

ORNITHOLOGICAL LITERATURE

BIRDS IN JAPAN: A FIELD GUIDE. 2nd printing (actually 2nd edition). By Yoshimaro Yamashina. Tokyo News Service, Tokyo, Japan, 1974: vii + 266 pp., 147 color figures, 3 black and white plates, 23 black and white photos, 22 figs. \$29.50.—A useful guide to the more common Japanese birds (314 out of 480+ species) as well as a good guide for planning a birding itinerary. The bulk of the book is carried over from the first edition and is composed of $\frac{1}{3}$ page color paintings of one or two species (with background), the rest of each page containing descriptive material under three headings: Recognition, Range and Habitat, and Habit. The 1st edition covered somewhat less than 200 species. In the 2nd edition, the additional 115 species are grouped into 15 new plates, without background, with abbreviated textual material on adjacent pages. The new plates have been inserted at appropriate places in the text, but a few species are separated from the rest of the family. The Wetmorean order of families has been followed.

The color plates are accurate and attractive, but only 10 species are illustrated in flight. Descriptions are good and contain pointers for distinguishing similar species. However, no mention is made of species not covered in this guide. The Range and Habitat, and Habit sections tell where and when a bird is likely to be found as well as some of its distinctive habits.

The introductory chapter provides enough information about climate, distribution and habitat of birds, migration and good birding areas to enable the user to plan his travel and birding in Japan. This chapter is far more extensive than most (if not all) field guides and provides a useful overview of avian distribution and its dynamics in Japan. Some 29 main birding areas, plus many supplemental places throughout Japan are discussed, including the dominant or most interesting birds and vegetation.

Unfortunately the binding of both copies I examined was beginning to come apart; the cover will soon separate from the book. There is a number of unimportant typographical errors.

The high price of this guide will restrict its sale appeal. Color figures on most pages and the heavy glossy paper are a bit lavish for a field guide with a limited market. Although this book has a complete list of Japanese birds in an appendix (those treated are not indicated), the traveller to Japan may also want the "Check-list of Japanese Birds" (1974, Ornithological Society of Japan, \$29.00) for its description of the range, occurrence and habitat of all species, and "Birds of Japan in Natural Colors" (K. Kobayashi, text in Japanese, with English and scientific names, about \$10.00) for its excellent color plates of all Japanese birds. This adds up to nearly \$70.00 for three books, whereas the whole of North America is covered with two Peterson guides and the Robbins guide for only \$20.00. The English speaking birder in Japan will find Dr. Yamashina's guide indispensable as well as attractive.—BEN KING.

FUNDAMENTALS OF ORNITHOLOGY, 2nd edition. By Josselyn Van Tyne & Andrew J. Berger. John Wiley & Sons, New York, 1976:xviii + 808 pp. \$22.50.—Andrew J. Berger has prepared a new edition of this popular ornithological textbook first published in 1959. There are nearly 200 additional pages with reduced type size, resulting from considerable new text material, but much of the expansion is due to the increase in illustrations from 254 to 528. Although these are generally good, many of the photographs are somewhat blurred, lacking in contrast, or only vaguely related to the text.

The chapter contents have been somewhat reorganized, and cover the following topics: paleontology, structure and function, plumage and molt, senses and behavior, voice and sound production, bird distribution, migration, flight and flightlessness, food and feeding habits, courtship and nest building, eggs and young, taxonomy and nomenclature, and the classification of world birds by families. All of the chapters have been extensively revised and include much recent material with numerous references to current research literature. The references are listed at the ends of the chapters, and give the student an excellent introduction to the literature for further investigation. The method of extensive in-text citations gives the book a sense of immediacy and authority often lacking in textbooks where the original sources are not cited.

One of the highlights of the original edition was the final chapter on the families of birds of the world, and this has been revised for the second edition. Each family is covered on a single page, with a standardized format covering physical characteristics, range, habits, food, breeding, and the original literature sources for its technical diagnosis and classification, as well as a small selection of important general references. Each family is also illustrated by a drawing of a representative species by George M. Sutton. Unfortunately the quality of reproduction of these attractive line drawings is much reduced in the new edition. This section is an invaluable summary of information on avian classification. The system used has been slightly modified from the first edition, but is still relatively conservative. The ratites are retained in separate orders, the Opisthocomidae are kept in the Galliformes, and the Pteroclididae in the Columbigiformes. The passerine suborders Eurylaimi and Menurae are retained, as is the separate familial status of the Cyclarhidae, Vireolaniidae, Tersinidae, and Catamblyrhynchidae. However the Spheniscidae are now placed beside the Procellariiformes, a suborder *Furnarii* is introduced, and the families Rhabdornithidae and Climacteridae are now recognized.

Two useful sections of the first edition, the list of ornithological sources and the glossary, have been deleted. The loss of the latter is particularly unfortunate; where else can one go for a ready definition of antipericoelous, cultirostral, dertrotheca, elaeodochon, grypanium, nomopelmous, paradactylum, or ultraxaspidean? What other convenient source is there when one needs a quick distinction between homoeomeri and heteromeri? The loss of the glossary is also unfortunate because it is attributed to space limitations, yet many of the new photographs could have been more easily sacrificed.

The general trend of declining quality in book production is evident here: the paper and printing are inferior to the first edition, and the construction is weaker. My review copy already has a cracked binding, while my frequently-used, decade-old first edition is still intact.

On the whole this remains an outstanding textbook of ornithology, being thorough and detailed in its coverage of most aspects of avian biology, and especially good in its coverage of structure, function, and systematics.—ROBERT J. RAIKOW.

BREEDING BIOLOGY AND BEHAVIOR OF THE OLDSQUAW (*CLANGULA HYEMALIS* L.) By Robert M. Alison. Ornithological Monographs No. 18, American Ornithologists' Union, 1975: 52 pp., 7 B & W Illus., 3 photos. \$3.50. (\$2.50 to A.O.U. members). Obtainable from Glen E. Woolfenden, Dept. of Biology, University of South Florida, Tampa, FL 33620.—The author set about to determine: (1) Oldsquaw population levels and breeding pair distribution, (2) nest site tenacity and homing, (3) nest distribution

and location, nesting success, and the effect of weather upon nesting and re-nesting, (4) territorial behavior, and (5) species-specific displays of this species in sufficient detail to permit comparison with those of other species.

Forty-three to 47 pairs of Oldsquaws were studied 1968–71 on a 4000 ha area 5 km east of Churchill, Manitoba. Supplemental behavioral observations were made in Toronto in winter. Alison's data on age and sex distribution in the population, arrival, mortality, productivity, predation, nest site selection, homing, etc. will be standard references for anyone interested in Oldsquaw breeding biology. Predation relative to nest site is extensively covered. Behavioral descriptions are far more complete than were available previously. They are adequate for comparison to other species with regard to sequence of displays and seasonal variation in display frequency. Display morphology and vocalizations are not described quantitatively.

At times, interesting facts are skimmed over with essentially no discussion. For example, Alison states that females spend no time searching for or preparing nest sites in advance of time for the first egg to be laid. This is an unusual situation for waterfowl and deserves discussion. Likewise, his finding that Oldsquaws did not nest at ponds with Common Eider (*Somateria mollissima*) colonies deserves further comment. Alison did not review reports of Oldsquaws avoiding King Eiders (*S. spectabilis*).

The weakest aspect of this monograph is its failure to draw clear and logical conclusions. Discussions and explanation of territoriality are hard to follow and lack conclusions. The design of experiments aimed at testing territorial defense was poor and did not allow the formation of firm conclusions. The high rate of inviability which Alison reports is inadequately discussed. Alison found that all three females returning a second year to the same nest site had been successful the previous year, yet he concludes "Success or failure of a previous nest clearly does not determine the nest site chosen in any given breeding season."

This paper is handicapped by cumbersome and careless writing. In many cases, poor choice of words interrupts a reader's train of thought. References to figures in the text are, in several cases, misleading relative to what the figures actually portray. Certainly Fig. 4 does not illustrate individual variability of plumage! Discussions of nest site fidelity, weather, and predation are duplicated to an unnecessary extent. Illustrations are of poor quality.

Overall, this monograph represents a significant advance in our understanding of Oldsquaw biology. It is unfortunate that the author missed an opportunity for an extensive comparison of Oldsquaws to other arctic waterfowl. It is equally unfortunate that he failed to relate his work to relevant biological concepts. Without such comparative and theoretical material, this work should have been published as two average length papers.—LEWIS W. ORING.

POPULATION ECOLOGY OF THE MALLARD. I. A REVIEW OF PREVIOUS STUDIES AND THE DISTRIBUTION AND MIGRATION FROM BREEDING AREAS. By D. R. Anderson and C. J. Henny. U.S. Dept. of the Interior, Bureau of Sport Fisheries and Wildlife Resource Publication 105. 1972: 166 pp., 61 figures, 16 tables. \$1.50.—This is the first in a series of reports aimed at compiling data on mallards gathered by the Bureau over the last 20 years. This report reviews the history of waterfowl management, summarizes previous studies, and reports, summarizes and discusses the distribution of band recoveries throughout the breeding range of the mallard. A review is presented of waterfowl management from 1850 to the present. The mallard is the most

abundant wild duck in North America. Its population in late summer has ranged from 13–30 million birds (mean = $19\frac{1}{2}$ million), with an annual “harvest” of from 1.3 to 5.7 million (mean = 3.5 million) since 1955. Waterfowl conservation practices have gradually developed from the first game legislation in the 1870’s, through the establishment of the Migratory Bird Conservation Act of 1929 (creation of wildlife refuges), the Duck Stamp Act, the Migratory Bird treaty with Mexico, the establishment of research areas, and a National Flyway Council and the institution of banding programs and aerial surveys, to the development of the Migratory Bird Population Station (Patuxent) and other research centers. Today there are numerous data gathering programs which provide a basis for making management decisions.

A brief section on research studies on mallards provides an overview of the information available on sex ratios, mortality, population size, influence of habitat, behavior and pesticide research. Although this whole section is only 6 pages, it provides a starting point for any student of mallard biology.

The bulk of this report deals with banding data. Banding terms are carefully defined. It is difficult to deal with banding data from all of North America, and so the authors designated 16 major “reference areas.” A major reference area is the sum of all the pre-season banding stations located in the same general area and having similar recovery distribution patterns. Large reference areas were subdivided where necessary. Each major reference area is described with a brief summary of the quantity and quality of information available, including research, surveys and banding data. The percentage of the continental mallard population nesting in each reference area is estimated. Voluminous information is presented on the banding recoveries from each reference area including figures of the distribution of band recoveries. Tables present data subdivided by age and sex, and by direct, indirect and total recoveries. The information in this section is detailed and very useful for biologists interested in any subsection of mallard breeding range. Conclusions are drawn in each section relative to the number of mallards harvested, the location of the harvest, migration routes, and possible reasons for differences between areas. This section ends with a discussion of the general patterns of band recovery distribution by flyways, and as a function of wet versus dry years.

POPULATION ECOLOGY OF THE MALLARD II. BREEDING HABITAT CONDITIONS, SIZE OF THE BREEDING POPULATIONS AND PRODUCTION INDICES. By R. S. Pospahala, D. R. Anderson and C. J. Henny. U.S. Dept. of the Interior, Bureau of Sport Fisheries and Wildlife Resource Publication 115, 1974: 73 pp., 25 figures, 18 tables. \$1.60.—This is the second in a series of reports on the comprehensive analysis of population data on the mallard at the continental level. This report provides information on mallard breeding habitat, the size and distribution of breeding populations, and indices to production. It is largely based on large-scale aerial surveys conducted during May and July 1955–1973. May surveys were used to estimate habitat conditions and the number of breeding birds, and July surveys were used to estimate variables related to midsummer habitat conditions and waterfowl production. Climatic conditions have a considerable effect on the quality and quantity of waterfowl breeding habitat which in turn influences waterfowl production and the distribution of birds on the breeding grounds.

There were 127 million acres of natural wetlands in the United States at the time of settlement; by 1953 only 82 million acres remained. Since then this has decreased to

75 million acres. Programs dealing with North American wetlands have simultaneously promoted wetland drainage and wetland preservation. Federal support of wetlands has only partially offset the acreage drained in the Northern Great Plains for wheat production. This loss of wetlands has been the major cause of declines in waterfowl populations. Similar decreases have occurred in the Canadian wetlands.

The number of ponds present in the Prairie-Parkland area during the breeding season and the midsummer periods, and the effects of precipitation and temperature on the number of ponds are analyzed in detail. Pond numbers in a given year were a function of the number of ponds present in the previous year and the amount of precipitation during the previous 10 to 12 months. The number of July ponds was a function of the number of May ponds that year and the precipitation received during the May 1-July 31 period. Precipitation in any individual month is only weakly correlated with the number of ponds in a given year. An analysis of 33 years of monthly precipitation data from the Prairie-Parkland area failed to reveal any significant precipitation cycles. Precipitation appeared to be strongly influenced by substantial seasonal and random components. Although precipitation appears to change from one extreme to another in successive years, the number of ponds did not vary to this degree. Since the number of ponds in a given year is related to the number the previous year, pond numbers are unlikely to change drastically from one year to the next. I found the presentation of the wetlands and pond data especially useful for anyone interested in marsh and prairie ecosystems. This data base may well prove useful in understanding population levels of other avian species in these habitats.

Aerial surveys sampled 84% of the estimated breeding population of mallards. The estimated size of the May population ranged from 14.4 million (1958) to 7.1 million (1965). Generally, the mallard population declined from 1958 to 1962, and remained below 10 million birds until 1970. The center of mallard abundance during the breeding season is the Prairie Parkland area in south-central Canada where 51.5% (range of 37.7 to 68.5%) of the population breeds. An average of 29% of the mallards was found in northern Canada and the Northwest Territories, 16% were found in the north-central United States, and 4% were in the Alaska-Yukon area. Mallards represent 28% of the breeding duck population in all surveyed areas except the far North. The distribution of mallards tends to parallel the distribution of total breeding ducks.

Estimates of midsummer habitat conditions and indices to production from the July surveys were studied and described. Several indices showed declines from west to east in the Prairie Pothole region. These indices are 1) density of mallards, 2) brood density, 3) average brood size, and 4) brood survival. Late nesting and re-nesting efforts were highest during years when midsummer water conditions were good.

An interesting discussion of production rates as a function of density-dependent and density-independent factors is presented. They suggest that spacing of birds is the key factor in density-dependent population regulation. The spacing mechanism along with habitat conditions influences some birds to overfly the primary breeding grounds into less favorable habitats to the north where production rates are lower. Emigration from prime habitat (Prairie-Parkland area) is thus density dependent. Breeding populations remaining in these prime breeding habitats appear to produce young at a rate independent of density. The number of young produced appears to be a linear function of the breeding ducks in the area. This is perhaps the first study of a continent-wide nature having sufficient data to substantiate densities on the broad scale necessary to show this density-dependent effect.

This report presents much valuable data for all avian biologists and I recommend it

to anyone interested in behavior, populations, reproduction indices, ducks, mallards, marshes and wetlands.

POPULATION ECOLOGY OF THE MALLARD III. BIBLIOGRAPHY OF PUBLISHED RESEARCH AND MANAGEMENT FINDINGS. By D. R. Anderson, P. A. Skaptason, K. G. Fahey and C. J. Henny. U.S. Dept. of the Interior, Bureau of Sport Fisheries and Wildlife Resource Publication 119. 46 pp., \$1.30.—This third report in a series on population data on the mallard is a bibliography of references. It was prepared primarily to aid waterfowl management and research personnel but will be helpful to all biologists interested in mallards. It is arranged under the following topics: population ecology, behavior and social interactions, genetics-evolution, food and food habits, habitat-wetlands, censuses and surveys, pesticide research, lead poisoning, disease and unclassified. The authors selected 900 of the approximately 3,000 references examined for inclusion in this bibliography. The report also includes an author index.—JOANNA BURGER.

COMPARATIVE BEHAVIOR OF THE AMERICAN AVOCET AND THE BLACK-NECKED STILT (RECURVIROSTRIDAE). By Robert Bruce Hamilton. Ornithological Monographs No. 17, American Ornithologists' Union, 1975: vi + 98 pp., 18 text figs., paper cover. \$7.50 (\$6.00 to A.O.U. members). Obtainable from Glen E. Woolfenden, Dept. of Biology, Univ. of South Florida, Tampa, Fla. 33620.—The principal purposes of this study are given by the author on p. 1: "Because of the insufficiency of detailed information about the North American avocet and stilt, I studied the behavior of these species, as related to their morphology and ecology, to determine if their supposedly close relationship can be supported on other than superficial morphological grounds." Most of the study was conducted at salt evaporation ponds in Alameda County, California (in the San Francisco Bay area), and one trip was made to natural ponds near the Oregon-California border from 21-26 June 1968. The study was completed in 1969, which explains why there are no literature references later than 1968.

There is a brief review, with maps, of the geographic distribution of recurvirostrids with particular attention to North America, but no discussion of the taxonomic problems involving species limits within the family. A section on morphology deals with standard measurements of tail, wing, tarsometatarsus, and body weight. Special measurements were devised to represent the recurved bill of the avocet, and the absence or extent of sexual dimorphism in all the above dimensions is given particular attention. The morphology section does not include osteology, myology, other internal anatomy, pterylosis, or molt. Avocets show no sexual dimorphism in color but differ in bill configuration; stilts differ in color (pp. 6-7), but the nature of the differences was inadvertently omitted (females have duller, brownish backs, males have glossy black backs). There are other slight differences and an important one in tarsometatarsus length, which is significantly longer in the male in both species.

Habitat differences are discussed in one page, with literature references cited to show that avocets usually inhabit more saline waters and stilts prefer fresh water habitats.

The long section on Maintenance Behavior (pp. 15-57) is made up largely of detailed descriptions of each posture or series of movements involved in maintenance activities, and various exceptions to the usual picture are described. The narrative style is very objective and complete—for example, drinking (p. 48): "When the bill is just above

the water surface, it is placed in the water by movement of the entire body, which is accomplished by bending the ankle joint. The neck and body are then raised with the neck bent somewhat and the head resting along the axis of the back, but with the body angled so that the bill is higher than the back. Because of gravitational influence, water then flows into the mouth where it is swallowed." Sometimes cautious objectivity is carried to an extreme (p. 43): "Resting is a comfort movement which is difficult to define. The basic characteristic of resting is a lack or minimizing of activity, which probably results in minimal expenditures of energy."

Tables and chi-square statistical analyses treat the associations of different activities with each other and with disturbance or non-disturbance. Various differences between species and sexes are described. Observations during one week at one locality in northern California showed that male stilts forage more frequently in deeper water than do females. No such difference was noted in avocets, and there was considerable overlap between the two species in the water depth at which foraging was most frequent. Avocets tended to forage more often by plunging the head under water than did stilts, and male avocets did so more often than females.

A section on locomotion describes the postures and movements of flight, walking, running, wading, and swimming. Aerodynamics and the energy cost of these activities are not discussed.

The section on social behavior consists largely of descriptions of postures and actions and the circumstances under which they occur. There is a similar treatment of sexual interactions, with some discussion of pair formation and the possible means of sex recognition. The author suggests that plumage dimorphism in stilts and bill shape in avocets are the most important clues. Remarkably, there seems to be no noticeable difference in pairing, precopulatory display, copulation, and postcopulatory display in the two species, but only one copulation of stilts was observed. The nesting behavior section includes accounts of nest locations along the dikes of the salt ponds, nest building, incubation behavior, hatching, brooding, care of young, and distraction displays. Hamilton observed nest building only in avocets, and believes that the scrape is made altogether by rotation of the breast feathers against the substrate. The incubation period was not precisely determined for either species but it seems to be 23 to 25 days in both. The sexes appear to share incubation duties and brooding and care of the young more or less equally. The young seem quite precocial and leave the nest scrape on the day of hatching, but parents may brood their own young and sometimes mixed groups during the first post-hatching week. Avocets and stilts have a variety of distraction displays and most of these differ between the two species. The displays are most intense away from the vicinity of the nest and are probably effective in misleading potential predators about its location.

The final section consists of three pages of summary and conclusions; there is no separate discussion section. The author concludes that *Recurvirostra* and *Himantopus* are correctly included in the same family, that *Cladorhynchus* of Australia should tentatively be maintained as a separate genus, and that *Ibidorhyncha* probably does not belong in the *Recurvirostridae*.

In a field of research in which overinterpretation is a principal hazard it may seem churlish for a reviewer to complain of underinterpretation, but this is my chief criticism. The other complaint is the limited scope of the study. I have already listed a number of things that might have been included but were not, and among additional ones the absence of any discussion or analysis of vocalizations is most regrettable. The author gives us descriptions of postures and movements in virtually unlimited

detail but is extremely restrained in giving us his ideas on their significance. The monograph does provide a useful catalog of avocet and stilt behavior, and its value is greatly enhanced by Gene Christman's excellent drawings that depict most of the activities described. I just wish that the author had concentrated less on descriptive material and given more analysis, interpretation, and insight.—THOMAS R. HOWELL.

THE GREAT BOOK OF BIRDS. By John Gooders. Dial Press, New York, 1975: 351 pp., 386 photographs (all but 1 in color), 19 color paintings. \$24.95.—For the past two Christmas seasons, the bookstore displays have included so many of the ponderous, gaudily illustrated bird books collectively known as "coffee-table books" that it is getting harder and harder to remember which book is which. This profusion may have impelled Dial Press to rechristen Gooders' book "The Great Book of Birds" to catch the eye of the American purchaser; the British edition is more modestly entitled "Birds: an Illustrated Survey of the Bird Families of the World." Gooders states that he accepted the commission to write this book to fill an "obviously vacant niche." By this he meant a family by family survey illustrated by color photographs as opposed to paintings ("... to illustrate a bird book, other than a field guide, without photographs is virtually unthinkable," a dictum that might come as a surprise to, among others, Leslie Brown and Dean Amadon). Gooders specifically contrasts his book with that of Oliver L. Austin, Jr., with its well-known paintings by Arthur Singer. Incredibly, he does not mention or list in his bibliography E. Thomas Gilliard's "Living Birds of the World," which was wholly illustrated with photographs, and with which Gooders' book ought more properly to be compared. Gooders states that "our knowledge of birds and their lives has changed remarkably since [Austin's book] appeared in 1961." Perhaps so, but one must search diligently through the pages of Gooders' book to find information that could not have been published in 1961, and most of the "remarkably changed" knowledge I found dealt with recent censuses of endangered birds or range changes in Britain.

The publisher's blurb on the dust jacket (at least of the English edition, which I have) describes John Gooders as "an ornithologist of international repute." An ornithologist (whether "professional" or "amateur") is, or should be, a scientist, characterized by a commitment to care and accuracy. Traveling around the world to look at birds does not make one an ornithologist, merely a more experienced bird-watcher. Before obtaining this book, my only knowledge of John Gooders was through his finding guide "Where to Watch Birds," which I attempted to use during a driving trip through Britain in October 1975. I soon learned that Gooders is no Pettingill, and the present book indicates that he is also neither an Austin nor a Gilliard.

The text, in general, is an undistinguished rehash of information much the same as that available in other surveys of birds of the world. The family chapters are excessively brief for such a large book; the amount of space available for the text has been severely diminished by reproduction of many photographs far larger than either necessary or desirable. Often the largest photographs are among the poorest. The nadir is perhaps the double-page spread on pp. 138-139, a $17\frac{3}{4}'' \times 11\frac{5}{8}''$ reproduction of an out-of-focus photograph of *Rostratula benghalensis*. The bird occupies an area of about $3\frac{1}{2}'' \times 2\frac{1}{2}''$, and the rest of the picture consists of a blurred image of singularly unattractive looking mud. This kind of infringement on text space has meant that, for most families, information is given on fewer species and in much less detail than in either the Gilliard or Austin books. Inevitably, some family accounts are lopsided.

Of approximately one page of text on the parrots (versus 2½ in Austin and almost 5 in Gilliard), discussion of the entire New World radiation of this family is confined to one sentence about the Carolina Parakeet and five sentences about macaws in general and *Ara ararauna* in particular. The only indication that the Jacanidae inhabit the New World is the statement that "the name jacana is derived from the South American [!] and is Portuguese in origin," although five of the six Old World species are mentioned and described. Gooders' slighting of the work of the late E. T. Gilliard extends to the family accounts of the bowerbirds and birds of paradise; we are told that "most of our knowledge of the behaviour of birds of paradise has been gleaned from the study of birds in captivity." In the account of the Tetraonidae, one paragraph is devoted to the grouse-shooting and drinking habits of the British aristocracy, while the Ruffed Grouse is not even mentioned—in fact, *all* of the North American grouse are said to boom and to have inflatable air sacs on the sides of the neck.

The writing style is plebeian, and the text abounds with sloppy generalizations (like that on the grouse) and irritating errors. On the same page (65), Gooders uses the expression "one of the most unique . . ." and describes Central America as a continent. The New World range of the Cattle Egret is given as Central America, the West Indies, and eastern United States; South America, where the first immigrants of this species appeared, is not mentioned. "Bitterns" are characterized by a description of the voice and habits of the European *Botaurus stellaris*, written as if the generalizations applied to all species. Females and immature males of the American Redstart are described as "uniformly grey with white patches in the tail."

Gooders indulges in slangy British vernacularisms that I, at any rate, found irritating, although I am anything but an anglophobe. On p. 10, "a new generation of bird photographers has hit the unphotographed list for six . . ." (a cricketing term, not a number of species). On p. 327, "Starlings are the wide boys of the bird world." Numerous species are described as the "odd bird out" of their respective families. And Gooders occasionally permits himself subjective value judgments that also annoyed me. For example, in describing the Little Egret, he writes ". . . only yellow feet on black legs jar the sense of beauty." Most writers consider this color contrast one of the most strikingly attractive attributes of the small egrets. On p. 89, "Pride of place among swans goes to the three northern species." In a word, why? On p. 338 Gooders states that crows, characterized as "the most advanced and intelligent of birds," are "placed at the end of the list by most modern systematists." I wonder whether he has taken a poll.

It almost goes without saying that this book has its share of typographical errors and misspellings, usually in scientific, proper and geographic names (*baralli* for *barau*, Gambell for Gambel, Lake Janin for Lake Junin), but in general the proofreading was more successful in this than in many recent error-plagued books.

It seems almost a waste of time to dwell on the multiple inadequacies of the text of this book, as most people will probably make their purchase decision on the basis of the illustrations. Here we have indeed seen great progress since 1958, when Gilliard's book (with its vastly superior text) was published. Gilliard had to use many black and white photographs; there is only one (of a cave painting) in Gooders' book, and color reproduction has also improved in the past 26 years. One or more color photographs are presented for most living families of birds. Most (but by no means all) have been well chosen, although as mentioned above, many are reproduced far too large. I dislike seeing a Stonechat portrayed at the body size of a Bobwhite, and a Hawfinch as big as a Peregrine. The ten-inch Quelea on p. 324 is an excellent photograph

abominably presented. Certain photographs of well-known birds are disappointingly mediocre. That of the House Sparrow shows only females (and is printed too yellow in my copy); the incubating Red-eyed Vireo has been washed out by a strong flash; hundreds of better photographs than that used of the Cardinal must have been available; the Boat-billed Heron is a scruffy-looking, probably captive juvenile accompanied by an error-filled caption; the Herring Gull photograph chosen is a blurred, off-color, confused shot of a dozen immature birds, apparently swimming toward a food handout.

But, given these disappointments, let us rejoice at the array of truly magnificent photographs of birds little known to many of us. I mention only a few of my favorites: the Squacco Heron feeding young; twelve male Harlequin Ducks on wave-pounded rocks; the superb white Gyrfalcon clutching a ptarmigan; the perky group of Crested Auklets; the facing pages with a flying Boobook Owl and an incubating Ural Owl; the Carmine Bee-eater swooping from its perch on the back of a Kori Bustard; wonder of wonders, a close-up of a Rufous Scrub-bird. There are many others that I enjoyed, assembled from the files of an international list of fine photographers. I assume that Gooders was responsible for the captions, and these are largely unworthy of the photographs. Scientific names are not given, which is a handicap because the figured species is not uncommonly omitted from the text. And in some instances neither a scientific nor an English name is provided for the species photographed. We are not told, to list some examples, *which* tinamou, cassowary, kiwi, darter, diving-petrel, or frigate bird is portrayed. In several cases a second species is visible in the photograph, but these are almost never identified. The Hottentot Teal among the wintering Garganeys is not mentioned, for example, nor are the terns among the Crab-plovers or the second species of gull in the Grey Gull photograph.

In addition to the photographs, there are several paintings reproduced in color. Most are rather amateurish, the worst being a grotesque rendition of five species of guans. At the opposite extreme are three attractive plates by the always reliable Robert Gillmor, portraying the Pelecanidae, Sulidae and Fregatidae of the world.

Any avid collector of bird photographs who simply *must* have this book would be poorly advised to spend twenty-five dollars for it. Like many other coffee-table books, it will probably appear eventually at a discounted price on the clearance house lists. Alternatively, one could send for the British edition, published by Hamlyn at £6.95. At this writing, the exchange rate for the Pound Sterling is such that the book would cost only a bit more than \$14.00 plus overseas postage. Apply the money saved toward a copy of Gilliard's "Living Birds of the World" (now back in print at \$19.95) for its much more thorough and reliable text.—KENNETH C. PARKES.

ATLAS OF EASTERN CANADIAN SEABIRDS. By R. G. B. Brown, D. N. Nettleship, P. Germain, C. E. Tull, and T. Davis. Canadian Wildlife Service, Ottawa, 1975: 220 pp., 108 pelagic and 23 breeding distribution maps. Order from Information Canada, Ottawa K1A 0S9. \$6.75 in Canada, \$8.10 elsewhere.—This atlas, measuring 8½ by 11 inches and printed on quite heavy coated stock, records pelagic distribution and colonial breeding distribution in the northwestern Atlantic region—from 40°W (near southern tip of Greenland, hence includes western Greenland) westward to 95°W (includes waters around Boothia Peninsula, Somerset Island, etc.) and from about 40°N (New England and Maritimes) northward to 80°N (beyond which few species occur). The pelagic data were gathered in all seasons, March 31, 1969–March 31, 1973. The seabird colony data are not limited to this period but sometimes extend back much earlier.

After the introduction, there is a discussion of how pelagic distributional data were gathered, a section on oceanographic features (temperature, salinity, etc.), one on factors influencing seabird breeding ranges (mainly terrestrial conditions), and a most useful and timely exposition of where and when seabird concentrations occur—where the birds are most vulnerable to oil spills.

The bulk of the atlas consists of the maps, plus brief but important accompanying text, for Fulmar, shearwaters, petrels, Gannet, cormorants, phalaropes, jaegers, gulls, terns, and Alcidae. Quantitative maps show average numbers of birds recorded per 10-minute watch; "rarebird" maps naturally have less to show; and colony maps are supplemented by tables giving named locations, geographical coordinates, colony size, census year, and authority. Much work went into this project; it seems natural for the authors to refer to mapping "effort" by month.

What can one learn from this atlas? Location of colonies and other breeding distribution, migration, dispersal, distribution at sea, relation of species to zonation of water temperature, and so on. The text by no means elucidates everything. Example: it is obvious from the maps that there is a northward postbreeding dispersal of *Larus marinus*. Thus the atlas invites a lot of use and some interpretation, but first one must learn that the circular symbols are "Type I" data (full-time observations) and square ones are "Type II" (part-time)—as explained on page 14—and with keys to symbols on page 13 and repeated on page 220. All through the atlas, either by adjusting arrangement of the maps slightly, or often not at all, the key(s) could have been repeated on one or the other of facing pages. Just from preliminary use, the review copy already is loose at the spine; the pages will have to be kept in a loose-leaf notebook. This is a nuisance, especially for a document that will get hard use by everyone concerned in any way with boreal seabirds. It is possible that the uninformed person might, perhaps, assume that pelagic distributions as shown are quite constant, i.e. will be essentially repeated over many years. But ocean currents, hence temperature of water and composition of marine fauna on which birds feed, do shift with time and the birds must adjust accordingly. Vibe (Arctic animals in relation to climatic fluctuations, *Medd. om Grønland* 170(5):1-227, 1967) treated this subject at length and for a major portion of area within that encompassed by this important atlas.—RALPH S. PALMER.

ANOTHER PENGUIN SUMMER. By Olin Sewall Pettingill, Jr. Charles Scribner's Sons, New York, 1975: 80 pp., 36 color and 70 black-and-white photographs. \$10.00.—This book is a popular introduction to the penguins of the Falkland Islands—"intended to entertain as well as to inform." Its 24 pages of text include a general discussion of penguin biology and more detailed sections on Gentoos, Rockhoppers, Magellanic, King, and Macaroni penguins. The narrative describes the behavior of these species on the Falklands and provides much interesting detail. Many questions that came to my mind as I read were answered, either in the text or in the photograph captions. The photographs present an excellent record of arrival at the shore, landing, the inland trek, and breeding. One shows a Magellanic Penguin skittering on its toes and flippers. In others the Rockhopper's moods, as expressed by its head plumes, are well-illustrated. Distant shots of several colonies give a good feeling for their size, relation to topographic features and the shore, and in some cases show the well-worn traffic routes.

This book is attractive and well-produced. Its text meets the author's intent, at least for the young student and the adult layman, and the pictures will interest many ornithologists as well.—RICHARD L. ZUSI.

GOLDEN EAGLE COUNTRY. By Richard R. Olendorff, illus. by Robert Katona. Alfred A. Knopf, Inc., New York, N. Y. 1975: xvi + 202 pp., 39 black-and-white drawings, 1 map. Foreword by Dean Amadon. \$12.95.—This large volume presents an anecdotal account of the daily experiences of a keen raptor biologist (and, later, two associates) as he conducted intensive field studies in 1971 and 1972 on breeding Golden Eagles and other raptors on a 1,000 square mile area of shortgrass prairie on the western Great Plains. The details presented are factual and concern "specific places, birds, and observations," but the setting, a place called Eagle Breaks, is fictitious to protect the birds.

Raptor biologists will find many fascinating nuggets of information scattered throughout the book. For example, the author concludes that there are far more Golden Eagles, and presumably other raptors, in North America than currently recognized. I found this conclusion of considerable interest because I independently suggested a similar conclusion elsewhere based upon studies of migrating hawks. Dr. Olendorff makes a plea for programs of active management of raptors. I agree that raptor management can aid these birds in many instances, but I would hasten to add that one method of management is to *do nothing*. There is a danger in working with wildlife as glamorous as birds of prey that management programs could become sophisticated professional toys. Hence objective, professional judgment must be the basis for developing raptor management programs.

Most of Robert Katona's drawings illustrating this book are excellent. They add a good deal of charm to the volume.

My main criticism with this book is the fact that the author is sympathetic toward falconry. This is extremely disappointing because I consider this activity to be totally ill-advised and unnecessary—one out of place with astute modern conservation goals.

In all, this is an interesting book which gives readers an excellent insight into the amount of work required to conduct field studies of raptors. It will be of primary interest to raptor enthusiasts.—DONALD S. HEINTZELMAN.

SUMMER OF A MILLION WINGS. Arctic Quest for the Sea Eagle. By Hugh Brandon-Cox. Taplinger Pub. Co., N.Y., 1974: 184 pp., 21 text figures, 25 black-and-white photos. \$8.95.—Although I started reading this fascinating book with the view that I would be reading mostly about the White-tailed Sea-eagle, I soon discovered that Brandon-Cox's approach to the eagle was a total environmental account, an account of the sudden Arctic break from winter to summer, and seemingly an almost total picture and feel for the perhaps indescribable transition beginning the first week in May, in Arctic latitudes. An account that is partly narrative, partly a detailed chronological portrayal of happenings from the bloom of marine algae to the constant roar at night of millions of guillemots, auks, puffins, gulls, all thronging to the cliffs of Vaeroy in the Lofoten Islands off northern Norway. And above all this, the great wings of one of the largest sea-eagles. This is not a detailed biology of the eagle . . . one should turn to Wilgoth's monograph for that . . . but this book seemingly brings to

the reader the total ecosystem which unfolds beneath the wide wings of the soaring eagle.

For all who have felt the lure of the Arctic, the lure of great sea cliffs alive with marine life, the intimate, intricate lure of even a square yard of tundra, the almost magic of untold millions of seabirds thronging to the astonishingly large but very temporary photosynthetic yield of marine phytoplankton supporting a zooplankton that defies quantitative estimate, for those who love the lure of almost total seclusion from human encumbrances of everyday life, this book is a must.—WALTER R. SPOFFORD.

THE NESTING POPULATION OF LESSER SNOW GEESE IN THE CANADIAN ARCTIC: A PHOTOGRAPHIC INVENTORY OF JUNE 1973. By Richard H. Kerbes. Canadian Wildlife Service Report Series No. 35, 1975:47 pp., 19 figs., 9 tables, paper cover. \$3.25 in Canada, \$3.90 in other countries.—Order from Information Canada, Ottawa K1A 0S9, Canada.—R.J.R.

BIRDS OF THE ROSETOWN-BIGGAR DISTRICT, SASKATCHEWAN. By Wayne E. Renaud and Don H. Renaud. Special Publication No. 9, Saskatchewan Natural History Society, Box 1121, Regina, Saskatchewan, Canada, 1975: 121 pp. \$4.00.—This unusually complete and attractively printed paperback guide lists the occurrence, breeding status, abundance, and local distribution of 236 species in an area of 1512 square miles in central Saskatchewan. In addition to the species accounts there are brief discussions of the geography and habitats of the region, and a guide to birding areas.—R.J.R.

NON-GAME BIRDS OF THE WEST: AN ANNOTATED BIBLIOGRAPHY. By Steve Trimble. U.S. Dept. of the Interior, Bureau of Land Management, Technical Note, 1975: 320 pp., paper cover. Free on request from the Wildlife Staff, Denver Service Center, Bureau of Land Management, Denver Federal Center, Bldg. 50, Denver, CO 80225.—This bibliography covers the Cuculiformes, Caprimulgiformes, Apodiformes, Trogoniformes, Coraciiformes, Piciformes, and Passeriformes of Alaska, Washington, Oregon, California, Montana, Idaho, Nevada, Wyoming, Utah, Arizona, Colorado, and New Mexico. References are grouped according to the biome in which the species predominantly occurs, and in addition there are sections on general biology, research techniques, associates of man, and state surveys. Within each division the birds are arranged by family. A Master Species List and Index is arranged taxonomically, so that one can quickly look up a given species and find the locations in the book where papers are listed. The papers are from many sources, including unpublished theses, but the *Wilson Bulletin*, *Auk*, and *Condor* are heavily referenced. Shorter papers are mainly listed by title only, but for many papers a brief summary or abstract of the contents is given. This is a very useful compilation of literature on the ecology, life history, habitat, and behavior of western birds, and should be especially valuable in helping students to quickly survey the literature at the beginning of a research project.—ROBERT J. RAIKOW.

BIRDS OF CENTRAL PENNSYLVANIA. 2nd ed. By Merrill Wood, 54 pages, maps, paper covers. \$1.50 (by mail \$2.00 from State College Bird Club, Inc., 626 West Nittany Ave., State College, PA 16801).—This is a compilation of records of the State College

Bird Club, and gives species, relative abundance, and habitats of birds recorded in a 25-mile radius of State College.—R.J.R.

THE BIRDS OF MANITOBA. By Ernest S. Thompson. Proc. U.S. Natl. Mus., XIII, pp. 457-643, with plate XXXVII. 1891. Reprint edition published by Premium Ventures Ltd., Winnipeg, Manitoba, Canada, 1975: 187 pp. Paper Cover. \$5.00. Order from the publisher at 235 Garry St., Winnipeg, Manitoba, Canada, R3C 1H2.—The author is better known as Ernest Thompson Seton. This is an early work, containing 266 species accounts with distributional data and some rather anecdotal accounts of habits.—R.J.R.

VOICES OF NEOTROPICAL BIRDS. Record # Ara-1. Written and narrated by John William Hardy. Most recordings by Hardy. Published privately by John William Hardy and Carol K. Hardy, Gainesville, Florida, 1975: One LP record in jacket. \$6.00 postpaid. Add \$1.00 for Canadian and \$1.50 for other foreign mailing.—In spite of the great increase in travel to the neotropics by both ornithologists and birders, published records of the voices of neotropical birds are still few and far between, and the present work is thus a welcome newcomer to the scene. Forty-five species are presented in systematic order, with others heard on the background bringing the total to over 50. Most of the birds were recorded in Mexico, Nicaragua, and Costa Rica, only two being from South America. The recordings themselves are of good but not surpassing quality, not up to the standard we are used to from professionals like William Gunn and J-C. Roché, but nonetheless adequate for both listening pleasure and learning purposes. The most brilliant recording and also aesthetically the most pleasing is that of the Sinaloa Wren, *Thryothorus sinaloa*. Many recordings are "firsts," of particular note being the three rare jays, *Aphelocoma mirabilis*, *A. nana*, and *Cyanocorax dickeyi*.

Although the record has definite use as an identification aid and will give pleasure to those who simply enjoy listening to bird voices, these are not Hardy's primary purposes. His main thrust is to provide a biologically oriented commentary to the recordings so that the listener may be instructed at the same time as he is being entertained. To this end there is an introduction on the back of the jacket, together with a list of species and details of the recordings, also a definition of terms used in the narration. The bulk of the instructional commentary is contained in the narration on the record, and herein lies one of the major defects of the publication. So much space is used up by the spoken commentary that there is often little time left for the birds themselves. Had the commentary been in printed form, many more bird vocalizations could have been presented, increasing the usefulness of the record. And whereas one can listen indefinitely to the bird songs, the human voice begins to pall on the third or fourth repetition. Further, information retrieval is difficult with this type of presentation. Hardy has many interesting things to say, but in order to refer to them you have to play over the record until you reach the right spot.

There is much of ornithological interest on this record. Hardy's intention is to depart from the rather bald presentation of many conventional identification records and attach some scientific point to the recordings he presents. This is a laudable aim, and while the connection between some of the vocalizations on this record and biological theory is often somewhat tenuous, the commentary providing little beyond the circumstances of the recording, this is more than made up for by the meat in

the other examples. Of particular interest is the illustration of the songs and calls of two species pairs, *Catharus frantzii/occidentalis* and *Vireo griseus/pallens*, each of which was formerly thought to consist of a single species. Equally fascinating are the vocalizations of the complex of *Agelaius phoeniceus* subsp. living in central Mexico, including those of a hybrid swarm of *A. p. gubernator* × *nelsoni*.

While the record itself is technically free of flaws, whoever proofread the jacket was asleep on the job. My editorial eye spotted species, esthetic, training (training), concensus, Violaceous Jay, Cicadas, *Cacciculus*, *Ara aruana*, *Megarhynchus pitangus*, and Matto with no Grosso, among others. But just as these were overlooked by the proofreader, so we too can overlook them, since this record makes a valuable contribution and is recommended for purchase.—G. STUART KEITH.

MY ORPHANS OF THE WILD. By Rosemary K. Collett with Charlie Briggs. J. B. Lippincott Co., Philadelphia & New York, 1974: 288 pp., B & W photos. \$8.95.—Subtitled "Rescue and home care of native wildlife," this book has resulted from the author's many years of caring for young, injured, or diseased birds and mammals at her home in Florida.

Less than a third of the book is devoted to mammals, such as raccoons, armadillos, and rabbits. The majority of the chapters concern birds, grouped by types that require similar care and diet: song and garden birds (sparrows, jays, cardinals, mockingbirds, etc.); insectivores (woodpeckers, caprimulgids, swifts, martins, flycatchers, etc.); piscivorous marsh birds (herons, egrets, and bitterns); two groupings of raptors; etc. Although the accounts are limited to Florida species that the author has had experience with, much of her information can be extrapolated by the reader to include northern birds (e.g., robins, probably the most common "orphans" wherever that species breeds). The only major groups omitted are shorebirds and hummingbirds, apparently because the author has never been brought a Killdeer chick or exhausted Ruby-throated Hummingbird—which is surprising.

Each chapter contains a brief description of the included species, a section on infant diet and care, another on adult diet and care, a discussion of how to house the birds (with pen and cage designs in an appendix), and notes on special problems of the species under discussion: force-feeding piscivores; incubating eggs; diseases and common injuries; capture (as of a pelican bristling with rusty fishhooks); avoiding injury or contagious diseases; and general do's and don'ts. Each chapter ends with advice on releasing the birds as soon as they are able to care for themselves, and commendable stress is placed on not releasing exotic species into the wild. The last sections of the book contain general discussions of first aid and an excellent practical account of cleaning and caring for oiled birds. Appendices include a veterinary reference section (the author's long-experienced veterinarian served as consultant for the book) with a list of medicines (with uses and doses), surgical equipment, and special diets (often brand names). Another appendix is a sparse and misleading list of the natural diets of common birds. Although not so stated, the list is limited to adult foods, whereas many species differ strongly in nestling vs. adult diets (e.g., under "sparrow" the only food listed is "seed"). The book concludes with a short discussion of the legalities involved in caring for wild birds, a bibliography of suggested reading, and a good index.

A reviewer might quibble about some of the book's shortcomings, such as the lack of concern for readers who do not live in a warm climate and would have to provide warmer and more protective housing, a few small mistakes on ornithological facts,

the degree of repetition (too much for general reading but not enough for quick reference use), and occasional slips into the cute (e.g., her three *Gavia immer* named "Claire de," "Panta," and "the Loon Ranger"). On the other hand, Mrs. Collett has included many details not only useful to a person caring for a bird, but also that can be transmitted to a veterinarian who (as is so often true) has had little experience with non-domestic birds. My only serious complaint is the lack of practical emergency diets and of diets based on easily obtained ingredients, at least for some groups of birds. The emergency recipe given for infant garden birds consists of Zymadrops vitamin supplement, a 25 mg vitamin B₁ tablet, and Gaines Meal dry dog food (the consistent recommendation for Gaines products is not explained). The author also occasionally forgets that people suddenly burdened with a baby robin might not be willing to invest in an expensive supply of exotic ingredients. The basic diet for infant garden birds simply replaces the Gaines Meal with medicated turkey starter (which even Mrs. Collett has to special-order, and it only comes in 50 lb. bags). A more practical list of ingredients should have been tried out while the book was in preparation, so the author could have recommended substitutions from her own experience. I can suggest high-protein baby cereal instead of the turkey starter—it comes in small boxes and is often on hand in households with children who bring home baby birds.

These objections aside, the book is extremely useful and a generally practical guide to bird care. It is a refreshing change from others on the subject, which tend to be overly emotional, to include too much second-hand information, or to require a veterinarian/aviculturist to use.—MARY H. CLENCH.

THE ENDANGERED ONES. By James A. Cox. Crown Publishers, Inc., New York, 1975: 224 pp., 250 + color and black and white photographs, line drawings and engravings. Hard cover. \$14.95.—Over the last 10 years we have witnessed a surfeit of works dealing with one aspect or another of "ecology." Some are more eloquently written than others and scientific content varies widely. Cox has directed his volume at the general reader. His message is clear: the wildlife of the world (notably vertebrates) are in serious trouble and the problem will only become more pronounced unless conservation measures are increased. A book with this noble aim in mind cannot be judged harshly. Cox's text is exceedingly basic and gives a quick rundown of the environmental crisis and some of its causes, and a brief review of the history of various conservation efforts. As with any book, nits can be picked: the reasons for the supposed correlation between declining populations of big cats and the subsequent increase of domestic rats are not readily evident to me (p. 17); 88 m.p.h. seems a bit fast, even for a cheetah (p. 137); etc. They are only minor problems, in any case.

The major thrust of the book is a continent by continent pictorial review of almost all of the endangered vertebrates of the world. Each species is briefly discussed, ecologically, along with the reasons for its being placed in the IUCN's *Red Data Book* (the primary source for Cox's material). Species are illustrated by drawings or photographs. Quality of artwork varies from rather poor (the Kaibab squirrel, p. 37; Attwater's Greater Prairie Chicken, p. 41) to spectacular (Red Uakari, p. 78). By and large the illustrations are excellent; many were taken in zoos, underscoring the rarity of some species. Interspersed among the accounts are some detailed case histories of conservation efforts (or their absence) on selected species, ranging from the Great Auk (lost) to the Vicuña (saved). These accounts are poignant at times and well written. Cox's book can scarcely fail to impress. *Life* magazine once published an issue with pictures of over 200 U.S.

servicemen killed in battle during the preceding week. One could hardly glance over the pages and not be impressed with the futility of the war, or at least its terrible human toll. Reading this book, one realizes the ephemeral natures of species and their singularity. My work in South America has brought me into contact with a number of animals described in the volume. Seeing the Andean Condor included in this book is like finding a friend's name in the obituary column of the daily paper. One thinks, "I didn't know," or "I didn't realize." Perhaps. More probably I just didn't think about it. Cox makes me do that, and in that he has succeeded. As Tennyson wrote, "Brutes, the brutes are not your wrongers . . . Sweet Saint Francis of Assisi, would that he were here again."—MICHAEL A. MARES.

WATERFOWL POPULATIONS IN DENMARK 1965-1973. Danish Review of Game Biology, 9(1). By Anders Holm Joensen. 1974: 206 pp., many maps, charts, and graphs. Paper cover. \$9.00. Order from Game Biology Station, Kalø, 8410 Rønne, Denmark.—A survey of non-breeding waterfowl populations based on ground and aerial censusing and hunting records. The distribution, age, and sex composition of populations in relation to hunting pressure is analyzed.—R.J.R.

EMPEROR PENGUIN, BIRD OF THE ANTARCTIC. By Jean-Claude Deguine. The Stephen Greene Press, Brattleboro, Vt., 1974: 30 pp., 38 color photos. Hard cover. \$6.50.—This attractive but overpriced little book contains excellent color photos of the life of the Emperor Penguin and other Antarctic animals. The brief text merely comments on the photographs.—R.J.R.

THE SEQUENCE OF PLUMAGES AND MOULTS OF THE PASSERINE BIRDS OF NEW YORK. By Jonathan Dwight, Jr. *Annals N.Y. Acad. Sci.*, XIII (2):73-360, 1900 (reprint, 1975). Order from The New York Academy of Sciences, 2 East 63 Street, New York, N.Y. 10021.—The classic study of passerine plumages has been reprinted with a new introduction by Kenneth C. Parkes that places the work in its historical context and discusses changes in terminology since the book was written. The reprint would have been more useful if an index and cross-reference to modern scientific names had been added.—R.J.R.

SUPPLEMENT TO THE BIRDS OF CHILE. By A. W. Johnson. Platt Establecimientos Gráficos S.A., Buenos Aires, 1972: 116 pp., black-and-white and color photos. \$10.00. Order from Pierce Book Co., Winthrop, Iowa.

MAN AND BIRDS. By R. K. Murton. Taplinger Publishing Co., New York, 1974: xx + 364 pp., many charts, graphs, and black-and-white photos. \$8.95.—This is a popular but well-documented account of the economic effects of birds on various human activities, especially agriculture and wildlife management. The examples discussed are mainly from England, but similar problems exist elsewhere.—R.J.R.

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