

The Trogons are found, as would be expected, to be widely separated from the Caprimulgin forms and the Hummingbirds, and to have no very close relationship with either the Cuckoos or the Kingfishers.

The Swallows are considered as a specialized group of Passeres, considerably modified through "physiological adaptations of structure."

As regards the general conclusions reached respecting the Macrochires, Dr. Shufeldt contends that the Caprimulgin birds are so far removed in structure from all other birds that they should rank as a separate order, the Caprimulgi, with the Owls as their nearest kin, and as having "no special affinity with the Cypseli, much less with the Trochili." He proposes also to give the Swifts the rank of an order, Cypseli. "This order, were it represented by a circle, would be found just outside the enormous Passerine circle, but tangent to a point in its periphery opposite the Swallows." He still contends strongly for the ordinal rank of the Trochili. In comparing the two groups, Swifts and Hummingbirds, he claims that they "have been associated together upon an entirely false system of classification, which assumed first, that they are alike in their wing-structure—a resemblance which I have shown to be purely *superficial*; secondly, that they both have an unnotched sternum, although physiological law demands it, and when associated with an entire organization that widely differs from that of another form which may happen to possess an unnotched sternum, it means nothing so far as affinity is concerned. This becomes the more evident when the sterna themselves are fashioned upon essentially different plans, as is the case in the Cypseli and Trochili."

The seven lithographic plates illustrating the present memoir give the pterylosis, skull, and other parts of the anatomy of *Ampelis cedrorum*, *Antrostomus vociferus*, and *Trochilus calliope*, and the skull and skeleton of *Trogon mexicanus*, the skulls of *Phalacroptilus nuttalli*, *Micropus melanoleucus*, several species of *Trochilus*, *Progne subis*, *Chelidon erythrogaster*, *Tachycineta thalassina*, *Tyrannus verticalis*, etc., and side views of the plucked bodies of *Micropus melanoleucus*, *Chaturap pelagica*, and *Trochilus platycercus*.—J. A. A.

Shufeldt on the Osteology of the North American Passeres.*—In this paper the osteology of the leading types of the North American Passeres is reviewed, followed by a re-arrangement of the families in accordance with the author's conclusions. The skeletal characters of *Myadestes* prove to be eminently Turdine. Good cranial characters are found for the constitution of *Lophophanes* as a full genus. The families recognized are the same as those of the A. O. U. Check-List, with their limits the same, but the order of succession is radically changed, without, we fear, in some instances at least, very obvious improvement, even granting that

* Contributions to the Comparative Osteology of Families of the North American Passeres. By R. W. Shufeldt, M. D., C. M. Z. S. Journ. of Morph., Vol. III, No. 1, June, 1889, pp. 81-112, pl. v, vi.

the Corvidæ and the 'conirostral' series of families generally are better placed at the upper than at the lower end of the Oscinine series.

It is, indeed, doubtful whether any very final conclusions can be based on a consideration confined almost wholly to forms represented in North America, or without a pretty intimate knowledge of exotic types. Although such intimately related and practically inosculating groups as the Tanagridæ and Mniotiltidæ are separated in the new arrangement by the interpolation of such diverse forms as the Cinclidæ, Troglodytidæ, etc., we do not see that any new light is thrown upon their complex relationships. Such inferences as may be drawn from the color of the eggs, the similarity of the plumage, or otherwise, between young birds and their parents, the presence or absence of a rudimentary tenth primary, have of course more or less significance within narrow limits, but obviously fail as a test of affinity in any general sense. While the new classification is based mainly upon osteological characters, much stress is properly laid upon the size of the brain; and perhaps too much, here and there, on rather trivial characters.

The two plates accompanying the paper contain 26 figures, illustrating the cranial characters of 23 species.

Other recent papers on avian anatomy by Dr. Shufeldt are 'Notes on the Anatomy of *Speotyto cunicularia hypogæa*,'* and a paper entitled 'Progress in Avian Anatomy for the years 1888-1889,'† the latter read at the last meeting of the American Ornithologists' Union (see Auk, VII, p. 68). —J. A. A.

Maynard's 'Eggs of North American Birds.'‡—Mr. Maynard's work was issued in nine parts, mostly during the year 1889. As about 1000 species and subspecies are treated in less than 160 pages of rather open text, the descriptions are necessarily brief and general. The ten plates contain about eighty figures, intended to represent "type eggs, not of groups of birds, but of types of the forms and patterns of coloration of North American eggs." The text is generally good so far as it goes, being limited to a statement of the number of eggs, their color (in general terms) and size, the breeding range and season of breeding, the whole usually condensed into about four to six lines of long primer type, on a rather narrow page. The arrangement, numeration, and nomenclature are, with slight exceptions, the same as in the A. O. U. Check-List; a few species being included which are not recognized by the A. O. U. Committee in making up the Supplements to the Check-List.

The work is fairly free from typographical errors, though not a few grievous ones occur, which the author laments, and partly corrects, in

* Journ. of Morphology. Vol. III, 1889, pp. 115-125, pl. vii.

† Journ. Comp. Med. and Veterin. Arch., Jan. 1890.

‡ Eggs of | North American Birds | by | Chas. J. Maynard. | Illustrated | with ten hand-colored Plates. | — | Boston: | De Wolfe, Fiske & Co. | 1890.— 8vo., pp. iv + 159.