BIRDS OBSERVED BETWEEN POINT BARROW AND HERSCHEL ISLAND ON THE ARCTIC COAST OF ALASKA

By JOSEPH S. DIXON

Early in 1913 an expedition was organized by a group of graduates of Harvard University to visit the Arctic waters of Siberia and Alaska. Through cooperation of John E. Thayer and other friends of the Museum of Comparative Zoology, at Harvard, W. Sprague Brooks and I were able to accompany the expedition as zoological collectors and observers. As originally planned our expedition was scheduled to cover only six months from April to September, 1913. However, the Arctic seas did not thaw out much that summer and our ship was frozen in on September 3, 1913, seven miles off the Arctic Coast of Alaska near Humphrey Point (see map, fig. 13) and we were forced to spend nearly an extra year there. The Arctic ice melted so that our ship was able to navigate again on July 27, 1914, and Point Barrow was reached on the return voyage the following September.

Without adequate food and being forced to devise our own fur clothing, it was questionable at times whether we would survive the Arctic winter, but fortune favored us and all thirteen of us came through without the loss of a man. Because of the real danger that our ship might be crushed at any time by the heavy ice, we began hastily to sled our meager supplies ashore. Since we had no dogs we had to do the sledding ourselves (fig. 14). Winter base camp was established on shore about 35 miles west of the international boundary between Alaska and Canada. From this camp extensive

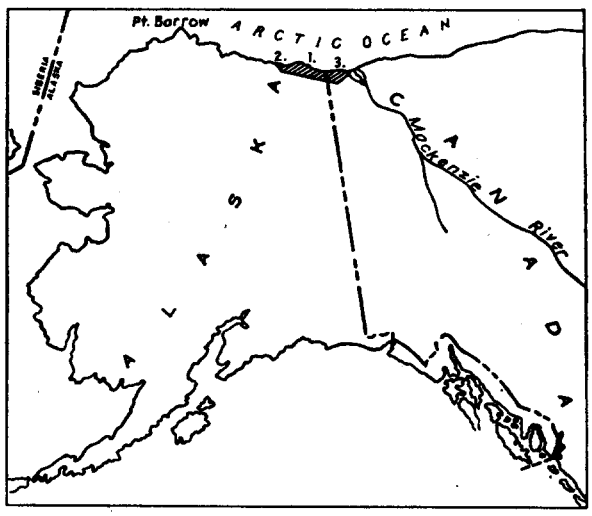

Fig. 13. Outline map of Alaska showing localities mentioned. 1, Humphrey Point and Griffin Point; 2, Collinson Point at Camden Bay; 3, Hershel Island. The shaded section, about 200 miles long, represents the chief area involved in this report.

collecting trips were made as far west as Collinson Point during the winter in February and March, while various members of the party made hunting trips along the coast and back into the foothills. I was fortunate in being able to spend a month, from February 6 to March 6, 1914, with Dr. R. M. Anderson who was in charge of the Southern Division

of the Canadian Arctic Expedition which was wintering at Collinson Point in Camden Bay, Alaska. This was the locality where we had done most of our collecting in August, 1913. It was interesting to compare the winter conditions with those which we had encountered during the previous summer at this place. Dr. Anderson gave me much valuable assistance as did also Messrs. Chipman and Cox and Mr. Hubert Wilkins, who later became famous for his exploration in the Antarctic.

On March 8, 1914, I returned to Humphrey Point and since Mr. V. Stefansson was seeking someone to leave in charge of one of his depots at Demarcation Point, Mr. Brooks and I gladly offered to take care of the supplies. Accordingly, March 13 to

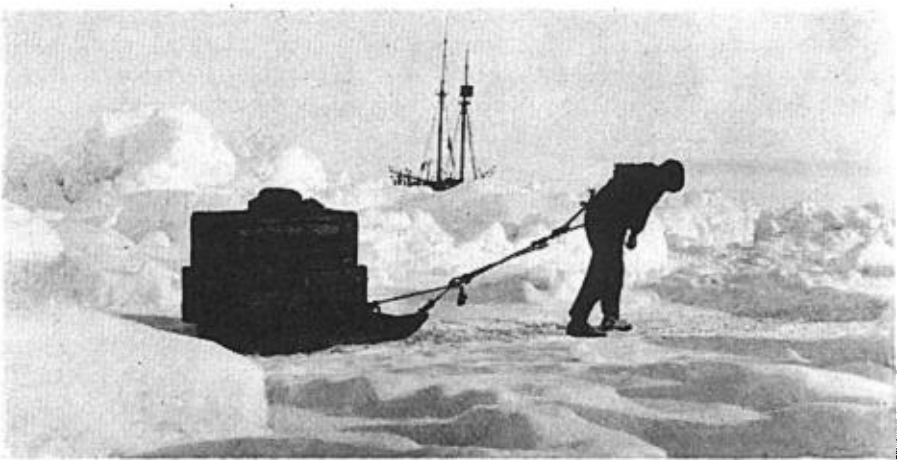

Fig. 14. Ice conditions where ship was frozen in near Humphrey Point. The author is shown sledding supplies ashore, September 10, 1913.

April 30 was spent in the general vicinity of Demarcation Point where Mr. Brooks remained, while on May 1, 1914, I returned to our base camp at Humphrey Point and remained there until July 27 when the ice pack melted enough so that our ship, the "Polar Bear," was again able to navigate.

The period from May 1 to July 27 was exceedingly fruitful because as many as five or six members of our expedition spent considerable time in hunting eider ducks, geese and loons. These made a most welcome addition to our larder because the only fresh meat that we had during the winter consisted of a few hair seals which we had killed and frozen the previous October, augmented by one polar bear which visited our camp and attempted to eat an Eskimo's skin boat and was himself killed and eaten.

I thus had an opportunity to examine many birds which were shot for food which I was unable to save as specimens. Even though I worked from 20 to 24 hours a day, there were times that I was unable to keep up and had as many as 20 to 30 ducks, loons and geese waiting preparation. A few specimens that were preserved disappeared via Eskimo dogs and a good deal of information was recorded in my field note books that is not covered by Brooks in his previously published account as presently explained. However, most of my observations strengthen and support his. I therefore have not attempted to list all species that we collected but only to corroborate and add to previous records.

Knowing that distillate for our engines might be had at Herschel Island, we made that our next objective, reaching there on July 28, 1914. By this time Mr. Brooks,

who had remained at Demarcation Point, arranged to go out on a small vessel, "The Olga," which was headed straight for Point Barrow as soon as the ice pack and a broken but repaired engine shaft would permit. He, therefore, was not with me at Herschel Island and we did not see each other again during the trip. At Herschel Island I found collecting prospects were so bright and I was so kindly received by the Royal Canadian Mounted Police that I decided to remain there while the "Polar Bear" continued on her whaling voyage to Banks Island. This gave me an excellent opportunity to study the bird life at Herschel Island and on the adjoining mainland from July 28 to August 21, 1914. I then rejoined the "Polar Bear" upon her return from her whaling cruise to Banks Island, thus reaching Point Barrow on September 1, 1914, and arriving in California the middle of October, just thirteen months late for my own wedding.

In order to give the reader some idea of conditions that exist inland from Demarcation Point, I have selected a typical spring day, April 22, 1914, when I hiked to the foothills of the Richardson Mountains which lie south of Demarcation Point. According to the Alaskan-Canadian Boundary Survey chart, the nearest spur of these foothills was 12 miles from our camp. It took six hours of hard hiking over the flat snow-covered tundra plain to reach my objective. Here at an elevation of about 700 feet I found that some of the south-facing ridges were just becoming free of snow and a few of the hardy plants were starting to grow amid the sharp black rocks.

One Snowy Owl (fig. 15) and one ground squirrel were the only living animals seen in the course of the entire day. I heard one male ptarmigan give his mating call but this was the only sound that I heard in the 14 hours that it took me to make the round trip. Ptarmigan tracks were numerous along some stunted willow thickets where a stream entered the foothills. During the day I crossed 25 fox trails made in the snow. These red fox tracks were even seen in pairs and the sequence of tracks indicated that the foxes were mating. The season on the southern exposure of these foothills was clearly several weeks earlier than along the ice-bound ocean (see fig. 16) where the thermometer still frequently dropped below zero. The glare of the brilliant sunlight that was reflected from the snow was intense and my face was badly "snow burned" while my ears seemed to sunburn and freeze at the same time.

During the entire trip I collected about 1000 specimen of birds and mammals together with 200 pages of field notes pertaining to them. This material, with the exception of a few skins lost in the field, reached Boston safely but while it was being "worked up" at Boston my field notes were misplaced and were lost for a number of years. There were of course many data in them that were not included by W. Sprague Brooks when he published his "Notes on Birds from East Siberia and Arctic Alaska" (Bull. Mus. Comp. Zool., 59:361-413) in September of 1915. Some ten years later, Dr. R. M. Anderson published the results of his excellent studies of Arctic birds (Volume 2 (Birds and Mammals) of the Canadian Arctic Expedition Reports, 1913-1918).

Since a scarcity of migration and breeding records for the Arctic Coast of Alaska between Point Barrow and the mouth of the Mackenzie River still exists, I have recently gone over my original field notes and selected and compressed into a few pages some additional items and observations that seem to have the greatest value as bearing on nesting and migration of birds along this northeastern coast of Alaska and I present them herewith.

Gavia adamsii. Yellow-billed Loon. A marked migration eastward was noted in June, 1914. The first spring migrant, a female weighing 10 pounds, was collected near Humphrey Point on June 3, 1914. A male collected on June 7, weighed 12 pounds and had a wing spread of 61 inches, a length of 34½ inches, wing of 16½ inches, and bill of 5½ inches. On June 14, 1914, three males, all exceedingly fat and weighing 10, 10¾ and 10¼ pounds, were collected. Close watch was kept and although

Fig. 15. A large female Snowy Owl perched near winter camp at Humphrey Point, November 20, 1913.

five females were collected, I found no positive evidence that they bred along this section of the Arctic coast.

Gavia arctica pacifica. Pacific Loon. Many were noted in migration at Camden Bay on August 9, 1913. The first spring arrival was noted and collected at Humphrey Point on June 3, 1913. On July 26, 1914, at Icy Reef near Demarcation Point I found a nest of this species between two small islands in a tundra pond (fig. 17). The nest contained one incubated egg and was built of coarse sedge and grass stalks that had been bitten off by the bird. It was half floating in 8 inches of water and measured 2 feet across at the base and was six inches high. The egg rested in a slight depression on the top of the nest.

Gavia stellata. Red-throated Loon. At Camden Bay on August 9, 1913, many were observed in migration and the first specimen was collected the following spring on June 13 at Humphrey Point.

Cygnus columbianus. Whistling Swan. Rarely seen. One collected on June 15, 1914, near Humphrey Point had a length of 44 inches and a wing-spread of 73 inches; it weighed only 12 pounds.

Branta canadensis leucopareia. Lesser Canada Goose. As Taverner has pointed out in his "Birds of the Eastern Arctic" (Canada's Eastern Arctic, Department of the Interior, 1934:117) this is the Hutchins Goose of the old A.O.U. Check-list and equals Hutchins Goose of the field notes of Brooks and myself. The first spring arrival was noted on June 1, 1914, when one was shot 12 miles east of Humphrey Point. On June 13, 1914, a flock was seen flying eastward at Humphrey Point. At Herschel Island a flock, all with molting primaries and unable to fly, was noted on August 1, 1914, and a specimen collected there a week later had fresh wing and tail feathers nearly two-thirds grown. Probably breeds in the Mackenzie Delta.

Branta nigricans. Black Brant. On August 16, 1913, a flock of about 100 birds was noted flying westward in fall migration at Camden Bay. The first spring arrivals were noted on Humphrey Point on May 21, 1914. On May 29, 1914, several flocks of brant were seen migrating eastward. On June 1, 1914, single brant and groups numbering up to 75 birds were seen migrating eastward between 7 and 10 o'clock in the morning. Some flocks kept a half mile offshore over the ice and others followed the coast line, while some cut across the tundra inland. The spring migration continued in force until June 13, 1914, when three flocks were seen, all going eastward.

Anser albifrons albifrons. White-fronted Goose. A rare straggler. One was shot 12 miles east of Humphrey Point on June 1, 1914. In size it seemed nearer *albifrons* than *gambeli*, as reported by Brooks.

Fig. 16. View looking out over Arctic Ocean near Demarcation Point on September 1, 1913.

Chen hyperborea hyperborea. Lesser Snow Goose. Several flocks were noted at Camden Bay on August 16, 1913. All were flying westward toward Point Barrow. The first spring arrivals were noted at Humphrey Point on June 1, 1914, when three flocks were noted migrating eastward. I had expected these snow geese would come from the Mackenzie River but instead they came from the direction of Point Barrow.

Anas platyrhynchos platyrhynchos. Common Mallard. One female was shot near Humphrey Point by natives on July 13, 1914. She was the only mallard among several hundred other ducks killed in the locality that season. Her ovaries were undeveloped, indicating the possibility of a non-breeding bird.

Dafila acuta tzitzihoa. American Pintail. Not common. The first spring arrivals were noted at Humphrey Point on May 29, 1914, when a flock of seven was found on an inland tundra pool. We found no evidence of nesting.

Nettion carolinense. Green-winged Teal. A family of seven was seen on August 8, 1914, and two were collected on August 9 in a pond at Herschel Island; these were the only ones noted and they probably were raised near by.

Clangula hyemalis. Old-squaw. An abundant and noisy duck. Several flocks of spring migrants were noted at Humphrey Point on May 25, 1914, going eastward. Bred locally. On July 27, 1913, at Cross Island a pair was collected out of nearly one hundred which were then flightless due to molting of flight feathers. Another collected at Humphrey Point on September 27, 1913, had completed the fall molt.

Polysticta stelleri. Steller Eider. On June 13, 1914, near Humphrey Point, eight were found sunning themselves on the bank of a small tundra pool and a male and two females were collected. On June 17, two pairs were seen trying to find a suitable nest site on the tundra ponds and from later observation I believe they bred there.

Somateria v-nigra. Pacific Eider. Breeds along the coast both east and west of the Mackenzie Delta. First noted on July 31, 1913, near Flaxman Island, when several flocks were seen on ice floes. At Camden Bay on August 16, 1913, flocks were seen migrating westward. At Demarcation Point on August 29, 1913, one adult with six half-grown young unable to fly were seen partly frozen in by new ice, one inch thick, which was then forming daily. Two young loons, also unable to fly, were likewise noted trapped by the ice. On September 27, 1913, at Humphrey Point four young still unable to fly were collected. On October 14, 1913, one flock was seen in an open "lead" of water six miles offshore at Humphrey Point. The last fall migrant was seen at the mouth of the lagoon at Humphrey Point on November 8, 1913.

In 1914, Pacific Eiders arrived on their spring migration during the last week in May. On June 3, one was collected at Humphrey Point that had no black "V" on its throat. On June 17 a pair that had remained about a grassy islet in one of the larger tundra ponds at Humphrey Point showed definite nesting activity. The males were the first to leave on the fall migration. On July 5, 1914, two flocks of 75 birds each, *all males*, were noted migrating westward at Humphrey Point.

Somateria spectabilis. King Eider. The first spring arrivals were found five miles offshore in a small lead of open water in an extensive field of ice at Humphrey Point on May 15, 1914. On May 26, 1914, four were seen flying over the tundra and a breeding male was collected on June 13, 1914, near Humphrey Point. A breeding pair was collected on June 14, 1914. On June 26, 1914, at Humphrey Point I found a female brooding three eggs. The nest was without lining and was placed on a small islet, 2x3 feet in extent, in a quiet secluded tundra pond (fig. 17). The male waited anxiously near the nest until I came within 25 yards before taking flight. The female remained flattened on the nest until I waded within 12 feet of her. The nest was merely a mossy cup sunk in the tundra moss.

On July 2, 1914, I frightened a female from her nest containing six eggs when I fired a shot at a jaeger. I had previously passed within 20 feet of the nest but the duck had crouched low with out-

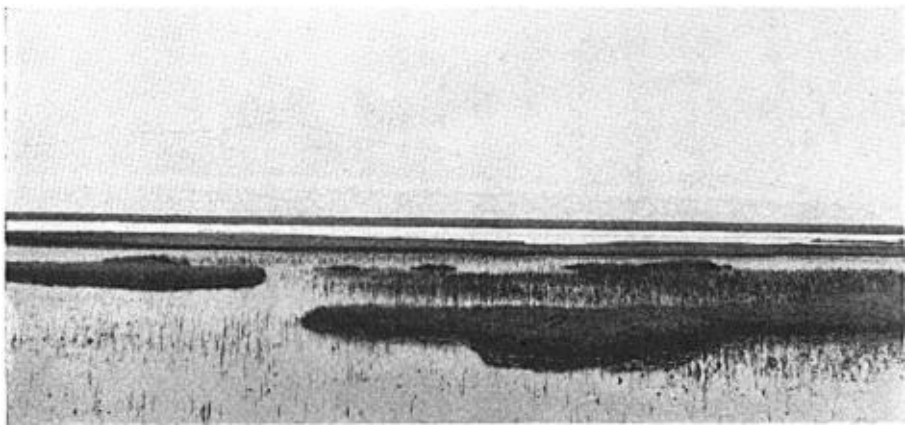

Fig. 17. View to landward showing tundra ponds; eider ducks and loons nested on small islets shown in center of photograph; Humphrey Point, July 2, 1914.

stretched neck and remained motionless on the nest, thus escaping notice. On June 2, 1914, at Humphrey Point, many flocks of *male* King Eiders were seen migrating westward toward Icy Cape where there are said to be extensive molting grounds. On July 4, 1914, several females were taken, which dissection showed were non-breeding. On July 13, 1914, several hundred King Eiders, *all males*, in flocks of from 50 to 100, were seen flying westward along open leads offshore at Humphrey Point.

Mergus serrator. Red-breasted Merganser. A breeding male was collected at Griffin Point on June 24, 1914, but the species was rare there. At the mouth of Firth River on August 2, 1914, a female was seen piloting her family to safety with one youngster riding on its mother's back.

Buteo lagopus s. johannis. American Rough-legged Hawk. One very gray bird was noted at Humphrey Point on May 13, 1914, and a used nest was found on a steep bank at Herschel Island on August 8, 1914.

Falco peregrinus anatum. Duck Hawk. A single bird was noted at Humphrey Point on July 2, 1914. Another was seen in pursuit of a Semipalmated Sandpiper at Herschel Island on August 2, 1914.

Falco columbarius columbarius. Eastern Pigeon Hawk. One female was collected (J. S. Dixon no. 3485) from the ship's mast when we were in the ice near Demarcation Point on September 1, 1913.

Lagopus lagopus alascensis. Alaska Ptarmigan. The Alaska (Willow) Ptarmigan was abundant in late summer of 1913 at Humphrey Point but it spent the winter inland, returning to the coast again the following April. On August 3, 1913, several families of ten to fourteen half-grown young were found at Camden Bay. Near Demarcation Point on September 1, 1913, several of these ptarmigan shot were molting into the white winter plumage but still had brown backs. By September 27, 1913, they had collected into large flocks and by October 15 they were all pure white and were not seen again on the coast until March 3, 1914, when the thermometer registered 46° below zero. The first spring arrivals were noted at Demarcation Point on April 6, 1914. These ptarmigan seemed to be aware that the broken cakes of sea ice were their safest hiding and roosting place through April be-

cause they then left the tundra at night and roosted in holes dug in snow-filled cavities out in the broken ice. On April 17, 1914, two ptarmigan out of twenty-five shot had brown feathers coming in on the tops of their heads. The combined weight of the twenty-five birds shot was 35 pounds. Ptarmigan were a most important food item after a winter of fresh meat starvation. By May 13, 1914, at Humphrey Point, the males were in full breeding plumage. They cackled and strutted about like diminutive turkey gobblers. From far and near their calls were heard over the snowy plain between the sea coast and the foothills. On May 20, 1914, I found one old cock with a harem of six hens. No other males could be found near and it appears that one cock may thus breed with several hens. A female taken for a specimen on June 19, 1914, had 57 beetles which formed one-fourth of her crop contents, the other three-fourths consisting of green willow leaves. On June 27, 1914, a ptarmigan nest containing 11 eggs was found four miles inland from Humphrey Point but these eggs were all destroyed by a jaeger before they hatched.

Lagopus rupestris kelloggae. Kellogg Ptarmigan. These ptarmigan were found in rolling foothills at Camden Bay on August 3, 1913. On September 1, 1913, near Demarcation Point, ten that were shot were in almost complete winter plumage. The following spring by May 12, 1914, they were common near Humphrey Point where dark patches of tundra free of snow occurred near the beach and adjacent to patches of creeping arctic willows upon which these ptarmigan fed. On July 4, 1914, near Humphrey Point a pair of these birds was collected amid grass-grown drift wood practically on the beach. They were then in full summer plumage.

Grus canadensis canadensis. Little Brown Crane. The first spring arrivals were seen May 17-18, 1914, at Humphrey Point. They were heard calling on June 13, but they were rarely seen after that date.

Pluvialis dominica dominica. American Golden Plover. A rather rare breeder. The first spring arrival was noted at Humphrey Point on June 3, 1914. The last fall migrant was noted at Herschel Island in a dry creek bed on August 1, 1914.

Squatarola squatarola. Black-bellied Plover. A female was seen on August 3, 1913, at Camden Bay and flocks of from seven to twenty were seen there on August 9, 1913. The first spring arrival (J.S.D. no 3622 ♂) was seen and collected at Humphrey Point on June 3, 1914.

Arenaria interpres morinella. Ruddy Turnstone. One was collected on August 13, 1913, at Camden Bay. The first spring arrival was noted at Humphrey Point on June 8, 1914. On June 28, 1914, two pairs in breeding condition were collected 12 miles inland along a river bed.

Phaeopus hudsonicus. Hudsonian Curlew. The only one seen was noted at Humphrey Point on June 10, 1914, when it flew by low just over my head.

Tringa solitaria solitaria. Eastern Solitary Sandpiper. Rare. The one female I collected at Humphrey Point, June 1, 1914, upon dissection showed no immediate signs of laying.

Pisobia melanotos. Pectoral Sandpiper. First noted and collected on August 3, 1913, at Camden Bay. By August 9, 1913, many had departed on their fall migration. The first spring arrivals at Humphrey Point were seen on May 23, 1914, when three were collected and four others noted. By June 13, 1914, they were in full nuptial flight and on June 17, 1914, three pairs were seen mating and nesting but were much less in evidence on June 23. At Herschel Island the first fall migrants were noted leaving on August 9, 1914.

Pisobia bairdii. Baird Sandpiper. On June 26, 1914, six were seen and one was flushed from a nest containing three fresh eggs which were laid in a little depression in the tundra without any protection or shade. On July 11, 1914, at Humphrey Point a nest containing four well-incubated eggs was found on open dry tundra. At Herschel Island on July 28, 1914, many immature birds, some with natal down still on their heads, were noted.

Pelidna alpina sakhalina. Red-backed Sandpiper. Rare. At Humphrey Point, June 15, 1914, I collected a female with an egg ready to lay in her oviduct. On July 4, 1914, four were seen on the tundra at the same locality.

Limnodromus griseus scolopaceus. Long-billed Dowitcher. Rare. Two, the only ones seen and collected were with Pectoral Sandpipers at Herschel Island on August 20, 1914.

Micropalama himantopus. Stilt Sandpiper. The only ones I saw were three collected on August 2, 1914, at Herschel Island.

Ereunetes pusillus. Semipalmated Sandpiper. Common breeder. At Camden Bay many were seen leaving on the fall migration on August 9, 1913. The first spring arrival was noted on May 24, 1914, at Humphrey Point and the first nest with eggs was found there on June 13, 1914. Another nest containing four fresh eggs was found in a little tuft of grass on a slight ridge of dry tundra on June 19. On June 21, 1914 "skim" ice remained on the ponds all day and the brooding sandpipers stayed on their nests all day. The first brood of four downy young (still wet) was discovered at 10 a.m. on June 30, 1914. On July 1, when the skim ice did not thaw out until 1 p.m., the young ran about foraging actively on insects but were hovered by their parents at five-minute intervals. On July 26, 1914, at Icy Reef young ready to fly were noted with their parents.

Crocethia alba. Sanderling. Several were seen and two specimen collected at Demarcation Point on September 1, 1913.

Phalaropus fulicarius. Red Phalarope. Common breeder. On July 31, 1913, twelve were seen near Flaxman Island, and on August 9, 1913, many were found on tundra pools at Camden Bay. The first spring arrivals, a pair, were taken on June 3, 1914, at Humphrey Point. By June 13, many females were courting males. On June 27, 1914, a nest with four eggs was found. The eggs were placed in a little depression amid green sedges that had sprung up in a partly dry pond. The female flushed when I came within 10 feet of her. Another pair was seen daintily picking small insects off of sedges that were just growing out of the water. By the last of June, Red Phalaropes were growing scarcer and Northern Phalaropes increasing at Humphrey Point.

Lobipes lobatus. Northern Phalarope. The first spring arrival was seen at Humphrey Point on June 11, 1914, but this species was not as common as the Red Phalarope. The first nest, containing three eggs, was discovered on June 20, 1914, and on June 27, 1914, a nest containing four eggs was found. This nest was completely protected from above by overlapping grass and entrance was gained

Fig. 18. Male Northern Phalarope hovering brood of three chicks; Griffin Point, July 13, 1914.

through a little tunnel in the grass at one side. A brood of four downy young was found on July 8, 1914; they were paddling about in a shallow tundra pond. The yellowish green stripes of their backs blended perfectly with the yellow grass as they flattened out on my approach. These young phalaropes are excellent swimmers and walkers, being superior to young sandpipers of comparable age. Their *father* fluffed out his breast feathers and hovered all four young at frequent intervals. The female did not hover the young at all, being away part of the time, whereas the male parent once allowed me to pick him up while he was hovering three chicks (fig. 18).

Stercorarius pomarinus. Pomarine Jaeger. Not common. The first spring arrival was noted between Griffin Point and Humphrey Point, May 24, 1914, when one (J.S.D. no. 3564) was collected.

Stercorarius parasiticus. Parasitic Jaeger. Several were seen on August 3, 1913, at Camden Bay. The first spring arrival was noted at Humphrey Point, May 30, 1914.

Larus hyperboreus. Glaucous Gull. The first spring arrival was seen at Humphrey Point on May 14, 1914. Young were found and one collected on August 1, 1914, on a low sandpit at the mouth of Firth River.

Pagophila alba. Ivory Gull. Rare. Although I spent many days offshore on the ice, I saw and preserved but one of these birds which was caught by an Eskimo in a steel trap the last week of November in 1913 about five miles offshore from Humphrey Point. This frozen bird measured: wing, 12⅞; bill, 1 7/16; tarsus, 1⅛ inches; and it had pure white plumage and black feet.

Xema sabini. Sabine Gull. Rare. The first spring arrival was seen and collected at Humphrey Point on June 3, 1914. Another was taken there on June 13, 1914.

Sterna paradisaea. Arctic Tern. Not common. Six were seen on July 31, 1913, at Camden Bay. The first spring arrival was noted at Humphrey Point on May 29, 1914. A few were found nesting on a low sandspit at the mouth of the Firth River on August 2, 1914.

Nyctea nyctea. Snowy Owl. Regular resident. One was seen on August 4, 1913, at Camden Bay and one remained about our camp during most of December of 1913. One was seen on April 22, 1914, 12 miles southwest of Demarcation Point. On May 26, 1914, at Humphrey Point one Snowy Owl was seen watching for lemming mice. On June 1, 1914, there was a well defined migration of these owls. Seven were seen between 4 a.m. and 7:30 p.m. flying eastward singly along a crack in the sea ice 100 yards offshore at Humphrey Point. On June 7, 1914, one tried to carry off an Old-squaw Duck that had been crippled.

Asio flammeus flammeus. Short-eared Owl. The first spring arrival was seen at Humphrey Point on May 20, 1914, and one was seen there watching for lemmings on May 26, 1914. A male collected on June 13 was ready to breed.

Otocoris alpestris arcticola. Pallid Horned Lark. The first spring arrival, a male with testes the size of sweet pea seeds, was collected at Humphrey Point on May 7, 1914. I did not see the species again until a flock of eight was encountered on August 9, 1914, at Herschel Island.

Perisoreus canadensis fumifrons. Alaska Jay. A straggler, many miles from timber, came aboard the ship "Elvira" when it was stuck fast in the ice offshore from Demarcation Point on the first of September, 1913.

Corvus corax principalis. Northern Raven. A widely distributed but sparse resident. Ravens were not seen by us in the winter along the sea coast. On April 28, 1914, when a flock of 40 ptarmigan was hunted, they flew out and attempted to hide amid the broken salt ice cakes 100 yards offshore. As soon as the ptarmigan flock flew, a raven came sailing in from a distance and made repeated attempts to seize a ptarmigan with his bill, causing the flock to scatter like frightened quail. The raven swooped so vigorously at the ptarmigan that I first thought it was a hawk. A pair of ravens was seen at Humphrey Point on May 12, 1914. A raven shot by an Eskimo in the Endicott Mountains in April measured in inches: length, 24½; tail, 10; wing, 17½; tarsus, 3; bill, 3 (measured by me May 29).

Anthus spinoletta rubescens. American Pipit. Two male pipits were collected along the margin of a melting snow bank at Herschel Island on August 9, 1914.

Dendroica magnolia. Magnolia Warbler. A rare straggler. I obtained a single specimen, an immature, judged by the skull; it was picked up dead, apparently from cold and exhaustion, on the sea ice about one mile offshore from Humphrey Point on October 1, 1913.

Acanthis hornemanni exilipes. Hoary Redpoll. On August 3, 1913, at Camden Bay I saw and collected an immature bird. On October 1, 1913, another specimen was collected from the ship's rigging when the ship was frozen in the ice off Humphrey Point. The first spring arrivals were noted at Humphrey Point on May 13, 1914, when a flock of ten was seen amid dwarf willows along a creek. On June 27, 1914, a female was collected there; it had an egg in the oviduct that was nearly ready to lay.

Junco hyemalis hyemalis. Slate-colored Junco. Rare straggler. The only one I observed during the entire trip was collected while it was feeding amid some driftwood on the beach near Griffin Point on October 1, 1913.

Spizella arborea ochracea. Western Tree Sparrow. A rare straggler. The only one seen was a young bird caught in a mouse trap at the mouth of Firth River on August 1, 1914.

Calcarius lapponicus alascensis. Alaska Longspur. An abundant breeder. The first spring arrivals, two males, were seen at Humphrey Point on May 18, 1914, but they were common there by May 24. They ceased singing about 10:30 p.m., roosting in the tall grass until 2:30 a.m. A nest containing five eggs was found on June 17, 1914. This nest was placed in a tussock of grass on dry tundra. On June 22, 1914, a nest containing six incubated eggs was found. Five young from the first nest were all able to leave on June 25. These young could fly 50 yards at a time on June 27. On July 30, 1914, I found that the adult longspurs were all difficult to flush because they were molting so fast that they scarcely could fly. A fully-fledged immature specimen was collected on August 9, 1913, at Camden Bay.

Plectrophenax nivalis nivalis. Eastern Snow Bunting. A common breeder. The first spring arrivals, a pair, were seen at Humphrey Point on May 1, 1914. Buntings were common there by May 7. On June 14, 1914, at 8 a.m. a female began building a nest in a fold of our canvas roof. The base and exterior of the nest were composed of roots and wet grass carried 100 yards. The walls of the nest were made of fine grass and lined with duck feathers. Trips for material averaged two to three minutes. The male did not assist. This nest was completed at 10 p.m. that evening, fourteen hours from starting time and the first egg was laid the following morning. On June 17, a female was found incubating three eggs in a nest wedged in a narrow frost crack in a cut bank. The male roosted in another crack near by. Most nests contained four or five eggs. The young developed rapidly; all of them had left the nest by July 30 at which date the adults were in the midst of the annual molt. Two immatures were seen on the wing at Camden Bay on July 27, 1913. One immature was collected there on August 3, 1913, and seven were last seen flying eastward in migration at Humphrey Point on September 27, 1913.

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