

rosenbergi, *P. oatesi*, *P. angolensis*, *P. arcuata*, and *P. sordida*. One of these (*P. oatesi*) appears not to have been before figured, and three others are not included in the first edition of the 'Monograph.'

The changes in nomenclature that may be expected in the present as compared with the former edition have been foreshadowed in Mr. Elliot's recent article 'On the Genus *Pitta* Vieillot' (*Auk*, X, 1893, pp. 51, 52) and in remarks apropos of Dr. Stejneger's paper on the same subject (l. c., pp. 184, 185). It is therefore not a surprise that he should follow the A. O. U. Code respecting the rule of priority and adopt the earliest specific name in the case of *Pitta moluccensis* and *P. sordida* in the place of later-given though more current names favored by some other recent writers on the group. We regret to note, however, that he lapses in consistency in accepting the amended form *arcuatus* for Gould's earlier though less fortunate *arguatus*.

Few groups of birds present greater beauty of plumage than the Pittidæ or Ant-Thrushes, or offer greater opportunities for the skill of the artist in illustration, and in the present instance the plates give ample testimony of their ability.—J. A. A.

Sharpe on the Zoögeographical Areas of the World.¹— In the August number of 'Natural Science,' Dr. Sharpe has given a summary of his views on the different regions, subregions, etc., of the world as illustrated in his recent course of lectures on the 'Geographical Distribution of Birds' delivered at the Royal Institution. In his introductory remarks he laments the "want of zoological statistics for vast tracts of the Old World," and congratulates American naturalists on "the success which has resulted from their patient collection of materials, which leaves them in the proud position of having better statistics to work upon than are possessed by the ornithologists of any other portion of the globe," with the exception, perhaps, of those of the British Islands.

Dr. Sharpe says: "Some of Mr. Allen's conclusions ('*Auk*,' 1893, pp. 97-150) with regard to the main divisions of the Old World are the same as those of Dr. Reichenow, and I think that they are, in both instances, too sweeping; but the recognition and definition of an Arctic Zone, or 'Realm,' as Mr. Allen calls it, is a fact which must henceforward be admitted by all ornithologists." After this last admission it is somewhat disappointing to find him still partitioning the northern portion of the northern hemisphere into two primary areas, under the very familiar names of 'Nearctic Region' and 'Palæarctic Region.' This inconsistency, however, he accounts for as follows: In giving reasons for not adopting "Mr. Allen's nomenclature in its entirety," he says: "I may in due time be brought to speak of 'Realms,' but the same conservatism which prevents my adopting

¹ On the Zoo-geographical Areas of the World, illustrating the Distribution of Birds. By R. Bowdler Sharpe, LL. D., F. L. S. *Natural Science*, Vol. III, No. 18, pp. 100-108. Aug., 1893. With Maps.

the trinomial nomenclature of the American zoologists of the present day will prevent my discarding some of the old-fashioned, and, to me, expressive zoo-geographical terms. I cannot understand why the word 'Nearctic' should be discarded."

In the present brief paper (for so extensive a subject) our author does not attempt to characterize his various areas by specifying their distinctive ornithic elements, but he in a general way defines the boundaries of his regions, and enumerates their principal subdivisions. His primary divisions or 'Regions' are six in number, as follows: A, Nearctic; B, Neotropical; C, Palæarctic; D, Ethiopian; E, Indian; F, Australian. For the New World he thus adopts "the old divisions of the Nearctic and Neotropical Regions." The Nearctic he subdivides as follows:—

- I. Arctic Subregion.
- II. Alaskan Arctic Subregion.
- III. Aleutian Subregion.
- IV. Cold Temperate Subregion.
- V. Warm Temperate Subregion.
 - 1. Humid Province.
 - a. Appalachian Subprovince.
 - β. Austroriparian Subprovince.
 - 2. Arid Province.
 - γ. Campestrian Subprovince.
 - δ. Sonora Subprovince.

These areas are practically the same as those designated by similar names by the present writer, except that I, II, and III differ in grade and allocation, ranking here as divisions of the second grade instead of divisions of the very lowest grade, or below subprovinces. The incongruity of his classification of the Arctic portion of the northern hemisphere is further brought out under "C.—The Palæarctic Region," where he says: "This may be divided roughly into three subregions, besides the *Arctic Zone*, which corresponds with the same zone in the New World, and becomes a circumpolar province." In other words, a "circumpolar province" is subdivided into four "subregions," which are apportioned between two "regions."

As regards the 'Neotropical Region,' or the "Southern Region of the New World," it is divided into subregions and provinces much as has been done by previous writers. The 'Palæarctic Region' is divided into a 'Eurasian Subregion' and a 'Mediterranean-Asiatic Subregion'; "the one answering to Mr. Allen's 'Cold Temperate Subregion,' and the other to his 'Warm Temperate Subregion.'" Each of these is divided into three 'Provinces.' The Palæarctic is further subdivided into "III, Manchurian Subregion," and "IV, the Himalo-Caucasian Subregion," the latter also with three provinces.

The Ethiopian Region is divided into eight 'Subregions,' one, the South African, having two Provinces. This classification is to a large extent

new, being even considerably modified from that proposed by the same writer in 1870.

The Indian Region is divided into five subregions, and the Australian into seven; but they are given simply in a tabular enumeration without attempt at definition beyond that implied in the names given them. The accompanying maps, however, serve to define them, and also all of the other zoögeographical areas mentioned in the accompanying text.

The paper as a whole gives evidence of hasty preparation, and is quite too brief for a satisfactory presentation of the subject, the treatment being merely in outline. We trust that Dr. Sharpe will soon find time to return to this interesting subject, to which he has evidently given so much attention, and present his views in greater detail, backed by fuller statistical information as to the distinctive elements of the several areas here outlined. For the most part his scheme seems reasonable, the chief blemish being in his treatment of the Arctic and Cold Temperate portions of the northern hemisphere, which is much less satisfactory than Prof. Newton's allocation of this whole area as a single 'Holarctic Region' (*cf. antea*, p. 59). —J. A. A.

Apgar's Pocket Key of Birds.¹—A manual of North American birds compact enough and cheap enough to accommodate itself to every one's pocket, one by which even the most inexperienced can identify a bird in the hand, will be widely welcomed. Indeed it is hard to conceive of a more useful book—or one more difficult to prepare. It is not so very hard, with unlimited space and a free use of technical terms, to write descriptions by which an ornithologist of some experience can identify birds he already more than half knows; but diagnoses that shall be concise and sufficient, untechnical and clear, that shall make obscure plumages easy for the tyro to recognize, are by no means a simple matter. Yet this is exactly what is needed.

The present volume begins with a 'Key to the Families,' and then each family, from the Thrushes to the Grebes, is treated in turn. First comes a key to its genera (and sometimes to convenient subdivisions of the larger genera), then under each a statement of characters by which the species it contains may be distinguished. These specific diagnoses are very brief, averaging only eight or ten words apiece. For many species, those whose characters are well marked and constant, this is enough. In more difficult cases it would not be surprising if the student were to agree with the author, that "after the supposed name is determined, it would be well to read a full description in such works as those of Dr. Jordan, Dr. Coues, or Mr. Ridgway, to verify the determination." When a writer takes such a modest view of the purposes of his book, it is hard to

¹ Pocket Key | of the | Birds | of the | Northern United States, | east of the Rocky Mountains. | — | By | Austin C. Apgar, | Author of "Trees of the Northern United States," "Mollusks of the | Atlantic Coast," &c. | — | Trenton, N. J. | The John L. Murphy Pub. Co., Printers. | 1893. 16,° pp. 63[= 61].