of the Massachusetts Audubon Society, followed rapidly by the formation of other State societies to the number of 36, and, finally, the organization and incorporation of the National Association of Audubon Societies, in January, 1905.

The 'Report of the National Committee' (pp. 58–74) opens with several pages of 'suggestions,' relating to (1) legislation for bird protection, (2) the incorporation of State societies, (3) the enlistment of 'Junior' members, the girls and boys, (4) increase of membership, and (5) a 'law Committee' for each society. Then follows a report on the Thayer Fund, which in 1904 amounted to $3,731, and was expended mainly for the services of wardens, and for printing and distributing 'warning notices' and bird protection literature. An interesting feature is the account of the Committee's work in securing bird protection in the foreign possessions of the United States and in foreign countries, and especially of the prompt aid always rendered by our National Government in such matters. The State Reports (pp. 74–116) are of the usual fulness and abound in information of ornithological interest as well as from the viewpoint of bird protection.— J. A. A.

Hagmann's Concordance of Brazilian Birds described by Spix, Wied, Burmeister, and Pelzeln.— In a paper[1] of 21 pages Dr. Hagmann (including an introduction of four pages by Dr. Gœldi) gives a concordance of the nomenclature of the Brazilian birds described by Spix, Wied, Burmeister, and Pelzeln with that of the Catalogue of Birds of the British Museum, publishing in tabular form the names employed by these authors and the equivalent names of the British Museum Catalogue. Of Spix's 325 species, the generic and specific names both remain unchanged in only 17 cases, while 134 of the specific names remain unchanged. Apparently about the same proportions holds with Wied, but it is very different with the later authors, as would naturally be expected, about one fourth of Burmeister's names, both generic and specific, and about one half of Pelzeln's agreeing with those of the British Museum Catalogue, while about four-fifths of Pelzeln's specific names remain unchanged. This concordance, while not of high utility, is a convenience and in addition furnishes a ready means of getting at much curious information in tracing changes in both taxonomy and nomenclature between the earlier and the more recent standards.

In this connection attention may be called to an important paper by

[1] As Aves Brasilicas mencionadas e descriptas. nas obras de Spix (1825), de Wied (1830–1833), Burmeister (1854) e Pelzeln (1874) na sua nomenclatura scientifica actual. Chave synonymica organisado pelo Dr. G. Hagmann. Boletim do Museu Gœldi (Museu Paraense) de Hist. Nat. e Ethnogr., IV, 1904, pp. 198–208.

Count von Berlepsch and Dr. Hellmayr[1] relating in part to the same subject. These authors give the results of the examination of the types of many South American birds described by Reinhardt, Tschudi, Cabanis, and Pelzeln. Pelzeln's species here treated, ten in number, are nearly all left undetermined in Hagmann's 'Concordance,' but are here definitely assigned.—J. A. A.

Shufeldt on the Families and Higher Groups of Birds. —In a recent paper of 25 pages, published in the 'American Naturalist,'[2] Dr. Shufeldt presents his views respecting the arrangement of the higher groups of birds, from families to orders. His scheme of expressing the affinities of the groups, from families upward, is by means of five grades, as follows: orders, supersuborders, suborders, superfamilies and families. He does not admit the existence of subclasses among birds, and recognizes only two orders, Saururæ and Ornithuræ, which correspond to the subclasses of most other authors. As everybody knows, the class Aves is morphologically the most homogeneous of the vertebrate classes, and is necessarily so on account of its volant mode of life, which does not admit of the bizarre types of divergence seen among mammals, reptiles, and fishes. The fundamental plan of structure in the avian type is the special modification for aerial life, and this precludes a wide range of morphological variation. For this reason, according to the views of most systematists, the degrees of divergence that constitute orders are not to be measured by the same standards as in other classes of vertebrates, where a terrestrial or aquatic mode of life permits of wide modifications of the class type.

As already said, Dr. Shufeldt's 'orders' correspond to the subclasses of most modern systematists, while his 39 'supersuborders' correspond to orders. He has also 62 'suborders,' 17 'superfamilies,' and 176 'families.' There is nothing very novel in his arrangement of these various groups, although some of his allocations do not seem to be an improvement upon those previously made. If we translate his 'orders' as subclasses, and his 'supersuborders' as orders, his suborders, superfamilies and families have about the usual significance, and serve very well to indicate the relative rank of the groups thus indicated; except that the application of the terms supersuborder and suborder to precisely the same group adds nothing as an expression of its rank; as, for example, supersuborder Aptenodytiformes and suborder Impennes; supersuborder Procellariiformes and suborder Tubinares, and so on in a dozen other parallel cases. In other instances, as under Halcyonformes, where there are six suborders, the term has some significance and use.

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[1] Studien über wenig bekannte Typen neotropischer Vogel. Von Hans Graf von Berlepsch und C. E. Hellmayr. Journ. f. Orn., Januar-Heft, 1905, pp. 1–33.

[2] An Arrangement of the Families and Higher Groups of Birds. By R. W. Shufeldt. Amer. Nat., Vol. XXXVIII, Nov.–Dec., 1904, pp. 833–857, figs. 1–6.