

Herrick's Nests and Nest-Building in Birds.¹ — Prof. Herrick's papers² unfortunately fail to reach a large number of ornithologists because of their being published in journals of animal behavior or experimental zoölogy which ornithologists too seldom consult. That they should be studied by every bird student cannot be too strongly emphasized. There is a great field in the study of the behavior of birds and unfortunately most observers are very poorly qualified to avail themselves of it, because of the prevalent tendency to judge the actions of birds as we would those of human beings and endow the authors with the same qualities that we ourselves possess. Prof. Herrick however, approaches the subject from the unprejudiced attitude of the scientific investigator and limits his deductions strictly to what is warranted by the facts so that his method as well as the results of his studies deserve careful consideration.

The present paper consists of a mass of valuable data arranged under the headings: Literature of Birds' Nests, Function of the Nest and the Problem of Protection, Classification of Birds' Nests on the basis of Behavior, Analysis of Increment Nests, Variation of Nests, Nidification, Intelligence in Nest-Building and Origin of the Instincts of Incubation and Nidification in Birds.

In this connection we can only quote some of the writer's conclusions while we recommend to all, the careful study of his papers in detail.

"Instinct alone," says Prof. Herrick, "furnishes the building impulse and in spite of many fluctuations due to experience, disturbance, or any influence of environment, holds the builders wonderfully true to their ancestral types" (p. 163).

"The proof of instinct in the nest-building activities of birds lies in the stereotyped behavior of the builders at work, as well as in the stereotyped character of the nests of different species when they are viewed in the proper light. . . . On the score of behavior alone the evidence is now conclusive that birds do not build their nests from imitation or experience: they require no visible standards, plan, or copy but without hesitation . . . go straight to work and finish their task" (p. 163).

"Nest-building is one of a series of complex and correlated instincts pertaining to the reproductive cycle of birds, . . . [i. e. migration, mating, nest-building, egg-laying, care of the young, etc.] these serial instincts do not invariably proceed in due order and harmony. . . . The cycle may be normally repeated more than once in the season, and when begun it may be brought to a sudden close not alone through accident or fear, but by the rise of other instincts or by any disturbance which affects the usual

¹ Nests and Nest-Building in Birds: in Three Parts. By Francis H. Herrick, *Journal of Animal Behavior*. Part I. May-June, 1911, pp. 159-192; Part II. July-August, 1911, pp. 244-277; Part III, September-October, 1911, pp. 336-373.

² Cf. also. *Life and Behavior of the Cuckoo*. *Journal of Experimental Zoölogy*. Sept. 1910, pp. 169-233, and *Instinct and Intelligence in Birds*. *Popular Science Monthly*, June, July and August, 1910.

rhythms. To such causes are due some of the most extraordinary phenomena of nests and nest life, such as the 'cuckoo instinct,' double, compound, or superimposed nests, the desertion of the last young, etc." (p. 336).

While criticising most of the literature of nest-building Prof. Herrick also points out the difficulties with which students of the subject have to contend — especially the necessity for continuous observation for hours and even days. "In spite of such drawbacks, however, it would be difficult to name a field in the province of behavior where the right kind of study promises more interesting results the world over, and where some of the phenomena to be witnessed close to your door, may be as worthy of record as anything observed in the forests of Brazil or of Africa."—W. S.

Beebe and Crandall on The Undescribed Juvenal Plumage of the Yucatan Jay.¹—The plumages and molt of specimens of *Cissilophya yucatanica* living in the New York Zoological Park, are here described. When received they were in full juvenal plumage with the entire head and underparts white. This changed at the post-juvenal molt to the usual black, and subsequently the white tipped rectrices were replaced by those of uniform blue while the mandibles and eye ring eventually became black. The yellow bill is thus a character of immaturity and not sexual, as has sometimes been supposed. The early white breasted plumage in this species was quite unexpected.—W. S.

Henshaw's Report of the Chief of the Biological Survey for 1911.²—The important work of this branch of the U. S. Department of Agriculture in its efforts to protect the useful birds and game of the country and to check the depredations of noxious species, is too well known to require detailed notice in this connection, but anyone who reads Mr. Henshaw's interesting report will be astonished at the varied fields in which the activities of the Survey are carried on, and the benefits that they render to the Agricultural and other interests of the United States. Special ornithological investigations of the year have dealt with the Birds of Arkansas, the Food of Woodpeckers, the Food of Wild Waterfowl, while field work has been prosecuted in Alabama, Idaho, Arkansas, Kentucky, Montana, Tennessee, Wyoming and Virginia.—W. S.

Townsend's Captain Cartwright and his Labrador Journal.³—Dr. Charles W. Townsend already well known for his writings on the

¹ The Undescribed Juvenal Plumage of the Yucatan Jay. By C. William Beebe and Lee S. Crandall, Zoologica, Scientific Contributions of the New York Zoological Society. Vol. I, No. 7, pp. 153-156, with colored plate, December 5, 1911.

² Report of the Chief of the Bureau of Biological Survey for 1911. By Henry W. Henshaw. Annual Reports of the Department of Agriculture 1911, pp. 1-20.

³ Captain Cartwright | and his | Labrador Journal | edited by | Charles Wendell Townsend, M. D. | Author of "Along the Labrador Coast," "A Labrador | Spring," "The Birds of Essex County" and joint | author of "Birds of Labrador | with an Introduction by | Dr. Wilfred T. Grenfell | Illustrations from Old Engravings, Photographs, | and a Map. | vignette | Boston | Dana Estes & Company | Publishers | 1911. Svo., pp. i-xxxiii + 1-385.