

Department of the Interior:

U. S. NATIONAL MUSEUM.

— 15 —

BULLETIN

OF THE

UNITED STATES NATIONAL MUSEUM.

No. 15.

PUBLISHED UNDER THE DIRECTION OF THE SMITHSONIAN INSTITUTION

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1879.

ADVERTISEMENT.

This work is the fifteenth of a series of papers intended to illustrate the collections of Natural History and Ethnology belonging to the United States, and constituting the National Museum, of which the Smithsonian Institution was placed in charge by the act of Congress of August 10, 1846.

It has been prepared at the request of the Institution, and printed by authority of the honorable Secretary of the Interior.

SPENCER F. BAIRD,

Secretary of the Smithsonian Institution.

SMITHSONIAN INSTITUTION,

Washington, April 15, 1879.

CONTRIBUTIONS

TO THE

NATURAL HISTORY

OF

ARCTIC AMERICA,

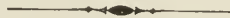
MADE IN CONNECTION WITH

THE HOWGATE POLAR EXPEDITION, 1877-78,

BY

LUDWIG KUMLIEN,

NATURALIST OF THE EXPEDITION.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1879.

BIRDS.

BY LUDWIG KUMLIEN.

The following list is of necessity fragmentary and very incomplete from various reasons. In the first place, the expedition did not arrive at the proposed winter-quarters until October, when the weather had become so inclement that most of the birds had gone southward. During the brief stops that were made at different harbors in the autumn of 1877, I was often obliged to remain on shipboard for want of a boat, instead of cruising about, as I would otherwise have done. Of course I often went out with the Eskimo; but as they were looking for whales and seals, I got only such birds as accidentally came in our way. In the spring, the schooner was under weigh before the birds had fairly begun nesting. The last three weeks of our sojourn in the winter harbor I was prevented from making any explorations, except in the immediate vicinity of the harbor, on account of the ice, which was driven northward by the long-continued southerly gales. This ice formed so perfect a barrier about us that we could not get out of the harbor, and to have ventured among it with a boat when the strong currents were whirling and crashing it in every direction would have been a piece of foolhardiness that could but have resulted disastrously.

There is no point on either side of Cumberland Gulf or Sound that is less suitable for a naturalist than was Anmanactook Harbor. It is formed by a cluster of small rocky islands, the outermost of a large group lying between the Greater and Lesser Kingwah Fjords. The nearest point to the mainland from the harbor was about nine miles. There were extensive valleys, with large grassy flats and sandy beaches, much frequented by different kinds of birds, both for feeding and breeding grounds.

When the season was so far advanced that these places became the resorts of birds, I seldom got an opportunity to go on a cruise, for with the inclemency of the weather, the uncertainty of procuring a boat, and the treacherous condition of the ice, it was almost sure that one or the

other of these drawbacks would indefinitely postpone a contemplated journey. At this time I had the use of but one hand, and could not manage a kyack.

All the islands in the vicinity of Annanactook are rocky—solid rock, in fact—with extremely scanty vegetation. The shores are generally steep bluffs, and very little beach is exposed at low tide. A few miles up the Greater Kingwah, however, are very extensive beaches, and thither all the waders congregated as soon as the ice began to loosen from the shores. After leaving our winter harbor, the Florence made brief stops at different points, but for such short periods that it gave me very little time for explorations.

After our arrival on the Greenland coast I received very great assistance from Governor Edgar Fencker and lady, of Godhavn, through whose kindness I procured many valuable specimens. I can never forget the kindness and unbounded hospitality of this educated and refined gentleman and enthusiastic naturalist.

To Inspector Krärup Smitz and lady, of Godhavn, I am under very great obligations, not alone for the valuable donations of interesting Eskimo implements, but for their untiring zeal in making our sojourn as pleasant as possible, and the ready and entertaining information on many little known subjects pertaining to Arctic matters.

I was not a little surprised, as well as delighted, to find in Governor Fencker a person perfectly familiar with the birds of North America as well as Europe. During his eleven years' residence in Northern Greenland he has, of course, added much to the knowledge of Arctic ornithology, and I was pleased to learn that he contemplated giving the world the benefit of his observations in an illustrated work on the birds of Greenland. Such a work, embellished with his superb drawings, cannot fail to rank very high among the ornithological literature of the age.

I have not the least doubt that future explorations in Cumberland waters will yield a much richer harvest than I gathered. Many species will be added, especially if the Lake Kennedy region is visited in summer.

For the benefit of any future explorer who may visit this section of country I will give what appears to me the best route and manner of reaching Lake Kennedy. A person wintering in Cumberland will be very apt to be stationed either at Niantlic on the western shore, or the Kikkerton Islands on the eastern, a little farther to the north. These points are favorite resorts for Eskimo in winter, and hunting parties

leave both settlements for the interior every summer, so there would be no difficulty in securing Eskimo guides and assistants, who are absolutely necessary to the success of such an enterprise. Good strong dog-teams, to carry boats and all the required equipments, can be secured from the Eskimo, they driving their own teams.

The start should be made in May, and the course up the so-called "Mollu Keitook" fjord that opens into the gulf about forty miles north of the Kikkerton Islands on the western shore. This fjord can at this season be traveled with ease with sledges its entire distance—about ninety miles. During this stage of the journey the Eskimo could secure enough seal in the fjord for both man and beast. When the inland country was reached, reindeer would make a very acceptable substitute. But this supply should in no wise be solely depended upon. When the head of the fjord is reached there will be found a fresh-water stream, the eastern exit for the Kennedy Lake waters. This stream should be followed to the lake. If it be late in the season, a whale-boat may be taken up the stream with comparative ease. There are some places where the stream runs in narrow gorges, but the surrounding country offers suitable places for a portage over such points, into the numerous lake-like expansions that will be met with. If it be in May there will be found an abundance of snow for traveling with sledges on the land, and the comparatively level character of the country, which becomes more strikingly so as one nears the lake, will present but few obstacles to a good dog-team.

A light canvas tent should be a part of the equipment. While the snow lasted this could be inclosed within a wall of snow, and later be made very comfortable with a stone wall.

The lake abounds in numerous small islands, has sandy as well as grassy beaches, and is a favorite resort for myriads of waterfowl. It is so large that one cannot see across it. Its location is probably between the 66th and 67th parallels of north latitude. Salmon are abundant in its waters, and a seal that, from the skin, I could not distinguish from *Pagomys fœtidus*, abounds in considerable numbers. The vicinity is the favorite feeding-ground of immense herds of reindeer. Wolves and foxes are very numerous, and among the Eskimo there is mention of an animal that from their descriptions and drawings seems to be a *Gulo*.

Fossils (Silurian) seem to be very abundant, and petrifications marvelously perfect abound in the lowlands. The surrounding country has much the general aspect of a high northern prairie, being quite flat and

sustaining a good growth of grass and plants. The ascent to the Cumberland coast on the east and the Fox Channel on the west is so gradual that it is hardly perceptible, the coast-line in both instances being precipitous. This is especially true of the western slope, where it is so gradual that it is with the greatest astonishment one suddenly finds himself on the summit of an enormous cliff, with the breakers of Fox Channel dashing on the rocks below him and an expanse of water stretching to the westward as far as the eye can reach.

The western outlet of the lake is larger than the eastern, and is said to empty through a deep gorge near Point McDonald.

A far less satisfactory time to go is after the breaking-up of the ice. There is no doubt it could be performed with less labor and fatigue at this time, but for the naturalist the best season would be over.

When the collections are ready, they can be safely cached till winter, and brought down in comparative safety on dog-sledges. A very interesting station for a naturalist would be near the mouth of the gulf; in the vicinity of the Kikkerton Islands; at this place there would be open water in April or May, and many valuable birds could be secured before they scatter over the country to breed. When the birds arrive at Annanaetook, the season is already so far advanced that they immediately begin nesting. I have concluded to retain in the present list many species on very slight evidence in the hope that it may in some degree assist future explorers and put them on the lookout for some species that might otherwise escape their notice.

The birds do not congregate in large numbers on the islands in Cumberland to breed, the way they do to the southward and on the Greenland coast. There is an exception with *Somateria mollissima*. Some species that breed by myriads two hundred miles to the southward, and are equally numerous on the coast of Greenland to 73° N. lat., are found only as occasional stragglers in the Cumberland waters.

Some idea of the barrenness of the islands around Annanaetook may be arrived at from the fact that from October to July *one hare* and *two ptarmigans* were brought in, and there were twelve Eskimo that hunted the greater part of the time, and I was out on every occasion when I thought it at all likely that such game could be procured. Scotch whalers have told me that near Nugumete they have had as high as *two hundred ptarmigans* during the winter, and hares in abundance.

I have added the Eskimo names of the birds in such instances as I could do so with certainty. The Greenlanders' names are often quite

different from the Cumberland Sound Eskimo; these have also been added. These names will be of use to any one visiting this region not conversant with the Eskimo language.

1. *Turdus aliciaë*, Bd.

One specimen caught on shipboard off the coast of Newfoundland, October 22, 1878.

2. *Saxicola œnanthe*, Bechst.

Breeds along both shores of Cumberland and on the west coast of Davis Straits, but rare.

One of the commonest land birds on Disko Island, Greenland, and around Disko Bay, both on the islands and mainland. I showed specimens to Eskimo from Nugumente and Frobisher Straits, and they instantly recognized them and said they breed there, but are not plenty.

3. *Anthus ludovicianus*, Bechst.

Kung-ník-took, Cumberland Eskimo.

The first specimens were seen in the spring at Ammanactook Harbor on the 30th of May. There was no bare ground; but they frequented the tide-rifts at low water, searching after small marine animals.

It looked very strange to see this bird running about among the stones and in the water like a *Cinclus*. I examined the stomachs of specimens killed in these localities, and found them to contain *Gammarus*, *Læmodipodia*, *Caprella*, and a few small *mollusks*! There can be no doubt that they were feeding on this food from necessity, and not choice, for there was no bare ground and no insects at this time. During the first of June we had the severest snow-storm of the season, and I think most of them perished. They would come around the observatory and shelter themselves as best they could. They were so far reduced that they were easily caught with the hand.

In autumn they leave for the south about the middle of September. At this season, besides their diet of insects, they feed on the berries of *Empetrum nigrum* and *Vaccinium uliginosum*. During summer their food consists almost entirely of insects, largely of dipterous larvæ, which they procure among the *carices* around the fresh-water ponds. At Ammanactook they began building about the 20th of June. The nest was always placed deep in a rock crevice, so far in, in fact, that I could not secure any of the nests I found. On the Greenland coast, especially in the vicinity of habitations, they often build in a tussock, much like a sparrow; but there the ravens are not so numerous or destructive to birds and eggs as in Cumberland.

They practice every artifice to decoy an intruder from the vicinity of the nest—shamming lameness, and uttering the most plaintive cries; flitting from crag to crag before the pursuer till they have led him far beyond the nest, when suddenly they seem to have recovered, and take longer flights, till at last they jump up very smartly and fly away apparently highly elated at the little ruse they have so successfully practiced.

This little bird is considered a great enemy by the Eskimo. They say it warns the reindeer of the approach of the hunter, and, still worse, will tell the reindeer if it be a very good shot that is in pursuit, that they may redouble their efforts to escape. The Eskimo never lose an opportunity to kill one of these birds. I have seen one with a rifle wasting his last balls in vain attempts to kill one when he knew that there was a herd of reindeer not more than a quarter of a mile away. They are generally distributed on both sides of Cumberland Sound and the west shores of Davis Straits to lat. 68° N. at least, but nowhere very abundant. Toward autumn they become more or less gregarious, and seem to migrate along the seashore.

4. *Sitta carolinensis*, L.

Caught on shipboard off the coast of Newfoundland October 22.

5. *Dendroeca coronata*, (L.) Gray.

A single example, an adult male, in Godhavn Harbor, Greenland, July 31, 1878.

6. *Siurus nævius*, (Bodd.) Coues.

Caught on board the Florence in Straits of Belle Isle, August 18.

7. *Tachycineta bicolor*, (Vieill.) Cab.

A couple of these swallows followed the schooner for two days in succession off Belle Isle, in August, 1877. Where were they during the night?

8. *Pyrrhula* ——?

July 19, 1879, while hunting among the mountains near Oosooadluin Harbor, in the northern waters of Cumberland, my attention was called by a bird whistling somewhat like *Ampelis garrulus*, but louder and clearer. I soon discovered it flitting among some small willows on the grassy ledges of a perpendicular cliff about 1,500 feet above tide-level. I could not scale the cliff, and had to content myself by watching it. It was apparently nesting among the willows, but kept continually just

out of range. At the time I pronounced it undoubtedly the female of *Pyrrhula europea*, which it resembled very much indeed, but now I incline to the belief that it was more likely the *male* of *Pyrrhula cassinii*, and that the female was sitting. I made a life-size drawing of it, and showed it to all the Eskimo in the vicinity. None could recognize it; but some said they had seen such a bird at Lake Kennedy, but that they were "tummunik abertook," all red. This may have been *Pinicola enucleator*, *Carpodacus purpureus*, or *Pyrrhula europea*, as I doubt not but the last species would be called "all red" by an Eskimo. The red part would certainly make the most lasting impression on his mind. I tried for some hours to procure this bird, but at last it flew over a ravine that I could not cross. I never got an opportunity to revisit the locality, and this interesting discovery had to be left unsettled. The bird was apparently *slate*-colored on the breast, the upper and lower tail-coverts conspicuously white, the top of head and throat much darker than the back. The flight was undulating. It kept whistling almost constantly, which led me to think it was a male bird.

9. *Carpodacus purpureus*, (Gm.) Gray.

During a dense fog, September 1, 1877, off Resolution Island, north of Hudson's Straits, one of these birds was caught on board the *Florence*. The Eskimo describe a bird about the size of the purple finch that occurs in the interior, and is "all red." Such information is, however, in no manner reliable, as "abertook" may be any color from umber to vermilion, and "all," especially when it comes to red, may be but a small part of the plumage.

10. *Loxia leucoptera*, (Wils.).

Caught on board the schooner in a fog off Bonne Bay, Newfoundland, August 15, 1877. Very common in the low pines at the head of Conception Bay, Newfoundland, October, 1878.

11. *Ægiothus linaria*, (L.) Cab.

"Anarak," Cumberland Eskimo. "Orpingmatook," Greenlanders.

Arrive in Cumberland as soon as the snow begins to disappear from the mountain sides. I found them about Niantilie and the Kikkerton Islands in September and October, but very few at our winter harbor. They are now common from Nugumeute to Hudson's Straits, and inland toward Lake Kennedy. Wherever there is a valley with any considerable vegetation, especially low willows, they are almost sure to be found. Observed abundantly on Disko Island, Greenland, where I found half-

fledged young in the last days of July. The nest here was built in small willows, like a *Chrysomitris*. Although they seemed to be migrating in October, I did not see any flocks, but only a few straggling individuals. They seem to wander from the land very often in fogs. I have counted a dozen or more in the rigging at one time from Hudson's Straits to Niantlic. Off Kikkertarsoak Islands, on the Labrador coast, as much as one hundred miles from land, these birds came aboard of the schooner in a gale. They were all young birds.

12. *Ægiothus holbölli*, Reinhdt.

A large linnet was caught in a thick fog in Grinnell Bay, September 3, 1877. It measured 6.25 inches in length. The specimen was "picked" by one of the ship's company while I went down into the cabin after my skinning tools. The body (without feathers) was preserved in alcohol, and Mr. Ridgway pronounces it *Æ. holbölli*. It was the only specimen I procured that differed in the least from a typical *linaria*.

13. *Chrysomitris tristis*, (L.) Bp.

An adult male caught on shipboard, August 22, 1877, off Cape Mugford, Labrador.

14. *Plectrophanes nivalis*, (L.) Meyer.

"Kopernúak," Cumberland Eskimo. "Kopanauarsuk," Greenlanders.

The first snowbird seen at our winter harbor was April 5, an adult male. The weather was quite severe, and there was no bare ground. It staid about the vessel some days, gleaning a scanty subsistence from the cook's rubbish pile. After this date I saw none until May 8. They then began to appear around the Eskimo encampments, and were in full song, and a very beautiful song they have. Never did I so enjoy a bird's song as I did their lively ditty after the long, silent, dreary winter. By the 13th five pair had arrived in the neighborhood, and the males seemed to try and outdo each other in their efforts to be musical. Such companions were they for me that I had no heart to destroy them, much as I wanted specimens in full plumage. The young Eskimo had no such scruples, however, and supplied me with specimens killed with their bows and arrows.

By the last days of May they had paired and chosen their breeding-places. The first eggs were procured June 20. The nests are very often in such deep fissures in the rocks that it is impossible to get at them. They are obliged to hide away their nests in this manner to escape the ravens. One of the most favorite positions for the nest is inside of an

Eskimo grave; *i. e.*, inside the stone cairn that they erect over the body. I have even seen a nest built *in an Eskimo cranium*. The nest is large and bulky, nearly the entire structure being composed of *Poa arctica* and other grasses, and invariably lined with feathers or hair. One nest, found July 11, that contained small young, was thickly lined with the hair of *Vulpes lagopus*. Some contain only feathers; others both hair and feathers. The number of eggs in all the nests I found was six. They present an almost endless variation in size and coloration, great difference being observable even in the same nest.

The snow bunting is generally distributed on both sides of Cumberland, but is nowhere abundant. Almost any locality is suitable, but I doubt if the food supply would be sufficient if they did not scatter well over the country. They are very common on Disko Island and around Disko Bay. Half-fledged young were taken near Godhavn August 2. The first plumage of the young is a uniform ashy gray. The food of the snowbird in summer consists largely of aquatic dipterous larvæ. For these they are constantly searching among the grass at the edges of fresh-water ponds. During the autumn they feed mostly on various kinds of seeds. They are very fond of the berries of *Empetrum nigrum* and *Vaccinium uliginosum*. As soon as the young are full-grown, they begin to congregate in small loose flocks, and move southward with the first snows of September. The young have by this time become lighter in plumage, and the russet wash begins to appear on the head and neck. They were often seen on board the schooner on the passage, at one time *two hundred miles* at sea, off Cape Chidly. There seems to be a striking difference in the size between Greenland and Alaskan specimens, the latter being the larger.

15. *Plectrophanes lapponicus*, (L.) Selby.

“Kióligak,” Cumberland Eskimo. “Narksormutak,” Greenlanders.

Not nearly so common as the preceding in Cumberland. In the autumn of 1877, I found a good many in the vicinity of Niantilie, but nowhere else; saw no males in the breeding plumage after September. During the summer of 1878, I procured one single specimen in June. I think they breed in the interior on the level land, and do not frequent the sea-coast so much as *P. nivalis*. I found them very common on Disko Island, and procured eggs and young in July and August. Their food at this time seemed to be entirely dipterous larvæ, for which they searched about fresh-water pools. In autumn they feed on seeds and berries. Many lit on the schooner during fogs and storms all the way

from Cape Chidly to Niantlic. According to the Eskimo they are more common than *nivalis* from Nugumente southward and in the interior. There appears to be quite a marked difference in specimens from Greenland and from Alaska, and a comparison of a large series may give some interesting results. The Eskimo say they will eat *blubber* and *meat* if their food gets covered by snow. I have seen a specimen that was so covered with some oily substance that the feathers on the breast and belly were matted together. I am told by Nugumente Eskimo that in summer the males "akapok amasuit" (talk a great deal). From this I infer that they are probably lively songsters during the breeding season.

16. *Junco hyemalis*, (L.) Sel.

Once obtained on shipboard off Belle Isle, October, 1878.

17. *Scolocophagus ferrugineus*, (Gm.) Sw.

Caught on shipboard during a gale off the north coast of Newfoundland, October, 1878.

18. *Corvus corax*, Linné.

"Tudhiak," Cumberland Eskimo. "Kernetook," Greenlanders; but also called "Tullnak."

The raven is extraordinarily common on both shores of Cumberland and on the eastern shore of the Penny Peninsula. In winter they congregate about the Eskimo encampments, where they can almost always get dead dog, if nothing more. All the specimens collected by me in Cumberland are of remarkable size, much larger than any I ever saw on the Greenland coast. The same was remarked by Governor Fencker, of Godhavn, who said he never could see any reason why the American raven should be called a variety of the European till he saw my specimens from the western coast of Davis Straits.

When the raven gets closely pressed by hunger, he will attack almost anything but man. Young reindeer fall an easy prey to them. When they attack a young deer, there are generally six or seven in company, and about one-half the number act as relays, so that the deer is given no rest. The eyes are the first parts attacked, and are generally speedily plucked out, when the poor animal will thrash and flounder about till it kills itself. In the capture of the young of *Pagomys fœtidus* they evince a considerable degree of intelligence. I have, on different occasions, witnessed them capture a young seal that lay basking in the sun near its hole. The first manœuvre of the ravens was to sail leisurely over the seal, gradually lowering with each circle, till at last one of them

suddenly dropped directly *into* the seal's hole, thus cutting off its retreat from the water. Its mate would then attack the seal, and endeavor to drag or drive it as far away from the hole as possible. The attacking raven seemed to *strike* the seal on the top of the head with its powerful bill, and thus break the tender skull. In two instances I allowed the combat to proceed until the seal was killed, and then drove the ravens away. I found no marks on the seal, except the blows on the head, which had fractured the skull in two places.

December 13, 1877, I witnessed a very amusing chase after a *Lepus glacialis*. There were two ravens, and they gave alternate chase to the hare. Sometimes the raven would catch the hare by the ears, and hare and raven would roll down the mountain side together thirty or forty feet, till the raven lost his hold, and then its companion would be on hand and renew the attack. They killed the hare in a short time, and immediately began devouring it.

They are extremely destructive to the eggs and young of all birds that have an open nest. They breed so early in the season that the young are fully fledged by the time the eiders begin laying, and the entire raven family then take up their abode on the duck islands, and gorge themselves with eggs and young. Nor is it only the eggs they eat, but their mischievous nature must out, and I have seen them drive the duck from her nest and deliberately break the eggs.

The Eskimo accuse the raven of warning the deer of the approach of the hunter by a peculiar croak not uttered at other times. This helps to add odium to their not over-enviable reputation. They are constant attendants of the Eskimo while seal-hunting. If the hunter procures more seal than he can take back with him, he will cover them with snow and return for them; but the operation has been watched by the black robbers from the neighboring cliffs, and a good number of them are soon made acquainted with the discovery, and as soon as the Eskimo is gone the seal is exhumed and soon reduced to the mere skeleton. I tried on several occasions to catch them by baiting a hook with a piece of meat, and carefully concealing the string in the snow. They took hold of the meat very cautiously, and lifted it till they saw the string, and then flew away in great haste.

During the winter, while making skeletons, I used to throw the refuse outside of the observatory; and I have repeatedly watched the ravens sit around and wait till I went to dinner, about 3.30 p. m. It was then, of course, quite dark; but as soon as I left the hut they came and got their meal, but were extremely cautious, often turning the pieces over

many times before they swallowed them, and even throwing and tossing them, to be sure that there was no trap about it. Some pieces that looked suspicious they would not eat, but walked around them and turned them over, but could not be convinced that there was not some trickery about them. I have often found them hunting about the observatory after some stray scraps, even on my return from dinner, when it was so dark that I could not see them but a few feet away. On moonlight nights I have known them to make visits to the rubbish pile outside our observatory; but such cases are rare, and only at the season when they cannot get any food without the greatest difficulty. At Annanactook Harbor they began building as early as March 20, but I saw some carrying pieces of skin and hair from the Eskimo encampments many days earlier than this, and when we had a temperature of -40° Fahr.

They nest only on the south side of the highest and most inaccessible cliffs, so the nest can seldom be reached. I examined one nest built on a little shelf of a high cliff. It was composed almost entirely of pieces of Eskimo skin clothing, among which were scattered the larger wing-bones of gulls, the larger primaries of several species of birds, twigs of salix, &c. The inside had a good lining of *Poa alpina*, and a considerable quantity of reindeer, fox, and dog hair, the whole presenting a very cozy appearance indeed. As soon as the seals begin to pup under the snow on the ice, they follow the foxes, which find the seal and drag them out. Now the ravens can fare well on the leavings. The Eskimo firmly believe that it does not hurt the ravens' eggs to freeze. They say the shell cracks, but the inner membrane is very thick and tough. I found that the Scotch whalers are also of this opinion, some positively asserting that they had known *frozen* ravens' eggs to hatch!

The young are full-fledged by the latter part of May. During the autumn months they feed largely on the berries of *Vaccinium uliginosum* and *Empetrum nigrum*. I have often observed them fishing at low tide among the stones. I killed a couple to ascertain the nature of the food they got. I found it to be *Cottus scorpius* and *Liparis vulgaris*?, with a few small crustaceans.

They are resident in Cumberland the entire year, but appear more numerous in winter, from their habit of staying about the Eskimo encampments.

The raven is considered as worse than useless by the Eskimo. They make no use of them except to wipe the blood and grease from their hands and face with the feathers.

19. *Empidonax flaviventris*, Bd.

Taken at sea off Cape Farewell, Greenland, September, 1878. This is, I think, the first recorded instance of its occurrence in Greenland.

20. *Brachyotus palustris*, (Bechst.) Gould

“Sutitnk” (?), Greenlanders.

Apparently rare. Found breeding in the Kingnite Fjord in the Penny Peninsula; also in the Greater Kingwah. Probably will be found more common in the interior toward the southwest in Hall’s Land, if it be the species described to me by Eskimo from there. They say it nests underneath an overhanging shelf of rock on or near the ground. Appears to be rare on the coast of Greenland. Is found as far north as 70° N. lat.

21. *Nyctea scandiaca*, (L.) Newt.

“Opigjuak,” Cumberland Eskimo. “Opik” and “Opirksook,” Greenlanders.

I was very much surprised not to find this owl more common. At the Kikkerton Islands and up Kingnite Fjord were the only localities where I met it on the west coast. From Hudson’s Straits to Nugumente, in Hall’s Land, it is more common, probably on account of the greater abundance of hares and ptarmigans in this region. It probably breeds on the Hunde Islands in Disko Bay, and on the “islands” (the rocks projecting through the glacier) in the glacier on the mainland, to the eastward of Rittenbenek, Greenland. They are by no means strictly nocturnal. I have seen them chasing ptarmigan at midday in October, when the sun was shining brightly. I have seen them coursing along the shore at low tide, apparently *fishing*; but whether they were hunting for snipe or fish I am unable to say, as they were so shy that I could not get within rifle range of them. The primaries are highly prized by the Eskimo for their arrows. These birds migrate to the southward about the same time as the majority of the waterfowl.

22. *Falco candicans*, Gm.

“Kirksoveasuk,” Greenlanders.

During the whole year’s collecting on Cumberland Island I saw but one single specimen, late in November, 1877. He was beset by a large concourse of ravens that were teasing him, as the jays do hawks and owls at home. According to the Cumberland Eskimo, they are very rare, and seldom seen except in winter. Many do not know them at all. On Disko Island, especially in the Godhavn district, they are common and resident. These hawks seem to prefer nesting in the vicinity of “bird rocks,” where they can procure plenty of birds with very little

trouble. In winter they subsist wholly on ptarmigans and hares. Governor Fencker, during his long residence in Northern Greenland, has had good opportunities for studying this bird, and he thinks there is but one species inhabiting the country, having known of instances where the parents of a nest represented the two extremes of plumage. Nor does the difference seem to be sexual, seasonal, or altogether dependent upon age, but more probably partaking of that remarkable phenomenon familiar in *Scops asio*.

During my frequent excursions about Disko Island I often had an opportunity of witnessing this hawk preying upon jaegers, kittiwakes, &c., but was surprised that they are not possessed of swifter flight. A duck hawk would have made a short job of catching a kittiwake that one of these hawks followed till he fairly tired the bird out. Their success seems to depend more upon a stubborn perseverance than alacrity of flight. The flesh of the young birds is by no means despicable food, and is highly prized by the Danish colonists.

23. Falco communis, Gm.

A regular breeder in Cumberland. Usually found about the Eider Islands. Procured nearly full-fledged young in August that were taken from the nest on a high cliff in the Greater Kingwah Fjord.

24. Astur atricapillus, (Wils.) Jard.

A single specimen, at Niantilie, September 19, 1877.

25. Haliaeetus albicilla, Linné.

"Netkoralik," Greenlanders.

I saw this eagle at American Harbor, in October, 1877, at two different times. In the spring of 1878 I often noticed a pair that finally built a nest on a high but not inaccessible cliff in Kingwah Fjord. I could have shot the birds, but waited until I should be able to procure the eggs, and then get the birds. Unfortunately the wind set in from the south, and I could not get near the place on account of ice till the Florence set sail for the Greenland coast. Enough was ascertained, however, to show that this bird *does* breed on the western shores of Davis Straits, although probably sparingly. On the coast of Greenland it is by no means uncommon. Eggs were procured from Claushavn through the kindness of Governor E. Fencker.

26. Lagopus albus, (Gmel.) Aud.

"Akagik" (both species), Cumberland Eskimo.

Very few ptarmigan were found about our winter harbor; but, from the Eskimo accounts, they are quite common in the larger valleys, where

there is a ranker growth of willows. The stomachs of those I examined of this species contained willow buds and small twigs. From Nunguente southward and westward in the interior they are abundant according to the Eskimo stories, but which species is of course impossible to say. They begin to change color as soon as the snow commences to melt, in lat. 67° N. about the middle of May. This change in plumage is more tardy as one goes farther north. I was informed by intelligent Greenlanders that north of Upernavik, near the glacier, they had found ptarmigans nesting, and that the male was in perfect winter plumage. This was probably *L. rupestris*. If this be true, it is possible that in sections where much snow remains during the summer the change is very late, or, perhaps, does not occur at all.

27. *Lagopus rupestris*, (Gmel.) Leach.

“Akagik,” Cumberland Eskimo. “Akeiksek,” Greenlanders.

I am unable to throw any light on the distribution of these birds in Cumberland, as I was unable to procure but a single specimen of this species and two of the preceding. The crop was crammed full of sphagnum moss.

28. *Ægialitis semipalmata*, (Bp.) Cab.

“Koodlukkileak,” Cumberland Eskimo.

Arrived at Ammanactook about the middle of June. By no means rare. Breeds on the mossy banks of fresh-water ponds along both the Kingwah Fjords, as well as other localities in Cumberland. It seems remarkable that the Cumberland Eskimo should discriminate between this and the following species, when they confound all the larger gulls under one name. They told me that *Æ. hiaticula* was larger, flew faster, and had a stronger voice than *semipalmatus*!! All of which is true. The condition of the ice at the time these birds were nesting kept me from visiting their breeding-grounds, although but a few miles away. They migrate southward as soon as the fresh water is frozen.

29. *Ægialitis hiaticula*, (L.)

“Tnkagvajok,” Greenlanders.

I am not aware that this species has hitherto been introduced into the North American fauna, though long known as a common bird on the Greenland coast, where *Æ. semipalmata* is rare. It is apparently more common than the preceding in Cumberland. Arrives about the same time, and breeds in similar localities. Very common about Disko Island, Greenland, where young birds were procured. This bird is readily distinguishable from *Æ. semipalmata* by its greater size and more

robust form, in having a white patch above and behind the eye, and much wider pectoral band; it will also be found that only the outer and middle toes are united by a web.

30. *Streptilas interpres*, (L.) Ill.

“Telligvak,” Greenlanders.

Common about Disko Bay, Greenland, and northward to 73° N. lat. at least. Breeds on the Green, Hunde, and Whale Islands in Disko Bay. They nest among the *Sterna arctica*, and it is impossible to distinguish between the eggs of the two species. Not observed in Cumberland Sound, nor on the east coast of the Penny Peninsula; still, the bird was instantly recognized by the Cumberland Eskimo, when they saw it on the Greenland coast, and they had the same name for it as the Greenlanders.

31. *Recurvirostris americana*, Gm.

I enter this bird on my list on Eskimo authority,—poor authority, it is true, but I have in my possession a drawing, made by a wild Eskimo, that is so unmistakably this bird that I do not hesitate to accept it, especially when he gave me a perfect description, and that without any attempt on my part to draw him out. He says he saw them for the first time in the summer of 1877, while reindeer hunting, south of Lake Kennedy.

32. *Lobipes hyperboreus*, (L.) Cuv.

“Shatgak,” Cumberland Eskimo.

Arrives in Cumberland in June. Large flocks were repeatedly seen going to and coming from their breeding-grounds in Kingwah Fjord. Not nearly so common in Cumberland as the following species. The remarks on the habits of *P. fulicarius* as observed by me will apply to this species only in part. I have seen them as far south and farther north, and nearly as far from land, as the following species, but only a few individuals. They seem to prefer the shore more, are often noticed running about on the ice-cakes, and when they see anything in the water they want jump in after it. Breed plentifully on the islands in Disko Bay and around Upernavik; on these islands they nest among *Sterna macrura*, on the rocks; in Cumberland, around fresh-water ponds, on grassy banks. They are apparently less gregarious than *P. fulicarius*, and prefer the smaller bays to the more open and boisterous waters. I have often seen a whole flock alight on the drift-ice and feed by jumping into the water after the food when seen; but *fulicarius* would have lit in the water in the first place. Eggs were procured on the Green Islands in Disko Bay.

33. Phalaropus fulicarius, (L.) Bp.

“Shatgak,” Cumberland Eskimo. “Whale-bird,” or “Bowhead Bird,” of whalers.

These birds were met with at great distances from land. The first seen on our outward passage was on August 4, 1877, in lat. 41° N., long. 68° W.; here large flocks were met with. As we proceeded northward, their numbers increased till we reached Grinnell Bay. Off the Amitook Islands, on the Labrador coast, two hundred miles from the nearest land, I saw very large flocks during a strong gale. Hardly a day passed but some were seen, either flying about in a rapid and vigorous manner, often rising to a considerable height, and then suddenly darting off in the direction of a spouting whale, or swimming about with that grace so eminently characteristic of the phalaropes. They follow the whales, and, as soon as a whale is seen to blow, immediately start for him, as a quantity of marine animals are always brought to the surface.

Very few were seen north of Frobisher Straits, for the weather by this time had probably become too severe for them, and I think the birds seen on the passage were migrating southward. I am more inclined to think so, as the next year, in going over nearly the same route a month later, very few were seen. They arrive in Cumberland with the breaking-up of the ice, and from this time till they begin breeding are seldom seen on the shore, but cruise out in the sound. Whalers always watch these birds while they are wheeling around high in the air in graceful and rapid circles, for they know that as soon as they sight a whale blowing they start for him, and from their elevated position they can of course discern one at a much greater distance than the men in the boat. I doubt if it be altogether the marine animals brought to the surface by the whale that they are after, for if the whale remains above the surface any length of time they always settle on his back and hunt parasites. One specimen was brought me by an Eskimo that he had killed on the back of an *Orca gladiator*; the œsophagus was fairly crammed with *Lærnodipodian crustaceans*, still alive, although the bird had been killed some hours; they looked to me like *Caprella phasma* and *Cyamus ceti*. According to the Eskimo who killed it, the birds were picking something from the whale's back. I have often seen them dart down among a school of *Delphinapterous leucas* and follow them as far as I could see. On one occasion a pair suddenly alighted astern of my boat, and were not three feet from me at times; they followed directly in the wake of the boat, and seemed so intent on picking up food that they

paid no attention whatever to us. They had probably mistaken the boat for a whale.

They are without doubt the most graceful of all birds on the water, so light and buoyant that they do not seem to touch the water. While swimming, they are continually nodding the head and turning from one side to the other. They have greater powers of flight than either *hyperboreus* or *wilsoni*, and fly much more swiftly. In Cumberland, as well as on the Greenland coast, they nest with *hyperboreus*.

Governor Fencker tells me they are not found as far north as *hyperboreus*; probably few breed above 75° N. lat. Are common on the outlying islands between Nugumente and Hudson's Straits. About the entrance of Exeter Sound, on the east coast of Penny Peninsula, are some islands which the Eskimo call "Shatgak nuna"—Phalaropes land—so they are probably very common there.

When they begin nesting they live more on shore, and probably get their food along the beaches at low tide. There is great variation in plumage, even among the apparently adult birds, in spring. I think it quite probable that they do not attain their full plumage the first year.

34. *Tringa minutilla*, Vieill.

Noticed in Niantilie, September, 1877, and in Disko Fjord, Greenland, August, 1878.

35. *Tringa fuscicollis*, Vieill.

Breeds in Kingwah and Kingnute Fjords, and probably in other suitable localities on both shores of Cumberland Sound. Considerable numbers were observed along the beach near Nuboyant, on the west shore, in July; they were in all probability breeding. We were cruising close to shore, but I could not land.

36. *Tringa maritima*, Brünn.

"Sigereak," Cumberland Eskimo. "Sarbarsook," Greenlanders.

The purple sandpiper is the first wader to arrive in spring and the last to leave in autumn. The 4th of June is the earliest date I met them at Anmaactook; this was during a heavy snow-storm, and the earliest date possible that they could have found any of the rocks bare at low tide. The flock lit on the top of one of the small islands in the harbor, and sheltered themselves from the storm by creeping behind and underneath ledges of rocks; they then huddled together like a flock of quails in winter. I have often noticed the same habit with them in late autumn, while they were waiting for low tide. They remained in the vicinity of Anmaactook till November,—as late as they could find any exposed

shore at low tide; were very common in all the localities that I visited on Cumberland Island. Saw a good many on the Greenland coast. It is said that some remain in the fjords of South Greenland all winter.

They seem completely devoid of fear, and can almost be caught with the hands. Although such lovers of the rocky sea-shore, they nest on the borders of fresh-water lakes. Hundreds were breeding a few miles from our winter harbor, but it was impossible to reach the mainland on account of the treacherous condition of the floating ice. The specimens collected by me on Cumberland Island differ so much from the Alaskan, that I conjecture the probability of a western variety when a series can be brought together for comparison.

By the latter days of June very few were to be seen on the sea-shore, they having gone inland to breed.

They appear very sociable, and when a large flock is together they keep up a lively twitter, by no means unpleasant. As the breeding season approaches, the males have a peculiar cry, resembling somewhat that of *Actiturus bartramius*, but lower and not so prolonged. When this note is uttered they assume a very dignified strut, and often raise the wings up over the back and slowly fold them again, like the upland plover. After the breeding season commences very few are seen on the sea-shore till the young are full-grown. They are somewhat crepuscular in their habits.

37. *Tringa subarquata*, (Gould) Temm.

Not uncommon in North Greenland. Eggs were procured at Christianshaab, Greenland, through the kindness of Governor Edgar Fencker. Not observed on any part of Cumberland that I visited.

38. *Tringa canutus*, Linné.

A small flock lit on the schooner's deck in November after the harbor was frozen over. Saw none in the spring or summer. Seem to be quite common in North Greenland, but probably do not nest south of lat. 70° N.

39. *Calidris arenaria*, Linn.

One small flock in September, 1877, at Niantilie; no specimens were procured.

40. *Limosa hudsonica*, (?) (Lath.) Sw.

Two godwits were seen near Cape Edwards, on the west coast of Cumberland Sound, in September, 1877, but I could not, with certainty, ascertain the species.

41. Totanus melanoleucus, (Gm.) Vieill.

A single specimen on Arctic Island, Cumberland Sound, September 14, 1877.

42. Numenius borealis, (Forst.) Lath.

A few flocks seen passing northward up Kingwah Fjord in June. One specimen procured. Not noticed in autumn. Well known to the Cumberland Eskimo.

43. Grus ——? (probably *fraterculus*).

Quite common in some localities. Breeds in Kingwah and Kingnite Fjords in Cumberland, in Exeter Sound, and Home Bay on the west coast of Davis Straits. Common, especially during spring, at Godhavn.

44. Cygnus ——?

Swans occasionally occur in the Southern Cumberland waters; but the species is uncertain, as I could not procure a specimen. Said to be of regular occurrence in the Lake Kennedy region.

45. Anser albifrons, var. *gambeli*, (Hart.) Coues.

Not observed in any numbers about our winter harbor, but undoubtedly occurs in abundance on the fresh-water lakes. This is probably the goose that the Eskimo take in such great numbers at Lake Kennedy, where they drive them towards the sea-coast while they are in moult. Are common on the Greenland coast to 72° N. lat., and probably much farther. Large flocks were met with on the pack-ice in the middle of Davis Straits, July 24, 25, and 26. Eggs were procured in the Godhaven district in Greenland. The skin of the breast is sometimes used by the Eskimo for under-garments.

46. Anser hyperboreus, Pall.

Appears to be rare and migratory in the Cumberland waters. Saw a few specimens in early spring and late autumn.

47. Branta hutchinsii, Sw.

A single specimen procured June 10 in Kingwah Fjord. The Eskimo who killed it said he has seen many to the southward of Nugumete. Saw no Canada geese at any time during my stay.

48. Anas boschas, Linn.

“Kaertooluk,” Greenlanders.

Not observed in Cumberland, and unknown to the Eskimo. Not rare on the Greenland coast as far north as Upernavik. The flesh of this duck on the coast of Greenland is scarcely fit to eat, being almost as rank as a loon's.

49. *Bucephala* —— ?

Flocks of whistlers were observed on three occasions in May; but I could not with certainty identify the species, as none were killed. *B. islandica* is quite common in the Godhavn district on the coast of Greenland; breeds near Christianshaab.

50. *Histrionicus torquatus*, (Linn.) Bp.

“Tornaniartook,” Greenlanders.

Three examples seen, and one killed at Annanactook. Not uncommon in the Godhavn district on the Greenland coast.

51. *Harelda glacialis*, (Linn.) Leach.

“Agingak,” Cumberland Eskimo. “Aglek,” Greenlanders.

Arrived at the head of Cumberland during the latter days of May. As soon as there was extensive open water they became quite numerous, and their loud and incessant cries could be heard at any hour out of the twenty-four. They nest on the small rocky islands, especially about the Greater Kingwah Fjord, but singly, and not in colonies. They are gregarious when they first arrive, but soon pair and scatter. Common on the whole Greenland coast, and breed far to the north. These ducks are the noisiest birds for their size I have ever met. During the breeding plumage, scarcely any two males can be found that are precisely alike.

52. *Polysticta stelleri*, (Pall.) Eyton.

A beautiful adult male was shot in Disko Fjord in August, 1878. The specimen is now in the collection of Governor Edgar Fencker of Godhavn. During the time we were blockaded by the ice-jam at Annanactook Harbor, in Cumberland, I saw three or four of these eiders. At one time a superb specimen sat for hours on a cake of ice but a short distance from the ship; but I could not reach it on account of the breaking ice. I watched him a long time with a good glass, and there is no question of its identity. In late autumn I saw some that I think were of this species.

53. *Somateria mollissima*, (Linn.) Leach.

“Metuk,” Cumberland Eskimo. “Mettek” and “Amaulik,” Greenlanders.

This eider is one of the commonest birds in Cumberland, and the only species that congregates together in any considerable numbers to breed. They are at all times gregarious. The old males separate from the females and young as soon as the breeding season is over, and assemble by themselves in large flocks. They also migrate southward much

earlier than the females and young. During the autumn of 1877 we procured about seventy of these birds; but not a single adult male was shot or even seen. They were met with in large flocks at sea off the outer islands on the east coast of Hall's Land; here I also remarked that they seemed to be all males. As soon as there is any open water they are found in spring; still they were not common at Annanaetook till the latter days of May. Eskimos from the south reported them on the floe edge near Niantlic early in May, and I saw a few on an iceberg near the Middliejuacketwack Islands on the 30th of April. They can stand almost any temperature if they can find open water. I saw one adult male in the tide rifts of the Greater Kingwah in January. The day I saw him it was -50° F.; but he proved too lively for me. The Eskimo could have procured him on different occasions; but they had some superstitious notion regarding so unusual an occurrence, and would not kill it.

In the fall of 1877 I often found broods still unable to fly, though more than three-fourths grown, as late as the middle of October. Small flocks continued about the open tide-holes till November 17. At this date I killed six young males; the temperature was -7° Fah. They had at this time about fifty miles to the open water.

Their food in autumn consists almost entirely of mollusks. I have taken shells from the œsophagus more than two inches in length; from a single bird I have taken out forty-three shells, varying from one-sixteenth to two inches in length. The adult birds in spring did not seem to be quite so particular; in them I found almost all the common forms of marine invertebrates, and sometimes even a few fish (*Liparis*, and the young of *Cottus scorpius*).

By the first week of June they were abundant; enormous flocks would congregate on an ice-field and hold high carnival. I have watched such gatherings with a great deal of interest. When thus assembled, some old veteran would make himself conspicuous, and jabber away at a terrible rate, often silencing the greater portion of the rest, who appeared to listen for a short time, when the entire crowd would break out, each one apparently expressing his or her opinion on the subject. There always seemed to be the best of good feeling in those meetings, however, and all points were apparently settled to every one's satisfaction. I have often lain behind a rock on their breeding-islands and watched them for a long time. On one occasion we disturbed a large colony, and the ducks all left the nests. I sent my Eskimos away to another island,

while I remained behind to see how the ducks would act when they returned. As soon as the boat was gone they began to return to their nests, both males and females. It was very amusing to see a male alight beside a nest, and with a satisfied air settle himself down on the eggs, when suddenly a female would come to the same nest and inform him that he had made a mistake,—it was not his nest. He started up, looked blankly around, discovered his mistake, and with an awkward and very ludicrous bow, accompanied with some suitable explanation, I suppose, he waddled off in search of his own home, where he found his faithful mate installed. Now followed an explanation that seemed to be hugely enjoyed by all in the vicinity. A pretty lively conversation was kept up, probably on the purport of our visit, as they seemed much excited. I could spare no more time to watch them, and crept out from my hiding-place into full view of all, and a look of greater disgust and astonishment than these birds gave me is difficult to imagine; they evidently regarded such underhand work beneath the dignity of a human being, and probably rated me worse than a gull or raven. So sudden and unexpected was my appearance that many did not leave their nests, but hissed and squaked at me like geese; these same birds left their nests before when the boat was within a quarter of a mile of the island.

The first eggs were procured June 21. The islands on which they nest are but small barren rocks, of an acre or less in extent, and often but a few feet above high tide-mark. There are a few patches of *Poa arctica* and *Cochlearia officinalis* scattered about, and these contain the greater number of nests. Each nest has a little circle of green sod about it, which is manured every year and becomes quite luxuriant. These mounds are sometimes a foot high and as much in diameter, having been used as a nest for many years in succession. Very little repairing is necessary to fit the nest for the reception of the eggs,—merely a little grass or moss. But little down is used till the full complement of eggs is laid. The nests are often so close together that it is impossible to walk without stepping on them. A nest seldom contains more than five eggs, often three or four, and I never saw as many as six but twice.

The principal breeding-places in Cumberland are between lat. 66° and 67° N. The lower of these places is about ten miles off shore from Mallukeitu; the greatest number of birds nest here. The seven islands to the northward about twenty-five miles are favorite resorts; also the small islands to the SE. of Amnaactook. There is also a group known

to the Eskimo as the "Shutook" Islands, in the Greater Kingwah, where I found them extremely abundant. In the Mallukeitu Fjord, according to the Eskimo, is another very much frequented breeding-place, but I did not visit it.

Thousands of eggs could be gathered on these rocks during the latter part of June and the first three weeks of July. It seems to me that it would pay whalers to gather the down which can here be secured in great quantities. The islands are so close together that they could all be worked within two days of each other. There are a great many immature birds, both male and female, that do not breed; they assemble in large flocks, and are often met with at considerable distances from land. I have found such flocks commonly in Cumberland, on the west coast of Davis Straits and Baffin's Bay, and on the Greenland coast abundantly. Many large flocks were seen in the middle of Davis Straits, among the pack-ice, in the latter part of July. During the first days of August I saw immense flocks of eiders on the western end of Disko Island, all males, flying southward. The specimens collected by me in Cumberland present certain striking and remarkable points of difference from specimens from the South Labrador and Newfoundland coasts, especially in the form and size of bill. I had prepared a series of skulls, selected from over two hundred birds, that was calculated to show the variation among them; but, unfortunately, they were among the specimens that I had to leave behind, in the unnecessary haste of our departure, of which I was given but a few hours' warning.

These ducks are of great use to the Eskimo; their eggs are eagerly sought after and devoured in astonishing quantities. The birds themselves constitute a good portion of their food at certain times, and the skins are used for a portion of their foot-gear in winter, and sometimes for clothing. We found the flesh of the young in autumn very acceptable indeed; but the adults in spring were rather rank. Some specimens were procured that weighed over five pounds. They become extremely fat by the end of June; and when an Eskimo can get a number, he will eat little else but the fat. I was often saved much labor by having them remove the fat from the skins, which they did with their teeth, and much more effectually than I could have done it with a knife. These birds suffer much from the depredations of gulls and ravens. *Larus glaucus* even nests among the ducks, and the ravens live off the eggs and ducklings the entire season.

54. *Somateria spectabilis*, (L.) Boie.

“Kingalalik,” Cumberland Eskimo. “Siorakitsook” and “Kingalik,” Greenlanders.

The king eiders were not noticed till the 20th of June. I saw a few large flocks at different times during spring; but there were a hundred *mollissima* to one *spectabilis*. They appear to keep by themselves, and not to mix with *mollissima*, at least during the breeding season. I never saw any on the eider islands. The Eskimo say that some years they are very plenty and others very few are found. One Eskimo told me that he once found them nesting in great numbers some distance up the Greater Kingwah, but not in company with the common eider. They arrive later and leave earlier than *mollissima*. In July I saw many of these ducks, males and females, about America Harbor. The sexual organs of those I procured were not developed, and they were all in the plumage of the female. I suspected them to be such birds as were thached very late the preceding season. Saw a great many in the same plumage on the west coast of Davis Straits and around Disko Island; many of the males seemed to be assuming the plumage of the adult. Governor Fencker told me that there were always a good number of these birds around in summer that did not breed. Many flocks of male birds were noticed west of Disko, all flying southward. Governor Fencker has procured identified eggs of this duck at Upernavik by shooting the parent on the nest. They are very common around Disko, but breed farther north. I shot a half-grown young in Kingwah Fjord in October, 1877. The lump of fat at the base of the bill of the adult males is esteemed a great delicacy with the Eskimo, and it is very seldom they bring one back that does not have this choice tit-bit removed.

55. *Cedemia* — ?

From the Middle Labrador coast north to lat. 67°, I saw at different times large scoters, but could not identify the species.

I will here make mention of a duck that I saw on two or three occasions. It seemed to have the size and general make-up of a scoter, but had much white on the scapulars and about the head. A duck was winged by one of the ship's officers; he said it had a white ring around the neck and the rest of the body was nearly all black. The bird that I saw was unknown to me; it may possibly have been the *Camptolamus labradorius*. I find in my notes that the first one I saw was pronounced a partially albino scoter; but, seeing more just like it, I gave this theory up.

56. *Mergus serrator*, Linné.

"Pye," or "Pajk," Cumberland Eskimo and Greenlanders.

A regular breeder in Cumberland, but not very common. Nests on the perpendicular faces of high cliffs. Found on the Greenland coast to 73° N. lat. at least, and probably farther. Begins nesting in Cumberland about July 1.

57. *Sula bassana*, Briss.

Noticed at different times from Beaver Island, Nova Scotia, to lat. 65° N., most numerous in the Gulf of St. Lawrence and the South Labrador coast. Not observed in Cumberland.

58. *Graculus carbo*, Linné.

"Okaitsook," Cumberland Eskimo and Greenlanders.

A regular breeder in Cumberland; did not appear to be common, but the Eskimo say that some years they are quite plenty. The primaries were formerly in great demand for their arrows.

59. *Euphagus skua*, (Brünn.) Cones.

"Sea-hen" of whalers.

One specimen procured at sea, lat. 41° N., long. 68° W., Atlantic Ocean. Others were seen at the time. Appears to be of frequent occurrence on the George's, Newfoundland, and Nova Scotian banks in winter. Seen near Lady Franklin Island, north of Hudson's Straits, in September; they then had young ones on the rocks.

60. *Stercorarius pomatorhinus*, (Temm.) Vieill.

"Ishungak," Cumberland Eskimo and Greenlanders.

These birds were first observed at Bonne Bay, Newfoundland, August 16. From this point northward to 71° N. they were common at nearly all points, and from Belle Isle to Hudson's Straits they were abundant. They nest about Nugmente and Grinnell Bay, but not in Cumberland Sound. On the western shore of Davis Straits they are common, and nest at the mouth of Exeter Sound and at Shaumeer. I have, however, nowhere found them so very common as on the southern shores of Disko Island; at Laxbucht and Fortuna Bay there must have been many hundred pairs nesting. Their breeding-place was an inaccessible cliff, about half a mile from the seashore. The greater number of the birds nesting here were in the plumage described in Dr. Cones's monograph of the Laridæ as the *nearly* adult plumage; but there were also a good many birds that were unicolorous blackish brown all over, *but with the long vertically twisted tail-feathers*. That these were breeding I think there can be no doubt, as I saw them carrying food up to

the ledges on the cliff, for the young I suppose. They were very shy at Disko, and the greatest caution was required to shoot them. I shot none, even in full plumage, that did not have some white on at least one of the tarsi. They live to a great extent upon the labors of the kittiwake, though they do not hesitate to attack *Larus leucopterus* and even *glaucus*. They are destructive to young birds and eggs. It is a common sight to see five or six after one gull, which is soon made to disgorge, and then the jaegers fight among themselves for the morsel, which often gets lost in the *mêlée*. Eggs were procured at Claushavn, Greenland; the nest contained three eggs.

61. *Stercorarius parasiticus*, Brinn.

“Ishungak,” Cumberland Eskimo and Greenlanders.

This species seems to have the same general distribution as the foregoing, but, so far as my observations went, far from as common. Eggs were obtained from the Waigat Straits. They do not breed in Cumberland Sound; in fact, I rarely saw one in the Cumberland waters. This species seems to depend on *Rissa tridactyla* for the greater part of its food.

62. *Stercorarius buffoni*, (Boie) Cones.

“Ishungak,” Cumberland Eskimo and Greenlanders.

A very few of these birds visited the upper Cumberland waters in June, and soon disappeared. I doubt if they breed there. I saw but very few in all the localities I visited. Seems to be more common on the east than on the west coast of Davis Straits. One fine specimen was found dead on the ice, with a *wrought-iron nail* three inches in length in the œsophagus. The nail had probably fallen out of a whale-boat that had been dragged over the ice, and the bird had mistaken it for a fish. This species has probably the most northerly range of any of the jaegers. Breeds in the Waigat Straits and about Omenak on the Greenland coast. Said by the Eskimo to be the first to return in the spring. They certainly were the first to visit Anmanaetook.

63. *Larus glaucus*, Brinn.

“Nowgah,” Cumberland Eskimo. “Naga,” Greenlanders.

This gull is the first bird to arrive in spring. In 1878 they made their appearance in the Kingwah Fjord by the 20th of April. It was still about seventy miles to the floe edge and open water; still they seemed to fare very well on the young seals. Many are caught by them, and those partially devoured by foxes are carefully cleaned of every vestige of flesh. At this season, the Eskimo delight in capturing them in various ways. One of the most popular is to build a small snow-hut on the ice in a locality

frequented by the gulls. Some blubber or scraps of meat are exposed to view on the top, and seldom fails to induce the bird to alight on the roof of the structure. This is so thin that the Eskimo on the inside can readily see the bird through the snow, and with a quick grab will break through the snow and catch the bird by the legs. Some use a spear, thrusting it violently through the roof of the hut. Many are killed by exposing pieces of blubber among the hummocky ice and lying concealed within proper distance for bow and arrow practice.

By the middle of May they had become very abundant about Annanactook; still, there was no open water within fifty or sixty miles. These were all adults in full plumage; saw no immature birds till July. They settle on ice around the Eskimo encampments, and even on the rocks in close proximity to the huts. During this season they keep up an almost constant screaming at all hours of the day and night.

May 24, I noticed a couple of pairs building. I think this is the earliest date they would begin nidification at this latitude. June 4, I saw a few *L. glaucus* among a large flock of *Som. mollissima* that were diving for food outside the harbor in a small lead in the ice. As soon as the duck came to the surface, the gull attacked it till it disgorged something, which was immediately gobbled up by the gull. The gull picked several times at what was disgorged, which leads me to the belief that the food was small crustaceans. This piratical mode of living is very characteristic of *Larus glaucus*. At this season of the year there was so little open water in the vicinity that they would have had great difficulty in procuring any food therefrom themselves. I have taken the eggs by June 8, when there was more than a foot of newly fallen snow on the rocks; but the greater number do not nest within two weeks of this time.

A great many of these birds nest in Cumberland on what the Eskimo call "Nawyah nuna"—land of the Glaucous Gulls. This is an enormous cliff about one and one-half miles in length and over 2,000 feet in height, and nearly perpendicular. This cliff is about four miles from the seashore to the ENE. of America Harbor. Many hundreds of nests are scattered about on the little projecting shelves of rock, and the birds sitting on them look like little bunches of snow still unmelted on the cliff. The ascent to this locality is very laborious; but the marvelous beauty of the place will well repay any future explorer to visit it, for the plants that grow in such rich profusion at the base of the cliff, if nothing more.

This is the most common gull in Cumberland during the breeding season. I did not see any south of Resolution Island in September and

in October, but a very few as far south as the Kikkertarsoak Islands on the Labrador coast. They are far less common on the Greenland coast than *L. leucopterus*, while in Cumberland it is just the opposite. Eskimo from Cape Mercey tell me they are found all winter off the cape and about Shaumeer. A single specimen staid in the tide-rifts of the Greater Kingwah during the winter of 1877-78. In autumn they remain in the upper Cumberland waters as long as they continue open.

I have examined some nests that were built on the duck islands, always on the highest eminence; the structure seemed to have been used and added to for many years in succession, probably by the same pair. In shape they were pyramid-formed mounds, over four feet at the base and about one foot at the top, and nearly two and a half feet in height. They were composed of every conceivable object found in the vicinity, grass, sea-weed, moss, lichens, feathers, bones, skin, egg-shells, &c. The normal number of eggs is three, but often only two are found. Have taken the downy young in the latter part of June. I had an opportunity of seeing how these young hopefuls are instructed in egg-sucking. The parent carried a duck's egg to the nest and broke a hole in it, and the young one just helped himself at his leisure. After the young are full-fledged, these birds are eminently gregarious, and are often seen feeding in considerable flocks. The flesh is highly esteemed by the Eskimo; we found the young by no means despicable food.

The Eskimo use the skin with the feathers on for a part of their winter's foot-gear. They are extraordinarily greedy and voracious; nothing in the animal kingdom seems to come amiss to them. I have seen a half dozen tugging at an Eskimo dog skin; but this proved too much for them, though they made desperate attempts to get off some small pieces, which they would have eaten had they succeeded. Eggs, young or disabled birds, fish, and crustaceans are their common fare. They are also very fond of feeding upon seal carcasses. The first plumage of the young is much lighter than that of a yearling bird. This is just the opposite of *L. leucopterus*, they being the darkest when young. The young of *L. glaucus* gets darker in autumn, but when first fully fledged resembles more the bird of two years, except that there is no trace of blue on the mantle, and they have somewhat darker primaries.

64. *Larus leucopterus*, Faber.

"Nowyah," Cumberland Eskimo. "Nayangoak," Greenlanders.

The Eskimo do not distinguish between *L. glaucus*, *leucopterus*, *glaucescens*, and *argentatus*; they are all "nowyah"; in fact, I am led to

think it a sort of general term as they use it,—something like “gull.” This species is far less common in Cumberland than *glaucus*. On the Greenland coast it is the most common gull, except *Rissa tridactyla*. My opportunities for studying *leucopterus* were not very extensive, and my conclusions may be too hasty; but still it is worth while for others that may get better opportunities, to observe if the following points of difference are constant:

First. *Leucopterus*, 24 inches or less; *glaucus*, 27 to 32 inches.

Second. Tarsus and toes of *leucopterus* in fully adult birds often *orange-red*, and not flesh-colored as in *glaucus*.

Third. Ring around the eye in *leucopterus* flesh-colored; in *glaucus*, reddish purple.

Fourth. Young of *glaucus* in first plumage as light as the bird of the second year; the young of *leucopterus* nearly as dark as the young of *glaucescens*. The bill is also weaker and thinner than in *glaucus*.

Governor Fencker says he has often had birds that answered nearly to the description of *L. hutchinsii*, but with chrome-yellow bill, with vermilion spot, and not flesh-colored, with dusky tip; these birds were always found to measure *less*, however, than the average *glaucus*, which is directly the opposite of my experience with *hutchinsii*. There may be a gradation between the two species as far as regards size; but the above cited points of difference have proved good so far as my observations have gone. They mix indiscriminately with *glaucus* at all times, but are always readily distinguishable by their smaller size. Eggs were procured at Claushavn, Greenland, which are indistinguishable from those of *glaucus* except in size. A fine specimen, a full-fledged young, was secured on the Hunde Islands, Disko Bay, that had *four feet*, the second pair growing out of the knee-joint in front.

65. *Larus glaucescens*, Licht.

“Nowyah,” Cumberland Eskimo.

So far as I am aware this is the first instance on record of this bird being taken on the Atlantic coast. They are quite common in the upper Cumberland waters, where they breed. Arrived with the opening of the water and soon began nesting. The nest was placed on the shelving rocks on high cliffs. Two pairs nested very near our harbor; but the ravens tore the nest down and destroyed the eggs. Only a single well-identified egg was secured. This gull is unknown to Governor Fencker on the Greenland coast. They remained about the harbor a great deal, and were often observed making away with such scraps as

the cook had thrown overboard; were shy and difficult to shoot. Full-grown young of this species were shot in the first days of September; these were even darker than the young of *L. argentatus*, the primaries and tail being *very nearly black*.

66. *Larus marinus*, Linn.

“Nayardluk,” Greenlanders.

Observed in Cumberland only in late autumn; cannot ascertain that they breed there; quite common on the Greenland coast from 63° to 70° N. lat. Abundant in October on the South Labrador coast and Newfoundland. Hundreds daily frequent St. John’s Harbor, Newfoundland.

67. *Larus argentatus*, Brinn.

“Nowyah,” Cumberland Eskimo.

Not uncommon in Cumberland, and breeds to lat. 67° N. A mere straggler on the Greenland coast. Specimen shot June 20 in Cumberland contained ova as large as buckshot.

68. *Pagophila eburnea*, Gm.

“Nayauarsuk,” Greenlanders.

Very common in Kingwah Fjord and vicinity just before it froze up, for a few days only. None seen in spring. Does not breed in Cumberland. By no means common on the Greenland coast. The food of those I examined consisted of small crustaceans. I saw one trying to swallow the *wing* of a *Som. mollissima* that the cook had thrown overboard, when I shot it. The wing was so lodged in the œsophagus that it would certainly have choked the bird had it not disgorged. Those that visited our neighborhood seemed to have a very decided preference for meat. I once saw three or four alight on a seal that had just been killed, and attempt to get at the flesh. They are easily decoyed within shot by strewing pieces of meat on the ice. Were one of the most abundant and greedy birds around a whale carcass that had been killed in the vicinity. The specimens I procured that were nearly in adult plumage had a greenish yellow bill at base and bright yellow tip, with *no dusky markings*; the younger birds only had the bill clouded with dusky. There appears to be a marked difference in the size of the sexes, the female being one to two inches shorter than the male.

69. *Rissa tridactyla*, Linn.

“Nowaváh” (Little Nowyah), Cumberland Eskimo. “Tattarat,” or “Tatarak,” Greenlanders and Eskimo about Frobisher Straits.

The kittiwake was first noticed in the Straits of Belle Isle, on our outward passage, the 18th of August, 1877. From this point northward

they were with us constantly, if we were near land or far out at sea, in storm or calm, fog or snow; no day—scarcely an hour—but some of these interesting birds were our companions; often a few individuals only, at other times flocks of many hundreds or even perhaps thousands on the islands of the north Labrador coast. In Cumberland they are by far the most common gull, and in fact the most abundant species in fall, but so far as I could learn do not breed there. From September till the ice covered the water they were extraordinarily abundant, congregating in immense flocks. When the tide runs strong they follow the stream for many miles in regular order, about half their number constantly dipping into the water, while the rest fly on ahead a few feet; while thus feeding they remind one of a flock of passenger-pigeons feeding in a grain-field. The food obtained at such a time is mostly small crustaceans.

When a good feeding-place is found, the whole flock settles down, and so close together that almost any number can be shot. The jaegers are always on the alert for such flocks, and when they get near the gulls, they all foolishly take wing, when the jaeger singles out a likely looking subject, which is soon made to disgorge. The flock soon settles again, and the same manœuvre is repeated.

I did not see a single kittiwake in the upper Cumberland waters during spring or summer, where there were thousands the previous autumn. A very few immature birds were noticed on an iceberg, July 18, near Cape Mercy; but these were all I saw till nearing the Greenland coast, where they are more common still. The flesh is highly esteemed by the Danes resident on the Greenland coast; in fact, they form no inconsiderable portion of their meat supply during the latter part of July and August and September. We found the flesh of the young quite acceptable.

A few young birds were observed along the east coast of the Penny Peninsula as far as Exeter Sound, and in the pack-ice an occasional specimen was seen; but when nearing the coast of Disko their numbers increased to thousands. They followed the schooner constantly from this point till we got to the southern shores of Newfoundland, where few were seen.

Among the specimens collected by me were some that had scarcely any hallux, while in others it was as well developed as in any gull, and having a perfect nail. There is also every gradation between the two.

I saw a gull a little larger than *tridactyla*, in Godhavn Harbor, one day; it had a black head. The same afternoon Governor Fencker saw

it in front of one of the Eskimo huts, feeding from a pile of garbage; he also failed to secure it. The bird looked to me like an adult *L. franklini*, a bird not hitherto taken up as belonging to the Greenland fauna.

70. *Xema sabinii*, (Sab.) Leach.

On the 6th of October, 1877, on the passage from the Kikkerton Islands northward, a pair of these birds kept close to the stern of the schooner for many miles. I could easily have shot them, but it would have been impossible to procure them had I done so. Saw no others at any time.

71. *Sterna macrura*, Naum.

“Emukitlak,” Cumberland Eskimo and Greenlanders.

On the 19th and 20th of June there were thousands of these birds about Annanaetook Harbor, but this was also the only time I saw any. The Eskimo say they breed on the Seven Islands in Cumberland some years. They were first noticed in the Gulf of Saint Lawrence in August. From this point they seemed more or less common along the entire Labrador coast and the islands north of Hudson's Straits, but not in Cumberland. On the Greenland coast they are abundant, in suitable localities, to lat. 73° N. In Disko Bay they are very common, and breed by thousands. They begin migrating southward during the latter days of August, when the young are large enough to take care of themselves. Appeared to be plenty at the mouth of Exeter Sound, where “kaplin” are very abundant.

72. *Fulmarus glacialis*, Leach.

“Oohadluk,” Cumberland Eskimo. “Kakordluk” (white) and “Igaksook” (dark), Greenlanders.

On our outward passage these birds were first noticed off Belle Isle, August 20. From this point northward their numbers increased; they were everywhere close in shore and far out at sea, at all times and in all weather. Nearly all the Fulmars I saw in the autumn of 1877 were light-colored; saw none so dark as I did in the spring. They were very common in Cumberland till the middle of October. Were especially abundant off shore, Cape Chidly, Resolution Island, Grinnell Bay, and Frobisher Straits, during the latter part of August, September, and fore part of October. These were white with a pearly grey mantle and bright yellow bill. I also procured a few that were ashy; these I presumed were young birds; but in July, 1878, I found a few of these dark-colored ones, darker than any I ever saw in fall, breeding near Quickstep Harbor,

in Cumberland, on some small rocky islands. When fresh these dark-colored birds have a *bright olive-green gloss*, especially apparent on the neck and back. The bill is shorter, stouter, and thicker, dusky brown instead of yellow. On Blue Mountain, Ovipak, Greenland, these birds breed by myriads to the very summit of the mountain, about 2,000 feet. Here I could see *but few dark birds*; even the full-fledged nestlings were white.

In Exeter Sound and to the northward along the west shores of Davis Straits and Baffin's Bay, the dark variety seems to predominate. Near Cape Searle they are extraordinarily abundant, breeding by thousands on the Padlie Island, and they are so tame about their nesting-places that they can be killed with a stick. The eggs, even after being blown, for many months still retain the musky odor peculiar to the birds. Perfectly fresh eggs are quite good eating, but if a couple of days old the musky odor has so permeated them, even the albumen, that they are a little too much for a civilized palate.

So far as my observations went, more dark birds were seen in spring than in fall, so the dark plumage cannot be characteristic of the young.

The mollimoke is one of the greediest of birds. I have seen them feeding on the carcass of a whale, when their looks and actions were perfectly those of a vulture,—completely begrimed with blood and grease, and so full that they could not take wing. I found great difficulty in procuring white specimens that were not more or less daubed over with "gurry," especially about the head and neck. These birds possess extraordinary powers of flight, and are marvelously graceful on the wing, rising with the billow and again settling into the trough of the sea without any apparent motion of the wings.

73. *Cymochorea leucorrhœa*, Coes.

Noticed sparingly about Cape Mercy and Exeter Sound. Two specimens seen in Disko Fjord in August, when they were probably nesting. Far less common on the passage southward than the following.

74. *Oceanites oceanica*, Keys.

Traced as far north as Resolution Island on our outward passage; on the homeward, first seen about one hundred miles south of Cape Farewell.

75. *Puffinus kuhli*, (Briss.) Boie.

Common from Belle Isle to Grinnell Bay. Not observed in Cumberland, on the Greenland coast.

76. *Puffinus major*, (Briss.) Faber.

Abundant from Belle Isle to Resolution Island. Not observed in Cumberland.

77. *Colymbus torquatus*, Linn.

"Toodlik," Cumberland Eskimo and Greenlanders.

Quite common in Cumberland, where it breeds. Saw no specimens that approached the variety *adamsi*.

78. *Colymbus arcticus*, Linn.

"Codlulik," Cumberland Eskimo.

Not common, but breeds in Kingwah Fjord. First specimen shot June 24. Saw a few in autumn near Grinnell Bay. Not found in North Greenland according to Governor Fencker.

79. *Colymbus septentrionalis*, Linn.

"Kuksnk," Cumberland Eskimo. "Karksauk," Greenlanders.

Very common in all the localities visited by me. Begins nesting in the upper Cumberland waters in the latter part of June. The nest is placed on the low rocks with very little grass and moss beneath the eggs. They are very noisy, especially during the mating season. Do not leave as long as there is open water.

80. *Utamania torda*, Leach.

"Akparnak," Greenlanders.

Was seen on many occasions and often in close proximity to the ship from the outer islands of the Middle Labrador coast to Frobisher Straits. They were often noticed considerable distances from land. Are not found in Cumberland, but by no means rare on the entire west coast of Greenland to latitude 69° N. Off the North Labrador coast I noticed on several occasions a small auk (?) intermediate in size between *Mergulus alle* and *Uria grylle*, with much the same pattern of coloration as the former, but with tufts or plumes of white feathers on the head. I saw some with single young, and at one time killed three at a single discharge; but the ship was under such headway that the sailor stationed on the waist could not reach them with his pole and net. The bird is entirely unknown to me, but I suspect it will be found to be one of the small auks hitherto supposed to belong only to the North Pacific.

81. *Fratercula arctica*, (L.) Ill.

"Killaugak," Greenlanders.

Observed abundantly in the Gulf of St. Lawrence, and thence northward to Hudson's Straits. Not known to the Cumberland Eskimo; but common on the Greenland coast to 70° N. at least. Breeds plenti-

fully on the Hunde and Green Islands in Disko Bay, where eggs were procured. There seems to be no appreciable difference in Gulf of St. Lawrence specimens and those from North Greenland except in size.

82. *Mergulus alle*, L.

“Kaerrak,” Greenlanders.

Common on the north coast of Labrador, off Resolution Island, Grinnell Bay, and Frobisher Straits, but did not see any in Cumberland. I showed specimens to the Eskimo, and they called it a young “akpa” (*Lomvia arra*). So I presume the bird is very rare, if found at all, in the Cumberland waters. Still they are abundant off Exeter Sound and to the northward on the west coast of Baffin’s Bay. Governor Fencer says they nest to latitude 78° N., and perhaps farther. Nest abundantly on the Whale Islands in Disko Bay. I procured young off Resolution Island in the fore part of September. They were very common among the pack-ice in Davis Straits during July. Often a considerable number would be seen sitting on the ice. They seem devoid of fear. I have caught them from the schooner’s deck with a net on the end of a pole while they were swimming alongside.

83. *Uria grylle*, (L.) Lath.

“Pesholak,” Cumberland Eskimo. “Serbek,” or “Sergvak,” Greenlanders.

Was first observed off Resolution Island in the first days of September, 1877. They were then busily engaged fishing and carrying the fish up the cliffs to the young, which were not yet in the water. They are most expert divers and are often seen fishing where there is a considerable depth of water. I once shot an adult female that was carrying a little *Morrhua* 7 inches in length up to her young. This was on the 19th of September, and the young were not more than three-fourths grown at this date. I visited no locality either on Cumberland or on the Greenland coast where this bird was not abundant. Some sections are of course more suitable than others, and here they are very numerous. They began to change into the winter plumage in the latter part of September. Some of the earlier-hatched young were much earlier than this, but the adults were not in perfect winter dress till the middle of October. They remained about our winter harbor as long as there was open water, and even one or two staid in the Kingwah rifts all winter. In spring they returned as soon as there was open water. About the Southern Cumberland waters some remain all winter,—the Eskimo say only the young birds. At Annanactook Harbor they began nesting about June 25. The normal number of eggs is two; very rarely

three are found. Always nest in crevices and fissures of cliffs, where it is often extremely difficult to get at them. They are very tame; but it is next to an impossibility to shoot one on the water if the bird is watching you, for they dive quite as quickly as a loon. I have seen three entirely black specimens, which I considered to be *U. carbo*. One was procured in Cumberland, but was lost, with many others, after we arrived in the United States. I have examined specimens of *carbo* since in the Smithsonian collection, and my bird was nothing but a melanistic specimen of *U. grylle*. I also have seen an albino specimen.

There were a few birds in an air-hole in the ice near our harbor in the latter days of June that to all appearance resembled the autumn plumage of the young; but the ice was too treacherous for me to venture out, so I sent an Eskimo. He returned and reported them "Kanitucalo pechulak" (very near a Guillemot). But if he meant that they were in imperfect plumage or another species closely resembling *grylle*, I could not make out. He could not get close enough to the air-hole to procure the specimen he killed, and I never saw or heard anything more of them.

84. *Lomvia arra*, Brandt.

"Akpa," Cumberland Eskimo and Greenlanders.

I had hoped to be able to throw some light on the subject of the relationship of the Murres, but I find my material corresponds with my opportunities for observation—very poor and unsatisfactory. I first met these birds in numbers off the coast of Resolution Island, but many were seen farther south. About Grinnell Bay and Frobisher Straits they are common even as far as the mouth of Cumberland, but apparently quite rare in the waters of that sound. The Eskimo say they formerly bred in great numbers on the Kikkerton Islands; but they have now apparently abandoned them. There are large breeding-places about Cape Mery and Walsingham, the largest "rookery" being on the Padlie Islands in Exeter Sound. On the Greenland coast they are very abundant, breeding by thousands in many localities. Observed plentifully in the pack-ice in July. All the specimens collected by me were typical *arra*. I procured but one single *troile*. The var. *ringvia*, Brünn., Governor Fencker has not met during eleven years' collecting on the Greenland coast; and var. *troile* appears to be far from common. There is a remarkable variation in the distribution of the dark color, some being white on the throat quite to the bill, and again I have seen specimens entirely black. The dark markings on the eggs of *L. arra* and *troile*, as well as *A. torda*, can readily be obliterated with luke-warm water.