

RECENT LITERATURE.

Salvin and Godman's 'Biologia Centrali-Americana.—Aves.'—This great work on the birds of Middle America,¹ which was completed some little time ago, forms four quarto volumes, three of text, aggregating 1680 pages, and one of 84 hand-colored plates. The publication was begun in 1879 and completed in 1904, having been much delayed by Mr. Salvin's long-continued ill-health and sudden death in 1898, the third volume of the text being completed by Mr. Godman, with the assistance of Dr. R. Bowdler Sharpe and Mr. Ogilvie-Grant.

The region embraced in this work includes Mexico (except Lower California), and Central America south to a little beyond the political boundary of Panama, and the adjacent islands. "The 1413 species of birds. . . . embrace representatives of 78 families and 539 genera." Of the genera, 38 are endemic, as are also 636 of the species. "Of these latter, 271 are peculiar to (a) Mexico, Honduras, or Guatemala, 3 to (b) Nicaragua, and 161 to (c) Costa Rica or Panama, the remainder (189) being more widely distributed within the region or common to two of these divisions." In comparison with other tropical regions, India has 1626 species against 1413 for Middle America, but the Indian region is twice larger in area, "so that the balance of numbers is considerably in favor of Central America."²

The material for this work was mainly obtained by the authors on their several visits to Central America and Mexico in 1857-58, 1861-63, 1867, 1873-74, and 1887-88. In addition to their own field explorations, they employed several skilled collectors for a number of years, who made large collections in various parts of Mexico, Guatemala, Costa Rica and Panama. As the various parts of the work were completed the authors presented their material to the National Museum at South Kensington, amounting in the aggregate to "about 85,000 specimens."

The 'Biologia Centrali-Americana' was an enormous undertaking, its scope comprising the fauna and flora of an immense region. Its publication, begun nearly thirty years ago, has proceeded with reasonable rapidity, till now only a few of the forty or more volumes — those relating to fishes and certain groups of Cœlenterates — remaining unfinished. It has, quite naturally, greatly exceeded the estimate given in the early pros-

¹ *Biologia Centrali-Americana.* |—| *Aves.* | Vol. I [—III] | (Text.) [Vol. IV, Plates.] | By | Osbert Salvin, F. R. S., &c., | and | Frederick DuCane Godman, D. C. L., F. R. S., &c. | 1879-1904.— 4 vols. 4to, 3 of text and 1 of plates.

Vol. I, pp. i-xliv, November, 1904; pp. 1-512, pl. col. i-xxxv + xva, September, 1879-April, 1887. Vol. II, pp. i-iv, 1-598, pll. xxxvi-lx + liva, lviiia, lviiib, lixa, December, 1888-February, 1897. Vol. III, pp. i-iv, 1-510, pll. lxi-lxxix, November, 1897-April, 1904. Vol. IV, pp. i-viii, with plates as per collation above.

² Introduction, by Mr. Godman, pp. vi-viii.

pectuses, it comprising some 20,000 pages of text, and about 1500 plates, many of them colored. The different parts having been prepared by eminent specialists, it is in the highest degree authoritative, and forms an enduring monument to the enterprise, ability, and persistence of its editors and projectors, Messrs. F. DuCane Godman and Osbert Salvin. As a notice of the general scope and plan of the work has already been given in this journal,¹ and also an extended review of Volume I of the 'Aves,'² it remains to notice here the concluding bird volumes.

Mr. Robert Ridgway, in reviewing the first volume of the 'Aves' (*l. c.*), said of it: "Volume I. . . includes the whole of the Oscines, and is the only single and approximately complete work in existence [in 1890] on the special subject to which it pertains. The high reputation of the authors is of itself a sufficient guarantee that their task has been intelligently and thoroughly performed, and has resulted in a grand work which is absolutely indispensable to students of New World ornithology, highly useful to those who labor in other geographical fields, and must long remain the standard authority on the birds of Central America." This high praise applies in equal force to the succeeding volumes, as do also Mr. Ridgway's criticisms of some of its defects. Thus, he says: "As was to be expected from the character of their previous writings on the same subject, the authors of the 'Biologia' treat their subject from the conservative standpoint to which English naturalists, for the most part, still adhere; and it is the natural sequence of this method, but more especially the unfortunate adoption of the purely binomial system of nomenclature which affords most of the grounds for criticism; the very great importance of the work rendering such defects highly conspicuous." In other words, when the binomial system is strictly followed, it inevitably leads to inconsistent rulings in regard to the status of forms commonly recognized as subspecies, some being given full specific rank and others, equally entitled to recognition, being reduced to synonyms.

Volume II includes the suborders Oligomyodæ and Tracheophonæ of the Passeres, the Macrochires, Cypseli, Caprimulgi, Pici, Coccyges, and Psittaci; Vol. III, the Striges, Accipitres, Steganopodes, Herodiones, Phœnicopteri, Anseres, Columbæ, Gallinæ, Geranomorphæ, Limicolæ, Gaviæ, Tubinares, Pygopodes, Alcæ, and Crypturi; Vol. IV consists of 84 hand-colored plates, representing 150 previously unfigured birds, drawn by J. G. Keulemans, with the explanatory 'List of the Plates.'

The classification adopted is that of Sclater and Salvin's 'Nomenclator Avium Neotropicalium,' published in 1873. In the matter of nomenclature, the 1766 edition of Linnæus's 'Systema Naturæ' is taken as the date of departure, and the binomial system is strictly adhered to throughout, subspecies, as such, not being recognized, with, as already noted, many

¹ Bull. Nuttall Orn. Club, VI, 1881, pp. 174, 175.

² Auk, VII, 1890, pp. 189-195, by R. Ridgway.

inconsistent rulings as to forms admitted or rejected. It is to be remembered, however, that the work was begun before subspecies had obtained general recognition, and before the 1758 edition of Linnæus had come to be so generally recognized as the proper date for the beginning of zoological nomenclature.

The method of treatment is briefly as follows: The principal bibliographical references and synonymy are cited for the species and genera; the distinctive characteristics of the genera are given, with a general statement respecting the number and distribution of the species; a Latin diagnosis or description is given of each species, followed by a brief statement of its distribution, and remarks on the general history of the species, its affinities and distinctive features, its geographical distribution, and often more or less is said about its haunts and habits, based largely on original field observations. The 'Introduction' (Vol. I, pp. v-xliv) gives a general history of the work; the limits of the region treated; the material on which the work is based and how and where it was collected; the faunal relations and characteristics of the region; a list of Mr. Salvin's more important papers on the birds of Central America; and tables of distribution for the families and species of the birds of Mexico and Central America (pp. xi-xxxvii).

While later works on the avifauna of the region here treated may supercede the 'Aves' of the 'Biologia,' from the points of view of nomenclature and classification, it will ever remain a classic in the ornithological literature of 'Middle America,' and an enduring monument to its authors.—
J. A. A.

Proceedings of the Fourth International Ornithological Congress.¹—

The Proceedings of the Fourth International Congress, held in London, June, 1905, forms a volume of nearly 700 pages, illustrated with eighteen plates, seven of them colored. A 'Record of Proceedings,' occupying pp. 9-89, is followed by the President's Address, by Dr. R. Bowdler Sharpe, and thirty-eight papers read before the Congress. The 'Record of Proceedings' is not only a record of the meetings and excursions, but includes a summary of the discussions on the papers read.

The President's address (pp. 90-143) is an account of the origin and history of the Bird Collection in the British Museum. This is followed by a paper on 'What constitutes a Museum Collection of Birds?' (pp. 144-156), by Frank M. Chapman. This is practically an account of the orni-

¹ Proceedings | of the | Fourth International | Ornithological Congress | London June, 1905 | forming | Volume XIV of the "Ornis" | Edited | under the direction of the President: | R. Bowdler Sharpe, LL. D., | by | The Secretaries: | Ernest J. O. Hartert, Ph.D., and J. Lewis Bonhote, M. A. | With Eighteen Plates. | London: | Dulau & Co., | 37, Soho Square, W. | February, 1907. Large 8vo, pp. 1-696, pll. i-xviii, 7 colored. February, 1907.