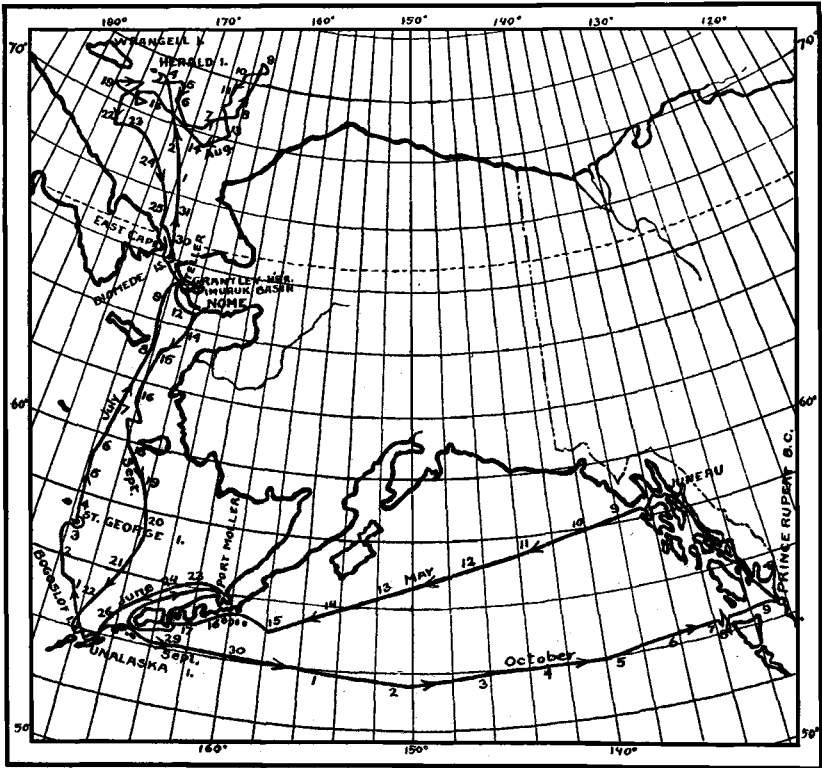


WATER BIRDS OBSERVED ON THE ARCTIC OCEAN
AND THE BERING SEA, IN 1928.

BY F. L. JACQUES.

It was the writer's good fortune during the summer of 1928 to be a member of the Stoll-McCracken Expedition of the American Museum of Natural History to the Arctic Ocean. The expedition left Prince Rupert, B. C., on May 1, 1928, on the schooner



Route of the Voyage, with Dates.

Morrissey, under command of Captain Bob Bartlett, arriving at Juneau, Alaska, May 4, via the inside passage. After leaving Juneau the real work of the expedition began.

Three days were spent at Lisianski Strait, Chichagof Island. On May 9 we passed out through Cross Sound into open water, crossing the Gulf of Alaska to the Shumagin Islands, which were reached on the fifteenth. Passing through Unimak Pass we arrived at Port Moller, on the Bering Sea side of the Alaskan Peninsula, where the party remained from May 22 until June 23.

After leaving Port Moller we sailed out along the Aleutian Islands. A brief stop was made at Dutch Harbor, Unalaska Island, and two days were spent at Kashega Bay, toward the western end of the same Island. From here we left the Aleutians and passed northward through Bering Sea. After stopping at St. George Island in the Pribilof group, July 4, we arrived at Teller, Alaska and Grantley Harbor on July 10.

Here we were delayed by a broken propeller shaft until July 27, and a brief stop was also made at the Little Diomedes in Bering Strait. We entered the Arctic Ocean July 30.

On August 4 we were but a short distance off Herald Island, but ice prevented a landing. From that time until August 23 we were constantly in touch with the ice, reaching 72° 32' north latitude, 166° west longitude, on August 9.

From August 23 until we left the Strait storms were the rule. On August 26 the western half of Bering Strait was closed with ice that had been driven down from the northern shore of Siberia. East Cape and the mountains back of it were covered with new snow. September 7 we anchored again at Teller, after having been at sea constantly since July 27.

Leaving Teller September 12, and Nome September 13, we landed on Bogoslof, a volcanic island in the Aleutians, September 23, Dutch Harbor, September 26, and the whaling station on Akutan Island, September 28. Unimak Pass was cleared early on September 29, and we arrived at Prince Rupert, British Columbia, on October 9.

The accompanying map will aid the reader, who should know not only where we were, but where we were not.

Colymbus holboelli. HOLBOELL'S GREBE.—Present at Prince Rupert April 25 to May 1. Common at Wrangell Narrows, May 3. Several were seen on fresh water ponds near Port Moller, June 4 and 20.

Gavia immer. LOON.—Abundant on the inside passage, mostly in

winter plumage May 3. Most were in the summer plumage at Lisianski Strait May 7 and 9, where their call was frequently heard. Several were seen flying northwest some miles offshore May 9.

Gavia adamsi. YELLOW-BILLED LOON.—One bird of this species was seen in the salt water channel between Grantley Harbor and Imuruk Basin near Teller, July 21, and probably two others. One was seen at sea north of East Cape. Two birds which I believe were this species were seen May 5 near Juneau.

Gavia pacifica. PACIFIC LOON.—It proved difficult to distinguish between this bird and the Red-throated Loon. All that were positively identified, usually by the note, were Pacific Loons. It was common about the Port Moller region June 1 to 23, usually flying high over the tundra. Present on the Tuksuk and Imuruk Basin, and undoubtedly bred abundantly on the delta of the Agiapuk River, Imuruk Basin, near Teller. Often seen at sea.

Lunda cirrhata. TUFTED PUFFIN.—This bird was first seen on Cross Sound, southeastern Alaska, May 6. Present in the Gulf of Alaska, and numerous in Unimak Pass, May 20. Numerous near Unalaska, June 26. Breeding on islands off Kashega Bay, Unalaska Island. A few dead were found on Bogoslof Island, September 23, which would indicate the presence of breeding birds. Although an abundant breeder at St. George Island it is outnumbered there by the Horned Puffin about ten to one. Abundant and breeding on the Diomedes, being slightly outnumbered by the Horned Puffin. One bird was seen at 70° north latitude. No others were seen much north of Bering Strait. On September 4 they were still as numerous on the Diomedes as on our previous visits, breeding high up on the cliffs. I saw no young birds or birds in winter plumage. Present about Sledge Island, September 12. On October 1, birds without the white cheek patches were seen in the north Pacific. Seen practically everywhere throughout Bering Sea and the North Pacific, but not in the bays or inshore except near its breeding islands.

Fratercula corniculata. HORNED PUFFIN.—First seen at False Pass, Alaska Peninsula, May 18. Seen about Port Moller sparingly, and about Unalaska Harbor and Kashega Bay where cliffs suitable for breeding are present. Far outnumbering the Tufted Puffin on St. George Island, and probably on the Diomedes, though this impression may be deceptive, as the Tufted Puffin ranges farther off shore and is more inconspicuous on the cliffs.

The Horned Puffin was seen at sea in increasing numbers north of St. George Island. Colonies were found on Grantley Harbor near Teller, and along the coast, as, for example, at Cape Prince of Wales. Several were seen near Herald Island. Since we could not approach nearer than six or seven miles and since the bird does not commonly range far off shore this would seem to indicate a considerable colony there. No young were seen about the Diomedes, September 4 when the adults were still abundant and visible on the cliffs. Among the Alcidae of northern Bering Sea it shares

only with the Pigeon Guillemot the habit of breeding deep in the bays. It was not seen much south of Nome on our return.

Phaleris psittacula. PAROQUET AUKLET.

Aethia cristatella. CRESTED AUKLET.

Aethia pusilla. LEAST AUKLET.—The Auklets were first seen as we approached St. George Island, where they were abundant, the Least far outnumbering the others, while the Paroquet was the least common. The Paroquet and the Crested I found along the cliffs while the Least bred abundantly inland.

On the Diomedes July 27, 28, and 29, the abundance of Auklets defies description. At dusk, which comes late at this time of year, the air about the Islands as far up as one could see was filled with whirring Auklets, mostly singles or small flocks, many thousands being in sight at one time. In the morning the sound of the wings and the chattering made a roar comparable to the sound of a heavy surf. This morning flight is over the sides of the Islands as high as the birds can be seen. It continues in lessening numbers until it ends abruptly about 12 o'clock noon. In the afternoon birds may be seen flying in flocks low over the water surrounding the islands. At a mile from land the numbers are not nearly so great, and they are rarely seen at sea far from the Islands. Where the immense hordes come from that gather at dusk it is difficult to say.

On our return to the islands August 27 they were as abundant as before, with the same evening and morning flight. September 3 and 4 found the birds much less numerous, and there was no noticeable evening and morning flight, though there were many birds in the water. September 7 found their numbers greatly reduced.

The Crested Auklet seemed the most abundant, followed by the Least. All three species were breeding over the entire suitable portion of the Islands. In the case of the Little Diomedede the whole island was used, except for the sheer rock cliffs at the base of the slopes, which were used by the Murres and the Pacific Kittiwakes.

On August 14, at 69° 40' north latitude, several flying flocks of Auklets were seen. All followed the same course, too far from the vessel to permit identification. Two, however, were Least Auklets, but I am quite sure other species were present. Several singles were seen on August 23 and 24 at points almost as far north.

Synthliboramphus antiquus. ANCIENT MURRELET.—Several were seen on the Pacific side of the Alaskan Peninsula near Belkofski, May 17 and 18. Also observed in southeast Alaska.

Brachyramphus marmoratus. MARBLED MURRELET.—The only good identifications were in southeast Alaska.

Brachyramphus brevirostris. KITTLITZ'S MURRELET.—One collected at Port Moller June 6.

Cepphus mandti. MANDT'S GUILLEMOT.—The first were seen August 2 above 69° north latitude, and the last August 23 near the same place. They were common north of this,—most abundant near Herald Island,

which during the entire time we were in the Arctic ocean was surrounded by ice. It is found anywhere at sea, but is more numerous at the edge of the ice. This bird is easily distinguished from the Pigeon Guillemot, the white wing mark being unbroken, while the lower wing surface is white, graduating smoothly to black at the tips of the primaries and secondaries,—a very good field mark. None were seen except in adult summer plumage.

Cephus columba. PIGEON GUILLEMOT.—Present throughout southeast Alaska and near the Alaska Peninsula. This species is rarely seen far off shore, in which it differs markedly from Mandt's Guillemot. It breeds on cliffs far into bays and along the coasts, sharing these localities with the Horned Puffin. None were seen on St. George Island. There were colonies at Moller Bay, Unalaska Island, Grantley Harbor, and the Diomedes. In the Diomedes this bird is the least numerous of the Alcidae. Grown young were seen here on August 27 and after.

Uria troile californica. CALIFORNIA MURRE.

Uria lomvia arra. PALLAS' MURRE.—I found the Murres difficult to separate in life. Of 25 skins collected at the Diomedes for a Museum group one was that of a California Murre. Dead California Murres were found on Bogoslof Island September 23, which would indicate their presence earlier as breeding birds.

In southeast Alaska in early May many Murres were still in winter plumage, or partially so. They were present about the Alaska Peninsula and numerous near Unimak Pass, May 20. This was due no doubt to the presence of suitable breeding islands rather than to any migration through the Pass. Many were seen at favorable localities near Akutan, Unalaska, Umnak and Bogoslof Islands, June 26 to 30. They were very abundant at St. George Island, and present throughout Bering Sea. None were seen inside the entrance to Port Clarence near Teller. Many bred at the Diomedes and no doubt at Herald Island, where large numbers at a distance of six or eight miles offshore would indicate an immense breeding colony.

Off the Diomedes August 27 several half grown young were seen, each accompanied by a single parent. At this time ice surrounded the islands and we were unable to approach, but on September 3 and 4, no Murres could be seen on the cliffs. On September 4 we saw the first grown young or adults in winter plumage. After leaving the Diomedes, September 6 none were seen until September 18 near Nunivak Island. On September 21 one half-grown young with a single parent was seen at a point ninety-seven nautical miles from the nearest land, or 125 miles from St. George Island, where it was probably hatched.

Near Prince Rupert, B. C. October 9 the Murres were again all in winter plumage.

Stercorarius pomarinus. POMARINE JAEGER.—This Jaeger was first seen at 60° north latitude in Bering Sea, July 6, and again July 30 north of Bering Strait. North of the Strait it was common or abundant, sometimes the most abundant bird. They constantly harass the Kittiwakes. I saw one attack a Tufted Puffin, which it seemed to be trying to keep under water.

After we left the Straits, September 7, only three birds were seen,—one off Nome, September 14, and two about 100 miles off the Queen Charlotte Islands, October 5, accompanying a flock of migrant Kittiwakes.

A small proportion of the birds were in the dark phase. Their flight did not seem as agile or graceful as that of the other Jaegers. I never saw it near land. It was entirely absent from the immediate vicinity of the Diomedes, though common a short distance off shore.

Stercorarius parasiticus. PARASITIC JAEGER.—Common along shore and over the tundra north of Port Moller, where it was breeding in June. Present, but not common in the Teller region. Light and dark phases in about equal numbers. A wonderful flyer.

Stercorarius longicaudus. LONG-TAILED JAEGER.—First seen in Bering Sea, near St. Lawrence Island, July 8, this Jaeger was a common breeder in the Teller region. A few were seen in the Arctic Ocean until August 7, and north to Herald Island.

Pagophila alba. IVORY GULL.—Only three birds, all adult, were seen. These were in the vicinity of Herald Island.

Rissa tridactyla pollicaris. PACIFIC KITTIWAKE.—Present in the Gulf of Alaska and everywhere at sea. Common in Moller Bay till about June 1. Common along the shore of Bering Sea, June 15 and later. Many, both adults and immature, on mud flats north of Port Moller, June 20 and 22. Very numerous near Unalaska, June 27. Not common in southern Bering Sea, but breeding on St. George Island. Common near St. Lawrence Island. Present in small numbers in the Teller region. Breeding abundantly on the Diomedes. Present, and sometimes abundant, throughout the Arctic Ocean.

No juvenile birds were seen in the Arctic Ocean. The year old birds on August 1 had fully banded tails, which were moulted from the center outward until on August 26 only the outer feathers retained the black. In marked contrast to these were the birds of the year, which were very strikingly marked.

These juvenile birds were abundant off the Diomedes, August 27 to September 6. Adults were not in evidence, except close in and about the nesting sites, where they were abundant. Juvenile birds were seen with the others south through Bering Sea. Present in the North Pacific. On October 5 many adults were seen in large flocks whose actions were entirely dissimilar to those of the Pacific Kittiwake seen at other places. These I assume were migrating birds.

Rissa brevirostris. RED-LEGGED KITTIWAKE.—First seen July 1 at 55° north latitude in Bering Sea. It was abundant about St. George Island and not seen much north of that.

Larus hyperboreus. GLAUCOUS GULL.—None were seen much south of St. Lawrence Island in Bering Sea. The Glaucous and the Glaucous-winged Gulls seem to be separated in Bering Sea by about five degrees of latitude, 58° to 63°. Between these points very few large Gulls were seen on either the north or southbound passage. Glaucous Gulls were seen sparing-

ly in the Arctic Ocean north to Herald Island. More common about Bering Strait. A few probably breed on the Diomedes, using flat-topped pinnacles for nesting sites. More abundant about Teller, but nowhere so numerous as is the Glaucous-winged Gull throughout its range.

Very few birds in the all white plumage were seen.

Larus glaucescens. GLAUCOUS-WINGED GULL.—Very abundant and very noisy at Moller Bay for several days about May 25. Abundant along shore and congregated on the tundra north of Port Moller during June. Many of these must be non-breeding birds. Present at sea, everywhere north to Bogoslof Island where it breeds. First seen at 58° north latitude on the return journey. Common everywhere thereafter.

During May the primaries of the immature birds were badly worn, and during early June the inner primaries of all the birds were being molted. During early October many of the immature birds have a distinctly marked cape, as if the molt had progressed from the rear to a point just forward of the wings, and stopped. This was conspicuous in a large proportion of birds.

There are a few birds about the southern side of the Alaskan Peninsula with wing markings somewhat intermediate between the Glaucous-winged and the Herring Gull, usually, however favoring the Glaucous-winged.

J. T. Nichols tells me that he saw no adult Herring Gulls when north-bound on the British Columbia coast in early July 1926, but that birds intermediate between these and the Glaucous-winged were noted in the Gulf of Alaska and westward. July 5 on the British Columbia coast he noted an adult Glaucous-winged Gull with "the wing tip of a darker gray than the mantle, inclosing a conspicuous white mirror." To quote further from his journal, "The four days, July 7 to 10, from southeastern Alaska north to Cordova and west to Seward each day noticed at least one adult large gull with black on the primary tips. The amount of black seemed small, especially in a bird on the 7th, little more than an aberration of the Glaucous-winged Gull, which by the way as one sees it in the field is very like the Herring in every other way. There was another such Herring or Glaucous-winged, with a very little black, at Akutan, July 24."

Larus argentatus smithsonianus. HERRING GULL.—Common in southeast Alaska in early May. One immature near the Shumagin Islands. An adult was seen at Nome, September 13, and the species were common again as we approached the Queen Charlotte Islands on our return in October.

Larus argentatus vegae. VEGA GULL.—One adult with several immature, probably of this subspecies, seen near Teller, July 26.

Larus canus brachyrhynchus. SHORT-BILLED GULL.—Common in southeast Alaska May 3 to 5. Seen again at Moller Bay May 27. Common during June in the Port Moller region, where it probably breeds. They were found far back up Salmon Creek and over the tundra. These inland birds were all adults. A pair near some pools drove away every Glaucous-winged Gull which approached but I was unable to get them to

resent my presence in the slightest, and I never found a nest. Another pair I am quite sure had a nest on a tiny island in a fresh water lake, but I could not reach it. They seem curious and will usually come near, but in no case did they display any serious objection to my presence. It feeds along the beaches and tide flats, and seems an inoffensive bird.

Hydrocoloeus philadelphia. BONAPARTE'S GULL.—Present in south-east Alaska May 2 to 5. Three immature specimens only collected and about forty seen near Port Moller June 10. These birds were molting the body plumage at the time.

Rhodostethia rosea. ROSS' GULL.—Two juvenile birds were collected August 16 and 19. Six others were seen August 18 and 21. All were north of 70°, in the neighborhood of Wrangell and Herald Islands, and seemed to be flying north. It would be difficult to distinguish the juvenile of this bird from that of Sabine's Gull in life unless the tail were spread. No adults were seen.

Xema sabini. SABINE'S GULL.—One adult was seen on Moller Bay May 23. Adults were seen on six days during August, and on September 2, in the Arctic Ocean and Bering Strait. One juvenile was collected August 22, south of Wrangell Island. Others were seen on that date, and on August 25.

Sterna paradisaea. ARCTIC TERN.—A common breeder in the Port Moller region. Present near Teller. Not seen in the Arctic Ocean until August 10, and from August 17 to August 22, mostly in the neighborhood of Herald Island and north of 70°. A few August 26 in Bering Strait, none thereafter.

Sterna aleutica. ALEUTIAN TERN.—Several hundred were seen at Port Moller, May 22 to 30. One or more were seen July 9 in Bering Sea near Nome.

Diomedea nigripes. BLACK-FOOTED ALBATROSS.—Seen every day off shore in the Gulf of Alaska and the North Pacific, both in May and in October. Ten were in sight at one time. They and the Fulmars may be seen flying on moonlight nights. One was seen off Unimak Island, on the Bering Sea side, June 25. The proportion of immature to adults was about three to seven.

Fulmarus glacialis glupischa. PACIFIC FULMAR.

Fulmarus rogersi. RODGERS' FULMAR.—Fulmars were first seen in the Gulf of Alaska, May 12. From longitude 146 west they were abundant. Nearly all these birds were in the dark phase, occasional light birds were seen, as well as a continuous gradation in color from light to dark. There was also a great variation in the color of the bill in birds of similar plumage. On May 19 south of Unimak Island most of the Fulmars were in the light phase. May 20, on the Bering Sea side of Unimak Pass, found the light phase predominating. From Port Moller to Unalaska, June 23 to 26, the light phase was the most numerous.

In the neighborhood of St. George Island they were abundant. About one in a hundred was in the dark phase. They appeared, here, to be molt-

ing. I do not know whether or not they breed on St. George Island. All the birds seen in Bering Sea north of St. George Island were in the light phase. None were seen in Bering Strait or about the Diomedes, July 27 to 29.

They reappeared again in large numbers off East Cape, July 30 and 31. We did not approach near enough to East Cape itself to determine whether or not they were breeding there.

They were seen occasionally throughout the Arctic Ocean south of 71° north latitude. None were seen near Herald Island. On our return they were abundant south of 68° 30' and in the vicinity of East Cape and Bering Straits. They are more numerous along the edge of the ice, particularly where tidal currents are present. Throughout the Arctic there is one dark bird to several hundred light birds. We saw them throughout Bering Sea on our southbound passage until our return to the vicinity of Unimak Pass, where there was a much larger proportion of dark birds. Off Sanak Island, September 29, all were in the dark phase. On October 2, farther to the eastward, there was a larger percentage of light birds. Throughout the North Pacific the proportion of birds in the dark phase was about 3 to 1, with, as before, a continuous gradation in color.

The birds in the Arctic and about Bering Strait seem larger, more uniform and whiter in marking. About St. George Island there were a few with almost clear white upper wing surfaces, with dark tips. The lightest birds of the Pacific do not seem as white as the birds of the North, having usually less white on the lower wing surface.

This distribution of light and dark Fulmars agrees in general, but not in all particulars with the observations of Nichols in 1926 (Auk, 1927, XLIV, pp. 326, 328).

On windy days, when flight is much easier for them, the Fulmars come close in to the ship, and are much more in evidence than in calm weather.

On several occasions I have seen a Fulmar and a Black-footed Albatross, flying close together in a high wind. Using the same unseen forces of wind and wave, they follow an identical course for a considerable distance, each duplicating the slightest movement of the other,—movement suggested by conditions peculiar to the spot and the instant, and giving us some idea of the delicate dexterity with which these birds use the aids to flight at their disposal.

Puffinus griseus. SOOTY SHEARWATER.

Puffinus tenuirostris. SLENDER-BILLED SHEARWATER.—Shearwaters were present in the North Pacific on both passages, and abundant about Unimak Pass in May and June. They (probably all *tenuirostris*) were extremely abundant near Unalaska Island, June 26 and 27, when they appeared to be moulting. Numerous feathers, which included the flight feathers, were on the water, and the birds had a very bedraggled appearance.

Shearwaters were present throughout Bering Sea, very abundant in Bering Straits, July 27, and off East Cape, July 31. Two were seen at 70° and 71° north latitude respectively, and they were extremely abundant on August 23, 24, 25, 30, and September 1, 2, and 4 between 69° 30' north

latitude and Bering Strait. On our south bound passage Shearwaters were present in small numbers in Bering Sea, more numerous near Unimak Pass, though not so plentiful as in May. Birds, probably *griseus*, were seen July 31 near East Cape and in October near the Queen Charlotte Islands. Many others were probably of this species but *tenuirostris* is no doubt much the more numerous.

The Shearwaters never range close to the ship as do the Fulmars.

Oceanodroma furcata. FORK-TAILED PETREL.—Present in the Gulf of Alaska in May. Several in Bering Sea north to 56°. Petrels were first seen on our return at the same latitude, but identification was not satisfactory, which is true of a number of Petrels seen in the North Pacific in October.

Phalacrocorax auritus cincinatus. WHITE-CRESTED CORMORANT.—On May 16 and 17 several Cormorants with thick short necks, and white on the head, were seen back of the Shumagin Islands and near Belkofski on the Alaska Peninsula. These could hardly have been other than the White-crested Cormorant. They were present September 26 and 27 near Unalaska.

Phalacrocorax pelagicus pelagicus. PELAGIC CORMORANT.—Cormorants, probably this species, were numerous in southeast Alaska. They were seen occasionally north to Bering Strait. Points of most abundance were Unimak Island, May 18, and Sledge Island near Nome. They were breeding in small numbers on the Diomedes, seeming to be more numerous on our later visit, September 3 and 4.

Phalacrocorax urile. RED-FACED CORMORANT.—Seen May 22 near Port Moller. Found breeding on St. George Island, July 4, and with nearly grown young, still in the nest, on Bogoslof Island, September 30.

Mergus americanus. MERGANSER.—More numerous in southeast Alaska in early May than the Red-breasted Merganser. Americanus was present near Port Moller in late May and June, and abundant on King Salmon Creek north of Port Moller in June, where it was found in flocks and in greater numbers than any other duck. The birds were mostly adult males, while one collected was a male in immature plumage. Possibly these birds were all males. There was no sign of breeding.

Mergus serrator. RED-BREASTED MERGANSER.—Present in pairs in King Salmon Creek near Port Moller after June 11, possibly breeding. One seen June 29 at Kashaga Bay, Unalaska Island.

Lophodytes cucullatus. HOODED MERGANSER.—One pair in southeast Alaska.

Anas platyrhynchos. MALLARD.—Present in southeast Alaska, and a common breeder in the Port Moller region.

Nettion crecca. EUROPEAN TEAL.—Three were seen at Kashaga Bay, Unalaska Island, a pair and a single female. Undoubtedly breeding.

Nettion carolinense. GREEN-WINGED TEAL.—Present on King Salmon Creek, Port Moller region, where it was breeding. This was just 280 nautical miles from where the European Teal was found breeding. One *carolinense* was seen at Teller.

Dafila acuta. PINTAIL.—Pintails were seen in southeast Alaska, May 3. A common breeding bird about Port Moller in late June. One seen near Teller in July.

Marila marila. SCAUP DUCK.—Common about two freshwater lakes at Port Moller in early June, usually in small flocks. One seen near Teller.

Clangula clangula americana. GOLDEN-EYE.

Clangula islandica. BARROW'S GOLDEN-EYE.—Both Goldeneyes were seen in southeast Alaska.

Charitonetta albeola. BUFFLE-HEAD.—Abundant in Stag Bay—Chichagof Island, southeast Alaska, May 6 and 7.

Harelda hyemalis. OLD SQUAW.—Thousands were seen near Juneau, May 5. Occasional birds were seen in the Arctic Ocean and near Bering Strait. Probably this species, but identification was unsatisfactory.

Histrionicus histrionicus pacificus. PACIFIC HARLEQUIN DUCK.—Seen in southeast Alaska, May 9, near Unimak Island, May 18, and present in pairs on King Salmon Creek near Port Moller in June. Also small flocks of male birds along shore and at Kashega Bay, Unalaska Island.

A pair usually swam down stream very close together. Near Port Moller I saw a male obviously looking for its mate, and have no doubt but that they breed there.

Polysticta stelleri. STELLER'S EIDER.—One male was seen near the Diomedes, July 27. Thirty in the brown plumage, were near the Big Diomedes, September 3. At least two others were seen at Bering Strait. It is difficult to distinguish this bird in its autumn plumage from the Spectacled Eider.

Arctonetta fischeri. SPECTACLED EIDER.—Several were seen about Bering Strait. Both this and the preceding species display considerable curiosity.

Somateria v-nigra. PACIFIC EIDER.

Somateria spectabilis. KING EIDER.—The identification of Eiders was unsatisfactory throughout the trip. They were first seen at Unimak Island, May 18. Several hundred were at Moller Bay, May 22 to 24. Few showed any white in the plumage, and probably none were in the adult male plumage. One collected proved to be a young male in imperfect plumage. Near Teller, Eiders were present and young were seen, but identification was not good. Five King Eiders were seen July 7 near Cape Prince of Wales. On August 1 several distant flocks of male Eiders were flying south at a point 68° 30' north latitude, about due north of East Cape.

Oidemia americana. AMERICAN SCOTER.—Seen only about Moller Bay and on fresh water pools on the tundra, May 23 to June 20—not common.

Oidemia perspicillata. SURF SCOTER.—Though outnumbered by *deglandi*, this bird was abundant at Wrangell Narrows May 3, and outnumbered *deglandi* near Juneau, May 4, where it was very numerous.

Oidemia deglandi. WHITE-WINGED SCOTER.—Abundant in southeast Alaska, May 1 to 9. Seen near Unimak Island, May 18. A few about Moller Bay, May 22 to June 2.

The greatest numbers of both this and the preceding species were seen about villages or buildings, docks, etc., along shore.

Several distant unidentified flocks of ducks were seen October 5, at a point about 300 miles west of Prince Rupert, flying southwest.

Branta canadensis occidentalis. WHITE-CHEEKED GOOSE.

Branta canadensis minima. CACKLING GOOSE.—Geese, probably the White-cheeked, were present in southeast Alaska in early May. On May 9, Geese were seen flying northwest, several miles off shore in the Gulf of Alaska. Three flocks of what were probably Cackling Geese were migrating to the southwest May 16, inside the Shumagin Islands.

Branta nigricans. BLACK BRANT.—One flock, probably migrating, southeast Alaska, May 5.

Philacta canagica. EMPEROR GOOSE.—Two were seen off St. Lawrence Island, July 8. One was secured at Teller, September, 8 from natives. Five, flying southwest, were seen off Akun Island, Aleutians, September 27. This Goose was said to have been abundant at Nelson Lagoon, just southwest of Port Moller, before our arrival May 22. None were seen at Port Moller.

Olor columbianus. WHISTLING SWAN.—Eight Swans were seen in groups of from one to three, flying over the tundra, May 24 to June 14, near Port Moller.

Grus canadensis. LITTLE BROWN CRANE.—Seen on the delta of the Agiapuk River, near Teller, in July. On August 27 one flock, and on August 30, two flocks, about sixty birds in all, were flying from East Cape across Bering Strait. A flock was seen flying September 10, near Teller.

Phalaropus fulicarius. RED PHALAROPE.—First seen near the Shumagin Islands, May 15 and 16, at Moller Bay, and throughout Bering Sea on the northward voyage.

They were abundant north of Bering Strait, July 30, and throughout the portion of the Arctic Ocean which we visited, particularly near the ice. My notes record them as very abundant up to and including September 1, present on September 2, and not numerous thereafter. A few were seen until September 21, in south Bering Sea, but any of these later birds might have been *lobatus*.

The molt was in progress early in August, and soon no red-breasted birds were seen. Only one bird (at Port Moller) was seen on or near the shore.

Lobipes lobatus. NORTHERN PHALAROPE.—Present in southeast Alaska early in May. Abundant about the Port Moller region in all sorts of pools on the tundra after June 1 until our departure on June 22. Present but not abundant in the Teller region. Last seen in Dutch Harbor, Unalaska Island, September 26. Though it is difficult to distinguish the two species in the autumn plumage at sea, there is good reason to believe that all the birds seen in the Arctic Ocean were *fulicarius*.

Gallinago delicata. WILSON'S SNIPE.—Present about the Port Moller region in early June. A breeding pair seen near Teller, July 11.

Macrorhamphus griseus scolopaceus. LONG-BILLED DOWITCHER. Several were seen and one collected near Port Moller, June 12.

Arquatella maritima couesi. ALEUTIAN SANDPIPER.—A nest was found near Moller Bay, May 30, at an altitude of perhaps 1500 feet. Three eggs were in the nest and one in a depression about six inches away, the surroundings indicating that it was probably deposited in the wrong location. One was collected at Moller Bay, June 4. They were abundant at Kashega Bay, Unalaska Island, June 29, usually, but not always at high altitudes. Their behavior indicated that the young were hatched at this time, but I found none.

Pelidna alpina sakhalina. RED-BACKED SANDPIPER.—Several were seen about the Port Moller region in June.

Ereunetes mauri. WESTERN SANDPIPER.—Numerous about willow thickets along small streams in the tundra near Teller, July 11.

Pisobia minutilla. LEAST SANDPIPER.—Abundant about Port Moller after May 25. Found everywhere near the tundra pools, together with the Northern Phalarope.

Limosa lapponica baueri. PACIFIC GODWIT.—Godwits were numerous on a hill near Teller, July 11. They were belligerent and noisy. Though I could find no young they were undoubtedly breeding. We found them abundant, probably in family groups, on the delta of the Agiapuk River, July 21. Birds collected proved to be the Pacific Godwit.

Numenius tahitiensis. BRISTLE-THIGHED CURLEW.—On a wide rounded hill between Grantley Harbor and Imuruk Basin east of Teller, which has, according to the chart, an elevation of 625 feet, were found numerous Curlew together with an equal or greater number of Godwits. This hill was covered with tundra moss and grass, much like the rest of the locality. These birds were very noisy and belligerent, flying directly at me from a great distance until very close. Unfortunately I found no nest or young. One bird collected proved to be the Bristle-thighed Curlew.

Mr. A. C. Bent, in the 'Life Histories of North American Shorebirds' says the breeding range of this bird is unknown. The actions of these birds would indicate that they were breeding here. The absence of water where the birds were found, even of small streams, was due to the low rounded shape of the hill, which was about two miles from Imuruk Basin and the salt-water channel which connects that basin with Grantley Harbor. Grantley Harbor is connected in turn with Port Clarence and Bering Sea. Therefore this hill, though only two miles from salt water, is in effect a considerable distance from Bering Sea proper, and I suspect that the bird nests in loose groups away from the immediate vicinity of the water, and that due to this it has escaped the notice of ornithologists.

A Curlew was seen on the low marshes near Imuruk Basin, July 21.

Aegialitis semipalmata. SEMIPALMATED PLOVER.—One was collected and others seen near Port Moller, June 14, 15, and 21.

Charadrius dominicus fulvus. PACIFIC GOLDEN PLOVER.—Breeding abundantly on the tundra near Teller July 11.

Arenaria intrepres morinella. RUDDY TURNSTONE.—Two were collected on Imuruk Basin in mid-July.

Haematopus bachmani. BLACK OYSTER-CATCHER.—Seen near Unimak Island, May 17 and at Kashaga Bay, Unalaska Island, June 29.

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