

## ORNITHOLOGICAL LITERATURE

BIRDS AROUND THE WORLD: A GEOGRAPHICAL LOOK AT EVOLUTION AND BIRDS. By Dean Amadon. Natural History Press, Garden City, New York, 1966:  $5\frac{3}{4} \times 8\frac{3}{8}$  in., xii + 175 pp., 30 line drawings. \$3.95.

Scientists write mostly for one another. Some specialists are scarcely intelligible except to others in the same specialty. Conversely, many popularizers are less than competent technically. Therefore, I always feel a sense of gratitude when a first-rate biologist takes up a scientific topic for an audience not as well versed in it as he. Amadon has done so here.

He considers why the various kinds of birds are found where they are. In doing so, he discusses evolution and ecology with singular freedom from the jargon that often makes these topics so formidable to the uninitiated. In some passages his treatment is extremely elementary, but in others, as when he examines critically the rival ecological systems for classifying areas, his presentation will be of interest to more sophisticated readers also. The examples are frequent and well-chosen. They are drawn most often from North America, but include many also from other parts of the world. Particularly global in scope are the examples in the chapters on the distribution of certain orders of birds and on the avian peculiarities of the major biogeographic regions of the world.

The illustrations are simple in the extreme but serve their purpose.

Although every critical reader will find a few statements he would like to debate with Amadon, I found none that detracted from his main points. I have a mild objection to the implication on page 14 that the first species of bird evolved in Bavaria, where the remains of *Archaeopteryx* were excavated. On page 42, I would like to have seen him distinguish between water as such in food and water available through the chemical breakdown of food. Finally, I wish he had picked a more distinctive title; in view of all of the recent permutations of the words *bird* and *world* in book titles, I am afraid this one will be hard to remember by name. However, these are minor suggestions that I mention merely in the hope they will be helpful to someone.

The book is so short (a truly interested reader will read it in one sitting) and so clear and plain-spoken that I believe it will be read by many people who would not ordinarily take up a book-length work on this subject. Although not written for children, it is suitable reading for a bright teen-ager with an interest in birds. It ought to be useful also as collateral reading for an elementary class in ornithology. It will be a worthy addition to many ornithological libraries.—HAROLD MAYFIELD.

THE APPALACHIANS. By Maurice Brooks. Houghton Mifflin Co., Boston, 1965:  $6 \times 8\frac{3}{4}$  in., xvii + 346 pp., 40 pp. of photos (8 in col.); 24 drawings by Lois and Louis Darling; endpaper map by Samuel H. Bryant. \$6.95.

This book is a detailed and personalized account of the natural history and related aspects of the physiographic feature known as the Appalachian Mountains. It is the first in an announced series of books, entitled collectively "The Naturalist's America," to be edited by Roger Tory Peterson and John A. Livingston. The series proposes, in the words of the publisher, "to recapture the inquiring spirit of the old naturalists."

There are, of course, several possible approaches to an account of the extensive subject of the Appalachians. Maurice Brooks has utilized a varied approach—first a general discussion of the entire mountain chain in terms of background, geological history, and roads and trails, then a series of vignettes with varied emphases—a geo-

graphic unit, a group of mountain peaks, a type of habitat such as glade, cove, shale barren, or cave, a taxonomic group of plants such as ferns, orchids, or heaths, a taxonomic group of animals, and so on.

In this way he conducts the reader on a pleasantly varied tour of the Appalachian Mountains, sustaining reader interest while avoiding a stereotyped cataloguing of data as he proceeds. There is some repetition of material. For example, a particular type of plant or animal may be discussed in some detail in one chapter, and at least mentioned in two or three other chapters. This is not objectionable, however, and, perhaps because of this approach, almost any one of the chapters can stand alone as a satisfying unit.

In this day of prolonged and sometimes bitter conservation struggles, this book employs what may seem a "low-key" approach to the problems of preservation and conservation of the living things and other features in these mountains. A number of instances of destruction and exploitation are cited, but the text throughout indicates that the region is still extremely fascinating, and the author takes a generally optimistic view of the future. There is no clear indication that the publisher and the author have deliberately attempted either to include or to exclude a strong conservation message.

The drawings, one with each chapter heading, are beautifully executed and very appropriate. The photographs, bound in four groups, are excellent and help to transmit the "feel" of the Appalachians. The book is pleasingly composed and put together, and there are virtually no typographical errors.

Maurice Brooks has begun the series auspiciously with his engaging and informal, yet expertly informative, presentation of a subject on which he is one of the nation's outstanding authorities.—ERNEST P. EDWARDS.

THE BIRDS OF CHILE AND ADJACENT REGIONS OF ARGENTINA, BOLIVIA, AND PERU. Volume I. By A. W. Johnson. Platt Establecimientos Gráficos S.A., Buenos Aires, 1965: 6¼ × 9¼ in., 398 pp., 100 col. pls. by J. D. Goodall, many photos. \$19.50. (May be ordered from the Pierce Book Co., Winthrop, Iowa, or Nada Kramer, 927 15th St., Washington, D.C.)

When the first volume of "Las Aves de Chile" was published in 1946, followed in 1951 by the second, the three authors (J. D. Goodall, A. W. Johnson, and R. A. Philippi) produced a most important work, the first of its type on South American birds, except for that of R. C. Murphy's "Oceanic Birds of South America." Two supplements to the original work, one in 1957 and the other in 1964, have been issued, and the present book in English bases its data principally on the Spanish editions. It is not, however, a mere translation, but includes much more additional information.

Chile, with her relatively poor avifauna (379 known species, of which 298 are breeders, 77 migratory or stragglers from other countries, and 4 introduced) is characterized by many endemic genera and species, chiefly among ovenbirds and tapaculos but also including birds of prey and shorebirds. Isolated on the west by the Pacific and on the east by the high Andean ranges, Chile is, from this point of view, one of the most interesting areas in the Neotropical Region, sharing some of these endemic elements only with Argentina in the south and Peru in the extreme north.

The nesting biology of Chilean birds has been studied for many years by the author of this book and his co-authors of *Las Aves de Chile*; keen field ornithologists, who did not avoid hardships in looking for nesting localities all over the country, from 15,000 feet in the Andes down to the Pacific coast and islands, from the northern deserts to the cloud forests in the south and the rough archipelagos around the Straits of Magellan.

There are very few nesting localities left to look for, and in this volume (covering penguins through jaegers) the only unknown nesting haunts are those of *Oceanites gracilis*, *Oceanodroma markhami*, *Oceanodroma hornbyi*, *Plegadis ridgwayi*, *Phalacrocorax australis*, *Falco kreyenborgi* and *Rallus limicola*. Especially valuable are the reports on the nesting habits and eggs of *Heteronotta atricapilla*, *Merganetta armata*, *Buteo ventralis*, *Buteo albigula*, *Pluvianellus socialis* and *Phegornis mitchelli*. The eggs of *Pluvianellus* have, however, been collected before. In 1940 the late Percy Reynolds showed me a clutch of two taken not far from the Bay of San Sebastian, Tierra del Fuego.

The great value of the book comes primarily from its data on nesting biology and also some feeding habits. Its data on distribution are rather relative. Within Chile the data on distribution are mostly up to date, although in the neighboring countries they are not. From the Chilean check-list some forms have been left out—e.g., *Pygoscelis papua ellsworthi*, *Oceanites o. oceanicus*, and *Gallinago (stricklandi) jamesoni*. The classification of several groups as well as the scientific names are somewhat outdated. Some statements in the chapters on migrations are misleading. For example, those species which breed in Chile and migrate to Peru and Bolivia the author calls "migrants from the warmer parts of South America." Equally misleading is his statement about "winter migrants from the extreme south." Most species migrate from the Straits of Magellan, western and central Tierra del Fuego along both sides of the Andes to northern Chile and Peru and northwestern Argentina and Bolivia, while the birds from eastern Tierra del Fuego migrate to northeastern Argentina, Uruguay, and southeastern Brazil. The southernmost populations of Tierra del Fuego all seem to migrate along the Pacific coast up to central Chile.

These remarks are of little significance and are no reflection on the value of this work. The author and his cooperating ornithologists are beyond doubt the best field men operating in South America and deserve congratulations. Though the price of the book is high, it is well worth it.—CLAES CHR. OLRG.

THE GIANT CANADA GOOSE. By Harold C. Hanson. Southern Illinois University Press, Carbondale, 1965: xxiv + 266 pp., 74 figs. (photos), 31 tables, 5 maps, 2 graphs. \$9.75.

This book is a major contribution to the study of the Canada Geese. Its scope ranges far beyond the title, covering in detail all the Canada Geese with which the author is personally familiar. I found the text pleasant reading, particularly because of the careful organization. The style is enhanced by the author's judicious use of the first person, and the clear separation of his own opinion from the rest of the text. The reader may, if he wishes, take issue with Dr. Hanson's opinions point by point, without, as often happens, being forced to suspect the data on which the opinion is based. The arguments are supported by a large body of quantitative data. Although there are several places where the author himself decries a shortage of exact information, when one considers the logistic difficulties of studying Canada Geese in the field, the contents of this book stand as a tribute to the ingenuity and indefatigable energy of the author.

Dr. Hanson has long been a pioneer in the investigation of the dynamics of goose populations. The present work brings together many of the author's previous publications and recently collected data. Dr. Hanson presents a convincing case for inclusion of ecological and behavioral characteristics of the species in the consideration of population dynamics. He has also demonstrated the utility of the separation of yearling and, where possible, two-year-old age classes from those geese often simply classed as "adult."

I particularly recommend the chapter on productivity and the regulation of populations to every serious student of wildlife populations.

The most controversial section of this book concerns the taxonomy of the Giant Canada Goose. I once heard a remark attributed to Jean Delacour concerning the taxonomy of Canada Geese: "You have to have a 'feeling' for the geese." It is quite evident that Dr. Hanson has such a feeling, but he has failed to convey it at least to this reader. He has, in my opinion, presented a convincing case from an ecologist's point of view that the Giant Canada Goose *should* be considered a distinct entity, but he has left me in considerable doubt that it *can* be separated to the satisfaction of most taxonomists. I find it unfortunate that the forthcoming paper on taxonomy and evolution of Canada Geese to which Dr. Hanson refers several times did not precede the present work, since I suspect that it will clarify many of the present difficulties. Also, the definition of *Branta canadensis maxima* would have been easier had the author possessed more material on the race *B. c. moffitti*. The latter is, from Dr. Hanson's description, the most similar to *maxima*, yet comparisons between these two are scanty. Also, Dr. Hanson has presented a complex picture of variation between different populations of *maxima* with no attempt to explain this or to reconcile it with the difficulties of separating *maxima* from other subspecies.

I particularly enjoyed the first chapter of the book. The history of discovery of a form is often omitted from scientific publication, particularly when the discovery was made by laymen. Here the history is graphically and sympathetically presented, and at the same time contributes to the rest of the book by showing in convincing fashion that the Giant Canada Goose exists in fact, as well as legend.

The format of the book is not consistent with the high scientific standards. Quantitative data are presented in large complex tables which frequently contain so much information that they are hard to follow. The addition of graphical forms would add much to the clarity of the presentation, particularly in the taxonomic sections. There are a large number of high quality black-and-white photographs. However, these are grouped in two sets, and many are poorly supported in the text. Some of the subject matter is highly repetitive, to the point that one photograph is used twice (Fig. 9, upper, and Fig. 34, lower). The print is large, clear, and easily read, and the text is well laid out. I found only two errors in printing. In Table 26 (p. 181) the last column of figures is displaced one row upwards, and in Figure 19 it appears that two of the four titles refer to the wrong photographs.

In summary, this is an important work, and an indispensable addition to the library of all students of waterfowl. It represents a milestone in the study of Canada Geese, but, as the author himself makes plain, it is by no means the last word.—CHARLES D. MACINNES.

THE BLACK BRANT: SEA GOOSE OF THE PACIFIC COAST. By Arthur S. Einarsen. University of Washington Press, Seattle, 1965: 6 × 9¼ in., xviii + 142 pp., 17 figs. (photos), 4 charts, 8 tables, many drawings by H. C. Smith. \$5.00.

A wintry breeze off Dungeness Bay lashed dry yellow grass in the reddening rays of a late afternoon sun as Art Einarsen led us to the edge of the Strait of Juan de Fuca. Nearby a flock of Black Brant wheeled low over Dungeness Spit and settled near a favorite eelgrass bed. Art chatted steadily on the subject of Black Brant, waterfowl conservation in general, and in particular shared with us his current plans. Included were a management program for ducks and geese on several hundred acres of nearby

marshland and the "brant book." These were retirement projects to which Art gave his seemingly boundless resources of enthusiasm and energy.

He completed the book and, judging from the reviews, it satisfied the objectives that he had set for it. Sample statements from 10 published reviews reveal that his work appeals to the sportsman, the professional, and the amateur conservationist: It is an "important contribution to conservation literature" (*Audubon Magazine*); . . . he avoided "tedious technical argot [in] presenting fascinating information" (*Seattle Times*); he "assembled all available information about black brant" (Wildlife Management Institute); . . . "The author writes in a style that seems to lie somewhere between science and literature" (*Science*); the book may . . . "Prevent this species . . . from slipping into the category of threatened species" (*Living Wilderness*); . . . "The book local gunners have needed for years" (*The Vancouver "Sun" Courier*); . . . "Einarsen has done a true service in drawing together published literature . . . [and] material from his own unpublished journals . . ." (*Journal of Wildlife Management*).

The "Black Brant" fulfills two primary purposes: (1) To promote the perpetuation of this species through wise conservation measures, and (2) to combine a lifetime of personal experience and observations with published data on the natural history and ecology of the Black Brant. Because of its broad appeal to various groups interested in the out-of-doors, I believe the author was successful. Because he indicates certain aspects of the Black Brant's biology that require further study, ornithologists should find this book a useful cornerstone on which to base future studies of this interesting sea goose. Wildlife biologists will find it a useful reference for general data on breeding habits, migration, abundance, physical characteristics, food habits, behavior, and conservation needs.

From the beginning of his life to its end, Art Einarsen was a dedicated naturalist and conservationist. His book, reflecting these attributes, is a valuable contribution to wildlife literature and a fitting tribute to a productive career.—KARL W. KENYON.

FAMILIAR GARDEN BIRDS OF AMERICA. By Henry Hill Collins, Jr. and Ned R. Boyajian. Harper and Row, New York, 1965: 6½ × 9½ in., x + 309 pp., 12 col. pls., numerous pen and ink drawings. \$7.95.

The tremendous variety of bird books that have been published in recent years attests to the wide interest that has developed in the study. Each author and publisher hope that their particular coverage of the subject will fill a need not specifically filled by those already in print. These books vary from the highly specialized and detailed treatment of all phases of the life history of a single species; through the elaborate treatment, in several instances in two large volumes, of every single species that has been recorded in individual states; then on through the attempts to select these few species considered to be the ones the casual observer should know. The present volume is one in the last category and for the persons who stick closely to gardens and city parks it has a considerable amount of reliable information.

Most of the species are eastern woodland birds with a very few species representing the Far West and South. In this respect it is obviously aimed at the largest possible reader public. The users of this volume must carefully avoid any contact with ponds, lakes, or streams, since it does not treat any of the water-bird families, and any hawks and owls that appear will have to be disregarded. It covers the pigeons-doves, hummingbirds, woodpeckers, crows and jays, titmice, nuthatches, creepers, wrens, mockingbirds-thrashers, thrushes, starlings, wood warblers, weaver finch, blackbirds, tanagers, and

the finches. For those who are looking for more information on the habits of these birds beyond the recognition features pointed out in the identification manuals this will be quite satisfying. For the most part the information is accurate, there being numerous quotations from well-known ornithological writers. A few statements could be questioned. On page 38, flickers are erroneously credited with migrating at night; and on page 39, the author, commenting on the flicker being preyed upon by the Peregrine Falcon, states that the flicker's feathers "will soon adorn his nest." The fact is the falcon plucks its prey *before* bringing it in to the nest. In describing the flight of the Gray Jay he states that "it seldom flaps except when making one of its rare long flights." True, Gray Jays often glide to lower elevations but whenever they make level flights or must gain elevation their flapping flight is quite normal and Blue Jay-like.

The author occasionally makes too definite statements apparently based on one individual's reported observations. On page 21, the hummingbird's "heart beats 615 times per minute" and, on page 23, the young are "fed 5 times an hour." Both of these actually would be subject to considerable variation.

One amusing slip finds the Dickcissel, which occasionally winters in the North, as "half-hearty" instead of "half-hardy." Again with the same species it is a bit jarring to one's ecological sense to find a Dickcissel hopping under a garden gate with a Cardinal and Indigo and Painted buntings as it is on Plate XI.

The twelve colored plates by John Yrizarry are a bit smooth and rounded but are richly colored and rather competently drawn. The backgrounds in Plates II and XII are a bit hard to interpret. The numerous delicate pencil drawings by Nina Williams scattered through the text are pleasing and accurate in detail although many of the sparrows and some others have standardized, smoothly rounded contours somewhat lacking in the character of the species.

In spite of the above criticisms, and within the limited scope which the publishers admit for this somewhat specialized volume, this book does contain a good deal of information on habits of these birds.—W. J. BRECKENRIDGE.