

remained practically unaffected by the conditions which have produced the differences among the birds; the temperature of the host's body, the feathers as food, all of the environment of the parasite is practically unchanged. The parasitic species thus remains unchanged, while the ancestral *Larus* or *Anas* species becomes differentiated into a dozen or score of specific forms, all with a common parasite. If this proposed solution of the problem may be accepted, it introduces a factor into problems of distribution, where parasites are concerned, which I do not recall having seen presented before."—J. A. A.

**Thompson on the Cranial Osteology of the Parrots.**<sup>1</sup>—"To discover anatomical characters such as might yield or help to yield a natural classification of the Parrots has been the desire of many ornithologists, but the search has availed little."

Professor Thompson's line of research is a detailed study of the quadrate, the auditory region, and particularly of the orbital ring as regards its completeness or incompleteness, and the cranial bones taking part in its formation. These are the lachrymal, or prefrontal as Prof. Thompson prefers to call it, the postorbital or postfrontal, and the squamosal, and the changes are so rung that when a suborbital ring is present it may be formed by the prefrontal and postfrontal, the prefrontal and squamosal, or, as in the Cockatoos, all three may unite, thus forming a supratemporal fossa. The conditions prevailing in many members of the various families and subfamilies admitted by Mivart are discussed in considerable detail, but while additional emphasis is given to the family rights of *Stringops* and *Nestor*, Prof. Thompson has given us no summary of his own conclusions, leaving us to make our own applications of the points he has given. The paper is most valuable, embodying as it does the results of long study, but it again emphasizes the familiar fact that among birds minor structural variations are so great that it is practically impossible to find any one character by means of which even small groups may be separated.—F. A. L.

**Lange's 'Our Native Birds, How to Protect them and Attract them to Our Homes.'**<sup>2</sup>—As the title explains, this is a popular bird book on rather new lines, it being devoted to an exposition of how to protect birds and to promote their increase in the vicinity of our homes. The first section of the work relates to the decrease in both song and game birds and

<sup>1</sup> On Characteristic Points in the Cranial Osteology of the Parrots. By D'Arcy W. Thompson, C. B., F. Z. S. Proc. Zool. Soc. London, Jan., 1899.

<sup>2</sup> Our Native Birds | How to Protect them and Attract | them to our Homes | By | D. Lange | author of "Handbook of Nature Study" | Instructor in Nature Study in the Public Schools | of St. Paul, Minnesota | With Illustrations | New York | The Macmillan Company | London: Macmillan & Co., Ltd. | 1899 | All rights reserved.—12mo, pp. xii + 162. \$1.00.

the various causes, preventable and otherwise, which have led to this sad result. Section IV treats of the protection of song birds, and suggests various means for promoting their increase, particularly in the vicinity of our homes. The titles of the chapters under this section indicate the means suggested, as follows: Chapter I. 'By furnishing them Trees, Vines, and Shrubs. Flowers for Hummingbirds. General Suggestions for Tree-planting for Birds. Rural Schools and Nature.' Chapter II. 'Provide Nesting-boxes. Do not cut down every Hollow-tree.' Chapter III. 'Provide Drinking and Bathing Fountains.' Chapter IV. 'Feeding Birds in Winter and in unfavorable weather at other seasons.' Chapter V. 'Miscellaneous. Dust Baths, Gravel, and Lime.' Chapter VI. 'Protecting Birds from their Natural Enemies.' Chapter VII. 'The English Sparrow Question.' Chapter VIII. 'Birds on Hats, Boys, Collectors, So-called Bird Students, Bird Hunters, Ubiquitous Gunners.' Chapter IX. 'Song Birds as Food.' Sections V and VI relate to 'Education and the Birds'; especially to the awakening of an intelligent and kindly interest in birds on the part of school children, through 'bird day' exercises in schools, and by other means. 'The Birds before Uncle Sam' is a contribution to a bird day program, in which 'Uncle Sam' is supposed to hear the complaints of the birds and to give judgment in their behalf, the birds being personated by boys and girls in appropriate costumes. Section VIII discusses 'Game Protection from the Nature Lover's Point of View'; and the concluding Section IX gives a variety of useful information about magazines more or less devoted to bird protection, the care and protection of forests, and allied topics; Audubon Societies, Game Protective and Humane Associations, a list, with addresses; the U. S. Department of Agriculture, its various divisions, their work and publications; list of Agricultural Experiment Stations in the United States and Canada; and, finally, a list of books helpful to beginners in bird study. The work is thus novel in conception, and should be extremely helpful to those interested in the development of nature study in schools and in the education of the general public. It also not only urges bird protection but furnishes suggestions in respect to providing food and favorable breeding places for birds whose surroundings have become more or less untenable through the necessary changes in environment due to man's agency. — J. A. A.

Macpherson's 'History of Fowling.'<sup>1</sup>—A bibliographical notice of 'The Literature of Fowling' occupies pp. xiii-xxv of the 'Introduction,'

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<sup>1</sup>A | History of Fowling | being an account of the many curious | devices by which Wild Birds are or | have been captured in different parts of the world | By the | Rev. H. A. Macpherson, M. A. | Member of the British Ornithologists' Union, author of | "The Fauna of Lakeland," etc., joint author of | "The Fur and Feather Series," etc. | [Vignette.] Edinburgh: David Douglas | MDCCCXCVII. | All rights reserved. — Large 8vo, pp. liv+511, pll. v, and nearly 200 text figures.