

National Museum ('Nomenclature of North American Birds'), but the following may be noted:

Astur atricapillus striatulus is not considered a "valid subspecies."

The American Golden Eagle is not deemed separable from that of the Palæarctic Region, and is therefore given simply as *Aquila chrysaëtus*.

Buteo borealis socorroensis is ranked as a species.

Asturina nitida plagiata is given as *A. plagiata*.

Elanus leucurus is considered as a subspecies of *E. axillaris*.

Falco albicularis is given as *Hypotriorchis ruficularis*, and *Rhynchofalco fusco-cærulescens* is also referred to *Hypotriorchis*.

Tinnunculus sparverius isabellinus is treated as a species, while *Æsalon richardsoni* is reduced to a subspecies of *Æ. columbarius*.

Hierofalco mexicanus polyagrus is given as *Falco mexicanus*, under the subgeneric heading of *Gennaia*.

Hierofalco gyrfalco obsoletus is recognized as a distinct species, *Falco labradoris*, while *H. g. islandus* and *H. g. candicans* are also considered specifically distinct, under the names of *Falco islandus* and *F. candicans*, respectively.

It is worthy of remark, that in the case of subspecies Mr. Gurney does not use trinomials, the distinction from the species, so far as typography is concerned, consisting only in the heading 'Subspecies,' and the prefix 'a,' or 'b' (according to the number of subspecies) to the name.

The classification adopted strikes us as being far more natural than most of the more recent arrangements; yet we regret to observe the association of such radically distinct forms, structurally considered, as the following: *Herpetotheres* and *Circaëtus*; *Micrastur* and *Geranospizias* with *Accipiter* and allied genera; *Elanoides*, *Rostrhamus*, *Ictinia*, etc., with *Mitvus*, *Haliastur*, etc., and *Harpagus* with the true Falcones. A perfectly natural classification of this most difficult group of birds is, however, not possible with our present limited knowledge of their internal structure; and, as Mr. Gurney truly remarks, "it is obvious that a serial arrangement can only record with precision the connection of each genus and of each species with two of the forms which are thus grouped around it, and is therefore so far imperfect that it must of necessity disregard other natural connections, the existence of which cannot be satisfactorily indicated by any method of consecutive linear arrangement."—R. R.

Newton's 'Ornithology.'*—The article on Ornithology in the new edition of the 'Encyclopædia Britannica,' like most of the articles on Birds in that great work, is by Prof. Alfred Newton, and could scarcely have been entrusted to better hands. The article—complementary to that entitled 'Birds' in Volume III of the Encyclopædia—is an elaborate historical résumé of the subject, critically tracing the progress of the science from

* Ornithology. By Alfred Newton, M.A., F.R.S., F.Z.S., F.L.S., Professor of Zoölogy and Comparative Anatomy in the University of Cambridge. Reprinted from the 'Encyclopædia Britannica' [Ed. 9, Vol. XVIII, pp. 1-50] by special permission. Dec., 1884.

the days of Aristotle, Pliny, and Ælian to the present time. All separate works of any importance, whether general, faunal, or monographic, are noticed at greater or less length, according to their merits or importance, except that the faunal works noticed are limited, in consequence of their being so numerous, "to those countries alone which form the homes of English people, or are commonly visited by them in ordinary travel." We miss, therefore, all reference to such important works as Tschudi's 'Fauna Peruana,' Burmeister's 'Thiere Brasiliens,' Salvin and Godman's 'Biologia Centrali-Americana,' etc. Furthermore, it was found necessary to leave unmentioned all "treatises which have appeared in the publications of learned societies, or in other scientific periodicals." While a bibliography of ornithology is here neither attempted, nor is to be properly looked for in such a connection, all works which have had important bearing upon the progress of the science are duly noted, and their influence critically weighed. The various prominent systems of classification are also set forth, and the "rise of the present more advanced school of ornithologists" is traced in considerable detail. Its origin is attributed to the 'few scattered hints' contained in Nitzsch's 'Pterographische Fragmente,' published in 1806. But the attempt made by Merrem, in his 'Tentamen Systematis naturalis Avium' (1812), "must be regarded as the virtual starting-point of the latest efforts in Systematic Ornithology." In chronological order are discussed the labors of De Blainville (1815), Jacobson (1820), Nitzsch (1820-40), L'Herminier (1827), Berthold (1831), Cuvier and Geoffrey (1832), Gloger (1834), Macgillivray (1837), Blyth (1838), Brandt (1836-39), Müller (1845-47), Cabanis (1847), Parker (1860 and later), Lilljeborg (1866), Huxley (1867), A. Milne-Edwards (1867-71), Marsh (1870), Sundevall (1872-74), Garrod and Forbes (1873-83), Sclater (1880), and others less prominently identified with the subject. The classification of birds is finally discussed from the author's own standpoint, but he presents no formal system, considering it evident that our knowledge of the class is too imperfect to enable systematists to construct a phylogenetic scheme. Finally, after passing the ordinal groups in review, he deals with the supposed high rank of the Turdidæ, which he claims is not "borne out by their alliances, nor by the size of their brain, nor by character of plumage." On the other hand, he claims, with Macgillivray and Parker, "that at the head of the Class *Aves* must stand the Family *Corvidæ*, of which family no one will dispute the superiority of the genus *Corvus*, nor in that genus the pre-eminence of *Corvus corax*—the widely-ranging Raven of the Northern Hemisphere, the Bird perhaps best known from the most ancient times, and, as it happens, that to which belongs the earliest historical association with man."—J. A. A.

Ridgway on the American Red Crossbills.*—In his 'Review' of the American Red Crossbills (*Loxia curvirostra* group) Mr. Ridgway is

* A Review of the American Crossbills (*Loxia*) of the *L. curvirostra* type. By Robert Ridgway. Proc. Biolog. Soc. of Washington, II, 1883, pp. 84-107. (Separates issued April 30, 1884.)