in western Nevada. The nest, as usual, was a bulky mass of pine needles, and so placed that an overhanging point of rock protected it from the elements. Some catastrophe had but recently overtaken this family, as four young birds were lying dead on the rocks below, yet the parent birds still hovered silently about in the vicinity.

Seemingly more suitable to the habits of this species than the last, were the situations of the other two nests. One day, July 5, 1913, as I was forcing a way up the steep heavily timbered slope of an immense glacier moraine south of Fallen Leaf Lake near Lake Tahoe, a Solitaire flew from under a small overhanging granite boulder at 7500 feet altitude. The nest contained three fresh eggs, and, as usual, was of pine needles, flush with the surface of the ground, not much attempt having been made at concealment. In situation and material this nest was the exact counterpart of the last one, found at Bijou, June 16, 1915, at 6500 feet altitude.

Oakland, California, December 1, 1916.

## FURTHER NOTES ON THE BIRDS OF FORRESTER ISLAND, ALASKA

## By GEORGE WILLETT

THE following notes are supplementary to the two articles that have recently appeared on the avifauna of Forrester Island, southeastern Alaska. One of these, by Professor Harold Heath, was published in The Condor (vol. xvii, 1915, pp. 20-41), and the other, by myself, in the Auk (vol. xxxii, 1915, pp. 295-305). Since the publication of these papers, the writer has spent two summers on Forrester Island in the interests of the United States Biological Survey. To be exact, the additional time spent in the locality was from April 23 to August 20, 1915, and from April 28 to August 31, 1916. Owing to my earlier arrival on the island in the springs of 1915 and 1916, a number of spring migrants were noted that were not seen at all in 1914, as I did not reach the island until well along in May of that year.

There were several marked differences between the spring migration of 1915 and that of 1916, probably to be accounted for by the very different weather prevailing. The spring of 1915 was warm and mostly calm, while that of 1916 was cold and stormy. Probably as a direct consequence of these conditions, the number of species, as well as of individuals, observed during the spring migrations was much fewer during the latter year than during the former. Also in the past summer the nesting land birds were less plentiful than usual and mostly of later arrival.

The following species are added to the island avifauna.

Colymbus holboelli. Holboell Grebe. Fairly common in spring migration, May 3 to  $10,\,1915.$ 

Colymbus auritus. Horned Grebe. One bird seen in the harbor, May 6, 1915.

Gavia pacifica. Pacific Loon. Abundant in the spring of 1915, being most plentiful May 1 to 25. Two birds seen July 17. During the height of the spring migration this species passed northward in an almost unbroken series of small groups, the flocks occasionally alighting on the water for rest or food. All birds noted closely were in high spring plumage. During the spring of 1916 only a few individuals were seen.

Gavia stellata. Red-throated Loon. Three birds in spring plumage noted May 11, 1915.

Xema sabini. Sabine Gull. On June 2, 1916, both adults and immatures of this species were abundant on the water on the seaward side of the island, feeding on herring. On the day following a single immature bird was seen in the same locality.

Mergus serrator. Red-breasted Merganser. A pair of adults noted May 6, 1915, and a single male May 30, 1916.

Dafila acuta. Pintail. An adult male seen April 28, 1916.

Oidemia deglandi. White-winged Scoter.

Oidemia perspicillata. Surf Scoter. Both of these scoters are fairly common during the first week in May. Individuals were occasionally noted during the summer months.

Branta canadensis occidentalis. White-cheeked Goose. Small flocks of large brant were seen daily April 22 to 27, 1915. On June 20, 1916, a flock of ten birds flew by my boat at close range. These were easily identified as of the above subspecies by their large size and dark underparts.

Arquatella maritima couesi. Aleutian Sandpiper. Common on outlying rocks May 4 to 7, 1915. One flock of at least forty birds noted.

Totanus melanoleucus. Greater Yellow-legs. One bird seen at a small pond on the top of the island, July 25, 1916.

Heteractitis incanus. Wandering Tattler. Noted occasionally throughout spring and summer except during the month of June. In 1915 it was seen on the following dates: May 7, 8 and 16; July 20 and 28, and August 2 and 5. In 1916: July 18, and August 30 and 31.

Actitis macularia. Spotted Sandpiper. One seen May 24, 1915, and another May 30, 1916.

Squatarola squatarola. Black-bellied Plover. Single individual seen August 7, 1916.

Arenaria melanocephala. Black Turnstone. Six birds seen May 6, 1915. Fairly common July 30 to August 9, 1916.

Accipiter velox. Sharp-shinned Hawk. One bird seen near camp May 2 and again May 6, 1915.

Buteo borealis alascensis. Alaska Red-tail. A single bird noted May 2, 1915, and another May 14, 1916.

Otus asio kennicotti. Kennicott Screech Owl. One bird seen in the woods July 25, 1916.

Passerculus sandwichensis sandwichensis. Aleutian Savannah Sparrow. Common along shore during the spring migration, which took place May 5 to 15, 1915, and May 1 to 14, 1916. A single bird noted May 31, 1916. A specimen taken seems referable to this subspecies, though inclining in some characteristics toward savanna of the eastern states. It is clearly not alaudinus.

Zonotrichia coronata. Golden-crowned Sparrow. Apparently a spring migrant in small numbers. Noted May 3, 1915, and May 8 and 10, 1916.

Melospiza melodia caurina. Yakutat Song Sparrow. I had suspected the occurrence of this form during migrations, as it is common at these times on Dall and Prince of Wales islands, but, owing to its similarity to Melospiza melodia rufina, I had been unable to identify it with certainty. I am satisfied, however, that an individual examined at close range on May 2, 1916, was referable to caurina.

Additional notes on species previously recorded:

Falco peregrinus pealei. Peale Falcon. Professor Heath (Condor, xvII, 1915, p. 25) recorded the duck hawk of Forrester Island as Falco peregrinus anatum, and, as during 1914 I took no specimens, I also referred the species to anatum in my article in the Auk (vol. xxXII, 1915, p. 303). I find, however, that an adult male taken in 1915 lacks entirely the black on head and shoulders characteristic of the male anatum in corresponding plumage, and an adult female taken in 1916 is spotted on the throat and heavily barred with black on chest and belly, much more so than corresponding specimens of anatum. It also lacks the brownish cast of underparts to be found in anatum. This specimen was examined by Mr. H. C. Oberholser who confirms my identification, stating that it is undoubtedly F. p. pealei.

Four or five pairs of these birds nest on Forrester Island and outlying islets. The eggs, generally four in number, are deposited the last part of April or first week in May.

Jan., 1917

Dryobates villosus picoideus. Queen Charlotte Woodpecker. Though I referred the hairy woodpecker of the island to *Dryobates villosus sitkensis*, I find upon examination of a specimen taken in August, 1915, that the white underparts characteristic of *sitkensis* are entirely lacking, and that it is less extensively white on the back. As it was in the molt and the outer tail feathers not yet grown out, comparison in this regard could not be made. As it is clearly not *sitkensis*, but possesses the characters ascribed to *picoideus*, I now refer it to the latter form, a course that is further justified by the geographical position of Forrester Island.

Corvus corax principalis. Northern Raven. Although I had spent three previous seasons in southeastern Alaska and had found the raven common at all points visited, until the summer of 1915 I had never succeeded is locating the nest. I was rather at a loss to account for this fact as quite a little time had been spent in the search. The solution of the problem was arrived at in 1915. The raven proves to be the earliest nesting bird of the region, the young being almost large enough to leave the nest by early May, at which date the bald eagles and falcons are commencing incubation. A nest containing two nearly full grown young ravens was found on Forrester Island May 14, 1915. It was compactly built of sticks, and well lined with moss, and was about forty feet up in a spruce tree in dense woods. The parent birds were very bold and noisy, flying within a few feet of my head while I was near the nest. Several other similar nests were seen later, from all of which the young had departed. After the young leave the nest in early May they remain in the woods until the middle or latter part of June, when they come to the beach with their parents.

Loxia curvirostra sitkensis. Sitka Crossbill. Specimens of this bird taken in various parts of southeastern Alaska during the summer months showed no signs of nesting, a fact which always seemed puzzling to me. Consequently I was much interested to find that birds shot by Mr. W. D. McLeod at Howkan in early September, 1916, showed from the condition of their reproductive organs that they would have bred in about two or three weeks. I had noted a similar condition in two specimens taken at Sitka in September, 1913, but had supposed them to be exceptional cases. It would seem, however, from the above facts that the nesting season of the Crossbill in southeastern Alaska is in late September or early October. This seems the more extraordinary when we consider that at this time the bad weather has generally commenced and that it must be well along into early winter before the young leave the nest.

Elephant Butte, New Mexico, November 24, 1916.

## THE SUBSPECIES OF HESPERIPHONA VESPERTINA

## By JOSEPH GRINNELL

(Contribution from the Museum of Vertebrate Zoology of the University of California)

HE WRITER'S attention was first called to the systematic status of the Evening Grosbeaks of western North America by Mr. Allan Brooks who stated in a letter that he had found certain peculiarities in his series gathered in British Columbia. Subsequently Mr. Brooks sent his material to the California Museum of Vertebrate Zoology with full permission for me to make use of it in any revision I might care to undertake. Attempts to secure additional material from certain critical localities have not proven very successful. However, a total of 113 skins of Evening Grosbeaks has been brought together, from the following sources: Private collections of Messrs. J. Eugene Law, Allan Brooks, H. S. Swarth, G. F. Morcom, and J. Grinnell; the United States National Museum, through Dr. Chas. W. Richmond; the American Museum of Natural History; and the California Museum of Vertebrate Zoology.

Study of the assembled specimens has been under way for over two years,