

zation of science will still further justify it. In our own case, it is the one fundamental way of attaining our second ideal—the spread of interest in bird study. Why truths must be couched in language that only a few can understand is incomprehensible. If it is necessary that scientific treatises on birds be of a technical nature then they should be paralleled in every case with a popular account. The spread of interest in bird study comes from such popular accounts and not from technical reports framed by and for the specialist.

In conclusion let me suggest that, if you have not done so, you add to the simple pleasure that comes to you through bird study the scientific spirit which urges us to use scientific method in our work. The aim of the scientist is to make “durable, trustworthy records of natural phenomena.” The method, according to Minot, is first to record truly everything dealing with the phenomenon itself. Here is work for the amateur. Second, to verify and correlate the personal knowledges until they acquire impersonal validity. Here is work for the professional. I hope, therefore, that in this review each member has been able to recognize a niche suited to his personal ability and inclination, in which to work and to become useful in the gathering of facts concerning wild-life. Just as soon as you find such a place to work, and adopt such ideals towards which to strive, just so soon you become a scientist in the true sense of the word and as a result become a more useful member of the Cooper Ornithological Club.

Let me close with this quotation of Coward's from his “Migration of Birds”, as an added inspiration to do productive scientific work: “But putting aside economic and utilitarian considerations there is to some of us a greater stimulus to solve the problems of nature. With the birds, and the insects and plants upon which they feed, we share a common heritage, and the more we learn of the life of these, our fellow-workers, the nearer we approach solution of the great riddle of the Universe, the mysterious law-abiding scheme of Nature. The book of knowledge to which we add some iota is marred with mystery, superstition and error, but each proved fact cleans its pages. ‘Facts’, says Laing, ‘are the spokes of the ladder by which we climb from earth to heaven.’”

Museum of Vertebrate Zoology, Berkeley, California, March 19, 1914.

BIRD NOTES FROM NETARTS BAY, OREGON

By STANLEY G. JEWETT

WITH FIVE PHOTOGRAPHS BY O. J. MURIE

THE FOLLOWING notes were taken at Netarts Bay and along the sea-coast north of Netarts postoffice to Cape Meares Lighthouse, in Tillamook County, Oregon, during four visits to that locality for the purpose of collecting specimens and securing data on the birds found along that part of the Oregon coast. This work has been carried on by the Oregon Fish and Game Commission under the direction of William L. Finley, State Game Warden. The plan is to make a thorough biological survey of the state and build up a careful scientific collection of birds and mammals.

The first visit, September 1st to September 11th, 1912, Mr. M. E. Peck, of Willamette University, Oregon, and I were in the field continually for ten

days. The second trip, December 27, 1912, to January 13, 1913, I was accompanied by Mr. O. J. Murie of the Fish and Game Commission during the entire period, and by Mr. Peck from December 27 to January 13. During this trip, we experienced some severe storms, especially that of December 28 and 29, when the rain and sleet fell in torrents accompanied by a strong wind. The third and fourth visits, from March 9 to March 21, and May 14 to May 20, 1913, I was accompanied by Mr. Murie for the entire period. During these two trips a part of the time was devoted to collecting small mammals.

The list contains the water and shore birds only. The land birds are omitted until more thorough work can be done in the surrounding territory at a season when the breeding birds are present.

Specimens of all the species listed were secured with the exception of Great Blue Heron (*Ardea herodias*), Killdeer (*Oxyechus vociferus*) and Amer-



Fig. 34. VIEW OF NETARTS BAY, OREGON.

ican Coot (*Fulica americana*), but these three were seen to such advantage that their identity was absolute.

Netarts Bay on the coast of Tillamook County, Oregon, is about six miles in length and from one to three miles in width (see fig. 34). Most of the shore line rises abruptly from the water, leaving no beach at high tide, although during the seasons of low tide a large part of the water recedes from the bay leaving extensive mud flats. On the west the bay is cut off from the ocean by a narrow sandspit, which averages not over half a mile in width. On the bay side of this spit a narrow "salt grass" tide flat extends north about four miles from the southern end of the bay. Most of the sandspit is barren of vegetation except a narrow belt of stunted pine (*Pinus contorta*), huckleberry, and a few scattered willows on the higher parts. Dense forests of spruce, hemlock and fir, with an undergrowth of salmonberry, cover the hills on the

south and east of the bay. A wide, smooth, sandy beach extends north of the bay to Maxwell Point about two miles distant; from this point north several miles the beach is broken by high ragged cliffs and several outlying rocks (see fig. 35), the principal of these being Three Arch Rocks, a National Bird Reservation.

Aechmophorus occidentalis. Western Grebe. A single example was found dead on the beach January 2. This species is evidently common on Netarts Bay at certain times during migration, as local residents are quite familiar with the species.

Colymbus auritus. Horned Grebe. First seen September 9, when Mr. Peck shot a female while it was feeding in the shallow water close to shore. No others were seen during September, but during the periods from December

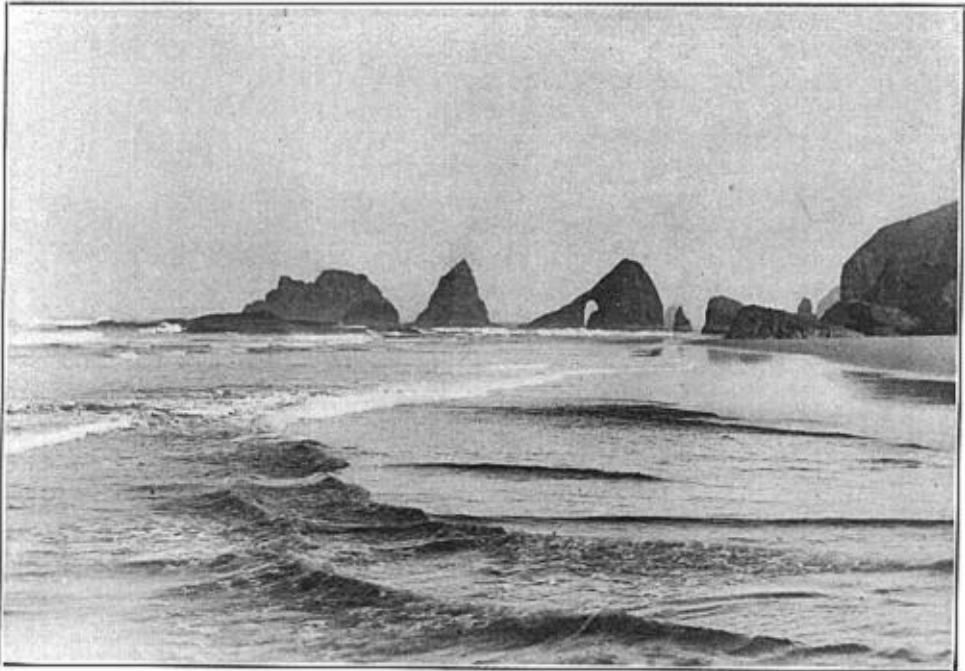


Fig. 35. INSHORE ROCKS, IN VICINITY OF THREE ARCH ROCKS, TILLAMOOK COUNTY, OREGON.

26 to January 12, and March 9 to March 21, this little grebe was continually in sight, either flying low over the water or diving for food in the clear water of the bay.

Gavia immer. Loon. Not positively identified during September, but found in considerable numbers during January and March. This Loon was observed several times while it was fishing in the bay, and was seen to dive and catch fish of considerable size; when a fish of four or five inches in length was caught, it was held in the bill and violently shaken several times before being swallowed. Common during May.

Gavia stellata. Red-throated Loon. Several were seen during the last few days of December and early January. A specimen secured on January 1, showed a patch of red feathers on the throat. All seen were diving and feeding along the bay shore.

Lunda cirrhata. Tufted Puffin. Puffins were fairly common about the rocky cliffs near Cape Meares on September 3, but none were seen flying later than September 7. A single example, in winter plumage, partly decomposed, was found half buried in the sand on the ocean beach on December 31. Abundant again in May, when specimens in breeding plumage were secured.

Cerorhinca monocerata. Rhinoceros Auklet. Several dead and two exhausted birds of this species were found on the ocean beach between January 1 and 10.

Ptychoramphus aleuticus. Cassin Auklet. A number of these birds were found dead on the beach between December 26 and January 10, new ones washing in with nearly every tide. Not a single live bird of this species was seen.

Phalaris psittacula. Paroquet Auklet. A single example found dead on the ocean beach by Mr. Peck on January 1.

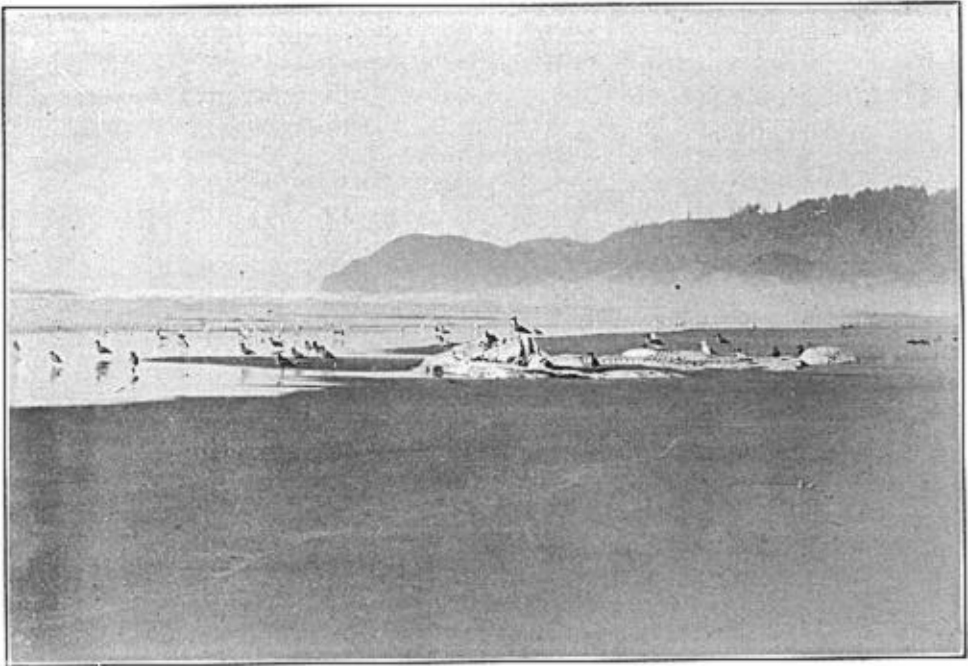


Fig. 36. WESTERN GULLS ABOUT CARCASS OF WHALE ON COAST OF TILLAMOOK COUNTY, OREGON.

Synthliboramphus antiquus. Ancient Murrelet. Three were found dead on the rocky beach near Maxwell Point on January 2.

Cepphus columba. Pigeon Guillemot. A small young just changing from the downy plumage was found dead on the ocean beach on September 1. During May they were commonly seen feeding in the surf and occasionally in the bay near Netarts postoffice. A few were seen and one secured on May 19 on the rocks about the caves at Short Beach, where no doubt a few remain to breed.

Uria troille californica. California Murre. Murres are abundant off the coast of Tillamook County, Three Arch Rocks being their principal nesting place. During the first week of January several dead specimens were picked up on the ocean beach, and two were caught alive in a badly exhausted condi-

tion. All those seen in January had more or less of an oily substance coated in the feathers of the under parts, but whether or not this oily substance was the direct cause of their death, I am unable to say.

Larus glaucescens. Glaucous-winged Gull. This species was seen commonly during January. It was usually found with the still more common *L. occidentalis*.

Larus occidentalis. Western Gull. Common both along the ocean beach and on the bay. During low tide hundreds of these gulls congregate on the exposed mud flats where they find an abundance of food. The birds also catch many crabs in the shallow water, carrying them to the smooth, sandy beach, where they are torn apart and devoured. I have seen this gull tear open the breast of a surf-scooter and eat the entire body, leaving the skin. At other times the gulls will feed only on the eyes and brains of a bird, leaving the body.



Fig. 37. NORTHERN PHALAROPE IN WINTER PLUMAGE.

They also eat fish and other animal matter thrown up by the tide, caring little whether it be fresh or decomposed, thereby proving their great value as scavengers (see fig. 36).

Larus californicus. California Gull. Large numbers of this gull were seen on Netarts Bay on September 8, when a series of skins was collected.

Larus brachyrhynchus. Short-billed Gull. Seen but once, on January 2, when two were seen, one of which was secured.

Rissa tridactyla pollicaris. Pacific Kittiwake. A single example was found dead on the rocky beach near Cape Meares on March 13.

Fulmarus glacialis glupischa. Pacific Fulmar. Several specimens were found dead on the beach from January 1 to 10, and the skins were preserved, showing the dark, mottled and light phases of plumage.

Phalacrocorax penicillatus. Brandt Cormorant. Common on the bay during September when specimens were secured.

Phalacrocorax pelagicus resplendens. Baird Cormorant. Common on the bay at all times. Seen feeding several times in the surf near the rocks at Maxwell Point.

Mergus serrator. Red-breasted Merganser. This beautiful merganser was common on the bay in January and from March 9 to 21. On December 28, a young male was shot by Mr. Peck as it flew from a small creek, near the bay shore. During our stay in the locality from March 9 to March 21, the species was seen daily swimming and diving in search of food in the more shallow parts of the bay. A fine pair in spring plumage was secured in March.

Dafila acuta. Pintail. These ducks congregated in immense flocks on the bay during the early part of September, but remained only a few days. Two young females shot by Mr. Peck, were found to be suffering from some kind of parasite; the entire fleshy parts of the breasts were full of small worms.

Marila valisineria. Canvasback. This, the most famous of American game ducks, was found in considerable flocks from December 27 to January 12. They usually fed in the shallow water close along shore during low tide, but were ever watchful and at the least sign of alarm the flock would rise and fly to some more secure place.

Marila affinis. Lesser Scaup Duck. It was ever a pleasing sight to see these trim little ducks swimming about the bay. No matter how large a flock it was the birds were never scattered about, but always massed together when at rest or feeding in the shallow water along shore. During the stormy weather of December and January this species outnumbered all other ducks on the bay, and from March 9 to 21, a large number of the ducks seen were of this species.

Clangula clangula americana. Golden-eye. Common on the bay, in both January and March. This duck is probably the most shy of all those wintering on Netarts Bay. They secure their food by diving, and usually stay well out in the bay while feeding.

Charitonetta albeola. Bufflehead. This dapper little duck is common on Netarts Bay all winter, a few were seen in September, and during January and March they were quite common. They are expert divers and secure their food in this way.

Histrionicus histrionicus. Harlequin Duck. On September 9, as I was climbing over some rocks just above the roaring surf, I saw a small brown duck bobbing up and down in the surging water between two high mussel-covered rocks. As it rose on a high wave I shot. Later when it washed ashore, I found it to be a female Harlequin. On March 16, Mr. Murie secured a fine adult male in bright plumage. When first seen this individual was sitting on a ledge just above the surf where it had evidently come to rest. On March 18 three others were seen, and on March 19 one was seen. All were along the rocky beach near Cape Meares. In swimming the Harlequin sits high on the water and holds the tail at a high angle.

Oidemia deglandi. White-winged Scoter. This large scoter was abundant on the bay in January and March but was not seen feeding in the surf like *O. perspicillata*. Upon rising from the water the wings make a loud whistling sound much like the Golden-eye in flight. It secures its food by diving, and stays under water a remarkably long time. The stomach of this species

is exceedingly large and upon examining several I found an amazing collection of shells and other remains of marine life.

Oidemia perspicillata. Surf Scoter. This beautiful black and white scoter was seen during each of my visits to Netarts. Only a few were seen in September, but by December 27 they had become abundant and were still plentiful in March. During calm weather when the bay is smooth, one can watch these expert divers at work securing their food from the bottom of the bay.

Branta canadensis minima. Cackling Goose. Large numbers of geese rest on Netarts Bay during fall and winter. Flocks of considerable size were seen in December, January and March. Several species no doubt occur, but as specimens were not secured of any but *B. c. minima*, no others were positively identified. I was told of one occurrence years ago when two hunters killed several hundred geese in one day, simply picking the feathers from them and leaving the bodies to the gulls. On March 20 I saw several small flocks of *minima* alight on the middle rock of the Three Arch group where they evi-



Fig. 38. HUDSONIAN CURLEW.

dently went to rest during their northward flight. On March 20 a female weighing four and a half pounds was shot as it flew low over the beach.

Ardea herodias. Great Blue Heron. This heron is of regular occurrence on the mud flats about the bay during low tide. It was seen at different times on all four of my visits to the bay.

Fulica americana. Coot. It seems hard to account for the scarcity of Coots on Netarts Bay, when they are abundant on Tillamook Bay only a few miles north. On January 1, Mr. Peck found a dead one on the beach, but no others were seen.

Phalaropus fulicarius. Red Phalarope. A single example was seen and secured on September 1. It was feeding on the sandy beach in company with Northern Phalaropes.

Lobipes lobatus. Northern Phalarope. Abundant on all sandy beaches from September 1 to 11. These little fellows were the most gentle and confiding of all the shore birds on the beach, often allowing me to approach with-

in a few feet of them while they ran about over the wet sand in search of sand fleas (see fig. 37). Common again in May.

Recurvirostra americana. Avocet. A single specimen secured by Mr. Peck on September 10.

Arquatella maritima couesi. Aleutian Sandpiper. This species was first taken in Oregon when a specimen was secured on the rocks near Cape Meares on December 31, 1912. No others were seen at the time, although on March 18, two others were taken at the same place. (See CONDOR XVI, 1914, page 93.)

Pisobia bairdi. Baird Sandpiper. A few of these sandpipers were found along the wet beach in September, but were not plentiful at any time.

Pisobia minutilla. Least Sandpiper. From September 1 to 11 these little fellows were abundant in large flocks.

Pelidna alpina sakhalina. Red-backed Sandpiper. This beautiful sandpiper was found in large flocks in company with the Western Sandpiper on the ocean beach during our visit in May.

Ereunetes mauri. Western Sandpiper. This was the most abundant sandpiper on the beach in September and in May. Flocks of from a few individuals to a hundred or more were seen daily along the sandy beach. When feeding they follow the receding waves on the run, taking wing before the next wave reaches them, then repeating the same thing over and over again.

Calidris leucophaea. Sanderling. Sanderlings were found in large flocks on the sandy beaches in September. On January 1, Mr. Murie secured several specimens on the sandspit and others were seen on March 14, while during May they were common.

Totanus melanoleucus. Greater Yellow-legs. A single specimen was taken and another seen by Mr. Peck on the mud flats of the bay during low tide in September.

Heteractitis incanus. Wandering Tattler. This bird was fairly common from September 1 to 11 about the rocky beach north of Netarts Bay and also on some half-submerged stumps along the bay shore. Not more than three were ever found together. Several were seen in May.

Actitis macularius. Spotted Sandpiper. Two or three were found about the mouths of small streams flowing into the bay, from September 1 to 11, and a single example was seen and collected on the ocean beach in September. Common in May.

Numenius hudsonicus. Hudsonian Curlew. Three were seen and one secured by Mr. Peck on the ocean beach on September 9, and several were seen during May (see fig. 38).

Charadrius dominicus dominicus. Golden Plover. A single bird was collected on the ocean beach on September 7. It was alone and no others were seen.

Oxyechus vociferus. Killdeer. One was seen by both Mr. Murie and Mr. Peck on December 28. It was flying over a fresh water creek that flows into the bay.

Aegialitis semipalmata. Semipalmated Plover. During September and May this plover was common in small flocks along the sandy beaches and occasionally on the mud flats of the bay during low tide.

Aegialitis nivosa. Snowy Plover. Common on the wide sandy beaches at all times. This plover can run exceedingly fast and tracks measured by Mr.

Peck showed each stride to be six inches in length when the bird was running fast.

Aphriza virgata. Surf-bird. On December 31, a cold, stormy day when the sleet-laden wind dashed the ocean spray high up on the rocks, we found a small flock of these hardy birds near Cape Meares, feeding about on the more sheltered rocks in company with a flock of Black Turnstones. The place was visited again in March, but no Surf-birds were seen.

Arenaria melanocephala. Black Turnstone. During September this species was seen several times feeding on the sandy ocean beach to the north. During January and March the birds were found only on the rocky beach, where a flock of ten or twelve was seen each time the place was visited.

Haematopus bachmani. Black Oystercatcher. This strange, shy bird was seen every time I made my way among the rocks in the vicinity of Cape Meares. Found usually in two's or three's, but on January 2, I saw a flock of a dozen or more. The Oystercatcher feeds on the marine life found growing on the rocks and to my knowledge never seeks food in any other place. The species was fairly common during May. It is known to breed on Three Arch Rocks.

State Fish and Game Office, Portland, Oregon, February 18, 1914.

A SADLY NEGLECTED MATTER

By ALLAN BROOKS

IN THAT best of all collector's manuals, Ridgway's "Directions for Collecting Birds", published in 1891, there occur the following passages in describing the preliminaries to skinning the specimen:

"No measurements are necessary since all measurements of scientific value are best taken from the dried skin. * * * Then if there are any noteworthy features as to color of soft parts they should be carefully noted, this being a very important matter and one sadly neglected by collectors."

How often have I recognized the truth of the last remark when examining the labels of birds collected by American ornithologists. In my own collection not two per cent other than those taken by myself have any data as to color of soft parts. The worst offenders are the ornithologists of California. Among several hundred skins, collected by a dozen or more men, mostly well known to science, only *one* has any record of this sort,—a California Woodpecker collected in the early eighties and which bears the simple legend "eyes white".

Specimens taken by European collectors usually have very complete data in this respect, and all their works of reference pay especial attention to the subject. As an instance I may cite Oates' "Game Birds of India", a tiny duodecimo volume intended for the use of the sportsman. In its small compass eighty-eight species of upland game birds are treated: Habits, recognition marks, descriptions, nidification, measurements, weights, and, in nearly every species, a full record of colors of soft parts.

The utter indifference of even the best ornithologists of America to this "very important matter" has been brought home to me rather forcibly by a