

ORNITHOLOGICAL LITERATURE

WATER, PREY, AND GAME BIRDS OF NORTH AMERICA. By Alexander Wetmore and other eminent ornithologists. National Geographic Society, Washington, D.C., 1965: 7 × 10¼ in., 464 pp., 643 illus. (600 in color), 6 phono. records in back-cover pocket, 6¼ in., 33⅓ rpm, 2 sides. \$11.95.

Whether we have few or many bird books, most of us want in our collection at least one popular work that treats *all* the birds from coast to coast and shows a recognizable picture of each in color. If buying such a work today, we may well choose this volume and its 1964 companion, "Song and Garden Birds of North America" (the two in cloth box for \$25.00). The only approximate alternative is T. Gilbert Pearson's "Birds of America" (presently \$8.95), which is still widely sold in bookstores although it was first published almost 50 years ago and betrays its vintage in both text and illustration.

This new book treats 329 species from the loons through the swifts in the AOU Checklist. (It was obviously a challenge to find a title to embrace such diverse groups, including the cuckoos, goatsuckers, and swifts, which are not by any stretch of the imagination water, prey, or game birds.) The illustrations, the majority of them color photographs and some of them truly spectacular, have been rounded up from many sources. The principal photographers, Frederick Kent Truslow, Arthur A. Allen, Eliot Porter, G. Ronald Austing, and Karl W. Kenyon, and the painters, Walter A. Weber and Allan Brooks, are men of established reputations, but many photographs were gathered also from comparatively unknown people. The fact that the paintings by Brooks were used earlier, with different arrangements and plates, in the National Geographic Society's long-out-of-print "Book of Birds" (2 vols., 1932 to 1939), does not detract from their value here, in my opinion.

The printing, the paper, and the binding are excellent. No effort was spared to produce a book that will be an attractive item on your library shelf for many years. If the two volumes had been bound as one, the resulting book would have been too heavy for convenient handling.

Next after the pictures among the attractions of this book, I believe, are the phonograph records by Peter Paul Kellogg of the Cornell Laboratory of Ornithology. These are six small vinyl disks (12 sides) presenting the voices of 97 species of birds. The sound quality is excellent. The records are played by placing on the turntable the entire booklet opened to the desired page. By ingenious use of the transparency of the disks, the needle can be placed directly at the song wanted, without playing the whole record to find it. Each side, presenting about eight voices, plays a little over 5 minutes. The system works well except that, if the tone arm is not positioned accurately at the start, it may slide off the disk and cause the square corners of the booklet to hit the stylus alarmingly.

Each chapter in the book, with a few exceptions, is devoted to one family of birds. There is a general account of the family, often by a recognized authority, and then some comments about each species. The signed accounts are mostly short, narrative, and personal. The statements about the species are necessarily brief, ranging from less than 100 to more than 700 words (typically 200 to 300), concluding with a short paragraph on the range and "characteristics" (field marks). Three chapters scattered through the book are of a different kind, treating broadly the history of birds, migration, and conservation. The opening chapter by Wetmore on the development of birds through the ages is of particular interest. Other authors writing in the fields of their special competence are John W. Aldrich, Robert Porter Allen, Dean Amadon, Frank C. Craighead, Jr.,

John J. Craighead, Philip S. Humphrey, George H. Lowery, Jr., Robert M. McClung, Alden H. Miller, Robert Cushman Murphy, Robert J. Newman, Roger Tory Peterson, Olin Sewall Pettingill, Jr., Austin L. Rand, S. Dillon Ripley, Alexander Sprunt, Jr., George Miksch Sutton, Frederick Kent Truslow, and Paul A. Zahl.

In regarding this work primarily as a "picture book," perhaps inevitably I place the text in a secondary position among its attractions. Could any words compete with such bright colors? Should we expect the text to be more than a mere appendage to the illustrations? Yet I believe the "National Geographic formula" tends further to downgrade the word content in the eyes of ornithologists.

Although the stated authors of portions are prestigious, the reader senses a pattern of treatment (chatty, anecdotal, and sometimes inconsequential) that bespeaks an anonymous staff writer (or perhaps an army of them) that does not know birds but uses a practiced method for popularizing subjects of all kinds. Even in the signed portions, one suspects that the distinguished authors served more importantly to assure factual accuracy than to determine the content and style. The dominant role of anonymous staff authors is suggested further by the circumstance that the writers are not identified in 23 of the 50 chapters and all of the species accounts.

The account of the Common Goldeneye, for example, begins, "A March snowstorm drops a blanket of white across a New England estuary. Ice cakes litter the surface, but the bleak setting fails to dampen the fervid courting by goldeneye drakes." The point of this leisurely flight of rhetoric, I think, is that goldeneyes court in early spring. I would not object to it in a lengthy treatment of the species or in a nature-is-beautiful essay. But I wonder what was in the author's mind who devoted a tenth of the species account to a fact that is unremarkable and in no sense unique to the goldeneye. Presumably he believes that his imagery is more interesting than anything informative that could be said about the bird. The person searching this book for information will find such passages frothy.

Again, the matter of authorship will not worry the majority of the 300,000 buyers of the first printing of this book, but it will perplex ornithologists. When one opens the book, he is likely to assume at first glance that the distinguished Alexander Wetmore is the principal author, and I suspect that bibliographers and librarians will so list it. Yet, a turn of the page raises a question about how much this means. Two of 50 chapters were signed by Wetmore (one of these an edited version of a chapter on owls he wrote in the thirties for the "Book of Birds"); and therefore, presumably, the unsigned portions were not his work. Next we notice that his name does not appear on the spine of the book. Thus alerted (and puzzled), we eye other parts more critically. Immediately our attention is arrested at the table of contents by a mislabeled owl that Wetmore, not even in an inattentive moment, would have called a Great Horned Owl. A few other pictures cause us to wrinkle our brows. The long-dead mammal in the talons of the Golden Eagle (p. 27) takes some of the drama from what otherwise might have been a view of this magnificent bird at the moment of kill. The frayed tail of the Swainson's Hawk (p. 230) suggests a caged bird, and the eyes of the Spotted Owl (p. 443) are not those of a bird in health. The Golden Plover (p. 323) seems to be the European species, *Pluvialis apricaria*.

The vague handling of authorship leads to some other minor annoyances. The table of contents lists the subjects of chapters but not the authors, whose names are among the book's genuine attractions in many instances. "The author" in a picture caption on page 36 means Wetmore and on page 211 seems to mean Miller.

In spite of my criticisms, I want to emphasize that this book is attractive and, except

for a few slips, accurate. These are strong virtues. The book deserves a wide popular audience, and I hope this audience will not be severely reduced because the volume is obtainable only from the publisher and not through bookstores. The issuance of a work of this scope is a major event in ornithology, for it is books like this that foster the interest from which scientists grow.—HAROLD MAYFIELD.

TOP FLIGHT: SPEED INDEX TO WATERFOWL OF NORTH AMERICA. By John A. Ruthven and William Zimmerman. Moebius Printing Company, Milwaukee, Wisconsin, 1965: $4\frac{1}{2} \times 11\frac{1}{4}$ in., 112 pp., 260 col. illus. \$6.95.

"Top Flight" is an interesting new approach to a sort of "Slim Jim" (dimensions, $4\frac{1}{2}$ by $11\frac{1}{4}$ inches), pocket-adapted field guide. Its slender format with plastic-coated board binding adapts it rather well to deep hunting coat pockets. The illustrating of molting birds as encountered by the hunters in fall as well as the spring nesting plumages is an excellent idea. The simplified classification of the waterfowl by marginal color bars on the pages, as ready reference to the colors of the birds, suggests that here is a simple and easy solution to a difficult identification problem. However, I do not feel that the problems of waterfowl recognition can be pigeonholed in quite such an easy fashion. The colors, especially of females and various molting plumages of male ducks, are too near the border line of gray and brown to be readily called one or the other. I feel this simplified keying of color will break down completely when one attempts to use such criteria for grouping unknown birds.

In my field experiences I have found that many species identifications depend on differentiating very faint and indistinct characters. After one becomes thoroughly acquainted with the degree of variation in both color and form that exists in certain characters, and not until then, can one be reasonably sure of whether a duck's neck is longer and more slender or shorter and thicker than another. To the uninitiated, these descriptive terms mean little until he knows within what limits these descriptions apply. Because of this necessity for making fine distinctions, it follows that these fine distinctions must appear in any illustrations that are to be of value in pointing them out. For instance, the winter plumages of the Horned and Eared Grebes are actually so similar as to be difficult to distinguish, yet the gray-and-white Horned Grebe on page 30 is vastly different from the brown Eared Grebe on page 32, at least in the copy of the book I examined. Likewise, the Gadwalls swimming, page 96, are far darker birds than the same birds in flight, page 97, and the gray Black Brant, page 64, differs markedly from the brown bird in flight, page 65. These errors may well be not the artists' fault but the color reproducer's. Other color errors appear, such as the Pintail and merganser heads, pages 82 and 83, are far too reddish.

The proportions of several figures seem incorrect. The artists did not make careful enough measurements of the heads and bills as compared with the tails, the feet, or the wings in several plates. The Ruddy's head on page 62, for instance, is too large, while among others the head of the flying Green-winged Teal on page 25 and that of the swan on page 107 are too small. The necks of the swan and goose in the silhouettes on page 9 would be found to be longer if photographs were carefully measured. Furthermore, the attitude of the merganser does not show the tendency for the bill to be carried above the horizontal. The loon in flight, page 9, also lacks the upcurved neck characteristic of that species while the swimming loon's bill, page 64, is far too thin.

The highly abbreviated text contains many relatively meaningless words. On page 83, "a flock of Pintails, with their pointed wings and tails and their long, forward-poised,

white necks, form a beautiful and distinctive pattern." The words "flight pattern" are used repeatedly, apparently referring to the flock formation whereas it usually would be understood to mean the color pattern of the wings in flight. Descriptions of "voice" are mostly of doubtful value—e.g., "strange clucking sounds" (p. 58)! The newly coined word "featheration" is a bit startling but perhaps is well chosen.

I realize that, from a sales standpoint, a so-called "easy method" of waterfowl recognition may sell a lot of books, and it is true that future waterfowl management is going to require much more sophisticated knowledge of field recognition of species on the part of hunters. My reaction to this book is that it follows a modern trend to seek ways and means of avoiding hard work and long study in mastering difficult problems. Instead of admitting that to tell a female Blue-winged Teal from a female Cinammon Teal is next to impossible and that many a female Gadwall has been field-identified as a female Pintail or Mallard, I'm afraid these authors have tried not too successfully to point out that this is really fairly simple if one just observes certain obvious characters.—
W. J. BRECKENRIDGE.

BIRDS OF THE NIAGARA FRONTIER REGION. AN ANNOTATED CHECK-LIST. By Clark S. Beardslee and Harold D. Mitchell. Bulletin of the Buffalo Society of Natural Sciences, Vol. 22, Buffalo, New York, 1965: 6½ × 9¾ in., xix + 478 pp., 38 bl. and wh. photos, 1 map. \$9.00 paper; \$10.00 boards.

In 1930, two indefatigable compilers of records for the Buffalo Ornithological Society set out to gather the data for a checklist of the birds of the Niagara Frontier, and this excellent volume is the result. The senior author, Clark Beardslee, died in 1957, and Harold Mitchell carried the work to completion. The territory covered includes all of western New York west of the vicinity of the Genesee River Valley and much of the Niagara Peninsula of Ontario. A two-color altitudinal map depicts the exact boundaries of this diversified study area.

Introductory chapters include an ornithological history of the region, the observers, previous works, and a discussion of the faunal zones. Were I a resident or a prospective visitor, I would find much useful information in the 33 pages devoted to "Territorial Localities of Special Ornithological Interest." The 109 localities described are keyed by number to the regional map mentioned above.

A section entitled "Seasonal Status" places the birds in 12 arbitrary and of course debatable categories—permanent residents, introduced permanent residents, summer residents, summer visitants, winter visitants, transient visitants, introduced rare transient visitants, rare and very rare visitants, casual and sporadic visitants, accidental visitants, hypothetical, and extinct or extirpated. There is an interesting month-by-month chronology of weather and regularly expected occurrences.

A chapter, "The Authenticity of Records," gives the authors' criteria for the acceptance of records. They say that their "sole criterion has been the question of certainty." I cannot feel as certain as the authors are about some of them, but this is only natural when specimens are not involved. Chapters on "Nomenclature and Classification" and "Dates" describe the treatment of these subjects in the annotated list which follows and comprises the bulk of the work. There is an excellent and thorough bibliography, an appendix of questionable value, and an index of scientific and vernacular names.

In a book which is primarily based upon field observations, I dislike the use of trinomials in the annotated accounts. The authors explain (p. 71) that "where locally taken specimens are not available to us, we have assigned the birds—to those subspecies

which, according to the ranges given in the 'A.O.U. Check-list,' Fifth Edition, are most apt to occur here." I would much prefer binomials with additional remarks under those headings when subspecies are deemed worthy of comment. There are at least a dozen species listed under one trinomial which I feel sure are represented at one time or another in this area by one or more additional subspecies.

The treatment of hypotheticals is always a thorny problem. It is especially one in a work such as this where so many data are based upon sight records. The Razorbill appears in the list of hypotheticals (p. 57), but is the only bird in that list which doesn't appear in the main text. When such a highly improbable occurrence as a Golden-cheeked Warbler is dignified with even a listing in the hypothetical category, it makes one wonder if any other "far out" observations have made their way into these pages in the attempt to be certain that nothing in the literature has been excluded.

The book is remarkably free of typographical errors, and the proofreaders are to be highly congratulated. I found a few errors in scientific and vernacular names: *Plegadis* (p. 104) should be *Plegadis*, Hawk-Owl (p. 280) should be Hawk Owl, *garrula* (p. 351) should be *garrulus*, *brachydactylus* (p. 391) should be *brachidactylus*, and Gmelin (p. 428) should be enclosed in parentheses.

Every ornithologist in the Niagara Frontier Region will welcome this work and find it most useful in his field studies.—PHILLIPS B. STREET.

A COMPARATIVE STUDY OF SOME SOCIAL COMMUNICATION PATTERNS IN THE PELECANIFORMES. By G. F. van Tets. American Ornithologists' Union, Ornithological Monographs No. 2, 1965: 88 pp., 49 figs. \$2.00 (\$1.60 to members of the AOU).

Slightly more than half of this work is devoted to a descriptive cataloguing of visual and vocal communication signals in a wide variety of pelecaniform species. The author personally observed and photographed 14 of these: Pelecanidae, 4 species; Sulidae, 2 species; Anhingidae, 1 species; Phalacrocoracidae, 6 species; and Fregatidae, 1 species. Pertinent information on 40 additional species has been gleaned from the literature, and the various terminologies employed by others to describe displays have been listed and equated to those used by van Tets.

Displays are treated in four categories: (1) locomotion and its derivatives; (2) fighting and its derivatives; (3) nest-building and its derivatives; and (4) begging and its derivatives. Comparative descriptions of each display are given for each species in which it is known, and quantitative measures of display duration and frequency and of tail angle are provided for those displays recorded on film. Associated vocalizations are presented but lack quantification because field recording equipment was not available. The possible origins and functions of displays are discussed, with the author's full acknowledgment that any attempt to understand the motivation of these displays is premature. Finally, the organization of displays in behavioral sequences is included in tabular form but unfortunately without statistical analysis or discussion.

In general, it is not possible to judge the accuracy of van Tets' descriptions, but his accounts of the Red-footed Booby (*Sula sula*) are, with a single exception, in complete agreement with my admittedly superficial experience with the behavior of this species. On page 23, van Tets writes that "*Sula sula* are silent during the post-landing display." While I may misinterpret van Tets' delimitation of the post-landing display, certainly one of the most prominent vocal signals of the Red-footed Booby is a raucous call repeated many times, beginning shortly before landing and usually continuing for a few seconds after. So common is this call that a colony is rarely quiet during the daytime.

The presumed relationships of displays in different species have been employed to erect phylogenetic trees of the various basic body movements and their derivative displays. In most instances these are based entirely upon speculation and are thus of questionable value. More to the point, however, is a comparative analysis of display types as they relate to current phylogenetic considerations of the Pelecaniformes. The conclusion is reached that behavioral data support the phylogeny of Lanham (1947. *Auk*, 64:65-70), particularly in relating the Sulidae more closely to Anhingidae and Phalacrocoracidae than to Pelecanidae and in maintaining the Anhingidae as a family separate from Phalacrocoracidae. Both of these points differ from those of Sibley (1960. *Ibis*, 102:215-284).

While the speculative aspects of van Tets' paper are the most interesting, limitations in our understanding of the evolution and motivation of visual signals preclude definite conclusions. Certainly the most significant contribution of this paper lies in its detailed descriptions of a multiplicity of displays.—JARED VERNER.

THE GOLDEN EAGLE. By Robert Murphy. E. P. Dutton & Co., Inc., New York, 1965: 5½ × 8¼ in., 157 pp., 10 figs. \$3.95.

This book is not an account of the Golden Eagle, but an imaginative story of the vicissitudes of an eaglet, from its precipitous flight from the nest to avoid capture by a falconer, through many harrowing adventures (The "father" is shot by a rifleman; a companion eagle is shot from the air by a hunter-pilot.) until she herself dies, still only months old, after eating from a poisoned carcass set out by a sheep rancher as bait for coyotes. The general pattern of the story is much like the author's previous book devoted to a young Peregrine Falcon, in which a lively, entertaining, and always sympathetic picture is given of the surroundings and life of a bird of prey.

At a time when man's exploding population, coupled with an ingenious but misguided technocracy, increasingly threatens the very existence of his fellow vertebrates, hope for some protection to threatened animals comes more from education and esthetic appreciation than from legal restraints. Books such as this, aimed at younger readers, result in gaining more effective protection for the Golden Eagle than do reams of reports of scholarly investigations of food habits and behavior of eagles.

The author takes free license in giving human thoughts and traits to his eagle subject, but these are easily overlooked in the story which deals intimately and colorfully with mountain ranges and mountain birds and mammals of central Colorado. For the sake of accuracy, however, it may be noted that Mr. Murphy's eagles appear to resemble and behave more like the large falcons with which the author has had experience as a falconer, than like eagles. Thus his eagles "scream" in alarm as a falconer ropes into the nest, and the air is frequently filled with the roar of wings in headlong stoops.

On the contrary, Golden Eagles are quiet and retiring in the presence of man, usually disappearing soundlessly well before the observer appears. I have never heard eagles screaming in alarm, or for that matter emitting any call that I think could really be called a scream. The yelping call ("kiah-kiah-kiah" of Bendire, 1892. "Life Histories of North American Birds") is usually given in the presence of another eagle. Again, eagles do make spectacular tumbles and cartwheels in display or perhaps in sheer exuberance, but during hunting, long plunging stoops are far from the normal pattern of the eagle which, instead, spends hours coursing and contouring only yards above his anticipated prey. Again, the list of kills of the young eaglet within a few weeks of leaving the nest include a coyote, doe deer, and a young bobcat, as well as ducks and a Canada Goose

taken in full flight. This makes for exciting reading, and if this were the true picture of the hunting of eagles there might be more grounds to support the contention of some sportsmen and sheep ranchers that eagles threaten their sport and livelihood. I believe Mr. Murphy has been misled by the published accounts of spectacular kills in which the eagle must do exhausting battle for his dinner. These are, of course, more newsworthy than the regular daily fare of rabbits, ground squirrels, and marmots. Eagles take a large prey only when pressed by severe hunger, and an eagle that eats a ptarmigan on one day (p. 133) is certainly not going to be hungry enough to tackle a doe the next.

There are other details of eagles and eagle life which seem not true or which are inaccurately presented (the white at the bases of tail and middle wing feathers of the young eagle [p. 14] do not gradually darken . . . on the contrary they are gradually replaced during molt by feathers with less [tail] or no [wing] white. Male eagles are not "tiercels," one-third smaller than their mates, but rather, female eagles average bigger and heavier than males with sizes and weights actually overlapping.) However, the value of this book is not in its account of details of eagles and their lives, but rather in its appeal to man to give a fellow vertebrate a chance to survive in a world which is ever more rapidly becoming man-made and for man alone.—WALTER R. SPOFFORD.