Meddelelser om Grønland

Volume 3.

CROCKER LAND EXPEDITION
1913-1916

Ornithology.—
Summer, 1916.
Thule.

H. Elmer Ekblaw.

Meddelelser om Grønland

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The Fishes of East Greenland — A. S. Jensen.

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5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the south coast of the Nugssuaq Peninsula in West Greenland.
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6. Arbejder fra den danske arktiske Station paa Disko. - The Plant Life of Hare Island off the coast of West Greenland.
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7. Om Britolitens Krystalform.
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8. Kirkeruiner fra Nordbotiden m. m. i Julianehaab-Distrikt. Undersøgelser rejst i Sommeren 1910.
Mogens Clemmensen

9. Arbejder fra den danske arktiske Station paa Disko. - Actinometrical observations from Greenland.
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Rejser og Botaniske Undersøgelser i Øst-Grønland mellem 65°30' og 67°-20' i aarene 1898-1902. - Sdmt Angmagsalik - Egnens Vegetation.
Chr. Kruuse.

Measurements on 2 Fulmarus glacialis glacialis ♀ taken near Saunders Island, May 6, 1914. and May 8

	(1)	(2)	(1)	(2)
Length	17.30	17.25	16.82	17.00
" of Wing	13.00	13.00	12.81	12.50
" " Tail	4.20	4.00	4.05	3.93
" " Tarsus	1.85	1.81	1.86	1.83
" " Bill	1.47	1.49	1.41	1.32
Width " Bill	0.70	0.64	0.64	0.61
Depth " "	0.68	0.62	0.60	0.60
	♀	♀	♀	♀

Condition of Genitals — Sent

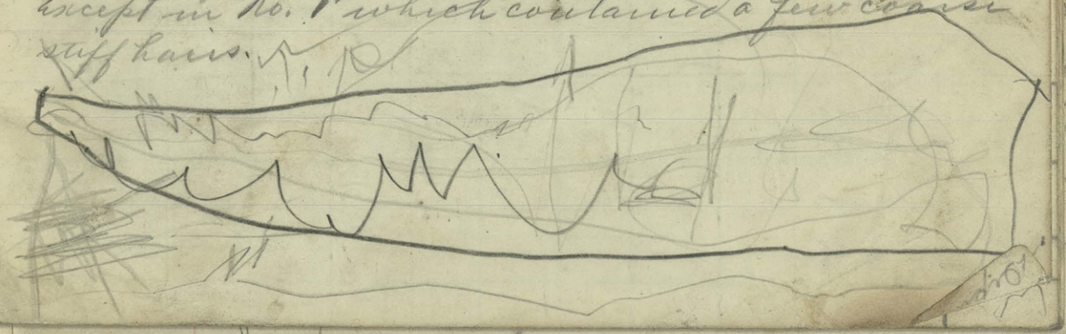
No 1 Ovaries about 10 in number of which 2 were large as dried peas, one slightly smaller, and rest about the size of No. 6 shot.

No. 2 Ovaries many in number > 50+ of which 10 were size of BB shot and rest from No. 4 Shot to No. 8.

No 1' - Ovaries many in number, 50+ of which 5 were little larger than BB shot and rest from No. 4 smaller.

No. 2' - Ovaries many in number, 50+ of which 4 were size of BB shot, and rest all smaller.

In all four specimens the stomachs were empty except in No. 1' which contained a few coarse stiff hairs.



follem

Pistils two, club-shaped, thickest at base, paler than

	1 Broken bill	2 Short bill	3 Short bill two broken toes *	4	5 Broken bill * 3 broken toes	6	7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		May 11 ×						May 12 ×														Dark form
Length	15.20	15.20	16.05	16.95	17.05	15.38	14.98	16.27	16.68	16.24	16.38	16.52	15.52	15.23	15.52	16.55	15.31	16.55	15.31	15.52	13.45	15.63
" of Wing	10.50	10.20	10.65	11.35	11.32	10.72	11.00	09.32	11.12	10.70	11.10	11.12	11.54	10.21	10.36	11.22	10.09	11.32	10.50	10.80	10.42	10.92
" " Tail	4.20	3.95	4.32	4.05	4.62	4.10	3.97	4.24	4.20	4.10	4.20	4.10	4.22	3.80	4.10	4.34	4.25	4.40	4.20	4.00	3.94	4.32
" " Tarsus	1.72	1.72	1.84	2.01	1.97	1.91	1.70	1.83	1.94	1.88	1.68	1.84	1.92	1.81	1.90	2.10	1.83	1.85	1.77	1.85	1.81	1.82
" " Bill	1.37	1.35	1.35	1.53	1.53	1.49	1.35	1.50	1.50	1.42	1.48	1.43	1.35	1.34	1.41	1.54	1.34	1.57	1.38	1.42	1.50	1.41
Width " "	0.62	0.64	0.66	0.69	0.71	0.60	0.66	0.66	0.67	0.70	0.67	0.68	0.62	0.63	0.70	0.69	0.61	0.72	0.61	0.67	0.62	0.64
Depth " "	0.61	0.62	0.65	0.68	0.69	0.59	0.57	0.65	0.66	0.68	0.64	0.67	0.62	0.61	0.62	0.67	0.61	0.71	0.59	0.67	0.60	0.63
	♀ ∞	♀ ∞ ○	♀ 15 ○	♂	♂	♀ 20 ○	♀ ∞ ○						♀ ∞	♀ ∞	♀ ∞	♂	♀	♂	♀ ∞	♂	♂	♀ ∞

* One testicle large + testes diseased.

	16 Dark form
Length	16.76
" of Wing	10.80
" " Tail	4.20
" " Tarsus	1.83
" " Bill	1.52
Width " "	0.70
Depth " "	0.70
	♀ ∞

Length
" of Wing
" " Tail
" " Tarsus
" " Bill
Width " "
Depth " "

24.6
1 2
29.5.2

Measurements of Lanus hyperboreus.

	(1)		
Length	2.46		2.48
" of Wing	1.53		1.562
" " Tail	.771		.725
" " Tarsus	.287		.246
" " Bill	.122		.091
Depth " Bill at proximal end	.088		.078
Width " Bill	.078		.075
Sex	♀		♂

Measurements of Rissa tridactyla tridactyla

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Length	1.462	1.461	1.395	1.415	1.436	1.494	1.362
" of Wing	1.023	1.021	1.001	0.994	1.018	1.112	0.970
" " Tail	0.424	0.425	0.405	0.396	0.426	0.424	0.361
" " Tarsus	0.127	0.126	0.114	0.110	0.118	0.130	0.117
" " Bill	0.115	0.119	0.112	0.110	0.115	0.112	0.111
Width " "	0.038	0.038	0.034	0.034	0.032	0.039	0.029
Depth " "	0.042	0.044	0.042	0.042	0.046	0.049	0.045
Sex	♂	♂	♀	♀	♂	♂	♀

Measurements of Ptarmigan

	I ♀	II ♀	III ♂
Length	1.168	1.2(3)	1.27
Length of wing	.62	.605	.652
" " tail	.32	.333	.388
" " tarsus	.14	.132	.16
" " bill	.041	.041	.05
Depth " "	.028	.028	.31
Width " "	.027	.027	.29
Sex	♀	♀	♂

Ptarmigan Killed June 5
Measured June 6.

1.262	1.175	Salix
.712	0.676	Dryas octopetala
.436	0.372	Nutallens'
.118	0.116	Cassiope hypnoides.
.043	0.042	Testis developed
.036	0.033	Egg 2 large 1 larger many small.
.029	0.027	
♂	♀	

Ptarmigan Killed June 7
measured June 8.

1.176	1.263	1.260	(3) Salix, Dryas, Cassiope, Betula
0.652	0.690	0.691	
0.314	0.410	0.350	
0.108	0.121	0.116	
0.036	0.038	0.046	
0.035	0.038	0.036	
0.027	0.030	0.028	
♀ Egg well developed	♂	♂	

♀ ~~Throughout~~ tail feathers barred ~~tipped with white~~ ~~Last~~ progressively less barred toward outer decreasing on inner most half of vane most rapidly. Last ~~of~~ effects next to white becomes wider and wider toward outside. Outer edge of last tail feather edged with white. Next to " " "

♂ ♀

Measurement	of the	Her,	Ibria lomvia lomvia
Length	1.435	1.42	
" of wing	.737	.718	
" " to C	.189	.189	
" " to a	.144	.151	
" " bill	.111	.103	
Depth " "	.056	.05	
Width " "	.032	.031	
Sex	♂	♀	

and breast barred with white tips. Nape, cervix & throat, lores, forhead, auriculars barred, black dominant in upper parts, buff in lower. Chin with miatue pholites
Primaries, secondaries, greater coverts, lesser coverts white,
Scitrials, scapulars, and middle coverts barded tipped with white
Tibia barred. Tarsus and toes white. Pale red, salmon eyelids
Fuscous bill & toe-nails. No toe-nails missing

No. 2 - ♂ Head mottling to barred

Mene seies Ibavia lumme June 8
Measurements of Ibavia lomvia lomvia

1	2	3	4	5
1.251	1.285	1.361	1.400	1.316
.672	.698	.685	.726	.692
.262	.246	.246	.310	.246
.133	.134	.116	.128	.117
.113	.110	.107	.105	.116
.048	.049	.042	.039	.042
.051	.048	.049	.049	.054
♂	♂	♂	♂	♂

1st primary: White shaft 1 web
2nd " " 1 "
3rd " " 2 "
Rest dusky

2 Murres measured June 8.

(1)	(2)
1.422	1.371
.702	.700
.252	.259
.134	.102
.122	.106
.042	.041
.053	.048
♂	♂

Testes well developed

Tringa canutus Shot June 7
measured June 8.

0.832	
.570	Internal paramidic
.207	Internal paramidic & tracheal
.096	
.107	
.026	
.027	
♀	

Arenaria interpres Monilla
measured June 8

0.763
0.510
0.219
0.09
0.06
0.022
0.028
♂

Larus hyperboreus measured June 8.

2.478
1.543
0.700
0.242
0.222
0.094
0.089

Arenaria interpres Monilla measured June 13

0.751	0.767
0.500	0.500
0.190	0.210
0.084	0.088
0.063	0.076
0.021	0.025
0.027	0.026

Measurement of Jaeger June 17

1.746	
1.112	
.841	.912
.125	.057
.093	.036
.057	
0.036	
♀ s.	

♀ ♂

Uria lomvia lomvia measured June 17.

(1)	(2)	(3)	(4)
1.510	1.431	1.342	1.412
.706	.703	0.687	0.730
.220	.218	0.214	0.216
.138	.132	.181	0.136
.118	.109	.116	0.104
.038	.035	.036	0.031
.052	.051	.047	0.051
♂	♀	♀	♂

Fulmaris glacialis ♀

(5)	(7)	(8)	(9)
1.612	1.449	1.448	1.450
1.134	1.310	0.980	0.990
.421	.435	0.405	0.413
.178	.226	0.122	0.122
.059	.118	0.111	0.110
.060	.035	0.032	0.036
♂	.046	0.048	0.050
	♂	♀	♂

Rissa tridactyla tridactyla

10	-1-	-2-
1.428	1.403	1.342
0.900	1.010	0.960
0.394	0.382	0.351
0.117	0.115	0.115
0.097	0.109	0.101
0.036	0.410	0.372
0.047	0.510	0.047
♀		

Cepphus grylle

(11)	(2)
1.056	1.032
.505	.519
.197	.185
.104	.102
.085	.079
.022	.026
.033	.033
♂	

Stercorarius longicaudis

1.768
1.025
.848.
1.145
1.082
1.035
1.032
♀ s,

Measurements of alle alle June 17.

-12-	-13-	-14-	-15-	-16-	-17-	-18-	-19-
0.786	0.784	0.778	0.760	0.769	0.786	0.768	0.755
0.418	0.383	0.373	0.372	0.376	0.360	0.360	0.375
0.113	0.112	0.135	0.142	0.149	0.147	0.136	0.148
.069	0.077	0.077	0.072	0.076	0.078	0.079	0.081
.049	0.049	0.050	0.049	0.047	0.052	0.053	0.049
.035	0.034	0.049	0.039	0.033	0.037	0.031	0.042
.029	0.026	0.031	0.031	0.024	0.024	0.030	0.034
♀	♀	♂	♀	♀	♂	♀	♀

-20-	-21-
0.792	0.750
0.405	0.373
0.141	0.149
0.077	0.078
0.049	0.049
0.034	0.037
0.031	0.033
♂	♂

Fringa canutus

0.896 wench parasitized
0.562 ovaries + macr crustacea
0.271
0.118
0.108
0.021
0.028
♀

P. nevalis nivalis

0.653 3 larvae
0.341 testes large.
0.234
0.062
0.036
0.018
0.024
♂

~~L. Lillandus ampleior~~
~~L. glaucoides~~

Rumpf pleur
stalpot
1 rat. arctica
S. longic
Rubyspots

Harelda hyemalis

1.918
.763 Ivory gull 11 G. Petrels
.799 ~~Rumpf pleur~~ 9
~~Larus hyperboreus~~ 4
.125 ~~Stalpot~~
.092 ~~Platform~~
.066 S. longicaudis 7 Bursaplatten
.055 ~~S. parasiticus~~ 7 myst plates
♂

~~L hyperboreus~~
~~nest~~ Cow
~~Larus~~
~~Petrels~~

Lagopus rupestris rupestris, March 2, 1915

	(1)	(2)	(3)	(4)
Length —	37.5	37.5	38.8	38.1
" of wing —	19.8	20.2	20.6	20.4
" " tail —	11.2	11.1	11.6	11.5
" " tarsus —	3.9	4.5	4.6	4.3
" " bill —	1.4	1.4	1.6	1.6
Br. " " —	1.1	1.1	1.2	1.2
depth of " —	1.1	1.0	1.1	1.1
Sex —	♀	♀	♂	♀

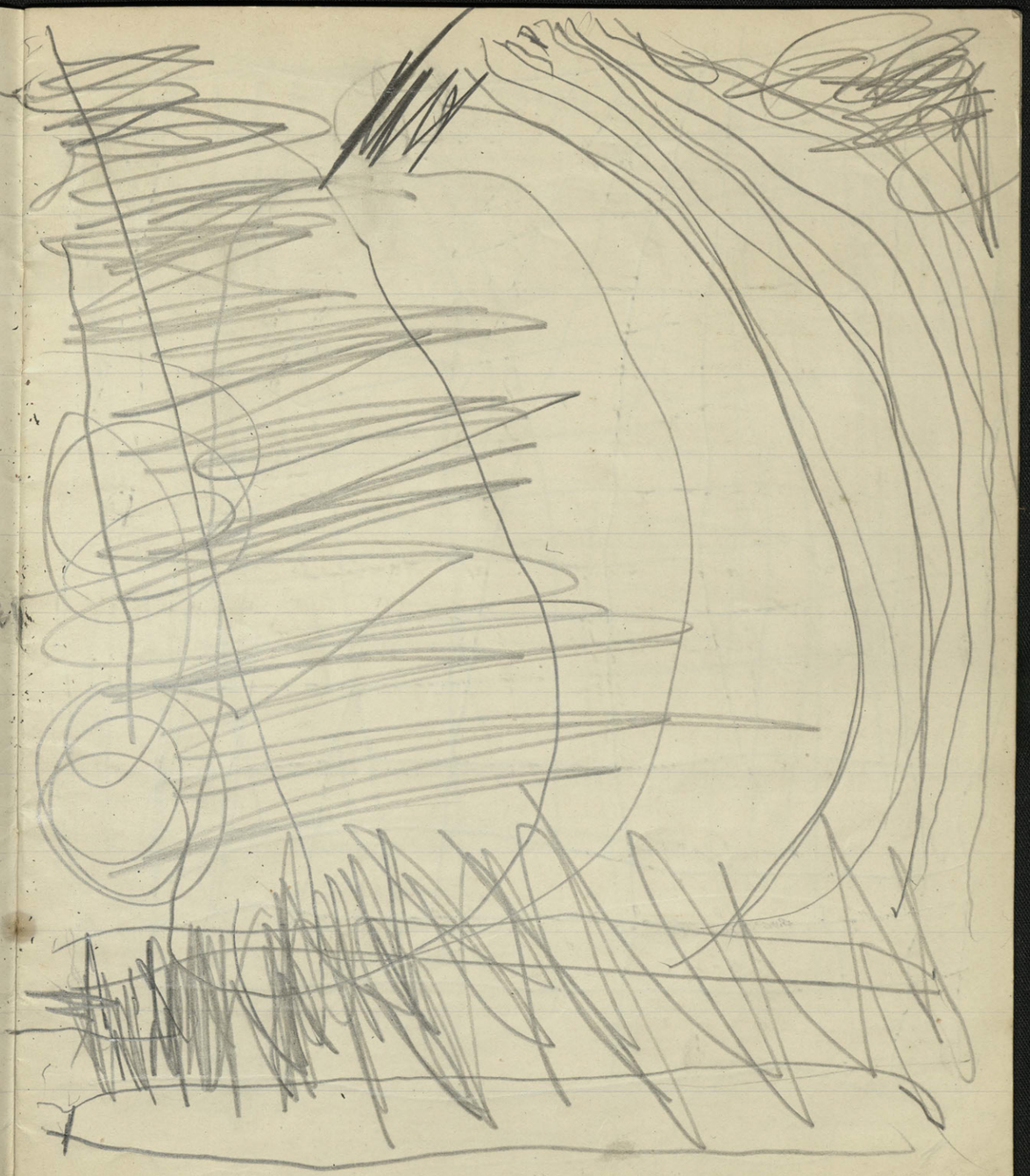
1 Egg tiny not in the least developed
Crop contained only a dozen small green buds & leaves

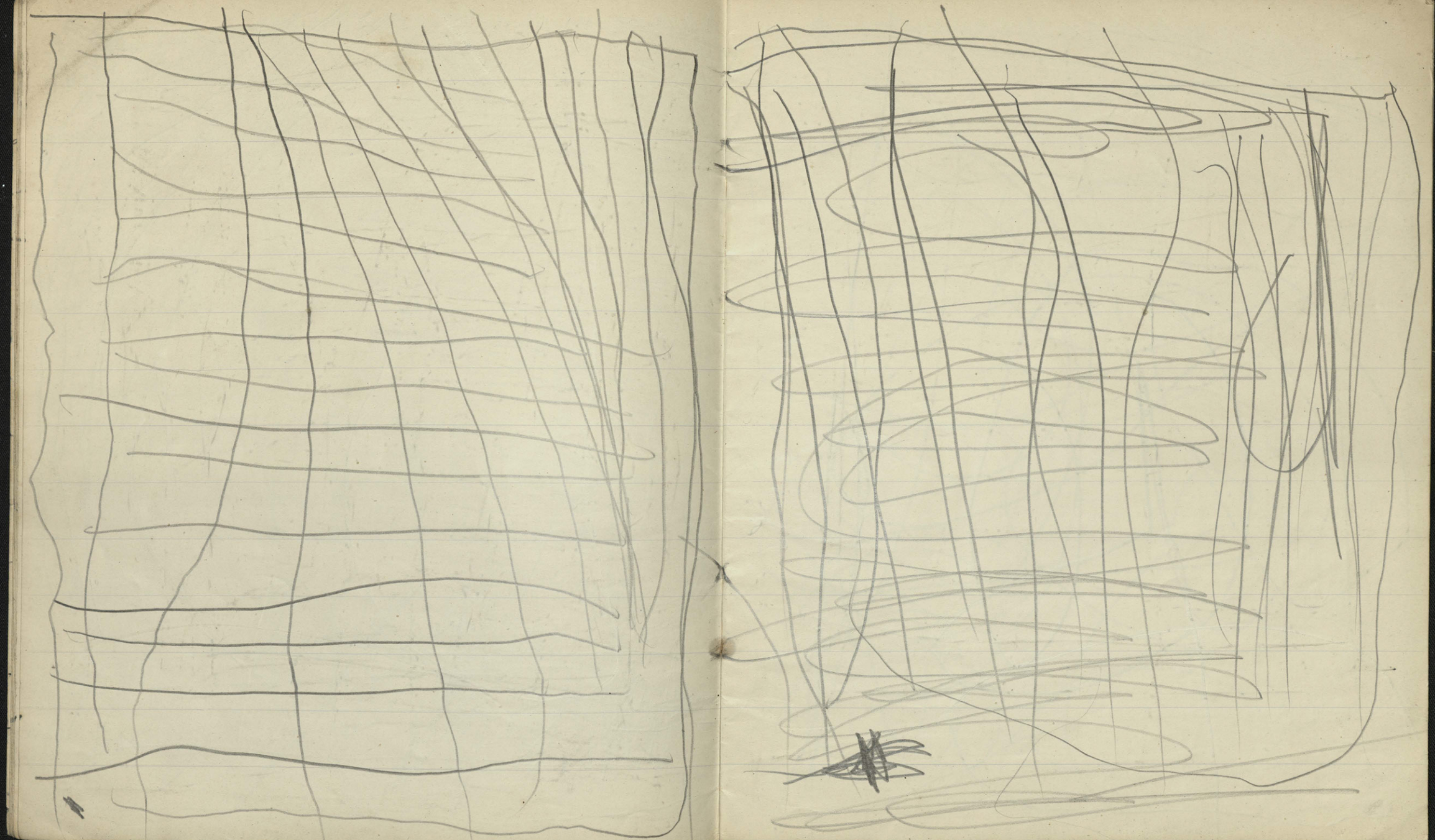
~~2~~ Shell testes undeveloped
Crop a few willow buds and dryas leaves
Gizzard " " " "
and white and transparent gravel

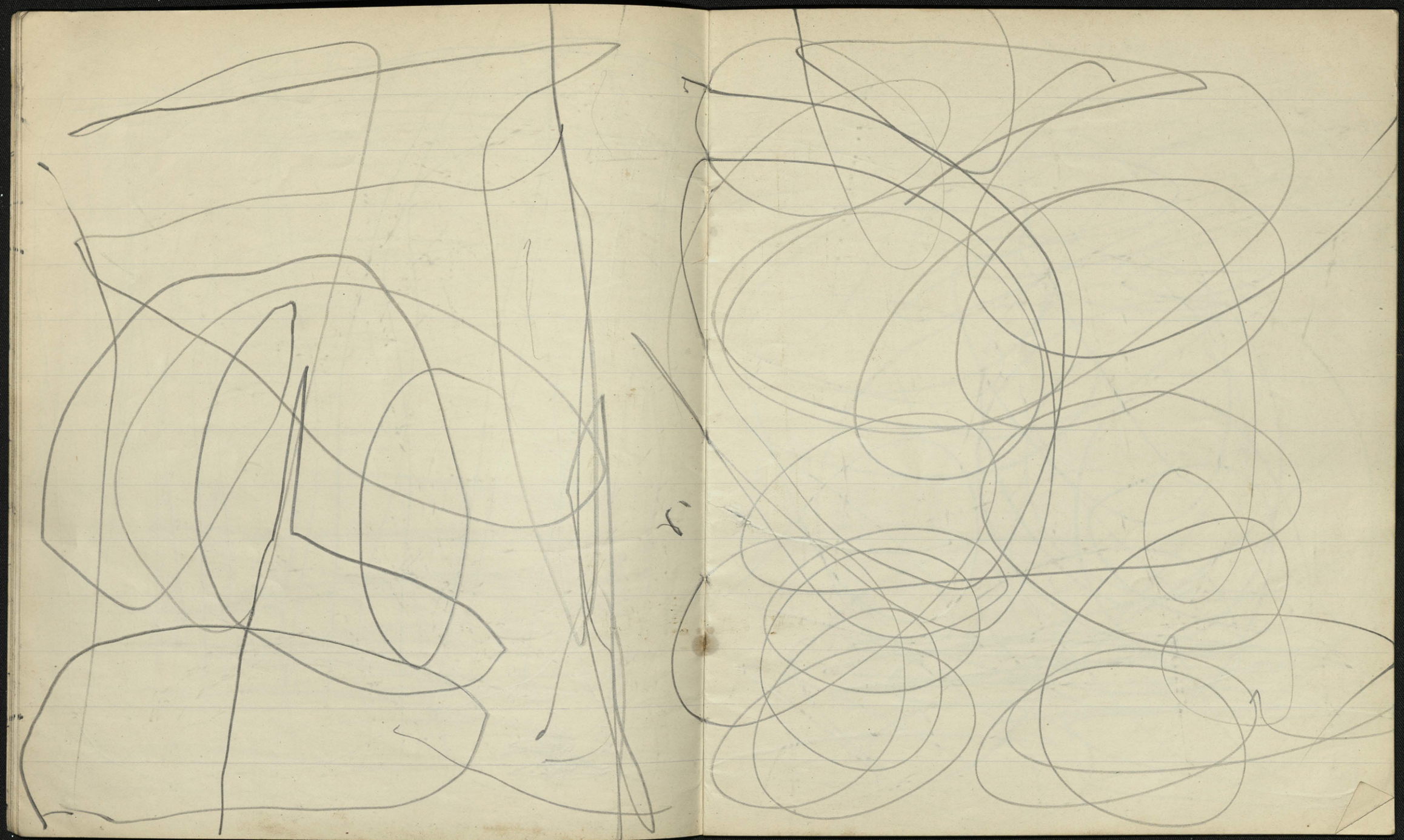
3. Ovary undeveloped

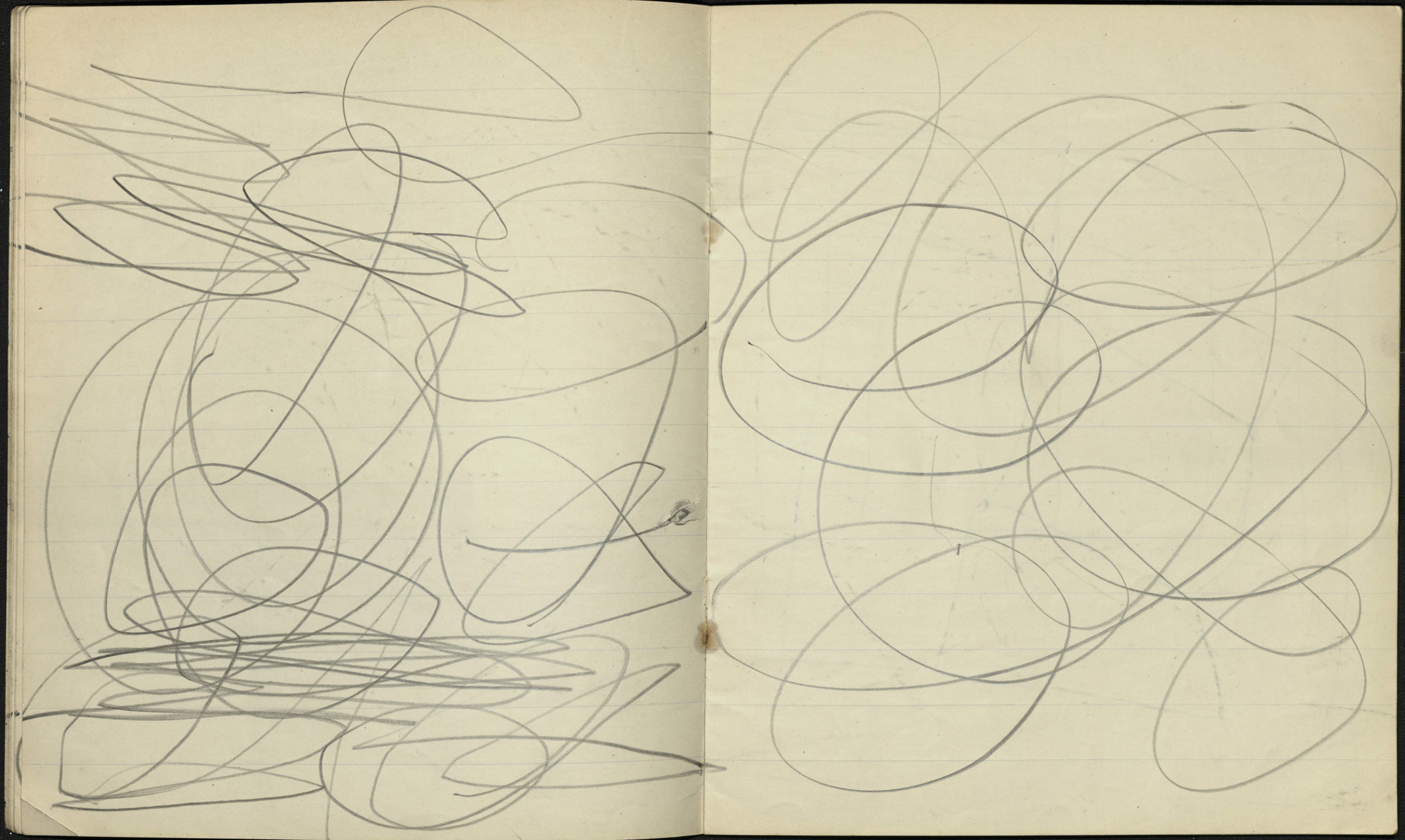
Crop - willow buds, leaves of Saxifraga hirculus and bicuspidata and dryas.

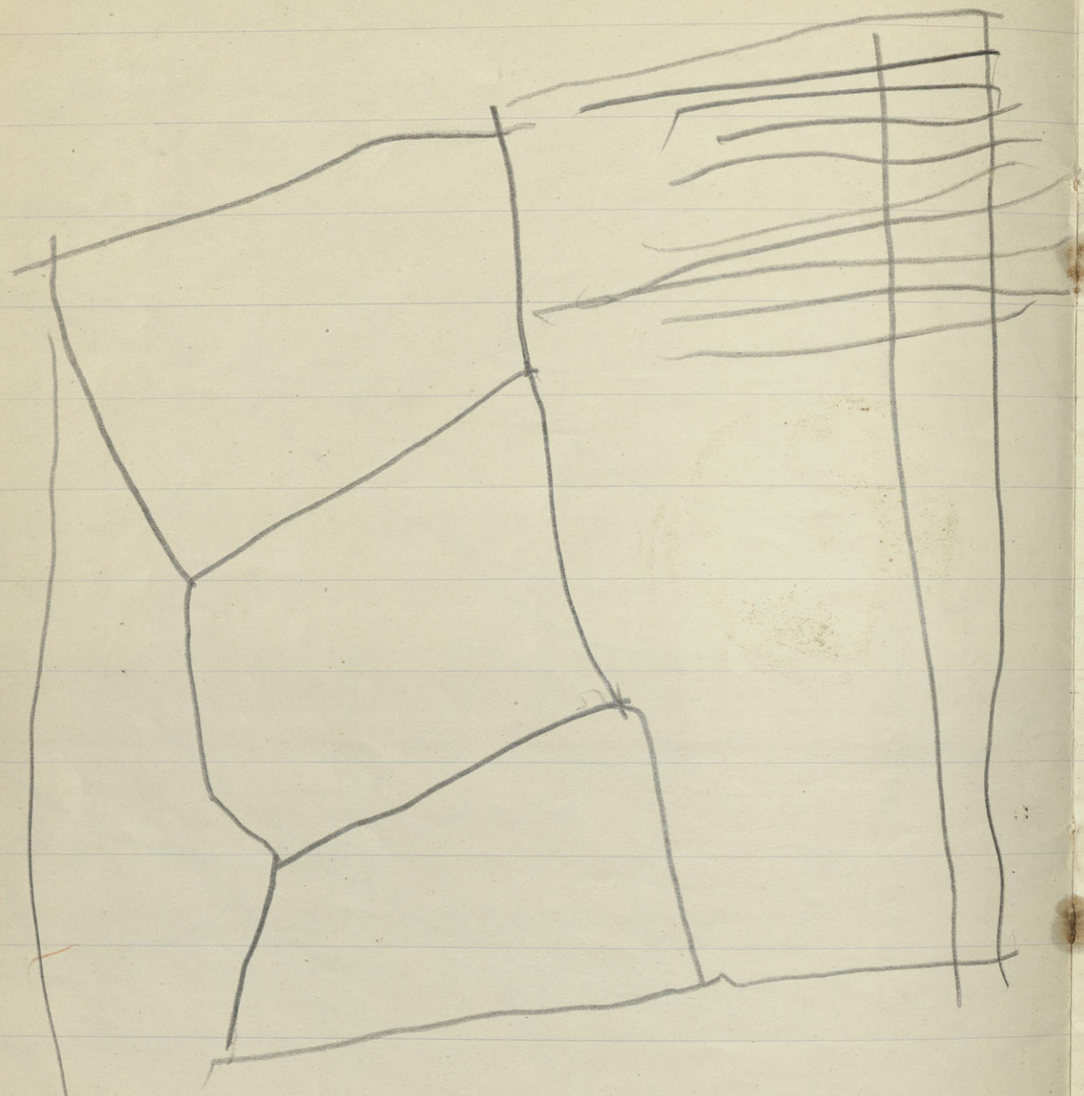
~~4~~ Same as 1.

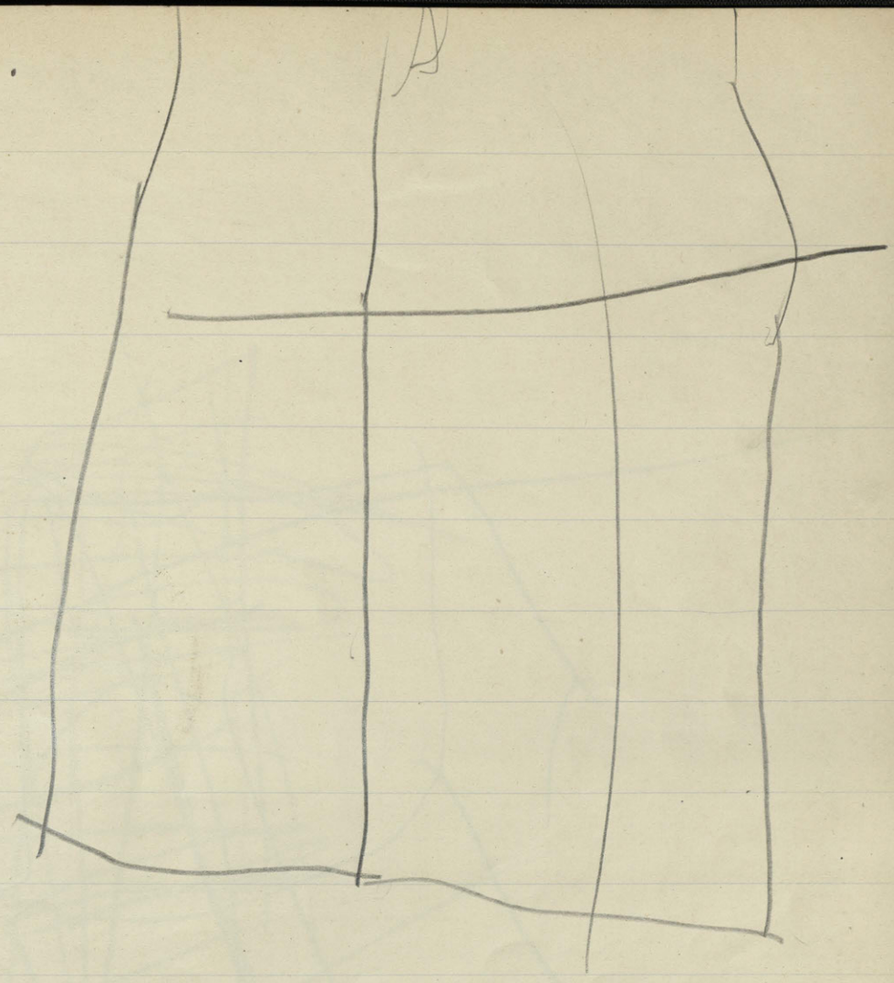


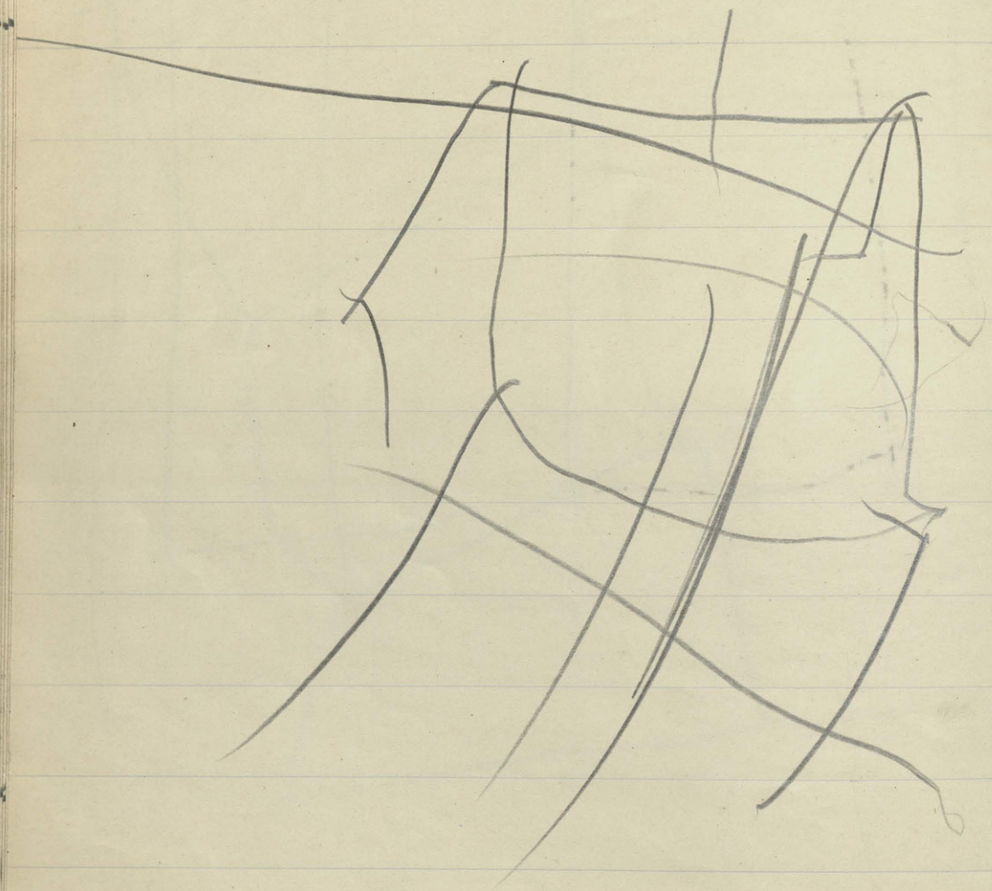


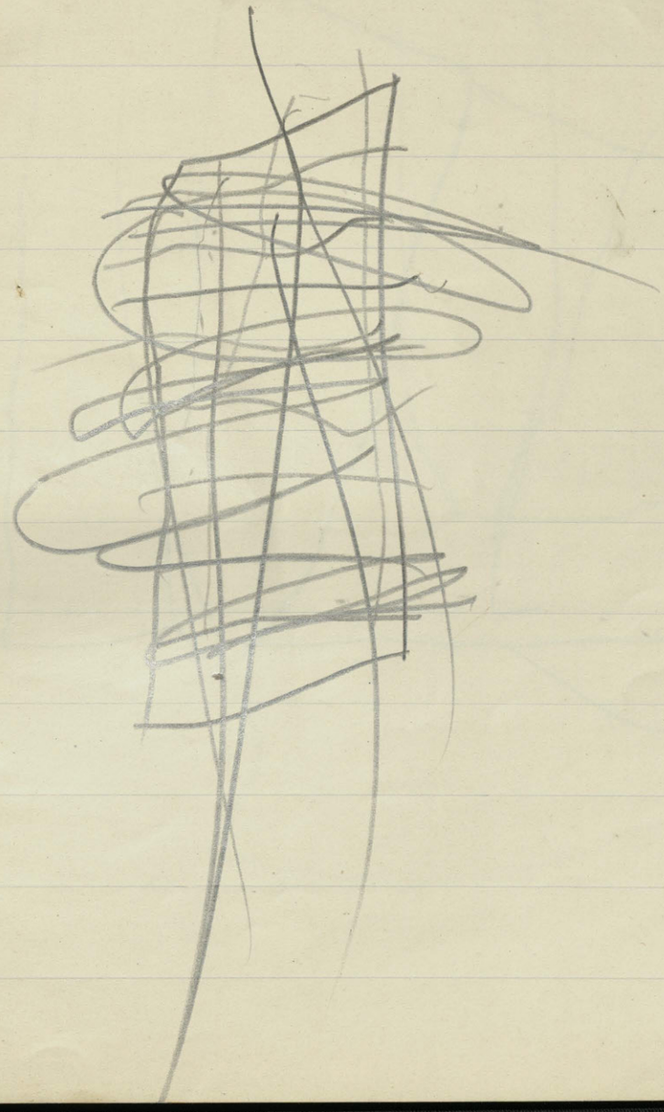


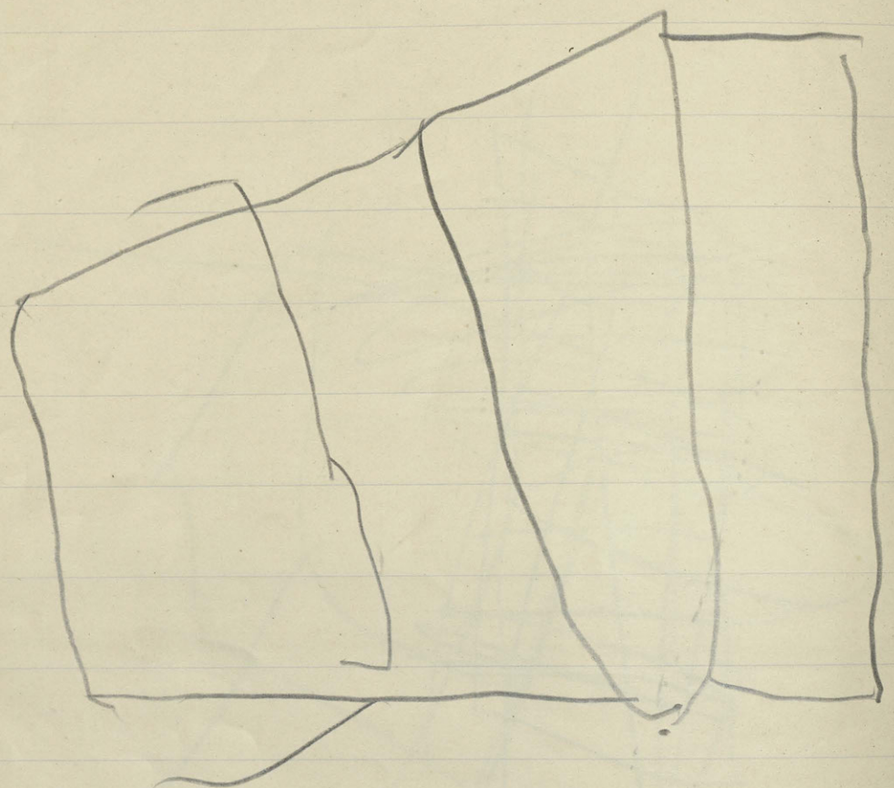


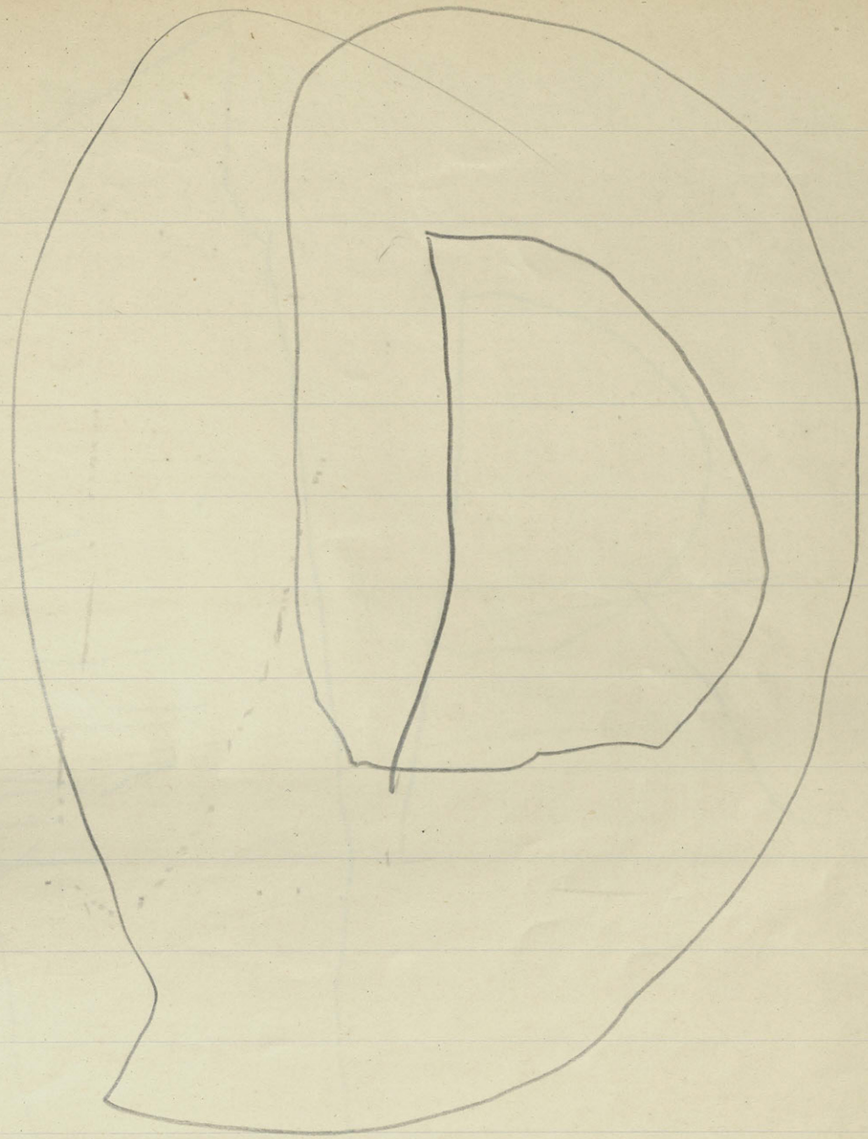


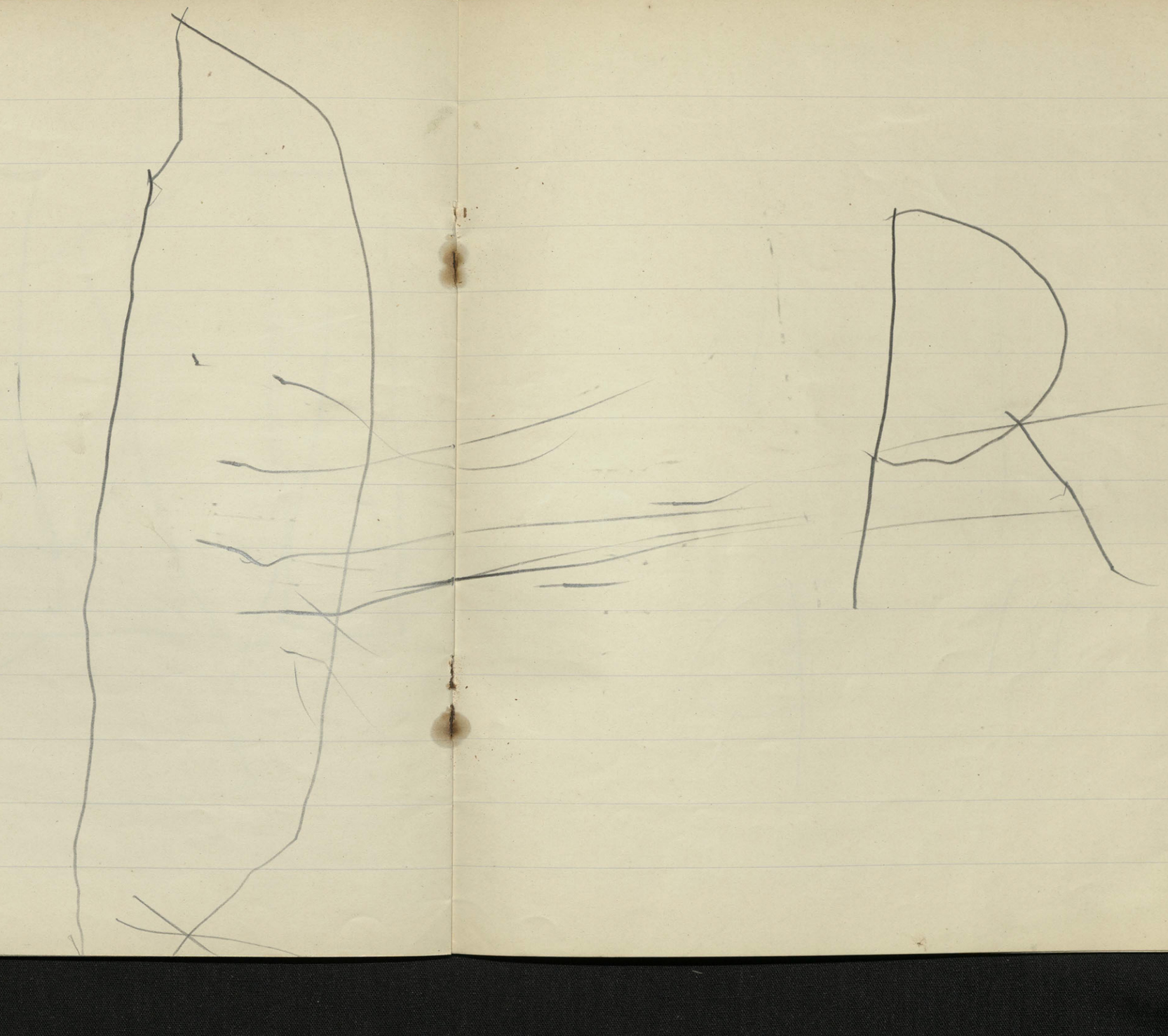












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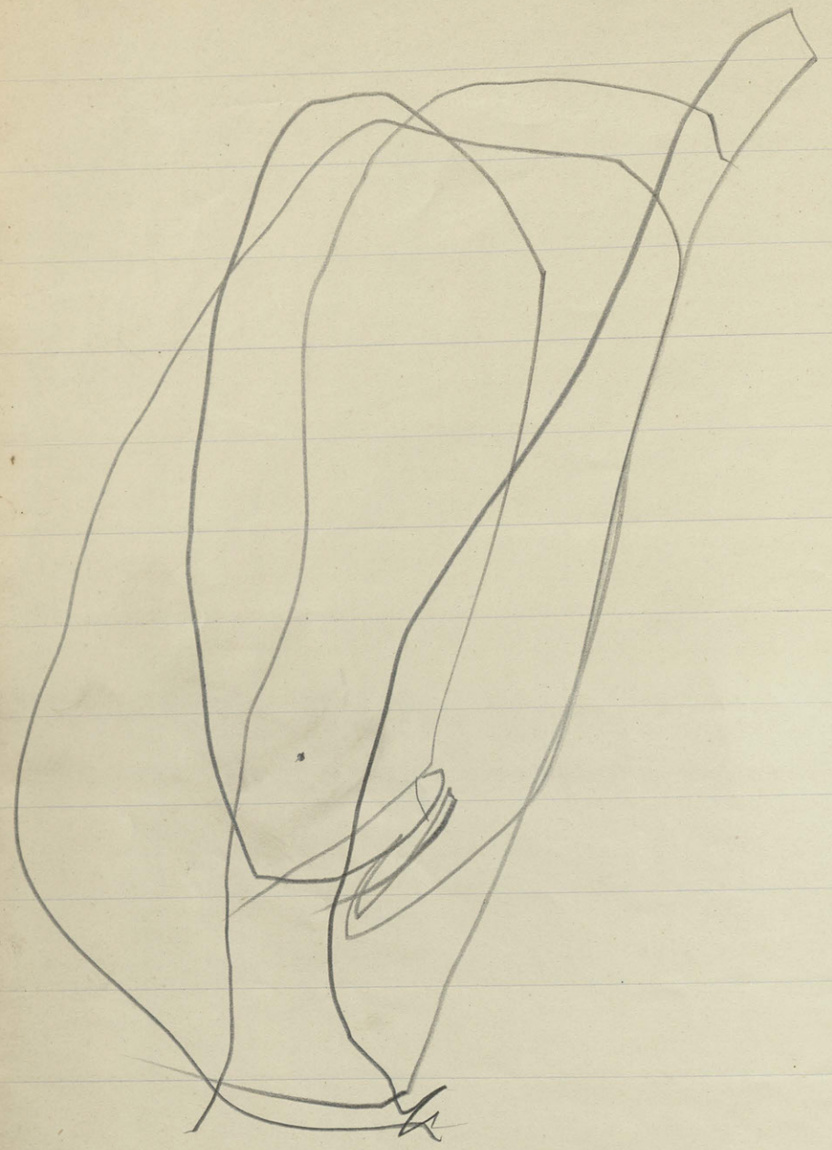
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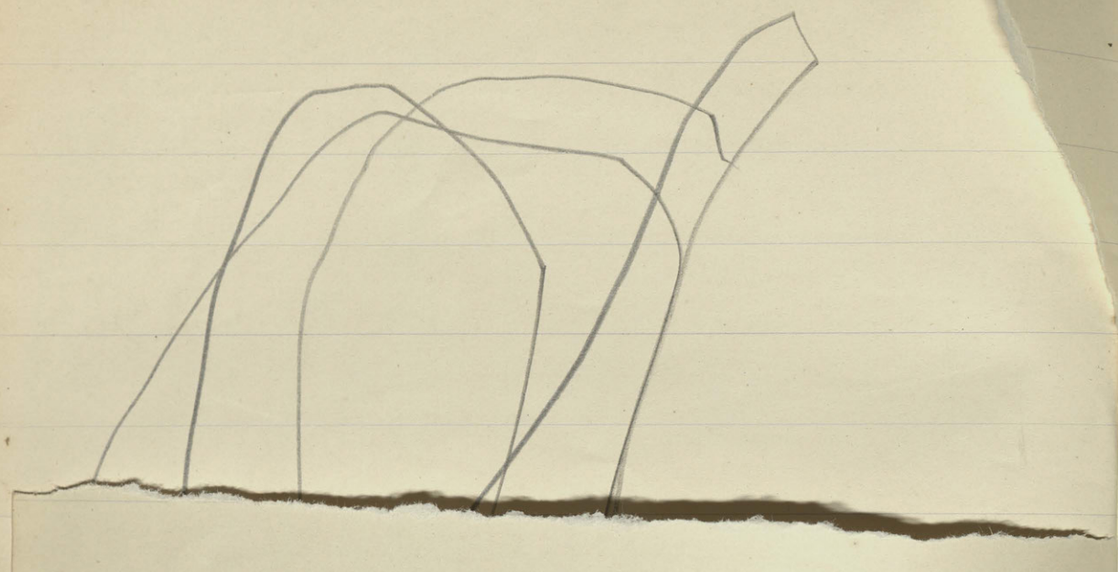
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5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the south coast of the Nussuas Peninsula in West

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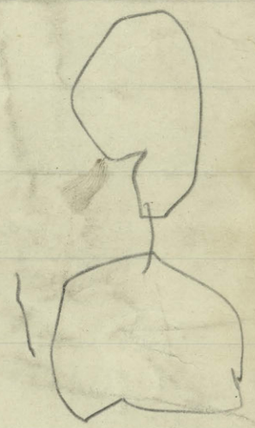
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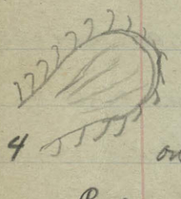
Volume



70
20

Saxifraga oppositifolia

Herb. Forms matted, dense, compact clump of sterile & flower-bearing stems from ½ inch to 3 inches long. Never reaching more ½ inch above ground. Some outer branches diffuse in sheltered localities. Leaves on both kinds of stems crowded, fleshy, ovate, spatulate apices tipped back ← tipping begins as on all full-grown leaves, also end margin tipped back



slightly keeled on outer leaves without keel; ciliate, tips of cilia clubbed or knobbed and colorless, bent toward base; somewhat more or less imbricate on flower-stems, quite so on sterile; Lengths from 2 to 7 mm.

×4

Calyx Superior? – Five-cleft - sepals 3-5 mm fleshy, ciliate like leaves. somewhat wheel-bell shaped



×2 reddish purple in color; ciliate edges toward base dark purple in color, clubbed at tip tips bent back;

Corolla superior of 5 distinct petals, adnate to calyx. 7 to 10 mm.



wine-purple in color glabrous on both sides Corolla bell-formed. Color and texture of petals like that of Cattleya common kind, but darker Stamens ten, same color as petals, thicker at base, tapering Anthers club shaped. Producing pollen at time pistil is mature Anthers three lobed, darker than filaments; pollen oranges.



Pistils two, club-shaped, thickest at base. paler than

5 Arbejder fra den danske arktiske Station paa
Disko. - Fish & Vascular Plants from the coast

stamens, staminate whose anthers produce pollen.
Carpels.



Roots- One tap root 4 to 8 inches long, many lateral branches after soil water is reached.

On gravelly slopes and terraces; rather dry;
Begins flowering on June 6 at Umanak, N. Green.

The petals are sometimes redundant, sometimes deficient. I have found as many as seven petals and as few as four. The stamens follow the same change of numbers.

Found also in moist places where it grows on top of tufts of grass or turf. In these situations it becomes more spreading, the flowers quite isolated. In these moist grassy places it is so diffuse as to seem another plant, from the densely tufted round plant of the gravel banks.

Measurement in feet and tenths of feet.

Birds Summer 1916 Umanak

71 April 13. Pastor Olsen tells me that a few sidewinet on the
159 small island off Kangudluksuak in Inglefield Gulf, with hundreds, even thousands of Arctic Tern, so numerous are these little birds and so determinedly do they defend their nests that the gulls, ravens, and gyrfalcons dare not approach the island. When the Eskimo kill a seal near they take it to the island and there have it to cache at their leisure knowing that the terns will protect it from the gulls. Last year many terns died on the island and about Kangudluksuak, presumably as a consequence of so much damp, cloudy weather, and resultant scarcity of food. These birds nest on the Three Sisters Bus also and two small islands near Cape Abernathy, on some small islands near the head of Inglefield Gulf.

28 General -

486a On our trip south from Etah to Umanak Apr 3-17, we
302 have seen large numbers of Cepphus mandtii in the open water near Cape Kendrick, still in winter plumage, but rapidly changing, for dark feathers are coming in on the breast and bellies and a few scattered ones elsewhere; pairs of ravens at Sonntag Bay, C. Chalon, C. Sanmarez, Robertson B.

5 Arbejdey fra den danske arktiske Station paa
Dikso-Ø. Fish et Vascular Plants from the west

Bowdoin Bay, and Academy Bay; and tracks of
ptarmigan at C. Chalon and at the head of Academy B.

359. Apr 13.
The Eskimo at Borden Bay saw a pair of gyr-
falcons on this day.

536. – Mene saw a pair of snow buntings on Saunders
Id. on May 20th, on the 22nd one came to the house
and alighted near the door, as if to greet us, and
then passed on to the North. I saw and heard
them on April 26, 28, 29, and May 1, 3, 4, and 6th.

42 Apr. 29.

V. 159. On this day Iddylingwa, a most creditable Eski-
mo saw Eiders and Burgomaster gulls about C. Berry
where they have been attracted by the open water.

527. May 9. This has been a day of active migration of
Acanthis hornemanni hornemanni. At least three
dozen, perhaps more, came about the house. I shot
four, of which three will make passing good skins;
the fourth was so badly mutilated that I did not
preserve it.

They are not shy birds; they suffer a near approach
until they have once been alarmed. As they fed about the
rocks and grass and sedge bunches, they keep up an in-

cessant twitter, not unlike the twitter of tree sparrows
as I recall it along Illinois hedge-rows in early
spring. They have another more metallic musical note,
much like the call note of the gold-finch and pine siskin,
a sweet, che-e-e-wink' or che-e-e-wit', that they give voice to
occasionally. The male's crown is deep cardinal, and his
breast is washed with pink almost red. The female's
crown is more crimson and she has no pink in her breast
plumage. I measured the three birds I brought in –

Length	0.445	0.443	0.465
" of wing	0.268	0.253	0.266
" " tail	0.200	0.215	0.194
" " tarsus	0.065	0.065	0.060
" " bill	0.032	0.039	0.033
Width " "	0.021	0.021	0.023
Depth " "	0.023	0.021	0.024
Sex.	♂	♀	♀

The testes of the male were well developed – as large
as peas. His crop was full of tiny seeds of grasses, sedges,
and juncus, and other plants. The ovaries of the first
female measured were small and showed little trace
of development. She too had eaten nothing but seeds.
The skins of the first two were taken; the last was preserved
by arsenic formaldehyde solution injected

5 Arbejdey fra den danske arktiske Station paa
Dicko - List of Vascular Plants from the mouth

42 May 5. Menn who had been out seal hunting
486a. reported seeing two glaucous gulls, and a pair
of ravens off Nansensook.

May 7. S

534 On a walk over the Beaches today I found
a pair of snow buntings at Fern Ledge. The
male was singing his love song, but it was so
imperfect that either he is not yet in practice
or else he is but a last year's bird. The quality
of the song is very suggestive of that of the Wes-
tern yellowthroat as I have observed elsewhere.

V.

986a May 7. A solitary raven flew over me today
and as he got by gave the guttural gurgle, soft
as the gurgle from the bung-hole of a molasses-
barrel.

42 May 10.

986a. Menn and Hal when out seal hunting saw
two Larus hyperboreus and a Corvus corax prin-
cipalis. The great gulls are now becoming nu-
merous about the fjord but as yet I have seen
none at headquarters.

34 May 11. Egingwa and Imasook who came in

from the North today report seeing the Alle alle
in the water off Borden Bay on the 9th.

195. May 12.

Egingwa and Imasook gave me the wing of a bird
today which the former shot last summer in Inglefield
Gulf. It is a small duck of some kind probably a green-
winged teal.

28 May 14.

34 At Parker Snow Bay, Dr. Hovey told me that the
42 first considerable flight of Alle alle had appeared
527 on May 6th, though a few scattered ones had ar-
534 rived before. I heard them in the water out beyond
765a. the point, and saw the Cepphus mandtii flying a-
bout there. On the cliffs just above the gulch a num-
ber of glaucous gulls were perched, screaming
and calling. I saw three pairs of Acanthis actinig
as if they were very much at home about the
places where they were feeding, and as if they
might be nesting there. It would not astonish
me in the least, for they frequent this place a great
deal. Plectrophenax nivalis nivalis was flying
all about the fjord, but though singing the males
have not yet attained the perfection of their sap-

5 Arbejdey fra den danske arktiske Station paa
Ekkr.-Fisk et Vasculan Plants from the mouth

line song. Many of these birds must nest here on the warm sunny slopes. A pair of Saxicola ornanthe leucorhoa were flitting about the rocks along the beach, both apparently in full mating plumage.

302 May 17.

Mate Davis of the Clutt, who came in last night reports that Nehetslarook killed a ptarmigan along the edge of the glacier on his way down last night.

534 May 20.

With a southwind and snowstorm today came scores of pairs of Plectrophenax nivalis and stayed about the house.

86. May 16.

The Eskimo who have been out at Saunders Island report many Fulmarus glacialis glacialis here and many Larus hyperboreus. They killed many of the former.

42. May 21.

534 A Larus hyperboreus came flying about the house today. Many snowbuntings have been singing; I think the last arrivals have come to stay, at last many of them have done so!

21. May 23

40. Mene, who came in this morning from Saunders
42 Island reports many birds there now in the open
86 water about the cliffs. Uria lomvia lomvia, Rissa tridactylus tridactylus, Larus hyperboreus, and Fulmarus glacialis glacialis are there in numbers. He brought back 4 Uria lomvia lomvia of which I measured three

	-1-	-2-	-3-
Length	1.300	1.230	1.280
" Wing	0.700	0.675	0.700
" " Tail	0.235	0.230	0.225
" " tarsus	0.131	0.126	0.130
" " bill	0.113	0.121	0.119
Width " "	0.035	0.040	0.092
Depth " "	0.044	0.053	0.050
Sex.	♂	♂	♀

The testes of the males and the ovaries of the female were quite undeveloped, showing no signs of sexual activity at present. There was but little food in their alimentary canal - solely shrimps.

534. May 23.

Many snowbunting are about. I heard a song fast approaching the full rapture song today.

5 Arbejder fra den danske arktiske Station paa
Eider-Tish & Vascular Plants from the coast

31 May 26.

Egingwa came in from Saunders Id with four Ursa lomvia lomvia that he had killed on the cliffs there. He reported thousands of birds there now.

39. Two ivory gulls on their migration northward passed over the house today, attracting me out by their shrill calls.

534. May 27

On a walk back into the hills today, I paid particular attention to the song of the snow buntings which are now grown very numerous everywhere. It seemed to me that no two songs were quite alike; especially was of this was I near Fern Ledge where three near one another were singing. Of these, two had songs several notes longer than the third, and the two longer songs were different from one another. All the birds are singing more nearly perfectly now; there is a clearness and ring in the notes that was absent two weeks ago.

The call notes are several sharp clear chirps, apparently similar in both male and female. The male now has an angry note whenever a rival comes near his nest, a rasping grating series of notes rather, almost like the hiss of a snake, much like the anger-notes of a brown bear when his nest is disturbed only not so loud or coarse

31. May 28

I measured the Uria lomvia lomvia that Egingwa brought in on the 26th.

	-1-	-2-	-3-	-4-
Length	1.310	1.294	1.250	1.260
" Wing	0.720	0.700	0.670	0.715
" " Tail	0.234	0.225	0.224	0.240
" " Tarsus	0.131	0.142	0.142	0.142
" " bill	0.111	0.117	0.124	0.116
Width " "	0.039	0.045	0.042	0.042
Depth " "	0.049	0.049	0.052	0.051
Sex	♀	♂	♂	♂

The ovaries of #1 had just begun to develop, one being about ¼ inch in diameter. The testis of #2 were small but little over ½ in. in length and ⅛ in diameter; of #4 they had developed considerably being over 1 in. in length and almost ½ in. in diameter in the middle. Those of #3 were intermediate between #2 and #3. It will not be long now until the birds are mating.

42. May 28

A number of Larus hyperboreus come about the house to feed upon seal fat that lies upon the ice-foot. Some of them go on up the fjord, where there must be

5 Arbejdey fra den danske arktiske Station paa
Disko - Fish & Vascular Plants from the south

leads open where they may obtain food. They are not at all shy, but very cautious.

234 May 25 In a walk up over the Museum ridge just beyon the hill Cuck the mate and I today flushed a Tringa canutus from a grassy clayey hill, just such a place as I found the young upon two years ago. The annoyance-call or question-call that I became so familiar with then was repeated again and again today.

283a May 27 We also flushed a turnstone that hied himself away across the fjord post haste; he acted as if he couldn't leave our neighborhood fast enough.

May 28
282 Near Cadis-fly pond we ran upon a pair of male ptarmigan resplendent in his white, red, and black. He was not at all afraid and much resents our intrusion into his domain. When the mate threw a stone at him he merely gasped up into the air and rose a few feet, returning nearly to the same spot, indignantly croaking (or quawking) at us. He did not fly away.

May 28
286a When we reached the highest point of the hills, near some rocky cliffs, a pair of ravens were seemingly much annoyed at our presence and might be nesting near-

534 May 28
All over the hills snow-buntings were singing. I think the females are now selecting the sites for their nests.

275 May 29
Four Aegialitis hiaticula came about the plain today and ran about utttering their shrill plaintive calls. May 28. To-day, they were about again.

28. May 30 I measured today four Apphus mandtii that Dr. Hunt killed yesterday in a pool of water beside an iceberg on his way back from Saunders Island.

	1.	2.	3.	4.
Length	1.070	1.120	1.100	1.085
" of wing	0.550	0.552	0.556	.560
" " tail	0.200	0.223	0.210	.215
" " tarsus	0.118	0.127	0.117	.116
" " bill	0.103	0.105	0.095	.095
Width " "	0.033	0.033	0.025	.031
Depth " "	0.033	0.033	0.026	.031
	♂	♂	♀	♂

The testes of the males and the ovaries of the female indicated that the mating season is at hand. Ten of the ova of the female were much larger than the rest! Dr. Hunt saw one bird still in almost complete winter plumage.

5 Arbejder fra den danske arktiske Station paa
Disko - Tidt i Nærheden Planta Lemmi Hunt

31 May 30.

Dr. Hunt and Eginguva brought in last night 24 Uria lomvia lomvia. All these were of the one species. Dr. Hunt says that they have begun mating, he thinks. I measured the birds.

	-1-	2	-3-	-4-	-5-	-6-
Length	1.360	1.235	1.400	1.400	1.350	1.350
" of wing	0.720	0.670	0.720	0.720	0.710	0.718
" " Tail	0.245	0.225	0.255	0.252	0.290	0.242
" " tarsus	0.134	0.133	0.149	0.139	0.142	0.138
" " bill	0.127	0.108	0.121	0.114	0.117	0.128
Width " "	0.048	0.038	0.042	0.040	0.052	0.041
Depth " "	0.049	0.045	0.050	0.049	0.055	0.050
Sex	♂	♀	♂	♂	♂	

	-7-	-8-	-9-	-10-	-11-	-12-
Length	1352	1.298	1.350	1.310	1.280	1.380
" of wing	0.730	0.700	0.730	0.700	0.700	0.715
" " tail	0.248	0.232	0.235	0.225	0.245	0.244
" " tarsus	0.136	0.128	0.140	0.137	0.132	0.131
" " bill	0.112	0.118	0.120	0.116	0.118	0.125
Width " "	0.043	0.036	0.035	0.048	0.039	0.044
Depth " "	0.051	0.051	0.051	0.047	0.048	0.051
Sex						

	-13-	-14-	-15-	-16-	-17-	-18-
Length	1.380	1.390	1.312	1.320	1.386	1.370
" of wing	0.715	0.725	0.730	0.730	0.735	0.715
" " Tail	0.236	0.240	0.235	0.236	0.241	0.234
" " tarsus	0.136	0.130	0.140	0.137	0.148	0.148
" " bill	0.128	0.116	0.114	0.123	0.112	0.110
Width " "	0.045	0.039	0.035	0.048	0.045	0.038
Depth " "	0.052	0.050	0.050	0.052	0.046	0.049
Sex						

	-19-	-20-	-21-	-22-	-23-	-24-
Length	1.350	1.380	1.370	1.355	1.380	1.425
" of wing	0.710	0.700	0.698	0.750	0.712	0.745
" " tail	0.255	0.236	0.294	0.246	0.232	0.251
" " tarsus	0.144	0.134	0.137	0.152	0.147	0.150
" " bill	0.112	0.115	0.123	0.112	0.118	0.115
Width " "	0.042	0.049	0.045	0.046	0.045	0.043
Depth " "	0.051	0.048	0.050	0.051	0.050	0.051
Sex						

5 Arbejder fra den danske arktiske Station paa

16

17

40. May 30.

I also measured three Rissa tridactyla tridactyla that Dr. Hunt had killed at the cliffs and brought in.

Length	1.330	1.356	1.390
" of wing	1.020	1.000	1.051
" " tail	0.421	0.423	0.410
" " tarsus	0.125	0.131	0.130
" " bill	0.121	0.116	0.118
Width " "	0.035	0.038	0.041
Depth " "	0.043	0.042	0.048
Sex.	♂	♀	♂

The testis of No. 1 had begun to develop showing signs of early functioning; but the ovaries of No. 2 and the testis of No. 3 showed no signs whatever.

The membrane at the base of the bill of these birds is bright orange to red; the eyelid is bright crimson.

283a May 31

Four turnstones were feeding about Tunga Pond today, both on the shore of the pond and on the grassy flat about it. They were quite tame. Also
534 many snowbunting feed there. On the top of the butte, to which I climbed today, a pair of snowbuntings have apparently chosen a site for their summer's nest.

5 Arbejder fra den danske arktiske Station paa

18

234 June 2, Tunuatakseuak.

As the gravly moraines of Tunuāksuah I flushed an Tringa canutus today. It was running about in just such a locality as those in which I found the nests last year. I heard several others calling, but saw no more.

302. As Eyingwa and I neared the land and drove along the ice-foot, a pair of mealy ptarmigan flew back and forth past us, giving voice to that hoarse croaking sound the males make in mating season when disturbed. Their motive seems to be to express indignation at the violation of their feeding and nesting grounds if they can be said to have a motive, or it may be that mere curiosity impels them to such conduct. Later in the day when tramping the hills I flushed a female from a grassy flat where she was feeding in company with half a dozen Lars. She flew only to a near gravel slope where she sunned to trust to her colors to escape further detection.

186a. One, or perhaps two, Corvus corax principalis, flew several times over Tunuatakseuak to a great high cliff where I think there is a nest. Characteristic of the bird is his careful silence as he (or she) flies about in search of food. He attends strictly to his own business, makes no noise or fuss about it at all and seems to wish to be left quite alone.

19

527 June 2, Tunuatakseuak.

A pair of Acanthis hornemanni hornemanni were feeding contentedly and chirpingly about a rock-strewn slope in which heavy tufts of Luzula and Elyna bellardi were growing. They seemed very much at home and I am inclined to believe they are nesting there this year. Dr. Hunt told me on May 30th that he had observed several pairs the few days before feeding about the slopes at Saunders Island as familiarly, and contentedly at home as if they intended to stay settled there for the summer. These facts with the observations I made at Parker Snow Bay lead me to the conclusion that the redpoll nests in this locality - Northwest Greenland.

534. Less abundant than at Unanaks only, the Snow-bunting flays and feeds everywhere about Unatakseuak. All seemed to be paired and the various pairs seemed on friendly terms whenever they were feeding together. I came upon three pairs frequenting one small heath slope from a sedgy swale through which a streamlet gurgled, all chirping and quarreling as amicably as if but a few days ago they had not been bitter rivals - particularly as the males. The males are much the

5 Arbejder fra den danske arktiske Station paa

more active, flying about from rock to rock, but usually not flitting far from the more quiet, reserved female they attend so faithfully. The female is less easily discernible, keeps more to the ground between rocks, and is a little more shy. The male is not particularly shy and not easily alarmed for his mate, but he does not suffer to near approach to her without sharp protesting notes; and if the approach be too persistent he gives her a warning call and they are both off and away.

June 3. Nunataksuak

12 A sedate glaucous gull flew leisurely along the icefoot along Nunataksuak and then along the glacier. This big fellow is certainly the public scavenger of Northwest Greenland. No carrion lies long where he can get at it.

234 Three Tringa canutus performed a sort of wooing contest flight high above the moraines of nunataksuak. It was evidently two males pursuing one female (or two females pursuing one male?), she leading they pursuing, contending as they flew, all apparently uttering the shrill piercing call that they make during this season. In great circles they flew, now and then stopping to a zigzag dodging

and pirouetting in the air. They rose above my sight, but I could hear the shrill calls far in the distance. Another of the birds that I watched also indulged in a sort of dance-flight alone. He swept about in great circles, calling now and then; his flight in these circles was generally as smooth and graceful as a sparrow-hawk's, ~~soaring~~ sweeping without a movement of his out spread wings for some distance; at times however he tumbled and tossed like a night hawk at play on the prairies in early summer time at nightfall — in fact he looked at times like a night-hawk.

283a. A turnstone paraded the beach near the tent for awhile; later in the day I saw one on a gravel flat along the glacier streams.

278 An sanderling alighted on the shore along the lateral streams that flows down beside the glacier but he stayed but a moment.

302. Everywhere I saw traces of ptarmigan, and came upon a last years nest in a clump of Lycopodium surrounding dryas on which the nest had been. Two broken eggs, that had not hatched still lay in the nest. The nest itself was merely a shallow hollow in the dryas, such as our prairie chicken make in tough grass.

5 Abejdøy fra den danske arktiske Station paa

527. June 3. Nunatakenak.

I saw again today the pair of redpolls that I noted yesterday. They were feeding about the same grass-studded rocky slope. I am sure they will nest here somewhere.

534. The snow buntings are particularly numerous about here. Today I watched for a long time a bold fellow who permitted my near approach, while he splashed and bathed and preened in a warm little pool in a sedge carpeted hollow. He enjoyed his bath, in which he reveled as does a canary, for he returned to it again and again. Between times he flew to a nearby snow-drift into which he plunged his head, rubbing his bill from side to side, and back and forth in the snow as if polishing it.

I also watched a pair of snowbunting pursued by a gyrfalcon. The hawk stooped for the female but she dodged him and made away among some rocks. She could not entirely evade her pursuer however, and her alarmed cries aroused her mate to desperation and he flew between the hawk and hers so that the big bird chased him instead. A relentless chase it seemed for a while, and finally just as I thought it was all over with the brave little fellow, he plunged into the edge of a snow drift so that the hawk lost

him for the moment. By the time the hawk caught sight of him he had gained time and distance, and by repeating this manoeuvre twice finally escaped. In watching the happening, I wondered if the striking color of the male is not designed to attract attention from his mate with her more protective coloration in order to give her a chance to escape when she is heavy with undeveloped eggs; and if this were not another of the "adaptations of Nature" to protect the mother bird at the time when the reproduction of her kind depends entirely upon her. Whether or not the snow-bunting knew that the snow drift afforded him the best concealment, he certainly chose it as his refuge, whereas his mate took to the brown rocks which she more closely resembled.

June 4, Nunatakenak.

154 Today I saw the same species of birds as I saw yester-
527 day and in addition three old squaws, Harelda
534 hyemalis. These three birds I had previously seen
302 along the ice-foot on June 2. Of these three birds
298 I shot the female, and the male that was her constant
283a and preferred companion. The second male which
234 was clearly a would-be rival apparently, escaped.
42 me. The couple were in a small pool along the
486a.

5 Arbejdey fra den danske arktiske Station paa

in foot sheltered from the wind and snow in the lee of a ridge of ice. I killed the male first and afterward the male who did not fly when his mate failed to do so. The other male was feeding in another pool, and I could not get near him; he had no mate to protect, none to protect him, as he was wary and free to escape.

302. I chanced upon a pair of ptarmigan feeding in a little sedge-carpeted valley and flushed them to the edge of a snowdrift that lay on a kame beside the valley. Both alighted on the brown gravel, where the female already in almost her full breeding-plumage of barred black, brown, buff, and white, attempted concealment among the lichen-covered quartzite boulders. She was quite uneasy and shy and restless, while he paraded boldly before me, clucking angrily. When I approached near the female ran away scudding quietly among the rocks; the male took wing with a great clucking and squawking and flew around me twice very close and then alighted on a prominent rock near by but away from the female, where he apparently made every attempt to engage my attention. The female stopped and crouched between a couple of lichen-dotted boulders where

she closely resembled. I shot her with a small .22 calibre rifle, breaking her wing so she could not fly. Much alarmed, and calling earnestly, she fluttered away down the slope. At the first call her loyal mate came to her aid flying between me and her, and attempting to shield her from me. I stood still for a ~~moment~~ while until she had got down into the valley and seemed fair to escape among the rocks of the other side. When I advanced the male fluttered at my feet, at times charging as if to attack me, and using every means in his power to divert my pursuit to himself. Finally I pursued him and he led me off just as a mother snipe or sandpiper leads one away from her nest. I finally shot him and then killed the female — had I not needed them so badly I should have spared them. I feel like a murderer, killing these birds, even in the interests of science.

June 5.

42. We saw the tracks of a Large hyperboreus about a seal that an Eskimo had ~~shot~~ and left on the ice until his return. Though the seal was not dead, the gull had apparently thought so, and come close up to him.

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June 5.

234 On my way home I stopped at Tinga pond to
248 count the birds about its shores. There were
283a eight Tinga canutus, four Aegialites hiaticula,
275 four Arenaria interpres hiaticula, two Calidris
534 leucorhoa, and a number of Plectrophenax nival
is nivalis. Besides these there was one sand-
piper new to me.

When I flushed the birds (except the snow-
buntings they all rose together and flew away in a
flock each species uttering its own cries. The
Tinga canutus finally separated into pairs and
in beautiful nuptial flight circled again and
again over the peninsula, giving voice to their shrill
plaintive cries.

June 6

534. Several pairs of Plectrophenax nivalis nivalis
stay about headquarters. The males are now singing
the full and perfect rapture song of mating days. Two
are rivals for the post of vantage on the ridge back of
our house, and several times to day they engaged in com-
bat. Several females come about the house for food
and nesting materials.

June 7.

154. I measured the pair of Harelda hyemalis that I shot at Nunataksuak, and had the skins pre-
pared.

Length	1.875	1.310	The testes of the male
" Wing	0.765	0.690	were fully developed.
" " tail	0.820	0.320	The sexual organs of the
" " tarsus	0.142	0.134	male are curiously
" " bill	0.091	0.090	large - the testis are over
Width " "	0.065	0.060	1½ inches long and ½ in
Depth " "	0.051	0.052	in diameter. This penis
Sex.	♂	♀	is over 6 inches long, a-

bout as thick as a slate pencil, all curled up in a pouch near his vent - (when not in use). The ovaries of the female are numerous and over a dozen were developing.

The base of the trachea just at the junction with the bronchial tubes is a peculiar enlargement resembling a mellophone. One side has a membrane stretched along it. This apparatus probably enables the old squaw to give the vibrant call for which he is known everywhere. The Eskimos tell me that the eider has a similar voice-box

5 Arbejdey fra den danske arktiske Station paa

June 7

302. I also measured the Lagopus rupestris rupestris that I killed at Nunatakswah on June 5, and had the skins prepared.

	-1-	-2-	-3-
Length	1.143	1.310	1.210
" of wing	0.618	0.662	0.610
" " tail	0.318	0.400	0.391
" " tarsus	0.142	0.170	0.162
" " bill	0.046	0.051	0.050
Width " "	0.028	0.031	0.029
Depth " "	0.027	0.032	0.029
Sex	♀	♂	♂

The ovaries of the female showed that she was ready for nesting. A full-sized egg, yet without shell, lay in her oviduct, and a number of partly developed eggs were contained within her. Her belly was bare of feathers, and she was in almost full breeding or nesting plumage. The testis of No. 2, her mate, were fully developed as were those of No. 3 both functioning. No 2 was an old bird fully developed his plumage sharply defined, the red over his eyes very bright. No. 3 was probably a last year's bird, not so large, his plumage not so distinct, and the red over his

eyes much paler. Both males were beginning to assume the summer plumage, the older one being farther advanced in the moult. Only on the head and neck however do the barred feathers come in, on either, as yet.

The males were evidently more exclusive in their diet for it was made up entirely of buds, small leaves, small catkins and twigs of Salix herbacea and Salix arctica. The female evidently chose a more varied diet for in addition to these which preponderated, she had eaten young delicate parts of Potentilla nivea, Dryas integrifolia, and Pedicularis hirsuta - a whole crown of the last. The great preponderance of Salix herbacea indicates their fondness for it and shows why they frequent the valleys as swales when it grows most.

June 8.—

154 Dr. Hunt brought in two female Harelda hyemalis that he had killed along the edge of the ice near Saunders Island. He had got near enough to them then by drifting down upon them in a canoe. He also brought in one

239 Pisobia maculata which he had shot on a rock

ledge projecting from the ice foot. He says that

283a many Arenaria interpres morinella are flying along the edge of the plains, feeding right near

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June 8

the tupik sites; their busy bills kep the shingle pebbles rattling. I measured the two female Stercorarius hyemalis:

Length	1.315	1.296	In both these the ova-
" wing	0.696	0.687	ries of the birds were
" " tail	0.322	0.316	developing, and the ov-
" " tarsus	0.134	0.132	ducts showed signs of
" " bill	0.092	0.089	early functioning. I
Width " "	0.062	0.060	had the skins of both
Depth " "	0.052	0.051	prepared.
Sex	♀	♀	

239 I also measured the Pisobia maculata but not until
239 after the skin was prepared, and also the skin of a Tringa canutus that one of the Eskimos killed near the house and brought in.

	Pisobia maculata	Tringa canutus	Lagopus rupkardi Killed June 10
Length	0.770	0.880	1.280
" wing	0.418	0.516	0.720
" " tail	0.212	0.180	0.410
" " tarsus	0.077	0.120	0.108
" " bill	0.097	0.112	0.047
Width " "	0.020	0.018	0.029
Depth " "	0.021	0.025	0.027
Sex	♂	♂	♂

June 8.

534 Many Plectrophenax nivalis nivalis stay about the house. They are now apparently selecting material for
234 their nests. During yesterday and today while the storm has been bad a large flock of Tringa canutus, as many as 28 have been feeding on the gravel plain within a few rods of the house. They have not been at all shy, as if they had already learned that they have nothing to fear here. One of the birds had but one leg - perhaps the other had been shot away somewhere on Cape Cod. Besides these
275
283a birds there were several turnstones and ring plovers.

Kooloo tengwa, who lived last year at Borden Bay and who will live there again this year, says that a gull somewhat like Larus hyperboreus but smaller nests on the great cliffs to the eastward of the bay, toward Aivdlek. From what he tells me of them I am inclined to
43 think it is either Larus kumlieni or Larus argentatus,
45 probably the latter, though the former nests on the
51 Heypresht Islands in Buchanan Bay. The Iceland gull may occur in this region, for Frenchen got the skin of one two years ago but I think it is hardly likely to nest here. Kooloo tengwa also avers that he
284 has seen Tringa canutus swimming about in the open

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sea, with Alle alle but I am inclined to the belief that he has
mistaken for it, Phalacrocorax pelicanoides. He also gave me
13a considerable information about Fratercula arctica naumanni
which he has had opportunity to observe at Akpat along the
Crimson Cliffs beyond Parker Snow Bay. The facts I elicited
from him are: that to the best of his knowledge the bird occurs
in the vicinity of Cape Parker Snow; Crimson Cliffs; Saunders
Island; Hakluyt Isle; Cape Dudley Diggs, and Cape Alexander;
that it is most common on Hakluyt Isle and along the Crim
son Cliffs but not numerous anywhere. It feeds upon the
same things as does Uria lomvia lomvia, with whom it comes
and associates; It burrows in the grass-slopes and moss to
the recesses in the talus buried beneath, when it lays its eggs:
it is not at all shy, and when in the water puffins so near an
approach with a kayak that it could be struck with the pad-
dle were it not so quick to dive; that it is usually in pairs
in the water, sometimes single, but never in flocks so far as
Koolootingwa has seen. The natives sometimes catch
them in nets when they are after murres: The puffin
flies much like a murre.

June 9.

On our way to the head of Grenville Bay today Mene
28 and I saw several pairs of Cygnus mandtii swimming

in the pools near the icebergs, all in full summer plumage;
42. Larus hyperboreus wending its stately way over the ice or
59 along the cliffs; several pairs of Harelda hyemalis in the ice-
534 bay pools; and Plectrophenax nivalis nivalis singing and
feeding wherever we approached the shore all along the way.
302. When we were pitching our tent at the head of the bay a
pair of male ptarmigan were indulging in a rather one-
sided contest a short distance from us, with much croaking
and ogu awking and flapping of wings, but no real struggle.

June 10.

154 A pair of Harelda hyemalis floated in a small open
pool along the ice foot all day; not once did we hear a
534 single note from their throats. Pairs of Plectrophenax
nivalis nivalis were everywhere about. An Arenaria inter-
2839 pres morinella flew along the shore, calling loudly.
536. A striped bird which I felt sure, both from the plumage and the
call note, was the female of Calcarius lapponicus lapponicus
alighted on a small grassy slope beside us but remained
302. for but a moment or two. When on a walk over the
ridges I got a shot at a male ptarmigan. I saw the bird on
a rock ledge, and calling Mene who had the rifle I
led him to the bird. He approached to within fifty feet of the
bird, and though he missed five times — with a .22 rifle —

5 Arbejder fra den danske arktiske Station paa

the bird stayed until he killed it on the sixth shot. At this season the birds are even less shy than usual - they are never very shy. Later on in the evening when we pitched our tent just east of the mouth of Grenville Bay I heard the calls of two male ptarmigan and saw one on the slope above the terrace where we had placed our tent. It is evident that wherever a beach slope occurs the situation is likewise a suitable habitat for ptarmigan - everywhere that I have found such a habitat I have found ptarmigan or abundant traces of their occupancy. Just before we emerged
92 from Grenville Bay we stopped at a cache of seal that we had made on our way up the fjord. As we drove up to it we frightened away a pair of Larus hyperboreus. They had eaten the pieces that we had left on the ice, and besides had uncovered the seal that we had buried deeply in the snow and begun picking at it. Several pairs were flying along
786a the cliffs near the mouth of the bay. A pair of Corvus corax principalis flew along the shore near the mouth of the bay. The point, with its steep cliffs, is an old nesting-site as the Eskimo say; I think this pair is nesting here now.

June 11, 12, 13, 14. Saunders Island.

28. On our way to Saunders Id. we repeatedly saw Cepphus mandtii in pools about the icebergs. Toward the east

June 11, 12, 13, 14. Saunders Id.

end of the island in a sharp recntrant in the cliffs we saw whole bevies flying in and out, and about, just like bees about a hole where they are hived in the trees; but instead of a steady hum there came only the intermittent shrill whistling one learns to know so well on the Northland coasts. At the edge of the open water the sea-pigeons were numerous. Singly, in pairs, in flocks, the swam and dived and played in the water, and leads, usually not at all afraid. When resting idly on the water they float high so that much white shows, but when alarmed or ready for a dive they sink and ride low, only their black backs and heads showing. From this low position they dive easily, like a flash, and with but little commotion. In the cliffs and crannies where they nest they whistle and squeal just like young pigeons on their nests in a cote. Even when injured they dive deep and fast. We wounded two by gunfire, yet both almost escaped by diving quite beneath a heavy, deep ickberg a floe and coming out on the other side from us. They leave a trail of bubbles behind them in the water as they go. The testes and ovaries of the birds we killed show that sexual functioning is just beginning. They are not quite so far advanced however as are the murres.

5 Arbejder fra den danske arktiske Station paa

June 11, 12, 13, 14. Saunders Id.

31. The Uria lomvia lomvia were nearly all out at sea when first we got to the island and it was not until the last day of our stay that they returned to occupy the ledges in great numbers. On the water they act much like the guillemots except that they are more wary, dive deeper and farther, and, I think remain submerged longer. They too ride low and high in the water and dive most readily from the low position. They rise from the water with much more difficulty than do the guillemots, and are reluctant to try to fly when they must rise with the wind. When pursued with the wind they trust to diving to escape, but when chased against the wind they rise readily and much more easily. The birds that have been diving a great deal, apparently have more difficulty in attaining flight than those that rise directly from a high position in the water. Under the best conditions they rise with considerable difficulty skimming the water for quite a distance, their black feet paddling or running or propelling for all they are worth. The murres like to feed along the leads and the edge of the ice as do the guillemots, but they more generally than the latter, are found out in the open sea, far from land or ice.

June 11, 12, 13, 14. Saunders Island.

At the cliffs where they nest they assemble in great crowds tier upon tier, crowded as close together that it must be a tax upon their good nature to allow yet one more to alight in accordance with the saying "Always room for one more". As it is, there seems to be but little argument over the crowding, though frequently some particularly aggressive bird coming in from the sea pushes some more humble one off the ledge. Occasionally too, a pair get into a real bill to bill fight and then they tumble off the cliff hanging on to each other for dear life, down either upon the ice foot or into the sea. In the latter case the fight usually continues fiercely for some time, when suddenly as if by agreement, it seems, they mutually abandon the contest and swim apart preening themselves and smoothing their ruffled feelings and feathers.

At this time the birds have not begun nesting but the testes of the males, and the ovaries and oviducts of the females indicate that mating has perhaps begun and laying is about to begin.

The murres occupy the ledges at the west end of the island, usually above the kittiwakes, though in small numbers among them, and beneath the fulmars and glaucous gulls who are the upper stratum of the society.

5 Arbejdey fra den danske arktiske Station paa

June 11, 12, 13, 14. Saunders Id.

34. Only a few, a very few Alle alle were about Saunders Island, and these were all in the small leads near shore. A few flocks flew over us.

38. A Stercorarius longicaudis came into the tupiks to feed upon the refuse. It was not at all shy, and though chased with stones by the Eskimo girls, seemed quite indifferent,- knowing perhaps the accuracy of the feminine aim. It stacked impertinently about the tupiks, uttering a coarse guttural squawk. I finally shot it. It was the light phase. I measured it

Length	1.773
" of wing	1.004
" " tail	1.032
" " tarsus	0.123
" " bill	0.093
Width of bill	0.038
Depth " "	0.033.
Sex.	♂

39. A pair of Pagophila alba, probably in migration appeared as soon as we had dragged a walrus carcass out upon the ice, and were very tame, walking about within a few feet of us as we cut up the meat. As a rule they are not at all frequent on this part of the coast so late in the season.

June 11, 12, 13, 14. Saunders Id.

40. The Rissa tridactylus tridactylus seemed more numerous than ever about the ledges where they nest. Thousands of them occupy the lower ledges of the west end of the island come within eight feet of high water mark, the highest not two hundred feet above. They are noisy birds, and more restless than the murres. They are constantly flying in and out and pushing each other off the narrow ledges or raising some commotion, constantly uttering their well known call. In addition to this kittie-wake' which sounds to me where they are gathered in numbers on the cliffs just like the "get the Look" which vaudeville audiences sometimes indulge in on amateur nights. Besides these loads the graceful birds have two other common ledge calls, one a rich not unmusical gurgle, and the other a hoarse harsh squawk. The birds are not at all shy when perched on the cliffs but when in the water where they float in rather large flocks they do not suffer a near approach in boat, canoe, or kayak. Their flight is graceful indeed, and when they fly out from the cliffs at the sound of gun-shot they go like a well drilled regiment, except for the awful noise they make. As yet they are not nesting, though the ovaries and testes indicate imminent mating. The birds are fat as butter balls.

5 Arbejdey fra den danske arktiske Station paa

June 11, 12, 13, 14, Saunders Id.

92. — Both on the ice now, and in the water the burgomaster gulls are common, but nowhere numerous as are the murres, kittiwakes, fulmars, or guillemots. Though they are about all the time it is only singly, in pairs or a small group. Whether on the ice, in the water, or in the air, these gulls are dignified and graceful birds, perhaps ~~the~~ on the whole one of the most pleasing birds in the arctic, except in its indiscriminate food habits. On Saunders Island these gulls nest high, the very upper Ten of the Higher Four Hundred. Along the crest they cruise back and forth majestically as if they realized their eminent position. I do not know if they are nesting here yet or not, but it should soon be time for them to do so.

86. — The Fulmarus glacialis glacialis is not much in evidence at the present, for it has begun nesting and apparently then becomes less obtrusively in evidence. Yet even so when we were out walrus hunting and had made a kill, the birds — both light and dark phases — flew close about us much interested in the fruits of our hunting. They were quite numerous about the higher crevices and and hollows in the cliffs. I climbed up on the plateau ~~from~~ on which I could look out from some

June 11, 12, 13, 14 Saunders Id.

of the projecting spurs almost directly into nests on the other side of the recentrants. They were not densely congregated anywhere but they nevertheless were fairly well grouped. Though not alarmed at my near approach they sailed about me in some apprehension, or perhaps with curiosity.

On one of our trips out in the canoe I saw one floating about on the water feeding, when all at once when some particularly choice morsel apparently, it dived quite some distance under the water. The dive was not accomplished with such cleanness and celerity as characterizes the murres, eides, but was accomplished with much splashing and commotion, and the time of submergence was but a dip instead of a dive.

159. Hundreds of Harelda hyemalis were swimming along the edge of the ice or idly resting on the edge. The mating season is on full blast, and the fighting among the males for their mates, and the noise they make is continuous. They are rather wary about permitting any one's approach, contrary to their general tameness about the pools later when most of the pairing is done as the eggs are being laid.

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June 11, 12, 13 & 14. Saunders Id.

157 The Sonatina mollissima were not particularly common about Saunders Island, and were very wary. They flew about in flocks of several to many, males and females apparently indiscriminately mixed but in the water they swam about in pairs as if they were mated. Dr. Hunt who was on Eider Island a few days ago says they had not then begun laying though there were many about the island.

234. A few Tringa canutus flew about the low plain on which the tupiks stand and sometimes alighted on the rock ledges along the icefoot.

V. 239. We shot a Pisobia maculata on a rock ledge along the icefoot, and I saw several small flocks of from three to ten along the shore. The measurements of the bird are as follows:

	Pisobia maculata	— Arenaria interpres morinella	
		1	2
			both wings
Length	0.698	0.787	0.781
" Wing	0.420	0.535	0.510
" " tail	0.234	0.252	0.241
" " tarsus	0.081	0.082	0.082
" " bill	0.092	0.073	0.076
Width " "	0.021	0.019	0.021
Depth "	0.019	0.024	0.022
Sex	♂	♀	♀

June 11, 12, 13 and 14. Saunders Id.

298. Several times we saw Calidris leucophea flying about but only a few. They hardly ever stopped.

283a. Many flocks of Arenaria interpres morinella frequented the shore. The fed about projecting ledges at low tide and often they seemed only to be resting on the snow-drifts of the ice-foot or on the ledges, as if they had just come a long distance. They were not at all timid and let us come very near them in the canoe. We shot two, of which the measurements appear on the preceding page with those of Pisobia maculata. These birds were often together.

486a. A pair of Corvus corax principalis nest on the most westerly point of the island far up on the cliff. They are very unobtrusive and their presence would not be noticed except by one looking for them. It is interesting how well the raven effaces himself from the view during nesting and brooding time.

534. Many Plectrophenax nivalis nivalis frequent the island and on the grass-covered slopes just below the bird cliffs I think there is no projecting ledge without its songster. About the tents several pairs were quite tame, and fed familiarly at all times, quite unalarmed when we came within a few feet of them.

5 Arbejdey fra den danske arktiske Station paa

11. June 15

I heard a noisy quacking overhead today, and soon after saw a pair of Harca stellata (arctica?) flying over the point. It was the first time I have seen or heard the loons this year.

239. A considerable flock of Tringa canutus continues to
frid about the little pond near the old tupik site. They
are not at all shy and from their conduct I think they
are all mated and that they will soon be nesting.

539 Many Plectrophenax nivalis are about, and today Capt.
Comer found a nest in a crevice, with four eggs in it.
He says it is a well concealed nest.

11 June 17 –

On a walk across the peninsula today with Mr.
Lauge Koch the Danish geologist we saw a pair of loons
circling about the open pool in the ice off the
28 point. They alighted in the pool when risen, old
31
92 squaws, guillemots, glaucous gulls, phalaropes, and
154
159 murres were also occupants. This pool teems with
222.
bird life for it is from where the tide stirs up the bottom
in shallow water, and furnishes much food for the
539 birds. Everywhere we see the Plectrophenax nivalis
nivalis, and always the male is singing now.

June 22

This afternoon Dr. Hunt went for a walk out over
the peninsula to try to get some specimens of Harelda
hyemalis. When he came back he had killed one male,
154 that he had flushed from a pool in the ice-foot and
killed on the wing. He also reported many arctic
71 tern and saw the first male king eider iden-
162 tified this season. Among other birds he saw were
234
275 the ring-necked plover, the knot, the snow-bunting
534
42 and the glaucous gull. I was unable to go out on
account of influenza.

June 23.

239 Early this morning Dr. Hunt went up on Unwin's
Ridge where I had told him that he might look for
the nest of Tringa canutus with the greatest pros-
pect of success, the place where I found two
broods of newly-hatched chicks two years ago.
It was not long until he came back elated
having found a nest with three eggs in it, on
the very identical place where two years ago
I found the young. He had flushed one bird
and was scraping the nest when he almost
stumbled over another. The bird thus frightened

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acted in the characteristic nesting manner of the snipe and sandpiper family, trying hard to lure him away from the nest, dragging her wings and fluttering a long. A great fuss. As soon as he had made sure of the nest, he marked the place, so that I could go with him to photograph the nest as soon as I got well.

62 A pair of Sterna sabinii and several Sterna paradisea
71 hovered about the open pools in the icefoot near
42 the house today. Every day the glaucous gull is a-
534 bout, and the snowbunting sings blithely. The
275 Aegialitis hiaticula calls constantly about the plain
239 here, and almost all the time we can hear the Tringa canutus calling as they fly about. At the pond where they feed they have four calls - wah-quoit" wee-a-whit' coo-yu' coo-yu' and a sharp cluck or shrill squawk often repeated 'whit-whit, whit, whit"

40 Dr. Hunt states that there are many Rissa tri-
dactylus tridactylus about the open pools off the shore from the igloos. Bird life is now becoming abun-
dant along the inner shores of the fjords where two weeks ago there was but little.

June 23.

9 Dr. Hunt, who took a long walk over the hills and
about the ponds and lakes, saw in one of the four
ponds of the Quartet, a pair of black-throated
37 loons. He also saw some Stercorarius (either parasiticus
or longicaudis, on the slope where Jaquay and I
found them after their nesting two years ago. Other
159 birds he saw were Harelda hyemalis in some of the
162 ponds; Somateria spectabilis, both males and females,
most of them in pools, but one pair of them in a grass-
y swale such as I found them nesting in two years
ago, now apparently sucking a nesting site.

234. Capt. Comer, Dr. Hunt, and I, all went up to the
nest of Tringa canutus which I found yesterday, to
collect the eggs, and the old bird. We came up to the
nest very close before stopping, and I got within four
feet of the bird to photograph her before she moved
from the nest. When she left she attempted the fam-
iliar device of drawing me off, by feigning in-
jury leading me away from the nest. We
left the vicinity of the nest for a while to look for
some more nests. When I came back I got the
camera within a foot of the bird without her

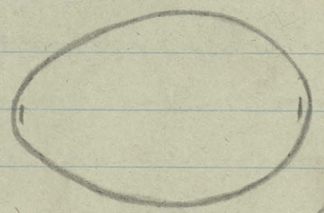
5 Arbejdey fra den danske arktiske Station paa

June 23.

morning. Though she was frightened almost to death, panting and her heart beating visibly she stuck to her precious eggs. She crouched flat over them facing into the wind her feathers all ruffled out over them. When she left the nest again I collected her.

The nest was a shallow depression in a patch of Dryas with one clump of cholated Elyna which looked as if it had been lying partly under a stone before the bird made the nest. It was a nest similar to those made by the most of the snipe and sandpiper family. The eggs, three in number were rather large, dark green with brown, umber, and almost black dots and blotches of various shapes and sizes and faint sub-crustal lavender blotches beneath the outer surface much like the eggs of Aegialites hiaticula. I photographed the mother, the nests, and the surroundings. When I came home I measured and blew the eggs. The measurements are as follows:

234 1/1-3	1.44	x.097
" 1/2-3	1.42	x.098
" 1/3-3	1.40	x.098
Average	1.42	x.0976



Rough but fairly accurate profile of egg drawn from egg.

but length somewhat exaggerated as indicated. The eggs had been incubated from 2 to 5 days. The white was stiff and thick, the yolk pale.

June 23.

The measurements of the bird upon the nest were as follows:

Length	.780
" Wing	.565
" Tail	.250
" " Tarsus	.115
" " bill	.105
Width "	.027
Depth "	.026

The bird shot on the nest shows no noticeable breeding spots and is quite free from parasites. This latter feature is rather remarkable in view of their usual supply of vermin. The plumage is generally paler all over than that of a male I got from an Eskimo about ten days ago.

Sex ♀. No more eggs were at all developed and the oviduct was fast reducing. Apparently it is the female that incubates the eggs.

On the hills and ridges where we were we saw many more pairs of knots, as if they were making ready to nest upon them. All told, I think I saw a total of thirty pairs. I think however that the nesting season is not yet quite fairly begun, but that in two or three more days all the birds will have begun nesting. We shall wait some days before searching again.

1009 Other birds that Dr. Hunt saw were some Arenaria interpres morinella flying about among the knots, and several Aegialites hiaticula.

5 Arbejder fra den danske arktiske Station paa

June 29. Measurements of Old Squaw killed by Dr. Hunt on June 22 in pool about 1 foot above sea-level

154	Length	1.950
	" wing	0.800
	" " tail	0.880
	" " tarsus	0.138
	" " bill	0.092
	Width " "	0.058
	Depth " "	0.053
	Sex	♂

We went for a walk over to the islet just beyond the tupik point to look for some old-squaws. We saw several turgonastin gulls flying about the open pool beyond the islet, dignified as ever. Many old
154 squaws were honking and splashing about the ponds on the land and in the pools of the ice foot along shore. They have apparently chosen their mates, for they were invariably in pairs. They were too shy to get within gun range of. I time the dives of one bird that was feeding. Three dives were respectively 30, 33, and 35 seconds. In a small pond near the old tupik
333 site, we found a lone Lobipes lobatus swimming. When they swim they constantly move the head back and

June 29

forward as if they were walking, and when seen thus they are not difficult of identification at a distance even though small. This fellow was not at all shy, and when I flushed him from the water by throwing a stone near him, seemed more indignant than alarmed. He uttered a sharp tchk, tchk, several times as he flew away. After a small circle of flight, he alighted in another small pool not far away.

234. Two or more flocks of from 8 to 12 knots were feeding about the Tupik pond, and a similar pond on the islet. They probe industriously about the shore, or wading into the water breast deep pick out the small abundant life forms the seem to in these ponds. The water in these ponds is almost turbid with the abundance of life, minute, planktonic, and macroscopic. When flushed from their feeding grounds the knots give a series of sharp repeated "whit, whit, whit" and then as they circle one or two wee a whit's followed by a shrill flute like coo-a-hee long-drawn-out, and often several times repeated. This whistle-like call is often given in flight, and may now be heard everywhere in the hills. I think it is their regular signal or recognition call.

239. Among the knots was a Pisobia maculata, which seemed part of the flock, flying with them, feeding with them.

5 Arbejder fra den danske arktiske Station paa

June 24

But when the boats wheeled away to the hills the sandpiper came back to the company of the turnstones that were at the pond.

275. On our way across the peninsula and back again we came close upon several pairs of Aegialitis hiaticula. These birds are now evidently selecting their nesting sites and mating.

283a. Several Arenaria interpres morinella were feeding about the shores of the pond on the islet and the Tringa pond. They are not shy

486a. I saw a raven flying across far up the fjord.

534. On our way across the peninsula we stopped to look at the snow-bunting's nest that the captain found about ten days ago. The female flew just before we got to it. The nest was in a shelf in a vertical crevice, and had six eggs.

On the island we found another nest in a horizontal crevice in the face of the ledge that forms the inner side of the island. I could not see the nest, but thought I could feel five eggs. I left the eggs for I had nothing in which to take them. The female was exceedingly anxious about her nest and flew close to me when I was examining the eggs.

June 24.

71. I neglected to state that more than a score of pairs of Sterna paradisaea were flying about the point and the islet. These graceful little birds were not at all shy, and stooped almost to our heads at times. Graceful though they are, they lose their utter charm when they give voice to their harsh, grating, querulous calls. Many were flying about feeding in the pools along the icefoot. Flying along gracefully over the water, they detect something to tempt their palate in the water, and checking their flight and diving downward simultaneously, for all the world like a fast falling dart, they strike the water with a splash and a scramble usually rising at once. Many were lying about on the ice, or perched on the crags of the icefoot. Some pairs were lying about on the island as if trying it out as a possible nesting-site. The Eskimo say that some years the terns do nest on the islet, sometimes in considerable numbers. It is just such a locality as they like to frequent. We looked carefully for some Sabine gulls among the terns, expecting that some might be seen, but we saw none. Some time this summer I expect to get this bird.

5 Arbejder fra den danske arktiske Station paa

June 25. —

38. In a walk over the hills today Dr. Hunt and I saw a longtailed jaeger directing his course toward the place where I believe they nest.

12. Again we saw the gulls but only out over the ice.

154. We saw Harelda hyemalis both when we went to the islet to get the snow-bunting's nest, and when we went up on the hills. All were in pairs playing about in the pools along the ice-foot.

223. Again we saw a lone Lobipes lobatus in the Iniga pond, probably the same we saw yesterday. And a-

234. gain we saw flocks of Iringa Canutus about the ponds, and on the hills we heard them calling.

275 Aegialitis hiaticula is everywhere common about

283a the peninsula and Arenaria interpres morinella frequents the shores of the Iniga pond and the pond on the islet.

302. Our especial quest today was for the eggs of Lagopus Rhachadis but we were unsuccessful. Along the banks of Fall Creek, on a diabase ledge, we came to many traces of them. Fresh spoor, and round hollows where they had been dusting themselves in a golden brown, dry, soft, hydrated limonite bed. Nearby we descried a male perched on a pile of stones, a

June 25

veritable "Buff Cochin" ptarmigan. His feathers were all deeply stained with ochre, and so well had he colored himself, that the buff suited the natural color of the plumage. The red over his eyes had paled considerably, and the barred feathers quite covered his head, and were coming out all over his body underneath his buff coat. I measured him as follows

Length. 1.300
" of wing 0.720
" " tail 0.370
" " tarsus 0.124
" " bill 0.039
Width " " 0.036
Depth " " 0.029.
Sex ♂

486a. Twice during the day I saw Cowes coax principalis

534. I collected the female and her nest with seven eggs from the islet today. In blowing the eggs some of which were several days incubated I broke two. We took a look at the other nest, and found that since last night five eggs had hatched the egg was not yet hatched.

765. We heard one Saxicola ornanthe leucorhoa in the hills

5 Arbejder fra den danske arktiske Station paa Disko:- List of Vascular Plants from the South

June 27.

38 38 A Stercorarius longicaudis, light phase, has been about the house today. He (or she) is not at all shy, and helps himself to any meat, fat, or scraps, he can find.

234 About the peninsula, mostly near the house I saw
275 today many ringnecked plover, some knots, and
2839 several groups of turnstones. Three turnstones every day come to the rubbish pile near the house to feed. They have become very tame.

834. I have for several days been watching a pair of snow-buntings near the house. Today I saw the male fly to a crevice in a not distant rock ledge, stay in it a while, and then fly back to our rubbish pile. I investigated at once, and found the female on her nest. I could not count the eggs, because it was hidden too far within the crack. I watched for an hour and in that time the male three times brought food to her.

June 28.

234. Hal and I went up on the ridge to look for some more knots' nests. We saw many knots and searched many places carefully - using a long rope - but it was not until just as I was turning home-

that Dr. Hunt ran across a nest. He flushed the female, and found the nest of four eggs, eggs quite similar to those that he found in the other nest. The old bird was not at all shy and stayed quite near for some time, evidently anxious, but trying to appear unconcerned. We left the nest alone so that we might photograph the bird and eggs later. The female, when we drove her off the nest later, gave voice to a soft, but sharp and pleading call, a gentle protest indeed with more plaint than protest, as she tried to entice us away. Hal put his tent up near the nest so that he might watch whether or not the female relieved the female at incubation.

834. I found a snow-buntings nest snugly placed under a flat rock; it contained six eggs.

June 30. -

234. Hal and I accompanied by Rasmussen went up on the hill to collect the knot's nest and the mother bird too. This bird, like the one on the nest we collected, was very tame and let me get within a foot with the camera. She did not leave the nest even while protesting against Dr. Hunt's pushing her off the nest with his rifle. We collected the four eggs and the nest.

5 Arbejder fra den danske arktiske Station paa

Measurements of eggs in clutch #2.

1. — .151 X .101 - Split. pea-green - Three kinds of spots. Sm. larger end. Black blotches
2. — .153 X .101 Dark pea-green. Spots like those of 1 only bigger and denser, so that larger end is almost continuous brown ex-
3. — .151 X .101 Very light pea-green, almost gray. All blotches and spots paler. Done as in 1.
4. — .149 X .100 Quite similar to #2.

In all these eggs the brown superficial spots lap over the sub-superficial lavender spots, and the black end blotches overlap all. The brown spots vary from light to dark brown. The lavender spots are not a true lavender, but a gray or ashy lavender. When the eggs were blown on July 1st they were rather far incubated.

Measurements of bird, collected on the eggs. She was remarkably free from parasites.

Length	0.851
" of wing	0.560
" " tail	0.352
" " tarsus	0.109
" " bill	0.089
Width " "	0.020
Depth " "	0.021
Sex	♀

June 30.

202. — Rasmussen, when coming back from the knoll west today saw a mother Lagopus rupestris with a brood of three young, hatched only today or yesterday. He collected one of the chicks. Hal has looked everywhere for the nest but failed to find it, and I too in the few times I have been out have searched for it.

534. When we came to the Plectrophenax nest that I found on June 28th. we found it submerged under five inches of water, that had come from a snow-drift about 25 yds away, and from the heavy damp snow that fell last night. Five of the eggs were floating one still lay in the nest. It is rather remarkable that the bird should not have felt the possibility of this accident. The snow-drift, of course, alone would not have yielded enough water.

June 30.

302. Rasmussen on his way down from the knots nest on the ridge, found a female ptarmigan with a brood of eleven just newly-hatched young. He collected one of the little chicks.

534. Dr Hunt on this day also found a nest of Plectrophenax nivalis nivalis in a crevice in a ledge over and across Museum ridge. He also traveled on down the
9 Boreal Plains and on his way saw a pair of
154, blackthroated loons, many old squaws, and in
162, one of the ponds in Petowik saw many king eiders,

July 2.

11. Dr. Hunt found a nest of Gavia pacifica today with one egg in it. It was in a small pond near the Torrent, - Volvox Pond, by the way. He left the nest so that we might photograph it, and collect the full clutch later.

162. He also reported seeing many pairs of king eider over on Petowik. The Eskimo say that a nest with six eggs was found today on the point here not far from the site of the igloos. I have seen the birds flying about a great deal over the peninsula so I think it quite likely that it was the king eider as they say.

July 2.

37. Dr. Hunt killed a Stercorarius parasiticus on the plain near Petowik - the dark phase. He brought it home so that I measured it, and had the skin prepared.

Length	1.620	The light and dark phases of this
" Wing	1.100	species are about equally com-
" " tail	.736	mon as I observed last year, and as
" " bill	1.38	the Eskimo declare. Whether or not
" " bill	.095	there is any sex difference in the
Width " "	.092	colors, I do not know, but I doubt
Depth " "	.036	that it makes any difference, but either
Sex	♂	sex may be light or dark.

June 30

234 In addition to the knot that we collected we saw many others, some in pairs, and some in groups: some of these behaved as if they had nests near. We searched everywhere but to no avail. Not another nest did we find. The birds act very differently. Sometimes a pair of birds suffer one's near approach without rising; at other times they fly when one is far away; at times even they feign injury or distress when there is no doubt that no nest is near, in this respect resembling the Aegialitis hiaticula that does the same thing. The call of the Tringa comes from every hill crest now.

July 3.

159. I measured eighteen eiders that Eginura killed on Duck Island off Saunders Island, between June 20 and June 25.

Length	1.870	1.890	1.954	1.932	1.835	2.063
" of wing	.943	.932	.960	.952	.942	1.230
" " tail	.400	.410	.425	.395	.395	.467
" " tarsus	.153	.156	.167	.170	.150	.172
" " bill	.149	.156	.161	.150	.142	.184
Width " "	.077	.072	.072	.072	.069	.085
Depth " "	.072	.070	.072	.071	.067	.092
Sex	♀	♀	♀	♀	♀	♂

Length	1.900	1.940	1.856	1.960	2.044	1.980
" of wing	.960	.964	.927	.950	.990	.972
" " tail	.396	.440	.421	.425	.390	.425
" " tarsus	.155	.153	.156	.163	.153	.157
" " bill	.171	.159	.153	.175	.162	.161
Width " "	.079	.070	.073	.083	.080	.083
Depth " "	.082	.075	.075	.085	.081	
Sex.	♀	♀	♀	♂	♂	

Length	1.880	1.930	1.930	1.950	2.022	1.925
" of wing	.925	.920	.950	.960	1.000	.924
" " tail	.415	.413	.400	.440	.456	.420
" " tarsus	.158	.153	.161	.151	.157	.146
" " bill	.147	.154	.155	.152	.160	.171
Width " "	.070	.075	.069	.073	.081	.077
Depth " "	.071	.073	.071	.069	.080	.082
Sex	♀	♀	♀	♀	♂	♂

Most of the females were ready to lay or laying, the oviduct and ovaries functioning. The testes of the males were still large indicating that they were still breeding. The food of all the birds was largely shellfish.

The Eskimo have collected many eggs on the Eider islands and on Dalrymple Rock. They say it is the height of the laying season now. If all the eggs in the nest below are taken, the duck keeps on laying, and will continue doing so if the eggs are several times removed, until it has laid a dozen or fifteen eggs, when it gives up hope of attaining a full clutch, for the season grows too far advanced. A number of eiders have begun coming in to the pool off the point at the Tupiks.

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July 3.

37. On a walk over to the tupik point today I saw a pair of Sterna paradisiaea, one the light phase, and one the dark phase. They were flying along the open reaches along the icefoot, occasionally pursuing a tern.

42. Every day we see the Larus hyperboreus about the house; Hal has shot three within the last few days. They are quiet, and like the ravens attend well to their own affairs. They usually fly singly about the peninsula here; rarely do we see two or more together.

7. I came quite close to a pair of loons in a pond not far from the igloos. By their larger size, I was convinced even when at a distance that they were Gavia immer and so crawled up behind a rock ledge to within a few yards of them, to identify them. They were, as I thought, Gavia immer. I watched them feeding for a while, and then rose. They flew at once, and apparently rose from the water more easily than can G. arctica or G. stellata. After circling once or twice about the pond they flew on out over the fjord toward the northwest.

July 3.

71.- Sterna paradisaea is very numerous now about the islet off tupik point and from their behaviour I judge that many will nest there after a while. They are not at all shy. They have the habit of taking long high flights as if trying for altitude records. They make these ascents in considerable flocks, all shrilly chirping like a brood of lost chickens. When they have got so high that they are scarcely noticable they stoop downward at a very slip angle and almost strike the water before checking their descent. They often abruptly stop when coursing attentively over the shallow water, hover a few moments perhaps, then stoop to the surface of the water like a flash. Usually, however, they stop and stoop simultaneously.

154. Many pairs of Harelda hyemalis frequent the pools in the icefoot and between the islet and the mainland. They are undoubtedly nesting not far away, but we are unable to find the nests.

162. On a walk over to Petowik, Dr. Hunt and I saw many pairs of Somateria spectabilis in the pools there, and he shot a male. They are not very shy when only a single pair is in a pond, but when a flock is together, they do not permit a near approach. The mate of the bird that Hal shot was quite near, but we did not see her until she flew.

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July 3 * see July 5.

275. Whenever one walks about the peninsula he hears the piping of the Arginitis hiaticula. They frequent most the gravel flats about shallow pools or seepage swales.

283a. Several Arenaria interpres morinella have for the last three weeks been feeding at the rubbish pile and refuse between the house and the shore. They have become quite tame, and almost seem to resent any one's approaching so near that they feel compelled to fly.

534. I took a look at the Plectrophenax nivalis nivalis nest that Capt. Comer found, and in which the young were hatching a few days ago. The fledglings are almost ready to fly and I think would leave the nest upon sufficient alarm. I found another nest with five young.

July 5 —

11. Hal and I went across to Petowik to collect the eggs of the loon of which he found the nest; there was but one egg in the nest so we left it, - two eggs make the clutch.

154. Hal shot a pair of old squaws of which the female contained a full-sized eggs without any shell. Everywhere about Petowik we saw many old squaws in the ponds and pools. Many flocks and pairs of Somateria spectabilis also were in these pools.

536. I saw one male Calcarius lapponicus lapponicus, but he was a shy bird and would not permit my approach within range of my small shot-gun rifle.

11. I also saw a pair of Gavia stellata flying over Petowik, noisily quacking.

223 - This entry should have been under July 3. Three pairs of Lobipes lobatus were swimming about in one of the small pools just above Tuniga pond. It begins to appear as if they would nest there.

July 6. —

154 Many old squaws feed about the islet off Tupik point. We see them every time we go over, swimming about in the water or flying about, always noisy and suspicious.

159. Many Somateria mollissima have come in to the pool off the islet and large flocks of them fly about or rest along the edge of the ice.

223. Several pairs of Lobipes lobatus frequent the small pools on Tupik point, feeding along the edge of the water where the Plenopogon, Canx, and Atherurus are growing. They apparently feed upon the abundant

small deer with which the water of these pools is filled - They are not shy and may be easily approached.

234. A large flock of Tringa canutus probably mals and sterile females - between 30 and 40 all told - frequent the area about Tringa pond and the pond on the small islet. They feed then all the time and when flushed from one pond, fly to the other. They feed too on the exposed rock ledges along the ice-foot at low tide.

241. I saw three Pisobia bairdii at Tringa pond and succeeded in killing one pair - a male and a female - that were feeding on the grassy edge of the pool.

2530. A number of Anseria interpres morinella fed about the same pools that the knots frequent, flush with them, and fly often with them.

1864. Almost every day we see one or two ravens along the fjord.

534 The first young snow-bunting that I have seen came about the house today. The males and females are everywhere busy now, so I think all, or nearly all, the nests, have young. The eggs in the nest near the house, that I found on June 27th, have not yet hatched.

536. A pair of lapland longspurs were flying

about the ridges and ledges back of the igloos at the point. I tried to get them but failed to do so.

162. I measured two king eiders that Dr. Hunt killed.

Length	1.900	1.833
" of wing	0.950	0.920
" " tail	0.415	0.416
" " tarsus	0.192	0.146
" " bill*	0.098*	0.098
Width " "	0.080	0.075
Depth " "	0.061	0.051
Sex	♂	♀

* Measured from end of highly-colored fat lump.

" Dr. Hunt today also collected the Gavia stellata that nested in Volvox pond. He had observed that she rose against the wind, and taking advantage of this fact he collected her. There was still but one egg in the nest. Her measurements are as follows.

Length	2.000
" of wing	.920
" " tail	.350
" " tarsus	.221
" " bill	.151
Width of "	.032
Depth " "	.040

Sex ♀

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241. I also measured the two Pisobia bairdii that I killed near the igloos.

Length	0.586	0.580
" of wing	0.410	0.400
" " tail	0.183	0.190
" " tarsus	0.071	0.075
" " bill	0.071	0.069
Width " "	0.014	0.014
Depth " "	0.015	0.013
Sex.	♀	♂

July 7, 1916.

In a long walk over the University Ridge to-day to Moraine Lake, Salmon Lake, and return Dr. Hunt and I were somewhat disappointed in the little we saw.

11 11. We saw several Gavia stellata flying about quacking and swimming in the pools we passed. We got near none of them.

37 } 38 } Perhaps altogether a half dozen Stercorarius parasiticus and longicaudus flew over us at various times. The S. parasiticus were all the dark phase, while longicaudus was always the light. We saw no evidence of their having nested.

July 7, 1916.

42. The same old course across the hills to the head of the fjord as I noted two years ago is followed by some of the Larus hyperboreus that nest down along the sound. Today I saw several flying across the plains.

71. A pair of Sterna paradisaea were hovering about Salmon Lake apparently feeding upon the small salmon trout there.

159. The Harelda hyemalis frequent all the ponds, but not in such numbers, I think, as two years ago. This may be because the ponds are not so nearly open as they were then at this time.

162. In and about several pools and ponds we saw many pairs of king-eiders; the fact that they are now almost always in pairs indicates that the nesting time is near at hand, or most likely well under way. In a short time we shall see no more males inland.

123. The Lobipes lobatus are more generally distributed this year; we saw them in three widely separated ponds today; but most of them were feeding about the pools when two years ago they kept exclusively. They are mating now, and will soon be nesting.

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234. We saw and heard but few Tringa canutus; this is the period of incubation and they are rather quiet.

283a. Near the Salmon Lake we saw a pair of Anemania interpres morinella, and later, near the house we saw three more.

286a. I saw one Corvus Corax principalis.

534. Everywhere we saw Plectrophenax nivalis nivalis. The female is now as commonly seen as the male so the young must all be hatched and demanding food. I found two nests, each with five young.

536. We saw one Calcarius lapponicus lapponicus ♂.

July. 8, —

71. Eginwa and I landed on the islet near the tupiks today, and found ~~the~~ a single nest of Sterna paradisaea that contained one egg. The birds were apparently not at all aggressive in defense of the nest, for the sitting bird left as soon as we landed, and then went off, feeding as unconcerned as possible, doubtless trusting to the concealing color of the egg to protect it. The nest was a bare hollow in the rocks, not

made by the bird, but by some natural process long ago.

154. We also flushed an Harelda hyemalis from a newly-made nest, but there were no eggs in it.

159. We flushed a female Somateria mollissima from her nest beside a large rock on the islet. She let us come very near before flying. There were two eggs in the nest.

July 9. - Bowdoin plains.

11. We saw three pairs of red-throated loons. They swim so low in the water that they are difficult of discernment at a distance; when rising from the water, they usually rise into the wind; whenever they must rise with the wind, they find it a difficult matter.

38. A pair of Stercorarius parasiticus, light phase, were annoying a pair of king eiders that were far out on the grand plain from any water, apparently selecting a nesting site. The male king eider aggressively defended his mate, but the jaegers were too active to be much concerned over his attacks, for whenever he ran after them they lightly rose in the air and passed over him. The jaegers apparently expected the eider duck to lay; but I could find no trace or evidence of a nest.

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July 9,

154. One or more pairs of Harelda hyemalis occupied nearly every pond. Sometimes both male and female were in the water, but more frequently only the male was swimming, while the female was resting on the grassy bank, apparently heavy with eggs. Upon one's near approach she too slid into the water. They are not particularly shy. They are still quite noisy.

162. We saw several pairs of Somateria mollissima. Usually only one pair was in a pond. At one place we saw a pair much bothered by a pair of Stercorarius parasiticus. (See above)

169a. On our way home from the Bowdoin Plains we heard the honk of the Chen hyperboreus nivalis but did not see them.

231. Looking for the nest of the old squaw, I came upon a single bird of Pisobia maculata feeding in the grass along the margin of a pond. It was too shy for collection.

283a. We saw several Arenaria interpres morinella.

534. Snow-buntings were feeding and collecting insects everywhere especially about the margins of ponds. The young are now coming out. The young from the nest the captain found have been out several days. The eggs of the nest near the house have hatched.

July 10.

71 71. We found two more nests of Sterna paradisea on the islet not far from the tupiks. The nests were slight depressions in the gravel where a few plants of Glyceria were growing. We collected and photographed the nests. Many terns are flying about the island.

90. Many Rissa tridactyla tridactyla are now feeding in the open water off the point. They fly about feeding at times on the water, sometimes resting on the icebergs or the edge of the ice, they frequently give voice to their kittiwake

137 call. Their worst enemy is Stercorarius parasiticus who chases them persistently until they disgorge their food that he may eat it.

159. The Somateria mollissima nest on the islet now has three eggs. The female is quite reluctant to flush from the nest.

234 A large flock - over 30 - of knots fed about the small pond on the islet and on the rock ledges exposed at low tide. They are fast becoming lighter in plumage, especially on

283a. the under parts. Usually several Arenaria interpres morinella fly about with them. I have looked carefully for two species, but I believe all that I have seen belong to Arenaria interpres morinella.

5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the South

July 11.

11. Hal and I found a nest of Gavia stellata on a small pond beyond the Salmon Lake today. The female stayed on the nest until we were quite near, her long neck low outstretched toward the pond. When we came very near she slid into the water, dived above, and rose on the other side of the pond. She did not fly, though I walked quite around the pond. We saw at other times this day other Loons, either resting on the ponds or flying from one pond to another.

37 and 38. We saw a number of Stercorarius parasiticus and Longicaudis flying about, but none near.

42 We saw one Larus hyperboreus flying across the land, but none frequenting the ponds or streams as we found them two years ago.

71. Several arctic terns were flying about Salmon Lake, apparently feeding along its banks.

154. Fewer old squaws than usual occupied the various ponds. They are quite quiet now, and only rarely does one hear their Ah-ah-ahark. Usually it is males that one sees, but there are many females too, that I think are not nesting this year. However that may be, some females must be nesting, or there would not be so many solitary males inland.

July 11

162. We saw only a few king eiders, both male and female.

169. As we were walking down the slope to the Salmon Lake we saw four Snow geese flying up the valley.

223. I collected three Lobipes lobatus in the small ponds about Salmon Lake - two males, and a female, I think. They are not so numerous as they were two years ago about Phalarope Pond.

234 I found four young birds on a grassy swale not far from Loon Lake and collected them. Likewise, I tried to collect the parent bird that was with them, but only wounded it. The behaviour of both old and young was like that of those I found two years ago. We saw but few birds all day.

275. On our way home across Illinois Fields we saw the ever-present ringneck plover, and all along

529 our walk we saw the snow-bunting, both male and female, and near the house many young birds.

5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the south

5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the south

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5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the South

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5 Arbejder fra den danske arktiske Station paa Disko: - List of Vascular Plants from the South

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5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the North

5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the south

5 Arbejder fra den danske arktiske Station paa Disko. - List of Vascular Plants from the boreal

156

0.750	0.716	.850	0.183	0.1			
0.1	0.1	.1	0.07	0.0			
0.0 *	0.0	.1	0.07	0.0			
0.060	0.075	.032	0.04	0.0			
0.061	0.051	.040	0.015	0.0			
♂	♀		♀	♂			

* From end of fat lump.

King Eiders July 14

1.820	1.860	
.952	.910	
.380	.381	
.157	.156	
.107*	.098*	
.070	.078	
.056	.058	
♂	♂	

Eiders. July 14

Male Killed July 12.
Female " " 13.

		1.215
1.800	1.920	.900
.970	1.020	.610
.420	.410	.050
.164	.167	.113
.159	.167	.020
.078	.078	.028
.073	.086	♂
♀	♂	

Perhaps true borealis

55	97
61	88
48	84
62	86
96	86
69	87
49	87
51	70
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89	
65	
90	

See Irunga & Loon killed July 19, 1916

Measurements.

King Eiders July 6.

1.900	1.833
0.950	0.[illegible]
[illegible]	0.[illegible]16
0.1[illegible]	0.[illegible]6
0.0[illegible]*	0.098
0.0[illegible]	0.075
0.061	0.051
♂	♀

* From end of fat lump.

Loon Red T.

2.[illegible]05	
.970	
.850	0.183
.[illegible]11	0.107
1.151	0.0[illegible]1
.032	0.014
.090	0.015
	♀

King Eiders
July 14 Killed 13

1,820	1,860
.952	.990
.280	.381
.157	.156
.107*	.098*
.070	.078
.056	.058
♂	♂

Eiders.
July 19

Male Killed July 12.
Female " " 13.

1.800	1.920	1.215
.970	1,070	.900
.920	.910	.610
.169	.167	.1050
.159	.167	.115
.078	.078	.020
.073	.086	.028
♀	♂	♂

Siemia female Killed July

Perhaps true tomalin

See Trunga & Loon killed July 19, 1916

Measurements

55	
61	
48	
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96	
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65	
90	

Tonnage of Iron Ore 1/20
" " " Formation

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