

only suggestion that he can make is of a legend that the seven deadly sins complained to the Creator that he had been unfair in lavishing beauty on the Peafowl, whereupon he said that he had already given them more ornamentation than they should have had, and plucked out the yellow eye from Envy, the red eye from Murder, the green eye from Jealousy and placed them all on the plumage of the Peafowl and the sins have been following the bird ever since in an effort to regain their eyes.

From the geneticists' standpoint the discussion of the Black-throated Golden Pheasant and the Black-shouldered Peafowl, apparent sports which crop out in normal broods of the species, is of interest, as also the discussion of crosses between the Golden and Amherst Pheasants.

The work however, must be read by those who desire to appreciate fully the varied information which it contains and lack of space prevents us from making further comment. It only remains for us to congratulate the author, artists and publishers and all others who have been connected with this monumental work upon having brought the undertaking to a successful completion and having produced what will stand for all time as one of the most notable of ornithological works.—W. S.

Phillips' 'Natural History of the Ducks.' Just as Beebe's 'Monograph of the Pheasants' is completed the first volume of another illustrated monograph appears—'A Natural History of the Ducks'¹ by Dr. John C. Phillips. This is a large quarto but not so large as the Pheasant volumes, measuring 9 by 12 ins. as against 12 by 16 ins. It is beautifully printed on heavy paper and illustrated by full page plates by Fuertes, seven being in color and nine in black and white. There is also a plate of the downy young by Allan Brooks, a color plate 'The Duck Marsh' from a painting by F. W. Benson and outline maps to show the distribution of the species. These latter we think would have been more effective if the areas had been cross-lined or dotted instead of being surrounded by heavy lines. The plates are excellent and most of the poses of the birds admirable, although the artist in this volume is dealing for the most part with species with which he is unfamiliar in life. The alternation of colored and plain plates is of course always disturbing and most persons naturally find it difficult to judge the latter on their merits when contrasted with the brilliant colored plates, so that there will doubtless be criticism on this point. The present volume, one of four, covers the Plectropterinae or Spur-wing Ducks; the Dendrocygnae or Tree Ducks; and four genera of the Anatinae or True Ducks; including twelve genera and twenty-nine species. The treatment of the first group follows Salvadori's scheme (Brit. Mus. Cat. of Birds, Vol. XXVII) except that the several races of the Spur-

¹A Natural History of the Ducks | By | John C. Phillips | Associate Curator of Birds in the Museum | of Comparative Zoölogy at Harvard College | with Plates in Color and in Black and White | from Drawings by | Frank W. Benson, Allan Brooks | and | Louis Agassiz Fuertes | Volume I | Plectropterinae, Dendrocygnae, Anatinae (in part) | [vignette] | Boston and New York | Houghton Mifflin Company | The Riverside Press Cambridge | 1922 | pp. i-viii + 1-264, pl. 1-18, maps 1-27. Price \$50.00 per volume.

winged Goose there doubtfully maintained are united in one species while the genus *Aix* is transferred to the Anatinae and *Nettapus albipennis* Gould is united with *N. coromandelianus*.

The Tree Ducks of Salvadori's work are all recognized but some changes in nomenclature appear; *D. fulva* (name preoccupied) being *D. bicolor* and *D. guttata* (a manuscript name) becomes *D. guttulata*.

In the four genera of Anatinae; *Alopochen* is substituted for *Chenalopez* of Salvadori's work but that author is inadvertently followed in taking the specific name *aegyptiacus* from Brisson, whose specific names are not recognized as available in modern nomenclature. Under *Tadorna*, *T. tadorna* very properly takes the place of *T. cornuta*, and *T. ferruginea* of *T. rutila*, but otherwise the arrangement agrees with Salvadori's. The accounts of the species are very full and the matter conveniently arranged for ease of consultation. First comes the technical synonymy of original or important references only; then the vernacular names sometimes in as many as six or twelve languages. Following these is an adequate description of plumage of the adult, immature and downy young, the second a little ambiguous perhaps in view of the modern plumage nomenclature; then a discussion of the distribution of the species at great length covering all countries in which it occurs with references to authorities, a work that has involved much careful research. General Habits includes matter under the following headings some or all of which appear under each species: Haunts; Wariness; Daily Movements; Association; Flight; Voice; Diving; Perching; Food; Courtship and Nesting; Status of the Species (increasing or decreasing); Food Value; Hunt; Enemies; Damage; Behaviour in Captivity; Hybridization; History of Domestication.

The rather lengthy introduction is full of general information about Ducks presented under much the same headings as appear in the specific accounts. Here we find a brief discussion of the classification and relationship of the Ducks, a subject which the author very rightly says has but little right to a place in a work of this kind which is intended to deal with the life history of the species rather than the technicalities of the systematist. We can heartily endorse his stand on genera when he says: "Genera almost too numerous to mention have been suggested but the tendency now is to make almost all of the true surface feeding ducks congeneric" since the species are potentially fertile *inter se* and "present classification no matter what it is based on is largely a matter of convenience and subject to varying opinion." There is a full discussion of duck plumages and molts including the curious eclipse plumage peculiar to certain species of the group and an outline of migration of which the author states our knowledge is as yet very crude, with no understanding of the sense which keeps the bird oriented "lone wandering but not lost" as he quotes from Bryant. Dr. Philipps considers that in Ducks at least the question of sex, species and age must be taken into account in studying migration. The great difference in range of Ducks is emphasized by contrasting the

Laysan Teal occupying one small island with the Old Squaw which ranges over the entire holarctic region.

The extent of Duck shooting has been taken up in connection with legislation in recent years but many will be astonished at the figures presented in this work. In the State of Minnesota, for instance, in 1919, no less than 1,804,000 Ducks were killed and in 1920, 1,800,000. Dr. Phillips estimates that this meant eight or ten millions in the United States and while he admits that shortening the season and other restrictions have reduced this perhaps by half, in recent years, he considers that the increasing number of hunters licensed and the constant draining of marsh land have fully made up for this saving in further reducing the number of birds.

Dr. Phillips has produced a book of the greatest interest to sportsmen and bird students and one which will be our standard of reference for information of the Anatidae—or such as come under the head of Ducks, since the Geese and Swans are not to be considered. Its text is replete with solid information gleaned from personal knowledge and the vast scattered literature on this group of birds which has attracted the serious attention of mankind since the earliest historic time. Naturalists will look with interest for the succeeding volumes, the last of which is to contain a bibliography of the various publications which have been consulted.—W. S.

A Hand List of Japanese Birds.¹—This excellently printed work is issued in commemoration of the tenth anniversary of the founding of the Ornithological Society of Japan and has been prepared by four leading members of this organization, each being responsible for a definite section. Kuroda covers most of the water birds, the birds of prey and the gallinaceous birds; Matsudaira the Limicolae, Lari Alcae, and Columbæ; Takatsukasa, the "Picariæ" and Uchida the Passeres. This is a novel scheme and not without its advantages.

The entire work, with the exception of a few pages of introduction and a postscript, is in English, though a Japanese name for each species (in Roman characters) follows the Latin designation, with an English name below. The reference to the place of original publication and the type locality are given with often another synonym of importance, and the habitat, covering the Japanese islands together with Saghalin, Corea and Formosa. No less than 788 forms, including subspecies, are given.

In the non-passerine groups genera are lavishly used following the lead of Mathews and a few other extremists in this practice. In the Limicolae for instance, there are 50 genera for 65 species, and in the Laridae, 19 for 34, so that most of the genera contain but a single species and the binomial name, as a name, becomes useless. The absurdity of this misuse of the genus is rapidly being forced upon the attention of ornithologists in

¹ A Hand-List of the Japanese Birds. By N. Kuroda, Viscount Y. Matsudaira, Prince N. Taka-Tsukasa and S. Uchida. 1922. The Ornithological Society of Japan, pp. 184-184-2.