

to it and its offspring. It is generalized in structure and easily adaptable, but has as yet shown no specialization to a marsh environment. He thinks on this latter account that the bird may have only recently deserted the grassland for the marsh and this view is further strengthened by the fact that it reverts readily to nesting in the grassland and deserts the marsh almost as soon as the young are reared. There are many other important points in Dr. Allen's admirable monograph which cannot be touched upon here, but the work is well worthy of the careful perusal of every ornithologist. Twenty-two half-tone plates illustrate the habits, nests, birds, etc.—W. S.

Beebe's Preliminary Pheasant Studies and Other Papers. — Mr. Beebe presents in a recent paper¹ some of the results of his study of the pheasants preparatory to issuing his monograph of these beautiful birds. The most important point brought out is the possibility of dividing the family into apparently natural subordinate groups according to the method of moult of the tail feathers. In the *Perdicinæ* the moult begins with the innermost feathers, while in the *Phasianinæ* it begins with the outermost. In *Polyplectron*, *Chalcurus*, *Argusianus* and *Rheinardius* (*Argusianinæ* of Beebe) it begins with the third pair from the center, and proceeds both ways, while in *Pavo* (*Pavoninæ*) it begins with the next to the outermost. This character forces *Ithaginis* and *Tragopan* into the *Perdicinæ* which is quite likely their true position.

In another recent paper² Mr. Beebe describes the development and plumage changes of the White Ibises basing his studies on the birds in the large flying cage at the New York Zoological Park. In conjunction with Mr. L. S. Crandall³ he calls attention to the stiffness in the down feathers representing the tail of young ducks and their persistence on the tips of the juvenal rectrices. This condition is particularly noticeable in the Torrent Ducks of the Andes, *Merganetta*. Mr. Beebe has also republished⁴ with additions an interesting paper on the 'Effect of a Postponed Moult upon the Sequence of Plumage in Certain Passerine Birds,' which appeared in the *American Naturalist* for 1908.—W. S.

Chandler on the Feathers of *Circus hudsonius*.⁵ — In this paper the author describes in great detail the structure of the feathers of the Marsh

¹ Preliminary Pheasant Studies. By C. William Beebe, *Zoologica*, Scientific Contributions of the New York Zoological Society, Vol. I, No. 15, pp. 261-285. April, 1914.

² The Ontogeny of the White Ibis. By C. William Beebe, do., No. 12, pp. 241-248. February, 1914.

³ Specialization of Tail Down in Ducks. By C. William Beebe, and L. S. Crandall, do., No. 13, pp. 249-252. February, 1914.

⁴ Effect of Postponed Moult in Certain Passerine Birds. By C. William Beebe, do., No. 14, pp. 253-258. February, 1914.

⁵ Modifications and Adaptations to Function in the Feathers of *Circus hudsonius*. By Asa C. Chandler. Univ. of Cal. Publ. in Zool., Vol. 11, No. 13, pp. 329-376, pls. 16-20. March 21, 1914.

Hawk, a bird selected for study on account of the variety of feather modifications found in its plumage. The down feathers, filoplumes and various contour feathers are considered at length and the obvious adaptations are commented upon, the 'conclusions' are, however, a little disappointing as we find no original results of the investigation. The paper, however, forms a valuable summary of practically all the feather structures found in North American birds and will be a handy reference work on a subject upon which we have but little easily accessible information.— W. S.

Betts' 'Birds of Boulder County, Colorado.'¹— Colorado ornithology has been receiving much attention during the past few years, but in a state of its size there is room for many local lists, especially if prepared as carefully and printed as attractively as the one before us.

Mr. Betts presents an annotated list of 206 species including records of previous observers to whom due credit is given. Unusual stragglers are printed in their proper systematic position but in italic instead of heavy-faced type, which seems to us a desirable practice. Unfortunately the species are not numbered consecutively, which would have helped materially to separate the paragraphs relating to the different forms, especially where the two styles of type occur. The author adds lists of the species breeding in the several zones while an unpagged supplementary insert gives a summary of the Boulder County birds occurring at various times of year contrasted with similar data for St. Louis County, Mo., taken from Mr. Widmann's 'Birds of Missouri.' An outline map of the county with contour lines appears in the introduction along with brief comments on life zones.— W. S.

Walpole-Bond's 'Field-Studies of Some Rarer British Birds.'²— This volume seems to contain a vast amount of original observation upon a number of the rarer birds of England. It consists of eighteen chapters covering the Dartford Warbler, Pied Flycatcher, Crossbill, Cirl Bunting, Chough, Raven, Wood-Lark, "Woodcock" [Short-eared] Owl, Hen Harrier, "Once Common" Buzzard, Eagles, Red Kite, Peregrines, Hobby, Merlin, Gadwall and Black Guillemot. The information set forth will no doubt prove a noteworthy supplement to any general work on British birds, and will be valued accordingly, but the pleasing style in which it is presented makes the volume interesting reading for anyone with an interest in bird life whether he appreciate the rarity of the species and the true ornithological value of the data or not. In this way it appeals to a much wider circle of readers than might be supposed.— W. S.

¹ Birds of Boulder County, Colorado. By Norman de Witt Betts. The University of Colorado Studies. Vol. X. No. 4, pp. 117-232. December, 1913. Price, 50 cents.

² Field Studies of Some Rarer British Birds [By] John Walpole-Bond | Author of | "The Birds of Bromley (Kent) and its Neighborhood" | "Birds Life in Wild Wales" | and part-author of | "The Book of the Open Air." | Witherby & Co. | 326 High Holborn, London | 1914. 8vo pp. i-ix + 1-305. 7s. 6d. net.