

seventh period the female commences and alone performs incubation, allowing a day to intervene after the last egg is laid. (8) This phase is marked by the hatching of the young and their subsequent care. (9) The last period is marked by the departure of the young from the nest.

In his account of the varying behavior of both parent birds and their relations with neighboring pairs, the author brings out many interesting facts, such as the occurrence of occasional bigamy, change of mates for a second brood where one bird of the original pair is ready for coition before the other. The matter of sex discrimination in this northern species is well analyzed and analogies are drawn with lizards and fish. Discrimination may result from the failure of the female to display—the lizard method; by difference in fighting activity when threatened; or, when both sexes display, by a difference in releasing behavior in the two sexes. Dr. Tinbergen refutes the conclusion reached by Dr. A. A. Allen in the case of Ruffed Grouse that the male does not discriminate sex in copulation, pointing out that the female reveals her sex by her attitude and by remaining still (as a stuffed bird would in the experiments). Finally there is an illuminating discussion of the functions of fighting, territory and song. The author distinguishes as 'advertising song' that performed by the male on its territory for the dual purpose of attracting a mate and warning off rivals.

A glance at the voluminous bibliography reveals that most of the pertinent literature on this new method of approach to the analysis of bird behavior is of very recent date. The older studies of the habits of birds were concerned more with generalities as seen from the observer's standpoint; the modern field study of birds must pay increasing attention to the bird's viewpoint, the real significance of its various actions as deduced from patiently gathered and critically noted observations. The paper is an excellent example of the new ornithology and an outstanding addition to our knowledge of the social behavior of an arctic passerine during the breeding cycle.—G. M. ALLEN.

McIlhenny's 'Autobiography of an Egret' is a handsome booklet,<sup>1</sup> notable for its many reproductions of photographs of the Snowy Egret (its full name nowhere appears), taken at the author's bird sanctuary in Louisiana. In its narrative a male egret recounts the story of its life from the time it saw the light of day, through the vicissitudes of the nestling period, to its first migration southward to Colombia and subsequent return to the home rookery, its first breeding season and its various doings in succeeding years, ending with a word of gratitude to the man who made the happy sanctuary where it lives. In lengthy conversations and soliloquies, the bird's intimate thoughts and emotions are laid bare and its remarkable knowledge of itself is revealed.

While the 'bedtime-story' method may be excusable in thus providing entertaining reading for children (which was doubtless the author's purpose), it leaves the more mature reader in a state of perplexity as to how far he may believe the essential points of the narrative. A somewhat more serious account of the habits of this interesting bird would have been very welcome. After all, birds are not human beings much as our sympathies would like to interpret their doings in terms of our own thoughts and feelings.—G. M. ALLEN.

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<sup>1</sup> McIlhenny, E. A. *The Autobiography of an Egret*. 8vo, vi + 58 pp., illustr.; Hastings House, New York City, 1930. \$2.00.