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## A REPORT ON THE BIRDS OF NORTHWESTERN ALASKA AND REGIONS ADJACENT TO BERING STRAIT. PART IX WITH TWO ILLUSTRATIONS BY ALFRED M. BAILEY

ALASKA SPRUCE PARTRIDGE. Canachites canadensis osgoodi.

I secured a small series of these birds from natives at Kotzebue, March 27. The Eskimos reported them fairly common in the timber along the Kobuk and Noatak rivers, where they kill a number for the traders during the winter months.

WILLOW PTARMIGAN. Lagopus lagopus albus.

The Willow Ptarmigan is the common bird of the grouse family throughout northern Alaska and is to be found along the entire coast as well as in the interior when conditions are right. In southeastern Alaska, albus is replaced by the geographical form alexandrae, which is quite common on many of the islands and especially abundant in Glacier Bay. The Willow Ptarmigan is a larger bird than the Rock Ptarmigan, and while the latter is usually a resident of the hills, the former is found on the tundras and lowlands.

The ptarmigan are subject to years of scarcity, and not a single bird may be seen during a whole winter where they formerly occurred in great abundance. In 1919, ptarmigan were very scarce throughout the territory; in December, on a trip to within a short distance of the source of the Copper River, we saw but one bird. In 1920 the birds began to return, and in 1921 they were reported abundant at all points where they usually occur. I am unable to explain the cause of this scarcity at intervals, for, so far as I know, no disease has been reported among them. I have been told that great flocks often assemble in the White River Valley, moving from place to place for food.

They were plentiful around Nome during the summer of 1921, prospectors telling us that they were continually flushing the birds. We saw a number ourselves and found one nest. The old bird allowed me to photograph her at three feet and then, when I pushed her from the nest with a stick, remained alongside the eggs while I made another exposure.

At Saint Michael we found ptarmigan abundant July 20 to 24, coveys of half-grown birds being put up from alder thickets and berry patches where they were feeding upon lagoon berries. These youngsters were then about one-third grown. At Cape Blossom we again found many coveys of young birds, each covey with the pair of accompanying adults. In a few hours' time we must have flushed a dozen flocks, which flew from the alder thickets on the hillsides and scattered out over the tundra.

On August 3, four adults were seen at the Corwin Coal Mine; and we found them numerous in September about twenty miles inland from Wainwright. At this time (September 20) there was just a faint trace of snow upon the ground, and as the birds were then changing to their winter dress they seemed conspicuous when resting upon the brown patches of the tundra. They would usually alight in patches of "Alaska cotton", a grass with cotton-like tufts which effectually concealed them. Several large flocks were seen; usually these seemed to be made up of but one sex, as was indicated by the collected birds. We found them exceedingly wild at this time and none was seen near the coast.

During the first week in October, however, flocks of the birds seemed to be moving from one place to another. Many bands were seen feeding upon the leaves of the dwarfed willows near the beach. The Eskimos told us that they used to net the birds inland at this time, for they generally follow along the banks of the streams in great numbers. They could then be herded into nets of sinew, or taken in small whalebone snares. Ptarmigan continued numerous through the whole month of October, during which time they practically cleaned the willows along the coast of their leaves. Hendee saw great flocks fifty miles inland the latter part of October, and one bird near Barrow on January 2.

They seem to leave the coast during the winter months but they returned in April when a few were taken still wearing their winter white. Some killed on May 15 had scattered dark feathers in their necks, and a week later all birds taken had their heads and necks almost brown. No eggs were taken at Wainwright, as few birds seem to breed along the coast. The natives said the ptarmigan nest in great numbers along the rivers emptying into Wainwright Inlet.

On May 25 the first specimens secured at Wales were two fine males in their full breeding plumage, and on May 31 I saw a large flock composed almost entirely of these handsomely colored males. None were nesting close to Wales, but I found them very common along Mint River, which empties into Lopp Lagoon about twenty miles from Wales. A nest taken on July 6 contained eight eggs, with incubation about one-fourth. Some nests were found concealed under willows, while others were upon the open tundra. We placed our tent within twenty feet of a nesting bird and did not discover her until a day later, which shows not only the protective coloration of the bird, but how remarkably close they will sit when their nest is in danger.

ROCK PTARMIGAN. Lagopus mutus rupestris.

This grouse is generally distributed throughout Alaska, being found from the extreme northern part to the islands of southeastern Alaska. It is usually to be found on the high mountain tops where it feeds along the boulder strewn slopes or suns itself on conspicuous, and oftentimes overhanging, rocks. At such times, when a few scattered birds are to be seen plumped out in the sun's warm rays, they are very tame and allow one to approach within a few feet. They are not confined to the mountain tops exclusively, however, for in the summer, to the eastward of Point Barrow, I found flocks of young birds upon the tundra at the very edge of the Arctic Ocean. This was the only species which I took near Demarcation Point.

We saw a few in the hills back of Nome, and signs were especially numerous on Anvil Mountain. At this time, June 20, they were nesting and one set of ten eggs was collected, incubation being nearly complete. The nest was situated in a mossy embankment at an altitude of about six hundred feet, nearly concealed by the green growths, and was found by our first flushing the male and then searching the vicinity closely until we raised the female from under our feet.

We did not see Rock Ptarmigan again during the summer until we reached Demarcation Point where I collected six from a flock of a dozen on the tundra close to the beach. At this time the tundra was more like a swamp than anything else, water standing in pools everywhere. At Humphrey Point the next day, a few miles above Demarcation Point, several flocks were flushed and a young male collected. It was midnight when I was hunting at this latter point and, as the sky was overcast, the birds could not be seen distinctly, but the one collected was of this species so I have no doubt the others were. I secured a specimen in winter plumage taken by a native inland from Barrow on October 15. They were rare at Wainwright, as is to

be expected because of the lack of hills. Hendee secured seven specimens on May 28, five on the 30th, and three others the next day. These were the only examples taken at Wainwright.

The Rock Ptarmigan is the common form in the vicinity of Wales during the spring and summer, but the natives tell me it does not stay throughout the winter. Five specimens were seen on Wales Mountain on May 12 and a male collected had a few brown feathers in the back of his head. The males began calling by May 19 and the reindeer herders reported the birds common upon the mountain slopes. On June 5 they were abundant in pairs along the base of Wales Mountain where the males were going through their courtship antics. They would rise in the air with a rollicking, jarring cry and then drop back to prominent perches near the ladies of their choice. The real breeding plumage of the males is the winter white except for a few dark feathers about the head and neck. I took one specimen at this time which was entirely white except for the black loral patch.

Here and there a nest was found along Cape Mountain at an altitude of a few hundred feet. The nests were similar to the one found at Nome, being placed in the grass with no effort at concealment. Mr. Dufresne found a nest on the tundra at Nome, this same season, in a clump of dried grass. The young birds scatter over the tundra in flocks, usually accompanied by one or both of the parent birds. At Teller, about seventy miles below Wales, Hendee found the Rock Ptarmigan exceedingly abundant through the latter part of August, and very tame.

MARSH HAWK. Circus cyaneus hudsonius.

Hendee observed a female over the bay at Saint Michael on September 2, 1922. ROUGH-LEGGED HAWK. Archibuteo lagopus sancti-johannis.

This species was seen only at Golovin Bay during the summer, where several pairs were breeding along the rocky cliffs bordering the harbor. They were extremely noisy and called attention to their nesting sites by their continuous cries, circling round so that one could not fail to find the nest if given time.

We located one nest about thirty feet up on a crumbling cliff, a jumble of sticks cemented together by excrement and placed upon an overhanging rock, inaccessible from above or below, the young being collected by means of a lasso on a stick. Several mice littered up the nest. This pair of birds was exceedingly tame. Both color phases were represented, the female light-colored, the male in dark plumage. Another pair was nesting down the beach a mile, some of the sailors from the "Bear" locating the nest and reporting three young, as in the nest which we found.

To me the Rough-leg is one of the finest of our birds of prey, a non-destroyer of bird life, remarkably tame for that family, in fact too easily approached for his own good. Hovering high over the mountains bordering placid harbors, dark against the cloud-filled sky, its eerie calls carry for a great distance, lending enchantment to the most isolated regions.

Golden Eagle. Aquila chrysaetos canadensis.

None of these birds was seen during the summer cruise, but the species is included in the list for the reason that Gordon had a skin collected near Demarcation Point during the spring. An eagle of some species was seen in Providence Bay, Siberia. A set of two eggs was taken by Mr. Dupertius of the Bureau of Education, a few miles from Solomon, just below Nome. They were collected in June, 1922, and donated to us.

Northern Bald Eagle. Haliaeëtus leucocephalus alascanus.

Hendee observed the Bald Eagle practically every day of his stay at Unalaska in September. He records it as common.

## Duck Hawk. Falco peregrinus anatum.

Hawks were very scarce in the Arctic during the summer of 1921, and only one specimen was collected. This, a Duck Hawk, was taken by a native near Icy Cape on September 6, and we saw another the same day. At Wainwright a hawk was seen on September 15 and one on September 19; what species I do not know. When off Point Martin, near Demarcation Point, August 13, a Duck Hawk, pursued by an Arctic Tern which kept darting at it from all angles, hovered over the ship for about ten minutes, starting several times to alight in the rigging.



Fig. 35. NEST AND YOUNG OF AMERICAN ROUGH-LEGGED HAWK; GOLOVIN BAY, ALASKA, JULY, 1921.

## Peale Falcon. Falco peregrinus pealei.

Hendee reported these birds fairly numerous at Unalaska the latter part of September. They were often seen attempting to catch White-winged Scoters.

## PIGEON HAWK. Falco columbarius columbarius.

One specimen was seen August 15 near Demarcation Point. Hendee collected one at Unalaska September 25, 1922, and saw another the next day.

SHORT-EARED OWL. Asio flammeus flammeus.

This wide-ranging species was noted hovering over the tundra near Nome on June 21. Two birds worked back and forth, sailing low over the ground as they watched for their prey. Their summer range extends far into the Arctic; the Eskimos collected several at the head of Wainwright Inlet, one of which we saved for a specimen. They told us that these birds were not uncommon, being seen during the summer months along the different inland rivers back of Wainwright and Barrow.

Three specimens were taken at Wainwright the following season, one each on June 10, 24, and 27. At Wales three specimens were seen on May 31, and Hendee collected one at Unalaska September 26.

SAINT MICHAEL HORNED OWL. Bubo virginianus algistus.

One specimen of Horned Owl which had been caught in a trap in October, 1920, was secured from a native at Point Hope. Joe Tuckfield, an old whaler, told me these owls come about "once in seven years", so they cannot be considered numerous. They are known as lynx owls. I believe this to be a northern record for the species. Hersey (Auk, xxxiv, April, 1917, p. 157) has pointed out the inconsistency of recognizing this as a geographical race, as its range is treeless. Specimens collected on the tundra are merely stragglers from the wooded river districts.

Snowy Owl. Nyctea nyctea.

This beautiful species is a common bird throughout Arctic Alaska. It is subject to years of plenty when birds will be seen very commonly, while other years but few are noted in a given locality. During 1921 we saw a number of these birds in the



Fig. 36. NEST AND YOUNG OF SNOWY OWL; NOME, ALASKA, JUNE, 1921.

vicinity of Nome, where they were nesting; one nest on the tundra contained four young and three addled eggs. This nest had been located or "staked" according to the laws of the North by Mr. Dufresne, advising the public that the nest was his claim, as he desired to study the food of the young. He kindly gave us the birds as specimens. In a day's hike back from Nome we saw five pairs of Snowy Owls but were unable to locate their nests. Dufresne had already destroyed the young of two pairs, one nest of which contained nine eggs and young, the other eight. He told us the eggs seemed to hatch out every other day. Prospectors destroy the nests of the Snowy Owl and kill the old birds at every opportunity, because of the damage they do to ptarmigan.

The nest we visited was on a knoll on the tundra, half a mile away from the nearest foothill. It was a mere depression lined scantily with willow leaves. The young were typical of young owls, ungainly little creatures with eyes tightly closed. They proved most unsatisfactory subjects to photograph, looking no more interesting

than fluffs of wool; all seemed bound to hide their faces. The old male, a fine white specimen, kept circling overhead, occasionally making a hoarse "who-who". He would sail up against the wind, then circling, would dart within a few feet of us, paying special attention to my Airedale. He once struck the dog with his talons, causing the bewildered Jerry to drop to the ground with a bleeding ear. The speed with which the owl could drop from the sky on folded wings was a revelation, and time and again I found myself dodging from his fierce onslaught.

We collected these young birds June 24, when the youngsters showed considerable increase in size. The weather had turned very warm, so that clouds of mosquitos rose from the grass on all sides. The heat of the day caused the birds to pant, and the bright glare kept them from opening their eyes except for mere slits which showed the small pupil and yellow-brown iris.

Several Snowy Owls were seen to the eastward of Barrow, especially at Cape Simpson August 20, and a few were noted the last of October and the first of November along the coast between Wainwright and Barrow. All these showed considerable dark color in their plumage. Hendee, on a twenty-five day trip inland where ptarmigan were very numerous, saw but three birds. The species continued rare throughout the winter, but in the spring they approached the coast, and after May 1 they were seen regularly on the sea ice and over the lead. After June 17, until Hendee left in August, six or seven owls could be seen daily near the village. They were rare about Wales during the spring of 1922. I saw a few occasionally, but they were shy and would not allow a close approach. On May 28 I saw one with a ground squirrel. The natives claimed not to have seen any nests of this species there, yet in the mountains and on the tundra back of Nome they were not scarce. Mr. Dufresne told me that few owls nested back of Nome in 1922, compared with the number he found the preceding year.

In 1924 Mr. Brower collected several sets of Snowy Owls' eggs on the tundra some distance inland from the village of Barrow. Mr. Brower commented on the abundance of the owls one year and their scarcity the next. He added that he considered the unusual number of lemmings present as one cause for so many owls in the vicinity of Barrow during the spring of 1924. The sets varied from three to eight eggs, and all the eggs were remarkably uniform in size. Mr. Brower saw two Pomarine Jaegers kill a Snowy Owl this season near her nest. The jaegers swooped upon the flying bird forcing her to the ground and then, with repeated onslaughts from the wing, finally killed the owl.

BOREAL FLICKER. Colaptes auratus borealis.

Through the courtesy of Dr. Joseph Grinnell I am able to include the Boreal Flicker in our list of Arctic coast birds. The specimen (an adult female, Museum of Vertebrate Zoology no. 45092) was sent to Dr. Harold Heath of Stanford University by Mr. C. L. Andrews who represented the Bureau of Education at Wainwright in 1924. In answer to a letter of mine Dr. Heath stated that Mr. Andrews was "absolutely reliable" and he quoted from Mr. Andrews' letter as follows: "I am sending you a skin of a flicker a boy shot and brought in a few days ago. It seems strange to find a bird of this kind so far from the forests which must be at least five hundred miles distant."

It is not so far to timber as Mr. Andrews estimated. Forests occur along the Noatak and Kobuk rivers some three hundred miles or less to the southward of Wainwright, and large willows grow northward along sheltered river valleys; but none over a few feet in height occur within fifty miles of Wainwright. To find a flicker so far from its natural habitat seems strange indeed.

Denver, Colorado, September 8, 1925.