

Count von Berlepsch and Dr. Hellmayr¹ relating in part to the same subject. These authors give the results of the examination of the types of many South American birds described by Reinhardt, Tschudi, Cabanis, and Pelzeln. Pelzeln's species here treated, ten in number, are nearly all left undetermined in Hagmann's 'Concordance,' but are here definitely assigned.—J. A. A.

Shufeldt on the Families and Higher Groups of Birds.—In a recent paper of 25 pages, published in the 'American Naturalist,'² Dr. Shufeldt presents his views respecting the arrangement of the higher groups of birds, from families to orders. His scheme of expressing the affinities of the groups, from families upward, is by means of five grades, as follows: orders, supersuborders, suborders, superfamilies and families. He does not admit the existence of subclasses among birds, and recognizes only two orders, Saururæ and Ornithuræ, which correspond to the subclasses of most other authors. As everybody knows, the class Aves is morphologically the most homogeneous of the vertebrate classes, and is necessarily so on account of its volant mode of life, which does not admit of the bizarre types of divergence seen among mammals, reptiles, and fishes. The fundamental plan of structure in the avian type is the special modification for aerial life, and this precludes a wide range of morphological variation. For this reason, according to the views of most systematists, the degrees of divergence that constitute orders are not to be measured by the same standards as in other classes of vertebrates, where a terrestrial or aquatic mode of life permits of wide modifications of the class type.

As already said, Dr. Shufeldt's 'orders' correspond to the subclasses of most modern systematists, while his 39 'supersuborders' correspond to orders. He has also 62 'suborders,' 17 'superfamilies,' and 176 'families.' There is nothing very novel in his arrangement of these various groups, although some of his allocations do not seem to be an improvement upon those previously made. If we translate his 'orders' as subclasses, and his 'supersuborders' as orders, his suborders, superfamilies and families have about the usual significance, and serve very well to indicate the relative rank of the groups thus indicated; except that the application of the terms supersuborder and suborder to precisely the same group adds nothing as an expression of its rank; as, for example, supersuborder Aptenodytiformes and suborder Impennes; supersuborder Procellariiformes and suborder Tubinares, and so on in a dozen other parallel cases. In other instances, as under Halcyoniformes, where there are six suborders, the term has some significance and use.

¹ Studien über wenig bekannte Typen neotropischer Vogel. Von Hans Graf von Berlepsch und C. E. Hellmayr. Journ. f. Orn., Januar-Heft, 1905, pp. 1-33.

² An Arrangement of the Families and Higher Groups of Birds. By R. W. Shufeldt. Amer. Nat., Vol. XXXVIII, Nov.-Dec., 1904, pp. 833-857, figs. 1-6.

A number of families more or less currently recognized are suppressed, and we are left in doubt as to the author's allocation of them; in other cases families that actually inosculate are widely separated. Of course no lineal arrangement can be made to express the affinities of groups that have multiple alliances. On the whole the arrangement here presented appears to be about as satisfactory as any we have seen, it differing not very widely from several of the later systems.—J. A. A.

Clark on New Birds from St. Vincent, W. I.—In working up the birds collected by himself on the island of St. Vincent during 1903-04 Mr. Clark has found four new forms that he considers as entitled to recognition. These are *Euphonia flavifrons viscivora*,¹ inhabiting Grenada, St. Lucia, and Martinique, as well as St. Vincent; *Holoquiscalus dispar*,² *Buteo antillarum*, allied to *Buteo platypterus*, but smaller and more rufous; and *Urubitinga anthracina cancrivora*. We await with interest the publication of his report on the results of his extended ornithological explorations in the Lesser Antilles.—J. A. A.

Mearns on New Philippine Birds.—This preliminary paper on Dr. Mearns's ornithological work in the Philippine Islands during the years 1903-04 contains descriptions of eight new species,³ with notes on seven others new to the islands. The name *Carpophaga* for a genus of Fruit Pigeons is shown to be preoccupied and is replaced by *Muscadivora*, nom. nov. Dr. Mearns, aided by other members of the Philippine Scientific Association, collected over 1000 birds in the military department of Mindanao during 1903 and 1904, comprising 216 species. The more extended paper that may be expected to appear later on this collection cannot fail to increase greatly our knowledge of the birds of this particular district.—J. A. A.

Shelley's 'Birds of Africa,' Vol. IV, Pt. I.—The first part of Volume IV of Shelley's 'Birds of Africa,'⁴ just to hand, includes the first two sub-

¹ Description of a New *Euphonia* from the Southern West Indies. By Austin H. Clark. Proc. Biol. Soc. Washington, Vol. XVIII, pp. 19-22, Feb. 2, 1905.

² Preliminary Descriptions of Three New Birds from St. Vincent, West Indies. By Austin H. Clark. *Ibid.*, pp. 61-64, Feb. 21, 1905.

³ Descriptions of Eight New Philippine Birds, with Notes on other Species new to the Islands. By Edgar A. Mearns, Major and Surgeon, U. S. Army. Proc. Biol. Soc. Washington, Vol. XVIII, pp. 83-90, Feb. 21, 1905.

⁴ The | Birds of Africa, | comprising all the species which occur | in the | Ethiopian Region. | By | G. E. Shelley, F. Z. S., F. R. G. S., &c. | (late Grenadier Guards), | author of "A Handbook to the Birds of Egypt," | "A Monograph of the Sun-Birds," etc. | — | Volume IV. | Part I. | — | London: | published for the Author by | R. H. Porter, 7, Princes Street, Cavendish Square, W. | 1905.—Roy, 8vo, pp. viii + 287, pl. col. xxix-xxxv. Price 31s. 6d. net.