

When, however, he speaks from a more strictly ornithological point of view, or quotes the observation of others, he shows a lack of familiarity with these more distinctive phases of bird-life. This is particularly true of his remarks on 'Change of Colour without Moulting,' where he accepts as proven the theory that a practically white feather may become black by an influx of "pigment working its way to every part of the feather through channels as yet unknown"; for example, in the breast of the Dunlin, or head of the Little Gull or Black-headed Gull.

The one hundred pages devoted to 'Flight' should be read by all students of animal motion, while the philosophic ornithologist will find abundant food for thought in the chapters on color, reason, instinct, etc.

The chapter on migration will be read with special interest at this time when the publication of an English edition of Herr Gätke's book has awakened a fresh discussion of the many perplexing questions presented by this branch of ornithology. Mr. Headley here shows the lack of field experience more than in any other part of his generally excellent book. He thinks it unnecessary to "call in the assistance of the often-invoked glacial period" to account for the origin of migration and would seek a cause in the failure of the food supply both in the north and south, ignoring the fact that in the American tropics, at least, migrating birds begin their northward journey just as the rainy season sets in and the supply of both vegetable and insect food is greatly increased.

American students will read with some surprise of the orderly manner in which Old World birds are stated to migrate. In the fall the young birds are of course said to start first, a month or two later they are followed by the old birds, and after them come irregular flights consisting probably of cripples and young birds hatched late. "In the spring the order is reversed. First come the old cock birds . . . then old hen birds, then old hen birds and young birds mixed; then young birds alone; and, lastly, cripples in every stage of dilapidation."

These, however, are minor defects in a book which should have a marked influence in raising the character of ornithological research from the mere collector's level to the plane of scientific investigation.—F. M. C.

The A. O. U. Check-List of North American Birds, Second Edition.¹—The second edition of the American Ornithologists' Union Check-List of North American Birds is uniform in style and typography with the first edition, published in 1886, but omits the 'Code of Nomenclature,' which was issued separately in 1892. The present edition is a reprint of the first edition, with such changes in nomenclature as have been found nec-

¹ Check-List of North American Birds prepared by a Committee of the American Ornithologists' Union | Second and Revised Edition | — | Zoölogical Nomenclature is a means, not an end, of Zoölogical Science | — | New York | American Ornithologists' Union | 1895.—8vo, pp. xi + 372. Published Dec. 9, 1895.

essary during the ten years intervening between the preparation of the two editions, and the proper interpolation of the additions in the seven Supplements published 1889-1895. Besides this the statements of 'habitat' or 'geographic distribution,' have been carefully revised, a large proportion of them having been rewritten, in consequence of recent increase in our knowledge of the subject. An effort has also been made, where practicable, to distinguish the breeding range from the general range. The Check-List is thus once more brought fairly abreast of the present knowledge of the subject.

The additions during the last ten years number about 36 species and 90 subspecies. Out of nearly one thousand specific and subspecific names in the first edition not more than 25 have been changed; 8 generic names have been changed, of which 3 were found to be preoccupied, the other generic changes being due to taxonomic revisions; a few groups ranked in the first edition as subgenera have also since been raised to full generic rank. Thus, all things considered, the nomenclature of the first A. O. U. Check-List has proved as stable as its best friends could have expected. That further additions will be made to the list, as time goes on, is evident, and probably a third edition may be found desirable by the end of the next decade.—J. A. A.

Hudson's British Birds.¹—It is not to be supposed that a new volume on British birds implies a corresponding increase in our knowledge concerning them. Consequently we look for this book's *raison d'être* in the method with which the subject is treated. In matters of detail, it resembles more or less closely other manuals of similar scope, but the author's facile pen and the artist's skilful brush seconded by a generous publisher, have resulted in the production of a work which is deserving a most cordial welcome.

Mr. Hudson is not bound by tradition. He insists that a book on British birds should be strictly such, and he rightly rebels against the custom of allotting as much space to a species which has occurred but once or twice, as to the commonest permanent residents. Of the 376 species enumerated by the B. O. U. list he considers that not more than 210 can rightly be called British birds. The 160 odd accidental or occasional visitants are therefore grouped at the end of their respective families with a brief statement of their true habitat and manner of occurrence in Great Britain. This very commendable proceeding serves a

¹ British Birds | By | W. H. Hudson, C. M. Z. S. | With a Chapter on Structure and Classification | By Frank E. Beddard, F. R. S. | With 8 Coloured Plates from Original Drawings by A. Thorburn | and 8 Plates and 100 Figures in black and white from Original Drawings by G. E. Lodge | and 3 Illustrations from Photographs from Nature by R. B. Lodge | London | Longmans, Green, and Co. | and New York | 1895 | All rights reserved | Sm. 8vo, pp. xxii + 363. \$3.50.