

it is considered that in 1916 the reviewer listed only 162 forms for the whole of Porto Rico, including the outlying islands of Mona, Desecheo, Vieques and Culebra. Of the forms given by Mr. Danforth 42 are migrants from North America and 42 breed regularly or occasionally at the lagoon. Others come to the lagoon area to search for food or are found in its vicinity casually. The author divides his area into nine distinct plant associations, each with its characteristic forms of other life. Bird life is common and reasonably varied when the total bird list is considered, since daily lists included from 26 to 48 forms.

The annotated list that forms the greater part of the paper includes under each species a statement as to the ecological preferences, habits, and abundance, and for many a detailed statement of the food, obtained from examination by the per cent by bulk method of the stomach contents of birds taken for specimens. Certain records new to Porto Rico that have already appeared in the 'Auk' (for 1925, pp. 558-563) are here given in more detail. On the supposition that the Willet of Porto Rico may represent a distinct form, "if such proves to be the case," there is provided for it the name *Catoptrophorus semipalmatus longicaudus* (p. 76). The proposed form, based on two specimens, from the measurements given appears to have the general size of typical *semipalmatus* but has the tail seven millimeters longer than the maximum given for that form. Under modern methods in systematic ornithology it is undesirable to name forms "provisionally" since such action usually throws the work of proof on others and can only cause trouble. Unless there is certainty in the matter, it is better to call attention to supposed differences and then let the matter rest until further study proves or disproves the assertion.

The paper is especially valuable for its detailed observations on birds of aquatic habit. The naturalist from elsewhere, resident for a brief space in the West Indies, or for that matter anywhere in the Tropics, is ordinarily so attracted by species peculiar to the region in which he is working that usually he gives somewhat casual attention to forms of wider range. The present account adds notably to knowledge in this latter respect. It is to be hoped that the author, who is again in Porto Rico, may continue his contributions on the interesting avifauna of that American possession.—A. W.

Catalogue of the Ayer Ornithological Library.—In two stout volumes,¹ Mr. John T. Zimmer, assistant curator of birds in the Field Museum of Natural History, has presented a detailed catalogue of the Edward E. Ayer Ornithological Library which includes most of the bird books in the Museum. Mr. Ayer one of the founders of the Museum and

¹ Catalogue of the Edward E. Ayer Ornithological Library. Part I [II] By John Todd Zimmer, Assistant Curator of Birds. Wilfred H. Osgood, Curator, Department of Zoology, Editor. Field Museum of Natural History. Publication 239 [240]. Zoological Series Vol. XVI. Chicago, U. S. A., November, 1926. Vol. I, pp. i-x + 1-364. Vol. II, pp. 365-706.

the first chairman of the Board of Trustees has also been a generous patron of the institution, especially in connection with the ethnology of the North American Indians and with the library. He is also the donor of the famous Ayer collection of Americana in the Newberry Library of Chicago.

His interest in bird books arose from his love of hunting and his library began with the handsome illustrated folios for which ornithology is famous. Later the less conspicuous but none the less valuable volumes were obtained until the collection has become remarkably complete. It was presented to the Museum in 1893 and has been added to by the donor ever since.

The catalogue contains in the main only such works as were published under a separate title, and excerpts, reports, bulletins, etc., are usually omitted, many of these however are to be found in the ornithological journals which are listed in an appendix. The catalogue has been prepared with great care and not only are the titles quoted in detail and verbatim, but much important information, both historic and scientific, is added in editorial notes which are particularly full in the case of rare brochures and little known reprints. There is an historic preface by Dr. W. H. Osgood, and a colored portrait of Mr. Ayer while numerous photographic reproductions of the title pages, etc., of rare works, constitute interesting illustrations.

Mr. Ayer deserves the gratitude of ornithologists in bringing together such a magnificent collection of ornithological works at Chicago, most of which could not formerly have been consulted without a trip to one of the eastern libraries, while Mr. Zimmer is to be congratulated upon the completion of a painstaking piece of work in a most creditable manner.

Mr. Zimmer has very properly adhered strictly to the plan adopted and to the rules of bibliography and we have no criticism to offer, but the ornithologist who does not happen to be a bibliographer will be astonished to find but one publication described under Cassin, one under Merriam, two under Allen and none at all under Oberholser, Richmond, Riley, Bangs, etc. In a few cases statements might have been modified to advantage as in that of Gentry's 'Life Histories' where we do not think our compiler would have stated that it was "chiefly valuable for its notes on food habits" had he read McAtee's belated review in 'The Auk' 1912, pp. 119-121. Dr. Richmond might moreover have been separately listed as being one of the authors of the A. O. U. 'Check-List' since all of the others are accorded that honor.

A number of catalogues of ornithological libraries have appeared in the past few years, some of them in themselves constituting rare and beautiful volumes, but the bibliography of American ornithology remains about where Coues left it in 1878. With no thought of criticising such catalogues, especially Mr. Zimmer's, which is more complete than any of the others, one cannot but feel regret that the energy and expenditure required to produce the catalogues, containing much that is merely duplication, could not have been devoted to a continuation of Coues' wonderful work,

in which all papers dealing with ornithology would appear, instead of merely those published under an independent title or those contained in a particular library. By this means the needs of ornithology would be served as well as that of bibliography.

Let us hope that some patron of American ornithology will some day make it possible for a properly equipped compiler to carry on the work of Coues and aid the research of every student by placing before him in chronological order all the papers on American birds from 1878 to date.—W. S.

Meinertzhagen on the Genus *Corvus*.—This is a very timely paper¹ since the Crows and Ravens have had no comprehensive revision since that by Bowdler-Sharpe in the 'British Museum Catalogue,' in 1877. In his attempt to subdivide the large genus *Corvus* Sharpe proposed to adopt twelve genera. All of these have been abandoned in the review before us and we think those ornithologists who have tried to follow Sharpe's arrangement will agree on the logic of Col. Meinertzhagen's views, unless possibly in the case of *Corvultur*. His remarks upon the subject too are refreshing. He says: "Genus-splitting has of late become a source of confusion to students," a confusion which he later alludes to as "the hopeless and final abandonment of the principle of applying to nature classical names so that the world can understand what we are all talking about."

Our author recognizes 86 races of Crows and Ravens distributed among 33 species which is probably very conservative treatment although a good basis from which to make a fresh start. Doubtless some races here suppressed should be restored to recognition on the evidence of local students and in the same way certain forms regarded as subspecies will prove to be full species. It is impossible for anyone to cover practically the whole world in a study of this sort without making some errors since he cannot know all local conditions.

So far as North American forms go, the author recognizes: (1) *C. brachyrhynchus*, divided into *brachyrhynchus*, *paulus*, *pascuus*, *hesperis* and *caurinus* although he is doubtful as to the distinctness of the first three; (2) *cryptoleucus*; and (3) *ossifragus* which however he considers a subspecies of *mexicanus*. He recognizes only two forms of Raven in America (1) *C. corax sinuatus* to which are referred as synonyms, *clarionensis*, *euophilus* (in part) and *richardsoni*, and (2) *C. corax tibetanus* of which *principalis* is considered a synonym and *euophilus* (in part). We have always doubted the existence of so many "kinds" of Ravens and are inclined to think that his treatment of these forms is correct.

There is appended to the main text a list of specific and subspecific names that have been applied to Crows numbering 233; a table of wing formulae for the species recognized and a list of types, with measurements,

¹ Introduction to a Review of the Genus *Corvus*. By Colonel R. Meinertzhagen. *Novitates Zoologicae*, Vol. XXXIII, pp. 57-121, October, 1926.