ORNITHOLOGICAL LITERATURE

THE BIRDS. By Oskar Heinroth and Katharina Heinroth. Translated by Michael Cullen. University of Michigan Press, Ann Arbor, 1958: 5¼x8⅛ in., 181 pp., 91 figs. $5.00. (First published in 1955 as Aus dem Leben der Vogel, second enlarged edition, by Springer-Verlag, Berlin-Goettingen-Heidelberg.)

A conventional review of this unusual book would be an injustice. To be sure there is a table of contents listing titles of the 22 chapters, and there is an index. But the chapter titles are inconsistent in style and their meaning is not always clear. They range from "The Nest" (Chapter 2) and "Color and Pigment" (15) to "Keeping Clean" (16) and "Getting About" (20). There is little or no balance among subject matter in the chapters, while certain specific subjects (for example, eggs) are discussed in widely scattered sections of the book. The length of the chapters varies greatly. Chapter 9, which is peculiarly titled "Is the Size of a Bird Related to the Size of Its Egg?" has the total length of one printed page. The index is limited to only the common names of species and groups of species, followed by their scientific names in parentheses and by page numbers.

These comments about an ordinary book would constitute a major criticism, but this is not an ordinary book. What, then has it? The first and truly intriguing aspect is the series of illustrations, each of which has a real purpose. Although they are small, their clarity of reproduction is exceptional. A few are line drawings, but most are photographs of nests, eggs, young, and adults, some showing special anatomical details. The purpose of all of the illustrations has been excellently achieved. They show us what birds really look like and, in many instances, why they behave as they do. An outstanding example are the neatly posed side and front views of a featherless Vasa Parrot which perfectly demonstrate the actual shape of a bird's body.

The illustrations serve to stimulate an interest in the text, which proves to be readable, smoothly flowing, and informative. It would be incorrect to say that this book is a complete work on ornithology, but it is nonetheless a complete story in itself, one that the reader may not easily leave unfinished. There is in it that rare quality of sensitivity to special details about living birds and that personal touch of the gifted authors, Dr. and Mrs. Heinroth. Dr. Heinroth was an ornithologist who knew birds so well that he could write of them as distinct personalities. We are fortunate to have their book made available to us in this very fine translation.—DWAIN W. WARNER.

BIRDS OF MARTHA'S VINEYARD WITH AN ANNOTATED CHECK LIST. By Ludlow Griscom and Guy Emerson. Privately printed, 1959: 5½x8¼ in., xiv+164 pp., 1 map. $4.50. (For sale at National Audubon Society, 1130 Fifth Ave., New York 28, N. Y.; Massachusetts Audubon Society, 155 Newbury St., Boston 16, Mass.; and Avery's, Edgartown, Martha's Vineyard, Mass.)

This attractive, handsomely printed little volume resulted from the collaboration of at least ten persons. The senior author, the late Ludlow Griscom, originally prepared the annotated list of bird species; Mrs. Ruth P. Emery revised and brought it up to date to include records as recently as 1957. The final list of 342 species comprises the bulk of the book. Annotations on each species usually consist of a statement of status, followed by dates when reported, sometimes localities where seen, and the last names (no initials) of observers. For full names of observers the reader may consult a list in the back pages of the book. In a few instances, where there is more than one observer with the same

last name, the reader has no way of knowing to which observer he is being referred. The annotations rarely include data on ecology (or even habitats), nests, and breeding habits. An excellent feature of the book is a summary or digest of the annotated list. This consists of six so-called Seasonal Lists to one of which each of the 342 species is assigned. On the line beside the name of the species is a brief designation of status. Altogether the lists provide a convenient device for quick reference.

What could have been a very useful feature of the book, "Where to Find Birds in Martha's Vineyard," is most disappointing. Despite the large, tipped-in, folding map, adequately detailed as to places and routes, the accompanying text of two pages is so imprecise as to be useless. Though it mentions some of the places on the map, it fails to state exactly how one reaches them and what he may expect when he gets there.

The book is concluded by a list of references to literature and a good index to bird species by both common and technical names.—OLIN SEWALL PETTINGILL, JR.

LEAD POISONING AS A MORTALITY FACTOR IN WATERFOWL POPULATIONS. By Frank C. Bellrose. Illinois Natural History Survey Bulletin, Vol. 27, Article 3, May, 1959: pp. 235–288; 31 tables, 9 figs. (2 charts, 7 photos), frontis. photo.

This paper reports extensive field and laboratory analysis of the incidence and effects of lead poisoning in waterfowl, between 1938 and 1955. Principal emphasis is on the Mallard and the Mississippi Flyway, but 23 species and all flyways are considered and compared. A complete review of reported die-offs is followed by detailed sections on the availability of lead, ingested lead shot in migrating fall and winter ducks, and effects of lead in wild Mallards dosed and released. Four pages of critical discussions and three pages of concise summary make the voluminous and important information in this bulletin readily available. Bellrose estimates the annual loss due to lead poisoning at 4 per cent for Mallards in the Mississippi Flyway and between 2 and 3 per cent for the total waterfowl population in North America, but thinks that the damage is not yet severe enough to warrant drastic regulations. The incidence of poisoning and the numbers of waterfowl hunters are both currently on the increase, posing a new management problem for the not-distant future.—T. L. QUAY.

FOOD HABITS OF MIGRATING DUCKS IN ILLINOIS. By Harry G. Anderson. Illinois Natural History Survey Bulletin, Vol. 27, Article 4, August, 1959: pp. 289–344; 43 tables, 18 figs. (15 photos, 2 charts, 1 map), frontis. photo.

The long and excellent series of research papers on waterfowl biology from the Illinois Natural History Survey is continued in the present bulletin. A total of 4977 duck gizzards of 17 species was collected in the autumns of 1938, 1939, and 1940 from hunters along the Illinois (90.5 per cent) and Mississippi rivers. The food contents were identified and calculated in minute detail, by the percentage volume method. The sample by species was roughly proportional to the estimated numbers in the fall flight, the seven commonest species and number of gizzards being: Mallard—2825, Pintail—881, Lesser Scaup—220, Blue-winged Teal—129, Green-winged Teal—393, Baldpate—160, and Ring-necked Duck —120. The foods and feeding habits of each species, including seasonal changes between October 16 and December 15, are presented in separate tables and discussions. The plant food items are listed in the tables by species only. Generic totals would have facilitated comparative understanding, since the genus is commonly used as the significant level in food habits literature. The ecology, availability, and use of each of the 19 most important plant species are discussed, and 12 of them figured. Animal foods amounted to only 5.52 per cent of the total organic contents, and the percentage volumes of many of the items

in the tables carried to the rather meaningless level of four decimal places. The summary is too short to do full justice to the included data. Anderson is to be congratulated for publishing at this time this useful information which he collected 20 years ago, rather than leaving it in the files forever.—T. L. QUAY.

THE BIRDS OF THE SASKATCHEWAN RIVER, CARLTON TO CUMBERLAND. By C. Stuart Houston and Maurice G. Street. Special Pub. No. 2, Saskatchewan Natural History Society, Regina, Saskatchewan, 1959: paper covered, 5½x8½ in., 205 pp., 4 maps, illus. $1.50.

This volume is an excellent example of the valuable contributions which amateurs can make to scientific ornithology. The senior author is a physician, as were so many outstanding naturalists of an earlier period. Undoubtedly the precise training for such a profession imbues an individual with the idea that accuracy of observing and reporting is essential. This is not always realized by many amateurs. That a professional education is not essential, however, is illustrated by the work of the junior author whose education was limited to that taught in the local schools. Not only are his observations accurate but they are remarkable in the fact that he commenced his diary of bird migration at the age of 12.

The book deals with a narrow area in the eastern half of Saskatchewan, along the rivers of the same name, from Carlton, 200 miles northeast to Cumberland House. Here the parkland of the Transition Zone merges with evergreen forests of the Canadian Zone. The region is too far north to attract a number of prairie forms. Black Ducks and Wood Ducks have occasionally occurred. The Eastern Kingbird is a common summer resident, but the Western Kingbird has been reported but twice.

Nipawin and Prince Albert may be strange names but every taxonomist and student of nomenclature will be familiar with Carlton and Cumberland House. The latter, established by Samuel Hearne in 1774, is the oldest community in Saskatchewan. The senior author has written brief sketches of these four regions and biographies of Hearne (1745–1792), John Richardson (1787–1867) and Thomas Drummond (1790–1835) who served under Sir John Franklin, Blakeston (1832–1891), Eugene Bourgeau (1815–1887) and R. R. MacFarlane (1833–1920), as well as those of his contemporaries. A bibliography of 144 titles will prove invaluable to future students of this area.

Based upon these earlier records and the observations of the authors, Houston has collected records for 259 species and seven considered hypothetical. For each he reviews the historical status and adds an ample account of their present status in the region concerned. Among these are five species for which the area is the type locality: Forster's Tern, Olive-sided Flycatcher, Gray-crowned Rosy Finch, Clay-colored Sparrow and Smith's Longspur. From an obscure botanical article, he discovered that Forster's Tern was actually collected by Drummond "some 10 to 50 miles upriver from Cumberland House" and not downstream, possibly in Manitoba, as suggested in the 5th edition of the A. O. U. Check-list. We learn that "Carlton specimens constitute the first known records to science of Swainson's Hawk" and that Nipawin is possibly the site where Henry Kelsey on July 24, 1691, shot three Passenger Pigeons, the earliest records for Western Canada.

A casual reader might assume that the work of the senior author overshadowed that of his associate. This is far from true. To appreciate the contribution of Street, one must have worked in the Canadian Zone to realize the difficulties he encountered in his studies of the status of the breeding birds. He has found or checked the nests of 131 species, and the flightless young of 10 more, in a 20-mile radius of Nipawin. Can

such a record be equalled? His findings include 33 nests of the Gray Jay, 20 of the Red-breasted Nuthatch, and the parasitization of 29 species by the Brown-headed Cowbird! Breeding ranges given in the 5th A. O. U. Check-list are extended by his nesting records for the Goshawk, Northern Three-toed Woodpecker, Gray Jay, House Wren, Catbird, Swainson's Thrush, Veery, Mountain Bluebird, Solitary, Philadelphia and Warbling Vireos and the Orange-crowned Warbler.

The authors are to be congratulated for the excellency of this volume which is remarkably free from errors. The Saskatchewan Natural History Society should be commended for making the information available at such a moderate price.—A. E. ALLIN.

WILDLIFE CONSERVATION. By Ira N. Gabrielson. Second edition. The Macmillan Company, New York, 1959: 5½x8½ in., 244 pp., 23 maps and diagrams, 32 black and white plates. $5.50.

The first half of this book is an elementary treatment of the interrelations of natural resources; succeeding chapters on Grassland Conservation, Migratory Birds, Refuges, and Surmounting the Obstacles to Conservation, though brief, will interest more advanced students. The 16-page Grasslands chapter is the most dynamic one in the book, especially in its treatment of the pronghorn antelope. More discussion of the effects of present government agricultural policy would have made it unique as a brief statement of the major problem we face in bringing sound management to an area equal to two-fifths of the land area of the United States.

As one would expect of its author, there are many valuable insights into the problems discussed. On page 117, Dr. Gabrielson transcends his profession by stating flatly that the task we face is one of repairing the damage caused by past abuses, to "put natural constructive processes back to work." And in a brief discussion of crop-destruction by birds, he reminds us that it is the effect of this damage on the "margin of profit," rather than the proportion of the total crop affected, that makes this problem so difficult.

But the attempt to separate all topics according to popular interest in them results in chapters that mention nearly everything but almost never in such juxtaposition as to stimulate interest or excite concern. Conservation, as a doctrine, was born of conflict of interest, but there is little controversy here, no politics; instead, almost every paragraph suffers from over-qualification.

One almost wishes that Dr. Gabrielson had shunned this revisionary stint and addressed himself to a critical analysis of existing trends in wildlife conservation, a task few Americans are so well qualified to do. In this book he seems too often to have worked in an editorial straight-jacket.—ROLAND C. CLEMENT.

A FIELD GUIDE TO BIRD SONGS ARRANGED TO ACCOMPANY ROGER TORY PETERSON'S "A FIELD GUIDE TO THE BIRDS." Houghton Mifflin Company, Boston, 1959. $10.00.

This adjunct to Peterson's "A Field Guide to the Birds" is a comprehensive and systematic collection of recordings of the songs and calls of 305 species of North American birds found east of the Rocky Mountains. The recordings have been placed on both sides of two 12-inch long-playing records (with six to eight separate bands on each side) and arranged to accompany, page-by-page, the most recent edition of Peterson's Guide. The recordings were made in the field by the Laboratory of Ornithology, Cornell University, under the direction of Dr. Peter Paul Kellogg and Dr. Arthur A. Allen. Credit is given to 27 individuals who contributed one or more recordings or assisted in other ways.

The total playing time is approximately 80 minutes, nearly equally divided between non-passerines and passerines. Each species receives about 4 to 28 seconds of playing time and is introduced very briefly by Arthur Allen who gives the bird's name and corresponding page in Peterson's Guide. Almost every bird voice is carefully edited and beautifully clear.

Here, at a very reasonable price, is another precision tool to facilitate field identification of birds. Included are the songs and calls of 18 ducks and geese, 15 falconiform birds, 4 alcids, 10 woodpeckers including the Ivory-billed, 8 vireos, 30 warblers, 43 fringillids, and so on. One hears the voice of a Kirtland's Warbler in Michigan, a colony of Gannets in Quebec, and a clear "honk" of a Canada Goose in New York State. In many cases a quick and easy comparison of the voices of related species can be made, as with Black-capped, Carolina, and Brown-capped Chickadees. However, the compactness of the recordings makes it nearly impossible to make an immediate comparison of such species as the Yellow-throated and the Red-eyed Vireos without picking up the Blue-headed and Black-whiskered Vireos in between.

The two records are contained in an attractive, sturdy, book-like jacket. Printed inside is a list of the species, arranged in playing sequence and marked according to the side of the record and number of the band. Thus, it is easy to find the approximate location of a given species on the records.

As described by Peterson in an oral introduction to the records, an effort was made to select the most typical song or call of the species. I believe this has been accomplished. Almost all of the recordings are of very high quality, clear and precise. With very few exceptions, background noise is at a minimum. One marvels at the labor and technical achievement of accumulating the songs and calls of a high percentage of the birds of eastern and central North America and placing them in a carefully edited sequence on two records. An extreme case of the painstaking effort involved is 28 seconds of Red-winged Blackbird calls put together from 5 states and one Canadian province. For other species, such as some of the warblers and sparrows with simple songs, there are only two to four songs in a matter of four to ten seconds before the next species is introduced. To those accustomed to listening to much longer intervals per species as on most bird records, the short intervals for the songs and the speed in passing from bird to bird may be somewhat distracting at first, but after a little practice in listening, the short intervals usually prove entirely adequate and efficient. However, in a very few cases, the time allowed is definitely too brief. For instance, the two "mews" from the Redhead are not enough; one needs more than the two calls of the Red-headed Woodpecker; and the whistle of the wings of the Common Goldeneye is cut off too short. Also, the Pine Grosbeak is almost inaudible.

Every member of the growing army of serious bird watchers should have a copy of "A Field Guide to Bird Songs." However, grade school children, high school students and older beginners should not start with it, but rather with bird call records which emphasize fewer birds taken more slowly. On the other hand, all high schools should have "A Field Guide to Bird Songs" available for those students who develop an active interest in birds. College ornithology classes will find it a tremendous asset. An advance copy was used in the ornithology course at the University of Michigan Biological Station last summer, and proved to be an excellent teaching medium. It is reported that the students nearly wore it out.—NICHOLAS L. CUTHBERT.

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