Range: Breeds on the islands along the coast of southern California, south at least to Los Coronados Islands, Lower California, and probably north to the Farallon Islands.

Remarks: According to Dr. Dwight (loc. cit., p. 12), the southern dark-mantled bird of the Pacific Coast, here characterized as *Larus occidentalis wymani*, breeds north to the Farallon Islands in fairly typical form. Unfortunately, the status of the Western Gulls of the Pacific Coast of Lower California, south of Los Coronados Islands, is unknown. Without this information, the question of intergradation between the yellow-footed and the flesh-footed types of this species cannot be finally determined. No intergradation has been shown to date. Under the circumstances, it is of course premature to hazard a prognosis, but it seems not unlikely to the authors that the yellow-footed bird of the Gulf will be recognized eventually as specifically distinct from the flesh-footed birds of the Pacific Coast proper.

The colors, in life, of the soft parts of an example of *Larus occidentalis livens* (no. 15,119, collection of Donald R. Dickey), taken by the junior writer on one of the Islas Encantadas group, in the Gulf of California, April 14, 1925, are as follows: Iris yellowish white. Bill (except for subterminal orange-vermilion spot on lower mandible), tarsi, feet (including webs), and eyelids, all of an even shade of bright wax-yellow. These data were checked by passing the feet and legs of a freshly taken specimen across the bill and eyelids. Under this test, no difference was discernible in the color of these parts.

A brief synopsis of the known breeding ranges of the three forms follows:

Larus occidentalis occidentalis, Northern Western Gull: Coastal islands of Washington, from Willoughby Rock and Carroll Islet (Dawson, loc. cit., p. 1379), south to Trinidad, Humboldt County, California (specimen no. 6,412, Museum of Vertebrate Zoology, University of California).

Larus occidentalis wymani, Southern Western Gull: The islands along the coast of southern California, south at least to Los Coronados Islands, Lower California, and probably north to the Farallon Islands (Dwight, loc. cit., p. 12).

Larus occidentalis livens, Yellow-footed Western Gull: The Gulf of California, from Consag Rock and George Island south at least to San José Island.

Pasadena, California, May 29, 1925.

A REPORT ON THE BIRDS OF NORTHWESTERN ALASKA AND REGIONS ADJACENT TO BERING STRAIT. PART IV

WITH FOUR PHOTOS

By ALFRED M. BAILEY

ARCTIC TERN. Sterna paradisaea.

These terns are exceedingly numerous along the northern coast of Alaska and also have a very wide breeding range, which extends from southeastern Alaska, where there is a large colony of them nesting on the moraine in front of Norris and Taku glaciers, to the islands east of Point Barrow in Arctic Alaska. They were common throughout the summer at Nome; several pairs were seen over the tundra, June 1. Several were noted daily at St. Lawrence Island the latter part of June and the early part of July, and at St. Michael where they fed about the quiet waters of the bay. We also found a small nesting colony at Teller, on the bar near the village.

At Cape Blossom on August 1 we saw several pairs of adults and one young bird already on the wing, while another colony was found near Corwin coal mine where about fifty pairs bred on a small spit. A few were noted at Point Barrow, Cape Halkett and Demarcation Point, on the 6th, 10th, and 15th of August, respectively; and the birds proved to be fairly abundant in the vicinity of Wainwright during the latter part of August. Two breeding colonies are in close proximity to the village, one on the great bar at the mouth of Wainwright Inlet and the other at the mouth of a river some five miles up the coast from Wainwright. Young birds, almost fully fledged, but not able to fly, were found August 3; and a migration of these terns occurred on September 7 while we were at Icy Cape. On this day many species of birds seemed to be moving southward; kittiwakes, Sabine Gulls, loons and terns. Many large flocks were composed almost entirely of young terns, although there was almost invariably an adult bird accompanying them. They often hovered overhead,



Fig. 41. NESTING GROUNDS OF THE OLD-SQUAW DUCK: LOPP LAGOON, NEAR CAPE PRINCE OF WALES, ALASKA.

the whole flock poising with forked tails spread, complaining in the usual querulous, tern-like fashion. Many flocks of young stopped to rest on the sand beaches, a prolonged flight, doubtless, being too much for their untried wings. Between Icy Cape and Wainwright, the beach line is composed almost entirely of sand banks thrown up by the ocean and thus forming broad lagoons back of them many miles in length. Wherever the currents have kept open channels to the lagoons one is apt to find small islands, and there the terns nest by the thousands, doubtless because of the protection provided them from the white foxes.

Hendee records the Arctic Tern as a late arrival at Wainwright, the first being noted there on June 17. The birds evidently begin housekeeping immediately upon arriving at their nesting grounds, for fresh eggs were taken by June 27. These terns are very common along the entire northwest Arctic coast during the summer, and the natives take great numbers of the eggs each season. I first observed them at Wales on

May 28, and a few were seen during the next two weeks, after which time they became abundant. Several birds of the preceding year were taken over the pack ice on June 11, their white foreheads causing me to mistake them for Aleutian Terns, until I had collected specimens. Arctic Terns nest in great abundance along Lopp Lagoon, practically all the islands away from the village having their colonies. Fresh eggs were taken between July 1 and 8.

BLACK-FOOTED ALBATROSS. Diomedea nigripes.

This Albatross was seen only in the northern Pacific, a half-dozen birds following the Victoria when twelve hours out from Flattery June 10. They continued with the ship until the 14th, after which date none was observed. Charles Brower told



Fig. 42. NEST OF OLD-SQUAW AS LEFT COVERED WITH DOWN BY THE FEMALE.

us that he found an albatross of this species which had floated ashore at Point Hope many years ago, but added that as the current was to the northward at that time of the year, it is possible that it was carried northward from Bering Sea. This is the only Arctic record of which I know.

RODGERS FULMAR. Fulmarus rodgersi.

No specimen of fulmar was taken during the cruise of 1921 and none was noted north of Unimak Pass, in spite of the fact of their recorded abundance around the islands of Bering Sea, and that we included these islands in the course of our itinerary. It is presumed that the light-colored birds observed when within 250 miles of Unimak Pass on June 14, and in considerable abundance in the Pass the next day, were of this species, as it is given as the common form of the region.

In the spring of 1922, Hendee secured four specimens at Wainwright, two of which were caught in baited fox traps, on June 14. The other two were taken on July 27 and August 5. They occur regularly each summer, offshore, although only as stragglers from their breeding ground. I observed the first of this species in Bering

Strait on May 27 and collected one pair. They rarely approached the shore, preferring to work in the open strait among the drifting ice. During the first week in June I saw them daily while hunting, and when we were skinning walrus they remained close at hand. The specimens which I collected were all belly picked, although the natives claimed that these birds do not breed upon the Diomedes. The Eskimos call the fulmars "walrus birds", because a few are usually seen around a herd of these large mammals.

When off the Shumagin Islands on the S. S. *Cordova* on August 22, I saw thousands of dark-colored fulmars. They followed the ship in company with Glaucous-winged Gulls and Black-footed Albatrosses. Only one light-colored fulmar was noted among the great numbers of dark ones. As there is doubt as to the validity of two forms from Alaskan waters, I am including all fulmars as *rodgersi*.

SLENDER-BILLED SHEARWATER. Puffinus tenuirostris.

Hendee found a specimen of this species dead upon the beach at Wainwright, September 4, 1921. It was slightly mutilated from birds tearing the breast, but otherwise in good condition. It is doubtful if this carcass could have floated from any great distance, for it would, in all probability, have been destroyed by gulls. This would tend to show that the Slender-billed Shearwater ranges quite far into the Arctic Ocean, since Grinnell took one at Kotzebue.

None of this species was observed at Wainwright during the spring months. At Wales I saw but two birds, on June 22, one of which was collected. The natives told me they were sometimes seen in abundance offshore.

LEACH PETREL. Oceanodroma leucorhoa leucorhoa.

We saw no petrels in Bering Sea or northward. The only specimen which I secured was one which came aboard ship on August 22 while off Unimak Island. Thousands of petrels were noted as we sailed along the Shumagin Islands and a few came aboard, but they were given their liberty before I had an opportunity of examining them.

PELAGIC CORMORANT. Phalacrocorax pelagicus pelagicus.

Cormorants were noted in considerable abundance in Bering Sea during the summer of 1921, the first records being made on June 16, when we were abreast of the Pribilofs. A few were observed on June 27 at King Island, and they were fairly abundant at St. Lawrence Island, where they were nesting along the cliffs below Sivunga the first week in July. Many were seen daily at Providence Bay, the natives telling me that they nested along the steep walls at the entrance to the bay. A few were recorded at Whalen, near East Cape, July 11, and others at St. Michael July 20 to 23.

One of the most unusual records we made in the Arctic was the finding of a female of this species on the tundra, about fifty miles up Wainwright Inlet, on January 24, 1921. There were no bullet marks on the bird and it had evidently died of hunger or weakness, as it was extremely emaciated. The condition of the skin about the head and neck was such as to show that the bird had not been frozen for any length of time, for the skins tend to dry out after a few weeks, especially when exposed to the air. The neck was slightly gnawed by lemmings; but had the bird been lying on the tundra any length of time, white foxes must have found it.

The first cormorant I noted at Cape Prince of Wales was on April 26. By the end of the month they were common, usually in the leads, or resting on the ice floes; on June 3 I found them very abundant on the Diomedes. At the time of my next visit to the islands, June 25, the cormorants were perching upon their nesting ledges, but no eggs had been laid. July is the nesting month for the island birds.

RED-FACED CORMORANT. Phalacrocorax urile.

The only specimens secured of this species were taken by Hendee at Unalaska on September 24, 1922. They were birds of the year. Hendee reports that cormorants were fairly common in that vicinity.

RED-BREASTED MERGANSER. Mergus servator.

This species was seen but once, a single bird at St. Michael on July 21. In 1924 Nagozruk sent me a female taken at Cape Prince of Wales, June 30.

MALLARD. Anas platyrhynchos.

Mallards were met with only at Unalaska where Hendee found them common the latter part of September and the first part of October. There is a large valley



Fig. 43. "SAME NEST AS SHOWN IN FIGURE 42, WITH EGGS UNCOVERED.

running to Mt. Makushin, containing many small meandering streams which seem to be the favorite haunts of this species.

EUROPEAN WIDGEON. Mareca penelope.

Hendee collected two specimens on King Island on August 5, 1922. The Coast Guard Cutter *Bear* was returning a load of islanders from Nome, and, as their small boat landed, a pair of ducks was found asleep on a rock. A gun was passed forward to an eskimo in the bow who shot both birds.

GREEN-WINGED TEAL. Nettion carolinense.

Hendee found these birds common at Unalaska the latter part of September, especially in the river valley leading from Mt. Makushin. We did not meet them farther north.

BAIKAL TEAL. Nettion formosum.

I secured a male of this species at Wainwright on September 2, 1921. I was stalking a small flock of Steller Eiders on a long sand-spit running into the Inlet, when this little teal came winging close in. It was the only one noted on the trip and is the basis of the first record of the species for North America. (See Condor, xxvi, 1924, p. 195.)

PINTAILS. Dafila acuta acuta; Dafila acuta tzitzihoa.

Pintails are the most abundant of fresh-water ducks in northern Alaska, and they have a wide breeding range, extending from the Yukon to Barrow and eastward. A female was seen at Nome, July 21, 1921, which was evidently nesting on one of the tundra ponds, and over one hundred birds were seen about the lagoon at Point Hope on August 2. At Corwin coal mine, on August 3, we surprised a female with her brood of five half-grown young on a little pond scarcely a dozen yards across. I saw several at Humphrey Point on August 16, and they were common at Wainwright until August 29, when the last were observed.

They were not abundant at Wainwright the following spring. Hendee took two birds on June 17 and 24, and on July 19 secured five downy young with the female. They are rather widespread in distribution, few breeding in any one locality. They were rare at Wales. I collected a male on a small pond on May 31, 1922, and observed a few on June 5. They were quite common, however, along Mint River, which empties into Lopp Lagoon about twenty miles from Wales. Plenty of food and fresh water is a requisite for pintails, and this fine little Arctic river proved a good breeding ground for them. In the field the pintails which we secured appeared different from those which I had collected in the States, although I was not aware that there were two forms. A few were saved for identification, several birds from Wainwright and a male from Wales, and all proved to be the Old World form.

In 1924 we received a pintail from Wales collected on Lopp Lagoon, and a set of six eggs taken June 30, 1924. The nest was typical, being of grass, lined with down. A set of eggs was also sent in by Mr. Charles Brower from Point Barrow, with the brooding bird. All our pintails were sent to Dr. H. C. Oberholser for identification and he has reported on them as follows: "Those from the Seward Peninsula and Wainwright are Dafila acuta acuta, but the one from Point Barrow seems to be Dafila acuta tzitzihoa. It looks as though D. a. acuta were confined to the Seward Peninsula and the Alaskan coast north to Wainwright, so far as North America is concerned. The Point Barrow bird is a little intermediate, however, and more from that locality might look like acuta". Mr. Outram Bangs also found that many of our golden plover from Wainwright and Barrow were more or less intermediates, showing that Wainwright is the meeting ground of some of the western and eastern forms. Mr. Oberholser says further that "Dafila acuta acuta differs from the North American bird D. a. tzitzihoa in being smaller (chiefly wing and bill) and in the male having the green portion of the speculum averaging more bronzy (less purply green)."

The set of six eggs taken at Wales on June 30, 1924, on Egg Island (Melakatavik) in Lopp Lagoon, appears to furnish the first breeding record for *Dafila acuta acuta* in North America. In regard to the pintails at Barrow, Brower states that "they nest on the higher knolls near tundra ponds, never down in the swampy marshes."

Of the six pintails which we have from Arctic Alaska, all have thus been identified by Dr. Oberholser as typical old-world birds, except the one from Point Barrow. It would seem, then, that the greater percentage of pintails from northwestern Alaska must be *Dafila acuta acuta*. Considerable field work will have to be done, however,

before the range of the two forms in Alaska is established, for but few specimens have been saved for identification and there is little data to go on. It will be of interest to know if the pintails taken on the Bering Sea islands and the Alaskan coast immediately south of Wales are also *Dafila acuta acuta*. Our records of the Old World form (see Condor, xxv1, 1924, p. 195) seem to be the first for North America.

SCAUP DUCK. Nyroca marila nearctica.

This species is given by Nelson as being rather abundant along the Alaskan shores, but we failed to see a single bird during the entire summer, the first specimen seen being taken in the fall, when a female was collected at Wainwright on October 13. This is doubtless a northern record for the species in Alaska. The summer's cruise was disappointing in that we did not see great numbers of water birds of any species, and it is possible that 1921 may have been a poor season. The trader at Wainwright told us that few ducks, or their eggs, were taken the past season in comparison with former years. None of this species was observed in the spring of 1922 at Wainwright.



Fig. 44. NEST OF OLD-SQUAW; CLOSE VIEW, SHOWING DETAILS OF STRUCTURE.

At Cape Prince of Wales a native brought in a female on June 6, the only one I recorded from that point.

OLD-SQUAW. Clangula hyemalis.

This species was noted the most abundantly of any of the ducks, being very numerous at many points. Judging from the observations of others as well as our own, they are common breeders throughout their southern range. It is useless to give dates of observations, for the birds were seen almost daily from the time of our arrival at Nome, throughout our cruise to Siberia and along the Arctic coast of Alaska, as far eastward as Demarcation Point. They were nesting on St. Lawrence Island where I secured a set of eggs (five) on July 9, and we saw the birds in considerable numbers at Providence Bay and East Cape, Siberia. Others were recorded at Cape Blossom, Corwin Coal Mine, Barrow, Cape Halkett, and Point Humphrey. I saw an adult with a flock of half-grown young when we were in the ice at Demarcation Point. The mother bird took to wing, while the youngsters dove, all coming

up as widely separated from each other as they possibly could; then rising, they pattered away over the water exactly as murres or Tufted Puffins do.

This was a very common bird at Wainwright in August, big flocks of them congregating on a long spit which extends into the Inlet. The most of them were molting at the time and unable to fly. Many of the birds started their southward migration about the 7th of September, flocks of them passing Icy Cape on that date; but in spite of this large movement southward, the birds continued plentiful all through September, doubtless because of the numbers of birds coming from the eastward. On October 1, we were offshore in a whale boat and saw some very large flocks of Oldsquaws, hundreds of them rising from the water at a time, with that swift, swirling flight so characteristic of the species; but they were too wild to allow our close approach. A few birds were seen October 12, and the last recorded were at the mouth of the Inlet, a bunch of ten on October 19. At this time, ice was nearly a foot thick on the tundra ponds, and slush ice had frozen a hundred yards out from shore several times, only to be broken off by a change of wind. They reappeared the following spring on May 15, when a few birds were seen, and they were abundant by the first of June. They began nesting late in June, a nest with five eggs being taken June 27, and another with six eggs on July 1.

The first arrivals at Wales were seen on April 28, and I collected a male on May 8. From that date they were common, feeding upon snails which they obtained by diving along the edge of the shore ice. They began nesting along the shore of Lopp Lagoon by July 1, hundreds of them choosing the little islets as their nesting sites. They dig pits in the sand which they usually line with grass, although I found many nests without such a lining. As the number of eggs increases, the bird plucks down from her breast, under which the eggs are concealed when she leaves the nest unless flushed too quickly (see accompany photographs). The Old-squaws were in colonies in company with Arctic Terns, and on one little island I found at least one hundred nesting pits under way. The ducks were just beginning to lay by July 4, there being only five complete sets out of over forty nests which I examined.

The Old-squaw Ducks were in every conceivable stage of plumage during the summer, ranging from the full breeding plumage to that of winter, with all the intermediate phases. I found many birds in this worn, nondescript plumage to be breeding birds. Hendee took a male on August 15, with new primaries just showing, and other birds were seen just able to fly. At this time of the year the birds band together, often choosing an exposed sand spit as a safe place to sun themselves.

The eskimos name most birds according to their calls. At Wainwright the natives interpret the note of the old-squaw as "ah-a-luk", while at Wales it is called "ah-a-nuk". I have heard fishermen in southeastern Alaska call them "Sou' sou' Sally" ducks.

Denver, Colorado, January 12, 1925.