

a''. Color lighter, gray and buff tints predominating over the darker markings; lower parts whiter.

b'. General aspect above grayish with more or less buffy admixture; dark markings below distinct.

c'. Size small, w. 13 in., tarsi, strongly mottled.

B. virginianus pacificus Cass.

c''. Size large, w. 16 in., tarsi with mottling much less distinct. *B. virginianus occidentalis* subsp. nov.

b''. General aspect above white, ground color faded, beneath pure white with dark markings restricted.

B. virginianus arcticus (Swains.).

A specimen of *B. virginianus pacificus* Cass. before me (No. 27905, coll. Acad. Nat. Sci. Phila., San Bernardino, Cal., April, 1887, ♂, coll. by R. B. Herron) measures: wing, 12.95; culmen, 1.48; tarsus (to insertion of hind toe), 1.80; middle claw to sheath, .95.

The type of *B. virginianus occidentalis* (No. 26435, coll. Acad. Nat. Sci. Phila., Mitchell Co., Iowa, winter, 1880, coll. W. L. Abbott), probably a female, measures: wing, 16; culmen, 1.80; tarsus (to insertion of hind toe), 2.50; middle claw to sheath, 1.25.

The markings of *pacificus*, especially beneath, seem to average darker than in *occidentalis*, in such specimens as I have seen. The exact range of the two I cannot ascertain without examining a larger series.

RECENT LITERATURE.

The 'Birds' of 'The Royal Natural History.'¹—The last half of Volume III of 'The Royal Natural History' is devoted to Birds, Volumes

¹The Royal | Natural History | Edited by | Richard Lydekker, B. A., F. R. S., Etc. | With Preface by | P. L. Sclater, M. A., Ph.D., F. R. S., Etc. | Secretary of the Zoölogical Society of London | Illustrated with | Seventy-two Coloured Plates and Sixteen Hundred Engravings | by W. Kuhnert, F. Specht, P. J. Smit, G. Mützel, A. T. Elwes, J. Wolf, | Gambier Bolton, F. Z. S., and many others | Vol. III. | London | Frederick Warne & Co. | and New York | 1894-95 | [All Rights Reserved.] Super Royal 8vo. Birds, Vol. III, pp. 289-576, Vol. IV, pp. 1-192 (*et seq.*).

I and II and the first half of Volume III being given to Mammals. The work is issued in fortnightly parts, consisting of about 100 pages of text, two colored plates, and numerous text figures. The birds begin with No. 16 (No. 4 of Vol. III), of which Nos. 16 (Dec. 15, 1895) to 20 (Feb. 15, 1896) are now before us for notice. The bird matter thus far includes pp. 289-576 of Vol. III. and pp. 1-192 of Vol. IV, and beginning with the Passeres, extends to about half way through the Diurnal Birds of Prey, and is divided into twelve chapters. Chapters II to VI (Vol. III, pp. 305-544), which include the order Passeres, are by H. A. Macpherson, with some assistance from the editor, Mr. Lydekker, in Chapter II (see footnote to p. 374). Chapters VII to IX (Vol. III, pp. 545-576, and Vol. IV, pp. 1-90), embracing 'The Picarians,' are by R. Bowdler Sharpe. The authorship of Chapter I, 'General Characteristics,—Class Aves' (Vol. III, pp. 289-304), Chapter X, 'The Parrot Tribe,—Order Psittaci' (Vol. IV, pp. 91-139), Chapter XI, 'The Owls and Ospreys,—Orders Striges and Pandiones' (Vol. IV, pp. 140-173), and Chapter XII, 'The Diurnal Birds of Prey, or Accipitrines,—Order Accipitres' (Vol. IV, pp. 174-192, et. seq.) is thus far not indicated. As is easily noticeable, the style of treatment varies in the different parts of the work, as regards symmetry, accuracy, and familiarity of the author with his subject.

The work is to be considered of course from the standpoint of a general popular treatise on the class Aves, with the limitations as to space necessarily entailed by such an undertaking. Hence a minimum of technicalities is to be expected, with perhaps a very unequal allotment of space in proportion to the numerical size of the groups treated. Yet, considering the high scientific standing of the editor, we have reason to expect at least accuracy, if not fullness and uniformity of treatment of the groups that must be marshalled in review. Judged by these standards the work, as a whole, well stands the test, and in general merits the generous patronage of the public. Many of the groups are admirably treated and indicate the work of a practiced hand, as especially the varied assortment of family groups here arrayed under the general term of 'The Picarians.' The same is true, in large measure, for the Parrots and the Birds of Prey.

The great group of Passeres presents greater difficulties, owing to their diversity and numerical abundance, in comparison to the other orders of the class, so that the question of what groups to mention and what to pass unnoticed with so limited a space for their treatment, is obviously one of great embarrassment, and the selection would here severely tax the skill of the expert. Yet it is easy to perceive that the author often finds himself in unaccustomed fields.

The introductory chapter is quite too brief for the satisfactory treatment of the generalities of the subject, but is fortunately supplemented to a considerable extent by the introductory paragraphs to the orders in the body of the work. Yet we think the general reader would have been profited by a few additional paragraphs on feathers,—giving something

for instance about their development, pigmentation, their coloration, and especially their structure in its relation to color. In regard to their nature and development we have only the absolutely erroneous statement (Vol. III, p. 290) that feathers correspond "in *essential structure* to hairs," and that they are "similarly developed," etc., which is also untrue. There is also looseness of statement (p. 299) regarding the barbules and hooklets, due perhaps to excessive effort at condensation of treatment, while the case is a little overdrawn (p. 291) in the statement that "it is impossible to kill a winged bird by compressing its windpipe." We regret also to see the Gätkean ideas introduced under the head of 'Migration' (p. 302), to the effect that "the configuration of continents and oceans" must be invisible to migrating birds, even in the daytime, owing to the great height at which they travel.

The classification followed is essentially that propounded some fifteen years ago by Dr. Sclater, on the ground that, owing to the present diversity of views on the subject, it is probably as good as any for a popular work like the present,—a statement we have no desire to controvert. In regard to the Passeres, the arrangement of Dr. Sharpe is adopted, which places the Corvidæ at the head,—an arrangement which at present seems to meet with wide approval.

It is of course easy to find fault with a popular work of this general character, however good it may be or however conscientiously prepared. Yet we may perhaps be pardoned for pointing to a few errors of statement or omission that would hardly be anticipated in the present connection. Thus (p. 309) the reference to *Xanthura* fails to indicate that this brilliant genus of tropical American Jays is remarkable for its yellow and green colors rather than for its blue and black markings. In speaking of the Siberian Jay (*Perisoreus infaustus*) as "a characteristic bird of the most northern parts of the Old World," it seems strange no reference is made to the fact that the genus *Perisoreus* is even more characteristic (as regards number of species) of the northern parts of North America. Again from the account of the Crossbills, one might infer that all were so closely related as to be probably referable to one species, no reference being made to the group with white wing-bars. In referring to the distribution of the Pipits (p. 432), the omission to note the occurrence of a considerable number of species in South America, taken with the reference to North America, leads to the inference that they are absent from that continent.

In speaking of the Baltimore Oriole (p. 357) there is either a bad jumble of the text of the two paragraphs headed respectively 'Cassiques' and 'The True Hangnests,' or else a most unpardonable lapse, for the Baltimore does not "build in large companies," nor have as many as forty nests on a single tree, nor breed in November, but these statements might well apply to some of the South American Cassiques. In the next paragraph we have the erroneous statement that the Bobolink "winters in Central America and the West Indies," whereas it merely passes through

these regions on its way to and from South America. That some species of Cowbirds (p. 358) "seize upon the nests of others birds, and having driven away the rightful possessors, proceed to rear their own young in their new home," must be a new discovery in the economy of these birds.

Weaver-Birds (Ploceidæ) are said to differ from Finches (Fringillidæ) in that some of the former undergo a partial spring moult; the fact being that many genera of Finches also moult in the spring. Indeed, in many families of birds, in genera closely allied, some have a spring moult and others do not.

Of the Rose-breasted Grosbeak (p. 381), its summer range, it is said, "extends to Labrador." We will not, however, dwell on the inevitable slips in a work of this nature. Among Passeres those inhabiting Europe and especially the British Islands, naturally receive the most attention, many of the more prominent species being noticed at considerable length; on the other hand, those of the two Americas receive little attention, even those of North America coming in for slight notice, and generally only when they belong to genera common also to the Old World. Thus of the great American Family Tyrannidæ, only two of the 400 species are distinctively mentioned, and only one member of the great Family Formicariidæ, the family itself, as a group, being unnoticed. Nor is there any reference to the interesting Family Pteroptochidæ, although the little group of Plant-cutters (Phytotomidæ) receives nearly a page. Of the great number of Sparrows inhabiting North and South America, only one is specially mentioned (that is, exclusive of so-called 'Buntings' and Finches, allied for the most part to Old World forms); and this in such a way as to be unrecognizable to American readers, except for the technical name given in parenthesis. Thus, says Mr. Macpherson, under the heading 'Allied Genera' (p. 416): "The Sparrow-bunting (*Zonotrichia albicollis*) belonging to a group of genera in which the tail is longer than the wing," etc.—four lines in all.

When North American birds are mentioned it is hard to understand why, by both Mr. Macpherson and Dr. Sharpe, vernacular names are given to them which no American reader would recognize, nor any ornithologist, if the technical names were omitted,—names apparently coined to suit the whim of the writer, regardless of the fact that the birds already have book names almost as distinctive and as stable as the technical names of the systematists. Why our White-throated Sparrow should be given the meaningless title of 'Sparrow Bunting,' or our Grackles be dubbed 'Troupials,' or our White-throated Swift be called 'Pied Swift,' to cite a few representative cases, it is hard to conceive.

While the text of Dr. Sharpe's portion of the work is generally much more free from lapses than that relating to the Passeres, there is a curious error on p. 43 (Vol. IV) where in speaking of different species of Night Jars he says: "And a fourth, the one represented in the accompanying figure (*C. virginianus*) tells you to *whip-poor-will!* *whip-poor-will!* in tones wonderfully clear and startling." A glance at the cut, labeled 'Vir-

ginian Nightjar,' shows at once that it is the Night-hawk (*Chordeiles virginianus*) and not the Whip-poor-will, as Dr. Sharpe seems to have supposed. As figures of both species are given in the work from which the figure is taken, it is evident that the wrong figure was accidentally selected.

As already said, the work as a whole is well worthy of the patronage of the public, for if it fails to tell all there is to know about birds, it gives a vast amount of interesting and trustworthy information in a small compass. The illustrations add greatly to its value and usefulness, but they are for the most part old acquaintances that have previously seen service repeatedly in other connections.—J. A. A.

Saunders and Salvin's Catalogue of the Gaviæ and Tubinares.—Volume XXV of the British Museum Catalogue of Birds¹ contains the Gaviæ, or the Terns, Gulls, and Skuas, by Mr. Howard Saunders, and the Tubinares, or the Petrels and Albatrosses, by Mr. Osbert Salvin. The authorities of the British Museum have thus been fortunate enough to secure the two leading specialists on these difficult orders of birds for their elaboration.

The Gaviæ, or the Longipennes of the A. O. U. Check-List, of which 115 species are here recognized, are arranged in twenty genera and two families—Laridæ and Stercorariidæ, the Rynchopidæ being treated as a subfamily of Laridæ and placed between the Terns and Gulls. It is not clear why the name Gaviæ, proposed by Bonaparte in 1850 for a rather extensive and heterogeneous group, should be preferred to Longipennes, as restricted and defined by Nitzsch in 1840, or forty years before the term Gaviæ was narrowed down to its present signification. Neither is it evident why the Skimmers should be interposed between the Terns and Gulls, especially as it is admittedly a difficult matter to draw a satisfactory dividing line between the Terns and Gulls. Yet we have in the present work a subfamily Sterninæ separated from a subfamily Larinæ by a group so distinct from either of these really coalescing groups as to be often of late given the rank of a distinct family.

Passing to details of special interest to American ornithologists, we note the following: *Hydrochelidon surinamensis* is separated specifically from *H. nigra*, on the ground probably that Mr. Saunders does not recognize subspecies; forms that are regarded as entitled to recognition being

¹ Catalogue of the Gaviæ and Tubinares in the Collection of the British Museum. — Gaviæ (Terns, Gulls, and Skuas) by Howard Saunders. Tubinares (Petrels and Albatrosses) by Osbert Salvin. London: Printed by order of the Trustees. Sold by Longmans & Co., 39 Paternoster Row; B. Quaritch, 15 Piccadilly; Dulau & Co., 37 Soho Square, W.; Kegan Paul & Co., Paternoster House, Charing Cross Road; and at the British Museum (Natural History), Cromwell Road, S. W. 1896. = Catalogue of the Birds in the British Museum, Vol. XXV. 8vo, pp. i-xv, 1-475, pls. i-viii.