

Another paper on the food of African birds is of greatest interest in its bearing on the relation of birds to insects supposed to be protected by their color, or to show by their color that they are not edible. Mr. G. L. Bates in 'Further notes on the Birds of Southern Cameroon'<sup>1</sup> gives a résumé of the results of six years' field examinations of the stomachs of African birds. He found Coleoptera in 213 stomachs, Orthoptera in 177, ants in 57, other Hymenoptera in 8, scale insects in 32, bugs in 19, termites in 31, slugs and snails in 24, spiders in 85, millipeds in 20, and butterflies in none. Ants, particularly those of tropical countries, are classed by theorists as protected insects, and much is made of their so-called mimics among various other insect orders, yet ants rank fourth in importance in this list of bird foods. The theories that have been built up to explain the mimicking coloration of many butterflies as a result of natural selection absolutely require for their substantiation proof that birds regularly prey upon these insects. Evidence thus far urged as proof of this habit is largely based on experiments with captive birds. As the writer has pointed out in another place,<sup>2</sup> the results of such experiments have very little if any value as indicating behavior under natural conditions. Actual examinations of bird stomachs reveal butterflies in an exceedingly low proportion of North American birds, and the results of Mr. Bates's examinations during 6 years (in which time 178 stomachs were carefully examined with this particular point in mind), a larger body of good evidence than anyone else is able to produce for tropical birds, are worthy of the serious consideration of the selectionists who have postulated the necessary support for the mimicry theories in the heretofore almost wholly unknown, hence easily and agreeably hypothecated conditions of the tropics.—W. L. M.

**Todd and Worthington's 'A Contribution to the Ornithology of the Bahama Islands.'**—This paper<sup>3</sup> is based upon a collection of 591 skins obtained by Mr. W. W. Worthington, December 28, 1908, to May 8, 1909, on the islands of New Providence, Great Inagua, Acklin, Watlings, Andros and Abaco, and later acquired almost in its entirety by the Carnegie Museum. The critical portion is by Mr. Todd and the 'Narrative and Field Notes' by Mr. Worthington. As the authors present their information in two entirely distinct lists in which the same species usually bears different numbers, an unnecessary burden is inflicted upon any one who may consult the paper. Eighty-four species are treated by Mr. Todd and one hundred and twenty by Mr. Worthington.

In his introduction Mr. Todd discusses the zoological relationship of the Bahamas both with relation to each other and to adjacent islands

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<sup>1</sup> Ibis, 9th ser., V, No. 20, Oct., 1911, pp. 630-631.

<sup>2</sup> Journ. Econ. Ent., 3, No. 5, Oct., 1910, pp. 437-438.

<sup>3</sup> A Contribution to the Ornithology of the Bahama Islands. By W. E. Clyde Todd and W. W. Worthington. Annals of the Carnegie Museum, VII, Nos. 3-4. Issued, October, 1911.

and the continent of North America. His conclusions agree with those already advanced by Mr. Chapman and Mr. Riley.

A number of new records are established for several of the islands visited, and a new warbler, *Dendroica flavescens*, already described by Mr. Todd (Proc. Biol. Soc. Washington, XXII, p. 171) was discovered on Abaco.—W. S.

**Mathews's 'The Birds of Australia.'**—Part 5<sup>1</sup> bears date October 31, 1911, and completes the first volume, except the introductory matter and index, which will form Part 6, and when ready will be sent to subscribers without extra charge. The first volume warrants the liberal praise bestowed upon Part 1 (Auk, XXVIII, p. 135, 136), as regards the character of both the text and plates; and the Parts have thus far appeared with commendable promptness and regularity. The present Part concludes the Ralliformes, and includes also the Podicipediformes and the Sphenisciformes, the species treated being numbered 64-74. In addition to the technical and biographical matter usual to works of this character, the relations of the Australian forms to their congeners are considered, the genera, species and subspecies being critically revised from the author's viewpoint in respect to status and nomenclature. In the present Part the new genus *Mantellornis* is established, with *Notornis hoockstetteri* Meyer as the type. Two new subspecies of *Porphyrio* are described as *P. melanotus fletcheræ* (Tasmania) and *P. m. ncomelanotus* (Northwest Australia), and the little known *Fulica alba* White is considered at length. The only two specimens known to be extant came probably from New Zealand. Three other new forms here described are *Podiceps cristatus christiani*, *Aptenodytes patagonica halli*, *Eudyptula minor iredalia*. We regret that we are unable to agree with Mr. Mathews in the use of *Podiceps* in place of *Colymbus*, and of *Pinguinus* in place of *Catarractes*, for reasons already given (Auk, XXVIII, 1911, p. 496). Mr. Mathews now designates as type of *Pinguinus*, *Aptenodytes chrysocome* Forster (1781), instead of *Phaëthon demersus* Linné, formerly designated by him as the type. Contrary to most previous authors, he now considers Linné's species indeterminate. He states that it, "though undoubtedly a 'Crested Penguin,' is obviously a young bird, and unfortunately must be regarded as indeterminate. Brunnich's genus was certainly founded on the characters of this bird, but as no species was named by him, I herewith designate *Aptenodytes chrysocome* Forster as the type of Brunnich's genus,"—a species, by the way, not described till eleven years after Brunnich's genus was founded! Yet he adds: "The course I now advocate I consider better,

<sup>1</sup>The Birds of Australia. By Gregory M. Mathews, Member of the Australian Ornithologists' Union and the British Ornithologists' Union. With hand-coloured Plates. Volume I, Part 5, London: Witherby and Co., 326 High Holborn, W. C. October 31st, 1911. Roy, 4to, pp. 325-286, pl. 59-67, with 3 full-page text cuts. Price, £2. 2s. per part.