low -4° F
Cloudy, snow
NE wind to 18

A town trip today amid an abrupt change of weather. Trip over was great. Trip home was back to traveling "inside a paper bag." This means 500 yards forward visibility and "whiteout" with respect to immediate surface and horizon.

After having so many clear days of sunshine, today was hard to get used to. We couldn't use our shortcut trail because of the lack of visibility and had to make it home the long way, through summer camp.

A single bull caribou was taken this week, right at the Tower at Sealing Point. No hint of meat quality.

The sudden snowfall today was widespread and troublesome. It extended at least through the whole Kobuk Valley, giving aircraft coming and going in that direction problems of visibility that caused use of alternate landing locations.

Fresh snow gives us a clean slate again to read every thing that moves across the surface, a new surface on which to record every existent creature. Another less desirable change is an increase in material to drift - to drift at the lightest wind and eventually to make some more bumps. In the interim, the softness of the new snow (cushioning the trail) and reducing of the problems of glare ice and sideways slipping on heavily used trails or walkways, is appreciated.

March 11

High 18° F
Low 12° F
Cloudy, snow
Variable light winds

A full day of continual light snow. There was 4 inches this morning from yesterday evening and overnight. An additional inch or so through this day and more forecast. Not sure we need that much more snow.

Marten and a Least Weasel were the first creatures to imprint the new snow around camp. Continue to marvel at the great good fortune of having a resident marten. It is in the category of those things that you thought would never happen.

Much aircraft in the air today with a good deal of circling or pattern flying due to on and off visibility.

It is nice to have this new snow without wind, even though you know eventually it will drift and probably make a bumpy trail.

The lone caribou taken at Sealing Point earlier this week was said to be good meat, which may cancel the worry about starving caribou down that way.

All this new snow around may make for difficult traveling to the upcoming conference in Noatak.

March 12

High 12° F
Low 2° F
Cloudy, snow
NW wind to 15

Our rather continuous snowfall continues but move slowly. We have accumulated 5-6 inches all over the iced frozen surface of the old ground cover. This means a rather dirty storm drift when winds get up to 20 knot or more. Quality of our good trails may also be at risk.

A single fox waded through camp in deep snow during the night. The Least Weasel was in and out of the next door storehouse. Marten didn't come by.

Gray Jays still busy. Some showing loose or dangling feathers.

Dog races today in Kotzebue - the Dan Snyder Memorial.

This new snow is deep enough and widespread enough that new trails will need to be broken and may cause some problems to travelers in the coming week.

Temperatures will be cooling quite rapidly.

A couple of traveler problems today. A Hatchery snow machine broke down on the way back from town; neighbors with sled load of kids became disoriented on trail from Sisualik to their camp. They ended up at Jones Camp. No harm done but inconvenient.

March 13

High 1° F
Low -10° F
Clear
NW wind to 35

Well, our temperature is back below zero and our five inches of new snow is all piled up in various sized pillows which will increase travel time to about twice what it was

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before the new snow. Not to mention the bone jarring bumps on both the sled and snow machine. Too bad. Our smooth trail was good while it lasted.

The moose that came up the creek a couple of days ago came back down last night and was laying down a few hundred yards from the cabin. It looks like one of the larger local bulls.

Marten came by during the night and did get up on the roof where the dried whitefish sack is but didn't get any out. Maybe too much snow covering. Wonder what he ate during the windy cold night. He is indeed a pretty small marten.

One dog race held today, the second canceled due to strong cold winds.

Wonder how the trails to Noatak will be Wednesday. They sure have deteriorated here.

March 14

High -2° F
Low -30° F
Clear
Light winds

Town trip and as expected the trail is terribly rough. Our "1 hour trail" took us a full two hours. The only way it could be worse is for the snow piles to be harder. They probably will get that way.

This presents again, the interesting mystery as to why west and north winds usually leave a very grooved and lumpy surface, while E winds often leave a smooth and level snow surface.

Marten and the Least Weasel were around camp today while we were gone. Foxes have stayed clear since the last snow fall. The layer of fresh snow causes them to worry about escape routes.

There were a surprising number of light fox tracks across the miles we traveled today. The strong NW winds may have brought us some White Fox in off the ocean ice.

A fresh report on Noatak trails today. Well inside the river the surface retains its relative smoothness. This is good news, in that it means from here to Noatak is nothing like from here to Kotzebue. Phew!!

There are more snow piles in Kotzebue from street cleaning.

March 15

High 4° F
Low -26° F
Clear, light clouds
Light winds

Made a trail to Noatak River today. Hopefully for use tomorrow to join the main Noatak Village trail for our trip there. It is a rather monstrous trail, with large but soft snow piles.

They have made a trail from Kiana to Noatak, straight, so the Kobuk villages will have a nice short cut.

The otter came by on the creek today. This single otter must have quite a lot of traveling to do to see another otter. There has been less Otter movement through here than in most years. That may reflect the relative ease, this year, with which otters can access creek eddies where fish are available.

The latest moose here (Sunday) is apparently still here, since tracks have not appeared at either up or down crossings.

The only tracks encountered cross country are very light fox tracks. They appear to be mostly white fox and that would figure after the big W and NW winds that we have had.

Willow Ptarmigan are so scarce at the moment that you could easily think that there are no more. There were no tracks over many miles of tundra and willows today.

Though we are having cold nights, the sun is doing a great job of warming the midday up.

March 16

High –
Low -28° F
Clear
Light winds

NOATAK !!

Yes, we made it, though the trail was bumpy and the weather cold. For us, the few days we spent in Noatak brought on the winter "Intense Cold Monster" that we have been watching for, without success, all winter. He turned up in Noatak (and here at home). He also followed us home but then moved on, leading us to believe that he lives closer to Noatak than here.

Journal

The Noatak trail was something else. There simply was no stretch where you could relax while driving (or riding). There were only places of greater or lesser roughness and unevenness. Wind was never a problem. It sometimes is since much of the trail is through open lands without shelter from blizzards except at the single shelter cabin.

It was interesting to note that some 500 other people within the region made it in one way or another, the same trip that we did and then some. We actually had the shortest distance of all to travel, 35 to 40 miles. One traveler came by snow machine from Alakaket in the upper Koyukuk Drainage.

March 17

Clear, ice fog
NW wind to 15

NOATAK

Our reason for tripping here is, of course, to share in fellowship, worship and business meeting with friends and extended family from throughout the region, who will gather here.

This Conference time, introduced shortly after the turn of the century, attracts and has held a good deal of interest throughout the region, as it really fits in to the old traditional Messenger Feast tradition of pre-contact times. Its religious significance to the culture remains and is enhanced by the advent of New Testament Christianity.

March 18

Clear, ice fog
N wind to 15

NOATAK

We were given the whole hind leg-to-pelvis portion of an adult caribou by a Noatak friend today, who said it was taken toward the coast from Noatak "not long ago" (late February/early March). We were grateful for the gift and at the same time it gave us opportunity to see first hand the physical condition of caribou (the few) that have wintered on Cape Krusenstern in 1994.

There was a light showing of fat through the muscles near the bone, and bone marrow was firm and rich in oil-fat. These are indications that the animal had wintered well. This is encouraging since we had wondered if any local caribou had faced conditions that they couldn't cope with on the Monument, due to icing and wind hardened snow. This animal probably came from the headwaters of the Rabbit Creek drainage and was one of a group of twelve to fourteen.

March 19

Clear, thin clouds
Ice fog
NE-NE wind 20

Fishing for Char with hand lines was very productive in the village area of the Noatak River just prior to the influx of people and the beginning of extreme cold weather. There is little activity in this line while we are here because of extreme low temperatures -40° to -60° F. As temperatures return to seasonal norms, local people will fish some more. Flour soup with recently caught char is one of the best and most common items on the menu during our stay here.

March 20

Clear, ice fog
Light winds

A probable record 600 + attendance at memorial service today at the Noatak Friends Church.

Noatak village site reflects the same scarcity of small game and bird life that Krusenstern does. Ptarmigan tracks are very scarce but present. Snowshoe Hare are absent and Common Raven and Gray Jay seem the only bird life. Fox tracks are not uncommon, even around the village. Any recent disturbance in the snow on the trail through the belt of spruce timber lining the east side of the river is most likely the result of moose activity. Ptarmigan and fox are the next most likely.

March 21

Clear, intense ice fog
Light winds

This may have been the coldest day of the period and the winter with temperatures to -50° F or more in Noatak Village.

Ravens, Gray Jays and people remained quite active within the village, though it was quite possible to freeze a cheek, ear or nose in between visits to homes or on the way to church yesterday when winds were brisk.

This is NANA Day with the Annual Meeting taking place here in the Village of Noatak. Several years ago, NANA leaders found that they could be sure of a quorum if they held their Annual Meeting the day after the Midyear Conference of Alaska Yearly Meeting of Friends. It has worked quite well for the Corporation and it did again this day, as shareholders conducted official business in the small Village of Noatak, population 283, with some 500 visitors. It was a noteworthy week for Noatak that won't happen again for 6-7 years.

March 22

High 4° F
Low -42° F
Clear, ice fog
NW wind to 15

We returned home this day to find Terry terribly lonesome but a survivor. He was so overjoyed to see us that he apparently forgot to show the resentment he felt at us leaving him alone for so long in such cold weather.

Our thermometer readings are as above on our return. It should be noted however that our instrument only records to a -40° F.

This is the latest visit of the "Intense Cold Monster" that we recall. We have warned before though, that even in the "old days" more people perished due extremes of weather in the month of March than during any other month. Two young adults of the NANA Region perished within this time of the advent of the intense cold monster.

There was rather thick ice fog all through the Noatak Flats as far as the mouth of the Aggie today. Noatak temperatures probably dropped to -50° F or more yesterday and last night.

The Noatak Flats in the zone of the trail are quite white, with little show of willows or cut banks. Moose do wander here and there across the area and look monstrous, standing high in the whiteness. The one we saw today near the trail looked even more ethereal with a frozen fog-frost over his dark coat.

March 23

High -10° F
Low -40° F
Clear
NW wind to 25

Luckily the wind and the low for the day did not occur here at the same time, though it did in Kotzebue and other unsheltered outer coastal points. Chill factor temperatures stood at near -100° F at Tin City on the Seward Peninsula today, only one week from April!

Fresh moose tracks on the lower creek crossing today. The Least Weasel and Marten have been into the food storage place again.

The winds, sometimes with ground drift, seem to be improving the rough trail conditions in the lowlands.

Flu symptoms developing today again, which is no real surprise after sharing air in close quarter contact with five or six hundred people for a week.

Rather close sheefish catches by hook reported from Nelson Camp this morning. Our neighbors went up to try in spite of the low temperature wind warning from Weather Bureau this morning.

We don't envy a family friend who plans to make a round trip to Kotzebue from Noatak today.

March 24

High 8° F
Low -20° F
Fog, snow
W to NW wind 25

Our temperatures have moderated and outdoor air in our tree patch was quite pleasant today, even though chill factor temperatures remained at -50° F to -60° F in Kotzebue all day.

Some tree bark on the ground near Terry seems to indicate that a woodpecker was in camp some time today. If so it will be the first for this winter.

Marten was also in camp during midday while I was out with the snow machine.

The Least Weasel did his thing during the night in the storage shed.

In some years the first returning bird of the year can be seen in this last week of March. Golden Eagle, Rough-legged Hawk and Snow Buntings are the most likely, but maybe not this year due late extreme cold.

With the cold weather and ample snow cover, I was thinking while following an old moose track today, that it again seemed to me not in the best interest of either moose or people to continue the open hunting season through February and March.

Weather improved some in late p.m., as well as. We may be able to make it into town tomorrow for mail.

March 25

High -4° F
Low -36° F
Clearing
W to SW wind 18

The combination of flu and -50° F chill factor temperatures in Kotzebue brought about a postponement of town trip.

Journal

The snowfall of last night and yesterday, with the wind, left a trail of large soft pillows to break through. They lead one to expect a rough bump when there is none in the trail to hit, but they are so wonderfully soft that there is just a "whoosh" and you are through without any "bump."

Our five Gray Jays lined up and basked in the sun this afternoon, without activity. Very unusual for them all to be inactive at once. I could imagine them thinking how glad they were that we had moved up here for the winter. Food scraps have been abundant for them.

Tracks in the new snow today are scarce. Even the Least Weasel and Marten haven't been around yet. A small group of six Willow Ptarmigan were the only fresh tracks noted.

Late March is producing some dramatic weather. A visit from "the intense cold monster" and now the weather man is talking about an easterly blizzard for the weekend with warming. Back to rain again?

Talked to one of the winter seal hunters today and found that he had seen a single first year Glaucous Gull in February which may be the first documentation of that species locally for that month. He also reported Black Guillemots which is normal.

March 26

High 2° F
Low -38° F
Cloudy
Light-blowing snow
E wind 20

Well, the weather got here before the time predicted. Kotzebue winds picked up to 25-30 knots while temperatures were still in the minus twenty to minus thirty range, giving them very low chill factors. Conditions were a bit milder here, but no town trip again. Our neighbors did make a quick round trip but suggested that it was pretty unpleasant.

We relaxed around camp and gave the flu symptoms opportunity to disperse.

A Short-tailed Weasel has joined the Least Weasel and Marten as camp community.

No sign of a visiting bird of any kind. The woodpecker either hasn't been back or maybe never was here; the bark might have been worked by investigative Gray Jays.

March is rapidly going down the tube without much work accomplished due in part to late activity of the "intense cold monster." April may give us a chance to get some summer wood out.

April is also the last month that we will get to enjoy our warm little cabin and then back to the ocean. How great it will seem to hear waves and birds again and see flowers on the green earth.

Temperatures came up pretty rapidly in the late afternoon.

March 27

High 20° F
Low 2° F
Cloudy, snow
E wind to 25

Temperatures back in the comfortable zone again and the new snowfall enough to give a completely new traveling surface. Hope it is level.

It will be interesting to see where the new ice hunting zone develops and if the abundance of Ringed Seals continues. After the late intense cold spell and onshore winds the new lead system may be well offshore of Krusenstern. The stage may also be set for spring Bowhead and Beluga whaling in those villages that participate.

The air has been quite full of small snow grains all day. This fresh snow on top of super-cooled ice and earth from last week's intense cold will likely make our spring a little later.

April is closer on the horizon and the warmer temperatures today makes one remember that spring is near. Jonathan (the Glaucous Gull) may even return before April ends. Oh happy day!!

Some family, an adult with two grandchildren with him, is overdue on late afternoon sno-go trip home to Noatak. We are glad for the mild weather and hope Search and Rescue catches them before they walk too far.

March 28

High 36° F
Low 20° F
Cloudy, snow
NE to E wind 25

A real heat wave and wet air. The AM very mild with the air full of snow that turns to water on contact with dark things.

Journal

Lost relatives were picked up not far from Noatak in good shape. They had a mechanical break down.

Two "people" firsts continue. The overwintering family at Sealing Point and the Sisualik overwintering family with many school kids are finishing up their unusual winter of rural living.

This was a very wet day, just a bit short of rain, but the falling snow was even worse than rain because of it adhering to everything, except itself. Drifting continued for that reason.

We are getting a bit restless as we need to make a town trip and get into our Sisualik woodcut and haul. As usual, many things are put off till April and then April becomes too short to get everything done. The last few days have not been good for outdoor work or travel.

Kobuk Lake Sheefishing by hook has improved in at least a couple of locations and time is wasting to do a little of that.

Camp animals are absent with the new soft snow.

March 29

High 35° F
Low 16° F
Cloudy, rain, snow
Clearing late p.m.
S to W wind 18

A whole night of rain changing to snow early PM then partial clearing and quick cooling. A week ago we were nudging record lows for the date. This week we are doing the same for the highs. It certainly continues to be a year of erratic weather extremes.

Made a "sneak" trip into town today. It was a "sneak" trip because we didn't really have sufficient visibility to make it from our side through the long unstaked portion of the lagoon to the stakes. We lucked out about half way through when visibility improved enough to give us some landmarks. Same thing going home. Must have been a bad time for aircraft.

Soon after returning home we saw our first Boreal Chickadee, for sure, this year in camp. We have sure missed the little fellows this winter. Our large flock of Gray Jays made sure he didn't linger too long.

This last east storm has left us a fine level traveling surface for which we are quite grateful.

Marten has not made tracks for several days.

March 30

High 32° F
Low 8° F
Clear, a.m. fog
Light winds

A very beautiful warm spring day in Sanningaruq. Fog cleared out of here soon after sunup but hung on to lower sea level elevations till afternoon.

A very fine trail over the country since the surface has refrozen.

A great sheefish catch reported yesterday and today on NW shore of Kobuk Lake. It is not far from here and we may go tomorrow.

A real lot of fox tracks in camp last night after the rain crust on the snow froze enough to support them. There were even on the roof of the storage shack and near to Terry.

Had to get ice for camp water today and that was a difficult job due to the mild weather.

Marten has not returned. Short-tailed Weasel has.

Had trout soup for supper, courtesy of Noatak char-hooking friends.

March certainly seems to be going out "like a lamb". It did give us our cold spell of the year and a taste of Siberian west wind.

An Eider Duck (Common Eider?) was picked up on Kotzebue Airport this past week during a bad weather period. It was airlifted south.

March 31

High 24° F
Low -2° F
Clear, fog
W wind to 15

The last day of this month was good enough to cover any of the complaints we may have had for any of its other days.

There was ground fog early AM but a very bright warming sun above. We got underway for the Sheefishing grounds on the north shore of Kobuk Lake just before 9:00 AM and got there just before 11:00 AM. The fog cleared to confirm our direction of travel about $\frac{3}{4}$ of the way. Luckily we were pretty much on track and

Journal

the warming bright sun looked and felt good as we approached the fishing area, where a number of people were already actively catching fish. We made a couple of lucky holes and had nearly 50 fish by 4:00 PM and were ready to head home. Twenty out of 50 of the fish were 8 lbs or over (eating size), the rest were small dog feed or dried fish size. A Sisualik friend with dogs took those off our hands up there. It was a good day for fishing and traveling and we were home by 5:30 PM. After a big meal of boiled fresh fat Sheefish, our day seemed particularly satisfying. We lived up in that area for 20 years, following its rhythms and patterns with our dog team. It was good to be back in it, successfully again, even if only for a day.

CAPE KRUSENSTERN JOURNAL

APRIL

April 1

High 38° F
Low -3° F
Clear, clouding, snow
N to NE wind 15

April starts off with an interesting day. I started off fairly early for the woodcutting mountain under an early bright warming sun. Was surprised to see fresh sign of caribou cratering (digging) right on the trail. The tracks looked very fresh but I didn't stop to glass around, not having taken a gun and having no particular interest in taking more caribou. I was just glad to see signs of that kind of life in our country. Went on up the wood trail but found trouble at the end. During the last storm we had 8-10 hours of rain at our house elevation. That rain fell as snow at the higher elevation of Akulisaq Mtn. and our formerly hard-packed woodcut trails inside the timber were deeply buried. Had a difficult time making a trail and cannot use it now till an overnight freeze.

On the way home, stopped by the caribou tracks and looked around with the binocs and saw five caribou bulls running parallel to our trail 1/4 mile down hill. So good to see healthy looking big game animals again. They headed into an area of thick trees. They didn't seem to be having trouble with deep snow in the trees, which means some of the underneath crusts are sufficient to hold them up.

Was also pleased to see a fresh marten track at the old woodcut site. There were no tracks at that site earlier.

Snow showers continued on into evening with mild temperatures.

April 2

High 48° F
Low 32° F
Clear, clouding
Light winds

The second day of April is also a remarkable day for its warmth. The remarkable high is at least, region wise.

We had an early morning CB call indicating a family of friends from Galena might be in shortly after noon. Rushed out and packed down a couple of different directional runways. We are still waiting at 6 p.m. with no message. Hope we hear

Journal

soon what happened to them. With the big snow machine race in town this afternoon, routine communications are somewhat short circuited.

We waited somewhat impatiently for some other sign of spring to go with our mild sunny weather - birds or animal movements.

Friends did make it in late p.m. We are all set for a wonderful Easter visit.

April 3

High 38° F
Low 32° F
Cloudy-snow showers
SE to S wind 20

A warm night and day and finally a different bird.

Our visitors had a good afternoon and night and are due in Kotzebue to overnight this evening. It was a refreshing time to be with old friends.

A new bird! Mike saw a single Pine Grosbeak today.

This mild day was very pleasant, but whiteout conditions gave problems in travel, air or surface.

Clouds are clearing this Easter evening and we look forward to a cooling trend that will allow us to get some wood down to Sisualik for summer.

April 4

High 36° F
Low 20° F
Clear
Light winds

A town trip for gas and a very beautiful day. So bright and so warm!

A report from town: ravens no longer interested in food but nesting materials! Doesn't that make you feel good? That's really a sign of spring.

There are also water puddles and dry road beds. There was quite a warm sun over there.

The trail remains very good and a trip to town is really a joy for a change.

We expect a return to cooler weather and probably a cold April ending. April can be warm on both ends but usually it is not.

April

Fishing is still good on Kobuk Lake and many people are active at it each day.

No word on caribou movement north yet.

Seals reported laying on the ice today in sight from Sisualik.

A land otter was seen from the house complex in Sisualik and was soon captured, killed and skinned. It had strayed from normal habitat and it is a rare but regular winter happening. The fur will probably be used for local clothing trim.

April 5

High 32° F
Low 16° F
Clear, clouding
Light winds

A rather full day of visitors, lectures and general good fellowship. Even had time to get ice and one load of wood.

The trail up to the woodcut area was fine today, frozen and firm with no trouble. Very much unlike the softness of two days ago. Woodcutting and hauling surface is ideal except in the warmest part of the day.

Our raven pair is demonstrating the strange behavior that the season dictates. The one with the two toned voice mentioned earlier in the year is apparently the spring-summer owner of this tree patch. We are tolerated in time overlap only because it is beneficial to the raven family later down the line, in the form of food scraps and fancy trinkets so necessary to the well being of the raven clan.

Sheefishing is still productive in the NW corner of Kobuk Lake.

April 6

High 32° F
Low 16° F
Clear, few clouds
NW wind to 25

The bears are out! One was seen by a neighbor yesterday and the track of a larger one was seen by the same person this morning.

Our local Red Squirrel running around all over on the crusted snow surface. He/she has reason to dance and frolic, having eluded the winter parade of marten.

No further sign of the five caribou seen the other day except that at the last point the tracks were seen, there was a snow machine track joining them.

Journal

Our woodcut gained a bit in intensity today as Wally and I both went up for big loads.

Don't know what to expect for the weekend. As long as the westerly or northerly winds continue, it will get the colder. The beautiful days of this past week may not be reported for awhile.

Sheefishing continues good and many keep at it. Most bowhead whaling captains may have enough fish to feed their crews now. That is one of the first places "extra" shee (beyond your own needs) are shipped to. It is a fairly good way to gain some whale parts if "your" captain's crew take a whale.

April 7

High 20° F
Low 8° F
Clear
N-NE wind to 30

Woodcut and hauling all day. Very strong afternoon winds but very little loose snow to fly so trails remain good.

On the woodcut we are deep into the belt of fine big white spruce that girdle Akulisag Mountain. Several local camp people are working it pretty heavily right now, as trail and weather are ideal and spring thaw, when all this ceases due to soft snow, is not far off. At least two other nearby spruce groves are being worked for dead firewood-white spruce. This firewood will be used through spring and summer at outlying fish camps. For that reason quite a large amount is stock piled. The amount is limited only by the energy of the cutter, his time, and his gasoline supply. (Gas is expensive when used for this purpose.)

There were a few Boreal Chickadees picking around the cut down dry timber and branches. They were probably foraging for disturbed insect eggs, larvae and hibernating adult insects.

The snow surface, even in under the trees, doesn't show light animal tracks anymore due to the frozen crust. We cannot easily monitor our marten, red squirrel, and weasel friends until we get a new snow flurry or two.

There are signs of recent woodpecker work in the dry timber area.

The crusted snow holds up animals as large as fox, but not wolverine or wolf.

April 8

High 20° F
Low 7° F
Clear
N-NE wind to 30

A trip to Sisualik today with a first load for spring move. Shoveled a heavy load of snow off the south facing top half of the tent. There was a rather cold strong headwind going home.

Red Squirrel and Gray Jays "having a ball" around camp during these days of warm sun in protected places only. (Strong northerly winds out in the open with low chill factor temperatures, but out of the wind, snow melting on dark colors.) The snow crust makes the Squirrel incredibly brave.

A Red Fox dug a tunnel to our cached fresh sheefish pile. He ate only part of one instead of hauling off the whole pile one at a time. That we can tolerate.

The absence of Willow Ptarmigan is extreme again. This is the time when one checks for dark headed males to indicate late or early spring. If you can't see any ptarmigan you have a problem.

A big weekend in town. Kobuk 440 dog race. Mid distance. Also a final championship sprint race. Arctic Circle Championship and tomorrow, the women's snow machine race.

Pressure will be somewhat off sheefish and caribou this weekend. Caribou hunting is on going in the Deering-Buckland area as NW Arctic herd begins a move north.

A first bowhead taken on St, Lawrence Island today. It is said to take ten days from there to Point Hope-Kivalina whaling grounds, at the speed that these whales move.

April 9

High 26° F
Low 6° F
Clear
N-NE wind to 18

A very beautiful spring day. It is a little cool but the sun is warm in sheltered places. We have the same winds as yesterday, but much less intense.

Finally found a good crack in lake ice so "water getting" is much, much easier than it was early this week, for which I am glad. We can concentrate now on woodcutting and hauling. There are quite a lot of cones and spruce seeds on the crusted snow surfaces. Small birds (redpolls and chickadees), Golden Eagle and Rough-legged Hawk could be seen here anytime now, and will be seen throughout the interior.

Journal

This weather holding clear and cool is great for wood hauling, freight moving and the numerous races that are on going this weekend. It is also great bear hunting and sheefishing weather.

An interesting visitor-interview today. Took most of the time between ice haul and bedtime. It was a mutually interesting, well- spent time.

A second visitor came by and gave us a bit more perspective on "local people" and their feelings toward resource management.

April 10

High 30° F
Low 12° F
Clear
N-NE wind to 20

Another beautiful dry, sunny, cool spring day.

It was a day lacking visitors, though after the good nearly all day sessions yesterday, the lack of visitors on this good Sunday seemed a shame. It did, however, allow for some uninterrupted catching up on paper work.

The warmth of the sun is so very nice each day just outside of our front door. Also, though our windows are small, the numerous little trinkets we have to catch the sun's rays are all performing nearly full time now (prisms, sun catchers, and stained glass). What a time for celebration of the sun April can be in the Arctic in contrast to December! Do you remember how it was in December? It seems so far away now!

The outdoors is a bit noisy this afternoon. Quite uncharacteristic of the place. The Red Squirrel scolding at top of his lungs. Five Gray Jays contesting (vocally) over food and mating privileges. On top of this and really capping it off is the liquid Common Raven sounds of already mated birds, anxious over where to put their nests so they might best take advantage of our winter scraps, yet not run the risk of climbing humans robbing that nest. Life is sometimes complicated for Common Ravens too!

April 11

High 30° F
Low 7° F
Clear
N-NE wind to 18

Canada Geese in Fairbanks! An early date for that.

April

Some spring-summer campers working on, visiting, and sometimes overnighing at their Krusenstern beach camps.

Cut two more loads of firewood today at Akulisaq. Such beautiful trees in that patch and many dry ones yet. Porcupine and spruce bark beetle the major cause for dead-dry timber.

There was a single cross country moose track on the trail. It seemed headed for the main Noatak River flats.

The woodcut location has sign of both Boreal Chickadees and Three-toed Woodpeckers.

Saw what are probably old wolverine tracks with snow machine tracks behind. The tracks are wind worked and nearly obscured. They may be the only wolverine tracks I've seen this winter. They were in about the center of the Iggichuk hills where, wolverine used to cross regularly to inland mountain range from coastal ranges.

The absences of Willow Ptarmigan becomes more prominent as we get deeper into April. A small flock of six was seen by a visitor yesterday. None had dark feathers on the head yet. Sometimes that occurs in the last week of March.

The last marten tracks were seen a few days ago in the firewood cut area. There were no tracks there earlier in the winter.

April 12

High 26° F
Low 4° F
Clear
NE-N wind to 18

Town trip. Lots of dust, ice, and busy people. Very good trail but dry for slide rails except during midday when used trails slush up a bit.

An interesting story of a "fat" brown bear taken out of Deering in late February or early March. Hadn't heard that before, but we did speculate that unusually long mild spells with rain would probably bring out a bear or two somewhere in the region. Some bears choose and/or make poor dens. Dripping water or thawing mud may cause them to vacate. They walk around for awhile but may "hole up" again under a tree or in a snowbank during cold spells. The great load of fat bears normally go into hibernation with can be a hedge for "out of pattern" circumstances. Bears are remarkable creatures.

NPS crew checked Krusenstern Tower yesterday. It will probably go down this ice free season, even without a major storm.

Journal

Was surprised to see a large (50+) flock of Willow Ptarmigan at our second creek crossing this morning.

Saw two Snow Buntings behind Hansen's store. Haven't seen any since December.

A Kotzebue house being readied for travel to Sisualik today. It is a rather odd sight and is to replace a house lost to fire a few years ago.

April 13

High 26° F
Low -4° F
Clear
NW wind to 18

Below zero temperatures last night and 25 knot NW winds in Kotzebue this afternoon.

Got another load of firewood from Akulisaq, where it was warm, and took it on to Sisualik camp where it was cold.

Several more camp folks hauling firewood out of Akulisaq. Such a wonderful place to get dry white spruce - such long narrow trees with few branches. This has been a favorite wood gathering place for local people since the advent of the chain saw. It is a long haul to Sisualik beach though, especially with current price of gasoline. It is about 10 miles.

Took the shotgun today but didn't see the ptarmigan of yesterday. That isn't an uncommon happening.

One wishes for the strong clear vision of youth at this season so the sighting of first migrant birds isn't missed.

Sisualik air today had the sharp bite on bare skin of winter. It was very unspring like. The bears that are unfortunate enough to be out must have cold feet this week.

The Kotzebue house made it to Sisualik and is ready to go on the prepared foundation. The moving is not a first, but maybe there has been only one other such happening in the past.

April 14

High 8° F
Low -9° F
Clearing, some clouds
N-NW wind to 25

Well, that magical date is here again and again this year it stretches ones imagination to perceive of a Crane in the soup pot on this date in the NANA Region. Nevertheless our nephew and his birthday experience remains with us, never to be forgotten. Chill factor temperatures were down to near -50° F in Kotzebue this morning.

Took wood down to Sisualik before noon and found it cheek-freezing cold down there, with even a little drifting snow. If there was any loose snow there would be a lot of drift.

We are expecting a visit from Hatchery dog teams this afternoon, which hopefully will include a debriefing on the just past '93-'94 dog race season.

They came and we had a great visit! The Kusko, Yukon Quest, Iditarod, Kobuk 440, and the Hope Race from the inside! It was a pleasant "inside" afternoon on a too cold mid April day.

Fox came dancing into the cabin clearing soon after the dog teams left. He took off when the door slammed shut. Didn't find out what he had in mind, but there were several dogs coming into estrus in the teams.

April 15

High 14° F
Low -8° F
Clear
N-NW wind to 15

Mid month again already and a special month at that. Soon now we will have to leave our tree patch and warm cabin and begin life anew in the wide open spaces on the north shore of Kotzebue Sound. The change from house to tent will be the most dramatic, though the many hours of bright sunlight through the tent fabric will not be too far behind. Then there will be bird noise inside and out. Hope Jonathan (the Glaucous Gull) comes back braver than he was last spring. He was so timid we thought it might not be him. I suppose he has reason to act timid when he first comes home.

Took two loads of wood down today and did a little sled repair work around here. Also shoveled more snow from south side of tent and there is still more to be shoveled when the sun is a little warmer.

Journal

Red Squirrel is acting out of his mind today. He has been up and down trees as fast as possible. Inside the chained dog orbit to steal a bit of food and then like lightning up and down trees again. I suspect that this is the "display flight" of the Red Squirrel. It may also be the result of the stress of spending a winter with a different Marten knocking on your door every few days.

The lone chickadee came by again, dodging Gray Jays to pick at a few scraps.

We will soon hear of a first Glaucous Gull in the Sound. Real spring is not far off!

April 16

High 10° F
Low -20° F
Clear, misty
Light winds

Town trip for new combination store/open house.

It was a very cold day for mid April. Town temperatures remained below zero all day, even with all the bright sunshine.

A large bull moose track crossed our town trail this morning. It is the first track we've seen in our area for some time. He was moving from our lower creek to the hill side spruce grove (Napaakturaq) just west of us. From the looks of his tracks, he was not having too difficult a time moving cross country. He only sank 10-12 inches from snow surface and never clear to the ground.

On our return to camp, our own camp fox barked at us with his peculiar rasping voice. He must have been up to something while we were gone. It is a truism that foxes are foxy!

April 17

High 12° F
Low -24° F
Clear
Light NE wind

A very cold night for mid April. The sun began warming here by the house and we were up to 0° F by 11:00 am. A slow warming trend is supposed to begin tomorrow.

It was good to watch, for awhile today, a small Boreal Chickadee working extra hard on a piece of frozen caribou fat. We have only had chickadees around a few times this winter. This one must watch over his shoulder for Gray Jays and leave immediately when they come around.

The wood haul trail is so good and the cool temperatures have held so well that firewood cutting continues, with some new participants.

Sheefishers have been out but we haven't heard of a good new strike yet. We may be ready to go when that happens.

It is a very vulnerable time for those bears that are out early. The level crusted snow surface allows snow machines access everywhere.

A Ground Squirrel was reported out yesterday near the Kotzebue dump. Another hint that spring might come this year. Our pair of camp ravens have no doubt of that fact and are acting accordingly.

Not having any new spring birds yet we were today admiring our spread in passerine size. The tiny chickadee, the more robust Gray Jay and the giant glossy-black Common Raven are after all perching birds - passerines!

April 18

High 22° F
Low -10° F
Clear
N wind to 15

Some spring changes around here today. A large, probably male Red Squirrel, has joined our runty but lively and nervous camp clearing squirrel and together they are running off with all of Terry's keepsakes. They daringly go inside his chain length while he looks the other way and grab a bone biscuit, cooked fish scrap or a left over "frisky" and run to the nearest tree. It was quite an afternoon show. The newcomer is not only large, but a brightly distinct color and pattern, with magnificent white eye rings and a thickly haired plume of a tail. He is also very brazen, daring, vocal and maybe smart. He looks it anyway.

Redpolls have also invaded today. Only groups of two or three around camp, but apparently different birds through the day. A couple were quite large, white-breasted and unstreaked birds that surely qualify as Hoary Redpolls.

Two red foxes wandered through camp, probably a male following female who had a remarkable hairdo. There seemed no hair at all for $\frac{3}{4}$ of the tail length nearest the body. The $\frac{1}{4}$ length at the tip had full winter long haired brush. Much hair was also missing on rump and backs of hind legs. The odd contrast on the tail made a very unusual looking fox. Very poodle-like you might say.

Wood hauling is still a major activity as coolness continues. There is, however, a slow warming trend.

Journal

April 19

High 22° F
Low -10° F
Clear
Light winds

Yet another town trip, propane this time and a seafood package from Sitka friends, of all things!

It was a pleasantly cool bright trip. More sun than one could ever use and visitors a short while after getting home. It was a pleasant day.

Report of a Golden Eagle a week or so ago in our mountains. This may be an indication that we still have a used nest site between Sisualik and Port Site.

Lots of Snow Buntings reported foraging at various sites in town.

Beluga whales are reported in good numbers at Point Hope and some at Kivalina. Some have been taken.

The group of creatures around camp got quite active, right after the visitors left!

No new fish strikes on Kobuk Lake to hear of yet, but news of the Sheefish Derby is on the radio today. It is to happen this Saturday from 9 a.m. to 6 p.m.

April 20

High 25° F
Low -8° F
Clear
N-NW wind to 15

Another fine day. They are seemingly all the same now for awhile: clear, a lot of sunshine, cool with a warm period late afternoon and below zero temperatures at night. It is the kind of weather that we can go well into mid May with, in having a good surface to travel on. The continued clear weather, with warm days and cold nights in the absence of clouds and precipitation, couldn't be better.

Got, maybe, a last load of firewood for Sisualik from Akulisaq today. There has been a lot of wood hauled out since I was up there last. It is a bit of a mystery just where it has been hauled to, but that will eventually be cleared up.

No new signs of spring except the water puddle by our front door. Some rocky areas on the mountains have darkened more and underlying tussocks and grasses in lowland areas are showing as shadowy zones under the white of the snow. On the day that temperatures rise a bit higher at midday and late afternoon, many "chunks of ground" will show dark on the as yet, sparkling super- bright snow surface. Willow

Ptarmigan seek out these spots in their beginning display activities. Hope some come from somewhere to do what they are supposed to be seen doing. It leaves one with a lonesome spring feeling when they do not. (Similar to the absence of Snowshoe Hare tracks in the white spruce habitat through the winter season.)

An encouraging report of increase in Snowshoe Hare numbers in the "Tag" River (Selawik area).

April 21

High 24° F
Low 0° F
Light clouding
Light winds

Moved two loads of wood today and had several visitors, which made it a full day. Also shoveled a bit more icy snow off the south facing tent top, but it still wasn't warm enough to make a clean job of it.

Saw a very light colored Gyrfalcon today. The first for a very long time.

An interesting report (from two separate sources) of seven moose in the rather sparse (for moose) habitat just inside the mountains from the Anigaaq Ranger station.

Several reports of bear tracks in the same area and at least one bear seen in that area this past week.

No gull or goose reports so far, but if warming takes place they can be expected this coming week.

Saw a Three-toed Woodpecker at woodcut site today.

Our odd looking foxes still around camp but no recent sign of marten. The heavy snow crust through timbered areas make it very difficult to see marten sign.

The clouds this late PM show promise of snow to cover our universally icy surface. Snow machine slide rails have been wearing rapidly due to extremely dry surface all over the country.

Two dead seal pups found off Krusenstern. Lack of snow on birthing dens during cold weather can be deadly for Common Ringed Seal pups.

April 22

High 28° F
Low 20° F
Cloudy, snow
W-NW wind to 15

A day of snow! After a long period of having no loose snow to blow around we now have several inches to blow and fly if it does not warm enough to stick the new surface to the old. Temperatures have moderated somewhat. but are still far from thawing.

The fox with the mostly naked tail was around camp in the middle of the day eating a bite from the garbage pile. It is natural acting, except for tameness, but does seem lacking in alertness and feline agility. We may have to destroy this animal so as not risk a possible latent rabies case. It is always difficult to know a sick fox from one that has become conditioned to camp life and quickly becomes tame to camp creatures and people when their presence is pretty much ignored.

Am glad to report that our little marten was back early this morning to make tracks around the house and on the roof. Have not seen the tracks recently since the rain/sun crust on the snow doesn't show lightweight creatures.

It was not a good day to be outdoors as the constant falling snow at fairly high temperatures make clothing and work wet. The sun was visible through the clouds most of the day, thereby making further melt on dark objects.

April 23

High 26° F
Low 17° F
Cloudy, snow
NW wind to 20

Another day of rather limited potential for outdoor activities. Periods of snow that turns wet on clothes almost immediately. There were also some nice spells of sun through broken clouds.

Had a real invasion of camp by red foxes last night. Tracks all over the yard. Marten also visited here and today there were fresh marten tracks in the new snow up at the firewood cut site. All this is very encouraging, as it seems the species may be coming established where they never were known before.

I did make a run up the wood haul trail but the "climb out" was in poor shape from new and drifting snow. Was only able to take one log out.

April

There were many fox tracks in the fresh snow cross country. During this "mating period" they seem to run a grid-like trail, cross country, covering all possible habitat. It seems a characteristic of many species during their mating season.

The very prominent absence of Willow Ptarmigan continues.

No word of spring birds yet. The Interior is having quite warm temperatures. Redpolls have increased some.

April 24

High 34° F
Low 18° F
Snow, cloudy
Clearing p.m.
NW to N wind 15

Looked like winter again around here this morning after another inch of snow during the night. Trees and everything white again. Sun came out late afternoon and got quite warm for awhile. We had a front step water hole again. It was quite a nice day here, but Sisualik and Kotzebue continued to have drifting snow till quite late. Trail surface has changed again all over the country. There are snow piles, but they are quite soft yet. It is surprising how little snowfall it takes on the flatlands to produce large numbers of often bumpy snowdrifts across the trails.

Lots of fox tracks around camp again this morning.

Same old birds, in the sunshine.

No good fishing news. There may be after the weather clears. Some fishers may have been out at least Sunday evening. Everybody eagerly awaits bowhead whale news from Point Hope or Kivalina, but none is forth coming. The one small bowhead killed from St. Lawrence is the only one that we have heard of.

North moving NW Arctic Caribou herd was reported onto Selawik Lake this week.

Traffic very light this weekend due to marginal weather and poor visibility. Perhaps things will pick up this coming week, the last week of April.

Journal

April 25

High 36° F
Low 10° F
Cloudy, but sun
NW wind to 15

A town trip for Carrie's eye care appointment. Our "good" town trail bad again. The fresh snow and westerly winds have made rather constant semi-soft bumps out of the formerly "smooth" trail. It is worse toward Kotzebue, better on this side. Don't know yet how our "moving" trail will be to Sisualik.

Our little marten came in and to the house roof dried fish cache where he took what we had left him. This happened between 9:30 am and 4:00 pm, which again hints at midday activity as opposed to night time activities, which some scavenger/predators seem to prefer.

Report that belugas have been seen and taken in Point Hope but not Kivalina yet.

No new bird news from town. Our front door here at home seems to be the only water puddle in the country. Town has been facing the brunt of the rather steady NW winds to 20 knots that keeps their temperatures below freezing.

ADF&G did some musk-ox counting in the Krusenstern area last week and have some interesting moose collaring stories and some wolf numbers news. Hope to learn more in a few days.

The west wind has not brought Willow Ptarmigan, only cool temperatures. Wind change is forecast so warmer temperatures, birds and spring may be a little closer by the weekend.

April 26

High 32° F
Low 20° F
Cloudy, without sun
W-NW wind 15

Another rather dull cool day with snow surface hard to see.

Made two trips to Sisualik, the first with sled load of odds and ends, the second with Carrie and stuff. Shoveled out the tent, including the door, and cleared everything for firing up the stove. We did that after the second trip and had a fire in stove to thaw and dry out the camp. We haven't been in the tent since December and was pleased to find it snow and mouse free. It is now ready to be occupied whenever we think drifting snow will not be a problem.

April

A single land otter made his way up the creek late yesterday. Hadn't seen his track for some time and was beginning to wonder what had become of him/her.

No birds again today. Thought we might hear Jonathan down at the tent today. Rumor has it that a crane was heard at Ivik (north shore of Kobuk Lake) yesterday. No confirmation.

Lots of foxes around the camp last night but not marten.

Another day of no Willow Ptarmigan noise or sight.

Rain is in the forecast for tomorrow night and Thursday. We may not be here in the house in the trees very much longer. The sound of rain on the tent roof will be a novelty we haven't experienced for awhile. Jonathan's clear piercing spring cry may not be far behind.

April 27

High 44° F
Low 26° F
Clear, thin clouds AM
NW wind to 20

The most perfect spring day yet! It was beautiful all day in Sisualik where we had a fire in the tent again. It was drifting on the ground up here close to the mountains till late afternoon but the wind was quite warm. We expect reports of crane, gull or Arctic Ground Squirrel, but we did not see any.

Several sno-go's taking advantage of the federal holiday to head for the darkening mountain tops for caribou, bear or ptarmigan.

There were small melted ground patches beginning to show this afternoon, the first real observable work accomplished by the Sun.

April seems to be winding down just as April should. The warm sun and air today give promise of the May to come, which will deal with our world of ice and snow and reduce it to a world of water and flowers by June.

Marten was back on the roof last night to pick up his dried white fish. This returning to a feeding station every few days is an interesting characteristic. It has probably allowed this marten to survive a time where normal marten fare is quite sparse. Wonder if he will continue to visit the spot through the summer.

Saw a couple of Pine Grosbeaks eating cottonwood buds out cabin window today.

April 28

High 31° F
Low 11° F
Cloudy
S-SE wind to 15

Another trip to Sisualik to shovel some more and hook up the propane stove.

Everything well frozen today with hardly any thaw. Trails very good and not drifted over for a change.

A visitor down from the Hatchery with the interesting news that they had a Dark-eyed Junco up there today. This is the first real spring bird of the year (discounting Snow Buntings, redpolls and Golden Eagle for various reasons).

We also had a single Snow Bunting down at Sisualik camp today feeding on scraps of meat where foxes and dogs have been feeding.

Marten's fish was gone from the roof and the large Red Squirrel was around today too.

Three red foxes were not far off the front steps at dawn this morning. Girl-Girl barked them off but one followed her almost up to the door, probably wondering if she was some kind of a black fox.

We will make a town trip again tomorrow for business reasons.

April 29

High 40° F
Low 20° F
Partly cloudy, clear
Light winds

Some low fog and clouds during our trip across this morning, but clearing and a very warm Sun on the way home. Kotzebue streets turned watery in a hurry.

Finally a report of geese on the Noatak Flats (inland) and around Ambler. We saw a Ground Squirrel in Sisualik just east of Wilson's place, so the creatures are responding to their seasonal alarm clocks like they are supposed to. Wonder why each year we wonder if they will - they always do! It is good to hear a goose call and a crane call and the swish, swish, swish of the great wings of a swan.

Tomorrow is Shee Derby day so we may take a run up to the fishing grounds.

April

A bowhead taken from Wales village area. Many whales are said to be in the area. Wales doesn't usually get many chances to take a whale and they don't often get one. The whale they got was small, 28 ft long. They made one other strike but didn't make a landing.

Lots of foxes last night around the house and marten came by for his dried whitefish.

A few shrew tracks showing on thawed snow surface.

We are now ready to leave the spruce patch to the bears and other creatures that qualify. They can have it for the summer. We will miss the companionship of the trees and its creatures, but Jonathan (the Glaucous Gull) and the swallows are due in!

April 30

High 43° F
Low 26° F
Clear, clouds p.m.
N-NW wind to 25

A noisy red fox night - several in the backyard with much barking and coughing. Fired an unaimed shot to break things up a bit.

Got an early start to be at Lion's Club at 9:00 a.m. to take part in Sheefish Derby. Caught up to a party of four who had broken down and were pushing their sled into town. We towed them and their sled into town and were a few minutes late for our shee papers. We did get them though and headed up to the fishing grounds. To make a good long story short, Carrie caught a nice 40 inch, 26 lb. shee while everybody else obliged by not taking any that were longer. So she won the \$500 first prize for the longest fish.

The sun was very warm today before the west wind picked up.

West wind drift was pretty heavy for several hours today. Our trail much drifted in and we assume our tent camp will need the south-facing side re-shoveled.

Goose and crane rumors are getting thicker and am expecting to see them not long from now.

All in all, April has been a good month. Hope that May can be also. There will be birds!!

CAPE KRUSENSTERN JOURNAL

MAY

May 1

High 34° F
Low 20° F
Cloudy, light snow
NE wind to 20

May Day and Gull Day in Sisualik! We had a CB report this evening that small groups of Glaucous Gulls are passing overhead. This is the first gull sighting of this new migration period. Hope Jonathan has made it. We may find out tomorrow.

Had a good rest today after yesterday's strenuous activities and welcomed a late traveling dog team visitor just in time for supper.

Saw a couple of small birds in the trees that may have been something different, but didn't get the binocs in time.

Freezing lasted late into the day and began quite early in the evening. We had great and fast growing icicles outside the window this evening. The best we've had this year, so this is also Icicle Day.

Well, by the calendar the beginning of the ice-free season is upon us. Spring really is here. Birds are arriving, migratory animals are moving, and so shall we be this week. Goodbye to the tree patch and hello to the wide open spaces of the ocean beach country. Sisualik here we come!

May 2

High 35° F
Low 18° F
Fog, clearing, clouds
W to NE wind 15

Moved to Sisualik summer camp today. It was a bright and warming sun at Sanningaruq this morning and of all things, there was a Yellow-rumped Warbler knocking on the window! It was a very beautiful, brightly colored male and it apparently was hoping to find a chilled insect around the window. This is our first real spring bird.

A neighbor has been seeing-hearing gulls and today, cranes as well as gulls. A few Arctic Ground Squirrels are out enjoying the sun at midday.

Still not a sign of Willow Ptarmigan on our trail. Spring without displaying ptarmigan! How sad!

Snow is in our forecast again for the next couple of days. Hope it is light. Snowbanks here in Sisualik are quite huge and we really don't need more.

It has been a long day, as moving day always is.

Sisualik is so white and horizons are so unlimited. It will be so good to see the land (ground) grasses and flowers again!

May 3

High 36° F
Low 16° F
Fog, clouds, sun
Light variable winds

We went up to the house this morning after our first night in Sisualik and heard cranes calling up there. Soon after we got back down here three large cranes came by flying East. It is great to see and hear Sandhill Cranes again. They are a great and hardy bird. Their loud far-carrying cry is just right for the wide-open silent land they return to at this season. Often they are the first in the parade of spring migrants.

We had a good freeze last night and the trail to the house was very hard and firm, but the sun warmed the inland areas very early and between 12:00 and 1:00 PM, rain showers began. We had to interrupt our closing down camp chores and head for Sisualik as the snow softened quickly in the tree patch around the house.

Our lone Snow Bunting was still around camp but the Sisualik camp Ground Squirrel group has not made a showing. Are they sleeping late or was winter rain too much for them?

Whaling season seems to be progressing slowly. We have only heard of two taken so far. One at St Lawrence Island and one at the village of Wales.

There seems to be no marine mammal hunters out in our area yet. Ocean lead conditions are unknown off Krusenstern.

May 4

High 44° F
Low 33° F
Clear, thin clouds
Light NE to E wind

What a fine warm - hot! - spring day.

Journal

Maybe a last trip to the tree patch house. Got the rocking chair, propane bottle and CB battery and put bear proofing gear in place. Then it was getting too warm and soft to stay any longer.

It didn't freeze very hard last night which is the reason for the early thaw. That and the very warm breeze out of the NE.

Went to town this afternoon for gas and heavier spring supplies. The streets in town are full of water and potholes. Town kids are having a great time.

So are the birds. The mud, gravel, and water in town must seem a great haven for early migrants. Lots of Glaucous Gulls, some geese, cranes and two American Wigeon were reported by friends. We heard cranes, a goose and gulls before we left for town.

The most amazing bird report is of 200+ Slaty-backed Gulls. This report needs some checking but is a remarkably large group of a Siberian species that usually occurs here as singles or twos and threes. These were said to be adult birds.

Some unidentified "strange" looking passerines were also reported around town. We may have further updates on this unusually fine day in the Kotzebue Sound area.

Both Point Hope and Barrow may have taken bowheads in the last few days.

May 5

High 52° F

Low 26° F

Clear

Some high thin clouds

N-NE wind to 10

A rather super high on our thermometer today. Our reading is some 10° F warmer than that given by Kotzebue Weather Bureau. It was very warm here between 1:00 and 3:00.

Scattered Glaucous Gulls just about anywhere, but not much else to see out of town. The mud, water and grasses around town attract most early migrants in the local area and we haven't checked today with Kotzebue birders.

Made town trip for drum of gas early, before the snow surface thawed. Made it just in time. After that tried to go up to winter cabin trail, but had to turn back as snow was too soft over land.

Went into town to pick up Carrie in late afternoon and found no water underneath, but the snow surface was soft and slushy, throwing slush back over the sled.

Kotzebue street water getting pretty deep and some of it is starting to move.
Kotzebue waterfront will soon be black and hard to cross.

Our camp Ground Squirrel "went out" today. Don't know what he thought of the huge pile of firewood 30 feet from him. I'm sure he remembers that it wasn't there when he went to sleep last fall.

Cleaned out the Tree Swallow box today and a Glaucous Gull landed on the ice in front of camp, making quite a racket. It could be Jonathan! He always acts a bit shy-coy when he first comes.

May 6

High 40° F
Low 22° F
Clear, fog offshore
W-NW wind to 20

An early trip to the winter cabin for a final check and to pick up a few firewood logs more needed here than there. It was already getting quite warm and the night surface freeze was just beginning to thaw as I left the house, maybe not to see it again till October. Hope our friends the bears remain benevolent towards us and our possessions.

Two cranes were stalking about a snow-free knoll on our trail.

The Flats area extending out to a fog bank offshore had a cold, sometimes strong west wind all day. Inland, from tablelands north, was very warm with no wind or light NE. All the birds (except gulls and cranes) were back there. Robins, Yellow-rumped Warblers were a couple named in that zone (White-fronted and Canada Geese also, no doubt).

A crew that was down west to the new shelter cabin site reported a real large group of cranes.

A Kotzebue hunter took home two Uguruq from Kivalina yesterday. There are reported to be a lot of Uguruq down there but apparently few beluga and bowhead.

We had twelve Glaucous Gulls on the ice in front of camp today trying to help the one gull who we think is Jonathan, finish his offered fish scraps. We think the 13th is Jonathan because he alone seems to follow me around when I am walking around outdoors. He would settle the question if he would just land on the swallow box. However, his pattern has been to come back much more "wild" than when he left and then tame up as egg laying season ends.

Journal

A neighbor friend with a whaling crew in Point Hope sent us a beautiful male King Eider today.

May 7

High 46° F
Low 19° F
Cloudy, snow flurries
Light winds

A day of shoveling and a town trip to pick up the Shee prize.

Brown Kotzebue drain off water starting to form on the ice edge shore front. This will probably develop pretty rapidly due to artificial pumping out of street water. It will become the first barrier to snow machine travel in and out of Kotzebue.

Lots of Glaucous Gulls in town but not much else on the streets except ravens. A Golden Eagle was reported over town yesterday.

A friend gave us a large shee that he had caught earlier today. It was within an inch or two of Carrie's prize winner.

There are a lot of coast travelers these days as campers position themselves for the break-up period. There is also some travel between northern villages. Squirrel and goose hunters are out, as well as some late bear hunters.

Anniversary Day tomorrow, 46 years. It is also Mother's Day this year. We may have a few visitors tomorrow!

Trail conditions remained good all day because of long and low freeze last night.

May 8

High 48° F
Low 32° F
Cloudy
Snow showers AM
Clearing PM
W-NW wind to 10

Mother's Day and 46th Anniversary. It was a fine spring day with spring noises in the air (gulls and cranes) and a few visitors.

One of the visitors reported many geese and a few ducks even, flying around where there is a little mud and water.

Kotzebue trail remains good and it should freeze pretty good tonight. Carrie will go to town to prepare for Anchorage trip Tuesday.

Four wheeler stored in a snowbank over winter started with the electric starter today. Quite a surprise that the battery retained its charge.

There were a number of seals laying on the ice today in front of the tent. There may be more Common Ringed Seals "frozen in" in this location than in most other years.

May 9

High 40° F
Low 23° F
Clear
NW wind to 18

A town trip to find that Carrie doesn't leave for Anchorage till late tomorrow evening. She chose to come back home to wait. It was cold enough last night and most of the day so that the trail is straight and firm and good traveling. Overflow water on town beach front is still quite easy.

The big event of the day is that Jonathan is here! He may have been here several days but today he remembered how he used to act here. He landed on the swallow box gave his starvation cry and when food was tossed he quickly scooped it up. There is only one Glaucous Gull in the world that can do that trick the first time around, without practice. We are glad to be sure Jonathan has returned, but it does bring up a problem. The Tree Swallows that make their nest home in the box have not yet turned up. When they do, I don't think they will take kindly to Jonathan planting his big feet on the roof of their house. We may have to make a special aeropad for Jonathan away from the swallow box.

There are lots of travelers through Sisualik these days. Camps west of here have been re-populated and waterfowl hunters are out in increasing numbers. There are not a lot of birds in yet on the coast. Various inland sites should have geese and cranes passing in fair numbers.

May 10

High 52° F
Low 22° F
Cloudy, clearing
Light E wind

Another cool night and warm afternoon. The town trail still very good, but the dark water from the streets gradually closing the dry trail into town.

Took Carrie in for the trip to Anchorage for new eyesight. Hope things go well. She hopes to be back Saturday.

Found a gift white-fronted in the tent this afternoon.

Journal

Except for gulls and cranes we have seen no "new" birds, though I'm sure there are some inland.

No Tree Swallows yet.

When the wind is calm, Glaucous Gull, crane and even Willow Ptarmigan noise is rather constant from the landward direction (north).

Hopefully I will be able to make an inland trip tomorrow or Thursday to see what birds are moving through.

Some hunter success is reported but continued cold nights and late in the day thawing does nothing for migrant movement.

May 11

High 57° F
Low 31° F
Some clouds, clearing
NE to N wind 15

An absolutely beautiful day! And it was Bird Day too! Robins and juncos reported in Kotzebue. I saw one flock of six Tundra Swans and another flock of five Tundra Swans and a single Greater White-fronted Goose flying in formation. (Wonder how much the white-front has to regulate his speed?) There was also a first lone Savannah Sparrow around the camp chasing bugs, of which there were lots. Blowflies, "fruit" flies, and one black shiny, smooth, flying beetle that I have not seen before. It looked like a water beetle.

Thought the Tree Swallows would show, but not yet.

There is a small puddle of brown water forming just under the hills north of us. It is the first and by tomorrow will be of a size to attract birds.

It is a wonderful time of the year and it is our prayer and hope that the operation on Carrie's eyes tomorrow will give her better opportunity to see it when she returns.

One Tree Swallow, obviously ours, got in at 9:00 PM this evening.

May 12

High 61° F
Low 32° f
Clear
Light winds

Another very beautiful day after a light night freeze on this side, but no freeze on the Kotzebue side. It was thought by the Weather Bureau that we might have a record high. 53° F was the temperature to beat but they didn't in Kotzebue.

Had a rather full day of visitors and the good news that Carrie had her cataract operation already this morning and that everything went well. After a check up tomorrow, she will be ready to come home.

The mate of our Tree Swallow got in shortly afternoon today and it has been a happy day for that couple too, with many insects of various choice sizes out in the warm sun. They are especially plentiful on dark things (tar paper roofing, dry log firewood and small patches of snow free ground).

Two Tundra Swans flew over the tent today and geese, ptarmigan and crane noise could be heard from distant tablelands with calm wind. Maybe I can find time tomorrow to go inland for a few hours. There should be numerous species back there now.

Took Terry for a controlled run out on the ocean ice this evening and ran across three different occupied seal breathing holes that had been enlarged to permit the occupant to haul out. There are many more seals frozen in on our shorefast ice than are usually here. It will be interesting to see what develops as ice rots and freshwater flow reaches the area.

This was a great day!

May 13

High 46° F
Low 27° F
Clear
Light winds

Another cool night and warm day, but not too much so.

A number of "new" birds today: Mew Gull, Short-eared Owl, two Hudsonian Godwits, two Lapland Longspurs, Western Sandpiper, Northern Pintail, Canada Goose, American Wigeon, and Common Snipe.

Went back to the edge of high ground with hopes of getting to an inland lake, but found too much water in places to chance it. The water holes along the edge were all

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young ice covered, so there were few birds. I did spend a couple of hours waiting, listening and enjoying the cool spring morning. Waterfowl still scarce at this location.

Took Terry for a run out on ocean ice, as it is such a good table-flat surface with very little snow. We made some odd discoveries that don't have easy explanations. We found remains of three seals along a crack that had formed some time after surrounding ice had gotten quite thick. Two of the animals were Spotted Seal (Largha) one was a Common Ringed Seal of small stature, called "little old man" by its Eskimo nomenclature. There were four live seals laying on the ice by their breathing holes. Two of the dead seals had portions of their body not eaten (the portion that may have been iced in, head neck and portion of shoulder, were intact on one medium Spotted Seal and $\frac{3}{4}$ of the body of the Ringed Seal was still whole). A major winter tragedy occurred along that crack!

May 14

High 49° F
Low 28° F
Clear
Light winds

My! What a run of good beautiful days with birds!

Surface was well frozen again till past noon. Made a run back to upland edge for Terry's exercise and a check on how break-up is coming. It is coming right along! A small drainage I crossed yesterday is a fast running stream now - still crossable but not without boots. Our biggest creek back there, on our winter trail (where the trail goes into the upland), has not broken free of snowbanks yet but that time must be close, and that will fill the lagoon rapidly.

Saw few birds today as I wasn't up there long, and there is generally little movement of birds through the tent location while there is so little ground exposed. Didn't see any "new" birds.

Carrie is supposed to be home from Anchorage on a late jet this evening. Kotzebue trail is said to be pretty good yet so will try to get across to bring her home. We may be just in time. The trail may not hold up too much longer.

There was a bit of conflict today over the swallow box as Jonathan decided to stand on his pad for awhile. He hasn't done that often having other business to worry over right now. He has a mate whom he is more or less constantly with.

May 15

High 50° F
Low 30° F
Clear, few clouds
Light winds

A quiet Sunday in Sisualik with lots of water on the back lagoon and some regional rivers flooding in the upper reaches.

A lot of traffic from town of weekend bird and seal hunters, as the trail is still pretty good for adventuresome travelers.

Few birds through here now as we remain mostly white, with 90% of the ground snow covered yet, while a few miles back there is lots of running/standing water and dry warm ground and wet mud for those birds that seek it. Very little shooting has been heard from here. Most bird hunting and seal hunting activity is happening from Ranger Station west, where water and thawed habitat are more available.

Surprising few reports have come in today either by visitors stopping by or CB news. I'm sure some place has had a lot more use by a lot more people today, as it is one of the last week ends of travel out of Kotzebue by snow machine.

May 16

High 43° F
Low 28° F
Clear, a few clouds
Light W wind

Another of those great days. Lots of water in the lagoon - almost plumb full by evening. Neighbor's lagoon to the east filled first. Water already reaching the back of the point.

Lena Jones had her first boat in today. Quite early. Her son with his little family were camped at that back slough mouth (most westerly Noatak delta outflow) and the water has gotten high enough on tip of the ice that they could boat up to high ground at their folks main camp. An early boat trip!

More passerines through here today. Mostly Lapland Longspurs. No new birds again, but we heard that several days ago there were Snow Geese on the Noatak Flats. Swan and Glaucous Gull sounds dominate our silent periods, when the wind is dead still.

People still traveling widely except around river and large stream outlets, most of which are in process of flushing out.

Journal

Our new four wheeler came across today, dragged over the bad places by two snow machines.

Followed the crack that had the three dead seals all the way to the old open edge without finding anything new. Opened the $\frac{3}{4}$ body Ringed Seal. Blubber was normally thick, small intestines seem shriveled, stomach maybe eaten through by its own acids and the bottom of the seal in "hair slip" condition. That can only happen when dead seal remains insulated from cold for a long time while body heat is inside.

May 17

High 52° F
Low 27° F
Clear, few clouds
Light winds

Another great day of good weather.

Finally made a trip back inland a few miles to a flowing creek bend. Only water and snow and some grasses. No mud, and water not flowing very fast. Birds were not plentiful but quite diverse: Green-winged Teal, Northern Pintail, Northern Shoveler, Oldsquaw, Tundra Swan, Canada Geese, White fronted Geese, Red-throated Loon, Bar-tailed Godwit, Hudsonian Godwit, Common Snipe, American Tree Sparrow, Lapland Longspur, Mew Gull, Glaucous Gull, and Short-eared Owl.

Saw first flower other than "pussy willows." There were a few bright yellow, fully blooming *Eriophorum* flower spikes. This, of course, is a grass in the tussock forming community and may not qualify as a true flower, but the bright lemon yellow spot is great to see at this early date on a tussock landscape in between unmelted freezing patches of snow, North of the Circle. We are, of course, having below freezing temperatures every night yet. Wonder how this plant can do it, when most flowering is adversely affected by freezing temperatures. A hearty three cheers for this mostly overlooked unique plant. (Overlooked only by man - caribou, geese, cranes and ptarmigan know all about its attributes.)

Lots of travelers yet to and from town, but water puddles getting deeper and fast travel almost makes you think you are boating.

The larger rivers of the region are flooding.

May 18

High 44° F
Low 34° F
Cloudy, light rain
Clearing
E wind to 15

A few rain drops sounded good on the tent. We have not heard the sound for a while.

Outflow from rivers and creeks continue, but lagoon water level seems to have leveled off for now. Noatak River is open not quite to the Hatchery. Running water sound can be heard on the air when the wind is silent.

Ocean ice has dried a bit ,especially close to the beach tide cracks.

Bird migration is at a slow pace here. Our lakes are just beginning to show their outline and most of the spit still has 90% snow cover. Very few shorebirds are in and we as yet have no local mud.

Anigaaq broke open today so it will have a chance to fill with whitefish again as the flush out continues.

A few Ringed Seals are being taken by a few hunters at haul out sites by their enlarged breathing holes. No known open leads are available locally. Not an unknown situation by this time, but it happens only rarely.

Travel continues between here and Kotzebue, but fewer people each day make the trip. The very last snow machine trip will not be many days off.

Many birds, including waterfowl, have been constant for the past ten days at and around Jones Camp. That location is a concentration point for migrants in a cool spring.

May 19

High 46° F
Low 36° F
Cloudy, rain
SE to S wind 18

Our first rainy day of the summer season. It was not steady, but there were periods of fairly heavy downpour throughout the day. It will have some effect on rate of freshwater inflow at this region-wide breakup time.

Bird occurrence picked up some with the rain and easterly winds. N. Pintails were scouting the coastal lake margins as local lakes begin to show their familiar form which has been pretty much obscured by snow cover till today.

Journal

Northern Harrier, Black Turnstones, Dunlin, and Semi-palmated Sandpiper "new" birds for the day.

Few travelers today. Water on ice, soft snow and rain not very good for unnecessary travel.

The Spit snow cover getting down to 60%.

Ocean beach crack open, which means outer ice is floating and there will soon be a good traveling surface with probably a lot of hauled out Ringed Seals. Arctic Terns and their "harassers," the jaegers usually turn up soon after the beach tide cracks open. We have not seen any yet.

Glaucous Gull noise dominates the air. There is a good deal of dumped meat (mostly seal) from midwinter seal hunt where blubber was salvaged, but meat has little use unless you have a dog team to feed. Most of this is given to those with dogs but there are limits at this time as to how much can be given away. Scavenger birds benefit greatly.

May 20

High 46° F
Low 34° F
Cloudy, fog, drizzle
Clear PM
NE-E wind to 15

A real foggy AM and a bright warm sunny evening. A very beautiful evening, but we do lack birds in Sisualik. This is a great example of a scarcity of migrants in a location that stands between two ideal "ready" habitat areas, and moving water is the key. There are lots of birds (waterfowl) at Jones Camp and in the Ranger Station area. Both have fast moving current channels with fluctuating water levels and mud. We have water, ice and snow but no mud and few birds. Ours is a very sterile habitat right now except maybe for seeds and last fall's *Empetrum nigrum* berries. Mud in the current areas is bursting with food (*Potamogeton* corms and associated worm life). Both waterfowl and shorebirds are involved in this use of organic mud. Since the Anigaaq (Ranger Station) water system broke its dam a couple of days ago, the Krusenstern-Sealing Point Flats are now a great attraction to mud oriented birds. The Noatak Delta (Jones Camp) is in the same category. This scene will change when ice in our area lifts off the mud, as water levels fluctuate and organic mud with sprouting greens and associated worms become more available here.

Ruddy Turnstone and Red-necked Phalarope are "new birds" for today. A few Bar-tailed Godwit and Semi-palmated Sandpipers are in our backyard today.

May

Little or no seal hunting is on going this spring at this time off Krusenstern Beaches.

Noatak River is ice free down to the Hatchery.

May 21

High 56° F
Low 34° F
Light clouds, sunny
NE wind to 15

A very warm late afternoon that is rapidly eating away our snow cover.

Jaegers and Brant reported in today. One flock of Brant reported quite large (200?). The two jaegers I saw were probably Parasitic Jaegers.

Many passerines moving in on the land today, Lapland Longspurs and Savannah Sparrows mostly.

No more town travel. Too much water on ice in shallow water portions and ice getting thin over at town channel. We heard of one crossing yesterday from Little Noatak, but that may be the last.

The Noatak River is ice free to some point between Aggie mouth and Sam Henry's place. The water is still high at Hatchery and reported still rising at Noatak Village.

Travel between here and Sealing Point still pretty good. Akulaaq is not open yet. Anigaaq is open but is passable on ocean ice.

Local air taxi getting much used these last three days. Only two fields are snow free in Sisualik.

Our backyard looks more like it should this evening. Lots of birds of different kinds, including Glaucous Gulls, Mew Gulls, Short-eared Owl, Golden Plover, 100+ Northern Pintail, Wigeon, Green-winged Teal, Lapland Longspurs, Savannah Sparrows, Semi-Palmated Sandpiper, Western Sandpiper. Parasitic Jaeger, Sandhill Crane, Tree Swallows, Dunlin, Bar-tailed Godwit, and Red-necked Phalarope.

The warm sun today exposed some of our "ice mud" stuff which many birds (waterfowl-shorebirds) really zero in on because of its high "organic content" (worms, tubers, sprouts).

There is more "shooting noise" this evening than at any other time so far this season.

Journal

May 22

High 53° F
Low 38° F
Clear, some clouds
Variable light winds

Another beautiful May day. It was not too hot but snow on the ground is going fast. We are now down below 50% cover and all lake edges are defined. Rather heavy snowbanks remain around camps, but even those are shrinking fast. We will need to fill our reserve water tanks this coming week.

Noatak River ice now moving probably all the way to the mouth.

Our backyard has nearly all the beautiful spring sounds, a symphony of bird voices, splashing water, and various size wings slicing the air. These are the calm air sounds that carry far beyond where they originate. Last night and early this morning they were punctuated quite often by shotgun blasts. This evening there is none of that, and the boys gave us a share of their catch.

Two young fellows tried the snow machine trail to town this afternoon, much to the consternation of all the elders. They did return safely, having found that they couldn't make it. The last successful crossing then will have been two days back.

No egg report yet. We have had in past years, crane eggs found on the 21st and 23rd. The first Glaucous Gull eggs will be found (for sure!) this coming week.

It seems likely that Kotzebue Channel ice will move before the first of June this year.

Bar-tailed Godwit noise dominates the air sounds from the back mud flat area (heard from the tent door).

May 23

High 60° F
Low 36° F
Clear, clouding PM
N wind to 20
Calm PM

Another beautiful day and some changes, good ones.

Report of a first Glaucous Gull egg yesterday.

Today Kotzebue Channel opening on the bar side. This will be a very early boating season for Kotzebue and a long summer.

May

Lots of birds and bird noise from our back marsh area. Bar-tailed Godwit and Northern Pintail noise dominates.

The cause of the rather early abundance of noise makers is early ice-rafted mud with much benthic feed available on the surface of the ice. This is the local "ice mud" phenomena that puts good bottom feed on the surface much earlier than it would be otherwise reachable by waterfowl and shorebirds. The condition has happened early this year and is timely for incoming birds.

With the report of Arctic Terns west of us today, most species are accounted for except Kittiwakes, the wagtails and Aleutian Terns for this summer season.

There is still no report of open leads off Krusenstern beaches. That is very unusual but certainly not unknown. Anyone that wants a seal will have to go through the trying process of crawling up to one laying on the ice. This method is effective, but very time consuming relative to open water lead hunting.

Boating and Glaucous Gull egging time is not far off!

Akulaaq has not yet opened up, a traveler from down there to here reports, and trail west from here good yet.

May 24

High 58° F
Low 35° F
Clear, p.m. clouds
SW-W wind to 15

Cool winds off the ice today. Sun quite warm during calm spells.

Lots of birds on the ice mud. They are mostly Bar-tailed Godwit and Northern Pintail and they number in the hundreds. Several other species also forage there, but in smaller numbers. (Wigeon, Mallard, Green-winged Teal, Western and Semi-palmated Sandpipers, Black and Ruddy Turnstones, Hudsonian Godwit and today for the first time this spring, Long-billed Dowitchers.) Brant and Tundra Swan also use the unique habitat and a hard freeze will drive many more onto the non-freezing soft organic mud atop the lagoon ice. It is a unique and interesting process, the way this lagoon bottom mud ends the winter season atop the ice, just under the snow. Few observers are aware of how it happens and fewer still appreciate the benefit it provides in some years to migrating birds.

Kotzebue Channel ice moved out today and a first boat from Kotzebue passed on up through the Noatak mouth and on toward Noatak Village. Arctic Lighterage barge load will probably not be far behind. Boats were also launched from Sisualik Point tip back up towards Jones Camp where they will also have access to Kotzebue or

Journal

Noatak. Boating season is here and a week early! Any travel by boat away from main channels will be in water on top of ice and cautions and limitations will apply.

A few Long-billed Dowitchers passed by today. For some reason this species has been scarce in this area for a couple of years.

May 25

High 36° F
Low 31° F
Foggy, cloudy, cool!
W-NW wind to 20

The west wind has caught up with us again and the temperatures reflect it. All grass heads and other things exposed to the wind gained an ice coating this morning which remained till past noon. Freezing fog and saturated air brought this rather unusual situation about. There was not much freezing of larger open water and "mud holes." Some of our *Elymus* leaf blades are three or four inches out and they carried a load of ice too. There is not much other new growth out yet here at sea level and temperatures inland probably didn't drop below freezing, as the snow free ground holds warmth through the short night. The night is short too, as 24 hour sun up is only a week off.

We have nearly 100 Tundra Swans in the backyard this evening, all day as a matter of fact. Very noisy, but a wonderful kind of noise. These are called "flocked non-breeders" and the flock may build to 500 or more if they follow the pattern of past years. They will follow the sprouting, greening salt marsh zones around till the sprouting tender grass season passes.

Lots of small passerines traveling west to east today in groups of 8-10. They seem mostly redpolls.

There were a few more small groups of Long-billed Dowitchers today.

Early boaters from Sisualik Point report not much egg take. Probably a week too early. Egg-laying seems to go more by calendar than environmental conditions.

Local barge load of fuel for Noatak headed upriver today.

May 26

High 36° F
Low 30° F
Cloudy
Cold rain till late p.m.
W-NW wind to 18

Nearly a whole day of very cold rain. Objects in the air collected ice from the falling rain. It was a rather unusual phenomena, with surface temperatures a bit below freezing. Very uncomfortable wet weather.

Birds not really happy with the coolness and box swallows haven't been around for two days.

Several boats have made it into town and some back.

Gull egg harvest still light.

First net put into the ocean through a crack in the ice. Catch is not yet known, as it was a neighbor's net. Very little fish news yet, though some were reported taken around Jones Camp (there would probably be whitefish and suckers).

A number of flocks of small passerines again today, probably redpolls from west to east.

Ice mud rather full of birds – Bar-tailed Godwits and Northern Pintail still dominate, but there are many other species using it. May do a walk through it tomorrow to check species. Red Knot densities sometimes build around this time.

Our land snow cover is down to about 5%, most of it where deep drifts collected through the winter.

Green growth is beginning to appear in discrete places - mostly biennials or perennials. There are some surprises, and one must look closely, often under or within previous year's growth.

Ocean beach tide crack moving around a bit but can still be stepped across.

Tundra Swan still dominate the backyard sound scene. Arctic Tern finally flew over the tent.

Journal

May 27

High 36° F
Low 31° F
Cloudy, sun, fog p.m.
W-NW wind to 20

A big day in a number of ways and a cold one for this date.

Two Bowhead Whales taken in Kivalina today and one in Point Hope. Our cold west wind may have helped bring this good harvest off.

First net setting by us and a fair catch of whitefish from a short right angle crack in the ice. A neighbor set a net yesterday evening in the same kind of crack and got fish a mile east of us so fishing for the new season has begun in Sisualik.

A boat full of folks from our area went to town by the "back road" (the only way, by boat, right now).

Ice mud with birds still abundant. Saw a first Sabine's Gull today and three Common Eiders.

Tundra Swans and Bar-tailed Godwit still dominate the air waves through sound. There is little competition at the present time.

Long-tailed Jaegers and Parasitic Jaegers are now quite common. Have not seen any Pomarine Jaegers yet this Spring.

One cold looking swallow back for awhile today but gone again. This is the third day that they are absent due to cold west wind. Lucky they have no egg yet.

Glaucous Gull egg picking up, but no peak till next week. Jonathan may have more than one egg by now. Haven't checked but he/her and his/her mate have been on site on little islets behind the tent.

May 28

High 52° F
Low 27° F
Clear
S-SW wind a.m.
N wind to 20 p.m.

Lots of frost this morning along with the glittering ice-coated *Elymus* heads. Have the impression of a make believe dream world in the bright warming morning sun. The birds were chilled into silence, even the swans, but the swallows were back, a sure sign of warmer weather coming. We continue to wonder where they go during spells of west wind, and why they return. Wouldn't it make more human sense to stay and nest wherever they retreat to? They are, after all, Tree Swallows and there are no trees here on the Chukchi Sea, thirty miles north of the Arctic Circle. By mid-afternoon the sun was warm, the ice gone from vegetation, insects were plentiful, and the swallows very enthusiastically hawking them. So much for a lesson in "human sense."

Things at kind of a stand still. Flood waters going down, no saltwater areas open to boating yet, and multiple funerals for friends and relatives to attend. Word has come of a missing young person at a Noatak River camp site. A crumbling river bank may have dropped him in the river. Recovery of the body occupying some Noatak folks. Whale work occupying Kivalina and Point Hope people, and the readying of boats for the soon coming marine mammal ice pack hunt by Kotzebue people rounds out this Memorial Day week end. Gull egging and fishing are activities that those with boats in the water can be at.

A real abundance of loons reported from the Anigaaq area, just west of commercial salmon fishing boundary.

May 29

High 49° F
Low 30° F
Clear, few clouds
N-NW wind to 20

A cold, windy, but clear, dry day. Bird noise very diminished. Swallows gone again. One of them, maybe the female, looks pretty poorly with some feathers out of place and a wing primary out of shape.

Our ocean ice showing signs of restlessness. Some mashing and pushing (from wind and current) has caused some ridges to rise in what was formerly table-flat, level ice. The usual cut into the ocean ice from freshwater run off over towards the Point is also working this way. The ocean is about to become all pack ice, with no shelf ice, and marine boating will begin, with uguruq hunting becoming the most important activity.

Journal

Our snow is rapidly disappearing with only the snowbanks around camps, and draws and gullies in the hills still holding the white stuff. Our beach gravel in most places is still covered with snow through the peninsula, but is snow free from the base. Three/four wheeler travel is restricted to the land trail-no beach sand travel yet.

We must finish our snow gathering for water reserve tanks tomorrow before the snow gets too scarce. The wind and sun are together eating up what snow is left. It is good to see it go and "green" take over, but it will be good also to welcome it back in late September.

It is getting easier to spot green amongst the dry brown chaff, in spite of the cool west winds.

May 30

High 42° F
Low 28° F
Clear, sunny, cool
SW to NW wind 18

Freshwater still freezing at night and it takes most of a sunny day to thaw what froze in the night. It is not a happy time for the swallows and the swans are complaining about the slowness of sprouting new growth, which takes warmer weather.

A lot of Arctic Terns and jaegers coming in from the sea today. Jaegers mixed.

No sign here yet of Yellow Wagtails or Black-legged Kittiwakes. Sabine's Gulls have increased in the last few days.

Bumblebees and blowflies very active at midday but few smaller insects can tolerate the chilling temperatures.

First netting at the Point today and the usual whitefish are enhanced by some huge fat sheefish and a few char.

Glaucous Gull eggging may be approaching an early peak this weekend, with egg laying quite intense and people in the field quite numerous because of the long weekend.

No marine mammal hunting in this area yet. There were only a few Ringed Seals taken through the whole month from Krusenstern waters. Very unusual. Poor winter ice is one reason and a lack of on-scene older hunters is another. Boating time (ice pack) may be a different story, though there is the possibility of a poor, short, ice-hunting season in June.

Some green growth continues at low and insulated places (on mud and under last year's dry foliage).

No herring yet.

Bird noise at a minimum - much silent time.

May 31

High 40° F
Low 24° F
Clear, cool
W-NW wind to 18

Town trip for seasonal employee get-together. It was a very interesting afternoon. And a good break in routine. We are the richer for it. There was a good group of people gathered. We hope they have a good season at their respective stations.

On return to home grounds we found that there had been some ice movement and lo and behold, the Yellow Wagtails had arrived and Brant were leaving for points farther north.

This brings to mind how important a single day can be, especially at this critical time of change from a white frozen world to a green, blooming-flowering one. Two extreme examples are: the one day in a past year out of more than 45 that my eyes saw a beautiful pink pair of breeding plumaged Ross' Gull, that were supposed to be on the Kolyma River Delta in Siberia instead of the Noatak Delta here. Then there was the one day nearly 20 years ago that a great ice push from the ocean side slid a sheet of ice up over the land, almost but not quite wiping out all surface structures on the Spit and covering sleeping people in their tents. The ice was many feet thick and bulldozed much gravel and sod into long lasting, semi-permanent land marks. Again these things happened on only one day out of the past 45 years of days and would have been missed as a personal experience had we been absent from the Spit for those remarkable single days.

CAPE KRUSENSTERN JOURNAL

JUNE

June 1

High 46° F
Low 26° F
Clear
NW wind to 15

Another cool, clear, dry day to start June on its usually beautiful way. We do hope that some part of June gets warmer than it has been. At the same time we know that it will and then? Mosquitoes! Yeah, it is that time of year again, but we know also that there will be flowers and greens. Even that rare, mysterious *Gentianopsis detonsa* will be getting into its plant growth, though blooming will not happen until mid July.

Our snow is down to drift remnants around camps, west faced gullies and hillsides, and some sheltered places. Fish are present any place that a net can be put in the water and it is open water that is scarce.

Subadult Sheefish have joined Alaska Whitefish under the ice of the ocean front on their food migration. No hint of char in front of us yet.

The Hatchery called this morning and they may be releasing their fry tonight. The timing seems about right as water has dropped much from flood stage and may soon clear. Fry may have a better chance to escape predators in turbid water.

Ice mud has gotten scarce too and waterfowl are now feeding directly from the bottom in shallow water, since marine waters have gotten quite low.

No real show of herring yet, though they are due.

June 2

High 40° F
Low 28° F
Clear, few clouds
Fog patches
W to NW wind 18

Another nice but cold day for the date. Our front ocean ice moved a ½-mile offshore last night and rather brisk afternoon winds have pretty well mashed up what is left. Marine water level was quite high last night and if wind drops off, all our ocean ice will probably become pack ice with no shelf ice left. In the area of the Anigaaq Ranger Station, the shelf ice took off around noon today. Soon the ocean will be quite full of boats seeking beluga and uguruq.

On cutting the four shee from yesterday's net catch, I found for the first time a char fingerling (5 in.) amongst the usual Saffron Cod and Stickleback. This is of interest with respect to the Hatchery in the line of predation soon after release of the fry. They may do their release today or tomorrow.

Mud ice and nearly all ice is now gone from the lagoon. An early date for that to be true.

There was a lapse in Glaucous Gull egg taking through the first part of the week due to low marine water level and ice bottom yet in shallow water. The level is up since last night, but Kotzebue Channel remains ice plugged. Boats that are on this side probably have good egging today.

Heard a first Black-legged Kittiwake today as well as a Red-necked Grebe from the distant open water in the sea.

Flocked non breeding Tundra Swans are gone from here and the most plentiful birds right now are Northern Pintail, mostly males in pre-molt flocks.

Beach ice moved off at 9:30 PM. The monster ocean is alive again!

Our first day of midnight sun. It will not set again till July 10.

Journal

June 3

High 46° F
Low 34° F
Clear, few clouds
N-NW wind to 20

All our ocean ice got shoved back into the beach, jammed and broken up with no open water except in small pot holes. Kind of a disappointment as we expected it to move out and leave open water when it began to move. The continued westerly winds caused both the cold temperatures for the date and the shoreward ice jam.

More kittiwakes, Arctic Terns, all three jaegers and Yellow Wagtails.

More green showing in the brown of last year's growth in spite of the cold and frosty nights. *Elymus*, *Angelica* and *Ligusticum* showing the most greening, with *Betula nana* being the first heath shrub to leaf out.

Found one egg in what may be either Jonathan or his mate's nest, not far from the tent in the backyard.

Traveling to Kotzebue has become a problem the last couple of days due to ice in the Channel. Many boats have been turned back, even those all the way down from Noatak. Some boats have been stuck in the ice for awhile and a few have made it out of town and across. Since it is the first of the month and check time, most camp folks have used air taxi to go in.

Our next big expectation is for the beach ice to open and beluga and uguruq become accessible.

June 4

High 50° F
Low 34° F
Cloudy, light rain
W-NW wind to 15

Continued cool onshore winds with no ice movement. Which is good for at least one thing: no mosquitoes! The drizzle that fell was not the warm June rain that brings out greens first, flowers and muskrats. Instead it was the cold west wind rain that allows Point Hope whalers a best chance at the region's largest subsistence creature. They made the most of this late opportunity by taking two today.

A single seal was seen in Sisualik today. Also a major event since none have been seen since the muddy freshwater of break up overran their normal marine habitat and caused a displacement for a time. This often lasts two to three weeks. It is a sign that inner Kotzebue Sound is returning to its more normal marine environment.

Speaking of things marine, we have a new camp bird. Yesterday and today a breeding plumaged Sanderling has been eating fish scraps around camp. Sanderlings are rather rare here in spring but common in small numbers in fall.

There has also been a flock of twenty cranes in the back yard since yesterday. They look more like a herd of small grazing animals than birds.

Good fishing for whitefish today between the ice floes. They are large with a good percentage of fat ones.

June 5

High 36° F
Low 30° F
Fog a.m., clearing
W-NW wind to 15

A cool damp a.m., but afternoon sun warmed nicely though not very high in temperature.

Hardy greens continue to grow slowly in spite of continued freezing nights. My, will they grow with the 24 hour sun when coolness quits and the accelerated growth goes on night and day.

More fly by loon noise today with more kittiwake voices too. Swans and Glaucous Gull have moved off somewhere.

Only small bits of ice and snowbanks left in our rear country now. Dwarf Birch and some mat willows are leafing out. The bumblebee plant (*Woolly Lousewort-Pedicularis lanata*) is blooming in back regions nearest the tablelands.

A large group of non breeding cranes has been in our near back area these last two days.

Gull egg taking continues, but peak may be past. Some eggs inside now show beginning chick development.

Ocean ice is still jammed in against the beach without movement, but that may change at any moment as winds are quite light and ice should move out easily with the current.

Some vole workings are showing around and Girl-girl has caught two to date. Tundra Voles may be on the build again after a single depressed year.

Some boats getting out of Kotzebue, but ice is still running.

Journal

June 6

High 48° F
Low 30° F
Clear
Light winds

A nice day. Warmer than the temperatures would indicate. Shiny water and calm winds help warm the land beyond what temperatures can do alone.

Lots of Black-legged Kittiwake noise today. Loons too! It is good to hear a change in dominant bird sounds. Today it is kittiwake and Pacific Loon.

Fishing is good in between the ice flows and spent Noatak char are making a show in the lagoon and will soon be in the ocean too.

Many kinds of birds around today. Habitat is much improved locally. It is normal and usual that the later zones of thaw are covered later by birds of various species that find better foraging in previously untouched areas. Tender greens, sprouting seeds and worms and insects as yet unexploited are the attractions, especially for late arriving migrants that will not breed this year.

Kotzebue Channel still running ice, but intermittently, so that boats are traveling fairly regularly.

There is still no trail out into the ice pack for marine mammal hunters.

Lots of bumblebees today and swallows have better hunting for mud and fruit flies than they have had for more than a week.

Our lone Sanderling and a Ruddy Turnstone continue to feast on our scrap discards. They are rather exotic camp followers.

June 7

High 56° F
Low 36° F
Clear – warm!
NW wind 10-15

With a little warmer day the only thing to complain about is the lack of ice movement on the ocean side. The lagoon and other shallow water delta areas are now pretty much ice free, and except for a few snowbanks, the ground is snow free and slowly becoming green.

Loon and Black-legged Kittiwake sound still predominant. Many other bird sounds from back marsh areas penetrate the breeze from time to time.

Fishing here is at a stand still because of much ice on the beach; marine mammal hunting is in the same state for the same reasons - jammed in ice and lack of ice free water for boat access to ice pack proper, where uguruq and Ringed Seal might be found. No beluga have put in an appearance yet, though the fractured ice would permit them to come in if they wished.

A boat did try to thread its way through a lead far out in front of us, but soon turned back when he could go no farther.

We took two medium sized shee with a few whitefish last night. There are char in the lagoon and at the tip of the point but we have not taken any here yet.

A large moose has recently made tracks on the beach west of us. The first sign of a local "winter survivor."

June 8

High 59° F
Low 36° F
Clear, few clouds
S to NW wind 18

Another of the same beautiful days with pretty much the same ocean ice.

We did have our first new greens in oil today (Tukaiyuq), *Ligusticum scoticum*. Very good with half dried whitefish and a sure sign that we will have summer and mosquitoes. There is a greenish tinge developing on the brown of distant tablelands. There are now only scattered snow patches of white, mostly on lee side of cut banks from the east wind's winter snow banks.

We now have two Sanderlings in our fish scrap area with the Ruddy Turnstone.

There has also been a group of non breeding cranes (18) using the backyard all week.

Egging activity fading.

A first boat got through the ice to the Krusenstern area today. They have reported a few swimming uguruq but no catch yet.

One mosquito seen at the Point today and a few showing regularly at more inland camp sites. The time for insects to take over the world again draws nigh.

Some very large flocks of Red-necked Phalaropes about today.

Terry the Super Dog caught a large squirrel today, on a chain running ahead of our four wheeler. Very unexpected and no control over the situation by participants.

Journal

Squirrel was hiding in a grass clump by the trail and started his run too late or too early. Terry was quite proud and possessive, Girl-girl was envious and I was sad.

Lots of kittiwake and jaeger sound today.

June 9

High 62° F
Low 37° F
Clear, few clouds
SW to NW wind 15

A little more water in the ocean today, a little less ice. Several uguruq were brought into the Point from the ice pack late yesterday evening. One boat brought in three after being out a short time. These are the first uguruq of the boating season.

Our beachfront still clogged with small ice pans. There are several small Common Ringed Seals laying on one rather large white piece. Seals are beginning to work back into this area again as water begins to clear and salinity returns.

With the first boat's good luck yesterday there are several hunting boats out today.

We ate our first new trout (char) today. The outgoing Noatak char have reached our area. Most are too lean and emaciated to make good cooked fish, but one large lively one was fat enough and made a wonderful lunch.

Whitefish, good ones, are still running though sporadically.

Ocean ice and water are ideal for beluga but no report of presence has come to our ears yet. With calm nights they can be heard a very long distance off when they are around.

Kittiwakes are the most often heard bird right now and Aleutian Terns were first heard in Sisualik today.

June 10

High 75° F
Low 48° F
Rain, clouds a.m.
Clear p.m.

Strong NE wind and heavy rain between 6 and 9 a.m. Then strong clear sun and no wind, only heat. It has been a very warm day and after the heavy, ground-soaking rain the ground is turning green while you watch and the reddish brown willow patches on the tablelands turn greener as you watch. The leaves unfold their glossy, living green tops.

Butterflies today! And big bumblebees, and mosquitoes! A few even in the tent.

Whitefish and char in the ocean but also flounders, in numbers, both smooth and rough.

We had a big pot of fresh uguruq meat for supper tonight, courtesy of the good hunter over at the point.

Hunter report is that uguruq are fairly plentiful but there is a lot of bad ice. Not a new story for this early in the boating season. The sample of meat we had indicates healthy animals with a good layer of fat.

Some blossoms must be out this evening, but haven't had time to look for them. Surely *Pedicularis*, and our salt marsh should be beginning to sport the beautiful little *Primula borealis*, Arctic Primrose. It is our early, extremely salt tolerant, little pink blessing. The glossy green round leaves of Dwarf Birch have been out for some time and the various varieties of matt willow with their paler green, sometimes hairy leaves are also on the way. The 70° F temperatures this evening have also triggered the insect take over of the world. There is great variety and the insectivores should be having a field day!

June 11

High 70° F
Low 50° F
Clear, thunderheads
NW wind to 18

Thunder heard in Sisualik today for the first time this year.

Char and sheefish are in the ocean, few whitefish. Some poor quality driftwood landing. Ice has pretty much cleared off the beach and waves loud enough to let one know that the ocean is near developed in the afternoon.

Green foliage and insects continue to build rapidly.

It appears that herring will not spawn in our back lagoon for the second year in a row. Water temperature?

Word has come that an Emperor Goose was taken just west of the Ranger Station yesterday. It was reported to be quite fat. Though a few stray birds of this species are seen from time to time on Krusenstern (not necessarily every year), Cape Espenberg seems the northernmost point of regular breeding.

Bird migration for Spring '94 seems about over for breeding adults.

Journal

There are many bumblebees about today and there are many Red-necked Phalarope about the salt meadows. They are non breeders.

There continues to be fair uguruq hunting by those that can afford to be out. Ice in the ice pack continues to be close and fairly heavy boat traffic is developing, probably peaking this weekend.

Gull egg taking has almost completely dropped off.

We may finally get our boat in the water tomorrow or Monday.

June 12

High 70° F
Low 42° f
Clear, few clouds
NW wind to 25

A rather windy afternoon for a change. The thunder and lightning yesterday did result in a fire on a hillside just north of the Hatchery. Word today seems to indicate that the fire has died out.

Driftwood day began this morning with a steady stream of rather small scrappy wood.

Uguruq catch is slow with one or two per boat. We have had opportunity to eat some of the meat several times from friends.

We may also have picked up a few pieces of the Sealing Point Tower (Napaksak) in the driftwood today.

The ice (ocean) is out of sight from Sisualik today. That is a surprise, so quickly.

Someone said today that they had never seen so many flounders as turned up in one net haul today.

Though beluga sightings are overdue there is still hope, now that there is so much more open water for them to be in.

Greens have really popped up in the last two days but this afternoon is bad news for insects, as the strong W to NW winds have brought the temperatures down sharply.

Haven't seen a real flower yet, but there must be some.

Driftwood is the big excitement today.

And this evening, the salt marsh has not only turned green but has small points of delicate pink with the blossoms of *Primula borealis*, the Arctic Primrose

June 13

High 56° F
 Low 36° F
 Clear, clouding p.m.
 W wind 18, a.m.
 S-SW wind 15, p.m.

A graphic indication of unusual conditions this morning. There was a foaming tide line perpendicular to the beach, a mile or so west of us. The line was moving west about as fast as a leisurely walking person. West of the line the water is bright, clear, salty and cold. East of the line the water is brown with silt, filled with small sticks and debris, and is very warm. There are some fairly large scattered ice floes four or five miles offshore. The clear west-side ice water is probably only 2°C or 3°C, while the warm, fresh side may be 14°C or so. There was a fairly stiff wind blowing from the west off of the main ocean ice pack and the nearer shore scattered floes. As the cold moist air reaches the tide line, fog forms and extends in a blanket 6 or 8 feet thick over the surface of the water, all the way back east. The air is quite clear over the west cold water and the beach-land.

This is an unusual picture of a rather common water temperature contrast in Sisualik at this time of offshore ice pack. One can hardly imagine how swimming fish react to these dramatic changes. Herring and char must deal with the situation quite often. Today there were large schools of "Kivalina Char" traveling right along the gravel line in the clear water and moving east as fast as a person walking rapidly. The schools leave a high, very obvious wake, much like a beluga in shallow water. This happening is quite a sight on a shiny calm sea. The reason for the phenomena is not known.

Salmonberry plants are blooming! Quite early. They are just beginning but so is everything else.

The first *Pedicularis*, *Primula*, and *Petasites* have not been out many days. Our salmonberry crop might be early this year or might not be at all, if too many of these early blossoms get frosted.

First beluga net was set this evening. There is a rumor, unconfirmed, that some one has seen a beluga. They are way overdue again.

June 14

High 50° F
Low 40° F
Some clouds, fog
W-NW wind to 20

Another day in our series of westerlies that keep temperatures cool, Mosquitoes are out and very large fat char are moving past the beaches of Sisualik. Had the net out for only 10 minutes this morning and it caught 12 east moving char. They were mostly males and very fat. They again remind of one of the mysteries of the region. To wit, how can a char fattened in September go through 9 months of winter without feeding and then turn up in the ocean nearly as fat as they were in September? There were really a lot of char all along the beaches of Krusenstern today (the North shore of Kotzebue Sound).

There have not been many uguruq hunting boats out the last few days due to wind, fog and questionable ice conditions. The few that were out came home with good loads (three or more).

Still no confirmed beluga reports.

Though nearly all species of birds have eggs now, no newly hatched young have been observed.

One of our clan's boats headed out into the ocean to hunt today. It is a first for the season. Hope their luck is good.

Whaling feasts are on going this week.

The thorough greening of the world is almost accomplished in spite of the cool temperatures. Insect activity has been kept at a minimum by those temperatures, and that means a real explosion when temperatures and moisture happen to be just right.

June 15

High 68° F
Low 40° F
Cloudy
S-SW-NW wind to 30

Ice in sight again from Sisualik and an uguruq laying on the ground under the meat racks.

On a trip to the Point last evening to welcome relatives from Noatak, a single bright yellow poppy was noted by the trail. There is always something special about the first and the last of a plant species.

Swallows show signs of feeding a hatchling. That is not too timely, as this afternoon when our moderate wind switched to NW and suddenly up to 25-30 knots the air got very cold and insects, enough of them, may be hard to find.

We got the uguruq cut and hung and then chased driftwood all day. A good deal of "scrappy" driftwood was moving west to east right on the edge of beach waves. We made a pretty good haul. It is a lot of work though because of the softness of the beach sand before the new waves settle it.

A rumor is out that a large group of beluga were seen south of Kotzebue on the Baldwin Peninsula. Apparently none were taken, though one at least was wounded. The exact location of this happening is not yet known. If true, this is the first hint of beluga activity in Kotzebue Sound for '94.

If this NW wind continues through the night aqpiq flowers may be in trouble.

June 16

High 53° F
Low 32° F
Foggy, icy
Windy AM, calm PM

A day of real contrast. Cold, iced objects, fog, clearing, high clouds developing rain showers, sun warming and yes, then, bugs! The ground didn't freeze. It was objects above ground level that received a coat of ice this AM.

Flowers, bugs (mosquitoes) and greens doing fine this evening.

Rumors of belugas continue at distant points in both directions (Rabbit Creek west, Arctic Circle cabin south). No hint of successful catch and no sure confirmation.

Some fairly heavy "Kivalina Char" catches these last three days by others. We didn't set a net yesterday or today, not having the need.

No boats out overnight due to fog and strong winds. Many have headed out this evening. The last boats home yesterday had pretty good catches. One, up to five uguruq.

Don't know what happened in the swallow box. Yesterday they seemed to be feeding hatchlings, today after the warming, the intense flights to the mud-marsh area back flats didn't continue. Yesterday and last night were hard conditions for new hatchlings.

Journal

There were a lot of Black-legged Kittiwakes, Mew Gulls and terns on the outgoing tide line today (Sabine's Gulls too). Wonder if the temperature contrast on that line causes fry to surface or even stuns them so they are easy to catch. Wonder what kind of fry?

A flock of six to eight cranes are consistently foraging through the far reaches of our backyard.

June 17

High 58° F
Low 44° F
Cloudy, rain showers
S-SW wind to 15

A "bunch" of belugas seen between Sealing Point and the Ranger Station headed our way. This is the first confirmed beluga sighting this spring. No one saw them in Sisualik.

Very large, mostly male char still running strong. The water seems full of char, mostly fat ones. This is a rather extraordinarily fat char run in size, number and extent of range. It happens every year but not in such volume.

Maybe we are at the peak of uguruq harvest. Quite a few loaded boats in today. Our hunters just out this late afternoon.

It is a very cool evening and snow is forecast for tomorrow. Don't know how this will affect the swallows and the salmonberry blossoms.

A friend in from California today. Quite taken with our "common birds." I'm sure we'll enjoy the visit.

Swallows definitely not feeding young. They were around and active at the box and were visited by another group.

The number of Noatak campers are fewer again this year and the trend may continue if beluga and Chum Salmon continue scarce.

June 18

High 48° F
Low 37° F
Rain AM, clear PM
NW wind to 35

A very windy cool day. Our hunting crew trapped by ice against the shore at Sealing Point, with two uguruq in the boat. The marine mammal hunters that are out have reported lots of uguruq NW of Sealing Point.

With the strong winds and cold nights the early blooming salmonberry plants may be in trouble for berry production.

Swallows in and out of house in spite of strong winds and cool weather.

Waves are up to their highest point for this summer. The higher waves will leave a great 4 wheeler trail near the edge of the water.

Good fishing conditions of yesterday "gone with the wind."

Some movement of driftwood along the wave line but nothing very good.

Our visitor shortened a potentially long, windy, and cold day by sharing and prompting good, long, and interesting conversation.

June 19

High 50° F
Low 35° F
Clear, cloudy PM
W to NW light wind

Wind down some this morning. Ocean useable by boats again and there has been some coming and going, though our clan's two boats are still trapped ashore at Sealing Point by ice. We have a few chunks of ice right in front of Sisualik again.

The last net out before the wind yesterday got a number of sheefish, unwanted, with this fair trout catch. One wonders how long the multitudes of "fat" char will remain in our area. They certainly have been thick this June and exceptionally fat.

Most flowering and plant growth on hold due to very cool air temperatures this week. To our knowledge it hasn't frosted through the period though, and that means plants are doing alright but growth and development may be slowed.

Two belugas caught in Kotzebue people's net today.

Around 9:00 PM we saw numbers of belugas 300 to 2,000 yards off the beach. The first of the group in front of our camp, the back portion of the group some two miles back toward the point. It is difficult to estimate numbers in this kind of a spread of animals in choppy turbid water. There could be as few as 50 or as many as 150 or more. It was a great sight, but with the 20 K wind and waves they couldn't be heard or tracked easily. We are glad belugas have come back to Sisualik.

The strongest blooming flowers in this cool early blooming spell are, surprisingly, salmonberry plants and, not surprisingly, Arctic Primrose, *Primula borealis*.

Journal

June 20

High 46° F
Low 31° F
Cloudy, fog
Snow, sun
W to NW wind 30

Another June day with a very chilly wind and a few snow showers. Wind, waves got pretty big.

There are some hunters still stuck by unmoving ice. NW wind is forecast for tonight, so maybe the ice will let them go.

No sign of belugas yet today and no net out for fishing and no hunter boats in from the ice. Plant growth and some flowering continuing in spite of coolness; some campers did report new ice this morning around their camps. We didn't find any and those that did were at more inland "tableland" camps. We did have a few light snow showers.

Gulls have been working spawning herring in the lagoon yesterday and today. Apparently the temperatures have finally gotten suitable for them. It is very late in the unfolding of spring breakup happenings for herring spawning, but if it is indeed dependent on lagoon temperatures, the previously mentioned effect of long lasting winter overflow ice build up would explain the lateness.

The effect of a warm May and cold June, both to the end it seems, will have some readable influence on vegetation, birds and fish.

We did get our uguruq meat split up in strips today, but for water travelers it was a full day of "no go" again.

June 21

High 58° F
Low 36° F
Some clouds, sun
Light winds AM
N wind to 20 PM

The first day of summer and it feels like it, both with the warmth and the mosquitoes!

It is a fine day, with ice trapped boats finally back home to their families and a day with lots of boats headed out to the ice again.

Belugas came by again in the early AM but an unknowing boat traveling along the beach frightened them off. No take again, even from the three nets (at least) set in front of Sisualik. The only known catch is still the two taken previously.

Flowers are making a good showing and will come faster with a bit of warmer weather. First Forget-me-nots and Beach Pea blossoms, with lots of poppies and even a first few dandelions. There were at least two clumps of *Potentilla villosa* over toward the Point.

Fat trout still running. Females outnumbered males in a couple hours catch of 14 today. Egg size is near half mature size, fish silvery, uncolored, empty stomachs and high oil content.

Lots of Arctic Terns, Mew Gulls and Kittiwakes feeding on small fry in the ocean. Loons also working the ocean. Can't guess what kind of fry.

All and all it was a good day with enough late evening wind to sweep the mosquitoes away.

June 22

High 54° F
Low 38° F
Few clouds
N wind 20 AM
W-NW wind PM

Very low water in the lagoon this morning and some wind, so we skipped town again, did some more washing, and cooked the thick pieces of Uguruq meat.

Tableland has become solid green. Salt marsh and lowlands show a "two story" effect, a solid green lower level and a straw-brown upper level from last season's growth. Green will soon dominate the world. A few dots of snow remain on tablelands and a few small chunks of ice this morning were visible to seaward. This evening none could be seen from shore.

Many, many terns foraging off Sisualik today. They are mostly Arctic but there is a good smattering of Aleutians mixed in. Their characteristic difference in foraging was interesting to watch again. Their prey is quite small (much smaller than stickleback) as it can't be seen after a plunge.

Salmonberry flowers still looking fresh, though some have dropped petals and some "frostbitten" flower petals can be seen. There are only two plant with blossoms in our near tent cluster.

Journal

Warmth was developing this morning with wind off the land. Mosquitoes were ferocious! As wind switched out over the ice pack there were soon none to be seen!

An occasional butterfly when it is warm enough adds more color to the developing beauty of the landscape.

June 23

High 56° F
Low 36° F
Mostly clear
Calm AM
NW wind to 15 PM

A town boat trip, first of the year. It went well. The trip over was through shiny seas. There was a little head on chop with a few white caps on the way home.

The good weather has brought good hunting on the last ice. Our crew, two boats, took home four uguruq in a "few hour" hunt.

A report of two beluga taken today. One by net, the other by chase.

Mosquitoes out in force on the land in this good boating day.

Greens and flowers had a good day today too. Kotzebue not showing much but dandelions, that beautiful lover of dust!

Everybody busy in town. Summer is rolling in.

Another first: Kotzebue's local supply of propane is finished. There will be none available till July 1 when the first barge is due in.

Very few Noatak people at the Point this year. Only two "clan" camps with a few additional hunters from Noatak making short stays for a quick ice pack hunt.

June 24

High 70° F
Low 44° F
Cloudy
NW wind to 20

Another day of cold NW winds, but both the coolness and the moving air were welcome to keep the mosquitoes and temperatures down as we had the uguruq from last night to work. We spent all day at it and the absence of mosquitoes and blowflies was delightful.

We have apparently had some late small scale herring spawning in the lagoon.

Today was quiet as most hunters were out yesterday and had good luck and are working at home today.

A report of 6 or 8 caribou near the mouth of the Noatak on the Baldwin Peninsula side.

The two Tundra Swans that have come around together during some part of nearly everyday were here again today. These are probably not nesting birds, but more like a bonding subadult pair. The flocked non breeders are back along the marsh edge of the west Noatak Delta.

It is good meat drying weather, but delaying and inhibiting to vegetation growth and maturity.

Few fish nets have been set the last few days, and except for stray char, subadult shee and scarce whitefish, there are few useable fish in the water right now. Fat whitefish from the opposite direction (west) and the first Chum Salmon will be the next important fish news.

Bird-wise, the first molting male pintail can be expected to be flightless this week (White-fronted Geese also).

Dead, floating headless walrus would be a prized find right now too.

Quite a lot of ice in sight from Sisualik again today.

June 25

High 68° F
Low 47° F
Clear
NW wind to 29
N wind to 18, p.m.

At coffee time this morning the pleasant gentle rhythm of the sea dominated the sound world. No birds, no wind, no hum of mosquitoes but only the quiet gentle rise and ebb sound of ground swells, the signal that the ice free season has begun. You are reminded, in case it has slipped your mind, that you live very close to the open sea. The Monster has awakened! This morning it is a beautiful and peaceful sound, but it does bring memories and it does signal the unleashing of potential power. the magnitude of which can outdo any other we are likely to experience in our lifetime. It is indeed a privilege to live so close to so much potential energy, and today June 25, 1994 we are reminded of it!

Journal

First blossoms of *Pedicularis sudetica*, our marshland "lousewort," are out today and one wishes again for a more edifying common name for such a beautiful, complexly patterned, and colorful salt marsh flower.

The first blue of a Jacob's Ladder (*Polemonium* sp.) flower was also noted today.

There is no ice in sight from Sisualik today, though there were small floes visible west of the Ranger Station.

Some large boats have been far out hoping to find walrus, but we are within a few days of the close of marine mammal hunting for the season. They mostly are gone with the ice.

Net set today (for 1 hour) produced a fine char, a fine fat, E moving whitefish and 10 immature Shee. We released the Shee.

June 26

High 58° F
Low 46° F
Clear, some clouds
N-NE-E-S to
NW wind at max 20

A rather unusual Sunday. Some of our regular Sunday visitors and sharers in Sunday School are off in other directions to be with dying or sick family members. In the meantime a beluga whale managed to get caught in a neighbor's beluga net and we all turned out to cut it up and pack it off. This is the second taken in Sisualik so far and this one was shared in all directions. It was a medium- sized white lactating female. A high percentage of beluga taken in nets here are subadults (not white) or females accompanied by calves. The youngster is more likely to tangle in the net and the female then tangles seeking to help the calf. This is another favorite food that takes a hardened human heart to produce.

The last of winter browns are almost gone from the landscape. With a little rain our landscape will be a pure Irish green. Flowers continue to appear and the weather offers some hope for salmonberry flower fertilization, especially of late bloomers.

No word of a salmon catch or a dead walrus find which are the next expected events within these last few days of June.

I may have located and marked a forming *Gentianopsis detonsa* plant today.

Chives, bluebells, and *Astragalus* peas are new flowers noted today. There were also *Potentilla villosa* and *P. Egedii*.

Some flying young of Savannah Sparrow and Semi-Palmated Sandpiper about.

Our very black dark phase subadult Parasitic Jaeger becoming a camp bird.

June 27

High 48° F
Low 37° F
Cloudy, fog, drizzle
W to NW wind 25

A very cool day to "play out" again, some wet drizzle too. Absolutely no mosquitoes. Quite remarkable for the date. No blowflies either. Our last uguruq meat is drying well.

Though it is cool, some flowering of plants continue. There are many more *Pedicularis sudetica* and Paint Brush (*Castilleja caudata*) and bluebells than when their blooming was first noted.

Large waves today with no fishing opportunity.

We have enjoyed a friendly visitor in camp since last night. It is a bit chilly for the last week in June for a Californian.

There are at least five beluga nets out over here but no chance to check them yet today. Except for beluga, the season on marine mammals has closed down and there is only the processing of the last caught animals to be done.

It is green all over. Green continues to dominate the landscape and the little moisture coming down will increase that to nearly complete green.

Primula borealis has reached a probable peak, as has uguruq hunting, egg taking, char fishing and the gathering of this season's driftwood.

June 28

High 56° F
Low 32° F
Cloudy, showers
S-SW wind to 18

Report of ice offshore of Ranger Station again. Our swells quieted quickly last night as the wind dropped and the ice is the reason why.

Short net set caught us a couple of "egg laying bound" char still quite fat, but a large male was showing change of color from silvery to breeding colors.

Journal

An odd gull in our camp flock (25 birds). It is apparently a 3rd year Herring Gull. Size seem equal to the Glaucous and mantle color similar, not the lead gray of Slaty-backed. There is a good deal of black on the wing tips, apparently without "windows." It has retained a faint band on the tail. Herring Gulls are quite rare in Kotzebue Sound; probably too many Glaucous in competition for same resources.

Flowering proceeding nicely. It appears a good year for Forget-me-nots, *Sudetica*, Lousewort and *Primula borealis*.

No new beluga catches. Report from Elephant Point is, "Not catch yet," though beluga were on the scene once so far.

The Tower at Sealing Point still standing, leaning.

Bugs came out in force today for awhile as temperature climbed high enough. This in contrast to yesterday when they were down all day due to temperatures and wind.

We put away one full barrel of oil with "black meat strips" (dried Bearded Seal) today. It is the finished product of the first uguruq given us.

Our last night low temperature didn't stay there long so there doesn't seem to be any damage to vegetation.

June 29

High 56° F
Low 45° F
Cloudy, rain
SE to SW wind 18

First Chum Salmon today. Three from neighbor's, nephew's net. It is good to see and eat salmon again.

Warmer and buggy today after the sun came out. Good for vegetation. This warmer weather after cold has brought out a lot more salmonberry flowers. This late surge of flowering seems unusual and may produce a good but late crop of berries. These few days may be a peak flowering time, greater than the first peak. I don't recall that particular pattern with salmonberries before. Cranberries are reaching peak bloom now too. *Primula* just passing peak and *Oxytropis* just showing yellow.

Report of an osprey sighting near the Tower at Krusenstern today. This is a second sighting in that area in the last 10 years.

Considerable ice remains offshore between the Ranger Station and the Tower.

Uguruq hunting has ended in this part of the Sound and probably throughout Kotzebue Sound.

No beluga activity has been noted these last couple of days.

Water level in the lagoon at its highest level this season today, reflecting southerly winds along the coast. Some nesting birds can be flooded out before or just after hatching and suffer predation from gulls and terns, especially Aleutian Terns.

First flowering of *Mertensia maritima* is several days later than *M. paniculata*.

June 30

High 60° F
Low 44° F
Clear, few clouds
Light winds

The end of a cool June. There is still much ice on the ocean between the Ranger Station and Sealing Point. There is none in sight from Sisualik and there are no longer any snowbanks visible on our lowlands or tablelands, though some remain in the higher mountains.

A small beluga taken in a net west of the Ranger Station today. It is a tan colored yearling.

Salmon being caught in small numbers at several camps.

A two hour set of 4 ½ inch mesh table net today yielded 9 large fat Alaska Whitefish (E moving fish leaving Krusenstern waterway system) and 12 subadult Sheefish., a few flounders of both species and two sculpins.

Whitefish are now leaving the Krusenstern system and the sooner the outlet closes in July the better it will be for September fishing.

The salmonberry flowers that are still out, half of them, have a good chance to produce a berry with the lights winds, active insects and warm weather.

Voles and Ground Squirrels show signs of increasing around the camp.

Pintails and Wigeon conspicuous by their absence. Some are into flight feather molt by now and most of the rest soon will be.

June beluga harvest totals: six, all but one in nets. Three adults (1 male, one lactating female) and three subadults. No take yet reported from Elephant Point though they made one drive.

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JULY

July 1

High 74° F
Low 56° F
Sun and clouds
NE-E-SE wind to 20

A very warm day to start off the month. We haven't seen the likes of it since mid June.

Salmon making a good early showing and fat whitefish continue their movement out of the Krusenstern system on their way back east.

Our last barrel of blubber is a little slow making oil. Today's warmth should speed it along. We need it to cover the dried meat from the second uguruq which is temporarily in the freezer (so it won't get too hard) till the oil is available.

Much ice is still offshore from Akulaaq to Sealing Point and today's wind pattern may yet bring it closer to Sisualik.

There is a report of some boats bringing uguruq into Kotzebue last night. There should be many uguruq and Spotted Seals and a chance for walrus in this last ice. There is not much interest among potential hunters on this side, as they have met their oil requirements by earlier hunts and the commercial chum season is only 10 days off.

In spite of strong midday winds, the warmth and nightly calming is good for late salmonberry flowers.

Local Semi-palmated Sandpipers, Savannah Sparrows, and Lapland Longspurs have young out. Probably some gulls too, those that didn't have their first eggs taken.

Swallows seem to be feeding young again. Lots to feed them today.

The last beluga catch we heard of from near the Ranger Station turned out to be a "tan" yearling and not a black newborn.

Also a couple of bear stories from the past week have come out of Jones Camp. One large and one smaller on different days came near the camp but were chased by loose puppies. Nothing bothered, but left the camp people a bit jumpy. Makes us wonder how our winter house/camp is all by itself up there.

July 2

High 65° F
Low 44° F
Cloudy
NW wind to 25

Nice and cool and no mosquitoes. How pleasant! Wind off of the ice again. There is still some in sight from shore in the vicinity of the tower.

A beluga carcass found west of Sealing Point. It is reported to have no "outer skin" (maktak) on it. This kind of a find at this particular time is unusual and when the animal died is a bit of a mystery.

Salmon catches continue more widespread.

Many camp people are into town for Fourth of July activities.

Our landscape is green as it is supposed to be by July 2, but you are never sure it will be when June is cool. Wonder is, it always has been.

Pintails and Wigeon are totally absent from our marshlands. There are a lot of flightless birds somewhere.

A walrus was taken today by Kivalina hunters not far from Sealing Point.

We have not had swells on the ocean for several days, though we have had some fairly strong onshore winds. Ice on the ocean would account for this.

Several seals were seen in Sisualik waters today.

Fog seems to be rolling in this late PM.

July 3

High 48° F
Low 42° F
Cloudy
SW wind 10

A quiet day, even in regards to the weather. Many camp people are in town awaiting the activities of the 4th tomorrow.

A net set by a neighbor was catching salmon right along. The early movement of Chum Salmon looks promising. I thought the forming *Elymus* grass heads were not going to be on time, but I needn't have worried. You must search a bit but there are

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many heads poking out of this plants' sheathes. The traditions continue, the first salmon come with the first grain heads of our vigorous beach grass.

It turns out that the drifted-in beluga mentioned found west of Sealing Point yesterday was a carcass stripped of the outer skin (Maktak) and then discarded. This is not an unusual procedure since the beluga carcass is of little value and can be a potential problem to a hunter that no longer keeps dogs.

There was a flock of six Northern Pintails on a pond behind Greene's house today. It seems too early for returning molters but we haven't seen Pintails in our location for more than 10 days. In some years of early snow melt, first molters (young unmolted males) might reach a flightless state in mid June. Usually none can be found flightless until the last week of the month.

Several marine mammal rumors are out that are probably true. A walrus taken several miles northwest of Sealing Point, two boats with uguruq straight out and in to Kotzebue and Cape Blossom. Ice is reported closer to the beach west of the Ranger Station today, due to our steady and light SW winds.

July 4

High 58° F
Low 42° F
Cloudy
E wind to 18

Ice in plain sight to the SW since last night. This is closer than it has been for many days. Kivalina boats are hunting this way since they have gotten few uguruq closer to home. Walrus too maybe. A very surprising lack of boat hunting into the ice from Kotzebue, Sisualik, and Noatak.

Later today news came that kind of contradicts the above. One local boat came in with three uguruq this morning. Another dropped one off at an elder's camp west of the Ranger Station and a third large boat headed out from here into the ice pack (which is very close now). Some hunks of ice are closing in on a beluga net set offshore just west of us. If wind follows its forecast plan and switches to SW, we will have much ice on the beach.

Salmon running with much ice close is somewhat unusual, but not too rare at this date. First commercial fishers meeting tomorrow.

There are a lot of nesting terns just east of Krusenstern Tower.

After a little wind and rain this afternoon the winds calmed, sky cleared, and we had a beautiful warm, buggy evening, with ice coming ever closer.

The last boat out in the ice today went home skunked. They saw only small seals, no uguruq.

No hint of beluga in the area these last few good days.

July 5

High 55° F
Low 46° F
Cloudy, rain
SE-S-W wind to 20

Ice on the beach in Sisualik again and a report that due to ice between here and Nome, the first fuel barge of the year can't get into Kotzebue. Some large bergs got into the most western beluga net.

There is a strong run of Pink (Humpback) Salmon on. An hour set this morning with 4 1/2" mesh took 20 bright silver, fresh run fish. They are small for a salmon though and 4 1/2" fits them well. We use 6" mesh for Kotzebue chums.

A cow moose with twin calves passed through near camps west of the Ranger Station today. Moose have not made much of showing on the beach this Summer. It is good to hear of one with two calves!

Some folks from Buckland who are around, report that there is still no beluga catch at Elephant Point.

No hunters out from this side of the Sound today. Last ones out yesterday reported no seals; close available ice is mashed up, with no large floes.

We have several Parasitic Jaegers working our area here for young birds. Two dark phase birds work as partners and are pretty efficient predators. One does have to work at being objective when observing the techniques of jaegers and wolves.

The rain is timely for our near-dry ground. There was light rain most of the day.

There are still many large wide open salmonberry flowers and the pinkish white blossoms of *Ledum palustris* (Labrador Tea) are spectacular this year. They are at peak right now, along with cranberry blossoms.

July 6

High 58° F
Low 46° F
Cloudy, rain
S-SW wind to 25

High marine water. Some flooding of grassy areas.

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On an island in the lagoon directly behind camp there is a Glaucous Gull sitting on a nest. (Jonathan? Mate?) It is 10:00 a.m. and water level is only 6 inches away from flooding out the nest. The bird is sitting there. Is it having thoughts? Wonder what they might be. Any creature that has been on "flood watch" knows the feeling.

Orchid blooming in the back yard this morning too. Several clumps of bright yellow in a green background make this curious little *Platanthera obtusata* stand out more than its characteristics usually permit.

Well it is 5:00 p.m. now and an hour or so ago the wind dropped off and flood waters began to recede and the Glaucous Gull nearly sitting in the water on her egg(s) began to appear high and dry again from here. That was close!

Ice floes (bergs) still in sight from Sisualik and waves ceased as soon as the wind died, a sure sign that the pack ice break water between us and the open Sound is quite broad.

Rather steady light rain showers have done our ground-vegetation a world of good. Insects too! They are out this evening.

First commercial salmon opening will come next Monday the 11th. Mixed results with Chum Salmon farther south give a little more hope locally than last year. Prices probably won't be more than last.

A short net set this evening produced 10 pinks.

July 7

High 50° F
Low 42° F
Cloudy, rain, flood
S-SW wind 18

It is early (or late) in the season for flood conditions but we have them.

If the gull with the island nest hasn't hatched it probably won't now. The marine waters have raised another foot above yesterday's high and all that is showing of the island is a few grass blades. The Gull was still in those few grasses.

Waves are about $\frac{3}{4}$ of the way up the beach. Ice is still present from the Ranger Station west. Rain is quite heavy this AM.

Water continued to rise until mid-afternoon when it began to drop rapidly. There is no Glaucous Gull on the island this evening. We'll probably never know the whole story. The island was completely covered for several hours this afternoon.

As the wind calmed we had new ice floes in sight a half mile offshore. The water between here and there is very murky and full of small detritus.

Three cranes are stalking around in the backyard as the water runs out.

Witnessed an attack by a Black Turnstone on a Short-eared Owl today on a short trip up the beach. The Turnstone has young or eggs near the site.

Quite a bit of small driftwood is still available on high water line.

There were even a few flakes of snow today, with some light hail.

July 8

High 58° F
Low 38° F
Cloudy, clearing
Calm

A town trip on shiny seas both ways! What a beautiful day for boating with a small boat. It couldn't have been better. Not many days during the ice free portion of the year turn out so.

No dust in town! Only a pleasant dampness, warm sun and yellow, yellow flowers - dandelions.

The high water that cost the nesting Glaucous Gull so dearly night before last, made our trip easy. One can travel in straight lines without regard to bars.

Town folks continue to bear more than their share of the burdens of community living. The benefits of community living must be very valuable to compensate for the burdens borne.

Swallows working overtime hauling bugs. Flying time for young may not be far off. There may even be only one adult. These birds have had a hard spring but seem to be coping.

Ice floes were closer to the front of our tent today than they have been for 10 days. They were even closer when we came home from town.

There are at least a couple of boats out hunting the ice yet, but apparently not with much luck.

The first fuel and propane barge is still not in because of ice between here and Nome. They are 7 days overdue now.

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ADF& G put out marker buoys today, not at Anigaaq though.

July 9

High 52° F
Low 44° F
Cloudy, wet AM
Clearing, fog patches

Our ground got a good misty watering through the night and up till noon today. And that without wind. Wind picked up suddenly in the afternoon from the West and NW.

Ice was still in sight this morning but the high rough-looking chunks are breaking up and are disintegrating.

Set the table net for awhile this morning and got two large fat whitefish and eight Pink Salmon.

What may be the last uguruq of the season was brought in yesterday; most beluga nets have been taken out of the water. The owners anticipating the opening of the commercial chum salmon season, Monday at 6 PM.

Very hard to read our swallow situation. There were five around today, but none seemed to be the young from our box. After the group left at least some feeding was still going on in the box by at least one adult. Something like this happens every year and it is not clear whether these visiting groups are this year's hatchlings from some other nest site, or a group of non nesters for this year. They seem to help out while they are around and none show the real dull coloration of fledglings.

Temperatures are back to very cool again tonight with wind off the ice pack again.

July 10

High 58° F
Low 40° F
Cloudy, sun, rain
NE to SE wind 20

Started off a rather breezy day without rain, but by late afternoon rain had developed. Our ground and vegetation getting all the rain it can use and growth this last few days reflects it. Sourdock picking should be getting good. Will soon have to be looking for ours.

The biggest thing on today's horizon is the opening of the commercial chum fishery at 6:00 PM tomorrow. That, along with ocean ice still on the west boundary and the

sun setting for awhile last night, the first sunset since June 2, makes the coming week something to anticipate.

A King Salmon size mesh net was set overnight next door. The catch was several big flounders and a baby seal, no King Salmon.

The water is fairly full of Pink Salmon (Humpies), just the right size to hang up in a 4 ½" mesh net, not the 7" or 7 ½" mesh of a King Salmon net. Chum catches may be pretty good for the opening period as water level and winds have been good leading into the period. Not much has been said about opening price. Some say that \$.15 a lb was mentioned at the meeting. It may be difficult for some in the fishery to pay for their gas at that rate.

No new beluga news and no new belugas, even from Elephant Point.

New, lately blooming plants are sunflower, *Senecio pseudo-Arnica* and *Epilobium latifolium*. There are also some *Tripleurospermum phaeocephalum* and *Chrysanthemum arcticum*.

We will miss our midnight sun (at 3:00 AM). Dumbo!!!

July 11

High 56° F
Low 42° F
Cloudy, rain
Calm

A lot of rain fell in the last 24 hours. We have all our storage containers full and it has probably not finished yet.

The 1994 Commercial Chum Season opened at 6 this evening and a quieter opening was never seen in Sisualik. There have been only two sets of gear set. Fishermen may be on strike, but we haven't heard that. What we did hear was that the opening price per pound might be \$.15, that is enough to cause a strike with gasoline over \$2.00 a gallon.

A strange bird passed through today. A neighbor reported it as a young eagle that was quite tame and landing on the ground along the ATV trail that passes close to his door. Later in the day I was running the dog with the four wheeler down our trail. Wouldn't you know it? Because of the steady rain I didn't take my binocs. A ¼ mile out from camp I noticed a bird on an owl trap pole. Yep, you guessed it! It was the bird and me without glasses. It was quite uniformly dark, obviously larger than a Common Raven. It flew flapping much like a raven with shorter tail and broader wings. The wings seemed broad enough but not long enough for an eagle. It landed on an old tent frame farther along the trail and was mobbed by some terns and Semi-

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palmated Sandpipers. I approached to 150 yards without its flying and had a perfect chance to glass it, but no glasses! Oh, woe is me! However, it was a raptor and was bigger than our Common Raven so eagle it must be if it is from this part of the world.

First blooming of *Senecio lugens* today and our camp white fireweed is just about to bloom. Maybe tomorrow or the next day. Our yellow *Oxytropis* is at peak blooming splendor. There are not so many plants as before due to high density of Ground Squirrels. This is a favorite forage plant for them.

Ice is finally disappearing from the ocean. A boat that made a trip to Sealing Point reports only a few small floes down that way and we have not seen ice on the horizon here at Sisualik for two days now. We have lost sunlight very rapidly in the last two days. More than 20 minutes a day. I'm glad it doesn't continue at that rate.

Three bears seen from west of Sealing Point today. The first noted this season.

July 12

High 50° F
Low 50° F
Cloudy, rain
NW wind to 15

The light steady rain came on again unexpectedly after noon. The morning was dry and cool with the sun promising a warm afternoon. Rain and clouds instead.

Sad story of a wayward Polar Bear in Nome today. It apparently missed the last ice north and was wandering around on land in the Nome area. A warning to campers on the beach made the news media, which caused "authorities" to kill the bear before it mingled, or rather, they mingled with the bear and made shooting the bear dangerous to people. Polar Bears on land in the Norton and Kotzebue Sound areas are rare but regular, one every 20 years or so.

Pink Salmon still running well but that was all that was in the table net today. Some are getting fresh water marks with characteristic "humps" on the males. Whitefish and Chum Salmon very absent from the 4 ½" mesh.

Some flocking of shorebirds about (Western Sandpipers mostly). Some Semi-palmated flying yet.

The "large dark bird" spoken of yesterday was seen again today near last fall's old walrus bones. I haven't seen the bird with binocs yet but it probably is a Golden Eagle. Its actions are very strange. Maybe we will find out more as time passes.

The closing of the first commercial chum opening doesn't seem to have sparked much excitement, though the buying price increased to 22 cents a pound from the starting 15 cents/pound.

Ice still in sight from Sealing Point only. Did we say something about a long summer back in May??

July 13

High 56° F
Low 44° F
Fog a.m., clearing
NW wind to 15

A nice day, but cool. There is much ice just offshore and in sight of Sisualik again! There is also a crane-barge in sight, in the anchorage used by sea vessels nine miles or so from Kotzebue. It appears that the first fuel barge of the year has finally gotten through the ice, 10 days late.

Most of the flounders in Kotzebue Sound managed to get in our table net in a short two hour set this morning, quite a load of three different species. It also had two very fat whitefish and a single Pink Salmon.

The ice back in Sisualik was a surprise.

The lack of insects today is probably due to coolness, but we dare to hope that both mosquitoes and blowflies have peaked and will not be back in such great numbers.

There are a number of pretty yellow patches back through our salt marsh area. The Yellow Paintbrush (*Castilleja caudata*) is having a very good year and is probably at peak development right now, as our yellow *Oxytropis* are.

A large group of caribou reported by a passing boat 6 or 7 miles NW of Sealing Point. That is unusual news for this date.

There were only 18 permit holders out for the first fishing period (out of more than 200). CPU was on par with previous year's first period catches. Average price was 18 cent a pound.

Elymus grain heads are out all over and already as high as last year's in places. Vegetation growth is rather phenomenal after the several days of rain. Grain heads are just beginning to produce pollen.

July 14

High 68° F
Low 45° F
Clear, dry
SE wind to 20

Finally a day with a few hours that were uncomfortably warm, out in the sun.

A great look at the eagle today, with binocs. It was sitting on the beach several hundred yards from the end of the Glaucous Gull flock. It flew up to grass edge bank. On being approached it flew low to the ground out to the marshlands and landed. Then as I moved up the bank it passed over water and landed on the bank across the slough. It has a lot of light brown on the back and very yellow-orange feet. There seems to be no white in the tail and have not had a chance to see the under wing. It seems an adult bird, possibly in a state of molt or some disturbance of feathers that gives too much light color to the dark brown of back and neck. Its actions are abnormal, incomparable to anything we have seen before, in 46 years. No high soaring hunting. It acts more like a Northern Harrier in its observed actions. It seems to have fed on some local marine mammal carcasses.

More boats fishing in this second chum opening. Our catch was Pinks only today, 8.

Salmonberry flowers gone and good percentage of sepals closed for berry production. We may have another good year for berries.

July 15

High 74° F
Low 63° F
Clear, thunderheads
Light winds

A warm and somewhat buggy day.

A new Japanese friend in camp since yesterday. We had a very lot of good conversation.

The eagle is still around, several hundred yards from camp. When it is approached it flies inland less than 1/4 mile and eventually comes back to the beach. Did get to see some of the wing (under) surface this time and there is some white, so it may be a subadult bird, but it certainly seems to lack the amount of white expected in a juvenile Golden Eagle. The wing's top surface is very dark on the outer (primaries) 1/4 length. The back has the lighter blotches mentioned yesterday. Can't figure why this bird has taken up residence between camps here on the beach. The population of Ground Squirrels is high here and may be an attraction but I hadn't realized that they might hunt squirrels by walking around!

No catch of Chum Salmon in subsistence net from yesterday and last night. We set 4 ½" mesh net and got six Pink Salmon rather quickly.

Ice and fuel barge still in sight S and SW of here.

July 16

High 80° F
Low 58° F
Clouds, thunderstorm
SW-W wind to 18

Ice still close offshore with continued light winds onshore. Right now we appreciate the coolness.

The eagle is still here, apparently using a technique new to us for hunting Ground Squirrels.

The second chum opening pretty slow. The run does not seem to be building steadily, but the presence of ice in the sea may be a factor.

There is a report of a single beluga seen in Sisualik last night close to the beach, and it was hit but not recovered. If it did die we may recover it this week.

We finally did get a nice big male Chum Salmon in our new little salmon net.

There was a very strong thunder-lightning-rain storm for two hours this PM. Vegetation growth extreme due to moisture and heat together.

This was a real "changeable" day! Extremes! Heat-cold-wind-calm-insects lots-insects none.

July 17

High 68° F
Low 60° F
Cloudy, fog
W wind to 10

The Gentian plant located early this month and marked has turned out to be *Gentianopsis detonsa* and there are many plants in the same location. There are none blooming, but plants are tall, above grasses, with terminal bud showing plainly but green. This location had no plants last year but many two years ago. It looks like a good year for this plant! Yea, yea! What a gem of a marshland flower!

First Iris of the year in full bloom today in Sisualik. No Grass-of-Parnassus, *Lomatogonium rotatum* or *Saussurea* yet.

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Blankets of pale yellow are over the marsh yet, the result of a good year for *Castilleja caudata*.

Most flowers of *Pedicularis sudetica* faded and dried. *Primula* likewise, though some fresh flowers remain. *Elymus* beginning to release pollen.

Ice still in sight.

No eagle today.

"Water midges" (*Chironomidae*) making the salt marsh grasses hummm!

It is such a good thing to know that in a few days there will be many blossoms of the rare, mysterious *G. detonsa* plant in Sisualik. Their period of glory will last only 7 to 10 days. Then one must wait another full year for a possible repeat performance. Time is such a "fetter"!

Many flowering *Gentiana prostrata* today! The Gentians are making a show. There are also Grass-of-Parnassus buds showing and the white *Epilobium latifolium* buds have probably opened today.

July 18

High 62° F
Low 50° F
Few clouds
NW wind to 20

What was starting to be too warm of day turned out to be a pleasantly breezy one.

The swallow box residents are out and gone. No real reading of total production. One weak flying young was noted as it left the clothesline and landed in the grasses attended by at least one adult. There probably was a second but no chance to confirm.

Jonathan is enjoying being free of the pestering wallows when he settles on the roof of their box. It is interesting that the tiny Tree Swallows were able to reach flight stage with the great predatory "Bhurgermeister Gull" standing only inches from their intricately constructed cradle. Jonathan was probably not designed to be a swallow babysitter but that is the way it went this year in the continuing saga of Sisualik.

Iris quickly making a good showing with our largest flower. They are beautiful!

Also first *Saussurea* flowering noted today.

No salmon in the salmon net today.

Eagle was seen east of us (on the Spit) yesterday.

July 19

High 62° F
Low 43° f
Fog till late PM, sun
SW wind 15

Chum Salmon today! Didn't have the net set overnight and when I set it after coffee this morning, fine large Chum Salmon began hitting the very short 6" mesh net. They kept at it pretty steady till fog lifted and current changed. Haven't had such a good "push pole" net catch of chums for years. So went a whole day working salmon for a change. Some filleted and cut for freezer bags, a few whole, one bucket of salt fish and some cut and hung for drying. It is interesting that this could happen during an open commercial period in between the "3 football field length" commercial nets. It must have been a good period for the commercial boys. After they pulled up at 6 p.m., boats traveling west from Sisualik reported a great number of salmon passed the boundary waters, headed for Sisualik in the clear shiny waters.

A great day today. The second beaver in 46 years was swimming down (east to west) Sisualik Spit.

Sun got very warm after fog cleared and almost no mosquitoes.

Slight swells and icebergs still in sight from Sisualik.

Missing the swallows today. Tough little birds to produce a new swallow or two under such stress. Probably won't see them till next May.

July 20

High 66° F
Low 45° F
Cloudy, light rain
SW to NW wind 18

A surprise this morning, early. Very high water and very large swells. Things left on the beach after yesterday's salmon catch were already being scattered around. After catching up with them, had to start the four wheeler to pull the boat up out of the surf. Water level rose in the lagoon to flood stage and waves nearly reached grass edge on the beach. One boat at the Point swamped and everybody turned out to get it out of danger. Boat and engine were saved, but may be some damage to both.

First flowering of Grass-of-Parnassus today. That leaves only *G. detonsa*, *Lomatogonium* and *Epilobium angustifolium* that haven't flowered here yet.

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We do still have ice in sight here and down through Sealing Pt. A very cool wind off of it.

No eagle, no swallows.

We are glad again that water receded before topping the bank. It sure came up and was down quick.

Both Sisualik patches of white-petaled *Epilobium latifolium* are now in bloom. (At the Point and at camp here.) I have not yet seen a blossom on the many *Epilobium angustifolium*. A clear difference in flowering time of plants of the same genera.

July 21

High 62° F
Low 43° F
Some clouds
Light winds

Visitor day. Lots! Some from California, some from the Virgin Islands. Also a quick town trip and a long afternoon of conversation and eating.

A few icebergs still in sight.

Rather few bugs for such a nice day; perhaps this year's worse bug days have passed.

Evidence of a rapidly increasing vole population.

Lots of young passerines around but very few sandpipers. Semi-palmated may be gone already. Some flocks of Western Sandpipers showing around.

Fish numbers in this area (for Chum fishery) don't seem exceptional as this fishing period gets under way. Very little excitement.

There are sleeping tents out and around the place this evening.

July 22

High 61° F
Low 52° F
Cloudy, rain
SE-S wind to 18

Rain became quite steady in early PM and continued through the evening.

High marine waters again. Ice pack still offshore a short distance SW of here.

Salmon catch very light today with short subsistence net amongst the huge commercial nets. Commercial nets might have done real well.

Epilobium latifolium patches at Point are at peak bloom and the two groups of white petaled flowers at the Point are too. Our two tent-site plants of this kind are also blooming. The plant growth of these two plants is reduced from previous years. Reasons unknown.

Our visitors had a good and busy day learning to fish - our style - and eating several times - our style - (whitefish, salmon, uguruq, caribou, moose, black & blue berries), with their contributions of tomatoes, cantaloupe, avocado, celery, cucumber, tangerines and bananas. Kind of a feast day today, just in celebration of being with old friends.

Few insects today.

Three nice fat whitefish to cook, fresh!

July 23

High 56° F
Low 54° F
Cloudy, rain
SE-S wind to 25

Gentianopsis detonsa day! There are many plants and today for the first time, the purple-blue of the yet-closed petals stand out against their green background. The petals of some will open tomorrow if the sun comes out, exposing pistil and anthers in a funnel. Nearly a year of waiting has gone by. Is it the waiting that makes this flower and plant such a treasure to me? Anyway, the waiting has been worth it. It is such a beautiful, delicate, rare, mysterious plant, that the privilege of having them grow naturally in our backyard is rather overwhelming. There are apparently many plants this year and that may reflect the warm May that we had this year, since there seems to be a connection between early warmth and good Gentian years, probably related to germination.

No fishing today due to rough water.

Continued moisture and warmth promotes more plant development. Barring early frosts, we may have a spectacular vegetation harvest for 1994.

There is much pack ice still in the ocean offshore at the Ranger Station site. One negative effect from this unusual condition is that it acts as a breakwater that prevents the closure of the outlets of the fishing lagoons.

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July 24

High 64° F
Low 54° F
Clearing and warm
Light winds

A beautiful warm dry day. A real treat after the wet and coolness of yesterday.

It was a great Gentian day, really the first great numbers day, though first *Gentianopsis detonsa* flowers were seen yesterday. Today many were unfurled and the brilliant near florescent corollas were beautiful!

Another surprise today were "beds" of *Gentiana prostrata*. Little exploding blue arcs of the brightest blue. There are many more plants and flowers than in most years.

Also today, the first flowering *Gentiana tenella* was noted, as well as the first local flowering of Tall Fireweed (*Epilobium angustifolium*)

Grass-of-Parnassus flowers are more common today, though peak is far off.

Have not seen either *Gentiana propinqua* or *Lomatogonium rotatum*, yet though many *L. rotatum* are growing but have not yet bloomed. This plant will be our last plant to come into flower. Apparently the *G. propinqua* is having a bad year.

Our guests from California have continued fishing today. The catch is rather poor. A few whitefish, humpies and a trout.

Finally saw a single Northern Pintail today. Haven't seen one for a long time.

July 25

High 68° F
Low 54° F
Some clouds, sun
E wind to 15, a.m.
Calm p.m.

A very beautiful warm summer day with few mosquitoes.

The swallows are gone, our visitors with kids left this evening and now Jonathan, who has been pretty shy with all the new faces in camp, is boldly claiming his ownership of the Uhl Sisualik camp (amongst fellow gulls), much as the old grandmother dog called Girl-Girl does. They are very jealous in their ownership ties amongst their own kind.

Yesterday and today have been ideal Gentian days (warm days, damp nights). Peak bloom is close at hand and I have not, because of visitors, been able to check

"backyard" area for '94 production. It seems to be a pretty favorable year for this beautiful plant. Maybe tomorrow will give time for a nearby survey.

Beach fishing for salmon pretty slow. Only two overnight.

A strange happening among fish buyers in Kotzebue at the opening of this period. May give more details when facts are more available.

A lone bull musk-ox reported around Sealing Point lagoon today and a first "this summer" Snowy Owl in the same area.

July 26

High 78° F
Low 52° F
Clear
W wind to 18

A real spectacular show of flower blossom in Sisualik today and though a summer case of flu has gotten at most all of us, I was able to do a quick survey of our backyard for Gentians.

There was a good number (100's) of *Gentianopsis detonsa*. More than last year, but fewer than past best years. Today, with the bright warm sun, they were all "funnel wide open." There was great opportunity for pollination today. There were many "midges" (Chironomid?) in the marsh grasses and around the flowers. *G. detonsa* are near peak.

Whatever part color plays in attracting insects to pollinate, there are three blue-purple flowers in the salt marsh to compete for insect attention. *Saussurea* at wettest level, *Gentiana* sp. at mid point between wet and dry, and Iris and Gentians at level just below *Empetrum* mat. Seed production should be extremely good for *G. detonsa* this year. They are very beautiful right now with near florescent purple-blue funnel-like flowers. The "blues" are mostly at different elevation levels so there is little competition.

First general blooming of *Lomatogonium rotatum* and finally a few marsh saxifrage (yellow) flowers as fireweed begins to blaze in color. A remarkable day on the Spit for weather and beautiful vegetation.

A lone musk-ox reported passing first to western Sisualik camps, moving East.

Found a number of blooming *Gentiana propinqua* today. They are not present in all their past habitat this year. The other gentian species are having a good year.

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One good sized (7 lbs) female Red Salmon was in the short 6" table net this morning. It is the first Red we have taken this year and there were no other salmon in the net.

A single swallow dropped by today but didn't stay long.

July 27

High 72° F
Low 53° F
Clear, cloudy p.m.
N-NW wind 15, calm

Another warm day with light winds and not a good time for flu again, but hopefully symptoms are light and will fall away quickly.

Visitors again today, and some good conversation.

Good news for commercial fishermen. Two hour periods ahead with few participating permit holders and a good age component of fish in the building run, with promise of \$.30/lb fish.

Salmon continue to cavort and jump in the shiny water from Sealing Point to the Ranger Station. Those waters are just outside of the fishing boundaries.

Gentians are at peak performance. There is a good number of very healthy looking *Gentianopsis detonsa* on Carrie's and Greene's allotments. They are, for the most part, on plots noted to have plants in other recent year. Numbers are high, but not as high as the density of a few years back. One new plot noted this year, close to and directly behind Greene's house, on a recent salt burn zone. Few other marsh plants have yet grown back. It is rather typical of this plant to be found in that kind of zone where old plant communities have been wiped out and re-establishment has begun. Plots of relatively little competition and apparently seeded by flood deposited seed.

Many young passerines about: Longspurs and Savannah Sparrows.

July 28

High 70° F
Low 62° F
Cloudy, rain showers
N-SW light winds

The Weather Bureau thought we might make a record high today, but rather heavy afternoon cloud cover prevented that. It was a rather uncomfortably hot and sticky day.

Marine waters very quiet and fishermen may be having a good first 36 hour period. Salmon continue to jump and show on the surface west of here. The area offshore of

Kivalina, south to the Ranger Station, may be part of an outer milling area for Kotzebue Sound Chum Salmon as their metabolism is altered to accommodate their final run up freshwater systems to deposit their eggs.

Less than 100 permit holders fished last period. With few fishers there is a chance that some will have a good dollar season.

Iris maybe at peak bloom today. Gentians not open due to somber cloud cover.

One lone duckling on the trail today. Downy young. No mother, no brothers and sisters. It appeared to be a N. Pintail.

Bears on the beach again. Several sightings this week at Sealing Point to Ranger Station. A sow with two cubs and a lone large bear are descriptions heard so far. There are few or no large dead marine mammals on the beaches so far this year, partly due to late pack ice that has finally finished just a few days ago.

July 29

High 68° F
Low 55° F
Fog, drizzle, clearing
NW wind to 15

Finally a trip to the Inland Lake for Sourdock. Pretty late this year for a first. Managed to fill the gunny sack, 35-40 lbs but that lake is continuing a downward trend in productivity. Grass gradually crowds out the Sourdock. Probably should check out some other lakes. This one has produced well for 5 years now.

A sad part of the trip, not one salmonberry to be seen in nearly 5 miles of overland walk. Two years ago salmonberries were thick on that trail and I had to walk up and pick a huge patch by the lake. This year seems a complete failure in that zone and several other well known salmonberry picking areas have been reported as failures.

There are some good looking blueberries. They are large and white yet, though some are starting to turn blue.

Our blackberry crop looks good. If there are truly no salmonberries everywhere, another trip for sourdock will be prudent. Mixtures of sourdock, blackberries and blueberries are favorite dishes and will replace the missing Salmonberries in this winter diet.

A number of musk-ox feeding near the camps just west of the Ranger Station today.

A well used bear trail on Akulaaq Lagoon north side and a dead uguruq not far along the ocean beach from it.

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There are also dead salmon on the lagoon edge, discards from commercial nets. Bears and people will mix again soon. A large one was seen from cabin window last night west of the Ranger Station (near where musk-ox were seen today)

Thirty molting American Wigeon and one Greater Scaup family were in the Sourdock Lake with several young Glaucous Gulls. No Loon this year and no Pintail broods.

Mosquitoes were not bad at the lake but to and from they were bad enough. A good NW breeze was appreciated.

Commercial fishing effort is quite a circus this year and the play continued through this period, with only one part time buyer that has to shut down every few hours to let ice machine catch up.

No salmonberries! Oh my! I suppose that is to be expected with the two back to back bumper crops of the past two years.

July 30

High 74° F
Low 50° F
Clouds, sun, warm
Light winds

Peak local *Gentianopsis detonsa* day. A few are fading already but most are bright, luminescent and as wide open as they ever get. There are many insects among them so it seems this might be a great seed producing year for this rare and mysterious species.

The place with hundreds (1,000's) in a small plot had no plants last year but the year before they were as thick as now. Some this year are at a higher level (into *Elymus*) than at that time. They are very healthy-looking, robust and there are many flowers to most individual plants, with relatively few "dwarf" plants. It seems likely that the very warm May brought on germination and brings in a time of much greater production this year than last.

Thirteen musk-ox reported in a group in the hills behind Salluq camp yesterday and today. It has been awhile since a group that large has been on this E, NE side of Sealing Pt.

Rather heavy fish waste within the just finished commercial fishery. Problems may be bad.

The cooked finished product of the sourdock sack was two 5 gallon buckets filled to $\frac{3}{4}$ to allow room for fermentation.

July 31

High 71° F
Low 64° F
Cloudy, rain
SE wind to 30

A pleasant morning with a warm wind, but excessive rain and wind began by 2:00 pm. All the beautiful quietness and tranquility of the salt marsh yesterday is gone this afternoon.

The summer "Day of Glory" for *Gentianopsis detonsa* may have been yesterday. The wind and rain this afternoon will have some effect on the fragile plant with long stems and top heavy bud, flower and seed case. It appears that in wet years like this, the full flower mode in this plant may last longer than in a dry year. We have a perfect contrast in this year and last.

Iris and *G. detonsa* are at peak. Tall Fireweed are approaching peak and Grass-of-Parnassus and Star Gentian have a way to go before peak. *Gentiana propinqua* are also probably at peak. They are rather scarce locally but in preferred places they are more numerous than first noted.

Flying geese and N. Pintail are back on the Noatak Delta in numbers, their flight feather molt complete.

A real switch this year from worry about not enough fish to too many to handle!

First ripe Salmonberries for dinner today from the Noatak Delta.

CAPE KRUSENSTERN JOURNAL

AUGUST

August 1

High 64° F
Low 56° F
Cloudy, windy, dry
SE -S wind 35

A very warm windy day with high water.

There was a 6-hour commercial chum opening today but most of the waters were unfishable due to high winds and waves. That is the shortest opening in the history of the fishery. The time was fixed by the lone processor in Anchorage who feared being swamped with too much fish. The salmon industry across the State has had a remarkably odd year. It will take awhile to put it all together.

We have flood waters to our rear today and after leveling off and dropping a bit, it has come back up again and risen higher. Heavy rains in local watersheds combined with high marine waters due to south winds make the flood waters. Waves are only halfway up the beach until winds switch to SW. Water level in the salt marsh has reached zones of flowering *G. detonsa*. Don't know the effect this will have on mature seed development.

Large flock of Northern Pintail (40) in flooded backyard. The first flock of that size back from molt.

We hope this flood day will close western outlets.

Found a very large salt marsh patch of *G. detonsa* today. A new plot, thousands of plants, close to Greene's house. It is located on first low inundated level from present Lagoon beach. Area would have been covered with warm, shallow water in late May, a confirmation of "hot water" germination.

At 10:00 this evening our back salt marsh area flooded up to the *Empetrum* zone (all of the *Carex* zone). Since this is peak bloom time for *G. detonsa* all plants are in the water and many of them are covered with water. Wonder what the results of this will be? All those wonderful robust flowering plants that promised so much seed production may not stand being immersed for several hours at this stage of their growth without damage.

Sisualik flood has little compassion for living creatures and their needs: the Glaucous Gull on the island that sunk earlier in the summer with the unhatched egg (probably Jonathan's mate), possible unhatched tern eggs on the same level, and now the entire Gentian crop is at risk.

August 2

High 54° F
Low 54° F
Cloudy, rain
SE-S-SW wind to 25

Flood waters receding, waves over most of the beach. Very dirty water with green algae. Wet air and vegetation, not a good day to play out.

There will be another 6-hour commercial fishing period tonight, 6 p.m. to 12 midnight. Thirty-eight fishermen involved.

Everyone laying a little low this a.m. waiting for waters to drain and waves to smooth.

As the flood waters drained out of the salt marsh today I did a check on some of the thousands of *G. detonsa* plants. They have been hassled! Most have lost their fresh brilliant luminescence and appear faded and disturbed. How this will affect their mature seed development I haven't a hint. They have had a week for pollination so maybe most of them can stand and recover from the stress of being immersed for several hours. Maybe later observations will give some hints. It was certainly an untimely flooding for that rare plant, but it does suggest how the seeds got in the inner protected zone of marine back waters. The seeds must float at some stage in their "free" state.

Some good flocks of Northern Pintail and American Wigeon are finally showing on draining salt marsh. These birds are adults back from molt of flight feathers.

August 3

High 68° F
Low 53° F
Cloudy, clearing
E-SE wind to 10

Bear excitement from camps west of the Ranger Station. The big bear has been back and forth and round about in sight for several hours this morning. It found a drifted-in seal carcass a couple of days ago and dragged it up into the grasses not far from one camp and ate from it. Its walking around in sight this midday seemed erratic and sometimes aimless. A caribou cow with calf was reported near it at one point. It is seen by the residents here as a threat to camps and kids and they may kill it, given opportunity.

A calm day today to clean up from the last few days of rain and wind. There is lots of sun.

Checked the large *G. detonsa* patch by Greene's house that was under water yesterday. Water is gone and though there is some disturbance, most plants and their developing seed seem in good shape. Those terminal flowers that had not yet opened were opening and looking beautiful. The dunking in brackish water seems not to have hurt them much. This does put them a couple of days past peak however.

When corolla opens, anthers and stigma are on the same level-plane. Style apparently elongates at that point or shortly after the petals close. The beautiful blue-purple petals rapidly fade to gray white as the pistil continues to elongate and seeds grow and mature. Though there may be many buds on one plant there seems always to be only one taller bud that opens its corolla. All subordinate buds do not open, but phase to white like the apical bud and with similar timing. All this seems to assure self pollination and at least in one seed pod the chance for cross pollinating.

Two porcupine west of Ranger Station.

August 4

High 70° F
Low 58° F
Cloudy, smoky
Light winds

Town trip today and it was timely. Waters were quite calm all day.

Unusually warm and muggy today, with high humidity and smoke in the air. Almost uncomfortable for working or anything. Good for traveling though.

Big bear problem west of Ranger Station continues. It was around close to camps last night again.

The flood over the gentian marsh was not catastrophic as first thought. When the sun broke out of the clouds today and heat descended, many (nearly half) of some clusters did open their corollas. Something new: usually only apical bud on a multi-flowered plant will unfurl. After the flood, a number of lower level buds were seen opened/unfurled. Are the lower buds then, designed for events such as floods, hail storms or drought stress?

A report from Baldwin Peninsula south of Kotzebue of numerous *G. detonsa* plants on a place there being dredged for gravel.

Several good flocks (40-50) of Northern Pintails and American Wigeon in backyard area. First sign of multi-flocks here. They are late getting back here from molt.

August 5

High 70° F
Low 60° F
Cloudy, clearing
NW wind to 18

A very warm calm morning with a good cool breeze building out of the west in the afternoon.

Another short fishing period coming this evening (4 hours). Processors continue to run the fishery.

Five musk-ox reported on the flats west of the Ranger Station.

Iris and short fireweed nearly gone. Grass-of-Parnassus and *Lomatogonium* peaking; Tall Fireweed and Gentians just falling from peak. To our knowledge there are no other species to bloom in our region this year that have not already bloomed. The rest of August is for ripening and maturing and first frost will not be far behind.

One fat whitefish in the table net at noon.

Berry picking getting underway: inland blueberries and wherever inland salmonberries can be found.

Fish seem to be hitting pretty well for a four hour period.

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August 6

High 77° F
Low 54° F
Clouds, sun
Light winds
S wind 20 late p.m.

A warm night and morning. We are glad that clouds cover the sun occasionally because it is so hot when the sun beats down. There was a real heavy dew last night. There is a surprising lack of insects today, even though moisture and temperature seem good. Maybe the worst insect days are done for the year.

One fairly fat "egg" char in the 4 ½" trout net.

There is a lot of running around looking for a place to pick berries this weekend. Hope for salmonberries seems to be fading.

A lot of visitors in one boat this afternoon. LaVonne Hendricks group. Lots of fun had by most, with lots of talk and some botany. We may extend our Gentian knowledge farther down the Baldwin Peninsula. The party took off around 9 p.m., just as a sudden south wind picked up on a smooth sea. They have a big boat but they will have to beat their way home over some healthy chop.

G. detonsa is definitely past peak, but there are still a few with bright corollas that opened in late afternoon sun.

August 7

High 62° F
Low 58° F
Cloudy, rain
S-SE wind 20 late PM

A rather dark and dull morning but quiet as the sudden strong south winds that began late yesterday evening had calmed. A kind of steady drizzle has developed. We are, more and more, depending on this very wet summer to produce a bumper crop of blackberries, as other berries don't seem to have done well.

Bear movements along the beach continue and as nights get longer and darker it will be rare to see a bear by daylight.

The run of Chum Salmon seems to be holding up well, with four year-olds dominating; the Hatchery contribution seems significant.

A report this afternoon of five bears being seen on the beach strip between Sealing Point house and the most westerly Salluq cabin.

Our backyard duck population is increasing rapidly. Duck soup will taste good again when they fatten up a bit. When first back from molt, Pintails and Wigeon are often very lean. With brand new feathers they look so big and plump from a distance, and then are a great disappointment with an in-hand specimen.

More camp bear stories circulating this evening including inland camps as well as ocean beach ones.

August 8

High 62° F
Low 58° F
Cloudy, showers
SE wind to 25

A windy morning but only moderately high water - less than flood stage.

Finally ran into a family group of Northern Pintail this afternoon. There were four flying young with their mother. Have not seen much other sign of pintail production this summer. The date on this group is interesting because the speculation is that female pintails with broods molt just before their brood can fly. Then the family is able to fly together. This group would be an example of that. In some cases it would make some female pintails the very last adult pintails to regain flight after wing feather replacement.

No commercial fishing open today because there is no buyer.

Ocean has been pretty rough since yesterday with a lot of dark dirt, algae and rotten salmon. The amount of plastic continues to increase, mixed with the above. The rotten salmon comes from those dropped from commercial nets dead when the mesh doesn't go completely over their heads to the gills.

People are beginning to pick blueberries and even a few blackberries. Even talk of salmonberries is scarce.

August 9

High 64° F
Low 58° F
Cloudy, rain p.m.
E-SE wind to 35

Strong winds today. Somewhat stronger than forecast. Also another commercial fishing period of 3 hours at \$.15/lb.

Did the Sourdock Lake area again today. Turned out pretty well, all things considered. Finished picking just as the rains began and due to strong winds there

Journal

was not a mosquito to be seen. The three mile distance between raincoat and picking place was somewhat traumatic, but the weather is warm.

Found the carcass of a rather broken up gray whale on the way home, just on the east side of the first two westernmost Sisualik camps. There was maktak still on the bottom of the head and shoulders. The tail/back portion seemed free of maktak. The head-shoulder portions pretty well broken up. Blocks of blubber-maktak may have been removed or Killer Whales may have feasted earlier in the summer.

Our beachcombing bears will be glad wherever this carcass comes to rest. It was still moving slowly west with wave action.

The latest bear tracks, less than two days old, were at the bones of our last fall walrus kill, a mile or so out on Sisualik Spit from the base.

A few Northern Pintails, American Wigeon and Green-winged Teal were on Akulaaq Lagoon edge with a few Western Sandpipers. Sandpipers of any kind have been real scarce so far this month.

Blueberries look good, though half are still green instead of blue.

One little drainage bank had salmon coloring due to a fine patch of red but unripe salmonberries. It is the only patch that I have seen so far out in the hills. There may be more on similarly located drainages. It will be worth a check as this berry is going to be in short supply anywhere in this region this year.

August 10

High 64° F
Low 58° F
Cloudy, showers
SE wind to 35, flood

The water had risen in our back marshland areas by 5:00 PM to a level above any flood stage since the big "gravel throw up" three years ago in late August. The ocean waves have not yet reached grass-sod line, since the wind has stayed in the SE-S quarter. Should it switch to SW or W we would have waves over the sod line in short order.

All the *G. detonsa* area is again under water.

The radio has just given a coastal flood watch for tomorrow as the wind is forecast to switch to SW, at velocities of at least 25.

There is a good show of Wigeon and Pintail on the edge of the back marsh flood. The water dropped a few inches this early evening but will probably come up again.

There is a commercial fishing period this evening from 5:00 to 10:00 PM. Fishing in a storm flood for \$.15/lb.

Our beach gravel has become nice big coarse grade again. It is remarkable how waves can turn up fine sand or coarse gravel, seemingly at will. Hope coarse stays this time. It is a much nicer surface.

The drifted-in gray whale is said to have moved several miles down the beach from the westernmost Sisualik camp. A bear has been there already.

August 11

High 56° F
Low 55° F
Cloudy, rain showers
S wind 25-30, flood

We spent the night in the dome. It was a little quieter than the tent and we were glad to see when we woke at 7:00 a.m. that camp was still in shape, with ocean waves still below grass-sod line. The back marsh area water level had dropped some, though it had been to high flood level during the night. We remain under a coastal flood watch for the remainder of today and tonight since we haven't had the wind switch to SW and W. That is our worst scenario for marine flood and erosion. We can't really afford any sod erosion.

Ducks (Pintail and Wigeon) and gulls working the edge of flood in the marsh lands.

We do have two hopes, besides survival, in this wind-flood time. One is for clams and the other is the closing of Akulaaq and Anigaaq outlets.

Bad news. The eagle turned up this afternoon, found by a beachcomber at Akulaaq, apparently on the high water line. Haven't talked to the finder yet so have nothing else to go on. He put the carcass above flood line so I may have chance to see it yet. There was a comment made when he reported the find that some fishermen not long ago had seen it in that area either catching or carrying fish (salmon?).

Chaos in the back marshlands last night. Flood waters covered all *Carex* marshlands and a good deal of the *Empetrum* level. All of the thousands of *G. detonsa* covered for several hours. Presumably no seeds are yet mature enough to be viable. (They are formed in the capsule but all still soft and green.) One can't help but wonder what effect these periods of underwater baths have on maturing seed. Most plants seemed healthy enough after their first flooding last week and some fresh blue corollas opened in the sun. The level of location of this plant pretty much assures that it can be storm/flood covered at anytime in its development. Indeed, its pattern of local distribution seems to indicate seed dispersal is by water: storm flood waters.

August 12

High 57° F
Low 52° F
Cloudy, rain
SW-S wind 20

Water levels have gone down some but remain at low flood stage. Continued S and SW winds promise more beach erosion in the next couple of days.

We got word late last night that a dear friend and neighbor had died suddenly at a berry picking camp in the NE Kobuk Lake area. Their house here in Sisualik is just behind ours on the edge of the lagoon.

Picked up the eagle carcass this morning and have it in hand. Have not opened it yet, but ID is pretty straight forward. It is a subadult, maybe juvenile Golden Eagle. Feathered tarsus, small head, and white feather pattern on tail and under wings rule out immature Bald Eagle. It was found at Akulaaq as drift on the high water line yesterday. There is much sand ground into the wet feathers from the beach. It has apparently been dead for many days, and is rather strong smelling. There seems no quick outward cause of its demise. Growing quill feathers in the wing and tail, as well as head and parts of body, combined with a soft yellow gape at mouth corners indicate a possible "bird of the year." Another option would be a young bird hatched last year.

After skinning and checking through the carcass, no cause for demise was apparent. There was some fat reserve but not much. Muscle and flesh had the soft flabby look of emaciated tissue.

Gentian land looks pretty bad after this last flood. Some capsules with all black and lower half green seeds have opened.

August 13

High 60° F
Low 54° F
Some clouds, dry
S-SE wind to 30

An afternoon of being with many good people making a grave for a good friend and neighbor.

There was even a bowl or two of salmonberries on the route to the grave site. Blueberries, $\frac{3}{4}$ of them ripe, were also looking good. The berry picking portion of our summer is about to begin.

Geese and ducks are daily becoming more abundant, and our diet will soon reflect that.

Some good catches of salmon were made in the last short period and no sign of char yet. The time is close and blackberries are getting sweeter and bigger. O boy! Tingulik!

We have been promised some more wave making wind tonight. The hope of having Anigaaq and Akulaaq closed helps us endure more waves and high water. Some folks down there are checking almost hourly as the outlet is getting shallow enough to walk across! If it closes now there will be some fish.

It is reported that a BLM surveyor was having bear trouble today out of Noatak. Helicopter dropped him a rifle.

Lots of mushrooms on the land due to continual summer rains and warmth. Mostly *Boletus* sp. and *Russula* sp.

August 14

High 54° F
Low 52° F
Cloudy, rain, clearing
SE-SW wind 20

The weatherman finally gives hope of some better weather this coming week: less wind and less rain. We have had a long period of windy wetness.

If it is not one thing it is another. The remains of the gray whale is up on the beach less than a mile from the first point to our west and a ¼ mile from westernmost occupied Sisualik camp. There are three bears feeding there through this Sunday morning.

We have large swells going yet but on a diminishing scale. The conditions of the two outlets is not known yet but hope is running high.

It is evening now, bears are gone, and status of the outlets is still in question. No one has been to Akulaaq (bears in the trail) and Anigaaq still has a narrow channel. The ocean still has some swells but with all the rain, if the channel is not completely closed, it will eat out a big channel again when ocean level drops below inland water level.

This last storm sea has left only clean beaches, at least as far as six miles NW of Sealing Point. There are no drifted in marine mammal carcasses except the gray whale, thus the bears.

Journal

August 15

High 54° F
Low 50° F
Cloudy, rain
SE wind to 20

There was half a day today without rain. That was pretty nice. Both blueberries and blackberries are big and ready to pick, but not in the rain. We are certainly having a wet summer. Hope that means a dry fall.

Caribou, if and when they come around, will probably be very fat. The lichens and all things caribou like to eat look so juicy and lush.

Ducks (Pintails and Wigeon) and geese are again making the salt marsh and berry grounds alive after a long periods of empty marsh. Things are beginning to look pretty good. Lots of wings. Small flocks of Western Sandpipers moving through today and some families of Black Turnstones are around on beaches.

Finally got a net out in the ocean this morning. Catch was one fat whitefish, one immature sheefish and one watermarked female chum. Lots of dirt, sticks, grass and plastic.

There is a commercial chum opening on tonight, 4 hours, 5 till 9 p.m.

Anigaaq didn't close. It came close but even a small trickle still going over the dam when ocean level and inside level are equal soon eats a deep wide channel when ocean level drops.

Hope for whitefish this fall from those systems is growing weak. We don't yet know about Akulaaq. It could be closed.

The remnants of the gray whale and the bears have held travelers back for a few days.

We have funerals for two good friends, old timers, this week. The wet and unsettled weather is not making the chore any easier. The updated forecast doesn't leave much hope either. More rain and winds.

August 16

High 56° F
Low 52° F
Cloudy, rain
SE wind to 20, a.m.
S wind to 10, p.m.

There has been a lot of rain this past 24 hours. Flash flood warnings are out for Noatak and Kobuk Rivers. More forecast for the night.

We lucked out on a few dry warm hours this afternoon to dig a new grave in a drier place and put our friend and neighbor to rest for awhile. The grave dug yesterday for the purpose filled with water overnight.

There is another 4 hour chum (commercial) opening this evening. There are several boats with nets out in the ocean here this time.

Lots of ducks (Pintail, Wigeon) flying around the constant flood waters of the marsh area. They are probably food hunting, as the high waters inhibit their normal use of *Potamogeton* beds.

The marsh lands (the areas above water) are turning greenish yellow from greenish green. A sign of the season, wet or dry apparently.

A rather steady stream of small groups (8 to 15) of Western Sandpipers moving through.

We close the day thankful for the interlude of good weather to get the burial done and wish for dry weather tomorrow.

Akulaaq outlet is closed.

August 17

High 55° F
Low 50° F
Cloudy, rain
S-SW wind to 25

Looks like another day of wind, high water and at least some rain. Waves are up to the base of sod level at noon today and back marshes are again flooded to *Empetrum* level.

Ducks are tipping up over flooded low marsh *Elymus* zones. Curious as to what they are eating there. When ducks can't get at their *Potamogeton* beds there is little known as to what their options are from other plants.

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There are still sandpipers moving through (Westerns, Black Turnstones, maybe a few Dunlins).

Mushroom growth around the tundra and berry picking areas are spectacular this August. Many kinds not seen before have cropped up. We have had some puffballs and a few *Boletus* and look forward to a dry warm day when there should be many fresh ones.

The flooded marsh is up again to the highest point of this summer. All the *G. detonsa* habitat is under water that is probably mostly fresh, because of high creek/river water, due to constant rains. No seed has yet had a chance to mature. Wonder at this point whether any will mature this year.

Another 3-hour commercial fishing period this evening. Flash flood and river flood warning still out.

Many ducks flying about as water levels going up and down determines forage choices.

August 18

High 52° F
Low 44° F
Cloudy, few showers
W wind to 30
S wind 15, p.m.

A fairly decent day today. Waves were up to sod in front, and high flood level in the rear this early morning. Both returned to normal levels by noon and the warm sun was out for awhile to dry things, including the air.

We spent 3-4 hours picking blueberries not far from camp and then got in our first day of berry picking for the '94 season. Kind of a late start and we hope the weather will now give a break for a real harvest. Blue and blackberries will be the harvest this year. There seems only enough salmonberries to eat a few once in awhile, no quick buckets of them.

A high point of the day was when a very drab, probably juvenile Merlin very nearly landed on my head! I got a shorebird's last impression as he looks over his shoulder and sees the Merlin just before he is grabbed. The impression is one of all streaks. After breaking off his intention of landing on the post beside my head he did land on another a hundred yards away to think it over. He soon came back by low and fast following the edge of the water. A napping shorebird wouldn't know what hit him. This is the second or third year we have had hint of Merlins nesting somewhere in our back beach ridge area.

August 19

High 54° F
Low 50° F
Cloudy, rain
SE-S wind to 25

Another in a long line of wet days. The village of Kobuk is pretty well flooded, including some houses and the airfield. Some rivers may reach record levels of flood this week. We seem to have gotten all of Japan's water, since they are having drought conditions.

Gathered some *G. detonsa* plants today and they look pretty poor in regards to the production of mature seed. Plant chlorophyll has faded, apical pods on many plants have dehisced and are flat. Winds, rain and flood have physically worked them pretty hard; they are releasing what appear to be formed green seeds, but soft with probably no chance of reproducing. Too bad. It was a remarkably plentiful *G. detonsa* year, but only good to flowering, with three underwater flood times by this date. It seems a strange paradox of a living plant that conditions and level of growth in the marsh that produce germination and growth prove to be the greatest threat to a successful reproductive year.

People overwhelmed with rain! Berries are ripe, school starting next week, and the country air and camping spots are impossibly soaked and soggy.

Perhaps some good will come of conditions. Lots of wood coming out from river flood. We may get some of that. Caribou and moose tend to carry summer fat in direct proportion to the amount of rain in July and August. We shall see this year.

The latest report is that the outlet at Akulaaq remains closed and Anigaaq remains open.

If weather does not shape up soon the NANA region will have few berries this winter.

Very few shorebirds around due in part, no doubt, to lack of mudflats for such a long period. Some small flocks of Western Sandpipers are passing, and some large groups of Longspurs and Savannah Sparrows explode from the grasses in front of the four wheeler.

Journal

August 20

High 56° F
Low 49° F
Cloudy but dry, sun
S-SE wind to 15
NW wind to 10

Finally a day to dry up a bit. The river villages are still under a flood watch, but our winds and waves are down and the ocean is full of large islands of willows and deep water *Potamogeton* "grass."

Had trout net out for awhile and got one chum salmon, one red salmon and two fat whitefish. There were no trout. Where are they? Some years they begin to run as early as the 10th. Perhaps the huge amount of fresh water into the sea has delayed their movement to inland area overwintering places.

There were some large, heavy pieces of driftwood on our beach this morning. Maybe timbers from a dock in Kotzebue. Some have burned areas on them.

Another bear story from last night at the westernmost camps. A female with two small cubs was rummaging around a tent camp site during the darkest part of the night while the owner was inside sleeping. He awoke, opened the door of the tent and found the bear standing there. He reached for his gun sighted on the bear's neck and pulled the trigger. The gun didn't fire. The bear dropped to all fours and took off with the two small cubs. This has become a rather trying year for bears and people of Krusenstern.

Had duck soup for a change tonight. Some local boys gave us several Wigeon. With the marsh flooded, the Wigeon have concentrated in some locations where there is a lot of green algae collected. The lone Pintail in the gift was quite stuffed with a large grass seed, probably *Carex*. The fat conditions of the birds was normal for the season. They are just beginning to build migration fat and some adults have a ways to go yet. Feeding conditions will probably get better, and 10 days more will put some in migration shape.

August 21

High 50° F
Low 38° F
Clear! Few clouds
NW wind to 10

A beautiful taste of sun and dry air today, though wind was pretty strong till afternoon.

There was a flock of several hundred Wigeon on Greene's Point this morning. There was also a first large flock of Sandhill Cranes (25) letting the north wind carry them

south. This is a first southern movement of these birds this fall. Some small flocks of Western Sandpipers continue their southern trek, and the *Carex* portion of the marsh has taken on its yellowish hue, indicating that the greenness has already begun to change.

We speak of this as fall now. Migrating and staging birds, ripe berries, yellow colors all make this so. Passerines and shorebirds all moving east or southeast accent this feeling of seasonal change. The weatherman helped too since there was snow in his forecast tonight. Our greatest hope now is that there won't be an August frost this year, since we have no berries at all yet.

Musk-ox seem still in sight from westernmost camps. Numbers lately unsure.

Two different overnight bear tracks on the beach.

August 22

High 50° F
Low 32° F
Clear, a few clouds
Frost!
NW wind to 18

Frost in August we don't like but we had it again! There was ¼" of ice in outdoor buckets this morning and we have black hands tonight after picking blackberries all day.

The berries are still firm enough to be picked, but some individual berries do break and make your hands sticky, slowing up the whole process. Also the berries were nipped after they got to full size but before they had sweetened up. This will result in a different taste in the berry. We did pick a 5 gallon bucket today that will go in our sourdock.

Several large flocks of cranes again today. Circling and circling allowing themselves to be carried along with the NW wind as the young birds strengthen their wing muscles.

Lots of insects in the back marshes that have drained and are drying up. Bumblebees, mud flies, ladybugs, gnats and mosquitoes were not extirpated by flood and frost.

Another fine big silvery male red salmon in the net this morning.

Finally a few nice big trout in the commercial fishing period today. Trout are late. Probably the flood, with its large amount of fresh water emptying into marine waters could have a delaying effect.

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August 23

High 48° F
Low 45° F
Cloudy, one shower
S-SW wind to 18

A good catch of fall trout last evening and wouldn't you know it, a "trout bird" (Northern Wheatear). These are large fat char at the very bottom cycle of sexual development, heading into freshwater systems to spend the winter on the stored strength they have taken on this short sojourn in the sea. They are unbelievably fat and oily, most with energy to carry on a year without feeding again. Some will not return to sea again for two years, loafing this winter, spawning next, and hitting marine waters again very emaciated the third year. The run is nearly 10 days late. We often see signs of them by August 10.

It is interesting this year that the "Trout Bird" is equally late. What ties bird and fish together?

A lone Pomarine Jaeger terrorizing camp gulls today. He is out of time and place. That is probably what makes him so cranky.

Blackberries in better shape today than yesterday since last night was warm and without frost. We will have first "Tingulik" (berries and cooked trout liver) tonight.

The low marsh (*Carex*) has yellowed. The cottonwood grove has not.

Ocean swells continue tonight, too big to set pole net.

August 24

High 54° F
Low 36° F
Cloudy, showers, sun
N wind to 15

A long day today. Set 6" mesh salmon net early. We decided to go to the hills for blueberries even though it looked like some drizzle was about to happen anytime. Pulled the net up to see what was going on in the very muddy water (flood run off yet). There was one salmon and a couple of small trout. Decided to leave it out while we went to pick berries. When we returned around 4:30 (we left at 11 a.m.) nothing was showing on the surface of our net. No corks, no ropes, no sticks. There was a very heavy load of fish, mostly char, with a few whitefish. There was probably 250 lbs. of fish in the one haul. We loaded the bottom part of the freezer and cut a couple of poles of char to half dry to put in our sourdock-blueberry barrel.

Last commercial chum opening today. No more buyers.

Saw the small dark Merlin again today on the way over to the boat. This is a very dark-backed individual with very heavy streaking on the front. It seems that it might be a bird of the year.

Sandpipers are scarce on the Spit, but passerines, longspurs, savannah sparrows and wagtails are plentiful in a slow movement through.

Scattered single flowers of numerous species have blossomed since the rain quit and sun has been out. (Iris, paintbrush, poppy, dandelion, star gentian and Grass of Parnassus.) No *G. detonsa*!

August 25

High 46° F
Low 38° F
Cloudy, rain
NNE wind to 25

A town trip today and not so smooth. Kind of one of these that you wished you had stayed home instead. The trip over was not bad but the afternoon forecast got out of hand and we had to have an assist to get home. The assist turned out to be quite a circus, but we did make it home, boat and all, along with what we bought while in Kotzebue. Glad to be home tonight - didn't think we would be. All's well that ends well!

Heavy rain all afternoon again. Upper river flood warning out again.

First flying swans seen yesterday and we have a few flocks of Brant around.

We did attend a memorial service for another long time friend. Lots of funerals this summer.

It has been a long day. Tomorrow may be a little better, at least in some respects.

August 26

High 42° F
Low 38° F
Cloudy, snowflakes
NNW to N wind 40

A very windy cool mostly dry day. We have lots of mudflats now and good numbers of shorebirds using them. Lots of Dunlin, Long-billed Dowitchers, and Western Sandpipers.

We are quite lucky that we got home last night. Travel today between Kotzebue and Sisualik pretty difficult due to high winds and low marine waters. Yes, that is what I said, low marine waters and on the radio they have given a new flood warning for

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Kobuk Village. We have the lowest water level of the entire summer in the lagoon. There is now a lot of mud to attract waterfowl and shorebirds. We should see some Sharp-tailed sandpipers from Siberia this week. The last week of August and early September is the rather regular time to expect these "new" birds from across the way.

Our mountain tops have a fresh snow cover since this morning. The first of the new season. Too early again, all right.

Blackberries are healing and getting sweeter. We hope to avoid another frost, but tonight might be too cool!

A large king salmon taken near the Ranger Station yesterday. They seem more rare this year than the past several.

Nights have gotten quite dark and the moon quite bright.

Had a pan full of fried puff balls tonight, a "subsistence" food apparently overlooked by prior cultures on the beach ridges of Krusenstern. It has been a great year for tundra mushrooms: puffballs, *Boletus* and *Russula*.

August 27

High 44° F
Low 30° F
Clear, few clouds
N wind to 35

Freezing again! Small lakes and even edges of the lagoon had a little ice this morning. Surprisingly, the blackberries were untouched and we picked another 5 gallon bucket this afternoon. The size and taste are pretty good.

Found a couple of frying pans full of puffballs on the berry grounds. They were very good.

We have extreme low marine waters this day. Almost as low as we've ever had. The Lagoon is nearly dry.

There are 300+ Tundra Swans in what little water there is. They have quite a table set for them back there now. All *Potamogeton* beds are laid out in the mud for their pleasure.

There are a lot of "trout birds" around today (Wheatears) but other passerines are getting scarce. With such abundant mud flats now we are seeing numbers of Dunlins, Long-billed Dowitchers, Lesser Golden Plovers, Western Sandpipers and a few Sanderlings. There are probably other species to find if one were to search the mudflats. Sharp-tailed Sandpipers are due and their habitat is ready.

No net out today because of extremely low water level.

Flood warning still out for Upper Kobuk and Koyukuk Rivers. Hard to believe anyone flooding from looks of our back yard.

August 28

High 42° F

Low 25° F

Clear

Light winds

A record low last night, for the day and for the month of August. That is according to the Weather Bureau. Our large "backyard" duck lake was frozen clear over. The very warm sun has melted all but hidden ice by this evening. As the wind dropped off, some water has returned to the mudflats. Upper Kobuk and Koyukuk are having unprecedented flooding on this day.

Bears still in the news from the folks west of the Ranger Station. There are daily sightings and nightly tracks near camps. Most sightings of the last 10 days are of a female with small cubs and smaller adult. No particularly close encounters, but rather a drain on family nerves after the earlier adventures of the summer.

Several hundred Tundra Swans, as many geese and a few more ducks (mostly Wigeon) have made our corner of the lagoon quite alive this Sunday. During the calm cold dawn many voices were raised either in praise of the upcoming warm sun or in complaint of the unseasonable freeze or maybe both. The noise was quite overwhelming in the still air after this long spell of only wind and rain in one's ears.

Berries are still pickable, though juice stained hands will brand anyone who picked some today.

Checked some of the drowned *G. detonsa* plants for seed condition today. Most of the capsules have opened $\frac{3}{4}$ down, leaving some seeds in the bottom quarter. No way to determine if any seed matured enough to be viable.

This has been a summer characterized by failure of early potential to meet harvest expectations. From a human perspective the "waste" involved might appear to be intolerable. There may be a lesson here for the "Jonah" that seeks to understand the deeper mysteries of life from the circumstances in the natural systems around and about.

A Gray Jay seeking shelter under our "fish rack-rain gatherer" roof today was a first, and an answer to a puzzle of a half eaten fish a few days ago. These birds seldom

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leave the protection offered by spruce forest. This one was seeking shelter from Glaucous Gulls, not rain, on this fine clear, dry day.

August 29

High 46° F
Low 40° F
Clear, a few clouds
E-SE wind to 30

A dry windy day with moderately low marine waters continuing.

A blackberry picking day. There are a few soft berries from the frost but by and large picking is pretty good with many very large berries mixed with many small berries. Ideal picking conditions occur when you can locate a plot of all large firm berries. Picking goes pretty fast then. We managed a 5 gallon bucket in four hours or so. Our stock of winter berries is looking better all the time.

Quite a lot of shotgun noise today. There are big flocks of rather tame Wigeon feeding on the green algae brought to the edge by wind. Many are young birds of the year and not yet very fat. Some of the adults are quite fat now. Folks start expecting a near daily pot of duck soup from mid August through till freeze up in October.

There are many Tundra Swans, Canada Geese and Wigeon around. N. Pintail and Whimbrel are both very scarce this year, as they have been in the past several years. Have seen fewer Whimbrel this year than in any year in the past 46. Are they going the way of the Eskimo Curlew? Very few passerines left around.

No fishing again due to rough water.

August 30

High 49° F
Low 46° F
Clouding, rain p.m.
E to NE wind 20

Another blackberry picking day until rain began about 3:00 p.m.

Ocean finally calmed enough to set net late evening. Haven't pulled it yet, but there doesn't seem to be much action.

Both Anigaaq and Akulaaq still open and a report from Noatak Village today that the river is back up and much building material lost when the river bank at the village crumbled unexpectedly and fell into the river. Flooding is still on going on the upper Koyukuk.

At this point in the early fall several bird species normally abundant are either not around or very scarce. Willow Ptarmigan - no young encountered at all this summer. Whimbrel are usually here in small flocks along Spit as soon as blueberries ripen. A few Dunlin and Long-billed Dowitchers and a few Golden Plovers are showing around today and for the first time some flocks of Red-necked Phalarope. Local ducks are almost exclusively American Wigeon.

As the month draws to a close there are a few passerines around (Longspurs, Savannah Sparrows), but only a few.

August has been a wet month and may go out raining.

August 31

High 50° F
Low 44° F
Cloudy, rain, fog
E-SE wind to 18

Another very wet day to end a very wet month. We think September may be all dry and sunny. It is only fitting after the dampness and dreariness of August.

NW Alaskan Rivers have been so long at flood stage one wonders how some natural systems will survive. Earlier flooding in our salt marsh caused several notable breakdowns in reproductive potential processes. Three villages of the upper Koyukuk have been evacuated and may never be the same again.

Had the trout net out overnight but it was pulling its anchor soon after daylight and contained a ton of green slime and other dirt and only two fish: one shee full of baby herring and one Bering Ciscoe. We cooked the very fat Bering Ciscoe for lunch and it was very good.

Legal waterfowl season is to open in the morning. Subsistence waterfowl use began for the new season at rural camps in mid month as birds returned from the molting process and put on a little fat. One effect of this "early" hunting is that by this time birds are quite wary and much more difficult to bring into shotgun range than innocent non-hunted birds.

We do have very large flocks of Wigeon around the lagoon edge feeding up on green algae. There are very few Northern Pintails and geese are plentiful.

Saw several Snow Buntings today. They are quite early.

There was also a Northern Harrier flying back and forth past camp today. It looks like it may be a "bird of the year" and the vole population may be much higher around camps since the marsh has been flooded so many times this August.

CAPE KRUSENSTERN JOURNAL

SEPTEMBER

September 1

High 48° F
Low 46° F
Fog, drizzle
Clearing early PM
W-NW wind to 15

We have a good start for a new month. After heavy fog this morning we gradually got better and better until it was clear, sunny, dry and warm. The ground and grasses remained wet, so we didn't do major berry picking, though Carrie was in the berry grounds for a couple of hours. She made a blackberry pie after that. One of the best of pies.

Had the salmon net out this morning but caught only *Potamogeton*! Not even a flounder.

A very quiet duck season opener. Two boys were around but less than 10 shots were heard through the day.

Cranes are still fairly common and a couple of large flocks passed by on the way south today.

Fish began to show up at the Hatchery today in good numbers (Chum Salmon). Flood waters are dropping through most of the river systems.

On a trip to Akulaaq channel today saw many fresh bear tracks. The female with two small cubs had been all over the beach.

Caribou rumors are picking up. Exact location of heard not yet common knowledge, but they are getting closer. Only a month now for bulls to hold their good fat.

The sun will set over the waters of the Sound today for the first time this early fall (from our camp). Up till today it has set over the land mass of Cape Krusenstern. This aspect of September is a sharp reminder that winter is not far off.

September 2

High 52° F
Low 38° F
Cloudy, dry a.m.
Rain p.m.
E-SE wind to 18

Two or three blackberry picking hours are all we were allowed today by the continuing moisture. Thought we left that behind with August! Marine waters quite high this evening too, but winds have remained light.

Waterfowl numbers continue to grow. Wigeon still dominate by far, but N. Pintail numbers have picked up and there are even a few small flocks of Brant in the back marshes. Quite a large number of Tundra Swans (500) are using this corner of the Delta.

The marsh has really yellowed the last couple of days as fall works its way over the land. Our hillside cottonwood copse shows a faint yellow on the green, but the color is not outstanding yet.

Caribou rumors have the herd closer to here again. We will hope they make it to local grounds before the end of the month. With the non-closure of our two fall fishing lagoons we may need alternative resources of some kind. All this rain and high water may yet pay off in caribou fat.

We had another payoff this evening with an incidental catch of Starry Flounders. Fine thick fat ones. Very good for a change. This fish that is a nuisance in July and August is the best in September!

September 3

High 50° F
Low 42° F
Cloudy, wet, clearing
NW wind to 20

The day improved right along from its cool foggy drizzly beginning. By evening the ground (gravel) was quite dry and the sun quite bright. Bright fall colors becoming more prominent: yellows and reds contrast with the darker and lighter greens we have gotten used to through the summer. The cottonwood copse though has not really yellowed yet. The weatherman has forecast snow for Labor Day - "snow showers" really. That may yellow more leaves.

Very large, white crested swells in the brown ocean today. White crests from the breaking waves and brown ocean from the NW Alaska river flood waters that have worked their way to the sea. Light tan, totally opaque loam filled flood waters.

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Sisualik offshore waters have not been salty through most of August. Wonder how near delta marine species (clams, crabs, shrimps) cope?

There is a lot of waterfowl in Sisualik. There are some hunters out this Labor Day weekend, but strong winds and wet air have had a dampening effect on the less enthusiastic.

Today's waves may again do some work towards closing the outlets.

The elders of the one Sealing Point house family finally came home yesterday and are glad to be home.

September 4

High 48° F
Low 36° F
Cloudy
NW wind to 20

No frost last night so berries are safe for another day. It does look like snow today.

It is a quiet Sunday this Labor Day weekend. There were a number of families out in the berry grounds, but dropping water levels and rather strong and sometimes damp winds may have caused early withdrawal to warm homes and the TV set.

Our backyard is quite full of waterfowl. There are lots of Wigeon and Pintail, some White-fronted and Canada Geese, several Tundra Swans and a few Green-winged Teal. Several small groups of Brant are clipping the yet green salt marsh sedges and a few shorebirds are gathering, since mudflats are beginning to be exposed around. There are even a few Marsh Hawks (Northern Harrier) and Short-eared Owls working the higher areas of the marsh where living microtines have concentrated due to flooding.

If freezing and snow hold off for a bit and rain doesn't come back, we may have a time of concentrated harvest in the next couple of weeks.

September 5

High 50° F
Low 34° F
Cloudy, clear, fog
NW wind to 10, calm

A full day of blackberry picking after a night of light frost. Berries didn't soften any so picking is good. One ends the day with black hands though.

Lots of waterfowl in our backyard morning and evening. There were 600 or more Tundra Swans piled into one of their favorite feeding lakes. These are part of the

Delta's flocked non-breeders, as there were no young with the group. Our western corner of the delta may have been the quietest place to be, as there are often boats and hunters around the main stem river and sloughs. It was quite a noisy bunch of birds and a thrill to see such concentrations again. There also lots of Wigeon, Pintail and Geese. Quite a show of waterfowl.

A small bear reached our west neighbor last night or early this morning. It followed the lagoon beach at water's edge all the way back to and past Barger's cabin. This is the closest track to us this summer. The bear did not bother anything as he passed several camps.

Has net out for awhile this morning till a super strong current came along. It was the salmon net. There was no catch.

September 6

High 51° F
Low 45° F
Cloudy, rain
SW wind to 15

Town trip for some fall needs and to meet the Navajo parents of our son's wife from New Mexico. Very interesting people. They have made a very long journey to visit their daughter and her family.

Rain has come down on us again. We thought we had had enough!

Four Chum Salmon in the net this morning.

Lots of waterfowl in the backyard today.

Also a vandal under and into our fish cache. We suspect raven. No gull has ever figured out how to get under the roof. Something will have to be done.

It was a long day again. Seems like town trips are like that. All's well that ends well!

September 7

High 50° F
Low 45° F
Cloudy, drizzle
SE wind to 15
N wind to 10, p.m.

A damp day that had some beautiful intervals.

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One fresh salmon and flounders in the table net and a very clean net for a change. Wind chop and swells continued through the day, but a dead calm prevailed by 10:00 p.m.

Had a good piece of fresh caribou meat for lunch. Our son and crew got three bulls from Wolf Creek (NE corner of Kobuk Lake).

Strung some lines around our fish drying racks this evening hoping to confuse the thieving raven. We'll see how long it takes him to figure out a way in and out.

Our backyard looks pretty rich again. The yellowing marsh grasses and ponds continue to play host to many and diverse waterfowl. No shotgun blasts heard today, but as wind calmed, each gulp the Tundra Swans made could heard far and wide.

Things need a good drying out. Perhaps today was a beginning as there were some dry spells.

The usual September birds are around but passerines are very scarce. Shorebirds are common with Dunlins, Western Sandpipers, and Long-billed Dowitchers prominent. A few Sanderlings run up and down and back and forth on beach in front of camp.

A whale, probably a Gray Whale was seen today passing the Ranger Station, moving east (our direction but we didn't see it).

September 8

High 56° F
Low 42° F
Sunny, light winds
N wind to 15

Visitors from New Mexico. Our Navajo in-laws from that state were here for the afternoon seeing the wonders of the subarctic coast. We had a very good afternoon of sharing our mutual thankfulness for the wonders of the world - soil, mountains, rivers and ocean.

Backyard waterfowl still impressive, though some have moved off as the lagoon water levels drop and expose mudflats.

Our fall colors intensify, even though the temperatures have been mild this week. Yellows (of grass and willows) and reds (of bearberry, birch and blueberry) brighten before they begin to drop and/or pale.

Net catch interesting today. Not many but quite diverse. An 8" Char, a spawned out female char of 24", a spawned out male Chum Salmon, a fresh run small male Chum, two Humpback Whitefish, two species of flounder (Starry and Arctic Plaise).

It was such a beautiful September day today! Warm sun, lots of insects, cranes in migration, and ducks and swans fattening up in the backyard. Blackberries firming again.

We do have another mystery though. We had seven Wigeon in a pile outside, 30' from the door, waiting to be plucked. We saw them at dusk; by dawn they were gone without a trace except for one bird left behind on the trail to the beach.

September 9

High 48° F
Low 33° F
Cloudy, dry
E-SE wind to 15

A busy day today. After a surprise catch of a bucket of Saffron Cod yesterday and five salmon, there were fish to cut in the morning and berries to pick in the afternoon. Those events, along with the normal routine chores, filled out the day nicely.

A single Long-tailed Jaeger was pestering the camp gull flock today.

Small passerines are quite scarce again. The only change in that might be when Snow Buntings or redpolls pass through.

Many comments have been made in this journal about some plants species not producing viable seed this summer (*G. detonsa*, fireweed). Now it is apparent that it has been a bumper crop year of production for some other species. There is a tremendous amount of "cotton" in the air right now from *Salix* sp. The willows are really throwing out extreme quantities of cotton with seeds attached. They have taken the place of the flying cotton seeds of *Epilobium latifolium*, which had a very bad year.

Waterfowl still plentiful with an unusual group of swans in our backyard duck lake. Very nice to have them around.

First fish from Akulaaq. A neighbor put a net in the half that doesn't have an outlet.

Caribou getting closer.

There was another "bear in camp" incident last night, at Jones Camp.

Caught a spawned out dark (black) female char today. This must be one of the population that went upriver to spawn instead of out to the ocean in June. Now after

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spawning it will spend another winter in freshwater before feeding. Seems a tough way to reproduce.

September 10

High 51° F
Low 40° F
Cloudy, clearing p.m.
NE-E wind to 18.

A cool windy morning but a warmer, better afternoon. A fine day but no berry picking.

Our backyard duck lake is developing quite a resident swan flock. It is unusual for swans to use this lake so close to camp and now they have been here for several days. Quite pleasant to hear their constant chuckle and occasional challenging trumpeting. (They are Tundra Swans, but their occasional antagonistic calls are very trumpet like.) It is good to have them close on this fine evening.

The dryness and sun warmth this evening brought out lots of insects again. Mostly blowflies, but also some gnats and small moths of some type.

Caribou news bringing the herds ever closer, Fish Creek to the east, Noatak Flats to the north, and west of Noatak Village coming this way. Hope they do make it here within this month. We have had gift fresh meat from folks that have gone to meet the herds this week. Many boats have been hunting at various points since Labor Day weekend. There has been no report yet of caribou on the Monument, though they are close.

Found a 10 day dead small (probably calf) Harbor Porpoise at high water line, on a grassy point in the lagoon. This is rare but rather regular, one every few years. The young may get separated from adults and lost in the maze of mudflats, or become stranded as water level falls.

September 11

High 56° F
Low 32° F
Clear
N-NE wind to 10
NW wind to 15

Such a beautiful early fall morning! Calm, very light frost, a clear sky with a climbing Sun.

Not much people activity in and around Sisualik this day. Most people that have a boat in Kotzebue or here are up in reported Caribou country seeking a fall meat supply.

A couple of boats did go by, one with red buoys aboard, the other probably to a west camp site.

Lots of insects as the sun warmed this morning. We may be headed for a kind of Indian Summer period of good and dry weather. We hope so.

Haven't seen any passerines yesterday and today except ravens.

There are some shorebirds yet: Dunlin, Dowitcher, Black Turnstone and a few Sanderlings. Lots of waterfowl including some cranes yet. Cranes and White-fronted Geese are the first of large waterfowl to move on south.

West winds picked up in the afternoon. ADF & G picked up commercial fish buoy at Anigaaq and stopped by for a visit. Enjoyed the time.

September 12

High 48° F
Low 33° F
Cloudy, fog
Light winds

Very heavy frost this morning but not much ice formation. After the frost melted and the ground dried a bit, we went up and tried the blackberries. They are pretty soft. We've had two nights in a row of frost and the berries are finally showing it. We did get enough for our sourdock and for the freezer, but we like to have a bucket or two to keep unfrozen, as they have a better, different taste and texture than the frozen ones.

Finally, a pair of swans with four cygnets. We have seen few young to this point in time this year.

A large Gyrfalcon stopped by for a good look at the camp this afternoon. His perch also overlooked the "duck lake" with swans and Wigeon feeding. This was a quite large individual, a dark rather unmarked back, and a rather prominent single "whisker" on his facial pattern. Unusual for Gyrfalcon.

Passerines seem gone from this coastal zone. There are small groups of several species of shorebirds yet.

Lots of Caribou being brought into Kotzebue from various river points of crossing.

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September 13

High 58° F
Low 40° F
Clear
N-NE wind to 10

We have forgotten what to do with such a fine day since we've had so few in the last few months. We tried to go berry picking but the blackberries are so very soft that we didn't pick very long. Carrie is impatient when berries get too soft and break their skin as you try to pick them up.

Cranberries are still firm but we haven't found sizable ones yet to work on.

Small (10 to 20) flocks of cranes passing today. Their migration is strung out and late this year.

There were nearly 1,000 Tundra Swans inside Kullitqiin Lake today. There were very few birds of the year in the flock. Around the smaller lakes though, there were family groups slowly getting the young of year used to being part of a flock. Large numbers of Wigeon and some Pintail busy picking up the leftovers from swan's underwater cropping activity.

Bear tracks near us again from last night.

People working their caribou meat to put away in freezers, but no update in caribou herd movement.

One local dog musher has had a net in the portion of Akulaaq Lake that has no seaward outflow and getting pretty fair catches. There is a surprisingly high percentage of Shee.

September 14

High 50° F
Low 36° F
Clear, few clouds
N-NE wind to 18
SE wind to 15

Set whitefish net in the "closed" half of Akulaaq Lagoon today, where a neighbor has been having fair catches for several days. He has been getting surprising numbers of subadult Shee and whitefish. Won't check the net till tomorrow. Bears wander by the place every night but haven't bothered nets yet.

We have more than our share of Tundra Swans and Wigeon. Swans, most without young, probably number 1,000 or more.

One Noatak colored chum in the table net with dirt and nothing else. Didn't put it back. This bad green algae "dirt" in the ocean is not unusual but a real pain in the neck.

Lots of mudflats now, but very few shorebirds. There are a few Dunlin.

Berries all soft except cranberries and we haven't yet found any larger ones.

Caribou have been reported on our side of the Noatak River. Some have crossed around the Hatchery and between there and Noatak village. Pilot report says lots between us and Red Dog on the coast. We look forward to first sighting of live animals by our Krusenstern group of people.

Very low marine waters today in response to strong north winds in the region.

September 15

High 42° F
Low 34° F
Cloudy, light snow
N-NE wind to 25.

A taste of freeze up today. Boards and gravel were white with new snow for awhile this morning.

Our unusually large numbers of Tundra Swans and Wigeon continue as they build up migration fat. Huge amounts of the top portions of the *Potamogeton* plant are winnowed along the beach of the back basin where heavy feeding activity is on going. Swans target the corms-buds of the plants and the hair-like leaves are released and float off, some to be eaten by Wigeon.

Bear talk on the CB tonight from an inland camp where a bear is packing off salmon one at a time.

No caribou yet reported on Krusenstern. Someone from Sealing Point went as far as Battle Rock today but nothing to see. They did report nine musk-ox closer to Sealing Point yesterday.

Very, very few shorebirds and passerines in the country. It is almost exclusively the time of waterfowl on the salt marsh and they are eating night and day to build up that fat before freeze-up.

Extremely low marine waters. Winds to 50-60 knots from north at Point Hope and Cape Lisbourne. Lots of mudflats and very little boating.

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September 16

High 48° F
Low 35° F
Cloudy, some sun
N-NE wind to 20

A windy morning and a very beautiful afternoon.

Marine waters remain extremely low and waterfowl extremely plentiful: Tundra Swans, Wigeon and Canada Geese.

A very good surprise today. Set net at Akulaaq two days ago. Got only 4 young sheefish overnight. Moved the net to other end of the lake and went down to check it today. It was near full of fine whitefish, maybe 60-70 lbs. A great catch. Didn't think we would have any whitefish this fall. We hope to dry them.

Caribou reached the east bank of the lower Noatak today and some crossed. Lots of boats up that way this evening.

Bear is back tonight to the camp he ransacked last night. He was given another warning shot.

Marine waters coming back tonight since the wind has finally quit.

As dusk settles down the very quiet evening is filled with waterfowl sounds. This will be an evening to remember through the winter.

Sealing Point people traveled as far as Battle Rock again today. Still no caribou that way. One musk-ox seen.

Noatak River has run ice in other years at this date. Not this year.

Lots of insects flying again today in the warm sun.

September 17

High 46° F
Low 33° F
Cloud, occasional sun
N-NE wind to 18.

Marine waters still exceptionally low but showing some signs of coming up as regional north winds moderate.

Lots of waterfowl in back mudflats areas; T. Swans, Wigeon and C. Geese. They have been pretty much undisturbed all week till this evening, when a few boys on 4 wheelers drove around getting off a few shots.

Our great whitefish catch of the night before didn't repeat last night. There was less than ¼ of the big catch. More competition maybe, since there are more nets out. It did take us all afternoon to cut for drying the fish we got yesterday. The racks look pretty good now.

Still no caribou sighting on our side. They have been in sight around and from Noatak village yesterday and today.

Numbers of T. Swan family groups have arrived in the area and are beginning to mix with staging flocked non-breeders. We have had over 1,000 swans in our "greater backyard" this week. They have really worked over several favored *Potamogeton* beds. Three and four cygnets are common to family groups, so production for T. Swans must have been good this year.

We had a little light snow shower today.

Our fall colors are dull this year. Due to water logged ground no doubt. Even our usually bright, light yellow cottonwood copse didn't give its stand out contrast amongst the willows this fall. All leaves, willow and cottonwood, just took on a grayish-yellow dead look simultaneously. Unusual!

September 18

High 49° F
Low 36° F
Cloudy, some sun
N-NE wind to 20

Nice dry weather for drying our whitefish.

Mud still showing all over and some places quite covered with waterfowl. Some large flocks of big shorebirds coming in from the west. They are probably Dunlin.

Still no caribou report on Krusenstern. No more bear talk either. Hopefully the dry weather will put rivers back to normal and give us a smooth freeze up period. We do wish caribou would turn up while bulls are good and access is simple.

Our cottonwood copse now stands out as light-white bark against a darker background, an indication the leaves have all fallen. We missed their "flame yellow" this fall. This "dulling of fall colors" seems to be in effect across the board with all leaves. The red of blueberry and bearberry and the orange-yellow of dwarf birch are all subdued this fall, probably due to a wet late summer and mold.

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Lots and lots of Chum Salmon at the Hatchery. Besides egg taken for next year's production little is known of the fate of the large excess.

Wind has quit tonight and water level may begin to "normalize".

September 19

High 40° F
Low 31° F
Cloudy, rain, snow
N-NE wind to 20

The rain is back. Thought we had had enough!

It wasn't a bad day, but a busy one, as most of them are by this date. A walk around the marsh lands in the morning, a trip down to Akulaaq to reset the net taken out Saturday afternoon, and a cart load of firewood on the way home. We also had the tomcod net out in the ocean most of the day. It picked up a large male Chum Salmon, silvery but water marked, and a dozen large tomcod.

Saw quite a variety of birds today for this date. Some surprises! There was a Long-billed Dowitcher and an adult male Pectoral Sandpiper together. There was a lone Golden Plover with a bit of white showing on either side of the base of the tail while walking. There were also several Snow Buntings again. Have not seen any since the first few a couple of weeks ago. This is closer the time that those spending the summer north of us pass through on a southern movement.

There is still lots of waterfowl, dominated by Tundra Swans, Wigeon, and Canada Geese, with a few of various other species (Green-winged Teal, Mallard, Greater Scaup).

Marine waters still very low and boat travel difficult.

There is no new caribou report, sorry to say.

September 20

High 49° F
Low 41° F
Cloudy, dry, sun
N-NE wind to 30

Still lots of swan music in the air. Still no water on the mudflats and still no caribou in our sector.

Report from Noatak Village today has caribou crossing the river toward the coast (us) right through the village. People are watching them through their house windows. Another report earlier today said caribou had been spooked from traffic on

the Red Dog haul road, so that those crossing the river around and above and below Noatak Village will move south and southeast when they do reach the coast. Good for us maybe, not too good for Kivalina. We will see. We do have only 10 days to two weeks before some bulls begin to get strong.

Small catch of whitefish from overnight set at Akulaaq (only two!). A very large catch of Saffron Cod in the ocean in front of camp. Three 5 gallon buckets full. Lots of fish work tomorrow.

Snow Buntings and Northern Harrier for birds today. Also a Red-necked Phalarope at Akulaaq open channel area. Various waterfowl and gulls still around, though white adults becoming less each day.

Some blackberry picking beginning again as those unfrosted have grown larger and sweeter.

September 21

High 46° F
Low 32° F
Clouds, light snow
Rain, sun
N-NE wind to 15
Calm PM

Wash day and Saffron Cod cutting day. A rather nice day with less wind than we've had for awhile. Even flies and moths were out for a short time.

Marine waters dropped again last night to the lowest level yet. North winds in the region have moderated some and water was coming up some in the afternoon. We have sure gone from flood to rock bottom. Mud flat areas and even some channels are bare for once this summer. We have very, very low water.

Have the herring net out for a bit this evening for the first time. We have a good supply of drying whitefish and Saffron Cod now and will hope to get enough herring to salt a bucket or so. What we aren't going to have, it seems, are frozen whitefish for winter quaq. After several good years of enough salmonberries and whitefish quaq from the Anigaaq area for all winter, this year the source has failed. We will keep a sharp eye out for alternates. (We of course have some already - the sourdock mix and freezer frozen char.)

Lots of waterfowl yet. Still no report of caribou by Krusenstern residents.

September 22

High 45° F
Low 37° F
Cloudy, light rain
Light winds

Marine waters finally rose to a more normal level and boat travel became much more possible.

Waterfowl finally thinning out some, though there are still many Canada Geese and Wigeon. Some of the Tundra Swans, flocked non-breeders, have either moved to a different location or possibly on south migration routes. We still have a good number of swans, but they seem to be mostly family groups.

Snow Buntings showing in larger flocks along the beach.

Numbers of Spotted Seals are reported at Sealing Point. A couple have been caught. It is early in the season for them to be making a show.

No new caribou news report except that we were given some fresh meat by our neighbors.

Put the small mesh herring net out this evening to test for herring. Got busy plucking some birds and the net was out for an hour or so. When I pulled it, I was forced to remember a lesson I thought I had learned before. Almost every mesh was filled with a very small Saffron Cod. Spent an hour clearing the very short net and hauled the two buckets to a friend with dogs to feed.

September 23

High 42° F
Low 29° F
Clear, clouding PM
NW wind to 15, AM
N wind to 30, PM

A very bright day, lots of sun.

We thought that bear stories were about over for the summer, on the beach anyway. But no! This morning I let out our little old dog just after daylight. She started barking and wouldn't stop. That was very unusual so I went out and looked around but didn't see anything. Later, as I started off on a trip down the beach, I saw fresh small bear tracks. I stopped and checked them out and found that it had been right in camp but hadn't bothered anything. We are thinking our little old grandmother dog barked the bear out of camp just in time!

Lots of waterfowl yet but pretty concentrated into one isolated location that is difficult to get to.

Clouds in late PM may result in snow showers. We are involved with an Arctic front that may bring on freeze-up, running ice and snow.

Large swells on the ocean this evening, but water level has dropped to very low again.

No new caribou news. Time is getting short.

Sandpipers about gone. Didn't see any in today's travel. Snow Buntings becoming more common.

September 24

High 42° F
Low 25° F
Mostly clear
N wind to 30

The large duck lake was ice covered all day, as were some fingers of the lagoon. Now the same wind is holding and sky is clear, so freeze-up is upon us.

T. Swans are gathering at open holes in the lagoon over *Potamogeton* beds. Wigeon accompany them and they will keep the water from freezing by their activity. Some cygnets are very small yet. Saw one family group of seven young with two adults today.

Also in the same area (a place where most remaining waterfowl have gathered), another eagle was under observation for about twenty minutes. Since it was on the ground in two different places I thought it had made a kill. Looked the place over after the bird left but couldn't locate anything. It was not an adult bird and there was so much white in various places that there is the possibility that it is a Bald Eagle, though it probably is a Golden. Could not get a good angle to note tail band. Beak seemed large and yellow portion of foot seemed to extend farther up than the Golden Eagle found dead this summer.

All berries will be firm in the morning for those pickers brave enough to get at them before the sun does.

September 25

High 40° F
Low 32° F
Clear
N wind to 35

A cold night, a bright day. Fine fall weather with very low water.

We are down to 10 days now before caribou bulls become unusable (for humans) and still none in the coastal sector of Krusenstern.

There is much ice and little water in salt marsh mudflat areas. Fair number of Wigeon, Canada Geese and T. Swan families remain in open feeding holes.

White Glaucous Gulls are getting scarce but Jonathan remains.

A beautifully patterned Snowy Owl is being seen at Salluq today, a fall first.

Saffron Cod taken in numbers at Salluq yesterday evening.

A rare (for this area) fish found on the beach by a neighbor. It appears to be a Pacific or Gray Cod from the key I have (*Gadus macrocephalus*). Length: 43". This, along with the Walleyed Pollock found and identified a year or so ago in these pages, are fishes common to the North Pacific and Bering Sea but are apparently rare, at least near shore, north of the Bering Straits.

September 26

High 40° F
Low 20° F
Clear, snow showers
W to NW wind 15

A low, low last night and little wind. Most non-moving freshwater and much lagoon brackish water froze. This afternoon the marine water was rising rapidly. This will be relatively warm salt water that will "unfreeze" a lot of water surface.

There are a few T. Swan families but did not see Canada Geese or puddle ducks at all today.

Put herring net out for a short time and got four juvenile Saffron Cod. No herring.

The sky had the look of fall snow squalls today. There were a few. Snow Bunting numbers continue to increase. They are on time this time and we will expect to see more. The salt marsh is losing its main attractions - birds, waterfowl.

Our northerly low marine water system is coming to an end as a new system takes over and allows water levels to return to more normal.

The distant view across our salt marsh lagoon horizon is shiny ice with mud as the only breaks, and a few young gray gulls.

September 27

High 40° F
Low 34° F
Cloudy
SW-S wind to 15

A dull day with only the show of sun around the edges. It did not snow or rain though. The lagoon ice moved around but did not break up.

Only birds noted today were two Wigeon, one T. Swan family, a hand full of Glaucous Gulls and a couple of Common Ravens. Birds are fading fast. The hard freeze of yesterday night along with rising marine waters work together to make waterfowl access to *Potamogeton* most difficult.

Wind direction changed from the long running northerly system and has brought immediate change in a number of things: waters have risen, the air has warmed and the noise of waves-swells has wiped out the rather constant sound of wind.

Noatak River has been running slush ice for a couple of days and a boat that came down yesterday reported that they had to break ice from the Hatchery down to Sam Henry's place (a long ways).

Small freshwater ponds will support my weight today. It does exceed 1" in thickness. If it snows or freezes more tonight we will soon be able to cross the water to the hills.

September 28

High 43° F
Low 38° F
Cloudy, sun
SW to NW wind 18

We have had a hunting Northern Harrier around most of the day. It is a dark brownish bird, probably a juvenile. This may be a record late date for this species.

A cool day, but not freezing and after last night's rain, wind and high marine waters, most formed ice is gone.

Saw four Wigeon but no geese or swans today, though it is likely there are some still in the delta somewhere.

A large golden colored bear was seen moving toward Sisualik yesterday afternoon by a couple glassing around for caribou.

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There is a little flurry of whitefishing excitement today after a lapse.

Two Spotted Seals were taken by a local shooter over at the Point yesterday afternoon. This is only the third incident this fall of seal catches. That activity will pick up as we get more into freezing nights, running slush and the month of October.

A straying baby walrus was taken near Sealing Point yesterday evening.

Ocean too rough for net today (Herring or Saffron Cod). No caribou report and most waterfowl have been forced into migration due to hard freeze a few days ago.

There were a few phalaropes on the beach this morning after the onshore winds of the night.

September 29

High 42° F
Low 37° F
Snow showers
S to SW wind 15

Noisy waves again but rather relaxing and beautiful today when everything is moderate. There were even intervals of warm sunshine.

Family boat brought us our much needed gasoline for move to winter quarters. Very glad to have it. All the ice has cleared out of the lagoon and water level is quite high.

Several days without freezing has allowed us to see a few more birds. There were four families of T. Swans on the creek bend a few miles west of us. Six Wigeon and small flock of geese were in the same water feeding area.

Saw several large (50-60) flocks of Snow Buntings and small group (5) of shorebirds, probably Dunlin. Haven't seen any sandpipers for some time except for phalaropes.

A new caribou rumor today, direct by CB relay from Kivalina. They report caribou in Agaigraug Mountains. Rabbit Creek skirts our side of that coastal range and the Red Dog Haul Road skirts the Kivalina side. It is not far from Sealing Pt.

Word of the taking of a moose with some internal anomalies. The liver and lungs appeared affected.

September 30

High 40° F
Low 30° F
Clear
NW to N wind 18

This was a fine sunny day to end this month and usher in the month of a new world. In October we will change from ice free to frozen.

Checked the beach at the Point this morning for clams and mussels as waves and water level had dropped. Didn't find any.

The first Snowy Owl of the season was eaten last night at camps west of the Ranger Station. It is a little early but the bird was reported to be quite fat.

Saw a flock to twenty Mallards today. That is unusual. They seemed mostly males with winter plumage nearly complete. Would have liked to have gotten a shot at them but couldn't quite make it. They looked large and fat.

Finally got nets out in the ocean this evening. Was pleased to get a dozen large herring and a few large Saffron Cod.

Caribou news is not good. Pilot reports none close.

One hunter west of the Ranger Station got a lot of Willow Ptarmigan today. That is good news as that species has been scarce too long.

Both Anigaaq and Akulaaq channels remain open after the large waves and high water yesterday.

Several Tundra Swans families were seen behind Sisualik today. Ice is mostly gone but may be back tonight. No geese seen today although a few Wigeon remain.

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October 1

High 34° F
Low 26° F
Cloudy, clearing
N to NE wind 18

A good day for the beginning of a new world. Water has begun to freeze again and the higher mountains show the orange-yellow of sun on snow, one of the major characteristics of the "new world."

A good catch of large Saffron Cod and a few large Herring was made today.

A few more ducks in sight today: Mallards, Pintail and Wigeon. There was one family of T. Swans but no geese were seen.

Marine waters very low again. Some one walked across Anigaaq Channel today. It is quite shallow. Akulaaq Channel is the bigger challenge now.

No mention of caribou today from anywhere. Bulls will be coming into rut this coming week.

Blackberries should be frozen for picking tomorrow morning.

Found a Longhead Dab in the net last night. It is a rare fish here in near shore waters.

Several Spotted Seals have been taken this last week. No report of yearling uguruq seen or taken yet. We will probably have slush running this coming week and that should attract more seals to Sisualik.

October 2

High 35° F
Low 34° F
Cloudy, rain, snow
E to NE wind 30

A blustery day, not much fun to play out. Mixed rain and snow wets clothing quickly and has made visibility very poor. It also temporarily caused a further drop in marine water level that was already low. This trapped a boat load of neighbors trying to get back into town. After a cold wet ride in that way they found the water too low to cross the bar and visibility too poor to go through the outside passage. We're glad they made it back to where it is warm and safe.

New caribou news. Lots passing Kiana towards this direction and many in Noatak Flats again east of the Village. Here we go again! As the bulls begin to get strong the herd's movement accelerates. All that happens usually between October 1 and 14 and that's where we are now!

Foxed up our owl trap poles yesterday but didn't set the traps yet. Maybe in another week.

A mix of rain and snow all day. Our air, land and water surfaces are getting that lonesome look again as more and more species of birds make their way South where living may be a little easier for them. We'll miss them but it is some comfort to know at least some of them will be back.

October 3

High 44° F
Low 34° F
Cloudy, some rain
NE to E wind 18

A fair but dark day with light showers now and then till evening, when rain became rather steady.

Marine waters came up a bit, but dropped again PM.

Most ice and all snow is gone again except at high altitudes.

Went as far west as possible with ATV today but nothing to see over tablelands and marsh areas except gulls, ravens, Snow Buntings and two Mallards.

Saw one large bear track on north shore of Akulaaq which was probably a week old. There have been no tracks on the ocean beach line for more than a week now.

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Willow Ptarmigan are again conspicuous by their absence. They are quite white now and with no snow cover again they could be seen from a very long distance. In some years hunting them at this time, just before snow, is or was very productive. One old timer got 150 one afternoon and a younger neighbor picked up 50 that the elder had over-looked. This year seeing even a small flock is a rare event.

October 4

High 42° F
Low 42° F
Cloudy, drizzle, fog
N-NE wind to 10

Rather odd weather today. I think it is the first time our 24 hour temperatures have had an equal hi and lo. We could truthfully say our temperature was 42° F today!

Gnats and mosquitoes today prove the temperature. There were some out hunting, as it were, both here in Sisualik and at Salluq.

We have a flock of nearly 40 Mallards in our back salt marsh. In addition there is a mixed flock of 50 or so Wigeon and Pintail. A few yearling Oldsquaws are beginning to show up too. Saw two Tundra Swan families today, one with two cygnets, the other with a single youngster.

Usually there are some large flocks of Red-breasted Mergansers around at this time. We haven't seen any this fall. This is another species that is conspicuous by its absence. This fish eating species may have run its migration route through some form of chemical pollution. It has decreased steadily here over the last 20 years.

A moose and a musk-ox in sight from Salluq today.

A dead Short-tailed Shearwater on our beach this morning and several reported found this week between Salluq and Sealing Point and west of Sealing Pt. A person that flew here today from Point reported that they have had this week flocks after huge flock of what seems to be this bird. Most of the people there were unfamiliar with the bird, though some said they thought they were "walrus or whale birds" (this is a common name for shearwaters among some Eskimo groups).

Marine waters rose rapidly this evening.

IRA home repair crew hauled materials to Sealing Point Williams' house today.

October 5

High 36° F
Low 28° F
Fog, rain, snow
N-NE wind to 30

A rather cold, wet miserable day with a promise by the Weatherman that our wetness will turn to snow and wind.

In most years one can walk across the two water crossings on the lower trail to Sanningaruq by this date. Not so this year. There is no longer any ice anywhere locally.

Had two sized nets out today. We had several large Saffron Cod and three Bullheads made our good fresh fish lunch. The Bullheads have come to be a favorite "lunch" fish at this late date. They are either thrown away or released when cleaning the net through the summer, but now as we roll or float into October the extremely fine liver and enlarged roe skeins of each Bullhead make them an important valuable catch.

No caribou news except that they seem absent from most places where there are people.

Ocean swells building today.

A quick change from steady drizzle rain to sharp freezing wind about 5 PM this evening. Outdoor things, tools, vehicles really iced up.

N wind gusts to probably more than 35 to 60 on outer capes.

October 6

High 16° F
Low 10° F
Clear, some clouds
N-NW wind to 45

Quite a night and a day in Sisualik, weather-wise. Last evening around 6 or 7, after a full day of near steady rain, our wind picked up rapidly from the north and was soon blowing at gale force with sky clearing and temperatures dropping. The last few clouds dropped snow instead of rain and everything outdoors froze in place, having already been rain soaked. Temperatures dropped clear through the teens during the night and as our fire went out, our inside wash basin and dish pan froze along with a couple of plants. The strong winds and cold temperatures made for an early and uncomfortable awakening. We've almost had a complete freeze up in 12 hours! Late swans and ducks had to scramble to meet their needs. Hope there weren't any non-flying loons.

Another first today, saw a couple of animals on the tundra tablelands to the west moving quite rapidly toward the beach. Though they were several miles away their light color made it likely that they were caribou rather than moose or bear. Quickly warmed up the ATV and went down the beach to get closer. They were caribou and they tried three times to cross the thin ice on the slough that lay between them and the beach and me. They wisely gave up trying to cross (which saved their lives) and headed back inland. I couldn't cross either, so though we saw the first two caribou in Sisualik, in fact on Krusenstern, all we could do was look at them. Even that was hard to do with such a strong cold wind blowing. Almost froze my hands. However this does give a lot of people new hope. Every one knows that usually at this time of year, where there are one or two caribou there are likely to be more not far off. Now we will have thin ice to deal with to access caribou if indeed these two are forerunners of more to come. It is though, for everyone, much, much better than a "rumor" of caribou. We shall see!

Due to extreme N winds all over the region, our marine waters are at a super low level. They only get this low once every five years or so. It is a time to look for lost anchors or other lost heavy objects.

The caribou frightened seven Tundra Swans from their open water feeding hole in the slough they couldn't-wouldn't cross.

October 7

High 30° F
Low 10° F
Cloudy, snow
W-SW-S wind to 45

October seems bent on giving us a working over with winds, waves, rain and now snow. The high winds of yesterday from the north didn't give us any trouble water-wise. It just removed most of it. Today the strong inshore winds not only brought marine waters back, but also those huge backbreaking rollers from the outer Sound with it. At 9:00 p.m. the tops of the swells had reached sod line but were not yet going over the bank and the wind has been backing more to the south which may help keep them from climbing higher. The weatherman assures us that winds will be diminishing tonight. They did not give any warning of this small intense storm even a day ahead of time.

Cold air mass moving across warm Kotzebue Sound waters has given us some very heavy snow showers all day. There is quite an accumulation that may make our move to Sanningaruq that much easier if temperatures don't get too warm and melt it. We should have and will deserve a good clam feast if we survive the night.

Air travelers much inconvenienced by these weather systems. Carrie was going to town, her brother from Sealing Point was to make connections to go to Fairbanks for pastoring. No planes into the Monument today.

The inshore storm winds have brought some rare seabird company. Ross' Gulls were noted at Sealing Point and Salluq, and young Kittiwakes were noted in Sisualik. Ross' Gulls are in migration in large numbers now in the Barrow area and this storm worked in on us from that direction. With luck we'll see more tomorrow as the storm winds down. Some other possibilities are Northern Fulmar, Short-tailed Shearwater and Ivory Gull.

There are large flocks of 40 to 50 Snow Buntings in Sisualik today.

No follow up on the two caribou seen yesterday. Maybe they'll turn up tomorrow wading through the snow with the rest of the herd.

Journal

October 8

High 30° F
Low 24° F
Snow showers
SW wind to 15
N wind to 10, late PM

Well, the wait was worth it. Nice big white clams this morning as the wild sea waves calmed to half the wave size of last night. It didn't take long to fill a 5 gallon bucket from over at the Point, in the shadow of the small mud bar there. We ate half for supper tonight with the help of a couple of neighbors.

There were also several dead sea birds on the beach this morning. Four juvenile Horned Puffins and a single adult Common Murre.

Lagoon ice was broken and piled at various places on our trail to winter camp. It is all ice though, and a little more freezing of the surface will permit us to see what the bears have left us at Sanningaruq.

The outlet at Anigaaq is finally closed. Two months too late. The outlet is wide open yet at Akulaaq, preventing coast ATV travel past that point from Sisualik.

There is report of a great shellfish harvest at the closed Anigaaq outlet, a mixture of many species. We may hear more details later.

Snow cover is building pretty good for our inland trail.

Back mudflat salt marsh area just barely made flood stage last night and dropped rapidly today. There are no more waterfowl back that way.

October 9

High 26° F
Low 11° F
Clear a.m.
Snow showers p.m.
NE to E wind 15

A cold night and day with good progress toward a good traveling freeze up. Accumulation of snow helps that, though it inhibits building ice thickness. Was able to walk on large duck lake today and presumably ice formed at the same time back on our winter house trail. It could be walked on today too. Will probably get back there to test it tomorrow. The open water areas on the lagoon that were formed when ice shifted around is very salty and where snow has fallen on it, is very thin yet. Some detours will be required to make a safe crossing for awhile.

October

A small group of caribou was finally seen at Sealing Point this afternoon (the day after some of one of the families there left to serve as pastor in Fairbanks). We haven't yet heard of anything but the sighting.

There will be at least one boat hunting seals from Sisualik as freeze up progresses. There may be one or two more.

Gulls were feeding well near Sisualik shoreline today. Could not determine what kind of live prey they were after. They seemed small- stickleback?

May open the Snow Owl traps tonight though we may never see our catch. Fox tracks are plentiful on the new snow around Sisualik.

October 10

High 34° F
Low 24° F
Heavy snow showers
E-SE wind to 18, PM
SW-W-NW to 20

Some real fast changeable weather today. Quite a lot of fresh, light snow on the tail end of it.

Today was Seal Day in Sisualik. Milder temperatures, rising marine waters, and an east wind brought most of the newly formed ice out into the ocean, with light swells break it up into pans. Some of them are thick enough to support the weight of a 200 lb seal. This is the first broken pan ice out into the sea this fall. Seals just love to lay on it to relax after swimming all summer with few opportunities to haul out.

There were several hundred in sight most of the morning. They were mostly Spotted Seals with a smattering of young Common Ringed Seals and few yearling uguruq. Waves, wind and current prevented any hunting of the seals, the closest of which were three or four gunshot lengths offshore.

Carrie flew into town for a day or two of business and family visiting.

Set the Snowy Owl traps last night but no catch. Have not seen any yet.

Sealing Point CB out of commission so we don't have an up date on the caribou scene there.

Journal

October 11

High 28° F
Low 22° F
Fog, snow, sun
Calm a.m.
S wind to 35, p.m.

Don't know what we have done to have all this changeable weather. It seems to be a mystery to the forecasters too!

We had heavy snow during the night, without wind. Everything was pretty white this morning and there was about 8" of soft light stuff all over. Spent the morning putting new spring in snow machine so it could be used to groom the runway to get Carrie home from Kotzebue. Things worked out well and she got in a little after 5 p.m. Then the wind began to blow, bringing snow showers, drifting snow, and noisy waves. We feel fortunate to have made use of the runway before it was altered again.

Seal hunters caught a couple today.

First surface travel between here and Salluq today. Don't know yet how they got their snow machines across the Akulaaq open channel.

We are lucky to have our first strong wind off the water side, even with the big waves, with all this loose snow around. There will be heavy drifting inland.

Glad to have the snow machine fixed up and the snow will give us a good moving surface whenever it gets back to freeze up again.

October 12

High 28° F
Low 26° F
Cloudy, snow
S wind to 30

A snowy day of drifting and falling snow. All of the light stuff of yesterday is widely redistributed. Large ocean swells subdued by several hundred yards of thick slush between open water and gravel edge.

Witnessed an incident last evening that reminds one of the poignant tragedies that occur every fall as our world changes from summer to winter. A Glaucous Gull with a badly broken wing had walked from the frozen-over waters of the lagoon to the ocean beach edge and was seeking food in the slush edge of the waves. The very deep fluffy snow revealed the details of his tenacity for life, in spite of the hopelessness of his condition. I was running Terry on a chain with ATV when we ran across him and his story in the snow. To escape us he swam out into the breaking waves. He probably has been a survivor for some time, being able to eke out a living

in the relative quiet of the mudflats and lagoon. The Death Angel that will relieve his condition and situation will likely be one of the numerous Sisualik foxes that patrol the beach and marshes for that very purpose. Birds that have flown but will never fly again for whatever reason are not uncommon on the salt marsh as most freshwater and shallow brackish water surface freezes over and eliminate life sustaining habitat.

Then there is Jonathan. Big, robust, fat and just today his full dusky, ashy winter plumage hood seems fully developed. He took several herring and piece of thawed caribou meat from the top of his swallow box pad.

Today was kind of a first winter storm confinement day. Steady wind driven snow all afternoon and restricted visibility all day. A good day to hook up your sled dogs, which we don't have anymore.

October 13

High 28° F
Low 26° F
Cloudy, sun, snow
SW wind 25

A day very similar to yesterday in temperatures and inshore winds with big waves. One very nice difference was mostly dry air and several long periods of very bright sun.

We had hoped this long spell of inshore winds and storm weather would bring caribou into our area. It hasn't yet ,but they are reported again on north shore Kobuk Lake area. This can bring them here any day now should they choose, as the lower Noatak River may have thick enough ice to support them.

One caribou was taken this week from the Rabbit Creek area by Sealing Point people. This is still the only caribou taken on Krusenstern this Fall.

Snowy Owl traps are out, including ours. One was taken yesterday and another seen over at the tip of the Point.

Several flocks of sea ducks paddling over the rough seas today. They are small and are probably Oldsquaws.

Gulls doing pretty well on the splash zone today where breaker hit an ice shelf two thirds of the way up the beach. There are still quite a few white adults. They are staying late.

Snow cover on the tablelands is heavy for the date.

Journal

October 14

High 28° F
Low 25° F
Snow showers
SW to W wind 18

A day similar to several previous ones but with better and longer spells of good visibility.

Tried again today to cross back into the Tablelands and break the trail to Sanningaruq, but the wet edge of new snow was soaked up with overflow that was deeper than my shoe pacs and kept me from getting to the main ice of the inner lake to test its thickness. Cooler temperatures and clearing are forecast, so maybe tomorrow.

A couple of hunters made a long trip back toward Noatak from Salluq and found caribou there. They reported bulls very lean. That is not unexpected at this date. They reported the animals seemed not to be moving apparently happy where they are.

We still have quite a flock of Glaucous Gulls working the splash zone all day. These continuing inshore swells bang hard against the grounded ice barrier and throw the top of each wave out on the top of the ice-snow, where the water quickly runs through and strains various sea creatures that the gulls pounce on.

Six Owl traps set on poles. No catch last night.

A boat from town reached Sisualik today.

In some years dog team or snow machine crossing is made on the ice. Not this year.

October 15

High 28° F
Low 10° F
Clouds AM, clear PM
Light winds

We finally cleared this afternoon and with the winds and swells down, Sisualik seemed like a different place. It was real quiet and brightly beautiful. After many days of wave noise and flapping tent the silence was great. Jonathan took the opportunity to vocalize to the extreme just before dark. This was just after I put a partially thawed tomcod on his landing port and just before he took it. He carried on his super gull cry for several minutes. He certainly is a robust and confident gull by this time. He may have been saying good bye.

Well, caribou have finally hit Krusenstern. Our western neighbor was cleaning snow out of his well. When he looked up, there were two bull caribou standing there giving him the "eye," wondering no doubt what that strange thing was. He, of course, didn't have a gun. The animals took off back across the creek. He let another neighbor know by CB and he fired up his sno-go and followed the trail I had made this morning and got over there in time to catch both animals. We thought they might be strong smelling but they were both good.

Later today we heard from the Hatchery that many thousand caribou were headed down this way toward Mt. Noak.

I was able to make the thin ice crossing to the tablelands today and more than halfway up to the winter cabin. Fresh fluffy snow is deeper up that way and snow machine sits way down in the fluff first time over the trail. This condition discouraged my hopes for reaching the cabin till another day, probably Monday. All the ice crossings (small lakes and lagoon) had water on the ice surface under white snow. Very dangerous conditions when ice is thin and required "walkover" testing before running across with snow machine. Now the upper part of the trail, near the house, may require snowshoe work.

A boat made the crossing again from Kotzebue.

We are back down to freeze up temperatures again. Snow machine travel to Kotzebue won't be far off if the clear skies continue.

No disturbance of pole traps again. Snowy Owls are not moving.

October 16

High 22° F
Low 8° F
Clear
N wind to 15

Our coldest night so far this fall. we are glad to freeze up and dry up so we can get moved to winter quarters. It was quite cold in the tent last night after the stove went out. The bright moonlight with the new snow was another treat. Orion, the constellation in the southern sky at seven this morning, was especially bright and prominent in the dark sky after the moon had gone down.

A boat is going to try to go home to Kotzebue from Sealing Point today. We wish them luck. It is an unseasonable trip.

A couple of more caribou turned up but not the multitudes.

Journal

No owl catch or trap disturbance again.

Lots of red foxes down here on the flats now, where the snow is less deep.

A few people returning home by plane today.

Trail between here and Salluq reported to be pretty good now.

Jonathan and one other white gull is still around.

October 17

High 19° F
Low 7° f
Clear, few clouds
N-NW wind to 18

Two trips up to the winter cabin at Sanningaruq. It was very soft deep snow on the first time through it. Had to leave the sled and break it down with just the machine. Did not have to snowshoe. It was drifting some from the N up there today. And running over the trail while that condition is on makes a quick good trail. We now have a fine trail to our winter home.

It was beautiful up there as usual. A very bright sun making rainbows through our two prisms.

The gentle bears treated us well. The house is just as we left it. There was, however, large two or three day old tracks in the house garbage pile, into the generator shed and around the dog tie down post. Don't quite know what to make of this late bear visit. Time wise it is not real late for bears to be out, but snow depth would seem to be a deterrent for a fat, ready to hibernate, bear. Hope this is not a wounded animal or a sickly one that couldn't fatten. It has been chewing on cans.

Many spruce seeds on the snow up there. Seems early for that. Red Squirrels and Gray Jays are there too.

No sign of caribou. There was one moose track.

October 18

High 14° F
Low -10° F
Clear
N-NE wind to 15

It was a big and long day. We moved! It is so good to be in a warm cabin where both your front and back are warm at the same time.

While we are enjoying the luxury of our successful move everybody else was chasing caribou. They finally came in numbers through and east of Jones Camp, leaving our sector without tracks or animals. So far our creek and valley are just a bit west of the movement that seems to have come down the Noatak River from the Flats. Now in the delta, they have swung east, probably to cross the Kobuk and on south for the winter. Bulls are reported to be all strong now. Females, especially those unaccompanied by a calf, are now the target. Some are reported to have back fat.

We did not see Jonathan today for the first time since last May. We appreciated his company and his faithful sentry duty. He leaves us a robust, healthy, Glaucous Gull, probably having a bit more wisdom than most others of his tribe. We wish him a good winter and a faithful return next May.

A night in a warm cabin in the midst of our tree patch seems an incredible luxury!

October 19

High 12° F
Low 2° F
Clear
N wind to 18

A fine bright and cool day with ground drift in unsheltered areas.

Made a snowshoe trail up to the knoll we usually use for a look out point. Didn't see anything so went down into the creek to check out progress of freeze. Came back up the same trail and took a last look around since the sun was now up. Just before giving up and going home I saw the sun shining on several caribou to the west a mile or so. Decided to give them a try as the wind was good and some of them were bedded down while others were feeding. It turned out that there were 14 caribou. They were mixed, a large bull, one smaller and females with calves and some yearling males. They were on a little higher ground without much chance of getting real close.

Did the best I could, got three, two females and a yearling male. Lost two others, wounded to some degree, the results of shooting at top great a distance. Bum show. Tried to track them down but distances too great and snow too soft.

We do have good meat for awhile now and are very glad to get it. Regret the wounding but that is also a part of predator and prey life.

Waking up this morning in a warm house was a great delight!

Journal

A first snow machine crossing from town side to this side through Pipe Spit. The folks that live up that way set Shee nets two days ago. Surface travel to and from Kotzebue on the ice will become common if this cold spell holds another couple of days.

Temperatures have not yet dropped below 0° F in Kotzebue. We have dipped to a -10° F a couple of times here (inland). That 10° F difference between here and sea level is typical in clear weather.

October 20

High 14° F
Low -6° F
Clear
Light winds

Today didn't go according to plan! Some days do.

The plans were to make two trips to Sisualik. Carrie to go along on the first. Fire up down there to clean up and pack up the rest of our things. We climbed up our outgoing hill trail (with sno-go) and stopped at the top to look up our valley with the binocs. Wow! There were probably 1,000 caribou right across the creek from the house. I decided to keep going to Sisualik as there were several things we needed badly (ammo, generator, ice, power line, chain saw, etc.). We did give up the idea of firing up and a second trip. The changed idea was to make the trip as fast as possible and return to do some caribou hunting, as we have only the three from yesterday so far. We did that but when we got back to the same ridge top lookout, guess what? Not a caribou in sight! There were two big black moose making their stolid way up through the caribou tracks. The caribou, spooked either by the moose or hunters, apparently headed straight for Kotzebue town.

This known because the surface travelers made it to Kotzebue on the ice today. They did have to go all the way to Pipe Spit to cross.

We did chores this afternoon.

October 21

High 16° F
Low -8° F
Cloudy, snow flurries
Light winds

Our timing is off this week. Should have hunted caribou yesterday morning and gone to Sisualik this morning. Only a few caribou in sight this morning. Walked a long ways, but no chance to shoot. Another bunch of 1,000 or so turned up this evening on a mountain top west of us, poised to make the run towards Kotzebue. That group may be our chance if they are around tomorrow.

Most of our friends and neighbors are getting enough caribou as they come down off the tablelands, headed pretty much toward Kotzebue. The animals are moving through on a three pronged front. The prongs are separated by a space of four or five miles. The rather heavy snow ground cover causes them to move in long single file lines.

There are some large flocks of Redpolls and White-winged Crossbills around (not mixed flocks).

Crossing to Kotzebue was shortened by a traveler today. Lockhardt Point instead of Pipe Spit is travel direction bearing.

Fox may have entered camp already last night. Lots of them around again.

October 22

High 12° F
Low -10° F
Clear, few clouds
Light winds

Continued bright and cool weather, very beautiful.

Lucked out today and filled our caribou quota. Managed to get into the trails made by the first of the group of several thousand seen yesterday evening poised on the higher hills to make a moonlight crossing to the Baldwin Peninsula. Couldn't make it snow machining because snow crusted and winds calm. Waiting by freshly made trails (earlier today) worked very well. Very close range shooting just right for tired old eyes.

Females without calves not as fat as in most years by this date. It is the same for subadult males, bulls the secondary target for this date. The best females have a coloring of back fat and good fat inside but no back fat. Migration may be tough on some animals this year. Some groups may yet drop off and winter on Krusenstern.

Journal

Groups of orphaned calves have already formed from this week's local harvest of females.

Kotzebue trail was shortened again today when several travelers came straight across from the Post Office to the tip of Sisualik Point.

October 23

High 12° F
Low -12° F
Cloudy, light winds

We have had so many days of bright sunny weather that the dullness of the light brought on by cloud cover makes everything hard to see, including the trail. We made a trip down to Sisualik for a few things this afternoon and found half of our fine level trail all chopped up by caribou tracks.

We had our first visitor of the season this morning down from the Hatchery. We sure enjoyed the time, having not visited since last spring. Lots of news to catch up with. They have had bears eating from their Hatchery return live fish in the spillway, up to two days ago. So our large bear tracks around the cabin in the last of the snow period is not an isolated event.

A few caribou around along the trail down the line. A new rumor has it that there are lots of fat caribou headed our way from that direction. We shall see.

The ocean is as smooth as glass with some Glaucous Gulls of the year flying back and forth. There was no sign of Jonathan. We are glad he has gone to his winter quarters as we have.

Travel to Kotzebue will remain fairly fast and rather safe until weather change brings higher marine water levels.

October 24

High 18° F
Low 6° F
Clear, bright
NE wind to 15

The sun was back today, no "whiteout" like yesterday. Trails are very plain to see and the sun is still high at midday (3 p.m.) and warm. It creates huge rainbows on our wall, passing through our prisms.

Made a quick trip to Sisualik for another sled load of stuff we need from there. There were several lone large bull caribou looking for trouble along the trail, and one group of seven of mixed sex and age. Not many animals, compared to the thousands of tracks of those that have passed.

Spent the whole afternoon and well into darkness butchering the caribou we took and hauled Thursday and Saturday. We have a great pile of meat now. Most of them have a good coloring of fat on the back but no thickness. Dry females are best, subadult males next, and females with calves a poor third.

Saw a single gull on Sisualik beach but it wasn't Jonathan.

It has been a long satisfying day. Getting ten dead caribou worked up in final shape for storage means a lot of stooping and hard work.

Tomcod (Saffron Cod) hooking and Shee netting have taken priority over caribou hunting now.

October 25

High 18° F

Low -4° F

Cloudy

Light winds

Finished the butchering chores for our caribou catch this morning and did some trail breaking this afternoon.

There are still scattered caribou around, lone bulls and some small groups of 6 to 8.

Traveling on unbroken trail still pretty tough back here in the hills. It is tough because of deep soft snow. Usually by this date it is tough because of lack of snow.

Our Gray Jay camp group seems to be three so far, with one additional bird trying to break into the group without much success.

There are two new otter tracks on the creek at lower trail crossing.

There are a few Willow Ptarmigan tracks in the country and lots of fox tracks.

Hatchery says they had a bear fishing in their creek less than a week ago. Our big fellow has not returned and we are glad, with all the meat we have in camp.

The freshly taken salmon from late Hatchery returnees that we boiled for lunch yesterday was very good. The flesh was firm and sweet, but lacked the pink-red color generally associated with salmon.

October 26

High 6° F

Low -12° F

Perfectly clear!
Light N-NE wind

A very bright but cool day and the sun could be felt for a couple of hours at midday (3 p.m.).

We went fishing today for Saffron Cod at Norton's camp (east of Jones Camp) and had great luck. There was over 100 lbs. - couldn't stuff them all in one sack. Some nice large ones.

In order to get to the fishing site we needed to cross the whole pathway of caribou tracks that passed from N to S, west of the main channel of Noatak River. It hasn't snowed since the beginning of their first crossing. There are many thousands of tracks made by many thousands of animals all pointed in one direction. Though they seemed headed directly to Kotzebue town from here, we understand that Pipe Spit on the Baldwin Peninsula is where most left the ice of the Sound. How long will Man be fortunate enough to witness the passing of great wild herds over their homelands on this Earth? It is a great privilege to be a witness!

The path of the migration this fall across Krusenstern was somewhat different than in past years. They passed mostly behind the coastal mountains, touching the beach only in our sector north of Sisualik. There maybe some overwintering.

October 27

High 14° F
Low -12° F
Some clouds
Light winds

Cloud cover made the trail hard to see amidst the caribou tracks on the way home from Sisualik this afternoon. A little "whiteout." The trip was good. We had fire in the tent and enjoyed the quiet ocean filled with slush while we cleaned up inside the tent to close it up for the winter. Two gulls passed. Both gray-plumaged first year birds. No sign of Jonathan.

Saw only a few stray caribou today but made no effort to see more since our needs for the late fall-winter are pretty well met.

Sisualik was pretty quiet. No waves, wind or traveling people. Our "silent woods" up here has pretty steady "air noise" from Gray Jays and Common Ravens, plus the babbling brook.

Girl-Girl caught a half grown Tundra Vole in Sisualik today. She was quite proud as it is only her third for the year. This for a dog that in her youth caught not only voles

by the hundreds yearly, but Ground Squirrels too. Now in her mid teens she may not last the winter through.

A friend made a special trip up to bring us two fine Sheefish from his newly set nets in Kobuk Lake. Modern technology again!

October 28

High 16° F
Low 6° F
Clouds, sun
N-NW wind to 18

A fine day to get some chores done around camp that have been put off long enough. There was some drifting snow in open areas on south slopes. Snow has hardly moved since it fell nearly two weeks ago.

Took Terry for a run and trail break through the big lake on the Sisualik trail. The ice is more than a foot thick in the lake and half of the thickness is clear. Excessive ground water flow from the soggy August continues to bug us. We may yet find a small lake that didn't overflow with weight of new snow on thin ice.

Didn't see any caribou for the first time today. There may have been some as we didn't glass the country, having no need, at present, to see more caribou.

Shee nets are doing pretty good and more nets going out every day.

Lots of foxes around but hard to see in the day time. They know the snow depth will give them trouble if they do get spotted.

We're back to Gray Jay and raven again in the tree patch. Don't know where redpolls and crossbills have gone. They maybe back as cone crop looks fair.

October 29

High 12° F
Low 6° F
Clear, fewer clouds
N-NW wind to 18

A day of "sick leave" for a change. After a second cup of coffee this morning got a kind of dizzy spell that passed on lying down but returned when I stood or sat up. Spent a couple of hours lying down. Got up and ate a light lunch feeling much better. Relaxed on the bed again for awhile before our visitor of the day arrived. Enjoyed talking with him and carried on a more normal day. Dizziness remains unexplained.

Journal

Report from the beach is that the ice and slush in the ocean is gone and swells were making loud noises as they banged into the ice wall down there along the shore.

Tom Cod hooking and Shee netting continue good.

Our hunter-visitor today got a couple of caribou from a good bunch, which may confirm that some caribou from Kivalina are moving this way.

One of the Sealing Point houses is continuing to be occupied by some of the younger sons of the elders that have gone to Fairbanks to winter. They will probably do fox hunting from there for awhile. There are a lot of foxes in the country.

October 30

High 12° F
Low -10° F
Cloudy, fog, snow
E wind to 25

Our first storm is under way. A low coming up the Siberian Coast and intensifying has caused the weather folks to issue Winter Storm Warnings tonight through tomorrow. Winds up to 60 K were reported this evening from the Red Dog mine area. Temperatures are rising rapidly and coastal flood watch conditions are on south of Bering Strait and maybe Kotzebue Sound. This is one of the reasons we so appreciate our warm winter cabin in the trees, 7-8 miles removed from the sea. We are glad to be [here](#).

Mouse (vole) damage to package of fresh baked bread in next door storehouse. There has been vole sign on top of the snow up this way. Much more than in the tideland areas.

Some caribou continue to move through but interest is down and we haven't traveled about at all to get a broader picture update of local caribou numbers.

A very intense, active aurora borealis display last night. A real lot of light given off with rapidly changing patterns.

We appreciated greatly the gift of a couple of plucked Willow Ptarmigan today. It will be the first we have eaten for a long time. With both ptarmigan and rabbits so scarce it is hard to remember that in some years we virtually "lived the winter through" on these species.

It is good to have our time one hour closer to sun time today. Two hours more would have been just right. Having lived most of a lifetime under the synchrony of sun and clock, it pains me much to submit to an artificial two-three hour alteration.

October 31

High 22° F
Low 12° F
Cloudy, blizzard
E-SE wind to 50

A real winter storm today to finish off the last month that can reasonably be called fall in this region. Kotzebue may have the worst of it with hundred of uptight disappointed kids having Halloween tricks or treats postponed till Thursday due to the monster storm.

It is unusual for us to develop snowbanks inside our tree patch at this early date but we have today and similar winds and snow are to continue through the night.

This is one of those early storms that pretty much stops everything on the surface in its tracks, and makes you think and be somewhat envious of those creatures that are not on the surface. Voles, mink, otter, muskrat, beaver, ground squirrels and bears are usually not much inconvenienced by 50 knot surface winds and drifting snow on the last day of October.

Raven and Gray Jays did turn up around camp, but didn't appear to get much accomplished in the line of foraging.

CAPE KRUSENSTERN JOURNAL

NOVEMBER

November 1

High 32° F
Low 22° F
Blizzard, improving
E-SE wind to 40

We have a lot of new snow in the tree patch this evening and a good deal of it in piles. The very strong winds yesterday and today moved most of the deep snow cover we had on the tundra into the creeks draws and willow fringes. The tussocks are showing again, probably blueberries and all.

It did not clear sufficiently before dusk to see what is in the country after the storm.

Snowshoed over the trails into our cabin but didn't have time to fire up the snow machine and run over them. That will take some care.

To have this much snow by this early date is unusual. Moose may have a tough winter in the region.

After breaking the trail down to the creek I did climb our observation hill to look around. Couldn't see far and didn't see anything, so went home and then made another trail breaking trip to the creek that I had been down earlier. There was a group of otter tracks, very fresh, over my earlier snowshoe tracks. There were at least four otter and possibly more. If they do hang around this creek we may try to catch one for use on clothing.

Peak winds yesterday afternoon reached 84 knots at Red Dog Mine.

Trees have some heavily drifted snow on their leeward sides and some may arch over again.

November kind of starts off at a gallop. Hope parts of the rest of the month are better.

November 2

High 34° F
Low 25° F
Cloudy, snow
E wind to 20

Snow and poor visibility late PM. Earlier in the day visibility and light pretty good for a look around our valley. Didn't see anything but the pack of otter tracks that came down the creek after I was up there yesterday. I must have come very close in time to seeing them.

Just before I came back down to the house on a last look around I noted three caribou moving downhill towards our lower creek crossing. As I watched, a line of caribou came into sight on the same trail, moving steadily but not hurriedly. There were 18-20. A good group of mixed bulls, females with and without fawns and some young males. They were moving west, which is interesting, because before the blizzard movement was to east or SE. I didn't make an attempt to get within shooting range.

Our snow depth is building very early this year but the blizzard has exposed tussocks and ground in many places, and has made for very rough trail where it used to be good.

Spent the afternoon breaking trail and getting some firewood. Neither was much fun with the very wet snow we had today.

Much overflow reported on Kotzebue trail. We do need to go to town but will wait till conditions improve. Two people with Shee nets did make it into town this morning but got wet. No one made the return trip from Kotzebue today.

Shee fishing reported good, as it always is on a strong incoming tide brought on by blizzard conditions.

November 3

High 32° F
Low 22° F
Cloudy, fog, clearing
W-NW wind to 15

The day turned out much better than forecast. The sun even came through in the late PM.

More caribou in sight for awhile. One long line of more than 50 working out of the mountains toward the ocean, west of Sisualik, was a surprise. There was a group of 12 in Mills Valley just east of our Sisualik trail moving west. Another small group

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was east of us moving east. This meandering after the blizzard time may mean that we will have some overwintering groups on Krusenstern.

There were several fox and vole tracks on the new snow but not much else.

Our overland trail to Sisualik is surprisingly good after the blizzard. Terry the Superdog was able to lead me all the way to the tidelands behind Sisualik. He could feel the trail to follow it accurately. The snow from last night (2 in) made it impossible for me to see. Terry earns his keep by doing this trail finding exercise. He loves to do it and I am always glad to be able to follow an old trail.

Town travel is on again maybe with some detours. We will probably try to make it in to catch up on unfinished business, mail and gasoline. Snow machine needs starter work and a check out.

Three seems to be the constant number of our camp Gray Jay group.

November 4

High 26° F
Low 0° F
Clear
NW-N-NE wind to 20

Town trip with lots of sun. That sun with its warmth at midday is a fading treasure. December is just around the corner. We got an early start this morning, saw the sun come up on the trail in, and watched it set on the way home. It was a short busy day, complicated by drifting snow bumps, a broken snow machine, and a long detour to get around the last overflow, which is still wet.

Kotzebue just cleaning out snow from the last blizzard.

Heard that some of the home camps got some caribou today with at least one in good fat condition.

A number of camp families were into town today. Weather folks are hinting at some strong winds again and the Kotzebue trail without stakes is a hard crossing when visibility is poor.

Our all white country of yesterday was changed overnight to tussocks and lumps by the strong north winds.

An unusual amount of rough ice on the Kotzebue crossing this year; it is usually smooth. And there is a lot of snow on it. Usually glare ice is a bad problem this time of year. When Carrie complained of the rough bumpy trail, I reminded her that at least it wasn't slippery!

November 5

High 20° F
Low -2° F
Cloudy, ground drift
E wind to 40

Another very windy day but without any new snow. Long distance visibility was fair, but ground drift was monstrous. Drifting granular snow was very hard on the eyes.

While snowshoeing around the circuit in our spruce patch today, couldn't help but remember the abundance of tracks on the snow here in other years. Today the only tracks noted were a Red Fox and a Short-tailed Weasel. Hundreds of Snowshoe Hare tracks, eight adult moose, four lynx, five otter, three mink, hundreds of Willow Ptarmigan, small groups of caribou, two Arctic Hares, three wolverine, white fox, two wolves and a bear over time have made tracks on the same circuit within various other days, other years. Left out marten, which is a recent addition, but has not yet made a show this year. In light of this past history of our tree patch, today seemed a bit lonely.

It was brightened by a lively flock of 18 White-winged Crossbills wastefully knocking cones off the trees after getting only a few seeds. They were intensely active in the strong winds, following some high seed producing cones that were dropped down to the snow surface.

A small group of caribou was reported feeding near the two most westerly occupied camps in Sisualik today. Neither of the old fellows disturbed them.

Have not seen a moose track since the antlerless season opened on the first. Will need to travel farther from home if we are to have moose meat this winter.

November 6

High 10° F
Low -6° F
Mostly clear
NE-NE wind to 15

A very nice and bright day with clearing and cooling trends.

Caribou hit Sisualik pretty strong this Sunday. Just at daylight this morning the first report came on the CB that there were many animals feeding or lying down just behind the houses through most of the length of the whole Spit. They seem to have come from the west and are moving east. Estimates of numbers are hard to come by, but it is another major movement, probably from the Kivalina area going south and east.

Journal

Two moose are back in our tree patch. Ran into the tracks when I climbed the hill to glass the country. They came from up creek, traveling overland where snow is thinnest. It appears to be a cow and calf. Followed them for awhile and almost ran them through camp. Never did get to see them.

Some shooting and a little hunting on this Sunday. Most folks will hope there are still some around tomorrow. Most local folks, practicing Christians or not, hesitate to hunt or fish on Sunday if they aren't in some state of need. Christians, of course, are free to do what they will, but consideration for your neighbor's feelings is always part of your decisions. Those of us that hunt and fish six days a week tend to appreciate a 7th day of something different.

November 7

High 2° F
Low -22° F
Clear AM, cloudy PM
Clear evening
Light winds

Coldest temperature so far this fall.

Caribou continue to move in numbers through the tide flats and edge of tablelands west to east directly north of Sisualik. There seems to be very little hunting pressure right now.

This group of caribou has been passing for two days now and we haven't taken one to see fat conditions. Those that have say that there are some good ones, but also that some are quite lean, which I guess makes them about like the earlier runs. There are tracks of a few good bunches north of us traveling west instead of east.

There is much bare ground again. Caribou can feed again with very little expended energy. That may cause some to overwinter as the rut period is drawing to a close. Some bulls have dropped one or both antlers.

Our trails that were so good for awhile have become awful since the blizzard.

We have yet another storm watch on for tomorrow afternoon. We were surprised to find the snow so very hard around the tent in Sisualik. One must use an axe rather than a shovel to get at something underneath.

Had a report of lots of eider ducks in Sisualik waters yesterday. If these big ducks are Common Eiders and doing well, they will begin putting on fat if there are lots of local Arctic Cod in November.

November 8

High 20° F
Low -3° F
Blizzard again
E-SE wind to 40

Wind did not pick up till mid afternoon, but visibility was poor through the morning with falling small snow particles.

There are still reports of caribou in Sisualik today with a few being taken by those living there.

Bread making and indoor chores this afternoon. The rising bread sure smells good and the other cooking smells makes the blizzard seem far away.

Cut some firewood nearby this morning.

Did not see anything when I climbed to our lookout site this morning. All the caribou excitement is down on the tide flats.

Our squirrels are active as weather begins to warm up again.

Saw a large group of Boreal Chickadees yesterday feeding on spruce seed on the snow. A lot of seeds have fallen through the first part of this month.

Today is election day and turn out looks pretty impressive. The weather is not keeping people from voting.

November 9

High 24° F
Low 18° F
Cloudy, light snow
Light winds

Wind dropped off soon after midnight. By coffee time this morning it was very quiet, but cloud cover kept the whole day pretty somber.

Caribou were more plentiful around our valley today. Bunches of 18-20 are scattered all around our valley. They seem to be moving both ways, some east and some west.

Our visitor got a couple of dry females today and one is very good meat, with a show of fat outside of the brisket. The other, a larger, older animal is not. There was considerable banging around the country today, so someone is still hunting caribou.

Journal

The blizzard and fresh snow of yesterday did not help the trail much. More tussocks are showing and snow lumps are harder. The fresh snow of last night, which could have helped on the trail, was blown into sheltered places. We will have a better trail some day.

Our three camp Gray Jays are an aggressive trio and very industrious. We probably will not have the problem of too many other birds around camp this winter.

November 10

High 24° F
Low 2° F
Clear
NW wind to 18

Caribou! Last night, unknown to us, more than 1,000 Caribou fed and bedded down just outside of our tree patch, less than 500 yards from the house. They removed a real lot of lichens from our lookout knoll. They must have been much in need of "refueling." We came to know their presence just after daylight, just after they had moved out in their long traveling lines across the creek. We keep thinking the last caribou have passed, but each day they keep coming and passing. These were lined out towards Pipe Spit from here, the route that so many have taken. We may have had more caribou pass through here since the 18th of October than in any other year in this century. We were glad to host this last group without extracting any toll. It will, however, take some time for our lookout knoll to replenish its full vegetative capacity.

There was an unexpectedly severe NW wind through Sisualik and especially Kotzebue this afternoon. We were pretty much out of it and the sun warmed and brightened delightedly this afternoon. It was even in the house windows for several hours, something that won't happen much longer as we approach December.

November 11

High 20° F
Low 8° F
Cloudy, snowflakes
NE wind to 15

Our visitor reported moose tracks this morning just out of sight from the cabin. Went down to check them out. Found that it was the cow with calf that was here a few days ago.

There seemed to be a third animal, but was never able to be sure I was seeing a third animal. Very thick cover. Tame female with a wilder calf. If there is a third animal it is probably not a large enough female to be what we want. It was good to see moose at close range again. The calf has a body half the size of its mother, a very short nose, and dark coat. The cow seemed mesmerized by the creak-creak-creak of my

snowshoes. This was evident when after a half hour of watching the two, our small old dog came walking up the trail looking for me. I noticed both their ears focused away from me, and soon I heard the patter of small dog feet on the frozen snow, as Girl-Girl came into sight. The two moose panicked and took off. Perhaps the small noise of padded canine feet is much more frightening to some moose than the loud squeak-squeak of hardwood against crusted snow.

Some folks at Sisualik saw some caribou head out into the thin ice and slush of the ocean this afternoon. They think some might have perished.

The large bunches of caribou are passing down at Sisualik through the coastline. We have small groups of 8 to 12 scattered around, moving in various directions. Many of these are bulls that have dropped both antlers. This probably means that we will have overwintering caribou on Krusenstern. It also seem likely that all the caribou in the WACH have passed through here since October 18.

November 12

High 4° F
Low -8° F
Clear
N-NE wind to 15

A lot of sun into the house windows yet. Our prism rainbows were beautiful again today. We'll need to retain good memory of this to see us through next month.

Caribou are still passing through Sisualik and few miles inland in numbers. Today however, there were many large groups turned back after they got out on the ice, probably by snow machine noise. Sound carried very long distances today and most caribou are pretty shy to sno-go whine by this time, especially when they are in flat places.

A wolf turned up in a west Sisualik camp today. The resident of the camp fired his last two cartridges, but he doesn't think he hit it.

There are lots of antlerless bulls now, and antlers are scattered around on the snow surface.

Our lichens are getting hit pretty heavy these last two weeks. Many of the larger groups of 500 to a thousand are stopping over to feed up before hitting out across the ice.

The strong winds of the last storms have left us a pretty rough trail in all directions. Grooved snow, tussocks, and deep cut caribou tracks all contribute to this.

Journal

All overflow is now frozen. Hope we can make a trip into town before another soft wet spell.

November 13

High 0° F
Low -14° F
Mostly clear
W-NW wind to 18

A lot of visitors for this Sunday. Finally even a dog team. An Iditarod team in the making was down from the Hatchery.

Caribou still making the news down on the beach.

The moose cow and calf in our backyard seem to have adopted us. They are sticking pretty close to the cabin and eating up all the willows.

News from Sisualik reports Ivory Gulls, as many as three in a bunch, and others beside. Kind of an unusual happening this late in the season. A part of their presence might have to do with the abundance of Arctic Cod in Point Hope. We heard that they are dipping them out of the ocean in great numbers. Seals are with them.

Sisualik does not have any seals, though that may change as eider ducks and Ivory Gulls may indicate that Arctic Cod are on their way. In November, where the cod are, the seals are.

Caribou may be thinning out and more wolves are expected.

Another family of Gray Jays turned up and territorial battles continued all day. Gray Jays are not much tolerant of their own kind.

We have just found out that all these thousands of caribou since October 18 completely missed the Sealing Point area. That seems incredible! We will need to inquire further to see what route they might have used in that sector.

November 14

High 10° F
Low -2° F
Blizzard again
E-SE wind to 50

Blizzard conditions didn't come on until PM but as new snow began to fall with strong winds, we had it again. This may be the winter of more or less constant blizzards. It is developing in that direction.

Another moose joined our spruce patch group of creatures for the blizzard today. We are still keeping a sharp eye out for a large female without a calf for our winter moose meat, so before the blizzard shut down I checked our upper creek area from an overlook and saw a female moose laying down in an opening between trees. Moving on a bit, I could make out her calf at the base of a large tree. I backed up a ways and caught movement from the corner of my eye. Put binocs on it and saw a third moose, but at the same time saw that it had very sharp tines. A young, ambitious looking bull stepped out of the willows, moving swiftly toward the area 500 yards away where the cow and calf were.

Moose are looking in good condition with bright thick hair. Hope we can find that female without calf that we desire.

Caribou in small groups were scattered around our valley, resting easy for a change as the blizzard shut down.

There is a report from Hatchery folks of marten tracks on Mamailiaq Creek. This is the first mention we've had of Marten this year.

We have not yet heard of a wolf taken this year. Kind of surprising considering snow-machine and caribou numbers.

November 15

High 18° F
Low 0° F
Cloudy, snow AM
E-W-NW wind to 18

Weather improved and cooled through the day.

One of the moose was lying by the trail when I went down to shovel it level before daylight. Couldn't make out whether male or female. It was big and black!

Small groups of caribou scattered around our valley. Some lining out for another try at crossing the Sound and others satisfied to eat and rest. There are many large bulls in these groups and surely some will overwinter.

More snow and wind yesterday left us with trails to break and snow around camp to be tramped down.

Our two night visitor made his return trip to Sealing Point today.

Some traveling into town took place today with no report of trail problems.

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Tried to fire up our borrowed sno-go today when I returned home after walking. It started, but only with one cylinder. It quit after awhile and not being a mechanic, I don't know why. We now have a problem.

Red foxes are causing comments around the camps. Foxes often follow caribou migration trails as do the smallest of mammals, the various shrew species.

No travelers in the mountains today as most are cleaning up and getting re-settled after the drift and blow yesterday.

It was a bum day for us with our vehicle down and a stalk to a special looking caribou failing.

November 16

High 2° F
Low -16° F
Cloudy
NE-E wind to 15

Lots of moose meat in our spruce patch the last few days. The bull has joined up with the cow and calf. Saw all three of them today from about 500 yards. The bull is a mature bull, but antlers are not real large. The female's body is small compared to the male. This can be read to mean that the female is young. This is also indicated by lack of body color contrast. Older, mature large animals, both male and female, tend to have very chestnut brown backs and glossy jet bellies. Younger animals tend to have a more dark grayish, uniform coat color. Our choice for winter meat would be as large an old female without calf as we could find. This has paid off many years in the past with a bonus of many pounds of excess fat.

New snow machine arrived special delivery this evening. It will be great to have dependable transportation again for awhile.

From the number of cones knocked to the surface of the snow, especially from small trees on the edge of thicker growth, it would seem that there are more White-winged Crossbills and redpolls present than we are seeing.

Caribou are still moving through, but the groups up our way are almost exclusively bulls, most of which are antlerless.

Heard a wolf howl this morning just before daylight. Found the tracks late afternoon. It has been awhile since wolves have vocalized around this camp. It is a great and mysterious sound.

November 17

High 10° F
Low -4° F

November

Clear, few clouds
Heavy ground drift
N-NW wind to 35

A bright but kind of mean day today. Visibility restricted at ground level, though distant mountains remained in sight.

A sad story out of Sisualik today. A resident there raising pups for a local top class dog musher, opened a tent door where they were being kept to let in two pups that were outside. When the door came open, however, the inside pups went out instead and joined their littermates. The five 6-month old racing potential dogs took off. That was day before yesterday. They have not returned, nor turned up anywhere that they might be reported from. They are valuable dogs and a plane helped in the search today without success. Caribou have been passing steadily, by the thousands, through the pups backyard.

There are only scattered bunches of mostly bull caribou up our way and on the tablelands between here and Sisualik. However in Sisualik, within a one mile wide belt nearest the ocean beach, there was a compact mass numbering in the thousands.

The first day with the new snow machine went well. It is a very comfortable machine to ride. We will probably make a first trip to town with it tomorrow, to finish paying for it.

There were two dead Red-backed Voles in empty plastic buckets in our storehouse today.

Daylight hours getting short: 10:30 AM till 5:00 PM.

No sign of the wolf today.

November 18

High -4° F
Low -26° F
Clear, a few clouds
N-NW wind to 18

We did make the town trip and it went pretty smooth with the new snow-machine. We even ran across one group (6) of the loose Sisualik puppies. They followed us for some distance, almost half way to town. We met a person just leaving town to look for them and told him what we knew. Sadly, he found the tracks but not the pups. This was the group that has only been out one night so they may make it home yet. The first group of five may be holding out where they have found a dead caribou or something.

Journal

Trail is pretty good with a few rough spots.

Town is full of snow! We had to look for a way to get onto Front Street through the plowed snow wall. We did find a place near the Post Office. There is also a low spot in front of Hanson's.

Not many ravens in town. Most of them out with the caribou herds yet I guess.

Rumor of a wolf taken this week, maybe by a neighbor. Could even be the one that made tracks around here.

Finally Willow Ptarmigan tracks in our creek. Looks like a good bunch.

4 hours 59 minutes sun up tomorrow. Getting short!

November 19

High -14° F
Low -34° F
Clear, cold
Light winds

Record low in Kotzebue this morning for the date.

Good test for winter clothes today. You can find out how many hours you can play out with your gloves, mitts or your shoepac-mukluks before coming in to warm up. Test your face mask and your snow pants, if they are good enough for an extended cold spell.

Startled a moose this morning that was feeding 50 yards away from the parked snow machine. Only got a short glimpse of it and all that registered is that it was a big animal and I didn't notice antlers. All this was important for we are looking for an adult lone female. I didn't get to follow up and check this one out as we had a couple of visitors, and needed ice and firewood. I hope it is a stranger but I think it might be the bull that was here with the cow and calf last week. It's antlers are not large and the light was poor, so I may have missed seeing them in the shadows. Busy and short day today.

One of the visitors today had caught a wolf near here not long ago while snow was deep and he was looking for more. It was his first wolf. He had been back to the pass between here and the Noatak Flats and reported a lot of caribou back up that way. We haven't heard anybody penetrating that far into our coastal mountains and were some surprised to hear of many caribou back there yet. It is good news and makes it more likely we will have some overwintering.

November 20

High -10° F
Low -40° F
Clear, few clouds
N-NW wind to 20

Maybe a record low for this date in Sanningaruq. The coldest temperature occurred in calm stagnant air, shortly after midnight. Northerly winds picked up later, and as usual that brought a rapid warming trend. The air temperature was a pleasant -10° F by 7:00 p.m.

Caribou reported all over our coastal mountains yesterday by local wolf hunters. Several bunches of caribou were reported by our friends in Sisualik that came up for Sunday School today. So caribou continue to come into and circle around within Krusenstern National Monument.

We have now heard of two wolves taken from our area within the last week or two.

We have not heard of any wolverine taken or seen.

The above kind of accounts for the number of wolf hunters that were out yesterday.

Saw a flock of ten Willow Ptarmigan today. Tracks are becoming common in our tree patch. That is a great direction of change.

A single, very small otter left his tracks on the way down the creek today. It is rather cold weather for that animal to be running around on the surface.

Our Red Squirrel population is apparently much higher than when we left here last spring.

First "frosting of the cheeks" occurred yesterday evening when I went down to the lake to get a few chunks of ice for our camp water.

November 21

High -10° F
Low -13° F
Clear
N wind to 30

A very bright windy day after a very bright windy night. Light of a full moon can be exceedingly bright November through February.

Caribou are still making a good showing locally. There were several small groups in sight around the valley today and one group of several hundred approaching. A

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thousand in number are all laying down near the "look out knoll" only ½ mile from us. The animals seem less and less enthusiastic in their drive to go south. There is a lot more feeding and resting. Consequently our area is getting pretty well marked up and tracked up. An extreme lot of caribou have passed through here.

One wonders about wolves and wolverines with all these ungulates moving through. Perhaps by December we may get some update by tracks and activities.

We continue to see small flocks of Willow Ptarmigan in our spruce patch.

As we come nearer to Thanksgiving we find we have a good deal to be thankful for this year. The very land surrounding us shows the abundance of caribou in all directions. We know these tremendous numbers will not hold forever, but for now we feel very privileged to see and have so many of these remarkable animals. It is hard to believe that there were so few through the last generation (the lifetime of Carrie's parents).

November 22

High -6° F
Low -11 ° F
Clear
N-NW wind to 30

A lone town trip to complete sno-go finances and to stock up on propane and gasoline.

We have just gone through (successfully) one of those "new era" traumas peculiar to our rural life style. It is a "new era" because of mechanization. Our lifestyle requires transportation and the ability to haul home various items of need, from house heating fuel, to water, to meat and fish for the table. When you make the decision to use machines instead of domestic animal (dog-reindeer) you take on a different set of potentially traumatic problems: break downs, wear outs and fuel availability, as well as availability of parts are chronic "new era" problems. "Old era" had problems too, of course, but they were different. Financing a new machine is hard with the usual low income of common rural folks. It is the trial we have just come through.

There were 30-40 caribou in Sisualik in the middle of the town trail this morning. They were unusually tame towards a roaring engine and a blazing light. I am not sure why. There are several possible explanations and some of them are not pretty.

This past month must have been a remarkably high time for the resident Common Ravens of Kotzebue and North Kotzebue Sound. Probably unprecedented in the time this bird has existence in this region.

November 23

High -6° F
Low -25° F
Clear
N-NW wind to 15

Wind finally laying down for awhile. Our temperatures began to drop accordingly in late afternoon.

We are planning to make a run into town for Thanksgiving early tomorrow. It turns out that they have blizzard warning out for Friday again. We had hoped to be able to come home then. We shall see. There has also been a death in the family that may require time.

Several large bunches of caribou around today. They were moving both directions. Our tussock land area is sure tracked and dug up. I wonder again at the condition of our range and how long it can sustain such large herds in a healthy state.

There have been no fresh moose tracks in our tree patch for three days now.

Saw a flock of 15 Willow Ptarmigan today. Have seen a few birds and tracks every day this week. A pleasant change for that species locally. Hope they continue to increase.

Red-backed Voles and shrews seem to maintain a continued presence around camp in small numbers.

Well, hope things go well for this Thanksgiving trip. Trails are not yet staked so visibility will be important.

November 24

High -22° F
Low -28° F
Clear, some ice fog
Light winds AM
Wind to 30, PM

Thanksgiving Day. We has a cold but otherwise uneventful trip in, except some unexpected visibility tricks. There seemed no hindrance to visibility but we couldn't see shore landmarks once we got well out on the ice. The cause turned out to be a white, ground level ice fog. We followed the morning star into Kotzebue and didn't see street lights till within ½ mile of town.

Had a good meal with old friends at the Feast. An old tradition continues.

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Our day was somewhat marred by the Weather Bureau giving another blizzard warning for late today and all of tomorrow. We had hoped to cut our holiday stay to one night to prevent house and things in the house from freezing too badly.

The lack of trail stakes on the 9 mile ice crossing from Sisualik Point to Kotzebue always complicates safe crossing at this time of year.

Lots of food again out in Kotzebue today. Several Thanksgiving meals for everyone that might want to partake were advertised at different times during the day. Both old traditional foods and more modern turkey and ham were available.

Berries were in noticeably short supply. Fruit salads and canned fruit, dried fruit, were offered instead. Canned cranberry sauce probably never tasted so good.

We found out that we had chill factor or temperatures of -75° F for our travel day today.

November 25

High -18° F
Low -22° F
Blizzard, little snow
E wind to 40

No travel today. The lack of snow and light cloud cover made visibility better than during most blizzards but cold chill factor temperatures made travel too risky.

Our hope now is to make it home even late tomorrow, as temperatures warm and winds drop off. Visibility will be the question again and stakes in place would give much more hope for that.

Town ravens taking advantage of wind blown garbage bags and containers. This bird finds almost as much joy in turmoil of rough air as birds of prey and sea birds.

November 26

High 10° F
Low -16° F
Cloudy, breaking up
E wind to 30
NE wind to 15

We did make it home this day just before darkness settled in (we have less than 4 hours sun up already). The blizzard residue cleared enough to see landmarks on our side here. That didn't save us from the whiteout bumps in the trail, having to take them as they came since we couldn't see them. We did manage to miss all the ice piles big enough to do us damage.

No overflow problems this time as storm winds backed from E to NE instead of the storm surge causing south winds that often follow a storm.

Two groups of people were lost and searched for these past two days. They were both found in good condition.

We "found" two caribou "lost" on the ice half way out in the crossing. One stands amazed at the persistence of these animal to continue on in the way the masses before them have gone.

Terry, our home dog was very lonesome and quite glad to see us home. Girl-girl our traveling dog was extremely glad to get home to her own bed.

There were some fresh "large bunch" caribou on the edge of the tidelands-tableland. West to east movement continues there.

November 27

High 13° F
Low -14° F
Clear, some clouds
W-NW wind to 15

Good to see the sun today for awhile. It even came into the house by the window. Probably that won't happen for many more days. We have dropped to 3 hours 48 minutes of sun above the horizon.

Several visitors came through today. We appreciate their stopping by.

Saw a fine big flock of Willow Ptarmigan at the edge of our Spruce Patch, 35-40 all together.

Not much sign of caribou in our immediate area.

There is a lot of microtine sign on the surface of the snow. Probably Red-backed Voles and shrews. Don't know what the reason is that they have left their snug snow rug.

Our three Gray Jays busy around camp today.

We have had a quiet day, which helps us cope with the stress of post holiday and upcoming funeral and birthday happenings.

November 28

High 5° F
Low -15° F

Journal

Clear, few clouds
NW wind to 18

A bright day with light ground drift most of the day. They did get the Sisualik grave dug; this is to be used tomorrow.

Spent most of the day getting wood in to see us through the week. With a family funeral tomorrow and Carrie's birthday the next day we are hoping for tolerable weather. Word is out that trail staking to Sisualik from Kotzebue is on going.

We seem to be finally running out of traveling caribou. I took Terry for a run and to gather some grasses for his nest box, and for the first time since October 18, did not see any fresh tracks or caribou. A report from a Kivalina person this week said that many caribou had lately passed behind Kivalina in a northward trek.

It is certainly unclear to us, on the ground and in one place, as to what percentage of the WACH passed through here on their move south and how many reversed directions here and moved back north.

We have heard of only three wolves taken so far here in our sector. No one has reported wolverine tracks and one report of marten tracks between here and the hatchery is the only sign of that creature. We are still waiting impatiently for the first reported Snowshoe Hare tracks west of the Noatak Delta.

November 29

High 0° F
Low -20° F
Cloudy, snow
SE wind to 35

The weather worked itself into a blizzard again by late afternoon. An unforecasted blizzard. The funeral got finished in Kotzebue but burial is yet to be done in Sisualik. Our niece may be buried on Carrie's birthday which is tomorrow.

Had a late afternoon adventure. Although it was too stormy to see anything out in the open, it was rather pleasant snowshoeing inside the spruce patch. Since burial was postponed I decided to check the creek out for a possible place to catch an otter since Carrie wants one pretty badly.

We haven't seen fresh moose tracks for several day though we are still looking for a fat cow. After a particularly strong gust of wind that lifted snow particles into the air, I saw new tracks ahead of me on the trail. I looked around without moving, and there, 50 yards away standing broadside was a large mature moose with the head hidden. I managed to get rifle off shoulder, a cartridge in the barrel and lens covers off the sight. The moose started a slow walk, the head came in sight, no antlers! I

couldn't be sure of its sex when it joined a second moose with large antlers and they disappeared in the trees at a trot. I felt I had lost a good chance at a large female moose. I followed them around getting only a glimpse once in a while for several hours. I would have shot the antlerless moose had they given me a chance. It was getting dark and I thought to quit trailing them as we reached our sno-go trail. Then I saw the antlered moose on the timbered knoll 100 yards off. While I was standing trying to make out the other animal it came downhill out of the trees almost towards me at 35 yards. The huge animal stopped for moment, looking directly at me, and the large circular disks between eye and ear stood out plainly in the scope sight. I had been following two bulls, one of which had dropped his large antlers sometime ago. Yes I would have shot the animal if I had seen it at greater distance and would have been terribly sorry. We don't want a bull at this date. A large female without calf is our only choice. In poor light of storm and dusk, as bulls drop their antlers, this determination is sometimes hard to make. Early in this episode I was pleased to see that there was no calf and that one animal was antlered, so my mind set can readily be seen. Our search for winter moose meat will go on.

November 30

High -5° F
Low -25° F
Clear
SE wind to 25

Burial in Sisualik with full sunlight to make the ceremony so much brighter. The participants faced some very chilling winds on the return trip to town.

We did get into town in time to get a dinner together for Carrie's birthday party and later in the evening friends and family all had a good time and some good food.

We were not pleased to hear the Weather Bureau tell us that another blizzard was coming in tonight and tomorrow. We had hoped this would be a one night stop and didn't really leave the house in shape to freeze completely.

CAPE KRUSENSTERN JOURNAL

DECEMBER

December 1

High 6° F
Low -15° F
Cloudy, blizzard
SE wind to 45

Though there are now stakes in place on the Sisualik trail, visibility was so poor we hesitated to head home. Later in day we heard that a Sisualik person did head home, strayed from the staked trail, and nearly missed his home in the storm. On hearing that we decided to overnight again.

The temperatures grew warmer as the high winds continued. The Weather Bureau again spoiled our hope by forecasting high winds to continue, with a switch to south and the NW.

December 2

High 28° F
Low 8° F
Snow, blizzard
SE to S wind 35

Nice warm temperatures with fresh snow and no visibility. We did take off before noon sticking closely to the stakes. About $\frac{3}{4}$ of the distance to the Point we ran into fresh, wet overflow, with little waves on the water. We met Bert, the camp school teacher, heading back into Kotzebue as he was not able to find a way to get around the overflow and back to the staked trail. We told him we would take a look and would probably turn in too. We did that and due to zero visibility, had to turn back before finding the end tip of overflow.

When we got back to town and unloaded the sled we found an important bag missing. Some of Carrie's birthday presents and her blood pressure control medication were among it's contents.

I went back out and searched some of the trail without success. I only went halfway out the staked trail.

Weather Bureau told us today that winds would pick up from the NW late tonight and continue into tomorrow. Boy ! It is not an easy year for camp dwellers to get in and out of Kotzebue.

December 3

High 2° F
Low -15° F
Clear upper sky
Lots of ground drift
NW wind to 35

Well, the weather man/lady was right. Wind switched very early this day and whipped a lot of loose snow into the air. After a little freezing drizzle and warm temperatures late last night the strong NW wind made bumpy drifts out of the new snow and again made ground visibility real poor. The upper sky, however, was clear, and the sun, which now comes up for some minutes in the afternoon, made for good distance visibility to use landmarks.

Mahlon, our son, took a run out the staked trail to check out the overflow and came back with our missing bag! Oh joy! We had dropped it right where we turned around yesterday on the edge of the overflow to return to town. We are very grateful to have the bag back.

After hearing that some Sisualik friends and neighbors had made it in to town, we loaded up again and headed down the staked trail toward Sisualik. This time, with the sun out and distant landmarks visible, plus fresh tracks to follow we made the crossing fine with little trouble, except for minor eye irritation due to headwinds with flying snow particles.

We found everything alright at home, but quite covered with new and drifted snow. Household things were not quite completely frozen and Terry the Superdog was quite lonesome. He really is a people dog.

Lots of fresh Willow Ptarmigan tracks around our house.

Two caribou were taken today in west Sisualik.

December 4

High -8° F
Low -21° F
Clear
NW to W wind 18

Got to see the whole sun today. That is not possible on most days of December. I didn't feel any warmth.

Several moose browsed around the cabin last night. Didn't check them out, but most likely they are the cow and calf that were here a week or so ago.

Journal

Report of some caribou in the Sisualik area. Later this afternoon a large group of caribou apparently headed out over ocean ice toward Cape Espenberg. That may be a first for this century, if they keep going and are able to make it.

As Christmas Bird Count time comes around, bird numbers and species seem to be thinning, probably due to the number and severity of storms. Willow Ptarmigan may be the exception as more tracks are turning up as time goes along. We haven't seen redpolls and crossbills for some time.

This last storm system that kept us in town was quite severe over here, with much new snow blown into lower sheltered places by both the E and W winds blowing in excess of 35 K. Locally it is approaching a depth in feeding areas that will slow moose flight considerably.

Only 2 hours 56 minutes of sun tomorrow. Our day of shortest sun above the horizon is not far off. Can you still remember those long hours of sunlight in June?

December 5

High -8° F
Low -34° F
Clear
Light winds

Cold temperatures developing again as winds drop. Starting various engines and continual monitoring of uncovered skin will make life more complex until temperatures warm to more than -20° F.

Cut firewood and enjoyed a visitor today. The firewood was a single long straight dry white spruce that just filled our sled when cut into stove length blocks. During these winter intense cold spells, one cannot help standing in thankful awe for such a tree that spent more than 300 years growing, dying and drying, specifically to warm our house for a few days.

The moon is back, seems quickly this time. We don't usually see the first sliver of moon till the third day of the New Moon cycle. It is good to have it back again since our sun up hours have dropped to less than three and approaching to our shortest day of 1 hour 43 minutes.

A few caribou and new tracks seen around the valley today. Did not see the makers of the abundant moose tracks of yesterday. They have moved on down the creek to enjoy the silent solitude of an unpeopled spruce patch.

Nice flock of 20 Willow Ptarmigan right in the trail when we came home from giving Terry a run.

The overflow on the Kotzebue staked trail is frozen solid now and is again being used by the traveling public.

December 6

High -30° F
Low -38° F
Clear
Windless

The intense cold monster is here! Haven't seen him for awhile. When the high for the day is -30° F the Monster is not hard to find. The sun no longer rises before noon nor do its rays come into the house window. It won't be back till January 8th.

Camp jays and ravens the only creatures seen around camp today.

People on the CB are getting fewer and fewer. There was only one this morning at 9:00 AM and a couple before noon. Some are not home. Some have telephones; the era of the CB may be over.

Some of the few people at Sisualik are traveling on the ocean ice to get home to their camps. This means a shelf of shorefast ice has developed and the stage is being set for winter seal hunting. A new world is being formed for work or play by local residents.

December 7

High -32° F
Low -37° F
Clear
Calm

Another too cold day. Glad that we are enough up on things that I didn't have to fire up the snow machine today. Starting any machine at -20° F or more is a hassle. Some wind is due by tomorrow afternoon which means a real temperature warm-up, if not chill factor temperatures. We have been running only a few degrees under daily low records these last few days.

We had a flock of 20 Willow Ptarmigan right in camp today. Didn't notice them till they flew, but that's quite an improvement over last year. The willow twigs still above snow surface have been well pruned in our yard this week, first by the two bull moose, then by the ptarmigan. Lucky the rabbits are not back yet. There is an interesting browse contrast here. Ptarmigan take only leaf and stem buds, plus thin tender new growth stems. Moose take the whole twig down to about pencil size and chew up all that is on it. If we had rabbits they would be the most destructive of all. Not only taking twig and bud but eating cambium layer on main plant stem, killing the plant for next year's growth.

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New Moon is back and growing rapidly. Sunlight time continues to dwindle at rate of 7 minute a day. We are down to 2 hours, 35 minutes and only 14 days till increase begins. Sun rays have not come in the house this week and won't till January 8 or 9.

December 8

High 2° F
Low -34° F
Clear, increase clouds
NE wind to 15

Warmed early this morning then dropped below -30° F again before daylight, then gradually rose through the day to our pleasant high for the day. Life is so much easier when temperatures are a minus twenty or warmer!

Made a trip to Sisualik today for some things and found it kind of cold and lonesome down there. The ocean ice is firm and nice and smooth. The snow banks are quite large and hard. Foxes have been scrounging around the camp site and I had trouble getting into our "cool storage shed." I did eventually make it and, boy, was that summer sourdock with berries good tonight! It was great to linger over dried uguruq meat and oil and have visions of the summer sourdock, lakes with all the greens, flowers, bugs and birds around. What a good feeling to really enjoy the fruits and meats of a good harvest season, especially now with only two hours of sunlight each day. Memories of June and July have probably carried people safely through December for millennia in this land.

There were a few stray fresh caribou tracks on the trail and a couple of small groups had been feeding along the trail. It is hard to see lichens in their cratering holes.

The trail is good but bumpy and hard.

December 9

High 6° F
Low -2° F
Cloudy, light snow
NE wind to 10

Nice mild weather, but visibility pretty limited all day.

Climbed the lookout knoll and snowshoed the circuit through our tree patch. Was surprised to see numerous groups of caribou just north of us. There were somewhat more than 100 divided into groups of some moving east and others feeding and laying down.

Birds, except ravens, Gray Jays and Willow Ptarmigan have become quite scarce. Don't know if we'll do a CBC this year.

Found a good supply of standing dry firewood only ½ mile from the house. This windfall at this opportune time can be credited to a generation of porcupines. There are none around the spot now so we may have eaten most of the generations in the past or that particular clan has simply "used up" the spot. They are very tall trees and of a quality that we don't normally have access to this early. This is also a benefit from all the bad weather we have been complaining about. Because of long and unusually placed snowbanks, it has become possible to drive the sled right up to the dead trees. In this same category is the now frozen overflow down on the Sound. It is said that the trail to town is nice and smooth on those places that gave us trouble last week. The moral is that what seems a pain today may be a benefit tomorrow. There was a Red Squirrel vocalizing in between chain saw bursts at the wood cutting. He may have had a vested interest.

December 10

High 10° F
Low -14° F
Mostly clear
Light winds

A pleasant surprise to find Charlie Lean and Tracy Lingnau in camp when I returned with a late load of firewood. These folks are from ADF&G Commercial Fisheries Division. Charlie is Norton and Kotzebue Sound Area Chief Biologist, Tracy is our local Fisheries Biologist. They are both long time friends. Charlie was in town for meetings relating to the disposition of the Hatchery. We had a great several hour re-hashing of this past summer's commercial fishery and the inability to handle the season's catch. It was Charlie's 41st birthday.

Our upper valley still has caribou today but those that are moving are moving west. Yesterday their movement was easterly.

Very short day now. The moon has gotten big enough to be almost as bright after sundown as it is while the sun is up. Lots of the characteristic pink-purple arctic lighting.

Caribou are reported close enough to Nome to make a round trip daily hunt. That is said to be quite close and hasn't happened before, probably in this century.

From the conversation with our visitors it seems that the Hatchery project may be doomed. It sure seems a waste of knowledge gained by a successful project that is to be trashed. The problem mostly is one of money, and after last summer's problem of marketing, no one is quite sure that we need more of what we can't sell already.

December 11

High 16° F
Low 4° F
Cloudy, blizzard
E wind to 25

A warm windy December day. Kotzebue had worse conditions (wind to 50 K). It was a fair day here for "walk hunting." Decided to do that while the weather was right and "fresh meat" time has rolled around again.

There are still good numbers of caribou on the north side of our valley. Was stalking a small group that was feeding. Before I got to where I wanted to shoot, a second bunch walked single file in between us. I shot two dry cows. One of them (the larger) had a good coloring of outside fat and abundant inside fat. The other had much less, but is still good meat. We now have fresh meat again for awhile.

We have not heard of any traveling today. Even with stakes there is always some hesitation in blizzard weather to go anywhere. We had planned a neighbor visit today to Jones Camp.

Local ravens were overjoyed to have something fresh and soft to eat. They have been complaining all week about lazy hunters not getting out while the caribou are close to camp.

The fetuses of the cows are coming right along. They are about grapefruit size and quite prominent when dressing out the animals. This is a big change since last butchering in late October. Have an explanation for the lack of usual fat on dry cows this year. Will put it in these notes when time and space permits.

December 12

High 18° F
Low 14° F
Cloudy, snow
NE wind to 18

Winds have dropped but snow continues. We do hope to make a town trip this week. Hope the weather permits that.

A lot of caribou moving through the north valley today. They are coming from towards Jones Camp. They are mostly females and females with calves.

The number of lone females and lack of fat on dry cows might be explained this way: The folks at the Hatchery experienced a heavy caribou movement back in October after the very heavy snowfall. That snow remained un-windblown for such a long time it really inhibited calf movement. They observed several multiple wolf kills of fawns and remarked on the difficulty that the calves had when they were not

on a broken trail. The fat dry cows we are used to taking in the fall, after bulls get strong, are usually rather rare but nearly always fat. This fall the percentage of dry cows to those trailing fawns is very high. Normally "dry cows" are made so by weather or predators at birth or shortly after. The cow then fattens throughout the summer and retains much of the stored energy through winter. This year many cows could have lost their fawns quite late (in the heavy snow layer). And they then would lack the back fat we've come to expect. That would fit the reality of this year with rare fat calfless females.

December 13

High 8° F
Low 15° F
Snow, some clearing
Light NE to E wind

Finally a town trip and a rather pleasant one except for wandering a bit when we first left home in the dark, headed for Sisualik with no trail. We felt we had to go that way to utilize the stakes, as visibility was in question. It did clear after daylight and we could have gone the straight route. The "short cut" saves about two miles of travel.

Getting to be a lot of light fluffy snow all over the country again. Material for another blizzard.

We saw a few caribou both coming and going, on or near the trail, on this Sisualik land side. We heard in Kotzebue that there were caribou on the Point Hope airfield yesterday. It is hard to grasp the reality of so many caribou in the NW Arctic Herd. Apparently there is recent word of animals as far south and west as Nome, Unalakleet, and St. Michael and up into the North Slope yet.

Snow removal in Kotzebue is getting monstrous. The huge piles and lees and holes will sure trap a lot more before this winter is over.

Raven is overseeing the mighty work with an occasional comment that can be plainly heard, like an exclamation point, strong and ringing above even the drone and clank of powerful bulldozers and the clank of buckets. Quirk, Quirk!! An interesting bird, the raven!

Having such mild weather in spite of additional snow and impaired visibility.

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December 14

High 16° F
Low 8° F
Cloudy, snow
NE wind to 15

Weather continues mild and snowy, with sometimes visibility and sometimes not. Made another town trip today for gas and the two seals we were to pick up a couple of weeks ago. Was able to make a "straight as a raven flies" trail to town today. Could see the lights of town bright and clear. A big blanket of heavy, heavy snow began to fall just as I reached the first stakes. Visibility became zero.

Trail is in pretty good shape and direct to town.

There were a few willow ptarmigan tracks in the fresh snow and a few caribou tracks here and there. The otter family was heading up creek and may have turned back from noise and light of our snow machine last night.

There was even a dog team on the Sisualik trail. Haven't seen many this fall/winter.

Folks are starting to travel a little more regularly with stakes in place and all old overflow well frozen.

Did stand up a few stakes that were down due to bad overflow conditions the last time. There were a few bad gaps where one might lose the trail under blizzard conditions.

December 15

High 8° F
Low -1° F
Light snow, sun
NE wind to 10

Very light continuous snow but during the short sun period the red orb was there. We're down to 2 hours now but only dropped three minutes today. Another week and we will begin to gain.

Drove the snow machine around to exercise our super dog and saw only five caribou and no fresh tracks.

There was a large flock (30-35) of White-winged Crossbills by the cabin tree today. That was a surprise since we haven't seen any for awhile and no falling cones since the last blizzard.

Very few tracks on the fresh snow. Only a couple of fox and no sign of our growing Willow Ptarmigan flock.

Weather permitting, we will make another trip to town tomorrow for Christmas shopping and seeing some of our family off that are going south for Christmas.

Red-backed Voles are out on the surface in many places again. We are also catching a regular few in our empty plastic buckets in the store house again.

Weasel tracks of both species are very scarce this fall/winter.

It seems many creatures are scarce during these shortest days of the year except caribou.

We are heading into a cooling trend. The mild weather was good while it lasted!

December 16

High 6° F
Low -28° F
Snow showers AM
Clear PM
W-NW wind to 18

An early, successful and fairly easy quick town trip. It was warm going in, cold coming back. Visibility good both ways. Our travel time is down to one hour again. It is a fast trail, but sometimes bumpy.

There were no fresh caribou tracks. That is two trips now with no sign of caribou. Maybe there will be no more east-south movement. The period of overwintering within relatively small boundaries has probably begun. This last group (first of the week) of several hundred may be part of our local overwintering group.

Very few fresh tracks of any kind on our "towards town" trail. Only a few foxes.

Word comes that a few Noatak hunters are headed out for a week of wolf and wolverine hunting. We will hear results of some of this happening and it will be interesting. This early heavy snow cover will make for good hunting of these predators, and if numbers of the predators are up, there may be more hunters out earlier in the winter than in most recent years. It has always seemed to me that local snow machine hunter/trappers would be enough control on growing wolf populations without having to consider either aircraft or state control. In recent years it has been said that the large troublesome wolf packs are active in those areas beyond the reach of village snow machines. My feeling is that villagers will extend their range when it becomes profitable to do so. Demand for wolf and wolverine skins continues to grow with the continuing affluent local economy.

A quick sharp drop in temperatures today.

Daylight loss only three minutes today. We're down to less than two hours now.

December 17

High -8° F
Low -36° F
Clear
Calm

Cold weather is back. Hope it doesn't stay too long.

Wasn't out much today. We removed the skin from the fine big spotted seal given us by friends. It had a very large body and beautiful spots. It is a very large and beautiful skin. The leopard of the Arctic.

Cold weather for weekend travelers and we haven't seen any. Not much movement of other creatures around the country which is not uncommon during cold spell weather.

The general brightness of the world today almost makes one think the days are already getting longer. The purple-pink characteristic shadow colors of December are full on today and we only lost three minutes of sun up yesterday and maybe less tomorrow. Only four days till we begin an increase each day, slowly at first and then in leaps and bounds. Oh boy!

Only two Willow Ptarmigan tracks at creek crossing.

Red Squirrels lying pretty low. Come February they will be all over again.

A remarkable temperature change this late evening. Between 10 and 11 PM our temperature went from -36°F to -8°F, from dead calm to a 15-18 K breeze in tops of the trees.

December 18

High 2° F
Low -8° F
Clear
N wind 30

We are at count-down time again for the day of the year in which the sun is above the horizon for the least amount of time. There are only two or three days left until there is a measurable increase in sun time above the horizon. That time was 1 hour 47 minutes today. We will lose only a few minutes tomorrow.

Our "Barren Land" syndrome seems to be setting in again. After being able to see caribou at any time everyday since October 18, by climbing our look out knoll, the land truly looks barren. I did not see anything from there today.

Tracks of any kind are very scarce since the last snowfall. There are a few foxes and voles. Many ground tussocks and some newly exposed glare ice on lakes are showing after today's 30 K winds. Ice will be easier to go.

Kotzebue Front Street probably filled in with drift off of the ice today, which will require more plowing and piling.

Our jump in temperatures last night brought camp red squirrel out for awhile this morning, or maybe during the brilliant moonlight. Our moon is approaching full, and with everything so white outside it is super bright at night.

A more amazing fact is that with only 1 hour 47 minutes of sun, we have "sign" of daylight in a clear blue sky from 9:30 AM till 6:30 PM. Actually not a bad length of time for a late December day!

December 19

High -2° F
Low -15° F
Clear, some clouds
NW wind to 18

A trip to Sisualik today for seal oil, berries and a few other things for Christmas. It was a pretty bumpy trip. Cold too. It seemed colder than temperatures indicate. Don't know why except perhaps that the cross angle of the headwind on the way home made the chill factor currents cut like a knife.

The rather strong and continuous N and NW winds have made a lot of hard sculptured snow. No more "fast" trail. Under whiteout conditions travel is slow and bumpy.

Surprised. In many places the tussocks are showing again and even glare ice in a few places.

No sign of recent caribou activity. Wonder how far away the nearest are right now.

Another surprise today. A rather newly set fox trap, nailed to my outboard holder rack within the camp ground. There are yet some trappers in the country! Will have to hear more of this.

Was wondering why, where foxes were disappearing to, as tracks seemed to be growing quite rare. This reminds of a time just before Christmas not too many years

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ago when the only hope for rural families to be able to buy Christmas presents for their kids would be the foxes they could catch before Christmas. There was a lot of competition! And after a while not very many foxes. Those were the days when, locally, to catch a fox you just found a fresh track and followed it to the end. A time of very intense living!

December 20

High -5° F
Low -24° F
Cloudy, light snow
N-NW wind to 15

Another town trip today, shopping and mailing. Bumps are a little sharper and it is no longer a fast tail but is not real hard. It is a 1½ hour trail now for us, instead of a 1 hour trail.

Lots of people doing lots of shopping in Kotzebue. Many village people in for presents for their family Christmas celebration.

This day and maybe tomorrow show no loss or gain in sun-up time. Thursday should produce a gain of a minute or two. We will be over the hump. The days will get longer. About this time every year we pause and think, "we can depend on that can't we?" "Yes," someone will respond, "they always have." About the first week in January we feel more assured that everything continues to function as planned. The days are getting longer. Spring will come again!

Not much to note in the country. Lack of light to see, hard sculptured snow, and some bare ground and glare ice don't make a good slate to read animal activities from. Especially since both hoofed animals (moose and caribou) have not made fresh sign this week. Tracking is good in spruce forest habitat, but creatures in this area are very scarce.

December 21

High -4° F
Low -16° F
Clear
NW wind to 30

There was a mean ground drift from a direction that gives us some trouble here at the house clearing, after general ground snow cover passes a certain depth. The character of drifting either from N or W at cold temperatures is different from the character of drifts from E or S (usually at warmer temperatures). The air fills with the tiny light grains and they can find their way into any clothing or shelter, through the smallest hole. Also, where the air-carried tiny grains fall to earth in a shell around the cabin, your footsteps outdoors are drowned out by a loud creaking that can be terribly frustrating or irritating, much like a quartz pebble being scraped over a window pane.

Ravens gathered today, circling low over the camp, being in envy of edible things in sight and loudly complaining about the plight of the poor Raven Clan across the Arctic when temperatures stay too long below 0° F and no predators (including us) make a kill to provide a few hours of soft material. My response is to remind them of the great strong beak God has provided them with, tough and sharp enough to chip away at most anything edible and frozen. They must go elsewhere for sympathy on that count, though I do admit to a little compassion for their making do with bare legs in such long nights.

We have reached a mid point in the year. Tomorrow the sun will be up longer than it was today! Oh joy! It is on its way up, out of oblivion, to full glory here on June 2, when it will no longer set.

December 22

High -12° F
Low -40° f
Clear
W-NW wind to 15

We missed the fog and drifting snow that both Kotzebue and Sisualik had today. Often when the wind is west we miss it. Our temperatures dropped through the day.

The weatherman tells us that tomorrow we will again gain two minutes of sun. We are on the way to a new season!

We will go on without our house dog of 16-18 years. I had the unpleasant, yes, heart-breaking task of terminating the long active life of Girl-Girl today. It went smoothly and she leaves us and joins Snoopy.

Looks like we will have a cold Christmas. Temperatures may stay below a -20°F throughout. Travel to and from town may not be fun. We are not sure whether to go tomorrow or Saturday morning. We shall see.

There were a few stray caribou on the trail to Sisualik today. The snow is so hard all over, even hooped animals barely make a track.

Today was a hard day, what with traveling and various tasks to do with the mercury dropping out of the calibrated zone. Hope the rest of the coming Holiday is better.

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December 23

High -38° F
Low -44° F
Clear, cold
Light winds, ice fog

Town in the afternoon. A cold day with some difficulty starting the snow machine. The trip went well but was bumpy with very hard snow.

We decided to go in a day early as strong winds were forecast beginning this evening. Wind at these temperatures is tough. It also gave us a little more time for Christmas shopping and visiting.

Town ravens look a little stressed with such cold weather.

December 24

High -8° F
Low -25° F
Cloudy
E wind to 25

A fine long Christmas Eve at church. Service began at 6 PM. We didn't get home till 12 midnight. Lots of people.

Wind and much warmer, with fresh snow coming down strong by midnight. Blizzard conditions beginning.

December 25

High 12° F
Low -8° F
Blizzard
SE wind to 45

A nice peaceful day, Christmas Day, inside the church at morning and evening services. Outside the weather was anything but peaceful. It was a full day of blizzard. Temperatures had warmed nicely though and every creature was glad for that I'm sure. The town ravens obviously were glad, and especially so with much Christmas Eve trash round about town, some of it edible.

December 26

High 18° F
Low -2° F
Cloudy
SE to S wind 25

Christmas Dinner Day at the Friends Church.

Lots of people, lots of food, a rather small building. A great tradition continues.

December 27

High 20° F
Low -5° F
Cloudy, broken
NE wind to 15

A beautiful day to go home. We got an early start and found some overflow on the stakes, but it was easy enough to go around. It caused us to go through our summer camp at Sisualik instead of the short cut route.

Terry the Superdog was very glad to see us. He is a "people dog" and suffers when there aren't any around. He was a little thin but otherwise in good shape and really enjoyed a five mile race with the snow machine. He won because of the rough trail and of course he is a Superdog.

Only sign of animal life around were a few fox tracks into camp and a first actual sighting of a shrew at the meat sawing block.

There was 4 inches of fresh snow around the house. It obviously had not blown as hard here in Sanningaruq as it did in town on Christmas Day.

I suppose it is fitting for there to be a blizzard on Christmas Day, this blustery year of 1994. In spite of weather and some far traveling family members. it was a good Christmas, unmarred, locally at least, by any catastrophic events. The celebration of the Birth of Christ, a catastrophic event of 2, 000 years ago, passed peacefully this year.

December 28

High 24° F
Low 16° F
Cloudy, blizzard
E-SE wind to 45

Off and on blizzard conditions all day with some clearing late in the afternoon. The nice mild temperatures made for a pretty good day in tree sheltered areas. We are building very large snowbanks though, at the edge of these sheltered lands. Rabbits (snowshoe hares), if there were any, would be glad to get at some of the higher spruce branches.

We are home from Christmas Festivities and rested up. As expected, the absence of an "in house" dog is being felt. It brings to mind again thoughts of life and death and the paths that we creatures follow through our allotted time of earthly existence. It is remarkable when we think of it, how each creature, including people, great or small, occupy a piece of space that becomes such a void when life departs. Whether it is a moose or a dog, a chickadee or a cat, a whale or a human. The space-place-landscape

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where the creature functioned in life becomes a void on the scene in death. It is not surprising that a feeling of Reverence for Life develops in many human beings.

Our camp gray jays, two local common ravens and "house clearing" red squirrel were the only outdoor creatures noted on this warm mid-winter December day.

We will have a 5 minute increase in sun-up time tomorrow. We had a 4 minute increase today and are now back to more than 2 hours of sun-up time. Within 10 days the sun will be in through our house window!

December 29

High 24° F
Low 18° F
Snow showers
E-SE wind to 20.

The first $\frac{3}{4}$ of daylight time today had good visibility and a first good look around the valley produced some surprises. It has been 10 days or so since time and weather have permitted a good look. There were caribou! A group of 30 only a mile from camp and several other groups of from 8 to 20 moving into the area from the northeast. Probably 200 animals were in sight for the short time I was up on the knoll. This was a surprise because south of here and towards town we had not seen fresh sign for sometime and no word of remaining good groups of caribou in the hills had come to us. Probably the reason is that there are few travelers through the hills due to holidays, weather and short daylight hours.

It is now certain, of course, that we do have overwintering caribou on Krusenstern. How many we have is certainly not clear at this point, but as days lengthen and travelers are more common, we will have better indications. It is good news because it may mean that fresh meat will be available when desired, and we will have a sample of a special winter treat that we look forward to when caribou overwinter within reach. The large bulls that have not been targeted since the onset of rut have now long since dropped their antlers and as physical condition has rebuilt, leg bone marrow has much enlarged, as bone walls thin and fat begins to build through the bones and inner parts. All this makes for good fresh meat.

December 30

High 21° F
Low -6° F
Cloudy
Light winds

Went down the trail at early daylight this morning and was surprised to see a big black moose standing 50 yards off the trail staring at me. As I walked on with shovel in hand I noticed another smaller black blob against a snow bank. The cow and calf we had here several weeks ago have returned to share the tree patch with us for

awhile again. They are quite tame, even more so than the last time around. After full daylight I looked them up again to make sure they were what I thought them to be. This time they laid down together while I was binocing them at 50 yards. The calf is male and less than half the size of its medium sized mother.

One reason for their tameness is that they know by this time that flight is useless. The snow is too deep. Most moose seem to become reconciled to this and act accordingly. Facing threat seems the choice of most.

Saw several small groups of caribou around again. Sneaked to one group to see if there might be a good looking dry cow. Got to within 75 yards, removed lens covers and chambered a round. Took one snowshoe off to sight over after a short crawl that would put me on an overlooking edge. All the caribou stood up just as I started my crawl. All looked back over their shoulder and started off at a run. I heard the bee buzz of a sno-go then and noted it coming right towards us. There was one dry cow in the group but I didn't want to chance a moving shot. The snow machine was a hunter, but not of caribou. He was looking for wolf tracks. His dad had run across a fresh wolf kill (caribou) yesterday and he was headed to look over the site.

An overflow warning on the Sound has gone out again.

Neighbors took another wolf last night.

December 31

High 26° F
Low 6° F
Snow showers
E to SE wind 35

A nice warm windy winter day. Blizzard warnings were given but canceled. Overflow conditions continue, but travel continues using alternate routes. Overflowed areas are not too extensive.

Saw less than 10 caribou today but shot one bull to check changing physical condition. The one chosen was only medium size and barely had sign of mesentery fat. The marrow (bone marrow) may or may not be good for cooking. The legs are nice and black and big for sewing.

Pretty difficult to see a bird in our area other than our three gray jays and two resident ravens. We may not come up with a CBC this year.

Snow depth in small creeks and low places is excessive.

Our sun-up time has increased by 7 minutes both yesterday and today. At that rate things will get brighter fast.

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As the old year winds down we can't help but look back over it and rejoice in the privilege we have had to continue our rural-wilderness life style for another year. The multitudes of caribou and *Gentiana detonsa* and flood waters have been unique. So has the near complete absence of snowshoe hare and willow ptarmigan.

A lesson from 1994: to truly appreciate multitudes one must experience scarcity.

HAPPY NEW YEAR!!