

sidered as not separable. *Priocella* is raised to a full genus. *Fulmarus glacialis rogersii* and *F. g. glupischa* are given the rank of full species, while *F. g. minor* is referred as a pure synonym to *F. glacialis*.

The volume as a whole, despite the few criticisms of nomenclature in which we have indulged, easily takes its place as among the best of this admirable series, and for which ornithologists cannot be too grateful.—J. A. A.

Salvadori's Catalogue of the Chenomorphæ, Crypturi, and Ratitæ.¹—According to the arrangement adopted by Count Salvadori, the order Chenomorphæ consists of three suborders, Palamedeæ, Phœnicopteri, and Anseres. The first, embracing the Screamers, consists of only two genera and three species, all South American. The second, containing the Flamings, includes three genera and six species, of which four species are American, one only extending northward to Florida. Hence the great bulk of the Chenomorphæ belong to the Anseres, consisting of the single family Anatidæ, here subdivided into 11 subfamilies and 64 genera. The total number of species recognized is 196. Among the Ducks, *Chaulelasmus*, *Mareca*, *Nettion* and *Querquedula* are recognized as full genera. Of the larger genera, *Anas* contains 17 species, *Nettion* 15, and *Querquedula* 5. The following new genera are recognized: *Asarcornis*, type *Anas scutulata* S. Müll. (p. 59); *Pteronetta*, type *Querquedula hartlaubi* Cassin (p. 63); *Nesochen*, type *Anser sandvicensis* Vigors (p. 126); *Elastmonetta*, type *Anas chlorotis* G. R. Gray (p. 287). Also three new species, —*Erismatura æquatorialis*, Ecuador (p. 450); *Merganetta frenata*, Chili (p. 458); *Merganser comatus*, Central Asia (p. 475).

As regards the treatment of North American species, it may be noted further that *Cygnus* is substituted for *Olor* for the Swans; *Chen hyperboreus nivalis* is given the rank of a full species; *Anser albifrons gambeli* is kept separate from *A. albifrons*, although "scarcely different"; under the genus *Branta*, *hutchinsi*, *occidentalis* and *minima* stand as full species. The same is true of *Anas maculosa* Sennett. *Nyroca* is adopted in place of *Aythya*; both date from 1822, but *Aythya* is here ruled out as a *nomen nudum*. *Fuligula* stands as a full genus; and *Aythya marila nearctica* is referred to *F. marila*, with the following remark: "According to Dr. Stejneger, the American form (*nearctica*) has the primaries, from the

¹Catalogue | of the | Chenomorphæ | (Palamedeæ, Phœnicopteri, Anseres), | Crypturi, | and | Ratitæ | in the | Collection | of the | British Museum. | By T. Salvadori. | 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. | 1895. = Catalogue of the Birds in the British Museum, Vol. XXVII. 8vo, pp. i-xv, 1-636, pl. i-xix.

fourth quill, with a greyish — not white — area on the inner web. I must confess that I have been unable to appreciate the difference."

Clangula again replaces *Glaucion*, to which both *Glaucionetta* and *Charilonetta* Stejn. are referred as synonyms. The American form of the Golden-eye (*americana*) is not considered separable from true *clangula* (here called *glaucion*). Of course *Harelda* is used in place of *Clangula* for the Old-squaw; and, as specific names published earlier than 1766 are not recognized, *hiemalis* Linn., 1758, is ignored for *glacialis* Linn., 1766; so that the species stands as *Harelda glacialis*. By what rule *Histrionicus* Lesson, 1828, is set aside for *Cosmonessa* Kaup, 1829, is not evident, unless it be to avoid the terrible tautology of *Histrionicus histrionicus*! *Somateria mollissima borealis* is not separated from *S. mollissima*.

If our author is right, our Ruddy Duck must stand as *Erismatura jamaicensis* (Gmelin, 1788), instead of, as universally heretofore, *E. rubida* (Wilson, 1814).

Two species not included in the A. O. U. Check-List are attributed to North America, namely: (1) *Mergus albellus*, which, on p. 467, is said to occur "occasionally in North America," partly apparently on old records now discredited, but also positively on the basis of a specimen in the British Museum, entered (p. 468) as "v" ♀ ad. st. N. America, Hudson's Bay Co." (2) *Oidemia carbo* (Pall.), of which a specimen (p. 412) is thus doubtfully recorded from Alaska, "q. (?) Juv. sk. St. Michael's, Alaska, Oct. (E. W. Nelson). Salvin-Godman Coll." Also: "? Northwestern America, south in winter to California," with the following remark: "There are no adult specimens from Alaska in the British Museum, so that I am unable to decide Alaskan birds really belong to *Æ. carbo*."

The Crypturi, forming Order XX of the Carinate Birds in the system of the British Museum Catalogue, constitute a single family, with 9 genera and 65 species, of which latter 14 are here described for the first time. The group ranges from Mexico to Paraguay, and the species are exceedingly difficult to discriminate.

The volume concludes with the Ratite Birds, forming four orders and five families, but numbering only about 27 species.

As noted above, many changes from current nomenclature are introduced, most of which would have been needless if the author could have permitted himself to accept the 10th instead of the 12th edition of Linné's 'Systema Naturæ' as his starting point for specific names. This is the more to be regretted, since the 10th edition is now almost universally accepted as the starting point for binomial names in zoölogical nomenclature. We also observe certain lapses from consistency in the use of names in a specific sense which have also been adopted as generic names. Thus unless *Fuligula fuligula* (p. 363) is a lapsus, it would seem proper, in accordance with good modern usage, to employ also *Cygnus cygnus* in place of *Cygnus musicus* (p. 26); *Coscoroba coscoroba* instead of *Coscoroba*

candida (p. 42); *Anser anser* instead of *Anser ferus* (p. 89); *Tadorna tadorna* instead of *Tadorna cornuta* (p. 171); *Casarca casarca* instead of *Casarca rutila* (p. 177); *Querquedula querquedula* instead of *Querquedula circia* (p. 293), and especially in this case where *Querquedula* is often considered as not generically separable from *Anas*; *Nyroca nyroca* instead of *Nyroca africana* (p. 345); *Clangula clangula* instead of *Clangula glaucion* (p. 376); *Merganser merganser* instead of *Merganser castor* (p. 472); *Casuaricus casuaricus* instead of *Casuaricus galeatus* (p. 592). Through some unexplained exception to the author's evident rule, in the case of *Rhea americanus*, Linné is taken at 1758 instead of 1766, which otherwise would give us also *Rhea rhea* (p. 578). Although Brisson's genera are in some instances taken, Brisson's *Anhima* is rejected for the later *Palamedea* of Linné (p. 2).

Count Salvadori has expended an enormous amount of labor on this thick volume of nearly 600 pages. The bibliographical references are exceedingly full; the references to the anatomy are separated from the others, as are also the references to hybrids, which among the Ducks are so numerous as to form a striking feature of the bibliography. While the part of the work relating to the Anseres will prove so immensely valuable to the general student, the author's revision of the Crypturi will be hailed as a special godsend by those brought into relation with this exceedingly troublesome and difficult group.—J. A. A.

Chapman on Changes of Plumage in the Dunlin and Sanderling.¹—There is no uncertain ring about the present paper. It boldly challenges certain statements of an eminent European authority, Herr Gätke, and proves them erroneous, not by any theoretical arguments advanced to nicely fit the case, but by a simple statement of facts which leave no room for doubt. An interesting chapter of Gätke's book 'Die Vogelwarte Helgoland' is devoted to the long mooted question of changes taking place in feathers without moult, and much stress is laid upon repigmentation and renewal of abraded contour as important factors in the process of passing from the winter to the summer plumage of many species. The Dunlin (*Tringa alpina*) and the Sanderling (*Calidris arenaria*) are two of the species in which the gradual change is described with great minuteness of detail. One can almost see the black color spreading over the gray feathers of the back and the worn tips blossoming, so to speak, into new feathers by a "restoration of the worn and blunted barbs to their previous entirety," but unfortunately for this theory Mr. Chapman has examined no less than fifty-seven specimens of the former species (including the subspecies *pacifica*) and ninety-seven of the latter which show conclusively that a complete moult takes place in both, except in the rectrices and remiges of the Dunlin. Twelve specimens of the Dunlin

¹The Changes of Plumage in the Dunlin and Sanderling. By Frank M. Chapman. Amer. Mus. Nat. Hist., VIII, art. I, pp. 1-8 (March 4, 1896).