

hour, it has been calculated, were seen by Dr. G. O. Libby, in 1897, passing across the field of the telescope at the Washburn Observatory, during the whole period of observation. Telescopic observations seem to show that "by far the greater number do not attain an altitude much over one half mile from the earth's surface," and that former estimates of the altitudes at which birds migrate have been "far too high." As other observers have shown, many species are found in close association in migration, and also that the individuals may move singly, or in straggling bands, or in compact flocks.

As already intimated, the chief value of the present paper consists in the record of a considerable mass of new telescopic observations on the nocturnal flights of migrating birds.—J. A. A.

**North American Water-Fowl.**—Another bird volume of the 'American Sportsman's Library' series,<sup>1</sup> recently issued, treats of the 'Water-Fowl Family.'<sup>2</sup> It forms a volume of about 600 pages, under the joint authorship of L. C. Sanford, Dr. L. B. Bishop, and T. S. Van Dyke, with numerous illustrations by Fuertes, Bull, Frost, and others, the greater part of the bird illustrations being by Fuertes. The first fourteen chapters (pp. 1-502), devoted to 'Duck-shooting,' 'Goose-shooting,' 'The Swans,' 'Rail-shooting,' and 'Shore-bird Shooting,' are by Mr. Sandford, while the three chapters (pp. 503-564) treating of 'The Water-Fowl of the Pacific Coast,' are by Mr. Van Dyke. Then follows 'Diagnoses of Families and Genera' (pp. 565-579), by Dr. Bishop, and a very full and satisfactory index. Mr. Sanford has had a wide experience in the pursuit of North American 'Wild-Fowl,' and writes from an intimate personal acquaintance with the birds whose habits he so well describes. Some sixty pages are first given to the general subject of Duck-shooting, describing the different methods prevailing at various localities and under diverse conditions, including some remarks on 'The Decrease of Wild-Fowl' (pp. 63-70); then the Ducks are taken up in systematic sequence, species by species, followed by a similar treatment of the Geese, Rails, and Shore-Birds. All of the species and subspecies enumerate as North American in the A. O. U. Check-List, the waifs and strays from other countries, are included. Under each species is first given, in small type, a very full description of the birds, including sexual and seasonal variations of the plumage, in most cases including the downy young, and the eggs

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<sup>1</sup> For a notice of the 'Upland Game Birds' see *Auk*, XIX, 1902, p. 306.

<sup>2</sup> The Water-Fowl | Family | By | L. C. Sanford | L. B. Bishop | and T. S. Van Dyke | New York | The Macmillan Company | London: Macmillan and Co., Ltd. | 1903 | All rights reserved—Crown 8vo, pp. ix + 598, 1 photograph and 19 half-tone plates from drawings by L. A. Fuertes, A. B. Frost and C. L. Bull. American Sportsman's Library Series, edited by Caspar Whitney.

There is also a very full statement of the geographical distribution, prepared especially for use in the present connection by Dr. Bishop, who has contributed the general matter relating to the River Ducks, Sea Ducks, Mergansers, Geese, Swans, the Rail Family, etc., and the notices of the extra-limital species, and some other matter. 'The Water-Fowl Family' is thus a book for sportsmen which may be looked upon as technically correct in all matters of scientific detail, while the biographies of the species are satisfactorily full, and the details especially of interest to the sportsman are not omitted. The attention of ornithologists is directed to this book as containing much matter of permanent value from the standpoint of the naturalist, and especially to Dr. Bishop's carefully prepared summaries of the 'habitats' of the species, which give both the breeding and winter ranges, so far as they are at present known. There is also a note by Dr. Bishop (p. 365) on the intergradation of *Tringa couesi* and *T. pitilocnemis*, and apparently the first descriptions of the downy young of several species of the Ducks and Shore-birds.—J. A. A.

**The 'New' Edition of Nuttall.**—Two previous editions of the 'New Nuttall' have appeared during the last twelve years, the first in 1891, reviewed at length and somewhat severely in Volume IX of 'The Auk' (pp. 59-61), and the second in 1896, noticed in 'The Auk' for January, 1897 (XIV, p. 109). The present (third) edition<sup>1</sup> is a reprint from the electrotype plates of the second edition, with the omission of Mr. Chamberlain's preface, and a reversion to the misleading titlepage of the first edition of the 'New Nuttall.' What we have is not 'A Popular Handbook of the Birds of the United States and Canada,' but, as properly expressed in the title of the second edition, 'A Popular Handbook of the Ornithology of Eastern North America.' Why the publishers should revert to Nuttall's original title when the little of Nuttall's original work that related to "species which occur only to the westward of the Mississippi valley" has been omitted (see preface to first edition), is a question they will doubtless be frequently called upon to answer by unsuspecting purchasers of 'A Popular Handbook of the Birds of the United States and Canada.'

The present edition is printed on thin paper, thus bringing it within convenient compass for binding as a single volume; and the price being reduced from \$7.50 to \$3.00 will doubtless render the work available to a

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<sup>1</sup> A Popular Handbook | of the | Birds of the United States | and Canada |  
By Thomas Nuttall | New Revised and Annotated Edition | By Montague  
Chamberlain | With Additions, and One Hundred and Ten | Illustrations in  
Color | Boston | Little, Brown, and Company | 1903 — Crown 8vo, two vol-  
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+ 473; Part II, Game and Water Birds, pp. ix + 431; pll. col. i—xx, and 172  
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