

snake, so that its presence in the nest cannot frighten off enemies as some have assumed. He finds moreover that certain species have developed the habit of using snake skins in only a part of their range and considers that this is due to the fact that their forebears in part of the range did not, through chance gathering of nest material, select snake skins as a regular material. He argues that young birds remember the materials of which their home nests were built and "go and do likewise" when it comes their turn to build a nest of their own, and goes on to say that "Birds are taught by their parents to fly, and through a certain visual educative process, they learn to select food and nest materials." We are, however, skeptical as to birds learning from observation how to build a nest or what materials to use. If birds inherit the ability to sing a certain song, or to perform certain characteristic actions why cannot they also inherit the ability to select certain nesting materials? It is in reality no more wonderful or mysterious for a Crested Flycatcher to use snake skins for nesting material than for a Worm-eating Warbler to select the fruit stalks of *Polytrichum* moss. How such choice originated we cannot say, anymore that we can trace the origin of the migratory instinct, though when individuals are forced into a region or subjected to conditions where their favorite material is not to be had they probably take the nearest substitute which is perhaps in accord with Mr. Strecker's "chance gathering."

His advice to egg collectors to study more nests and less eggs and to collect old nests for detailed study and comparison we heartily commend; as he puts it: "If the egg collector who is never satisfied unless he has dozens of sets of eggs of the same species, in order to display every possible type of variation in shape, shade of shell coloring, and pigmented marking (these being produced through a process over which the birds have no control) could be induced to form a collection of nests from widely separated localities in order to show the differences, he would be making a much greater contribution to science."—W. S.

Kennard and Peters on Panama Birds.—The months of February and March, 1926 were spent by Mr. Kennard at Almirante Bay, Panama, making a collection of birds for the Museum of Comparative Zoology in that vicinity and in the rain forests of the higher mountains between Chiriquito and Boquete. In this paper he gives an interesting account¹ of his itinerary while Mr. J. L. Peters presents an annotated list of the specimens collected. Two new forms were described by the authors in a preliminary paper.—W. S.

Jaeger on Nevada Birds.—Mr. Edmund C. Jaeger has published an annotated list² of the birds observed on the Charleston Mountains of

¹ A Collection of Birds from the Almirante Bay Region of Panama. By Frederic H. Kennard and James L. Peters. Proc. Boston Society of Nat. Hist., Vol. 38, No. 10, pp. 443-465. January, 1928.

² Birds of the Charleston Mountains of Nevada. By Edmund C. Jaeger. Occasional Papers of Riverside Junior College, Vol. 2, No. 1, April 1, 1927. pp. 1-8. Riverside, California.

southern Nevada, during a visit in June, 1926. Forty species were seen, some of which, from the nature of the case, are not identified subspecifically. The list is, so far as we recall, the first for this range. A previous paper¹ on the flora of the mountains, the result of previous trips to the same region, is illustrated with photographs of the mountains and contains a more detailed account of their physiography.—W. S.

Howard on Parapavo californicus.—This interesting fossil Gallinaeous bird was first described by Loye H. Miller from a tarso-metatarsus bone from the Pleistocene, of Rancho La Brea, California. With the subsequent investigation of this deposit no less than one thousand specimens of bones of this species have been secured, and in this paper² Miss Howard has studied in detail the various parts of the skeleton making hundreds of measurements and comparing these with measurements of allied recent forms. By a mathematical method, explained in an appendix by Frederick H. Frost, a definite ratio of resemblance of difference is obtained for each bone as compared with the corresponding bone of *Meleagris*, *Pavo* etc. Prof. Miller originally referred the species to the genus *Pavo* but later decided that it differed from the Peafowl and should stand as a distinct genus between this and the Ocellated Turkey of Yucatan, *Agriocharis*, forming as it were a connecting link between the Phasianidae and the Meleagridae.

Dr. Alexander Wetmore still later suggested that the bird was in reality a Turkey standing between *Meleagris* and *Agriocharis* and not closely related to the Peafowl. This view is fully confirmed by Miss Howard's investigation and further indicates that it is most closely related to *Agriocharis*.

There are thirteen half-tone plates illustrating the various bones of the skeleton.—W. S.

Wetmore on Migrant Shorebirds in South America.—Dr. Alexander Wetmore, when connected with the Biological Survey, spent a year, May 1920 to May 1921, in Argentina, Paraguay and Uruguay, for the purpose, primarily, of studying the winter Shorebird life. As is well known most of the waders that breed in the arctic or subarctic life zones migrate to the southern parts of South America to spend the winter and while the United States-Canadian treaty protects them while in North America there has been little or no protection accorded them in South America.

¹ A Preliminary Report on the Flora of the Charleston Mountains of Nevada. By Edmund C. Jaeger. *Ibid.*, Vol. 1, No. 1. April 1, 1926.

² A Review of the Fossil Bird, *Parapavo californicus* (Miller) from the Pleistocene Asphalt Beds of Rancho La Brea. By Hildegard Howard. With an Appendix, Statistical Identification as Applied to *Parapavo*. By Frederick H. Frost. Univ. of Calif. Publications, Bull. Dept. Geological Sciences, Vol. 17, No. 1, pp. 1-62, plates 1-13. Berkeley, California. 1927. pp. 1-62. [Plates numbered as pages.]