

to some extent of earlier, ornithological conditions of this limited and somewhat peculiar area. We note a singular slip in the name of the Pied-billed Grebe which is given (in two places) as *Tachybaptus podiceps* instead of *Podilymbus podiceps*; also *Stryx* for *Strix* (p. 427); *articus* for *arcticus* (p. 429); and in respect to diphthongs one is puzzled to know whether it was the intention to separate or combine the vowels *ae* and *oe*, since they occur about as often *æ* and *ø* as *ae* and *oe*, both forms sometimes occurring on the same or adjoining pages; and the same irregularity of usage with *ae* and *æ*. But these are minor faults in an otherwise very carefully printed paper, and one of permanent value as a contribution to faunal literature.— J. A. A.

**Beebe on the 'Ecology of the Hoatzin.'**— In a recent paper of 22 pages, illustrated with several half-tone plates, Mr. C. William Beebe treats of the history and habits of the Hoatzin,<sup>1</sup> based on his studies of the bird in its haunts in Venezuela and British Guiana. On neither occasion were young birds to be found, so that the notes on the species refer solely to the adults, which were met with in life on the Guarapiche River in northern Venezuela in March, 1908, and on the Abary River in April, 1909. The introduction contains observations on the structure of its well-developed crop, and on the relationships of this "extremely ancient and isolated type." Then follow sections devoted to the history of its discovery, its nomenclature, geographical distribution, its 'general appearance,' its parasites, habits, food, nest and eggs, the author's field notes at the two localities above mentioned, and an account of his photographic studies, the results of which are reproduced in the accompanying half-tone plates, showing its haunts, attitudes in trees, and its nests. Mr. Beebe found the Hoatzin beginning to nest in British Guiana in April, but the nesting season evidently varies, since others have found it nesting here from December to July, and on the Orinoco in September.

The Hoatzins, says Mr. Beebe, "appear to be extremely sedentary, and day after day we could be sure of finding the birds in the same place. We located nine flocks, ranging from a single pair to forty-two in number, and these seemed never to move from their favorite trees except when driven back a few yards into the jungle by our intruding canoe." One of the photographs here published shows a flock of eleven birds. It is unnecessary to say that Mr. Beebe's paper is an important contribution to the history of an exceedingly interesting and hitherto little known bird.— J. A. A.

**Beebe on Birds of Northeastern Venezuela.**<sup>2</sup>— Mr. Beebe, accompanied by Mrs. Beebe, spent about three weeks, during March and April, 1908,

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<sup>1</sup> A Contribution to the Ecology of the Adult Hoatzin. By C. William Beebe, Curator of Birds, New York Zoological Society. *Zoologica*, Scientific Contributions of the New York Zoological Society, Vol. I, No. 2, pp. 45-66, fig. 1-20. Dec. 28, 1909.

<sup>2</sup> An Ornithological Reconnaissance of Northeastern Venezuela. By C. William Beebe. *Zoologica*, Vol. I, No. 3, pp. 67-114, fig. 21-37. Dec. 28, 1909.

near the celebrated pitch lake at La Brea, in northeastern Venezuela. The twenty days' observations there made are the basis of the present paper, which gives a short account of the general character of the region, followed by an annotated list of about 140 species of birds, of which 22 were breeding. The notes on the habits of many of the species are quite extended, occupying from half a page to several pages, as in the case of the Yellow-backed Cassique. The paper closes with 'Part V. Ecological Conclusions,' in which is made a comparison of the bird life of Venezuela with that of the State of New York, with a full-page chart illustrative of "Arboreal Adaptive Radiation."—J. A. A.

**Report on the Immigration of Summer Residents in England and Wales in the Spring of 1908.**—The fourth Report of the Committee of the British Ornithologists' Club on the spring migration of birds into England and Wales during 1908 forms, as usual, a special volume of the 'Bulletin' of the Club.<sup>1</sup> This report is similar in character to those of previous years, giving first an account of the weather for each day of the period covered by the immigration (March 14–May 31), noting as well the daily arrivals of birds, followed by details of the chief movements observed at the lights during the same period, with maps for each of the thirty-three species scheduled. There are also notes on migratory movements during the autumn of 1907, and records from the lighthouses and lightships for the same period. As heretofore, generalizations relating to the general subject are held in reserve and will not be attempted till the observations have been continued for a much longer period.—J. A. A.

**L. H. Miller on California Fossil Birds.**—Recent exploration of the Quaternary asphalt Rancho La Brea beds in southern California has resulted in the discovery of abundant remains of birds as well as mammals, part of which represent forms now living in California, while part belong to extinct types only remotely allied to any known living forms. These asphalt beds have for ages proved a trap for the unwary bird or mammal that chanced to visit them. The oil from the oil strata that is forced to the surface accumulates in the natural depressions of the surface as small lakelets, which through evaporation become "masses of a plastic and marvelously tenacious and tar-like substance." Mr. Miller describes<sup>2</sup> these tar-pools as possessing "the mirror-like surface of water and, especially at night, might be mistaken for such; yet the bird whose wing-tip touches the innocent looking surface, or whose foot plashes into its margin,

<sup>1</sup> Report on the Immigration of Summer Residents in the Spring of 1908: also Notes on the Migratory Movements and Records received from Lighthouses and Light-vessels during the Autumn of 1907. By the Committee appointed by the British Ornithologist's Club. = Bulletin of the British Ornithologists' Club, Vol. XXIV, November, 1909. Pp. 235, with 29 maps.

<sup>2</sup> Fossil Birds of the Quaternary of Southern California. By Loye Holmes Miller. The Condor, Vol. XII, Jan., 1910, pp. 12–15.