

tones. Even so, they were remarkably low for so small an Owl. Six to twenty hoots were given in a series and often only a few minutes elapsed between groups of hoots.

Actually the bird was calling much nearer camp than we first thought. We found the nest in an aspen only seventy feet away. The sitting bird did not hoot, but the male, or at least the bird not incubating, was heard frequently throughout the night, calling from trees between twenty and fifty feet from the nest. It stopped calling when we approached too closely, nor would it hoot with the flashlight shining on it.

The incubating bird sat closely, its eyes shining with a white light, both eyes visible at once. The nest held three incubated eggs. At about 7:30 p. m. on June 6 and 7 a hoot four or five half tones higher than the highest notes of the usual call was heard two or three times, once simultaneously with the lower note. An immediate trip to the nest disclosed the absence of the female. Evidently this was the note of the female and was given only when away from the nest. She returned each night after less than half an hour's absence. Thus another species of Owl proves to have a sexual difference in hoot, with the female higher pitched as usual (see Miller, Condor, XXXVI, 1934, pp. 212).

Our purpose in visiting the Pine Forest Mountains had been to secure breeding Juncos. Walter P. Taylor in his survey of this region (Univ. Calif. Publ. Zool., VII, 1912, pp. 319-436) reported a juvenal *Junco oreganus thurberi* taken July 30. This he hesitated to consider as evidence of breeding because he thought it possible that the bird might have strayed from the Warner Mountains, eighty-five miles to the west. From my recent reconnaissance of the intervening desert region I doubt that a Junco would move through such uninviting regions in July. We were successful in securing three adult Juncos on the point of breeding; no others were seen. One mated pair, the male singing, was taken as the two birds fed together among snow banks in the limber pine timber at 8,400 feet. The female had yellow pigmented ova 3 mm. in diameter. This female was a fairly typical *thurberi*; the male was a hybrid *J. c. caniceps* × *J. mearnsi* with cinnamon-colored sides but bright red back. The third bird, a female with gonads similarly enlarged, was a typical *J. o. shufeldti* of the type breeding in the Cascade Mountains of northern Oregon and Washington.

The limited area of Boreal life-zone evidently supports a small breeding population of Juncos of mixed character recruited from the adjacent species and races in Idaho, Nevada and California. The *shufeldti* may have been a retarded migrant but it was not a cripple and was sexually active. No migratory flocks were present and the last wave of migrants in this area was three weeks earlier. Possibly in certain unfavorable seasons no Juncos breed in these mountains so that there may not be a self-perpetuating stock over any great length of time.

Four species that we found in the Boreal and Transition areas were not listed by Taylor as summer residents. These were Ruby-crowned Kinglet (*Regulus c. cineraceus*, M. V. Z. no. 67129), Hermit Thrush (*Hylocichla g. polionota*, M. V. Z. no. 67123), Downy Woodpecker (*Dryobates p. leucurus*, M. V. Z. nos. 67108, 67109), and Crossbill (*Loxia curvirostra*). The Kinglets were not common but a few nesting pairs were found in the denser patches of limber pine. Hermit Thrushes were fairly common in the pine forest. The Crossbill was a solitary bird seen in the pines; there is no certainty that it was breeding. Hairy Woodpeckers (*D. v. orius*, M. V. Z. nos. 67100-67103), which were nesting commonly in the pines as well as in the aspens at camp, were not mentioned by Taylor.—ALDEN H. MILLER, *Museum of Vertebrate Zoology, Berkeley, California, July 16, 1935.*

In Reference to 'The Birds of Wrangell Island.'—In my paper on the birds of

Wrangell Island (Univ. of Toronto Studies, Biol. Series, no. 28, 1926), I excluded from full treatment six specimens in the Carnegie Museum which were indicated by label as having been collected at Wrangell Island in August, 1911, by F. E. Kleinschmidt. A thorough search of the literature pertaining to Wrangell Island and its fauna did not reveal any reference to an expedition there in 1911. A reference by Thayer (Auk, Vol. XXVIII, 1911) however, indicated that Captain F. Kleinschmidt had been in north Pacific waters in 1910. Thayer relates the difficulties encountered that year by his private expedition, in charge of Mr. John Koren, the object of which was to collect specimens on Wrangell Island. Storms and ice conditions prevented Koren from reaching his objective. Further, he comments that Captain F. Kleinschmidt, who had started a northern cruise a week earlier, "managed to get to Cape Serdze . . ." The writer interpreted this statement as meaning that Captain Kleinschmidt too had not reached Wrangell Island in 1910 and since I had no knowledge of Captain Kleinschmidt's expedition of the next year (1911) from the literature, I assumed there was error in the labelling of the specimens in the Carnegie Museum. For that reason, they were omitted from further treatment.

I have learned indirectly from Captain Kleinschmidt that these specimens are correctly labelled and, therefore, on his authority, *Chen hyperborea hyperborea* and *Somateria v. nigra* can be added to the list of Wrangell birds.—L. L. SNYDER, *Royal Ontario Museum of Zoölogy, Toronto.*

Stereoscopic Vision in a Single Eye?—In an article¹ which appeared some months ago occurs the following statement. "Nearly all birds have eyes on the sides of the head. Such birds, of course, can have no binocular vision. Many nevertheless possess stereoscopic vision which they get by virtue of the fact that they have two maculae (spots of sharpest vision) in each eye. This gives *in the one eye the two pictures* from two different angles which constitute the *sine qua non* for stereoscopic vision." (Italics mine.)

Concerning this last remarkable sentence, one might comment, "Interesting, if true." But if it be true will some physicist please explain how it is possible for one lens (the essential focussing element) to produce *two pictures* in one eye. The eye, as any biologist known, is simply nature's camera. Its lens can certainly produce but one *image* on the sensitive surface of the retina. Degree of sensitiveness has nothing to do with it. The presence of two maculae can have no more to do with the production of two images than the placing of two sensitive plates in one camera. Or, following out the logic (?) of the quotation, if one should have a special plate made for his camera with two spots or areas of, let us say, super-sensitive panchromatic emulsion, surrounded by a moderately sensitive emulsion over the remainder of the plate, he should somehow get "two pictures from two different angles."

The article further states, "And thus, at least up to the present moment, in the visual apparatus of birds the actual climax of eye-evolution has been reached. These animals, it is true, cannot rationalize about the earth and the sun as we can, and yet they do indeed behold 'the child of the sun' as we can never hope to see it and *they can also gaze back*—some of them, at least—*upon the parent sun itself without injury, without pain*, and with a sense of glorious effulgence we can never understand." (Italics mine.)

One may seriously question, though I do so with less assurance than in the case of the first quotation, whether any bird can actually look directly at the sun, focussing

¹ Shastid, Thomas Hall. The Evolution of Eyes. The American Scholar, Vol. II, No. 4, Oct. 1933, pp. 441-442.