

## ORNITHOLOGICAL LITERATURE

PHILIPPINE BIRDS AND MAMMALS. By Dioscoro S. Rabor. Illus. by Romulo R. Capalad and Porfirio G. Castañeda. University of the Philippines Press, Quezon City (distributed outside the Philippines by the University Press of Hawaii, Honolulu): xi + 284 pp., 131 line drawings. \$18.50.—According to the title page, this book is a project of the University of the Philippines Science Center. The Foreward, by J. B. Alvarez, Jr., Assistant Director of the Philippine Bureau of Forest Development, makes it plain that the book is intended to introduce their birds and mammals to the Filipino people, “a great majority” of whom “seem to have a common unconcern” about their native animals. To Americans, the author is undoubtedly the best-known Filipino ornithologist, thanks to his many publications in scientific journals, his several visits to the United States, and the ubiquity in major museum collections of his unmistakable specimens. The provision of such an introductory volume to the people of the Philippines is without question a worthy project; as in any book review, we must examine the question of the author’s success in accomplishing this aim. I shall cover only the ornithological portion of the book, thus excluding the 67 pages devoted entirely to mammals.

One hopes, to begin with, that the price of the book in the Philippines is substantially less than the peso equivalent of the \$18.50 asked of American purchasers. A book intended for the general populace should obviously be as inexpensive as possible. At \$35, duPont’s Philippine Birds (1971. Delaware Mus. Nat. Hist. Monograph 2) costs twice as much as Rabor’s book, but, if possible, should be in the libraries of Filipino schools and colleges, if only because every species known from the Philippines is illustrated in color. Rabor’s book has only line drawings of the 102 species he has chosen as representative of the Philippine avifauna, and these vary from barely adequate to, bluntly, atrocious. It may seem undiplomatic so to characterize the work of the Filipino illustrators, but the drawings are presumably intended to aid in recognition of the species, whereas most are grotesquely distorted, often to the point of being downrightly unrecognizable. Those identifiable as the work of Castañeda (such as *Rallus striatus* and *Dendrocopos maculatus*) tend to be superior to those of Capalad, but are in the minority.

The book begins with a 6-page introduction, which includes a short and over-generalized (to the point of error) account of birds as a group (illustrated by a typical “external topography” diagram and, unaccountably, a half-page drawing of 3 types of tarsal scutellation with no caption explanation or text reference). This is followed by a summary of the Philippine avifauna, explaining very briefly the numbers, endemism, seasonal status, and extinction or endangerment of native and migrant species. The best part of this introduction is the 2-page section on bird habitats, outlining the typical vegetation at various altitudes, as well as indicating changes effected by man that have altered bird distribution.

Each family of birds is introduced by a generally rather well-done summary of appearance, habits, number of Philippine species, etc. Twenty of the families included by duPont are omitted by Rabor; several of these are seabirds, or rare to accidental in the Philippines, but some of the omissions are surprising. There are 16 species of babblers (Timaliidae of duPont’s usage) in the Philippines, but the family is not mentioned. The puzzling creeper-like *Rhabdornis* is omitted, although the 2 species are often given (as by duPont) family status, this being the only endemic family of Philippine birds. During my fieldwork in Luzon in 1956, I found both of the Philippine species of lark (*Alauda gulgula*, *Mirafra javanica*) to be common. The family is not mentioned by Rabor; inexperienced observers of these larks may well believe that they are watching pipits, which Rabor does include (and which are so similar

to the larks that I have found specimens of Philippine larks and pipits intermixed in a major U.S. museum).

As indicated earlier, Rabor has made a selection of only 102 of the approximately 500 species of birds recorded from the Philippine Islands. Within such constraints, no 2 authors would choose the same list of species, but some of Rabor's choices and especially some of his omissions are jolting. The species chosen are frequently, but by no means always, those members of a family that are common, widespread in the Philippines, and conspicuous. I was surprised, for example, to find the Pink-bellied Imperial Pigeon (*Ducula poliocephala*) of highland forests and the Nutmeg Imperial Pigeon (*Ducula bicolor*), a bird of islets, included among the Columbidae, but the most conspicuous species in populated areas of Luzon, the Zebra Dove (*Geopelia striata*) omitted. There are 14 resident species of Accipitridae in the Philippines, and 5 regularly wintering species. Rabor has wisely selected the abundant Brahminy Kite (*Haliastur indus* [consistently misspelled "Haliastus"]) and the endangered Monkey-eating Eagle (*Pithecopaga jefferyi*) for two of his sample of three of the 19 Philippine species, but for the third, selected the rather uncommon (by his own admission) White-breasted Sea Eagle (*Haliaeetus leucogaster*) rather than, say, one of the 4 *Accipiter* species or the conspicuous Blackwinged Kite (*Elanus caeruleus*).

There is a strong emphasis throughout the book on Negros, the island on which Rabor lived for many years, even though Negros data may not be typical for the archipelago as a whole. The dependence upon the author's own fieldwork for nesting data is almost unavoidable, as there is a deplorable lack of published life history information for even some of the commonest Philippine birds. Rabor must occasionally turn to the literature for data taken from mainland Asia subspecies or even species. According to Rabor, there is no definite breeding information from the Philippines for such well-known species as Cinnamon Least Bittern (*Ixobrychus cinnamomeus*), Little Mangrove Heron (*Butorides striatus*), Little Egret (*Egretta garzetta*), Purple Heron (*Ardea purpurea*), Slaty-breasted Rail (*Rallus striatus*), White-breasted Swamphen (*Amaurornis phoenicurus*), Philippine Hanging Parakeet (*Loriculus philippensis*), Plaintive Cuckoo (*Cacomantis merulinus*), Lesser Coucal (*Centropus bengalensis*), Philippine Trogon (*Harpactes ardens*), Pygmy Woodpecker (*Dendrocopos maculatus*), Pied Triller (*Lalage nigra*), Velvet-fronted Nuthatch (*Sitta frontalis*), and Richard's Pipit (*Anthus novaeseelandiae*). Rabor occasionally relies entirely on gonad data from his specimens, and here he has surely restricted himself too much. For example, for the widespread and well-known Koel (*Eudynamis scolopacea*), Rabor writes: "The nesting [sic—the species is a brood parasite] and breeding of the present form in the Philippines is not definitely known. A female with enlarged gonads was caught in Gubat, Katipunan, Zamboanga Province, Mindanao one May." For a species as common in museum collections as the Koel, there are certainly more label data available than just this single Mindanao record.

One wonders, however, to what extent one can trust Rabor's statements about the lack of breeding data. In some instances he contradicts himself. Of the Gallinule (*Gallinula chloropus*) he states: "Nothing is known of the nesting and breeding of this bird except that the birds are numerous around the edges of Lake Naujan, Mindoro." Two paragraphs later, he writes: "Eggs collected in Samar [a Philippine island] were described as similar to those laid by the European members of this species except for the smaller size and less number of eggs in a clutch." Similarly, of the Black-headed Pitta (*Pitta sordida*) Rabor states: "Nothing definite is known about the nesting and breeding of this bird." The following paragraph is a detailed description of a nest and eggs from Samar. Rabor states that "There are no definite data on the nesting and breeding of [*Alcedo atthis bengalensis*] in the Philippines," which is hardly surprising, as the species is a winter visitor to the archipelago, as he states 2 paragraphs earlier.

There are discrepancies other than those having to do with breeding data. On p. 35, Rabor states that there are still some Monkey-eating Eagles "left in Luzon and are mostly found in the mountains of Nueva Vizcaya, Isabela and Quezon [provinces of Luzon], mainly in the well-forested regions of the Sierra Madre Range." He there gives the population on Mindanao as 25-30 pairs. On p. 4, however, he states that during the last 20 years, "only one specimen has been collected from the wild areas of the Sierra Madre Mountains of eastern Luzon, in the localities of Isabela and Nueva Vizcaya [1 specimen from 2 localities?]," and gives the Mindanao population as "barely 50 pairs." In Fig. 49, the correctly described adult and immature plumages of *Cacomantis merulinus* are captioned as male and female. The white-bellied race of the Shiny Drongo (*Dicrurus balicassius mirabilis*) of the central islands is described, and the figure is so captioned, but the drawing plainly shows one of the black-bellied races of the northern islands. This is a general fault of the book, in that descriptions are given of only a single subspecies even in dramatically geographically variable species, although Rabor lists the names and distributions of all subspecies (generally following duPont) of Philippine birds. Such nominal lists would be meaningless to most readers, to whom the author owes an explanation that, for example, the Philippine Coucals (*Centropus viridis*) of Mindoro and Batan islands (*C. v. mindorensis* and *C. v. carpenteri*) are melanistic races that do not fit the description given of the nominate race. Other such instances include the Crimson-breasted Barbet (*Megalaima haemacephala*), in which the description is of the atypically red-faced *intermedia* of some of the central islands, with no mention of the fact that the other three races, inhabiting the largest islands, have a very different head pattern; and the Crimson-backed Woodpecker (*Chrysocolaptes lucidus*), for which the only description is that of the bright red-backed *C. l. xanthocephalus*; no mention is made of the fact that three of the races are yellow-backed, or that this is the only race in which the female has a yellow rather than black or red crown. It is perhaps no coincidence that in such cases, the described race is that found in Negros, even though this form might be atypical for the species as a whole. The book thus loses much of its possible value for the millions of Filipinos living in the vicinity of Manila and elsewhere on the major island of Luzon, and on the largest island, Mindanao.

Also unfortunate in a book addressed to the general public is the frequent use in the text of unfamiliar words that are neither explained nor shown in the "topography" diagram, including, for example, axillars, crissum, gular patch, remiges, and powderdowns.

The section entitled "References" of 97 titles is utterly baffling. There are no citations whatsoever in the text, and the bibliography abounds in papers seemingly randomly chosen from the literature of Philippine birds. Of the 37 of my own papers listed in duPont's bibliography, for example, Rabor lists nine, four of which deal entirely with species omitted from Rabor's book: Four papers by Deignan are listed; of these, two deal with species not mentioned by Rabor, and one, "Birds of Northern Thailand," is not among the 7 Deignan papers listed by duPont. On the other hand, four of the Deignan papers not listed by Rabor do contain information on species covered by Rabor's text.

Rabor's book contains a great deal of good and important life history information on some of the included species, most of it from first-hand observation and published here for the first time. This is obviously the most valuable part of the book to ornithology as a whole, as well as to the Filipino wishing to learn more about his country's birds. It is a pity that the rest of the book is so badly flawed. Some enterprising publisher in the Philippines might do well to obtain permission to produce an offset, paperback edition of Delacour and Mayr's *Birds of the Philippines* (1946, Macmillan, New York), perhaps with a new introduction explaining that it is still decidedly useful and comprehensive, in spite of minor obsolescence in data and nomenclature. Such a paperback would be much cheaper than Rabor's book, and would be more useful to more Filipinos wishing information about Philippine birds,

especially their identification (of *all* species and of races not found on Negros). The good but extremely limited life history information presented by Rabor does not make his book a wise investment for most individual Filipinos. Libraries in institutions in other countries in which there are workers on the birds of eastern Asia should have reference copies, again for access to Rabor's field observations, but at \$18.50 most of an individual purchaser's money would be wasted.—KENNETH C. PARKES.

PRAIRIE DUCKS. By Lyle K. Sowls. University of Nebraska Press, Lincoln, 1978: 193 pp. \$11.50 (cloth), \$3.50 (paper).—This is a reprint of a book first published in 1955 by the Wildlife Management Institute.—R.J.R.

BIRDS OF THE GAINSBOROUGH-LYLETON REGION (SASKATCHEWAN AND MANITOBA). By Richard W. Knapton. Special Publication No. 10, Saskatchewan Natural History Society, 1979: 72 pp., paper cover. \$3.00.—An avifaunal list with data on distribution, habitats, migration dates, and nesting. Order from the SNHS, Box 1121, Regina, Sask., Canada S4P 3B4.—R.J.R.

A GUIDE TO THE BIRDS OF CEYLON.—By G. M. Henry. Oxford University Press, London, New York, and Melbourne, 1978: 457 pp., 30 half-tone plates (27 in color) and 136 black-and-white drawings. \$27.00.—This is not a new book, but an unrevised reissue of the second edition, which was first published in 1971. Though mainly intended as a field guide, the species accounts are fuller than usual for such books, and it will serve well as a general introduction to the ornithology of the island.—R.J.R.

THE BIRDLIFE OF BRITAIN. By Peter Hayman and Philip Burton. Mitchell Beazley Publishers Ltd., London, in association with the Royal Society for the Protection of Birds, 1976: 260 pp., many color pl. £8.95.—This attractive volume claims to offer a new approach in field guides, and for once this claim is justified. The book is intended to provide information for both the beginning and the advanced bird-watcher and I would judge that it does this successfully. With a limited experience with British birds I will not comment on the quality and accuracy of the bird descriptions and other aids to identification, but will limit my remarks to a description of the unique format of the book.

The main text treats 253 species, the ones that are most likely to be seen by a bird-watcher during a lifetime in Britain and northern Europe. The species accounts are arranged in groups of similarly-appearing species rather than in the traditional phylogenetic order, and no scientific names are given. (An appendix lists the common name in alphabetical order and the scientific name of all birds included.) In addition to the 253 principal species a total of 31 additional ones is covered in 4 special pages labeled: "Birds of Iberia," "Mountain Birds," "Uncommon Waders," and "Birds of Fenland, Coast, and Marsh."

A full page is usually devoted to each species, but in some cases, i.e., Willow Warbler *Phylloscopus trochilus*-Chiffchaff *P. collybita*, 2 similar species are covered on the same page. Half of the page is taken up with a colored drawing which gives not only a large profile illustration of the bird in the traditional manner, but also from 5-7, and in some cases even 10 additional smaller pictures illustrating other plumages, characteristic poses and behaviors, flight patterns, nests or other informative matters. This extensive illustration follows from the authors' contention that plumage patterns and colors are not the only useful clues to identification and "... there is more to birds than feathers—our book is, therefore, about birds in action, the way people really see them." The drawings are excellent and the colors well reproduced.

Besides the pictures and their accompanying captions a great amount of additional infor-

mation is included. A map (much larger than in most field guides) of northwestern Europe shows the summer and winter ranges. A silhouette diagram compares the bird in profile with a House Sparrow (*Passer domesticus*), and gives a flight pattern. There is a color-coded calendar showing the months of presence, absence and breeding in Britain. At the top of each page a set of diagrams, highly reminiscent of the "hieroglyphic" traffic signs prevalent throughout Europe indicates habitats and general status, i.e., migrant, resident, etc., with a special designation for the 60 most common species in Britain. Finally the page includes approximately 150-200 words of text discussing various matters of interest.

Besides the species treatment there is a brief introduction on bird-watching and a final section called "Biology of the Bird." Interposed in the main text are pages discussing migration and ringing. Also included is a map of Europe showing many important birding sites and a listing of conservation organizations.

I feel that the authors have been very successful in their attempt to provide a good field guide, as well as a wealth of information about the birds. If a resident of the British Isles were to have only 1 book on birds, I can conceive of none that would fill the bill better than this one. Indeed, I urge some enterprising author, artist and publisher to attempt something similar for the eastern United States. Because of the larger number of species this might be more difficult, but such a work would fill a much needed gap in our literature.

Finally, I must add that this book very closely approaches "authorship by committee." No authors are, in fact, actually listed on the title page but Hayman (the artist) and Burton (the text author) are given on the cover. In addition, J. Parslow compiled the maps and R. Morton, J. Davis and B. Delf supplied some of the supplementary drawings.—GEORGE A. HALL.

**BIRDS OF SOUTHWESTERN OKLAHOMA.** By Jack D. Tyler. Contrib. Stovall Mus., Univ. of Oklahoma, No. 2, 1979:65 pp., 2 maps. \$2.25.—This annotated checklist begins with a brief discussion of the history of ornithology in southwestern Oklahoma, and a review of the habitat and the avifauna. Most of the work is devoted to 297 species accounts, giving seasonal, numerical and breeding records. Order from the Stovall Museum of Science and History, Univ. Oklahoma, Norman, Oklahoma 73019.—R.J.R.

**BIOLOGY AND EVOLUTION OF THE AVIAN GENUS *ATLAPETES* (EMBERIZINAE).** By Raymond A. Paynter, Jr., Bull. Mus. Comp. Zool. 148(7):323-369, 1978.—Twenty-four species of *Atlapetes* occur from Mexico to the southern Andes. Four assemblages are recognized, and the history of speciation in the group is analyzed in relation to Pleistocene climatic events.—R.J.R.

**RELATIONSHIPS OF THE SUPERORDERS ALECTOROMORPHAE AND CHARADRIOMORPHAE (AVES): A COMPARATIVE STUDY OF THE AVIAN HAND.** By Boris C. Stegmann. Publ. Nuttall Ornithol. Club, No. 17, 1978:119 pp., 37 figs. \$13.50. May be obtained from the N.O.C., % Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts 02138.—The late Boris C. Stegmann was Professor in the Zoological Institute of the U.S.S.R. Academy of Sciences in Leningrad. This study summarizes and consolidates much of his earlier work and makes it available to the English language audience, his earlier papers having been published in Russian and German. The study is an analysis of relationships among the Tinamiformes, Gruiformes, Galliformes, Cuculiformes, Charadriiformes, Columbiformes, and Psittaciformes. Stegmann studied the muscles, tendons and ligaments of the manus, which have been used very little by previous systematists. He developed a method

for extracting the wing from study skins of birds, and of softening the tissues for study. Unfortunately, this useful methodology is not explained in the present work, nor does there appear to be a specific reference to a previous publication where it is documented. Thus, this potentially valuable methodology is not readily available for use by other workers.

The book opens with a forward by Walter J. Bock, who explains Stegmann's purposes and attempts to reconcile Stegmann's concepts and terminology with those more familiar to western readers. Stegmann apparently lacked access to much of the recent literature in systematic theory, and as a result the work has a distinctly dated aura. Yet this is somewhat misleading, as Stegmann's methods share important similarities with cladistics, in that he attempts to determine the primitive and advanced states of various characters, using the condition in reptiles as 1 criterion of primitiveness, and functional specializations for particular types of flying behavior as indicators of derived status. The latter approach also permits him to distinguish between similarities due to ancestry and to convergence. Unfortunately, many of his conclusions regarding relationships are based on what appear to be shared primitive character states.

The bulk of the work is devoted to accounts of the various groups of birds, including detailed anatomical descriptions and discussions of their functional and taxonomic significance. The descriptions are greatly clarified by many excellent line drawings. Unfortunately, the structures in the drawings are not identified by names or abbreviations, but by numbers that refer to a list given on p. 12. It is impossible to remember what the numbers refer to, which makes it necessary to keep referring to the table. I found it useful to copy the list onto an index card for a quick reference to the numbers without having to look back for the table. There is an error in the list that the reader should correct before plunging into the systematic accounts. The tendon labeled (4) in the illustrations (and positively identified by its insertion on the muscular tubercle of metacarpal II in *Gallus*) is extensor metacarpi ulnaris of George & Berger (1966, *Avian Myology*, Academic Press, N.Y., N.Y., pp. 359–361), or extensor carpi ulnaris of Hudson & Lanzillotti. It is neither flexor metacarpi ulnaris nor flexor digitorum superficialis, as listed under (4). Those are both alternate names for the muscle correctly identified as flexor digitorum sublimis (9), except that superficialis is now the preferred name for sublimis. It is also misnamed flexor carpi ulnaris in the last paragraph of p. 35, and is mislabeled (7) (instead of 4) in Fig. 4A.

The strongest aspect of the study is the mass of detailed and well-illustrated information on the anatomy of the avian manus, far exceeding that in any previous work. Also important are a number of functional/anatomical and evolutionary conclusions relating specific variations to particular types of flying ability. Of special interest is the brief discussion of the loss of muscles in the evolution of the avian wing. Stegmann suggests that muscles are lost because the movements of the wing are simpler than those of the reptilian limb, and that the muscles lost are 1-joint muscles whose function complements that of 2-joint muscles, which are retained.

The systematic conclusions are less satisfying. Stegmann confirms the validity (monophyly?) of the Alektoromorphae, but adds to this group the Cuculiformes and Psittaciformes, and recognizes 2 subgroups, which he terms the superorders Alektoromorphae and Charadriomorphae. Within these superorders the various groups are placed in a confusing discussion of basal and central types, with a welter of side branches. What is needed, but is lacking, is a final classification summarizing the opinions discussed. Also desirable is a phylogeny, but again none is offered. It is therefore difficult to determine how the classification was derived from the phylogeny, if indeed it was. It is not clear, indeed, that Stegmann had in mind an overall picture of the genealogical relationships of the groups studied.

In summary, this study presents an enormous mass of detailed anatomical descriptions of the avian manus, a number of important functional and evolutionary analyses of this system,

and a complex but poorly organized application of the data to the analysis of avian systematics.—ROBERT J. RAIKOW.

FEEDING ADAPTATIONS AND EVOLUTION IN THE STARLINGS. By William J. Beecher. Bull. Chicago Acad. Sci. 11(8):269–298, 1978.—This review of the family Sturnidae employs evidence from the skull architecture and the anatomy of the feeding mechanism to better understand the course of evolution in the group. This study recognizes an “island complex” of fruit-eating, arboreal starlings evolving on islands and adjacent continental shores of the Indian Ocean and the Western Pacific, with primitive groups surviving on the periphery. As starlings expanded through southern Asia into Eurasia, it is believed that the nonprying, island-complex species gradually evolved prying, eventually-terrestrial species emphasizing insect diet. The prying adaptation, seen in its perfected state in *Sturnus*, has unquestionably enabled this genus of a predominantly tropical bird family to invade the temperate zone with great success. (From the author’s Conclusion.)

BIRDS OF NORTHERN CALIFORNIA: AN ANNOTATED FIELD LIST. By Guy McCaskie, Paul De Benedictis, Richard Erickson and Joseph Morlan. 1979:84 pp., 1 map, paper cover. Order from Golden Gate Audubon Society, 2718 Telegraph Ave., Suite 206, Berkeley, California 94705. \$5.80 (incl. postage and tax).—A compilation of information on distribution, habitat preference, relative abundance, seasonal occurrence and comments on field identification and breeding status.—R.J.R.

VANISHING BIRDS. By Tim Halliday. Illustrated by the author. Holt, Rinehart and Winston, New York, New York, 1978:296 pp., 16 color plates, 46 black and white drawings. \$16.95.—This is not the usual Vade-mecum of extinct and rare species. “Vanishing Birds” is an examination of some extinct and rare birds, an analysis of extinction and a discussion of man’s activities and attitudes as these have influenced extinction. From the developed perspective, consideration is given to preventing extinction of rare species.

A once-over-lightly examination of avian evolution (Chapter 1) resurrects some well known fossil species, stresses that extinction is the natural fate of all species and identifies different strategies for survival evolved by birds. Chapter 2 (“Birds and Man”) discusses man’s impact on world environments and the attitudes of Western civilization towards animals: abuses of animals are symptomatic of our underlying view of nature—it is our “right” to exploit animals for whatever needs. These deep-seated attitudes are illustrated in “Case Histories of Extinction” (Chapter 3) wherein the Dodo, Great Auk and Pink-headed Duck all, for one reason or another, are accelerated to extinction by man’s activities. The next 5 chapters (4–8) discuss extinct and endangered species of North America, New Zealand, islands, Europe and Australia.

How to prevent extinction is the subject of the final chapter. Stressed is the need for research of rare species’ biology that we may understand how to relieve human pressures and manage species. But why prevent extinctions? Five classical arguments are presented: ethical, aesthetic, economic, scientific and ecological. Conservationists are convinced of the validity of these arguments, but for those with different attitudes Halliday feels that the ecological argument will be most persuasive: the present rate of extinction is an indication of environmental deterioration—and we are a part of the environment.

“Vanishing Birds” is admirably suited for college undergraduates, advanced high school students, conservationists and the interested biologist. The book is well written and topics

are neatly presented. This reviewer found the chapters on Australian and New Zealand extinct and endangered species particularly well done; he would have welcomed similar chapters for Africa and South America.

While I have only praise for what Halliday has presented, the book, I feel, stops short of what could have made it far more instructive. As part of the final chapter on conservation, or as a separate chapter or appendix, it would have been germane to discussions if he had commented on continental and worldwide conservation efforts. In Chapter 7 it is stated that there are many organizations and pressure groups at work in Europe (strangely, no similar comment is made regarding North America) but nothing is said about them. Conservation is generated through human effort and bringing into focus the profiles and strategies of such effort would be edifying to those attracted to this book.

Halliday states that the basic question behind every discussion of conservation is "why should we bother to preserve species?" and he acknowledges that to the "vast majority" of mankind aesthetic and scientific arguments have "no significance whatsoever." Having identified a really boggling dilemma, we could at least expect some address to it. How can we attempt influencing this vast majority? He states at one point that the fact that man is a part of the deteriorating environment may be an effective argument. But this book will be read by the erudite of some developed nations, not by the vast majority of mankind. How may his argument be transmitted to the masses of the undeveloped nations? How are we to convince this vast majority that man must "make the choice between taking more resources and sharing the world with wildlife?" On this vital point the author is silent. Clearly, the planet's future lies in the hands of this majority of mankind. Conservationists must address this problem.

There is no reason to have expected Halliday to have considered this final point, but it is as germane as any consideration about vanishing species. Assuming we achieve a worldwide patchwork of preserves for relict plants and animals, how long will the planet's population be able and, at whatever expenses, willing, to maintain such? And how many of the organisms on these ecological "islands" will ever be "moved back" any significant distance from the precipice of extinction?—OSCAR T. OWRE.

**TREES, SHRUBS AND VINES FOR ATTRACTING BIRDS: A MANUAL FOR THE NORTHEAST.** By Richard M. DeGraaf and Gretchin M. Witman, illustrated by Abigail Rorer. Univ. Massachusetts Press, Amherst, Massachusetts, 1979: xiv + 194 pp., black and white drawings. \$12.50.—This attractively designed and illustrated book is intended for the serious gardener or landscape architect designing and planting a residential area to attract and hold wildlife. After a brief introduction, the text is divided into 3 sections: trees (79 pp.), shrubs (80 pp.) and vines (12 pp.). Each of 162 plant species (or species groups such as crabapples, hawthorns and roses) is given about a page to describe its characteristics, horticultural requirements and propagation, with landscaping notes; a table lists the bird species that use it for food, cover, or nesting. Most of the plants are illustrated by a drawing, often of a fruiting branch. The book ends with an appendix: a plant hardiness zone map, tables of flowering-fruiting periods, lists of plants that will grow in difficult sites (along streets, in dry soils, in cities, in places subject to salt spray), a 5-page bibliography, a short botanical glossary and an index to plant species.

The treatment throughout is competent and professional. The level of presentation, especially in the propagation sections, is to the experienced gardener. The wildlife material is taken almost entirely from other publications. Emphasis is placed on native plants, but exotics such as some of the honeysuckles that are both ornamental and valuable to wildlife are included as well. The novice may have some difficulty in finding certain plants, as they



are arranged alphabetically by genus—thus, for example, the cedars (Northern White and Eastern Red) are 38 pages apart, but reference to the index will solve most problems. The authors also point out in the introduction that this is not a complete guide to attracting birds to a garden, and they refer the reader to several good titles for more general coverage. This is a book for the gardener.—MARY H. CLENCH.

### NEW LIFE MEMBER



Mr. Robert Craig, a Ph.D. candidate at Rutgers University has recently become a Life Member of The Wilson Ornithological Society. His Ph.D. research involves the comparative ecology of Louisiana (*Seiurus motacilla*) and Northern (*S. noveboracensis*) waterthrushes, but he is also interested in evolutionary ecology, competition and coexistence of similar species and conservation and management of non-game wildlife. Mr. Craig has a number of publications to his credit, including one on rare vertebrates of Connecticut. Mr. Craig is also an active outdoorsman and enjoys botany. His wife, Susan, is employed as a naturalist/environmental educator.