

ORNITHOLOGICAL LITERATURE

BIRDS OF THE WORLD: THEIR LIFE AND HABITS. By Paul Barruel. Oxford University Press, 1955: $8\frac{3}{4} \times 11$ in., 204 pp., 16 col. pls. [included in pagination], and many photographs and drawings. \$12.50.

This splendidly illustrated volume has been translated from the French edition by the well-known English ornithologist, Phyllis Barclay-Smith. In spite of its title, the book is by no means a "Birds of the World" in the sense of Knowlton or Makatsch, for example. Indeed the prospective reader would have been more correctly informed if the publishers had retained the title of the French edition, "The Life and Habits of Birds."

The text is interestingly written and amazingly accurate, considering its world-wide scope; one regrets that there are only about 75 pages of it. Doubtless the several small misprints will be eliminated from the next edition.

Four of the sixteen color plates are from photographs; the rest are from paintings by the talented author of the book. While bold and almost diagrammatic in treatment, the paintings are very effective and add much to the book's attractiveness; three that appeared in the French edition have been replaced by others which, if rather less artistic, do certainly convey much more ornithological information. Unfortunately the publishers have grouped all of the legends for the color plates in the back of the book, where only the more persistent and industrious reader will find them.

The photographic illustrations, contributed by some of the most distinguished photographers of England, the Continent, and America, are not only superb photographs and well reproduced but each illustrates a point the author has made in his account of the biology of birds. The value of the photographs would be increased if they were accompanied by data and if they were listed for easier reference.

Only about half of the species mentioned in the color-plate legends are identified by scientific name. Even the index contains no scientific equivalents, though such vernacular names as "Gray Jumper" and "Desert Trumpeter Bullfinch" will overtax the resources of most readers.

This very interesting and attractive volume can be recommended wholeheartedly to layman and ornithologist alike.—JOSSELYN VAN TYNE.

FINDING BIRDS IN MEXICO. By Ernest Preston Edwards. Amherst Publishing Co., Amherst, Va., 1955: $6 \times 8\frac{3}{4}$ in., xix + 101 pp., 7 sketch-maps and 7 black-and-white plates (2 by Frederick K. Hilton, 5 by the author). Obtainable from E. P. Edwards and Co., Box 611, Amherst, Va. \$1.90.

No bird student contemplating a trip to México should be without this practical, paper-bound guide, which affords both the novice and the initiated a goodly amount of useful information.

The introduction contains numerous suggestions of a general character, notes on climate, vegetation and topography, and a sketch-map showing México divided into six rather distinct regions: highlands, Atlantic lowlands, Pacific lowlands, Chiapas, Yucatán peninsula, and Baja California.

Each region has been given its own chapter which uniformly includes the following: 1.) a map showing the extent of paved highways and the location of selected bird-finding localities along them; 2.) a general definition of the region with a brief indication

of its vegetational and topographical characteristics; 3.) the names of from 30 to 72 of the region's most common birds, arranged according to their preferred habitats; 4.) a list of bird-finding localities.

There are 56 of the last-named, and, though well distributed throughout the Republic, they have evidently been chosen primarily for accessibility and for having satisfactory accommodations, many of which are specified. Dr. Edwards has visited all but one of the 56 localities he discusses, and for most of them he lists at least a few species actually encountered. In many cases he provides adequate directions for finding these birds. It may be disappointing to the reader, however, that certain common North American birds are mentioned so frequently, while some of the more sought-after exotic specialties are not included. For example, a somewhat hasty count shows the widespread Boat-tailed Grackle and Black Vulture cited 26 and 19 times, respectively. By contrast, not a single locality is given for any member of the following notable families: Boat-billed Herons (Cochlearidae), Sun-grebes (Heliornithidae), Thick-knees (Burhinidae), Potoos (Nyctibiidae), Jacamars (Galbulidae), Puffbirds (Bucconidae), Antbirds (Formicariidae), and Manakins (Pipridae). Obviously, when dealing with an avifauna as large and imperfectly known as México's, a book of this type cannot be expected to be complete. It is to be hoped, however, that a later edition will fill in some of the more important omissions.

Following the six regional chapters the author presents outlines of eight "sample bird-finding tours" set up for from two to 25 days, next a list of about 20 possible camp sites, and then a brief habitat directory.

Of considerable value is an apparently complete list of up-to-date scientific and common names of all bird species known from México (except extinct species and accidentals not recorded from that country during the last 30 years). Here, as elsewhere throughout the book, common names are printed in lower case letters for birds shared by México and the United States, while capital letters set off species not found north of México. In addition, symbols have been employed roughly indicating in what part(s) of México each species breeds; the absence of symbols indicates transient status. Naturally in a compilation of this kind there are a number of minor inaccuracies. For example, since the hummingbirds *Campylopterus hemileucurus* and *Amazilia beryllina* both breed regularly in the Atlantic lowlands, as defined by Edwards, they should be accorded symbol A (page 79). Many of the letters in the scientific names in this chapter are slightly out of line, but otherwise the printing is satisfactory.

Seven adequate plates depicting about 80 species should prove of real help in the field identification of such difficult groups as the Mexican trogons, swifts, motmots, woodpeckers, woodcreepers (Dendrocolaptidae), and certain hawks.

A directory of paved portions of national highways, a glossary of the native names of about 50 Mexican birds, and an index to localities (unfortunately not to birds also) complete this commendable little book.—FREDERICK W. LOETSCHER, JR.

THE PASSENGER PIGEON: ITS NATURAL HISTORY AND EXTINCTION. By A. W. Schorger. University of Wisconsin Press, Madison. 6×9¼ in., xiii+424 pages; 5 tables; 22 figures. 1955. \$7.50.

Every worthy subject eventually find biographers. In the fullness of time someone, with wider perspective and more exacting scholarship, writes the "Definitive" history, so recognized by contemporaries and later generations. It seems safe to predict that Dr. Schorger has performed this service for the Passenger Pigeon (*Ectopistes migratorius*).

Because forty years have passed since the last known Passenger Pigeon died, the raw data on which the historian must depend are at hand. Unless isotope chemistry or some other scientific magic unlocks wholly unsuspected doors, the lines of inquiry have been explored, and the returns are in. Those who have even seen a live wild pigeon must call on sixty-year memories. The Passenger Pigeon was, and was not, for God, with a mighty assist from humankind, took it.

No one who reads Dr. Schorger's book will long fail to realize that he is entering an ornithological world which, by any of this generation's standards, is fantastic. In numbers, in food consumed, in power of flight, in habits and extent of nesting, even in the species' biological wastefulness, here is a unique creature with which we can find nothing to compare. In most past human experiences we can trace at least a thread into the present; with the death of the wild pigeon the thread was broken.

Take, for example, the matter of numbers. Alexander Wilson estimated a flock that he saw at 2,230,272,000 pigeons. Audubon cut this number in half as his estimate of a flock which he experienced. Presumably, these were as well-trained observers as we had early in the Nineteenth Century. Discount the figures by any percentage you please, it's still a lot of birds. Or put it another way. Roger Tory Peterson, in one of his books, estimates the breeding bird population of the United States at around six billion individuals. Schorger offers the guess that Passenger Pigeons numbered three billion, and may have reached five billion. He concludes, "It is possible that at one time this pigeon formed 25 to 40 per cent of the total bird population of the United States."

Consider the amounts of food consumed. Audubon's 50 per cent reduction of Wilson's figures still allowed him to conclude that his flock would require 8,712,000 bushels of mast, mostly acorns and beechnuts, per day. Since wild pigeons ate a wide variety of foods, and since domestic grain and garden crops were favorite items, it is no wonder that on more than one occasion the Jesuit fathers in Canada pronounced solemn excommunication upon pigeon-kind.

A business grew up in the extraction of fat from squabs. Barrels of this oil were shipped down the Susquehanna River, to be used for cooking or soap-stock. So cheap and abundant were carcasses of squabs and adult pigeons around the nesting grounds that shippers could take 60 per cent losses and still have a profitable business. Thousands of live pigeons were used as targets in the rapidly-developing pastime of trap-shooting. Ornithologists today will smile wryly when they read that in 1872 Ruthven Deane was one of two persons who purchased 200 birds for a shoot, and that one of the contestants was William Brewster.

This volume contains much information which is not, I believe, known to most bird students. Let me cite an example. When I was a small boy I remember my father's receiving a letter from a mountain hunter in which the writer was positive that he had seen a flock of about twenty "wild pigeons" (this would have been around 1909). The "cracker" or punch-line was properly reserved for the last: he concluded that one reason he thought they might not be wild pigeons was that they all flew down and alighted on Elk River. I have told this story many times, and no hearer has told me that the writer was within the bounds of possibility. On page 24 of Dr. Schorger's book I learn that Passenger Pigeons regularly alighted on bodies of water.

For the data which he presents, Schorger consulted something like 10,000 published titles. This sort of bibliography must place the Passenger Pigeon on a numerical footing with George Washington, Benjamin Franklin, or Theodore Roosevelt — almost in the class of Lincoln, Napoleon Bonaparte, and Hamlet.

After a consideration of all the fanciful explanations advanced to account for the disappearance of the Passenger Pigeon, Dr. Schorger dismisses each one until there remains this simple, stark conclusion. Sometime during the late years of the past century, human beings began killing the birds at such a rate as to make annual losses exceed annual replacements. From that moment the species was doomed. There were, of course, losses from other causes. The biologic "rigidity" of the species, its inability to adapt itself to new situations and surroundings, contributed to the final disaster. But the first cause of this loss was human greed.

Perhaps the long view of history will one day see the death of the Passenger Pigeon as a turning point—a hinge on which swung the conservation of our renewable resources. The disappearance of wild pigeon flocks and buffalo herds in one generation proved that no such things as "inexhaustible" resources exist. There can be little doubt that some species are living today because the pigeons died.

This tale of the wild pigeons is a part of the American epic. Dr. Schorger has gathered and preserved for us a portion of our heritage. As we, in wonder, read his pages, we may perhaps hear again "the rustle of their wings."—MAURICE BROOKS.

BIRDS OF WASHINGTON STATE. By Stanley G. Jewett, Walter P. Taylor, William T. Shaw, and John W. Aldrich. University of Washington Press, published in cooperation with the U.S. Department of the Interior, Fish and Wildlife Service, 1953: 9½ × 7 in., i-xxxii+1-767 pp., 12 color plates, 99 photographs, 51 maps in text, 1 pocket map, cloth cover. \$8.00.

Ornithologists of all levels of attainment will welcome the appearance of this treatise on the birds of one of the more fascinating and varied parts of the west. Forty-four years have elapsed since the publication of "Birds of Washington" by Dawson and Bowles. In this interval far-reaching changes have taken place in the state of Washington and in our knowledge of the birds of the Pacific northwest.

It would be difficult to find men better acquainted with the fauna of the northwest than Stanley Jewett, Walter Taylor, and William Shaw. The manuscript in its original form was written by Taylor; much was contributed to this version by William Shaw. Jewett has revised the text and added recent records, while Aldrich is responsible for the nomenclature, the checking of distributional records, and bibliography.

The first section of the book is a systematic classification of the birds of Washington, a listing of the species and subspecies under orders and families. The introduction includes well-illustrated sections on topography of the state and life-zones. The discussions of life-zones include lists of characteristic plants, birds and mammals. A history of ornithology in the state begins with Lewis and Clark and mentions many contemporary workers. Shorter sections deal with birds and reclamation, conservation of birds, national wildlife refuges in Washington, and introduced exotic birds. The species accounts take up the greater part of the book, and are followed by a hypothetical list, a gazetteer, and a bibliography.

The accounts of species are headed by common and scientific names together with a list of "other names" which mentions common names in local use. In small type are sections on status in Washington, description of male, female, young, and downy young (where applicable), nest and eggs, and a summary of the distribution of the species in the state. Following this is an extensive section on natural history. These are on the whole informative and well written and contain comments on nesting, migration, feeding, abundance, and range changes. Much of this material is seemingly based

upon the observations of Taylor and Shaw made in the first quarter of the present century. References to observations made by "our party" and "we" presumably are to be attributed to these workers. In other cases statements are backed by literature citations, by reference to individuals who have contributed to the work, or are undocumented.

The reviewer objects to the use of subspecific common names. This practice has been followed throughout the book. The bibliography contains one entry as late as 1952; the great majority are from the 1920's or earlier. The fact that few of the non-taxonomic citations in the text date from later than the 1920's leads one to wonder if the more recent literature were examined as closely as it might have been. The illustrative material is, on the whole, excellent, but the cover jacket drawings are poor and add little to the attractiveness of the book.

Washington is a critical area for the study of the relationships of closely-related Rocky Mountain and coastal species. Knowledge of these relationships is essential to the solution of many problems of Pleistocene range changes and speciation. It is therefore somewhat disappointing to find that more detailed systematic comments on such species as the Blue Grouse (*Dendragapus obscurus*) and the Canada Jay (*Perisoreus canadensis*) were not included.

The above criticisms are of a minor nature. "Birds of Washington State" contains a vast amount of information well organized and presented. It represents a firm ground-work upon which northwestern naturalists may build. The authors are to be commended for producing this major contribution to western ornithological literature.—JAMES S. FINDLEY.