Book I
Ellesmereland
Trip March – June 1914

A. Elmer Ekblaw, Geologist
Crocker Land Expedition

FIELD NOTE BOOK

CROCKER LAND EXPEDITION

1913 - 1915

No 3

up glacier

Eff. 16 × 3 × 10 = 480

a.m. 9 × 2 × 10 = 180

660

Eff. 20 × 8 × 2 = 320

a.m. 10 × 2 × 2 = 40

360

Circuit

Eff. 17½ × 9

a.m. 13½ × 3

137½

milk

Eff.: 2 cases

a.m. 1 case

Out

8 cases

72

210

210

5) 1239½

248

2 glaciers +

2. Circuit 66

14 cases Dog 28 112

5 cases 30

167

7/98 Cases dog = 14

32 cases meat 4 + 5

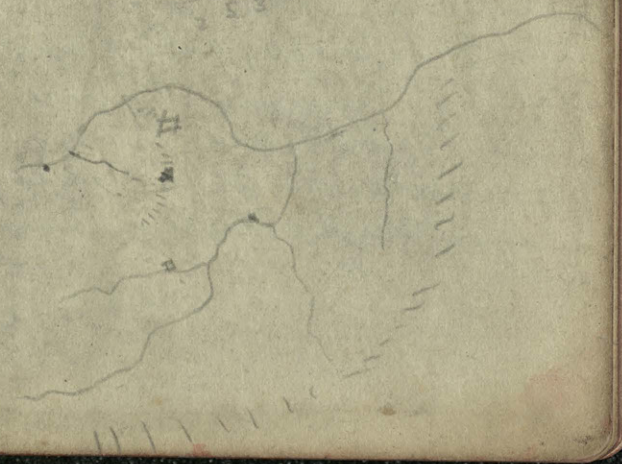
14 biscuit = 2

3 oil = + 30

+ 3

= 3 milk

	NP.	MP.	Pem	Cal	Fruit
Aoklavaka	13	9	2	5	1
Okpuaqdjuq	13	4	2	5	1
Anbiu	3	1	2	5	0
Nukapiaqdjuq	3	1	2	5	1
Qaknagnaq	3	1	2	5	0
Tuaqa	3	1	2	5	0
Ek.	3	1	2	5	0
	1	20	14	35	2
	7	2	1		
5			13	35	2
	11	5	212	9	
			28	5	12
	25				
	50				
	12				
	53				

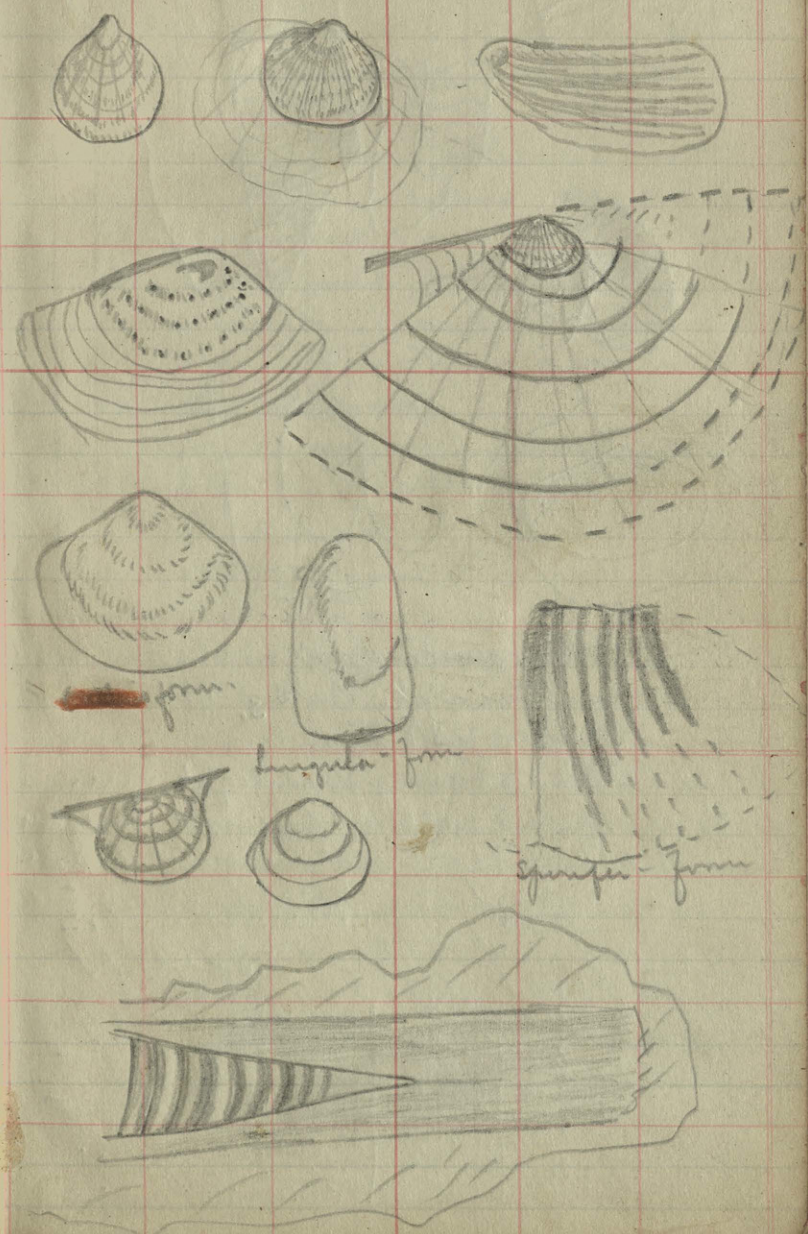


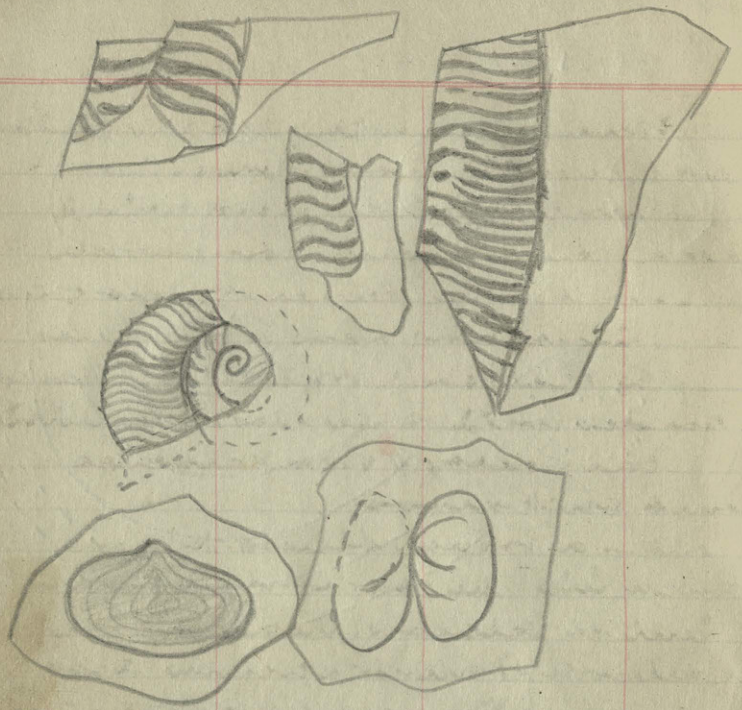
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The Record made by
W. Elmer Ekblaw, Geologist
to the Crocker Land Expedition,
of his journey and observations
from Etah to Hekla Harbor,
from March 24 to April 29, 1915,
on his trip across Ellesmereland
by way of Flagler Fjord and Bay Fjord
up Eureka Sound, up Cannon
and Greely Fjords to explore them,
across Grant Land to Lake Hazen
and Fort Conger, and return to
Etah by Kennedy Channel and
Kane Basin, accompanied by
two reliable, faithful Eskimo,
Eegoo and Etukeshoo.

Some of the
Sketches of Fossils found in limestone
at Camp Etukeshoo Fosheim Peninsula
April 20, 21 and 22, 1915 W. Elmer Ekblaw



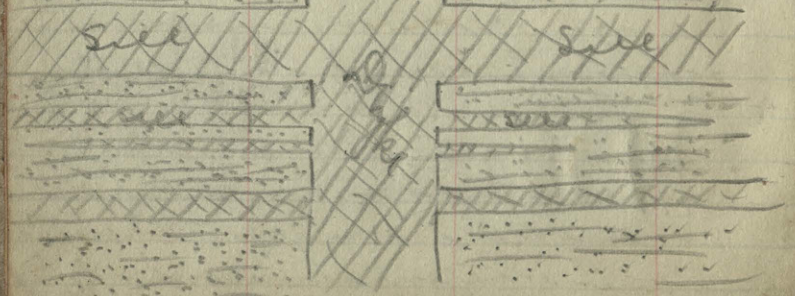


Some fragments of fossils from shales in Sample E & S 3.

Geology Notes.

Camp Allen to Camp Midnight Sun

dyke sends out sills at several horizons some of which taper out in view from the sea ice = Sedimentary Shales



Geology Notes.

From Bloomingdale the shore is rather cliff-like until about ~~five~~ ten miles north of Sledge Fjord where low rolling plains, somewhat terraced by former sea-levels come in. These plains have a gravelly sandy clay soil, rather deep and studded with boulders apparently erratics dropped from icebergs

Camp Etukdstroo.

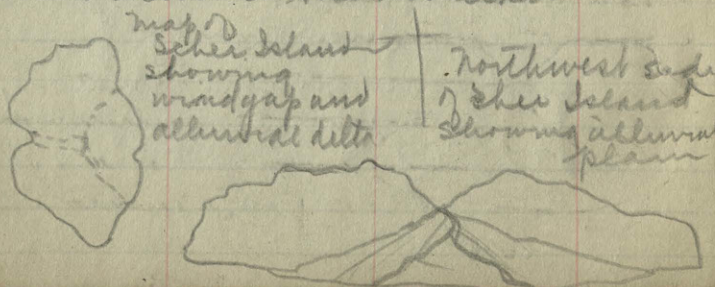
This is a broad rolling plain much like the moraine country of Central Illinois, trenched by a network of minor streams and more or less terraced by old seashores. Two very conspicuous old levels are revealed, one about 200 feet above sea level and another about 350 feet. These are distinctly reflected on the north shore of the Fjord near Harefjordet. Many minor beach lines show themselves; there are eleven very distinct and separate beach ridges from the ice front to the first considerable terrace, separated by intervals varying from 3 to 25 feet in altitude. These must indicate a rather rapid and intermittent withdrawal of

Geology

the sea in relatively recent times.

The soil of the plain is pebbly, gravelly clay, studded with boulders which I consider have been carried by ice in former years. The pebbles are largely of limestone and doute from igneous intrusions which outcrop here and there, with considerable sandstone and shale.

Across the sound I am struck by a broad deltal plain which lies on the north east side of Scheir Island, the delta of a river which apparently once cut across the island and deposited its detritus. The head of this deltal fan lies at the level of the Acpohon peneplain and I think that at the period when that plain was formed a considerable river flowed there, and that Scheir island was part of the mainland of Axel Heiberg Land). This deltaic alluvial fan is almost model-like.



Geology

Across the northward the sedimentaries are considerably folded into broad anticlinoria and synclines and penetrated by dykes and separated by dark sills. Blaafjeld is a sheer wall of dark rock revealing no stratification so I feel sure it is an igneous intrusive dyke.

Back of the plain the ridges are formed by horizontally bedded sedimentaries with some igneous intrusions. Few cliffs reveal themselves and the slope from the plain to the ridge behind is quite grassy.

In a small stream bed a short distance from shore I found an outcrop which contained a thick layer of richly fossiliferous limestone of which I collected a fairly good representation of the fauna in spite of the difficult conditions.

Section. See April 20.

massive limestone over 5 ft.

dark carbonaceous shale 1½ feet

Gray shale, calcareous veins of calcite. 2 feet

Dark, compact, massively bedded limestone, richly fossiliferous
10 ft

Geology.

On April 21 I climbed a hill east of camp and on it I found an exposure of shale from which I collected several fossil fragments - a trilobite or two, a gastropod, several pelecypods and several cephalopods. In none of the rocks of this section nor of the creek bed did I see any corals or bryozoa, but in both cases the deep mantle of snow prevented successful search. The shale was filled with nodules of limonite and many veins of pyrite with pyrite in joint and stratification crevices. Some of the fossils were pyritized.

The shale itself is a dark, friable, thinly bedded series over six feet in thickness, as far as I could judge, and underlaid by a dyke of brown micaceous basaltic rock which formed considerable cliffs along the mountain side below the shale.

The top of the mountain was a rubble of blocks of this same brown micaceous rock. An adjacent mountain some five or six miles to the northward offers a good field for further study but I was unable to go on to it.

Botany.

Eriophorum Polystachium, Alopecurus alpinus, Glyceria distans, Poa sp, Carex sp Luzula, Ranunculus sp (Probably sufinens).

In a sunny hillside gully I came upon a rich heath formation of Cassiope tetragona, Vaccinium uliginosum, Pyrola grandiflora, Dryas integrifolia, Festuca ovina, Calamagrostis, Hieracium sp (Hirsuta I think), Poa sp., Glyceria tenella, Arnica alpina and Antennaria sp. Here the ground was relatively bare and I could feel more certain of my determinations than I have usually been. Always when examining these desiccated snow- and wind swept plants I am reluctant to state with certainty that I have found such and such a plant even though I feel reasonably sure it can be nothing else.

I fancy that these warm plains and hillsides are a botanist's rich collecting ground, two months hence with bog, moor, beach and transitional associations in abundance. The rock formations and the physiographic variety of forms, furnish all kinds of environments of complexities of both edaphic and climatic factors

Botany

to an extent that few places in the Arctic do.

It must be a striking sight on this lonely shores when the sun is high, the snow gone, the birds here in numbers and the grasses and flowers in bloom. The hillslopes must be white with the creamy dryas-blossoms and the clay-gravel beach ridges mere purple bands of the glorious saxifraga oppositifolia. I thought last year at Umanak that I ~~had~~ should never see a greater profusion of bloom than the dryas, cassiope and saxifrage afforded, but these plains are much more thickly carpeted than were those about Umanak.

I doubt whether the slopes ever become green, for the short grasses and sedges are nearly always brown-tipped or the green shoots are hidden by the gray and brown shoots of last year. Only in the richly manured bird cliffs or the neighborhood of igloos or tupics have I seen what I could reasonably call the green of a growing vegetation.

March 24

Leave Etah and return. Cache.

Mar. 24

All ready, our dogs fed heavily last night, and other home people anxious to have us set out, we started off this morning.

My party besides myself comprised Eaayoo, Ahk Ehkakoo who refused accompany me all the way is all goes well; Arkio and Ukkapingwa who will accompany me as far as the mouth of Bay fjord; and Ooblooyah and Ahkpudyahsee who will go as far as the head of Beitstadt fjord.

When we got our sledges loaded they were heavier than we had expected and were piled high. As we set off, Allen took some moving pictures of our departure.

We drove swiftly over the smooth ice until we reached the ~~south~~ rougher ice near Sunrise Point. From here on we worked our way laboriously along the cliff foot and over the

Cache

March 24

rough stretches of the bays as far as Cape Obleen without breaking a sledge or suffering any mishap. By ten we got this far the strong northwest wind which we had encountered as we rounded Sunrise Point has become almost a gale, and with the drifting snow makes it well nigh impossible to go on. Besides our clothes are wet and full of snow so we decided that since we could get back to Etah in a couple of hours with empty sledges it would be better to cache our loads on the ice foot and go back for the night. This we did and by half past four or five. As when we left this morning at nine o'clock a fair breeze was blowing and a little snow drifting, but nothing like that beyond Sunrise Point.

The only thing we forgot this morning was an oil bag or two.

When we returned the weather was quite rough at Etah and growing worse, with the wind changing

Mar 25

Leave Etah & Return

Mar 25 –

At Etah it was calm and clear when we rose this morning but fast flying clouds above head, white curtains over the tops of the cliffs, and a driving veil of white haze out toward sea indicated heavy wind; but at Mac's insistent assurance that it would be all right beyond Sunrise Point we again set out.

No sooner had we rounded Sunrise Point than we met a northwest gale through which it was impossible to see or to drive the dogs. On the approval of the Eskimo of our decision that it would be folly to try to go on we turned back again, but stopped at a cache of meat to which Akkomodingwah had accompanied us and from which we dug out with considerable effort a quantity of meat.

We got back to Etah at noon time. They were surprised to find that it was wind that turned us back.

Ootloyah went out but hunting or lost way back and got two big fine rabbits.

Mar 25-26

When we retired for the night the wind had gone South and was blowing hard and disagreeably.

March 26.

The indications of yesterday were repeated today and Kayoo and Kotlov ah both asserted that we should not go. Soon after breakfast the wind began blowing intermittently at the house, but at every lull, Mac would declare the wind gone and urge us to start. Between him and the Eskimos who were loathe to leave we were in a dilemma.

About six o'clock in the morning however the wind had so far dropped that Kotlov ah came to me and said he was going to set out. I at once readied to go, as did Kayoo and Arkelio. In a few minutes we were ready and away we went. Mikapingwa and Okpuddyaha ho waited for Etukashoo who was out hunting.

We fed our dogs a short distance from the house with two seals that we took out with us. Green very graciously accompanied

Mar. 26 Camp Sonntag

Going rough

me and helped me.

We got to our caches in a short time, and when we were nearly loaded, Mikapingwa Okpuddyaha, and Etukashoo came along. We waited for them and started our digel together at just eight o'clock.

For about a mile our way lay along a rough ice-foot along which we took up a load of biscuit and a case of oil. Then we got out on smooth ice about half way through the passage between Lyttleton Island and the mainland. We made good time to Nowyadie where we again took to the ice-foot to the point where we made camp on the ice-foot beside some big rocks (2 pilotos next morning)

We soon hitched our dogs, got our stoves going, and at two o'clock in the morning crept into our sleeping bags for a little rest.

The temperature was -36 C. but it was very calm and clear and moonlighted

Nowayode 7:45 a.m. 7° below

fine weather

Mar 27 (Camp Hayes)

(8 p.m. -38C NE)

Mar. 27 —

We rose at seven o'clock to a day as calm and fair as a Auckland spring day. We made a hurried breakfast of pemmican and tea and set off around the point on the ice-foot. It was fairly good going and we kept to the ice-foot for about a mile when we cut across the bay. We cut over land to the next bay. While we stopped to rest when we got down to the ice-foot, two bright mock-suns made me fear bad weather; as a compensation we saw when we climbed a knoll on the point, a belt of smooth ice extending toward Cape Sabine as far as we could see. Only a narrow stretch of road going separated us from the good ice, but this stretch took us a half hours work as hard as any five men just in.

Once on the smooth ice we soon rounded the next point to the cache at Cowan

Raven tracks at cache at Community

Mar 27 — Camp Hayes

ville. Here we unloaded our sledges, polished our runners, made tea, and brought down from the cache 8 cans milk 2 cases oil, and 3 cans of beans, 3 of peaches, and 2 of cherries. We reloaded our sledges and when we got out across the sound it was four o'clock.

We travelled fast for about three hours and then made camp beside a small seebung and pressure ridge. We built two igloos one large, occupied by Etukeshoo, Inukpuligwa Arkeo and O, and a smaller for Esayoo, Okpuddy Shaw, and Ooblayah.

As soon as the igloos were done the men went out on the ice to spear seals through holes in the thin ice of the leads. Etukeshoo got one, so all hands had a full meal of fresh meat for supper. We turned in at one o'clock tired, but full fed and much pleased with the prospect for the morrow

Fine weather

Mar 20. Igloosuah

7:30 a.m. -42 C N O

Etukashoo was cook in our igloo and he got us up early so that by half past eight we were on the way. Our course was almost a replica of that of last years trip but the going was better. In the hope of getting seal of which we saw the breathing holes of many, we followed leads wherever they led us the general direction of our course. All along the going was fine. Our route lay in a belt of smooth ice about a mile wide between old ice of last year very rough, and the band of extremely crushed and rough ice next the open water, a band from one to three miles wide.

Nowhere was the snow deep. Most of it was featherfeathered ripplied kind; very little of it was of the pipples kind that is so hard on the dogs feet; and none of it was of the fluffy kind that would be encountered on a soft ice, through which

March 28 — Igloosuah

Going good.

the sledge pulls so heavely. Not until we rounded the south point of Brevoort Island did we strike rough ice, and then only a little and not very much.

All the way we kept almost within call of each other so nearly were our dogs and loads balanced. The sun shone bright and until two o'clock it was perfectly calm. Then a cold northwest wind struck us but it was'nt hard until after we had got into Igloosuah and fed our dogs.

We stopped at Stalknecht island as we came along and opened one of the caches of meat from which we took out enough to feed our dogs tonight, enough to give them a generous feed. It was hard work digging out the meat with nothing but hatchets and rocks.

At Igloosuah we feasted on pemmican stew, coffee, and cherries and crackers + then went to sleep about eleven o'clock.

No bear tracks on way across

Two ravens at Igloosuak

18

March 28 — Igloosuak

9:00 p.m. -32 NW3

Toward the north from Brevoort Island the ice looked very bad around the North end of Bedford Pym Island. For that matter the ice to the south did not look very good but the men say we will pass by that old way through Rice Strait. As last year the ice to the north of Payer Harbor between Brevoort and Pym Islands is chaotic, impassable.

The wind is blowing hard now at bedtime, presaging an unpleasant day on the morrow when we get some more meat for our dogs.

Old Igloosuak is most comfortable tonight as we go to bed for our stoves have warmed it just enough to make it seem temperate without melting the frost on the roof to a precipitation & rain on everything within.

Though I am weaning the same Ramikes, Kooleeah and mittens that I had when I left Etah they are still dry.

Fine weather

19

March 29

9 pm — 26C NE4

9 am — 32C NW3

Igloosuak

6:00 a.m. Qx

6 Pm - 24C N1

12 Noon - 26C NW1

Nukapingwa who was cook for the crowd invited me at six o'clock to drink tea that he had prepared. We all got back into our bags to loaf a while but got out finally before nine.

After another cup of tea all around the Innuits patched up the stove pipe and got a fire going to thaw out meat, and made two komatiks ready to bring in more.

The men are surprised that there are no signs of bear. The meat caches had not been disturbed and we saw no tracks at all where last year they were numerous.

All day long we kept a hot fire going from wood torn out of the house and gathered up outside. We thawed out 7 big pieces of meat, enough for a dog pemmi can box and a half for each team. The dogs were filled to repletion and would eat no more.

Despite the big fire and warm igloo our belongings did not get very hot for Cobloyah

and I went over the ceiling with a piece of deerskin and kept the moisture from falling until about three o'clock the ceiling was quite dried off.

Oobloyah and Okpiddyshaw went out after hares but got none. Arkhs and Nukapingwa went after more meat. The Eskimo have suggested that we leave pemmican here and take meat with us instead and I have agreed.

This has been a leisurely day here, and jolly cold though out on the Sound it is stormy and snow driving thickly.

Every one of us is drying his clothes and I think by the time we start tomorrow everything will be dry as when we left Etah.

This has been a cheerful evening after a sumptuous farewell and anniversary supper of pemmican stew, beans, crackers, pears and tea. The wind is blowing a gale from the North east but in the Igloo we are warm and well fed, our dogs

are well-fed, and we have meat for at least one more feed.

Etukashoo and Arkeo are sewing harness, Oobloyah is playing solitaire and the rest are cuddled down on their furs chatting. I am watching my kamiks and oudukies which I am drying by a Primus stove.

At half past nine we are all thinking of going to bed.

March 30 — Camp Greely

A heavy wind delayed our starting but finally we decided that perhaps if we could round the south head of Pym Island we could proceed farther so we set out. The ice was good but the wind was fierce. Everyone donned his kamikpukes, face mask and whatever else he had to keep warm. I was afraid I should freeze my feet again. It took us three hours to get into Rice Strait proper. There in a little cove where we stopped to make some

Fine weather.

Mar 30 —

9 a.m - 26 C. NW 3
9 p.m - 34 C. SW 1

Igloo made 9 a.m

tea to warm us up a little we saw three rabbits on the hillside but got none.

After this stop the rest of the way kept getting better and better. By the time we passed Saunders Creek the hard was still, the going superb. From C. Rutherford we headed straight for Cape Campbell down. This was on Esayo's advice, where saw how deep the snow was along the back side of the sound.

The ice was rough and snowdrifted so we made rather slow progress. In spite of this we got one third way across Richardson Gulf before we made camp. Here Oblogah made himself a small igloo Okpeadeyoshoo and Ikakapingwa themselves one while the rest of us put up the tent for a subsequent snowthreatened. We got into our sleeping bags about ten o'clock.

Fine weather Inuits

Mar. 31 Camp Small

12:00 noon — 33°C In sun — 29 C.

At ten o'clock we were on our way again. As we went along over chaotic ice and deep drifts I began to doubt Esayo's judgment and wished we had stuck to the old trail. The other Inuits also "roasted" him but he only smiled and said "botchow"

And sure enough when we neared the land of Back Peninsula we struck smooth going with very little snow and often glare ice, over which we sped at a lively clip, faster than one could run comfortably. We stopped about three o'clock beside a big iceberg to make tea and afterwards went on almost to Fort Indiana.

Here at the point of the land we made Camp. Sadlak Etuka-shoo and Nukapingwa built the biggest snow house I have yet seen, over 15 feet wide and 10 long, large enough to accommodate all of us comfortably. We fed our dogs pemmican tonight. We fed them nothing last

Nukapungwa dog sick

Mar. 31 Camp Small

night. We are saving the piece of walrus meat we brought with us, for calls we see on the glacier.

Thanks to Kaya's good headwork we are camped tonight within sight of the Big Cache. We could easily have made it but we feared there would be no snow there for sleds, and the Innuits decided that it would be easier to bring the supplies over here and continue on the good going of this side. The route we took today is much shorter and better than our old one of last year.

Tonight the Innuits are all satisfied, elated even, and enthusiastically discussing the trip and hunting. Tomorrow they will try for seal and bring the boxes and supplies over from the big cache.

One of my dogs, Nukapungwa is ill, and I am afraid shall lose him.

The day has been warm

Native primary copper deposit

Apr. 1 Camp Small

and pleasant, relatively speaking, with clear skies and very little wind. It has been a pleasure to travel especially since we struck the good going.

Along Bache peninsula I saw a raven, the tracks of several rabbits and foxes.

Nukapungwa showed me some green patches on the rocks and upon investigation I found they were stains of malachite formed from small crystals of copper in the syenite and granite evidently syngenetic with the granite itself. In fact I am quite sure of it. I had no chance to climb up to the sedimentaries, for I could not afford to delay where the going was so good and the Eskimos so eager to go on.

The basal formation seems very much like that of Elaksylvite, dronte, with included blocks of basalt and pegmatites of feldspar and quartz.

fine weather

Apr. 1 Camp Small

10:00 a.m. -29C Wind W 0

3 p.m. -26C

April 1.

As soon as we had breakfast all the men except Esayo who had the bellyache, went out to look for seal. Soon after, Nukapingwa came in reporting no water, no seal. He and I at once went over to the Big Cache after supplies. The Eskimos have decided to go back by the same way we came, and Ooablooyah and Oppuddyshas wish the leave all that we have brought over here so that they can take it back to Igloolik.

When Nukapingwa and I got there I was astonished at the size of the pile. We each took two loads and there was still enough left for four loads.

On our way across we ran across the tracks of three bear, and old one with two cubs, and coming back we met Ataksheo who reported a maze of tracks farther up the fjord.

Esayo and I dried mittens and kamiks; I wrote up my diary and began a letter to the Stake people; took some pictures, fixed up my

Apr. 1 Camp Small

Bears.

field glasses, put a new roll of film into my camera, and did a half score other things of little moment.

My Nukapingwa dog is very sick and I am afraid he will die. I believe it is worms that are killing him.

About four o'clock came in. He had killed the big bear of which we had seen the tracks, and Arkeo had killed one of the cubs. Arkeo and Oppuddyshas were in pursuit of the other cub. As soon as Nukapingwa heard Ooablooyah's exultant shouts he set off with his dogs, hoping, I suppose to participate in the kill of the other cub. But soon after he left Oppuddyshas and Arkeo came in saying the cub had cut up across land and got away from them. Nukapingwa did not come in until late.

We had a big feast of bear meat and I ate to repletion.

At Esayo's suggestion we decided to cross Ellesmere and by the Flagler Fjord Route for the Eskimo are agreed that it will take us two days to get to the head of Bertstedt Fjd. because of deep

Two ravens over Ytterhorn

28 Apr 1 Camp Small.

snowy while we can get to the head of Flagler in one majah. We will save another day by not having to turnip up the glacier, and may save another day in crossing for Isaya avers that when last he crossed, he got over from ice to ice in two days, with a homatik heavily laden with skins and meat. He says we go up the river as long at the ice is good, and then go up on the glacier, cutting across to the same descent as when I came back last year.

We decided further to stay here at Camp Small another day for we have to bring with the rest of the supplies from the Big Cache. With plenty of meat, oil, milk, and crackers, I am not reluctant to take this extra day, for it gives the Tukapingua dog a longer chance to get rested.

Except for some frozen fingers, I am feeling fine, and the men are satisfied and happy. The weather could not be more beautiful.

Apr 1–2 Camp Small Wind N.O

12 Noon – 28C. Wind W 1 6 p.m – 36 C

The sunset this evening was glorious. Everything was softly golden and as we gave our dogs a big feed I was struck by the startling beauty and calm of the whole world, while about our snow-house lay piled the bloody remains of two of the few denizens of this Sound.

Apr. 2.

We rose at eight o'clock. Etuk-ashoo, Okpuddyhoo and Tuka-pingua went out after bear while Isayoo, Arkeo, and Koblongah went after the remainder of the Big Cache. According to my instructions they left there one case white bis-cuit, ten tins milk four sounding leads and one pick.

I have directed Koblongah and Okpuddyhoo to take to Igloosuah 50 lbs. whole wheat crackers, 36 bene tins pemmican, 1 gallon oil, and seven snowshoes and four picks – big enough load for them with the bearskin and meat they take back.

There are left here on the ice

fine weather

Apr. 2 Camp Jot Small

C.J. Small 3:00 P.M.

150 lbs whole wheat biscuit and 36 tins pemmican. I have told Arkio and Nukapingwa in case they are not too heavily laden with skins upon their return to take with them to Igloocuah all if possible, or as much as they can, taking pemmican in preference to biscuit; of the latter I suspect half to be mouldy. All that they leave I have instructed them to cache on the small island of the Greely-precht group nearest the south point of Knud Peninsula.

Also I have left here for the four men when they return 2 gallons oil, 5 tins milk 4 pemmican for their dogs and a tin white biscuit.

After the men came back from the big cache, Nukapingwa came in unsuccessful. All of us at camp then polished Dud iced our runners, packed our pemmican bags, fed our dogs, and made ready for the morrow's departure.

Apr. 2 Camp Small

Esayao is all right today, but I have a violent headache. My Nukapingwa dog is still very sick.

I shall not soon forget the beautiful afternoon on this sound - clear, bright sunshine a haze hanging over Bache Peninsula, Thorvald Peninsula, and Alpe-Landet, the white ice cap of Thorvald Pen. the great cliffs about the sound the berg-studded ice, the confusion about camp.

Okpuddyhoo and Etukashoo came in late having failed to get the bear. The bear had cut up across land toward Princess Marie Bay and they had had to give him up. They fed their dogs and then ate all turned in.

Fine weather - Going fine

Apr 3. Saturday. Camp Sverdrup.

12 Noon - 26C. Wind NW. 6 p.m - 31 Wind N.

When we were all ready to go this morning, my Nukapingwa dog had a spasm and afterward stiffened out as dead. When he came to he was too weak to stand, and after so after making him as comfortable as I could behind a wind shelter and on a sealskin that Nukapingwa had abandoned, I left him behind. I cut up a can of pemmican and left with him as he would starve if he recovers. If he gets well Oodloyah will take him on to Etah.

Kisheenik was and Bundle were acting as if sick, and with the dog ill in, and these two not active I felt rather blue, especially as the Esquimo said the Nukapingwa dog had the Cape York disease which has killed as many dogs here this spring. Arkab did not cheer me much when he said that all our dogs might die when we got across.

The going up the first third of Hagler Fjord was fine - hard smooth snow, and smooth ice. The inner two thirds of the Fjord had not broken out last

Apr 3. Camp Sverdrup

Botany

year, so the ice here was hummocky but the going was good just the same.

We reached the head of the fjord in very good time, after about six hours ~~fast~~ going and cast about for a suitable place to build our snow houses. After two changes because of poor snow we finally decided upon a bank right along fast ice. Here we made Camp Sverdrup.

Across the bay on the top of a sharp peak, Esayou pointed out a cairn that he and Peary built. He could not remember whether or not they put a record in it. We could easily see it with our field glasses, a large high pile on the very summit of the peak.

The scenery here is magnificent. The rock is all sedimentary on both sides. The pass opens up before us - an inviting gateway. I found Salix arctica, Alopecurus alpina, Dryas integrifolia, Glyceria Astans? Eriophorum polystachyum, Saxifraga glandulosa, and Draba sp. Rabbits are plentiful.

A fine weather. Good going.

Apr 4 Sunday. - perhaps Easter

9 a.m - 38C. 3 p.m. - 22C. Wind South

It was after ten o'clock when we set out across the outwash plain at the head of the fjord. Our course was up over the smooth ice of a small creek that flows through the plain and along the hard snow drifts that flank the low banks of the terraces that have been formed by the stream's trenching itself in the plain. We encountered few rotten ice or gravel, nowhere where we hindered long. The dogs raced along at a lively clip throughout the day. At first we saw only rabbit tracks, but later we began seeing rabbits too. About three o' clock when we stopped to rest the dogs and to make tea Etukashoo killed one, and soon after Okpuddy shot killed one. At half past three we saw fresh spoor and tracks of musk-oxen. We would not have stopped on a sandpaper trail then. About four o' clock we passed through a narrow defile that led us into a second great wide valley. Here there were hundreds of rabbits. We paused to rest and to determine where to

Musk-ox. Apr. 4 Camp Green

camp, when Arklio descried with my big glasses, a big shaggy musk-ox about three miles up the valley. We waited until the rest came up and then I told them that Oobloyah and Okpuddyshaw (they had asked to accompany us one day inland and I had granted their request) were to do the killing. We set off down the valley but had not gone far when the musk-ox winded us and started up the rocks. Oobloyah and Okpuddyshaw at once unloaded their sledges and set out post-haste the rest of us following as best we could with our loads.

It was exciting to watch Ob. and Ok. dash up the side of the valley. They loosed their dogs when they got near the beast. Soon two reports rang out and I knew the quarry was ours. Nukapingwa, Arklio, and Esayo did let their dogs loose but Etukashoo and I drove on to the base of the slope.

The ox was a gnarled fellow with both horns broken and the dogs had so mutilated the skin that it was worthless as a specimen

Apr 4 Camp Green

Going good.

We made camp which I called Camp Fitzhugh Green, because he had given me a letter to read—and a fine one it was—at our first musk ox kill. We fed our dogs well here and had a feast of boiled meat and oxtail soup ourselves.

It was three o'clock when we were ready for bed.

This Sunday has been magnificent, the best day I have had in the Arctic. All day we traveled on a plain from a quarter of a mile to a mile wide through which the watercourse winds. It is flanked on both sides by great cliffs, talus slopes, and ridges. On the plateaux great snow covered domes glisten and in the sunshine. The gradient of the valley could not have been over 20 or 25 feet to the mile. It was an imperceptible rise. The day was perfect, for though up on the mountain tops we could see snow drifting indicating wind down in the valley it was calm and mild as a kitchen

Apr. 4 Camp Green

Rabbits

The rabbits are numerous and quite unafraid. After we passed through the defile I think we must have seen two hundred feeding within easy rifle range. The dogs were continually chasing after them. They are so numerous as to run in big flocks and when a flock gets started over the hard snow it really seems like ~~snow~~. Toward midnight a flock running along looked like drifting snow. We can come within a few feet of them and tomorrow I shall try to get some pictures. We have all we want to eat.

The only drawback to this camp is the distance we have to go for ice for water there is none near at hand.

On the whole this has been a wonderful day, a memorable day. Even should some unforseen necessity occasion my return to Utah I should consider this much of the trip at least all worth while.

Tomorrow we mount the glacier and the day following we shall camp on Big Bend.

Apr. 4 Camp Grant

Geology
Botany

I feel certain that the valley up which we traveled today has been glaciated. Relics of lateral moraines, and lateral scouring were numerous. Also not far from the head of the fjord I saw great beds of glacial loess such as is found at the end of Brother John's glacier at Etah. Besides this I saw several broad U-shaped hanging valleys and old cirques above the valley.

I watched the vegetation as we came along. The rabbits feed most upon the Salix arctica. The most of the grass of the meadows is Alopecurus alpina, and Arctagrostis latifolia. I saw considerable Eriophorum polystachium, Juncus biglumis Luzula sp., Carex incurva on top of the moraines, Potentilla Vahliana, Plumopogon Sabinei frozen in a little pool, Dryas integrifolia everywhere, Draba sp., Pedicularis sp. and Glyceria distans. The vegetation of the meadows is relatively luxuriant

Apr 4 — 5

12 Noon — 28C Wind S.W. Wind So
Windy; cloudy weather 6 p.m. — 32C

all along the way I saw only sedimentaries in the walls of the valley, though we crossed two ledges of syenite, igneous. ~~The~~ I could not take time to stop to examine the composition of the terrane, but from time to time I examined limestones usually gray or blue in color, sandstones gray or brown. It is a field most enticing to a geologist and it vexed me sorely to have to pass along without more than glancing at it and wishing I could spend a season here.

Apr 5

This morning we did not rise till noon for it was three o'clock when we got to bed. Besides we could hear the wind blowing so we knew we could not mount the glacier.

About three o'clock the men went out hunting and got about 30 altogether in less than an hour. About four o'clock we loaded our sledges for the wind had calmed and took part of our loads up on

Apr. 5. Monday. Camp Snow.

glacier. We went up a small snow-filled gully then eastward along the edge of the glacier and then mounted it by a slope much the same as that at C. Alexander. We got up fairly easily for the snow was good. Oobloyah and Okpuddyshoo helped us to the top. We shall get down on sea ice the day after tomorrow so Eays and Mikapungwa who have gone this south before declare. We came back flying, for the wind had veered, and was now at our backs on the down grade.

Okpuddyshoo and Oobloyah, I feel sure, would like very much to go across with us; much as I wish they could, I cannot permit it now.

The weather tonight while not inclement is worse than any we have encountered on the trip except at Iglorsuah.

Our dogs are apparently in fair shape and I hope will continue so.

Apr 6. Tuesday Camp Snow

12 Noon – 26 C NNW wind SW 4 6 p.m.

The heavy wind of last night continued today, stronger than ever. The prospect on the glacier was too unfavorable to warrant our setting out so we stayed in the snow house, dried clothes, thawed out the remainder of our walrus meat and let the winds howl.

Mikapingwa and Kinkashoo went out and in half an hour got a dozen rabbits to feed their dogs. There is no end to the rabbits here; by the way they have no fleas as have the Greenland hares.

At five o'clock in the evening Oobloyah and Okpuddyshoo started back to Etah. The wind was becoming a gale but it was from behind them, and they thought that as soon as they got through the pass they would find comparative calm. My regret at seeing them go is an earnest of the way I shall feel when I shall bid them a fond goodbye, and turn southward to home and civilization. Oobloyah especially, I shall hate to leave.

Apr 7.

Camp below 7:00 p.m.

12 Noon -28C. Wind N. 3 9 p.m -32 Wind N.

Because it was still windy we stuck in camp this morning. Ikukapuingwa and Ikukasoo went out and each got half a dozen rabbits. About four o'clock Esagoo came and said that after awhile the wind would stop, and that we had better get ready to start. We cooked some meat and some tea, got our sledges lashed and set out at eight o'clock. At camp it was still windy, but when we mounted the glacier at 9 o'clock it had stopped.

We made an easy ascent loaded on the cache we left here day before yesterday and proceeded in a South-westerly direction across the glacier. When I got to Camp Green I took the altitude and found it to be about 250 feet. Using this as a base we attained on the glacier an altitude of 2340 feet above this base. Since we made this height in four hours it must be nearly correct.

Just before sunrise, about half past two in the morning we reached the crest and caught sight of the

Apr. 8 Enroute over glacier
1 3a.m — 38C. Wind SSE 2

jagged peaks about the north side of Bay Fjord which I have designated the Allen Cordillera from the impression of crests and peaks arising from it. The temperature at this time was — 38C. During the ascent to the crest the wind blew slightly, and an occasional cloud drifted by.

We made tea and during the making the sun rose back of us over the ice cap. It was a glorious sight. Before us lay the rugged land and slender fjord, the peaks all reddened by morning sunshine. The gleaming snow was mottled by the cloud shadows and white mists loomed about the higher crests. Behind us stretched the rolling ice-cap.

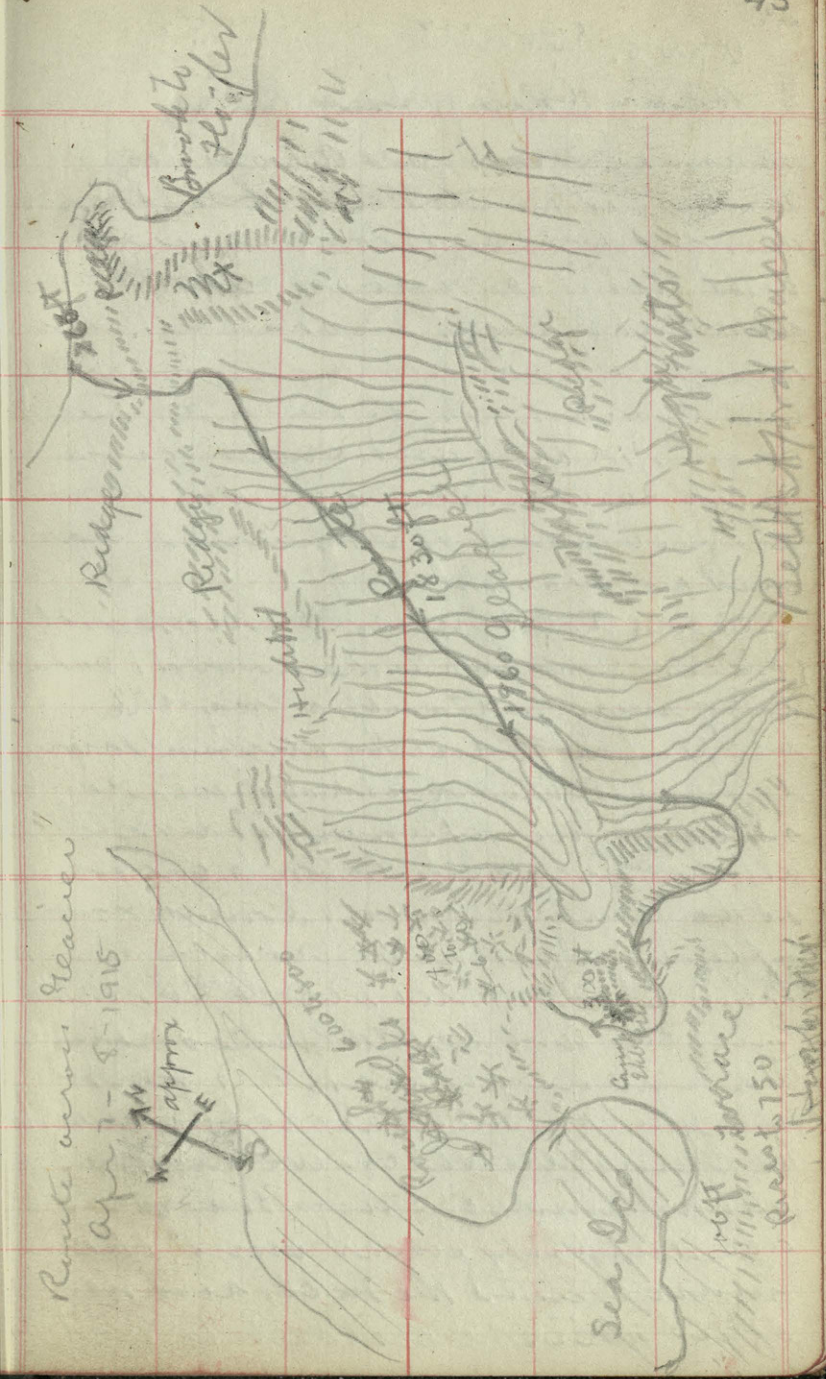
Tea over, we started down the glacier and made land at five o'clock. We got up on the ridge without trouble and at once began seeing life. A fox ran across our path. Ptarmigan tracks netted the snow. Rabbit tracks innumerable everywhere. We dashed down into a little gully and startled from their feeding 3 or 4 rabbits which

Apr 8. Enroute over glacier

Ptarmigan Rabbits Muskox Lemming

I counted. Hundreds of rabbits scampered about over the hills, and our dogs were constantly dashing wildly after them threatening often to drag our sledges over cliffs and slopes to destruction. It was a wild ride down to the plain. We got down about noon. Muskox tracks were everywhere. Etukashoo shot a ptarmigan that alighted near us.

We got to our Camp Ekbelaw just at one o'clock in the afternoon. Nukapungwa went up to take a look at the ice and immediately rushed down again — "Oomingmuktoonah". The had seen several on the terrace across the plain, at the same place where they were feeding last year when we came. With our glasses we made out that there were quite a number. We unloaded our sledges and I gave Nukapungwa his rifle and told him to take the lead. The rest of us followed more leisurely. The musk oxen had winded us and were moving rapidly up the steep slope east of the plain.

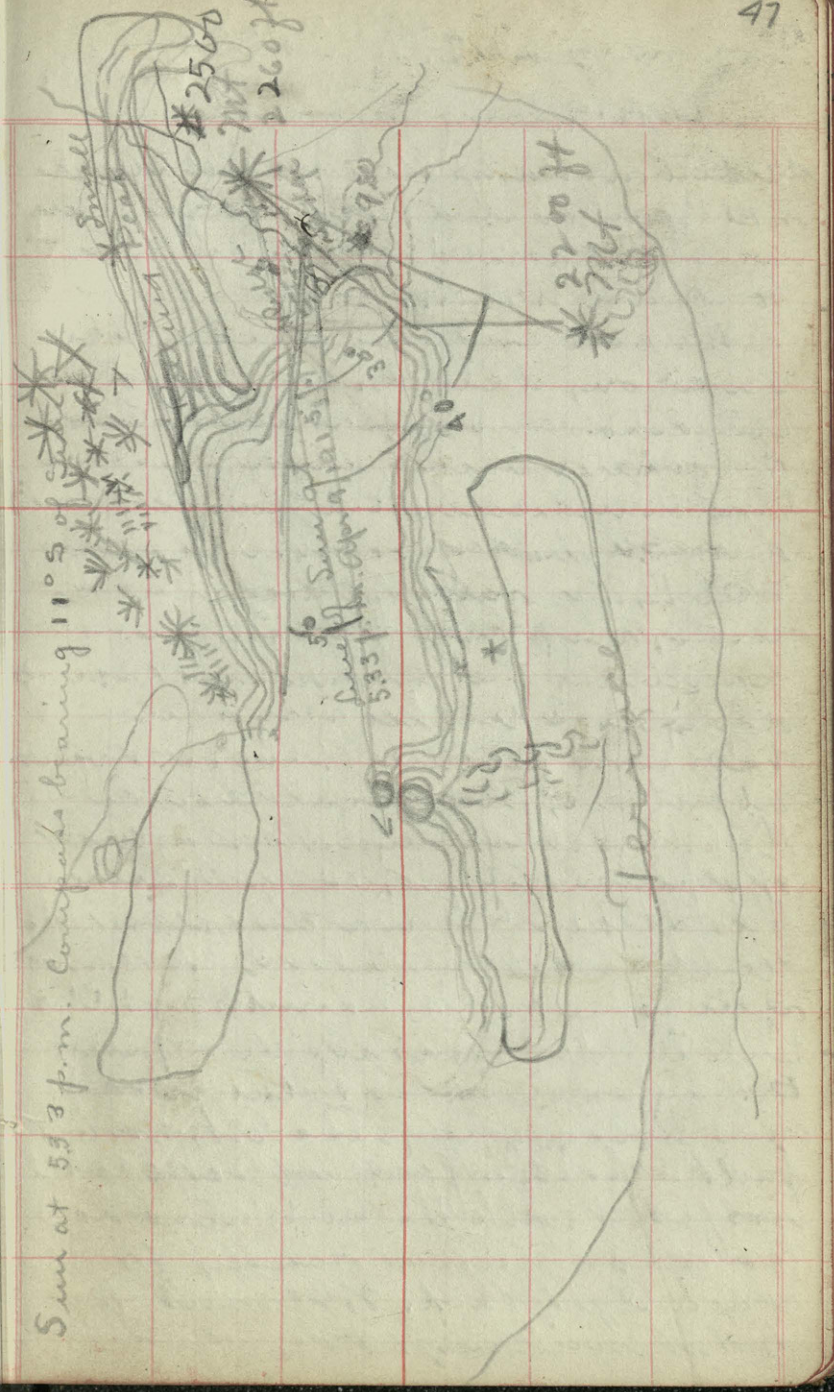

Route across Glacier
Apr 7-8 1915
Akpuk
Ridge
Ridge
Mt
Mt
Mt

apr 8. Enroute

apr 9. Camp Tanquary

Nakapingna and Arktic's dog team tired after the long march and went along so slowly that before they got to the foot of the hill the muskoxen were out of sight over the crest. We thought they were gone, and Arktic came back to us; but soon we heard shouts, and a shot, and a great black hulk came rolling down the slope. The rest of us hurried up and soon eight big fellows 2 cows, 2 old bulls, 3 two-year olds (one cow and two bulls) and 1 yearling were piled up along the slope. One yearling slipped through a pass in the rocks and made a successful get away. We rolled all the carcasses down to the foot of the slope near our komatiks and after tea skinned and quartered them. It was three o'clock in the morning when finally we established Camp Tanquary which this first sleep was merely two beds of muskox skins into which we nestled without undressing. We were all dripping sweat from the march and the hill, and none of us were reluctant to rest.

apr 9.



2 p.m - 26 C. N and SSE 1
Snowing slightly

Apr. 9. Camp January

Despite our damp state we all slept well, and so did our dogs for they were full gorged on raw meat barely able to move.

We rose and had meat and tea at one o' clock. Afterward Etukashoo and I went up on the mountain back of us, a toilsome march indeed up the steep slope and through the deep snow. I made a sketch of as much of the fjord as could, also froze four fingers handling the compass and sextant doing so. I bothered very much to have some pictures of the fine views about me, but forgot when leaving that the roll in my camera was of 6 films instead of 10 and since I had taken 6 I was disappointed.

Arkilo went over to Camp Ekbelaw after some milk, blankets and the tent. While I went up the valley on my snowshoes balanizing and geologizing. The Eskimos built a house of snow blocks and roofed it with the tent, and had tea and muskox ready for me when I got back. We went to bed at midnight



Camp Jacobsen
Snowing slightly

10 a.m. Wind S SE & Snowing slightly

Apr 10. To Camp Macmillan.

At ten o'clock we set out again. We put two skins for Mac - a male and a female - and a fine set of horns for Jot, inside the sledge as well as a lot of meat, piled up snow, skins, and superfluous bread all about. We each took a quarter on our sledges. Of the eight we had killed I had hoped to get one good skin of a yearling to complete my group, but the one we did kill was so badly mutilated that it was worthless as a specimen.

At eleven o'clock we were again at Camp Ekblaw to reload. We took on each sledge 7 gal oil. 6 tins blue tins pemmican, 3 blue tins pemmican, two 12½ pound biscuit tins. We had two cases of milk.

We left at Camp Ekblaw 38 red tins pemmican, 15 blue tins pemmican and 2 gallons oil. This last I suspect Arktos and Nukapingwa will use on their sutuks. We found at Camp Ekblaw when we got there 1-25 lb. case biscuit

3 pm Wind S.E.

Apr 10 Camp Macmillan

and ten gallons oil.

All over the hills were tracks of rabbits; over the plain of foxes rabbits, wolves, lemmings, ermine and muskoxen.

We left Camp Ekblaw at noon but stopped as soon as we got on the sea ice to polish our runners, which had been much roughened by the rocks.

At six o'clock we made Camp Macmillan where Mac made his first stop last year. Here I resolved to stay a day in order to do some more sketching, to write letters back, to geologize and to get up my diary which I had neglected since leaving Camp Green.

Our dogs were all in fine condition, but lazy because they were filled up with so much meat. There was but little snow on the sea ice and the ice was good. Ever since leaving Camp Green the weather has been clear and calm and pleasant.

Nukapingwa this morning smashed my small thermometer, and since the others are no good this is the end of my temperatures.

5 Coal.
See new bar
Apr 11. Camp MacMillan

Arklio and I went up on the mountain back of the camp to take a lookabout. Here for two hours I took bearings and sketches all that I could see with my glass. The simpee fjord that Sverdrup delineates is really a very complicated affair of which I have obtained a fairly good representation.

The altitude of the sun today at 12 noon, if my reading was right was 18° 22' with an index correction of -10 (10 on the scale)

Sketching and taking readings is very difficult, and I frost my fingers severely.

Afterward I examined the coal seams up the stream bed, investigated carefully as I could the vegetation of the delta, and came back. After rearranging my sledge, feeding my dogs, and getting ready for an early departure for the morrow, I wrote letters back, completed my diary to date, and revised my sketch.

Arklio and I made out a large herd of muskoxen across the fjord

1 p.m. - Wind East. fine day
Apr 11 Camp Mac Millan

northwest of us and tomorrow we are going after them. The day after I intend sending Arklio and Nukapingwa back to Etah.

The day has been chilly for a cold wind has flown down off the ice-cap to the south. I think Braskerudfjord is of limited extent for a fourth of the fjord comes in back of us. I think it was down into this that Braskerud and Isachsen looked. At any rate I think I shall make no effort to penetrate the land from this camp, as I had previously planned but cross to the other side and look over that branch of the fjord.

The Eskimo are elated over the prospect of another big kill and I am looking forward to some good pictures, for the herd is a big one, and since it is on a big plain will probably forgo the "squaw" for which they are famous. A good set of muskox pictures would certainly be well worth while.

Botany Notes See lists

Camp Green. Apr 5-6-7.

Carex capitata, Ellyna bellardi? Glyceria tenella? Calamagrostis purpurascens, Dryas integrifolia, Papaver radicatum, Oxyria digyna, Saxifraga oppositifolia, Potentilla sp. Draba sp. Pedicularis sp. Cassiope

In valley rather luxuriant vegetation, meadow like, as on moister terraces. On drier rocky slopes sparse — dryas, carex cap. Ellyna bellardi Saxifraga oppo.

Valley affords pasturage for many hares, muskoxen.

Salix arctica abundant everywhere.

Camp Tanquary. Apr. 8-9-10

Heath vegetation on hillside moor vegetation on plain beneath. Dryas integrifolia, Potentilla rubl. Cassiope tetray. Pyrola rotund. Glyceria distans + tenella, Ellyna bellardi, Carex capitata, Carex incurva, Poa sp. Juncus triglumis, Draba sp. Papaver radicatum Potentilla sp. Luxuriant. Many rabbits, lemming. I saw stalks of Pedicularis lanata, and I think of P. hirsuta. Here on

Botany Notes See lists

these plains the summer vegetation must be much more luxuriant than on the Greenland shore. Salix arctica flourished much larger and abundant.

Camp MacMillan Apr 11.

The snow was too deep for successful botany. Great drifts of willow along sea shore and in bed of brook.

Potentilla sp. Pedicularis lanata; Cardamine bellidifolia; Ranunculus sp. Carex pulled? Carex incurva Ellyna bellardi, Arctagrostis lat. Trisetum spicat. Alopecurus alp. (rather rare) Glyceria tenella and distans abundant. Oxyria digyna, Saxifraga oppositifolia Dryas integrifolia, Poa sp. Calamagrostis, Draba sp. Papaver radicatum (common)

Camp Hunt Apr 13

We removed the snow from a considerable area today when we built our snow house, and in the area cleared I found Eriophorum polyst. Carex 3 sp. Taraxacum. Dryas integ. etc

Geology Notes

Geology Notes.

Allen Cordillera strikes straight dip to North 80 degrees west. Scarps on south east side. These rise above a peneplain about 3000 feet above sea level. Five very distinct terraces below this peneplain 20 feet, 30 feet, 90 feet, 150 ft. 360 ft successively. These are very plain at head of Fjord. The mountains rise monadnocklike above peneplain.

Bay Fjord is not really a fjord but a submerged valley perhaps never glaciated, though erratics laying about on sedimentaries indicate glaciation.

Coal is in thin seams from a fraction of an inch to 2 feet and in the section I saw exposed extended through about 80 feet of arenaceous and carbonaceous shales and limestone. Coal partings were numerous. All indications of fluctuation of sea level were present, from coarse sandstone to silt, coal shale and limestone. I could

Geology Notes

find no fossils, but the strata were so inaccessible or so deeply covered with snow and talus as to afford little opportunity for search. The talus slopes revealed none.

The coal itself is a glossy kind of good quality and burns well. It is rich in tar products for when we burned it the rocks became covered with it.

Camp Hunt.

On the flat plain here are relics of five distinct terraces. The peneplain of which I have spoken with its monadnocks is very distinct. The peneplain was probably raised, then drowned when the region was still young submerged again so that the Bay Fjord and its branches are really submerged valleys again rising, as the terraces indicate, probably even now rising. Greater glaciation has probably prevailed but has played small part in the formation of the topography

Botany Notes Continued

Salix arctica, Draba sp. Pedicularis sp. and Papaver. On the plain I have found Hylocerea distans and lethella, Poa sp. Calamagrostis, Caridamine bellidefolia, and Arctagrostis. I have seen but little Alopecurus alpina.

Camp Isachsen.

On the gravelly shore here I saw Saxifraga oppositifolia, Salix arctica, Draba sp., Hylocerid sp. and Carex sp. No time for looking about

Camp Allen.

The vegetation here was sparse. Saxifraga oppositifolia, Dryas integrifolia tricuspidata, Lychnid sp, Carex capitata, Elliptbillardi, Calamagrostis sp., Festuca ovina, and Alsine stricta were all that I could find in the most careful search. I think the hills are too dry in summer, for the snow must melt off quickly.

Near Skeie Ford.

On the hillside here I found a small patch of heath exposed - Vaccinium uliginosum, Cassiope tetragona, Pyrola grandiflora, Antennaria glabrata, Festuca ovina, Saxifraga sp., Dryas integrifolia, Carex capitata, Elliptbillardi

Geology notes continued.

Along the Arctic Fiord coast the few escarpments indicated a strike and dip about the same as at Bay Fiord, partially concealed and confused by great blocks of shale that had fallen from the scarps. Saw only sedimentaries, except for one dark basaltic dyke. Relief as observed elsewhere

Camp Allen.

In a long walk this afternoon over the Low Leaf hills and stream bed near this camp, I found scattered lumps of coal everywhere, nodules of limonite, lumps of sandstone concretions and fucis of chert, sandstone and limestone. I examined carefully an exposure of sandstone shale and coal in a small creek, some 150 ft thick. The shale and coal, about 30 feet in thickness all told lay beneath the sandstone. The shale dipped 5 to 12° west. The coal seams were all thin from a fraction of an inch to two inches. The sandstone was fine, of rounded grains, loosely indurated (perhaps because of weathering, much crossbedded, and interpolated were seams of coal and limonite with bands of

See page 79

Muskox

Apr 12 Camp Hunt.

We left Camp MacMillan about eleven o'clock and headed straight across the fjord in a northwesterly direction to where the muskoxen were feeding. We had hardly got off the ice foot before our dogs set off after a pair of wolves that was hanging about camp. The wolves took to the hills and escaped without being shot at though I thought Etukashoo would get a crack at one.

After a half hours going we crossed the fresh track of a bear and Tukapingna set out up the fjord after him.

When we got about half a mile from the muskoxen and perhaps 200 yds from shore we unloaded sack superfluous boxes, etc from our komatiks, taking only our stove, fuel, and sleeping necessities

We then set up the land to where on a plain like

Musk ox kill.
Pictures. Horns. Skin.

meadow the terraced stream valley, the herd was feeding. We crossed a low divide and came upon them suddenly. They at once formed a square, bows out; the dogs which the Eskimo let loose kept the square intact except when an old bull would charge out after the dogs.

The Eskimo refrained from shooting until I got nine pictures. Then I gave the word to fire and in a moment six noble bulls lay dead. The remainder of the herd then stampeded but the dogs brought them up short

We singled out three calves and shot them and they pulled a big fellow with a fine set of horns to send back to Jot. Arklio then shot another two year old of which he wished the skin. We then took half a dozen more pictures at close range of the remainder of the herd as they stood ogling.

Musk-ox skins
Pukey

Apr 12 Camp Hunt

We gathered up the dogs, all except Pukey who could not be caught. The remainder of the herd, 25 in number then made off to the northward rapidly with Pukey in hot pursuit, though all the rest of the dogs were quiet.

We set to work skinning at once. Each team was given a whole musk-ox. The set of horns that I got for Jot was a beauty and also the other set equally as good I got for Tauk also asked the boys to take both back.

The skin of one of the yearling calves I had prepared as a specimen to complete the group which I hope to get back to the Nat. Mus. of Science. It was a fine skin.

We then built a snow house after deciding that the tent which we set up, was unsatisfactory.

Etukashoo took my dogs and sledge and set out after Pukey who was acting wild and

Lemming
Fine weather

Apr 12, Camp Hunt

could not be coaxed to come in. He drove about after her for an hour, but when she set off up a ravine he gave up the chase and came in.

While building our snow house we saw a little lemming scooting about on the snow and though it burrowed the moment we set after it, the men soon uncovered it. For half an hour while our tea and meat were cooking we watched this diminutive little ball of fur, so much like a tiny guinea pig, burrow and dig and try to get away from us. It burrowed into the snow much as a mole burrows into the earth, and somewhat resembles an albino mole. Its fore claws are peculiar in being bifurcated vertically: that is, each claw consists of two prongs, one above the other. It grades from white to buffy to gray in color from its back downwards and is a pretty little creature.

Several wolves hung about our kill during the night, for

April 12 - 13 Camp Hunt

it was four o'clock in the morning when Nukapingwa came in and we went to sleep.

Nukapingwa had pursued the bear well up into the fjord and finally killed him. He cached the skin near the head of the fjord. About a mile from camp he saw a wolf, fired at it, and wounded it, but it escaped into the hills.

The plain on which we are camped is the beginning of the divide between this main fjord and a smaller one to the northward. It is rather extensive and is trenched by several stream valleys. The banks of the streams show the same terraces that were so evident at the head of the fjord. Across the fjord the old peneplain shows up very clearly, with its monadnocks and ranges. Behind us rises the jagged peaks of the Allen Cordillera, in the foreground of which is a noble mountain which I have named Mt. James. To the east of us rises a rounded dome with three peaks beside it

Fine weather

Apr 12-13 Camp Hunt

companion mountain to a large peak across the fjord. The mouth of a tributary fjord running up toward the south east, and which I saw in its length from the mountain up which I climbed yesterday, opens up. Thus Bay Fjord becomes a rather complicated bay rather than a simple fjord. In the strict sense of the word, it is not a fjord at all, for it is a submerged valley of a previous erosional period subsequent to the uplift of the old peneplain. This peneplain is not altogether a peneplain, for the bold relief of the ridges rising from it suggests rather a coastal plain with more rugged interior approaching maturity. The present cycle is much farther advanced on this side of the island than that on the east side. None of the valleys are gorge like, there are no such vertical cliffs, no streams with such vertical gradients. The scenery here if forested would be much like that along the Mohawk perhaps a little more rugged, not yet all ground as in Flagler and Battleship Fjords.

Camp Hunt
Apr 13 x

Camp Hunt
Apr 13 x

Puky
Muskox.

April 13. Camp Hunt.

We rose at one o'clock and after some tea went out to round up Puky. She was not hard to get this time after we found her for she was shot through the body just behind the kidneys. She had been the wolf Nukapingwa shot yesterday, and all night had lain in a little gully on the hillside, bleeding. Thus she paid a price altogether too high for her prank of yesterday. She might recover if she were back in Etah, but I feal her end is near. Nukapingwa is in no wise to blame for he could not know that she had run wild, and besides she looks just like one of these wolves anyway. He gave me my choice of his team and I picked out one that looked like Puky, and that appeared tractable, strong, and alert. Time will tell how my choice was wise or not.

We fed our dogs, each team two quarters of a muskox. These musk oxen here are rolling in fat, and their hides are sleek and well kept, showing that they are feeding on pastures abundant

Letters to Mac, Tank, and Pat, and the bunch
6 rolls of films return to Etah, mostly
7 muskoxen,
Dimming carcass to Tank

Owl.

Apr 13 Camp Hunt.

and nourishing. The meat is tender and of a delicious flavor.

We cached beside a rock some four feet high that rises conspicuously like a small monument from the crest of a little knoll near our camp, six cans of dog pemmican and three blue cans of man pemmican. This knoll with the rock are conspicuous from the sea ice and is perhaps a little over a quarter of a mile distant from it.

On the snow that covered the rock were the tracks and spoor of a snowy owl, only recently left.

After we cached the pemmican Arkillo and I took a six-hour walk up the top of a small mountain to the west so that I might survey the fjord which he says has its head just beyond the divide. Sure enough it approaches near to our camp, and I believe it is less than two miles, probably a little over one, from sea ice to sea ice. A small lake lies just above the head of the fjord and two islands one of them large, the others small lie in the head of the fjord. The

Survey from top of nut.
Fine weather

Apr. 13 Camp Stunt

air was so clear that I could make out everything distinctly with my glasses. A large herd of musk-oxen were feeding on a small plain across the tributary fjord to the north-west ward of us. It looked to me as if we could easily proceed by this smaller fjord for it would be easy to cross the divide, but Arklio thought there might be deep snow.

We got back to camp about ten o'clock, and while the men were cooking meat and tea, I completed my letters back to camp and sealed them.

Arklio and Tukapungwa will start back tomorrow, while Esayo and Etukashoo and I will go our way. Our dogs are well rested now, and well fed, and we ought to make good time for several days. At our next big musk ox kill, I shall stop for several days to dry our bamiks and sleeping bags, sew up all rents in our clothes, and prepare for our exploration of Greely and Canon Fjords. Henceforth there will be only the three of us.

Camp Isachsen
Apr. 15 × 5°
10 a

Fine weather
Good going

April 14 To Camp Isachsen

About noon today we packed and loaded our sledges. Arklio and Tukapungwa accompanied us to the cache we made on the ice day before yesterday and there left us, to return to Etah while we went to set off down the fjord.

We smoothered our runners and coated them with ice, reloaded our sledges and made ready to go. Tukapungwa had thought Pukey might be able to go back to Etah, but he had to abandon her on the ice because she could not walk. Her hind quarters were stiff and cold, and I saw it was but the matter of a few hours till she would die, so to spare her the pain I shot her. The shot, the crumping of her head without a groan, and all was over for poor Pukey.

We started down the fjord Etukashoo leading, then I next, then Esayo. At first the snow was soft and deep, but the going kept getting better and better and soon the snow crust bore the dogs and sledges easily. We sped along at a rapid rate, and

70 Bear tracks
Seal holes. Wind W. West all day.

April 14 Camp Beacham

soon were out of the Fjord and looking up the sound. We made camp on the ice foot about a mile south of the fjord which I have described as leading near yesterdays camp.

On our way we saw the fresh tracks of many bears, and near our camping site were the tracks of five, two large ones three smaller. We saw many wolf and fox tracks, and on the hill sides the feeding grounds of many rabbits. Our dogs from time to time acted as if they smelled muskoxen, for the wind was from the land. We passed several seal holes, and twice Etukashoo stopped and waited for a chance to harpoon one.

Esayo, as we went along, pointed out places where he, Arkliq, Satoo, Anowa, and Teddyeungwa had killed bears and muskoxen when they were over here two years ago.

The weather has been fine today, the going good, and we have made a good march despite our late start.

Muskoxen
Ice conditions Fine weather Wind South.
Good going.

April 15 To Camp Schei

Today we crossed the Sound to the Axel Heiberg Land side and on the hard snow and smooth ice sped rapidly along until a cold wind and drifting snow from the south east induced us to build a snow house and make camp about a quarter of a mile from shore.

The going was good today but the ice all over the sound as far as we could see was somewhat broken while it was freezing. Low small ridges and hummocks formed when the ice was about six inches thick were everywhere, making the ice look much rougher than we really found it. The pound everywhere indicates that the ice goes out during the summer, as it evidently does from Bagby Fjord. We saw only four ice bergs all day, none of them very large.

During the early part of the day we moved survey the hills on the Ellesmere Land side for muskoxen, and with our glasses made out three large herds over the terraces north of Vesle Fjord. Just before making camp we saw two wolves galloping over

Erosion data.
Gulls.
Blaamanden in sight
Lemming tracks in middle of fjord

7 mi weather all day until night - Camp. South wind

Apr 15 to Camp Schei

Hills about two miles from shore on the Axel Heiberg shore. We crossed many bear tracks today, and several fox tracks. I was surprised to find several lemming tracks on the sea ice half way across the fjord.

Esays told me today that thousands of gulls ~~fed~~ nest on Storoen and on the adjacent coast of Axel Heiberg Land and that there are many muskoxen still left on Storoen for he saw them there but did not kill them.

The Axel Heiberg coast is much like the Piedmont region of the Atlantic coast, rolling somewhat broken but never mountainous at least not near the coast. The same plain is apparent here as in the fjord, and this sound, to, suggests a submerged valley with terraces. To the eastward and northward as far as I could see the Allen Cordillera rose, but always nearer the shore was the plain.

Tonight as we made camp Blaamanden showed up clear and distinct to the north of us. It has been a fine day and good going

Loads on sledge - supplies + caches

73

Apr 15 Camp Schei

When we left Camp Hunt we took with us 100 lbs. crackers, 33 gallons oil, 7 cases condensed milk 192 lbs dog pemmican and 72 lbs man pemmican. At Camp Isachsen we cached 48 lbs. (6 tins) dog pemmican and 18 lbs. (3 tins) man pemmican. We now have 6 tins dog pemmican, and three tins man pemmican apiece, rather a small amount in case game should fail us, rather enough in case we hit plenty of dog food.

The cache at Camp Isachsen is on a small gravel knoll along the shore on a delta projecting out from a small gulch. It is quite conspicuous from the sea ice, and could not be mistaken two hundred yards from shore. It is a mile or two south of the mouth of the fjord I have described.

Should we for any reason be forced to turn back in the next week or so we should still have resources with which to do it, for we have made caches of dog food all along the way sufficient in quantity to get to Eta. However, I anticipate no such necessity whatever. It's Lake Hazen now, or bust!

White fox
79

Musk ox tracks on sea ice
Hazy, cold,
South east wind
drifting snow

Apr. 16 Camp Allen.

We set out at noon today. The air was hazy, and the Ellesmereland side was hidden by drifting snow. We traveled fast northward along the Axel Heiberg Land shore toward Beaumanden. As we rounded the point of Axel Heiberg Land and headed northwestward for the Ellesmereland side, a strong cold south east wind struck us, and we turned in toward land a little to get into a lee to rest and untangle our traces.

Before rounding the point we came upon musk ox tracks on the sea ice, and followed them some distance. Both Esayo and Etukashoo were much surprised to find them. They said it was the first time they had ever seen muskox tracks on salt ice. This goes to show that the beasts are not averse to migrating from island to island when prompted to it to seek new or better pastures.

Our dogs also chased a white fox that scampered a head of us but it quickly took to the land.

As we neared the Ellesmereland side, a dark hummock on the slope near the sea ice, which we all had supposed

Apr. 16.
Camp Allen

was a rock, took form and life in the character of two musk oxen rumbling up the hill. Our dogs immediately took up the chase. The moment we struck the ice foot, Esayoo let his dogs go, and they soon rounded up the muskoxen, about 200 yds from shore. Esayoo and Etukashoo shot them, and then by a small snow filled gully we took our sledges up near the muskoxen. After skinning one and feeding our dogs, we found very good snow near our sledges built a snow house, and established Camp Allen, so named because the morrow which we shall spend here resting and feeding our dogs is Allen's birthday if I remember aright.

It was two o'clock when we got into bed, prepared to sleep late tomorrow. I am well content to spend a day here for our last three marches have been good ones; and camped about three miles east of Beaumanden we are within 3 days march of Greely Fjord where we shall spend several weeks, I think. If we should travel as we have these four days we shall be back in Etah by June 15

Camp Allen 6 Apr 17

Snow
Wind - south west.
Rest in camp.
Heel frost bitten.

no fat on muskoxen.

Apr. 17. Camp Allen.

We made tea at noon today. Etukashoo went out to take a look at the weather and the dogs while Esayoo and I keep the igloo.

I think I frosted my heel slightly yesterday, for the snow was cold and thanks to the carelessness of the women at Etah, I had not enough grass in my kamik. However the frost-bite if such it be is not of much consequence, not serious I am sure.

One of Esayoo's dogs is under the weather today for it was rather severely bruised by one of the muskoxen yesterday.

The muskoxen we killed yesterday were old and skinny, all fat gone. The bones instead of being full of red rich fat marrow, were full of water, not at all like those of Bay Fiord. Insufficient pasturage I suppose is the cause.

The low hills here are covered with a deep, pebbly soil, cracked and dried, with but little grass. Everywhere are lying about small lumps of coal, pebbles of limestone and sandstone, but I have

New grass
Mitarpungwa dog.
Fat muskox.

Cold, cloudy, snowy
Wind Southeast 3.

Apr 17 Camp Allen

found no fossils. I found a grass which I have not described before, with coarse and large seed.

I am much pleased with my new dog, for though not Ruby's equal, he is a good puller and a well behaved dog. He gets along well with my team and gives me little trouble. His only fault seems at present to be that he is so low an eater that he won't get his share of the feeds. He isn't very very good condition, as it is.

We found, on cutting up the second muskox that it was well fattened so the poor condition of the ox we skinned yesterday was probably due to poor luck or poor digestion. We fed our dogs again as they could eat, so they ought to be ready to make a good march tomorrow.

When I came back from my walk Esayoo boiled some meat, Etukashoo some tea. Afterward I sewed up my koolitah, Esayoo repaired his harnesses, Etukashoo fixed up his whip, and then we all made our beds and went to sleep shortly after midnight. This has been a good day to be resting - cold, cloudy, snowy windy

Zoology Notes: Muskoxen

Thursday - We began seeing muskoxen 2 days march from the head of Flagler Fjord. Here at Camp Green we killed an old bull, an outcast I suppose, both horns broken, and coat all rough and shaggy. He was sticking fat however from the fertile valley where he was feeding pasturage was abundant, and he had only the numerous hares to compete with him.

At the head of Bay Fjord we killed eight of a herd of nine, that scenting us while they were feeding on a grassy valley meadow, at once took to the hills, making them stand on the comb of the ridge. Here we shot them as recorded elsewhere. All were well fed and fat.

Half way down the fjord on the north side we found another herd - 36 all told - of which we shot eleven. These were feeding on the rich pasturage of the plain and for miles about we could see where they had broken through the crusted snow with their fore feet to get at the grasses and sedges beneath. On this plain they had been feeding on Carex

Geology Notes (continued on page 2)

limonite, and nodular concretions at various distances. One band about two feet in thickness appeared made up of rounded concretionary, loosely cemented grains, the nodules much the size and shape and color of rabbit dropping so much so that when I first saw them in the creek bed, I was surprised at the number of rabbits that must have frequented the gully as a toilet. I found many rippled blocks but not a single fossil though I searched till my hands and feet were numb with cold. The sandstone and shale indicated fluctuating and shoal water conditions at the time of deposition.

The surface of the ground here is everywhere cracked like the dried surface of the shores of a low pond or of tidal flats. May not mud-cracks thus indicate cold climate?

From Blaamanden to Camp, Mud-night Fjord — Sandstone slopes and cliffs predominated. South of Sudre Fjord is a high dark cliff sustained by a dark dioritic sill which may be seen upholding a sheer dark cliff on the west side of the fjord. This sill has been supplied from a dyke which is exposed south of Sudre Fjord. This

Fine weather
Good going

Geology
Bear

April 18 Camp Midnight Sun.

We left Camp Allen at noon today and with well-fed, rested dogs proceeded rapidly up the coast, keeping rather close to land. The dark cliffs of the opposite shore sustained, I think by the same igneous intrusion that forms a steep scarp along the crest of the shore of Foshein peninsula, loomed up all the afternoon. At five o'clock we were in the mouth of Sledge Fjord. Esayoo looking back saw a large bear following us and approaching rapidly. We set after him full-melt, he took up the hill-side with Klukashoo's and Esayoo's dogs hot after him, but by a skillful back track he eluded him. While Esayo and Klukashoo thumbed the trail I stayed on the ice foot and watched the whole performance. When the bear back-tracked down a small gully I thought he was coming down again by that way and set out to head him off. If such were his intention he changed his mind and set off post haste over the mountains. We gave up the chase. I observed the vegetation on the hillsides, a

Wolves
Botany

Muskox
Muskox tracks on ice
Ice rough. Good ice foot

Apr 18, Camp Midnight Sun

typical heath association. We then penetrated Sledge Fjord until we saw its head, and about eight o'clock stopped along side a big iceberg at its mouth and made tea. Hereafter I shall observe Sunday by afternoon tea.

Before reaching Sledge Fjord, our dogs chased two wolves up the hill a way. Both men shot at them but did not get them. On the shore Esayoo and I saw the skull and tusks, old indeed, of a large male walrus, and I noted the vegetation.

Proceeding on our way we passed by a herd of six muskoxen too high up on the hillside to warrant pursuit, and a caribou hurrying up over the rocks.

For ten miles we followed the tracks of muskoxen on the sea ice and everywhere about the ice along shore was the relatively fresh dung of the animals. Every little while our dogs smelled game and tried to get up on land.

Just after we passed the last high cliff we struck rough ice and

Prospect

Cyprie 18, Camp Midnight 5 am.

for 6 or 8 miles followed the broad icefoot along the low rolling plains.

It was two o'clock the morning of the 19th when we finally made camp. It was our first glimpse of the midnight sun, for though we had been above the Yukon several days, the land had always hidden it. We also saw the moon, only a day or two old at this camp, gleaming high over the north end of Schei Island.

As far as we could see in all directions the ice was rough and broken and a dozen or more great icebergs lay up the sound and up Krelly Fjord. It was a most beautiful night, quiet as the day had been glorious, and I was well content, after a good supper to snuggle down in my sleeping bag at five o'clock in the morning and go to sleep. My Eskimos thought that perhaps on the morrow we would stop here and look for musk-ox back in the hills

Fine weather
Wind NE by E. Calm
Clear

April 19 Camp Etukeshoo

When we set out today at two o'clock we could see no trace of muskoxen, but I told the men that if we saw none today we should make but a short march. If we saw any we were to stop, and kill all up to as many as 18, for I had promised them ace along that when we got up into this country and saw a large herd we should stop for a stay of six days to put our dogs in the best of shape for the Canon - Krelly Fjord trip, to dry our footgear and sleeping bags, and do the dozen and one little things the wear and tear of the trail make necessary.

We started out along the icefoot but had traveled a bare half hour when our dogs turned sharply aside and dashed up over the low bridge along shore, and there feeding within one hundred yards of the icefoot was a large herd of muskoxen.

The muskoxen retreated up the gentle slope ahead of us and took their stand beside a large erratic lying on a low flat ridge. Here

April 19 Camp Etukashoo

they formed the "square" and here after I had taken two pictures we began the kill. Three volleys from three rifles in quick succession laid nine mature oxen on the ground. (I had estimated that there were twenty animals in the herd, so I told the men to kill all.) The herd now broke and scattered, and we dropped them as they ran. This was the only bit of "sport" I have had shooting muskoxen. The dogs herded them into two groups and Esayo and Etukashoo finished them up. When the kill was over twenty-one beasts lay about, only one of them an old one, and only three calves. The herd was made up largely of two, three, and four year olds.

We set to work skinning at once and skinned six. We each selected one with a particularly sleek and thick skin which we wished to dry and keep for our sledges, and Esayo also selected one of the yearlings. I fed my dogs six quarters, four hind quarters and two four quarters

April 19. Camp Etukashoo

before they gave up trying to eat any more. They were so gorged that they could scarcely drag the sledge down to the shore, where along the first low ridge Esayo had selected a site for a snow house.

The snow was splendid for building and Etukashoo rapidly put up a large comfortable structure for our week's stay.

We hitched our dogs, took everything we needed into the igloo and made everything as snug as we could and turned in.

The day has been superb. Clear, mild, and calm it could scarcely be improved upon. The sun is rising high, and growing so warm that on the snow is melting in sheltered niches.

This is a good place for a long camp. We have all the meat we want for ourselves and dogs for a week; there is plenty of ice near; we have a commodious snow-house; the sun makes a complete circle uninterrupted by hill or cliff; and we are on the field most important in the trip.

& this record was not deposited for
while on our way from Camp Midnight Sun
to the point of the peninsula, our dogs
April 19.

Copy of Record left in cairn at
northernmost point of Fosheim
Peninsula:

April 19, 1915

On this day, April 19, 1915, my
two Eskimo, Eskyo and Etukashoo,
and I, rounded this cape. We
were camped last night a short
distance west of this point, hav-
ing made the distance from
Blaamanden in one march.
We left Blaamanden, where we
killed two muskoxen, and
stayed during the 17th to feed
our dogs — yesterday forenoon
at ten o'clock, and made camp
at midnight, the first night
we had seen the midnight
sun. I named our camp, Camp
Midnight Sun. On our way
we saw six muskoxen, two
wolves and one large bear.

Our dogs are well fed and
in good condition. We have
ample supplies for the suc-
cessful completion of our
journey. My Eskimos and I
are all well and enthusiastic.
Muskox tracks are numerous

scented game, dashed up over the beach
ridge, and started in pursuit of a herd
of muskoxen grazing within one hundred
yards of the ice foot. We killed the entire
herd, made camp, and stayed for six days to
rest and feed our dogs. 21 muskoxen in here
near here.

Tomorrow we shall penetrate
Canon Fjord, leaving here all
our loads except enough supplies
for the trip to the head of the
fjord and return. Upon our
return we shall continue our
way up Greely Fjord.

The ice off the point here is
very rough, but the ice-foot
on which we traveled over
five miles yesterday is good.
The weather is fine — clear,
mild, calm.

H. Elmer Ekblaw,
Geologist Crockerland Expedition
April 19, 1915

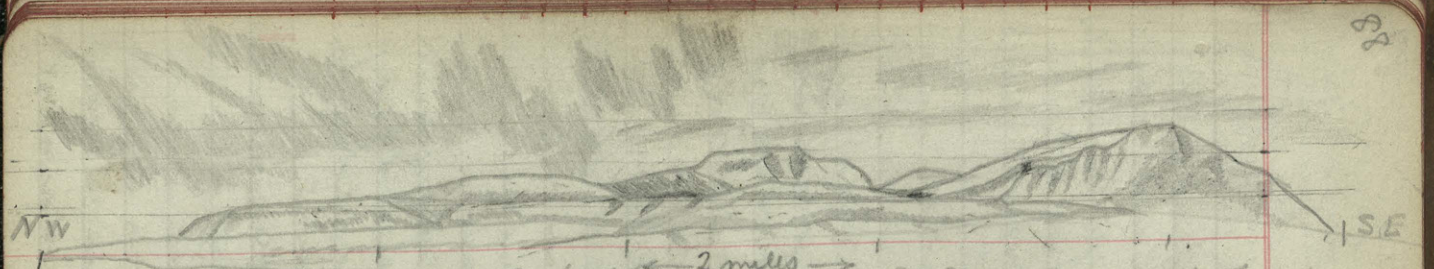
On envelope

How do you do? I am glad you
got here safely and found my
cairn and record. Good luck
to you.

H. Elmer Ekblaw,
April 19, 1915.

On back of record

First stanza of "Illinois"



Pencil sketch of Mt. Henry on the N.W. point of Foshem peninsula. Surrounded on all sides by undulating plain.

Two very distinct old terraces are evident over this plain one the upper being probably the same as the Acropolis peneplain of Bony Fjord, the other one of the lower terraces. These two levels one about 300 ft above and level the other perhaps 450 are very distinctly reflected on the east shore of Harefoot across the sound. On the plain here, I counted eleven old beach lines from the seafoot to a ridge about half a mile inshore, indicating rapid, and intermittent,

Zoology particle continued) Woodcock Cotyrtis, and Canis rudius(?), Glycera Cirella and Autonoe, Alciopenid Annelid, Sipunculoid, Sillyodon and Pod of Dyticus Cinct and Hydrous Fuscipes predominated. The Annelids were all Nereis macrotis (Grube)

I ran the dog off the land thus [illegible] a [illegible] Equine, with the Redwing Turtle and Canis rufus and protecting the caribou and ground beasts within this outer zone. Also carnivorous array of fauna that [illegible] ones advanced, to dominate for world attack.

Two of the recent returns in the land Cobb Rein Stone) are advance of the kind and most aggressively changed the attack range. From time to time one of the land moves change, returning to the [illegible] to the place in the space, a seeking and [illegible] Peake. Upon him firing the space broke and depended but on me - formed to meet the attacks of the large. The aggrave take and ocean - ably as the beasts became alarmed by and endurance, and always

Zoology Muskoxen

reformed until finally the ~~herd~~ rest of the herd remaining after our killing - 25 or more members took precipitate flight to the hills. All the animals were rolling in fat, their horns and hides were sleek and smooth, and show every evidence of the rich pasturage.

We saw muskoxen on every flat on the east side of Etuk a some probably 150 all told, and two on the Axel Heiberg side. As we rode along about a mile from shore we came upon the tracks of several muskoxen out on the sea-ice, tracking northward.

Just west of Blaamanden we killed two, one an old bull and one a young cow, and saw four more farther up across the plain. The animals were lying down and we mistook them for a rock until they took flight. The old bull was lean, his coat was rough, and the marrow in his bones was all water. The cow was fat and in good condition.

From Blaamanden to Camp Etukashoo near the north end of

Zoology Muskoxen

Fosheim Peninsula we saw six muskoxen on the hills too far up to get. We followed for at least ten miles on the ice the relatively fresh tracks of several and towards the end of the march when rough ice forced us to the icefoot we saw fresh dung all along the ice. Esayoo showed me a place where he said they had been licking the ice to get the salt. He says both muskoxen and caribou come often down to the ice to get salt.

Not far from the end of Fosheim peninsula our dogs scented a herd and chased up over the icefoot. The herd was feeding less than a hundred yards from shore, and upon our approach ran to a low ridge a short distance up the plain and there formed the square. We shot the entire herd of twelve one - all two, three and four year olds except one old bull and three yearling calves. All were fat, had sleek horns and hides and indicated good pasturage.

I took a ten mile walk over the plain here, what must be at least 100 sq mi. in extent, with several streams and without my glasses could

Zoology Muskoxen & Hare

discern four herds ranging over the plain - one of 23 head, one of six head, one of four head, and one of three head the herds at distances from 1 to 4 miles from each other.

The mature cows that we have killed have all been with calf - the time of birth is imminent, for the calves are fully formed, coated with a warm hide, and apparently full sized, so Eskashoo says.

- Hares. -

We first saw hares on Bedford Pym Island, then again at the point of Thule Peninsula, and along the shores of Flagler Fjord. We killed them first in the valley above the head of Flagler Fjord. Here they were exceedingly abundant, singly and in flocks sometimes numbering forty. They looked like drifting snow as they scampered up the hillside. They were not at all shy, and our dogs frequently approached very near them. In this valley we must have seen five hundred hare, feeding on the grasses, willows, and other plants. They are smaller than the hares of Greenland, I think, and

Zoology Hare

have no fleas.

When we got down to the land on the west side of the head of Bay Fjord, we again saw them by the hundreds. The hillsides and valleys looked as if great herds of muskoxen had been feeding there, so extensively had the hares torn up the snow. Here too they were not at all shy. All along Bay Fjord we saw the hares, their feeding grounds, their paths over field and hillside. But no place along Eureka Sound where we approached land did we fail to see them hares or their feeding grounds.

On the plain back of Camp Eskashoo near the point of Foshim Peninsula, I found them again by the hundreds frequently pierced. From their behavior I should judge that the mating season was in full blast. On April 21st when I ascended a hill to the southeastward of the camp, I came upon a sheltered gulch on the south side of the hill where the soil was formed from a black shale, where a luxuriant heath formation had flourished the preceding summer, and where

Zoology Hare and Lemming

the snow was already gone. Here the hillside was literally white with rabbits, several hundreds of them, quite unafraid until I fired at a ptarmigan, when they hopped like a frightened bunch of white sheep up the hillside. Such a sight as this I never before saw. Besides the hares here, there were thirty or forty ptarmigan, and the tracks of foxes, wolves, lemming, caribou and muskoxen. The ledge rocks were covered with the dungs of snow-bunting of the previous summer, and in a crevice I found the nest of a snow-bunting. Everywhere on the plain were the tracks and dung of hare, and on every sunny spot where a pair or several feeding.

- Lemming. -

We saw the first tracks of the Lemming in the valley at the head of Flagler Fjord, but it was not until we got into the hills beyond the glacier at the head of Bay Fjord that we saw the little creatures first. Here their tracks criss-crossed the snow-clad hills

Zoology Lemming

in every direction, and every once in a while we saw one of the funny little balls "rolling" over the snow to burrow like a mole at the first alarm.

We saw their tracks everywhere along Bay Fjord. At Camp Hunt where we stopped two days to give our dogs a rest while feeding on muskoxen we pursued one of the little fellows and kept after him when he burrowed until we got him. It was no easy matter for by the time we finally caught him he had burrowed over twenty-five feet of snow. We caught him by listening where he was scraping and then digging up the snow in a semicircle ahead of him while Etukishook kept after him. He looked like a diminutive guinea pig, gray, white, and buff. Placed on the snow, he waddled as fast as his short little legs would carry him for ten or fifteen feet and then in the twinkling of an eye he would burrow himself out of sight. Caught again, he fiddled by squeaking like a mouse and endeavoring to bite his captors. We finally

Zoology Lemming - Wolf

killed him, and I sent him back for Taxidermy, by Arkelio.

All along our way down Bay fjord and up Eureka sound we saw the tracks of the little creatures even out on the ice in the middle of the sound. At Camp Eurkashoo they were numerous.

The snow is full of their burrows and though they frequently come out on the snow that cover considerable distances, they do most of their tunneling under the snow, where they feed upon the seeds of the grasses, and upon the roots of pedicularis, dryas, etc. Their fore claws are peculiarly bifurcated.

- Wolf. -

We saw our first wolves in Bay fjord, a pair at first near Camp MacMillan, and afterward a number, probably eight all told about Camp Hunt. They were rather shy, unaggressive creatures, not at all to be feared, and behaving much like the coyote of our western plains. Their large tracks occurred everywhere down Bay fjord and up Eureka Sound.

Zoology Wolf Bear

Near Slidre fjord our dogs chased two up the hillside as far as there was any snow. Isaya says they nearly always occur in pairs, a male and a female. At Camp Eurkashoo, though their tracks were more numerous than anywhere preceding them but that that appeared upon a bank above me where I was pounding out fossils, but quickly disappeared when I turned about to get my revolver.

- Bear. -

We killed one old bear and one cub near Camp Israel on April first. A second cub belonging to the same dam escaped by climbing the hills and crossing to Hamsworth Bay.

In Bay fjord Tukapungwa killed a two-year old. In the lower reaches of Bay fjord and all up Eureka Sound we came upon their tracks. At Camp Jackson, the tracks of a large old dam with four yearling cubs, had recently been made along the ice foot and on the shore.

Zoology. Bear Fox Seal

At the mouth of Sledge Fjord a large bear pursued us, but when we turned our dogs about to get him he made for the hills at a gallop. He eluded the dogs by a quick back track down a snow covered gully, over a ridge into another gully, and then up over the crest of the hills.

Everywhere we have seen their tracks and the places where they have killed or tried to kill seals.

Foxes.

I have seen three white foxes and two black ones this fall Camp Etukashoo, but their tracks have been numerous everywhere particularly about the holes where the bears had killed seals.

Seals.

On Smith Sound we found the holes of many seals along the frozen "leads" and Etukashoo killed one at Camp Hayes. Again in Bay Fjord and up Eureka Sound we came frequently upon their breathing holes though we saw none up on the ice.

Zoology – Ornithology Whale Raven, Caribou Ptarmigan

Whale

We found the skull and ribs of an old bow head whale on the beach just south of Sledge Fjord, on April 18.

Caribou.

I saw a caribou climbing the hills just north of Sledge Fjord, and back of Camp Etukashoo, I came upon their dung and trails on the hills. I think they are not numerous here, but there must be a few. I wonder if there is an unnatural aversion of muskoxen to grazing on caribou grounds and vice versa, as there is between cattle and sheep.

Ravens.

I saw a pair of ravens about Bedford Pym Island, and again a pair along Flagler Fjord, but none on the west coast.

Ptarmigan.

We saw our first ptarmigan at the head of Bay Fjord; again at Camp Etukashoo where their tracks and dung were numerous over the plain. In a little valley where I pounded out fossils I saw several, and on a warm

Ptarmigan
Snow Bunting
Owl.

Ornithology

sunny spot on the hillside back of camp about ten miles I found wer thirty feeding. I shot four at this camp; two males and two females all yellow with fat like butter balls. The generative organs of both sexes showed no signs of development as yet. The birds had been feeding upon willow buds, and the tips of dryas integrifolia, saxifraga tricuspidata and Pedicularis

- Snow Bunting -

At C. Etukeshoo on every rock ledge in every brook bed and on every hillside I found the droppings of snow buntings and in a crevice on the hillside back of camp I found a last years nest.

- Owl -

At Camp Hunt we saw the fresh tracks and spoor of an owl on the snow on the top of a large rock on the plain. Again at Camps Allen and at Camp Etukeshoo I saw the tracks and spoor but no owl.

Ptarmigan.

The ptarmigan be prone to roost in burrows about three to six inches

Ornithology - Ptarmigan
Zoology - Ermine

deep in the snow on top of, or along the sides of large rocks wherever there are rocks. They usually scrape out burrows in the snow in which they sleep. At Camp Etukeshoo they were not at all shy. They scratch with their feather clad claws like chickens, and pick and peck with their bills much like quail and prairie chickens. The female has a call for her males much like that of a prairie hen - a nervous "hyank — hyank."

Ermine

I saw the tracks of Ermine again this year on Ytteröen and on a small island off the point of land peninsula. Their tracks are very much like those of mink, only smaller.

- - - - -

Last year I thought they were the tracks of Cunning. I again saw ermine tracks about the rock ledges back of Camp Etukeshoo. They can not be very numerous or we should more frequently see their tracks, or else they do not wander far afield from their burrows.

Fine weather Clear Calm
Fossils Wind N.E

April 20 Camp Etukashoo.

Etukashoo got up early today and scraped and stretched his musk ox skin to dry. Soon after Esayoo and I too got up. I arranged all my kamiks and stockings to dry, and then went for a hike over the plain to a stream a mile and a half or two miles up the coast. On the way I killed a ptarmigan and a hare. I saw many tracks of both but saw only two other hares. The best part of the trip was finding a small exposure of limestone richly fossiliferous, the first I have found on the trip. The exposure was a small one, and most of the ledge was covered with snow, but about 20 feet was bare at places. The exposure consisted of about 10 ft of compact, dark limestone richly fossiliferous and impregnated with replacements of pyrites, which lay at the base. This was succeeded by a gray calcareous shale with veins of calcite, and nodules or fragments of a more readily disintegrated calcareous rock, not stratified. It was also penetrated by dark, cylindrical somewhat carbonaceous masses

Dogs and Feed

Camp Etukashoo 9 p.m. Apr 20

April 20 Camp Etukashoo

which I considered stigmaria. This shale which lay upon the limestone was two feet thick. Superimposed upon it, was a black carbonaceous shale, thinly laminated, toward the top almost coal, and interrupted by two thick continuous beds of gray shale. On this entire layer I could find no fossils. Upon this shale which was about 15 inches thick lay a bed of massive limestone, over five feet thick and of which I could not find the top, and in which I could discover no fossils.

Upon returning to camp, I found that Esayoo and Etukashoo had skinned three muskoxen, one for each of us, so I cut up four shanks and opened the dogs till they could eat no more. It was laughable to see the old hag lie down and look longingly at Brindle and Blackie still eating, and be quite unable to devour a single piece more. Brindle, even when so full that she vomits, will not give up, but keeps eating, going off the length of her trace, vomiting, and coming back for more. It is astonishing how much these dogs can eat.

Drying muskox skins
Fine weather. Clear Calm
Wind NE by E.

April 21. Camp Etukashoo

Esays stretched his muskox skin this morning upon a snow rampart that he made of four great blocks, by pegging it out. Etukashoo stretched his yesterday by making a frame of a harpoon, the tent pole and two snow shoes and lacing the skin to it with his siniksha. The skin was quite dry this afternoon, as he took it down and scraped mine and put it up.

We have covered the bed platform of our snow house with a mass of undried skins and even have one for a mat on our floor. It is too bad that we can't have this abundance of fine skins at headquarters at Etah! How the fellows would revel in them!

I set out over the plain today to a small mountain about ten miles away, in the hope that I might see Greely fjord beyond. I walked for three hours steadily over fairly good going, almost level, before I got to the top. Instead of Greely fjord, a small bay lay before me, and the coast stretched on to the eastward another ten miles at least, where another mountain and ridge cut

Camp Etukashoo
Lat. 79° 28' N.

View from camp

April 21 Camp Etukashoo

off the view. The prospect from the top of the hill was magnificent. Just to the north of me lay Mt Hovey snow covered and imposing. Before me lay a smooth ice covered bay bordered by a great smooth plain that stretched far to the southwestward in a great level valley bounded by two ridges of mountains of horizontally bedded rock. Across the bay to the westward rose another mountainous ridge. To the northwestward lay Greely fjord with its dark distant shore showing through the haze. Beyond and westward of Mt Hovey rose Bloodfield shew from the sea ice black as the ace of spades. To the northwestward limited by great mountainous walls stretched Inlet of Kane Sound, and back of me to the westward Parker Island and Ayr Iceberg Land lay gleaming in the sunshine. All the ice to the westward of me looked rough and rubbled and almost a score of great icebergs studded the sound. Like a geographical model, a great detail plain spread out on the northeast side of Parker Bay

April 21 C

On my way to the mountain and from its top I could see four heads of muskoxen, one of twenty-three, one of six, one of four, and one of three head, grazing upon the plain at intervals of from one to four miles. Everywhere I saw the tracks of Ptarmigan, hare, muskox, lemming, fox, and wolf. I came upon a little gully-like hollow in the side of the hill, facing the noon sun that was almost bare of snow and here feeding upon the luxuriant heath growth of last year were many many rabbits, and upwards of thirty ptarmigan with tracks of caribou, wolf, lemming, muskox and fox abundant all about. Neither the hare nor ptarmigan were shy and it was not until I shot three ptarmigan that the hare made any attempt to get away and then they went hopping up the hills like white jacks-in-the box. The vegetation in this gully was the most luxuriant I have yet found-a typical heath association. Along the side of this gully I found an exposure of black calcareous shale, richly fossiliferous, but

April 21 Camp Etukashoo

unfortunately almost inaccessible because of a steep snow bank. I endeavored to collect but succeeded only in getting a poor representation. I saw since one or two fragments of trilobites; a gastropod; one or two pelecypods; and one or two cephalopods. I feel sure that at a more favorable season I could make a rich collection here.

I got back to camp about ten o'clock, fed my dogs, rearranged my hairbirks and stockings, and after a big supper of meat and crackers and tea, turned in. We are eating all we can hold these days, for we have plenty of everything except biscuit. We have eaten but one can of pemmican this month, and that merely as a relish, for we have constantly had all the meat we wanted.

This has been another luxuriously fine day. I feel sure that the season on this side is much earlier than on the east side, that the precipitation is not so heavy, and that the mean annual temperature is considerably higher!

Tuesday Clear Calm
Wind E N E.

Fossils

April 22. Camp Etukashoo.

After I had disposed of a good breakfast and various and sundry domestic duties, I took myself off to my fossil bed again to make another collection. I spent four solid hours pounding at the rocks along the stream bed ledges with fairly good success. The fossiliferous limestone is so compact, so massively bedded that it is no easy matter to get out good fossils even under the best conditions, and when one must lie around in the snow, the temperature considerably below freezing, one's fingers and toes soon become too uncomfortable to permit continued standing in one place. After I had to quit my work and walk about flapping my hands together to get up a more vigorous circulation. My stay was enlivened by a brief visit of three wolves that came and from their position on the bank above me peered down at me, looking at one another from time to time as much as to say "Do you suppose he has any idea of what he is doing". As soon as I moved to get my revolver from my specimen bag they

Bears the walrus of two examine on the top of this hill

April 22 Camp Etukashoo

took their hasty departure. On my way back along the shore I collected some fragments of shells which I shall take back to Tank — three species, like those we found at Unanak in numbers last year.

When I got back to camp Esayoo and Etukashoo had hauled three muskoxen down to camp and were skinning them. We all fed our dogs to repletion again.

Tonight we are all leaving our sleeping bags outside to dry in the sunshine, for we sleep now from midnight or past until noon or past, and the sun shines clear and warm all the time. We shall sleep under our wraps, well dried muskox skins. It is hard to believe how light and soft and heavy green hide becomes when it has been dried but a day - quite time enough to dry it thoroughly, however.

One side of our large igloo is caving in, and Etukashoo says that on the morrow we shall cut out the sinking blocks and put in new ones.

We are comfortable, well-fed, content

June day. Clear Calm Mild
Wind E.N.E
Repair snowhouse

April 23 Camp Etukashoo

Our first duty today was repairing our snow house. We cut down almost all of it and replaced it with a whole set of large new blocks, the largest I have handled. The largest, which required both Esayo's and my hands to get to position was over five feet long, and nearly three feet wide. The snow is just right for good blocks, and a warm house. Etukashoo made the most of his big blocks, and rebuilt the house into the highest, most commodious house we have had. I could stand erect on the bed platform and not touch the top with my head.

We skinned and cut up three muskoxen for our dogs today. The beasts are beginning to smell pretty strong and weather yesterday now today cooler we take the meat for our own use. Hereafter we shall not kill more than enough for three days, at any one time I think. At this camp we have had an superabundance of muskox - boiled, fried and one meal of fried breaded brains; one meal of hare; and one of ptarmigan.

Apr. 23 Camp Etukashoo.

Today I tended my hamuks, patched and mended my clothes, sharpened my knives, labeled and recorded my specimens, and wrote up my late scientific notes.

It has been another fine day, a repetition of those we have enjoyed at this camp, for that matter of those we have had continuously since we reached Bay Fjord. I should like very much to spend a summer in this locality, rich in flora, fauna, avifauna, and paleofauna and geology. It is a field that any naturalist could garner contentedly over and gather a rich harvest of material. At this season the snow hides much that would be interesting and besides it is not yet time to expect any birds or plant-life. Two months from now, I imagine this land is ablossom with flowers and green with grasses, and teeming with life, both on land and water. I fancy that these broad plains are the nesting-grounds of innumerable snipe, plover, and sandpiper species

117 Tuesday a little cloudy, calm, mild
Wind N. E.
Prepare to leave.

april 24 Camp Etukashoo

After a luxurious night's sleep between our muskox robes, and a big breakfast of soup, muskox, caffee, and crackers we got out to look after things and begin our preparations for leaving this camp tomorrow. Etukashoo hauled down two big muskoxen for dog-food to finish up on at this camp.

All my kamiks and stockings except the pair I am wearing are dry, and my sleeping bag is almost as dry as it was when I left Etah. My men are equally well prepared to push on so far as clothes are concerned.

We polished our sledge runners, repacked our boxes, put new snappers on our whips, looked over our dog-harnesses and traces and made ready for an early start tomorrow. I cooked a meal of oatmeal, the first we have had on the trip, not because we wanted or needed it particularly but because I could more conveniently do so than when we are on the march. It was good, very good. I boiled it in a double boiler made by putting my little blue teapot in our big meat-pot.

We have feasted and rested deliciously at this comfortable camp; we have had nothing but sunshine all the time, no wind, no storm, and very little clouds. The dogs are so well-fed that I fancy that only by a long march tomorrow will we get over much ground. At the end of the morrow's march, I hope, we shall cache our surplus boots and baggage, taking provisions enough for a week's trip down Greely Fjord and return. I suppose the only reason for going is to study the geology, and to gather notes on the vegetation, but I consider it well worth our while, now that our dogs are in good shape and we have the time.

Nevertheless I am eager to begin work in Greely Fjord proper where my work will really be exploratory and pioneer effort. By May 12th I think, we shall be at the head of Greely Fjord, and by June first be leaving Fort Conger on our way back to Etah.

Botany Notes.

Camp Etukashoo:

From the large number of hare, ptarmigan and muskoxen feeding on the plain about this camp I was sure that the fregetal covering was relatively luxuriant at least in the way of grasses and sedges. Examination about the feeding grounds showed that I was not mistaken. Everywhere there was an abundance of short grass and sedge mainly a dwarf lower vegetation. Elymus bellardi, Carex capitata, Festuca ovina, Glyceria fluitans or angustata, Poa sp probably glauca, and Calamagrostis spec abundant. Of these Glyceria and Elymus were the most abundant. Saxifraga oppositifolia and Dryas integrifolia carpeted all the bare spaces. Draba, probably alpina, Cerastium alpinum and trigynum, Stellaria longipes, Alsine stricta, Papaver radicatum, Salix arctica, Oxyria digyna, Polygonum viviparum, Luzula sp, Juncus biglumis and Pedicularis lanata I found on the beach ridges that margined the plain. On a sandy clay ridge near the sea I found Siversia humifusa.

In the lower pool-like places I found

Continued on page 7.

* Probably spoiled - shutter failed to work

Roll #10

1 Mt Hovey – N.N.W. C. Etukashoo 1 sec on 11 stop
* 2 " " " " C. Etukashoo 3 sec on 16 stop spoiled
* 3 " " " " " 3 sec on 16 stop Spoiled
* 4 " " " " " 3 sec on 16 stop Spoiled
5 " " " " " 1 sec on 8 stop
6 My first Fossil Ledge 1/10 sec on 11 stop

Roll #11

Game Seen & Killed

	Hare	Bear	Musk Ox	Wolf	Ptarmigan	Lemming	Caribou	Geese	Fox
Apr 19	3								*
20	*	*	2					*	1 *
21	*	1				*		*	
22	*	*						*	*
23	150	6	1	*	*	*			*
24	200	20							
25	100	15		*	*	*			*
26									
27	300	6	7	8	*	1	8		3
28	20		*		*	*	4		*
29	50	*	1	36	11	10	*	6 1	2
30	3	*	*		*	*	*		*
May 1	15	*	200	2	*	*	*	*	1
2	8	1	6		2	2	*	1	*
3	30	3	*	55	21	5	50	4 9	* * 1

First column seen, Second column killed
* Tracks.

Roll No 3

6 Cutting up musk ox (spoiled)

Roll No 4

1 Camp Tanquary Apr 10
2 Mt. above C. Tanquary at head of Bay Fjd
3 View up the head of Bay Fjd
4 Musk ox picture
5 " " "
6 " " "

Roll No 5

All musk ox pictures

Roll No. 6

All musk ox " no. 6 spoiled

Roll No 7

All musk ox " except # 6 which is Camp Hunt,

Roll No. 8

1 Camp Isachsen. Eskimo seated near igloo 11-10
2 Camp Allen as we left
3 " Midnight Sun just ready
4 Ice off Isfjeldodden.
5 Musk ox on land point of Isachsen Pen.
6 " " " " " "

Roll #9

1 The Sole Survivor Isachsen Pen
2 " " " "
3 His Last Stand " "
4 Camp Etukashoo in making Apr. 19
5 " " on Apr 20
6 Looking across to Blaafjeld

Roll I

1 Camp Onsitag 11 1/5
2 " " 11 1/2
3 Tea and rest at Community
4 Camp Grisly 11 1/5
5 A train of sledges 11 1/5
6 Tea on bar C. Camp down 11-1/5
7 Large igloo at Camp Small 11-1/3
8 " " " " 11-1/3
9 Camp Small 11-1/5
10 " " 11-1/5

Roll II

1 Looking out into Hagler Fjord from Camp Sverdrup, Nut with Camp Barn in center of picture 11-1/2
2 Looking up Hagler Fjord to Pass 11 1/2
3 Same 11 1/5
4 Camps Sverdrup 11 1/5
5 Spoiled
6 Near view of Sverdrup Pass 11-1/5
7 Camp Green Apr 5
8 First view of land across Lake
9 Tea on divide of glacier
10 Looking down with Bay Fjord (and Glacier)

Roll No 3

1 Rabbit tracks on hillside
2 Our first musk ox kill Apr 8
3 " " " "
4 Cutting up musk ox (spoiled)
5 " " " "

Questions:- Howard Jack's Tors? Wasamp

When did Oobloyah & Okpeadday start back? Did they kill more than 2 bears - any in way back? Did they bring back Tuktapingwa dog, or was he dead?

Were you surprised at muskox skins they brought? At choice of Flaxman Isl route?

How did the roll of films turn out that they brought back. Were they over-exposed?

When did Arkles & Tuktapingwa get back. How many muskox skins did they return with.

" " bear " " " " with?

Were Mec's two shins all right.

" Jobe & Jack's hams all right.

Was they carly shin all right

" the lemming in good condition.

Did they bring back coal? Thermometers

How did the muskox & other films they brought back turn out? If so developed the films. Have any prints been made? What report did the men make? Did they tell about Perkey?

station necessary?

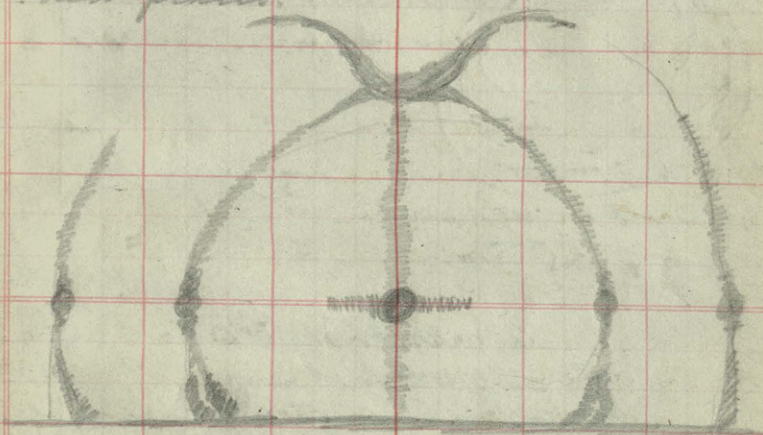
When did Hal and Peter leave? How many in their party? When did they get back? Did they have a hard trip? What did they see? What did they discover.

When did Peter come to Elsh? How long did he stay? How did you take him?

What kind of success have they had at Pelorarik?

What has Jo? been doing? Green? Mac?

What is the news in general. What are new plans?

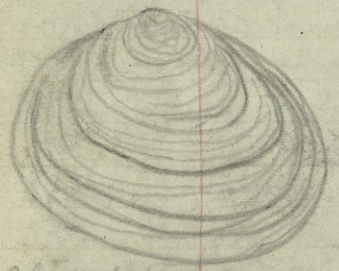


A crude but careful sketch of the sun with attendant parhelia near the mouth of Bay Ford on April 13, 1915 between six and eight p. m. The shaded portion represents the prismatic colors except the central cross which was golden.

Zoology - Shells.

On a clayey beach near Camp Tuktoyaktuk I collected fragments of the shells of three species of mollusks; one a scallop-like form, and two clam-like. The scallop forms were so fragmentary that I could not reproduce them. The two clam-like forms were:

Accession No. EZ 1



Clam like form.

Accession No. EZ 2



Clam like form.

Accession No EZ 3



fragment of scallop

Geology

Bag Gls. Contains
Gls 4 Nodular sandstone from Camp Allen. Eskimo Point. Layer 2 ft thick in sandstone ledge 30 ft above Apr. 17.
Gls 5 Black dioritic sill + dyke 2 miles south of Sloche Fjord Apr. 18.
Gls Brown trachytoid dyke cutting Gls, and 5. Gls 2 Apr. 22, 1915

Specimens collected.

Geology
Sent to Ottawa
1 Specimen Travertine
1 " Calcareous Sinter.
1 Bag Coal Bay Fjd
1 " " with sandstone & limestone
Bay Fjord

Zoology.
Sent to Ottawa
1 Adult Female Muskox Skin and Skull.
1 Adult Male " " " "
Skulls.
1 Yearling Male Muskox Skin and Skull.
1 Seminary - Eastree
1 Bag Shells - No. Z. 1.
Containing
EZ 1; EZ 2; EZ 3

Geology.
Bag G. 1
Contains E. G 1. Fossiliferous limestone
Bag G 2
Contains same as G 1 o.
Bag G 3
Same as G. 1
Bag G 4
Contains E. G 2 Fossiliferous limestone
Bag G 5
Contains E Gls 3 Fossiliferous Chalk

Thus at the end of the first third of our journey at the northern end of Foshein Peninsula, at our camp of six restful, easy, well-fed days — Camp "Etukashoo" — I complete this book. It is a modest record of almost a month's travel and scientific observation, all the more difficult because of the cold, the snow, and the constant attention and care demanded by the dogs and equipment.

All has gone well. The route has been good — crossing Ellesmereland by way of Flagler Fjord is much better than by way of Bertstadt Fjd; the weather has been uniformly and generally calm, clear, and mild; the dogs have done well, and are now in the pink of condition; my men, both of the two supporting parties and my companions of the trail, have been cheerful, helpful and satisfactory in every way; I am well satisfied. With no ill luck, we shall proceed on our way tomorrow, and in due time complete our work and our journey — successfully, I hope.

W. Elmer Ekblaw
Camp Etukashoo,
7:00 p.m. April 24, 1915

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