

ate vicinity of the Biological Station, at Flathead Lake; although not found nesting, "the parent birds were generally observed feeding young of the year in the trees near the station," after about the middle of July, leading to the conclusion that the species nests later than is generally supposed. Of the sixteen half-tone plates, two illustrate the scenic features of the country at the Biological Station, near the upper end of Flathead Lake, and fourteen represent nests and eggs, including three styles of the nest of Wright's Flycatcher. The paper is a highly creditable and very welcome contribution to our knowledge of the birds of northern Montana. — J. A. A.

**Shufeldt on the Osteology of Flamingoes.**<sup>1</sup>—The skeleton of *Phaenicopterus ruber* is described in detail and comparisons are made of its principal osteological characters with those of the ducks, geese, storks, ibises and herons. The conclusion is reached that the Flamingoes form "an independent group, or suborder, for which the name *Odontoglossæ* may be retained." The six plates illustrate a skeleton of *Phaenicopterus antiquorum* and the skull and other parts of the skeleton of *P. ruber*. — J. A. A.

**Oberholser on a Collection of Hummingbirds from Ecuador and Colombia.**<sup>2</sup>—This collection, numbering 1136 specimens, representing 109 species and subspecies, was "gathered by Messrs. Claud Hamilton and Walter Goodfellow during their trip to Ecuador and Colombia in 1898 and 1899," and is now in the possession of the U. S. National Museum. The annotations include descriptions of some of the rarer forms, and the elucidation of many questions of nomenclature, and also important field notes furnished by Mr. Goodfellow. Mr. Oberholser states that with possibly one exception, this is the finest single collection of Hummingbirds ever made. Besides containing several species of great rarity, Mr. Oberholser finds in the collection one new species and three new subspecies. He also introduces several innovations in nomenclature. — J. A. A.

**Bangs on a Second Collection of Birds from Chiriqui.**<sup>3</sup>—In this paper Mr. Bangs continues his account of Mr. Brown's work in Chiriqui,<sup>4</sup> and

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<sup>1</sup>Osteology of the Flamingoes. By R. W. Shufeldt, C. M. Z. S. Ann. Carnegie Museum, Vol. I, 1901, pp. 295-324, pll. ix-xiv.

<sup>2</sup>Catalogue of a Collection of Hummingbirds from Ecuador and Colombia. By Harry C. Oberholser, Assistant Ornithologist, Department of Agriculture. Proc. U. S. Nat. Mus., Vol. XXIV, pp. 309-342, No. 1258, 1902.

<sup>3</sup>On a Second Collection of Birds made in Chiriqui, by W. W. Brown, Jr. By Outram Bangs. Proc. New Engl. Zool. Club, Vol. III, pp. 15-70. Jan. 30, 1902.

<sup>4</sup>For a report on the first collection see Auk, XVIII, Oct. 1901, pp. 355-370.

covers the period from January to August, 1901. This large collection numbers about 260 species and subspecies, 12 of which are here characterized as new. "A large proportion of the mountain species," says Mr. Bangs, "are not different from the birds of the high Costa Rica mountains, although there are some striking exceptions; and the Volcan de Chiriqui is probably too near to have a mountain fauna wholly its own. Those birds that do differ usually have larger bills than their Costa Rica representatives." Although for the most part the list is a record merely of the specimens contained in the collection, with dates and localities of capture, without field notes, here and there Mr. Bangs adds technical comment on the nomenclature and relationships of some of the forms. The paper is, of course, an important addition to our knowledge of the bird fauna of this very interesting region, and great credit is due Mr. Brown for his intelligent and energetic work in gathering the material which Mr. Bangs has so discriminatingly elaborated. — J. A. A.

**Seale on the Avifauna of Guam.**<sup>1</sup>— Mr. Seale was sent to the island of Guam, one of the Mariana or Ladrone Islands, by the Bishop Museum of Honolulu to make collections of its fauna. Volume I of the 'Occasional Papers' of this Museum contains reports by Mr. Seale on the birds and fishes. The island of Guam, says Mr. Seale, "is densely wooded, except in the northwest, where there is a small range of low mountains reaching to an elevation of 1800 feet." The island is thirty-two miles long by twelve miles broad, and has a general altitude of from fifty to seventy-five feet; it has "a few small fresh water ponds and marshes, and perhaps eight to ten small streams." Mr. Seale's paper on the birds is not merely a list of the species, but is constructed on the plan of a 'hand-book,' with keys to the genera and species, as well as to the higher groups, and descriptions of the species and bibliographical references. It is intended to include all of the species known from the island, and apparently to make sure of this a few are included of doubtful or probable occurrence. Some of these have been recorded from other islands of the Mariana group, but others from points not nearer than the Samoan Islands, or merely as from "intertropical seas." In several instances included species are stated to be "not known from Guam."

The number of species formally included is 58, of which about one half appear to have been obtained by Mr. Seale, many of them in good series. There are also interesting observations on the habits of many species, and illustrations of the nests and eggs of several of them. A new species of Heron is described as *Ardeetta bryani*.

The paper will doubtless prove of great use to ornithologically inclined

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<sup>1</sup> Report of a Mission to Guam. By Alvin Seale. Part I.—Avifauna. Occas. Papers of the Bernice Pauahi Bishop Museum of Polynesian Ethnology and Natural History, Vol. I, No. 3, 1901, pp. 17–60, pll., and 6 text figures.