RECENT LITERATURE

Chapin's 'Birds of the Belgian Congo,' Vol. 2.—The first part of this great work[1] was issued in 1932 and reviewed the following year in this journal (Auk, 50: 237–240, 1933). The material in the present volume, as in the two still to come, is, of course, the basis of much of the geographical, ecological, and evolutionary discussion so ably developed in the first volume, and continues the treatment of the birds from the rails through the woodpeckers. A colored plate of the Congo Peacock, *Afropavo congensis*, which was not discovered until some years after the appearance of the first volume (where it belongs systematically) serves as frontispiece and not only links the present volume with its predecessor, but also acts as a graphic reminder of the ornithological activity of the intervening seven years.

The present volume contains 632 pages, 21 plates and 38 text-figures, and treats of 526 forms with comparative notes on at least as many more. In each case a full bibliographic synonymy, as far as the Belgian Congo is concerned, is given, followed by a list of the specimens collected by the American Museum Congo Expedition, notes on the colors of the soft parts, a detailed account of the distribution of the species, and terminating with the unusually full field notes and observations made by the author during his long stay in the Congo.

The systematic and distributional treatment is not only full and carefully done, but it is based on practically all the pertinent material in the leading museums of Europe and America and is, therefore, a reflection of all that is known, and not, as is so often the case, of merely a particular part available to an author. The ecological and life-history material are largely data new to the sum of printed information and are in some ways the most valuable part of the work, as it is so much easier to obtain specimens than facts. The accounts of such forms of unusual interest as the Standard-winged and the Pennant-winged Nightjars, the Common and the Lyre-tailed Honey-guides, the White-thighed Hornbill, and others, are veritable papers in themselves.

Of the twenty plates other than the frontispiece mentioned above, two are in color and represent two species of small rails of the genus *Sarothrura*, and are from the brush of the late Louis Agassiz Fuertes; the others show captive or freshly killed birds of species treated in the text, and also some of their nests. A good index completes the volume.—H. FRIEDMANN.

Allen's 'Sex and Internal Secretions.'—The purpose of the first edition of this work, which appeared in 1932, was to "survey the most important recent researches in problems of sex, especially those concerned with internal secretions, in order that concepts already established by experimental evidence may be clearly stated and made readily available." The enlarged 1939 edition[2] summarizes and makes available a great deal of the more recent work.

While the major portion of the book deals with other animals, there are here summarized several hundred papers on experimental work on birds. Many of these are not generally available to most ornithologists and therefore this summarizing volume should prove useful to those who teach ornithology as well as to those conducting research. Most of the bird material naturally deals with

[1] Chapin, James P. 'The Birds of the Belgian Congo' / Part II / Bull. Amer. Mus. Nat. Hist., vol. 75, vii + 632 pp., 21 pls., 38 text-figs., Oct. 27, 1939.

[2] Allen, Edgar [Editor]. Sex and Internal Secretions. A Survey of Recent Research. 8vo, xxxvi + 1346 pp., 5 colored plates, 422 black and white illustrations and many diagrams, April, 1939; The Williams and Wilkins Co., Baltimore, Md. Price $12.00.

domestic species or others easily kept in captivity. The emphasis is on secondary sex characters and egg-laying. It is as natural that many investigators should resort to birds as experimental subjects because of their highly evolved secondary sex characters as it is that Lorenz and others should utilize birds because of their highly developed instincts.

The book is divided into five sections containing a total of twenty-four chapters, each written by a specialist in the field which is covered. There is a bibliography, sometimes amounting to several hundred references, appended to each chapter and nearly three-quarters of the chapters contain references to birds.

The only portion dealing exclusively with birds is Chapter 5, by L. V. Domm, which summarizes a great deal of experimental work on 'Modifications in Sex and Secondary Sex Characters in Birds.' Here, for example, are some of the reported effects of gonadectomy: castrated Black-headed Gulls retain the 'winter' plumage thereafter; in the Ruff, the seasonal tubercles of the head do not develop after castration; in ovariotomized examples of one of the weaver finches, any feathers which regenerate during the breeding season are male feathers, but these are replaced by normal female feathers at the fall molt; castration does not modify seasonal plumage changes in the Indigo Bunting, while castrated Mallards never have an 'eclipse' plumage, but go from one breeding plumage directly into another. There is much of interest in this chapter on the experimental modifications of feather pattern in the Domestic Fowl, and many other birds are also dealt with. This chapter is 100 pages long and concludes with a bibliography of over 300 references.

In Chapter 9, by Carl G. Hartman, are summarized the data on 'Ovulation, Fertilization and the Transport and Viability of Eggs and Spermatozoa' for the various classes of vertebrates. Among other things here we learn (p. 632) that Domestic Hens, when suddenly confined in close quarters, have been reported to cease laying for a time and may resorb the remainder of a clutch of oöcytes. This is interesting in connection with the well-known fact that many wild species seldom or never lay when reduced to captivity; nor have experimental hormonal injections as yet satisfactorily overcome this state of affairs. The same chapter (p. 650) deals with Riddle's work in determining the time of ovulation in the sexual cycle of pigeons, as well as similar work by Phillips and Warren on the Domestic Fowl. Hartman reports that similar time relationships for all lower vertebrates appear as yet to be unknown. Farther on (p. 695) are summarized the few known facts regarding the viability of sperms in the genital tracts of hens, ducks and Ring Doves. It appears that all authors agree that no egg that is laid within twenty-four hours after the first mating is fertile, while the number of days thereafter during which the female in isolation may lay fertile eggs appears to be quite variable. Other chapters also contain many items of interest on the endocrinology and physiology of birds.

The literature on sex and internal secretions grows so rapidly that we wonder if the editor will be able to keep another edition down to the size of one volume! The book is well printed and indexed and contains few typographical errors.—RALPH S. PALMER.

Craigheads' 'Hawks in the Hand.'—This little book[1] is an interesting combination of the extremely ancient and the very modern. The art of falconry, or hawking, goes back to the remote or unwritten past, whereas photography by contrast is so

[1] Hawks in the Hand: Adventures in Photography and Falconry. By Frank and John Craighead. Small octavo, 291 pp., 57 illus. (half-tones from photographs by the authors), Boston & New York, Houghton Mifflin Company, 1939. $3.50.