

ORNITHOLOGICAL LITERATURE

A DICTIONARY OF BIRDS. By Bruce Campbell and Elizabeth Lack (eds.). T. and A. D. Poyser Ltd. (England) and Buteo Books, Vermillion, South Dakota (U.S.), 1985:xxx + 670 pp., more than 500 black-and-white photos and drawings. \$75.00—This dictionary (encyclopedia would be a better name) boasts a long and honorable ancestry. Alfred Newton published the original version under this title in 1896 and, in 1964, as part of its Centennial observances the B.O.U. published “A New Dictionary of Birds” edited by Sir Landsborough Thomson. This second generation version has long been out of print, so now the B.O.U. has come forth with the third generation. The format is larger than the 1964 version but there are fewer pages. I would judge, however, that the amount of information in this version is greater. One does, however, immediately note the absence of the colorplates that graced Sir Landsborough’s dictionary.

From “abdomen” to “zygomatic arch,” the coverage is exhausting. No reviewer can claim to have read it all, but the amount of material is staggering. A total of 283 contributing authors are listed together with a long list of people whose entries in the 1964 version have been used with little change. Eighteen artists and 44 photographers are listed. These contributors come from many countries and six continents. Thus, the parochial British emphasis of the earlier edition is somewhat alleviated. Where British and American names of birds differ, care is taken to give each, and, for the most part, the tendency for the British to talk about THE Wren, THE Heron, etc. is avoided.

One of the things that most reviewers of the 1964 edition commented on was the classification used, so we might consider the one used here. The system, which can fairly be described as eclectic, was developed by K. H. Voous, based on his earlier publication of a list of Holarctic birds. Diehard American systematists will rejoice that the nine-primaried assemblage is back in the apparently prestigious final position. Voous recognizes 185 families, giving that rank to taxa that others would rank as sub-families. He points out that avian systematics is in a state of ferment and that it is too early to fully evaluate the many new proposals. The classification in the 1983 A.O.U. Check-list appeared too late to be considered. However, in the entry “DNA and Proteins as Sources of Taxonomic Data” C. G. Sibley presents for the first time in one place the classification of the Passeriformes proposed by him and J. A. Alquist.

Each family is discussed in an entry by a well-known expert in that group, entered according to the English name, but is cross-indexed by the scientific name. The amount of detail varies with the size of the family. Small families probably have each species mentioned, but the larger ones have only a few. The discussions include, usually, such topics as Characteristics, Habitat, Movements, Food, Behavior (oops—Behaviour), Voice, and Breeding. I found these authoritative and informative for those groups with which I am most familiar. A line drawing of one species of each family is included.

In addition to the discussions of the families, there are essays of varying length on a variety of topics: e.g., 4¾ pp. on Flight, nearly 5 pp. on Biostatistics, 4¼ pp. on Migration. It is difficult to think of a topic related to birds that is not included. The ones that I have read carefully seem relatively error-free. The general level is rather high, and only the real experts in a given area will find the accounts superficial.

Now and then British parochialism does creep in. The article on Census implies that between 1944, when Williams published his spot-map method, and 1959 little use was made of this technique, which was finally given the “seal of approval” by the B.T.O. in 1962–64. This certainly overlooks the dedicated corps of contributors to the Breeding Bird Census

published by American Birds and its predecessor, Audubon Field Notes, through all these years. This entry also makes no mention of the Breeding Bird Survey method which has given such interesting results in this country, nor of the "variable circular plot" method so widely used by census takers in North America.

With so many authors expressing so many points of view, the editorial task of assuring internal consistency must have been monumental. In general it seems to have been done outstandingly well. I noted only one slip. The author of the entry on the Dodo (*Raphus cucullatus*) rejects Storer's proposal that there are two families of didine birds, while Voous' classification does recognize this.

In summary, this is a job well done. The price is steep, but the information is invaluable. Even the seasoned professional would be wise to read the appropriate entry when starting a new line of research.—GEORGE A. HALL.

PRIMER SIMPOSIO DE ORNITOLOGIA NEOTROPICAL (14–15 OCTUBRE 1983, AREQUIPA, PERU). By F. Gary Stiles and Pedro G. Aguilar F. (eds.). Asociación Peruana para Conservación de la Naturaleza, Lima, 1985:126 pp., 43 figs., 10 half-tones, 25 tables. \$6.00 (paper). Available from: APECO, José Quiñones 226, Lima 18, Peru (checks in U.S. dollars accepted).—In his capacity as President of the IX Congreso Latinoamericano de Zoología, held in Arequipa, Peru, in 1983, the junior editor conceived the idea of convening a symposium on Neotropical ornithology to be held in conjunction with the larger Congress. With the support of Susana Moller-Hergt, President of APECO, the symposium was organized by Peruvian ornithologists Manuel Plenge and Humberto Tovar. Thirteen of the contributed papers are published in full in the present volume, and 19 more are published in summary form. The 43 authors are from Peru (13), the United States (8), Spain (5), Chile (4), Argentina, Bolivia, Mexico, and Paraguay (2 each), and Costa Rica, Cuba, Ecuador, and Venezuela (1 each).

All of the papers are in Spanish; those that are published in full have English abstracts, which vary in their comprehensiveness. A few of the major papers are general summaries: O'Neill on avian distribution in Peru, Wiley on the U.S.F.W.S. Endangered Species Program (highlighting the Puerto Rican Parrot [*Amazona vittata*]), and Freese on international cooperation in the conservation of migratory birds in the Western Hemisphere. The remaining papers present original data. Of these, four deal with avifaunas: Escobar and Salomon on the university campus of San Lorenzo, Paraguay; Munn on Manu National Park, Peru; Nocedal on the Valley of Mexico; and Stiles on altitudinal distribution of the birds of the Caribbean slope of central Costa Rica. Six treat some aspect of the biology of single species: Castro on altitudinal adaptations in *Zonotrichia capensis*; Guerra C. and Cikutovic S. on reproduction of *Pelecanus occidentalis thagus*; Bellocq and Kravetz on rodent predation by *Athene cunicularia*; Hays on distribution and abundance of *Spheniscus humboldti*; Wallace, Temple, and Torres A. on the ecology of *Vultur gryphus*; and Cikutovic S. and Guerra C. on the ecology of *Larus pipixcan* on its winter range in Chile.

Unlike many more expensive symposium proceedings, this volume was *not* printed from nonjustified typescript. Reproduction of the photographs is relatively coarse, and some readers may find the typeface of the figure captions (especially when lengthy) uncomfortably small. Otherwise the appearance of the pages is as attractive as that in most international journals.

Although the contents are somewhat heterogeneous, the modest price of this publication should permit its addition to the libraries of all students of neotropical birds. Some of the papers, such as those on the Andean Condor and Humboldt Penguin, will be important to

the evaluation of conservation measures for these species, and others represent good original contributions to life history information on species well studied in North America but much less so in South America, such as the Brown Pelican and Burrowing Owl.—KENNETH C. PARKES.

THE FLORIDA SCRUB JAY: DEMOGRAPHY OF A COOPERATIVE BREEDING BIRD. By Glen E. Woolfenden and John W. Fitzpatrick. Princeton Univ. Press, Princeton, New Jersey, 1984: 406 pp., 88 numbered text figs. (including 10 black-and-white photos) plus 12 maps and figures in the appendixes, 60 tables. \$45.00 (cloth), \$14.50 (paper).—My perspective in reviewing the "The Florida Scrub Jay" is not that of an individual actively involved in social-system research, and in particular not that of someone with a stake in the resolution of major questions concerning the evolution of cooperative breeding systems. Instead, my interests come from general concern with current issues in behavioral ecology and the ongoing desire to bring to classroom lectures information which both stimulates attention and focuses on these issues. To others with similar intents, I can only say that Woolfenden and Fitzpatrick's monograph serves these purposes superbly.

Florida Scrub Jays (*Aphelocoma c. coerulescens*) are year-round residents in oak scrub community in central Florida. All suitable habitat is occupied by jays, divided into vigorously defended territories; thus, the habitat is "saturated." Although the fundamental social unit is the mated pair, nonbreeding helper jays live on almost half the territories. These auxiliary birds are often, but not always, offspring of one or more previous breeding efforts by the resident pair. They "help" defend the territory and feed nestlings and juveniles, but they disperse to become breeders whenever the opportunity arises. Sometimes, a male helper will replace an ailing or dead male breeder on his own territory.

Glen Woolfenden began studying Florida Scrub Jays in 1969 at the Archbold Biological Station. He was joined soon after by John Fitzpatrick, then an undergraduate. By 1979, together they had color banded a total of 725 jays in their study area, gathered detailed data through time for about 30 mapped jay territories, and published a series of papers addressing various aspects of the jay social system. By the decade mark, Woolfenden and Fitzpatrick had obtained a wealth of demographic information, summarized thoroughly and thoughtfully in "The Florida Scrub Jay." In the preface they point out that first authorship was "determined by a coin toss."

Each chapter in the book is a concise package, usually with an introductory synopsis and final section of specific conclusions. Tables display all data discussed, and figures are effectively used to show relationships among variables or illustrate hypotheses. The appendixes are extremely useful for following text narrative, including a vegetation map of the study area and 10 years of maps of Scrub Jay territories, which clarify a number of the case histories discussed. Ten chapters present the relevant data and final synthesis: Introduction (which states objectives and organization of the book), Procedures, The Scrub Jay in Florida (which discusses the historical origins of the Florida Scrub Jay population and the vegetational composition of the habitat), The Pair Bond, Helpers, Territory, Dispersal, Reproduction, Survivorship and the Life Table, and Evolution of Florida Scrub Jay Sociality.

The latter two chapters present an excellent synthesis of the data presented in earlier chapters. Survivorship and the Life Table (chapter 9) summarizes the demographics of the Florida Scrub Jay, presenting survivorship and l_xm_x curves, age structure diagrams, and life tables (particularly Table 9.7). Important facts to emerge from this discussion include a stable age structure, high juvenile mortality with great annual variation, relatively higher breeder survivorship (0.820 annually for both sexes), low female helper survivorship, and

high survivorship for those helper males that do not leave their natal territory. An additional point of interest is that breeders with helpers have a significantly lower annual death rate (15.3%) than breeders without (23.2%). Woolfenden and Fitzpatrick discuss how closely the demography of their jay population resembles the classic (but controversial) K-strategy; in addition, the life history traits characterizing the jay population are predicted from two different life history models—adaptation to a stable, saturated environment and to highly variable juvenile mortality.

Chapter 10 examines the demographics of the Florida Scrub Jay in relation to the evolution of cooperative breeding. The major issue is whether kin selection (i.e., “indirect” selection component) in addition to individual selection (i.e., “direct” selection component) has played a role in the evolution of this cooperative breeding system. Algebraic and graphical models nail down the critical variables (summarized in Table 10.1) involved in elucidating this question, and the 10-year data sets provide some interesting answers. The models should be applicable to other studies of cooperative breeding; the results will be of great interest to all workers in the field. In addition, previous use of per capita fitness estimates is criticized by Woolfenden and Fitzpatrick. The case is made for an approach based on lifetime reproductive success of alternative reproductive strategies (which has been used for some time by the “life history traits” people). The models of Woolfenden and Fitzpatrick show in increasing complexity the conditions favoring delayed dispersal, with and without the added kinship component. Basically, as juvenile survivorship increases on the parental territory, jays gain more by staying home and helping. Next, the kinship coefficient (k/R) is devised to measure the relative contribution of any kinship effects on fitness. Woolfenden and Fitzpatrick conclude that a nondispersal strategy with helping behavior can arise in either the presence or absence of kin selection, depending on survivorship, probability of successful dispersal, and annual probability of a surviving helper becoming a breeder. Adding some kinship does ease the conditions favoring delayed dispersal. By plotting the values for Florida Scrub Jay life history traits on their graphical models, Woolfenden and Fitzpatrick discover that males plot out within the area where delayed dispersal and helping behavior are favored (without a kinship component), whereas females do not. This agrees with observations of sexual differences in dispersal strategies. Woolfenden and Fitzpatrick conclude (p. 339) that “The system appears to be strongly favored by direct, cost-benefit relationships regarding breeding space competition, quite independent of the addition of a kinship component to inclusive fitness.” A discussion follows comparing social systems among the *Aphelocoma* jays, constructing a model for the evolution of cooperative breeding. The western Scrub Jays and “Mexican Jays” (*A. ultramarina*) are considered extremes on the social continuum, with the Florida Scrub Jay one step removed from the multipair territorial system of the Mexican Jay.

One of the best features of “The Florida Scrub Jay” is its clear, simple writing style. Great care has gone into each statement of fact, statistical result, hypothesis, and conclusion. My minor criticisms of the book, given here only for completeness, must not deter the reader. Information in Stallcup and Woolfenden (1978) on feeding rates and implications would be helpful in chapter 5. The discussion of why helpers help seems important enough to merit an earlier and better developed treatment than given in chapter 10. I found only two typos and use of “quantitative” when “qualitative” was meant. Also, Table 5.2 displays raw data and not true “ratios.”

Glen Woolfenden and John Fitzpatrick have recently completed their seventeenth consecutive field season (!) of work on their population of jays. From their studies, the value of long-term data is extremely clear. Only with such data can the life history strategies of a population be characterized and ultimate questions concerning the evolution of helping behavior and delayed breeding be tackled. For its valuable data, synthesis, and pertinence

to all studies of social systems, "The Florida Scrub Jay" is an important achievement. For Woolfenden and Fitzpatrick, future direction has emerged from past findings: efforts are now focused on answering questions pertaining to what resources are limited, "the relationships between habitat quality, prey density, and territory size," and "the effects of seasonality," (i.e., fundamental driving forces of this cooperative breeding system). Surely, the wonderful rewards from long labor should make an impression on even the most impenetrable students in our ecology and behavior courses.—DIANA F. TOMBACK.

THE PUFFIN. By M. P. Harris. Illustrated by Keith Brockie. T. and A. D. Poyser Ltd. (England) and Buteo Books, Vermillion, South Dakota, 1984:224pp., 24 black-and-white plates with caption figs., 47 numbered text figs. \$32.50.—Since the publishing of Ronald Lockley's book, "Puffins," in 1953, much has been learned about the Atlantic Puffin (*Fratercula arctica*), the subject of both Lockley's earlier work and this important new title by Michael Harris. Harris has successfully reviewed the puffin literature and included many of his own insights into the life of this puffin. "The Puffin" is written for a broad audience that includes both serious amateurs and seabird biologists. The text is very readable, yet there is no shortage of detail about puffin biology. Excellent black-and-white photographs illustrate subjects as diverse as puffin habitats to Faroe Islanders draped with a day's catch of several dozen puffins. The book also contains 47 maps and graphs showing the distribution of colonies and many aspects of puffin growth and development.

Most North American readers will not be interested in the details of puffin distribution in Britain and Ireland, but this is balanced by an overview of puffin populations outside Britain and Ireland. The chapters on breeding biology, food and feeding, growth of young, cycles of puffin attendance at colonies, and migration and survival are all rich with Harris' own research and contain much new information as well as reviews of the subjects to date. The chapter titled "Behaviour" (by K. Taylor) will prove very useful to future puffin observers as it provides a working inventory of puffin behaviors, many of which have not previously appeared in the puffin literature.

The chapters titled "Predators, Pirates and Competitors," "Man and Puffins," and "Pollution" contain information that should interest anyone with a concern for the future of puffins and other seabirds, most of which share similar problems with puffins. "The Puffin" also contains an appendix consisting of twenty tables with detailed information about timing of breeding, body measurements, breeding success, weights of fish loads, and many other details.

My only issue with the book is that after discussing current conservation problems ranging from oil pollution to food shortages, Harris concludes that the "general state of Puffindom is better than at any time this century." This is misleading because this century follows a period of ruthless exploitation to puffin populations on both sides of the Atlantic that was at its worst in the late 1800s. Also, while it is no doubt true that certain areas rich in food such as the Isle of May, where most of Harris' work was done, have shown spectacular recent increases, very little is known about population size and reproductive success for puffins in most of their vast northern range. This is especially true in Iceland where most puffins live.

"The Puffin" is an important addition to the literature about this abundant and appealing bird. I enthusiastically recommend it to any reader interested in detailed life histories and biology of seabirds.—STEPHEN W. KRESS.

MARINE BIRDS: THEIR FEEDING ECOLOGY AND COMMERCIAL FISHERIES RELATIONSHIPS. By D. N. Nettleship, G. A. Sanger, and P. F. Springer (eds.). Special Publication, Canadian Wildlife Service, Ottawa, 1984:220 pp., not indexed. Available at no charge from Distribution Section, Canadian Wildlife Service, Department of the Environment, Ottawa, Ontario, Canada K1A 007.—The 23 papers in this volume were presented as a special symposium at the eighth annual meeting of the Pacific Seabird Group in January 1982. Following the format of the symposium, the book is divided into three parts: I. The feeding ecology of marine waterfowl (6 papers), II. The feeding ecology of pelagic marine birds (7 papers), and III. Seabirds and commercial fisheries interactions (11 papers). Forty-two researchers contributed.

The collected papers present a good, but perhaps rather skewed, compilation of research on the feeding habits of marine birds and their relationships to commercial fisheries. The waterfowl studies include information on diet, seasonal changes in foraging periods and habitats, and food and habitat resource partitioning. The second part includes papers that are quite diverse and develops concepts that will be very useful to students of pelagic birds. Major topics include diet and energy gain, the roles of autumn upwelling, olfactory foraging, feeding rates and diet changes related to nesting, and comparative foraging distribution of various seabirds. The section on commercial fisheries as it relates to seabirds documents both positive and negative effects of modern fisheries on seabird populations. Several chapters provide good overviews of the subject and biological information on prey species.

The individual chapters are both well written and well edited. A numbered system of headings and subheadings with appropriate type faces makes location of specific information easy. Tables and figures are uniformly prepared and articulate (something often overlooked in volumes of this type). Abstracts are presented in both English and French. The 23 chapters are short and vary in length (3–13 pages) and significance.

One handicap of any symposium of this type is the cumulative problem of maintaining uniform coverage from combined contributed papers. This volume suffers geographically in that a tighter area of coverage, in my opinion, would make its usefulness more focused. For example, all the marine waterfowl studies were in the North Pacific (5 of 6 in Alaska), and all but five of the seabird papers discuss the North Pacific (four are for the North Atlantic and one for South Africa). Taxonomically, primary species discussions cover only Anatidae (6), Procellariidae (3), all on Sooty Shearwaters (*Puffinus griseus*), Pelecanidae (1), Phalaropodidae (1), and Alcidae (5). No chapter discussions of major marine bird groups such as penguins, loons, grebes, albatrosses, storm-petrels, jaegers, gulls, or terns are provided, although four chapters present limited information on seabird communities or ecological concepts that include information on some of these groups.

Lack of a formal introduction and a summary of the entire volume or its three sections lessens the volume's ability to achieve any specific focus or to assist the casual reader in appreciating the patterns that accumulate from related chapters.—DAVID S. LEE.

THE MARSH HEN, A NATURAL HISTORY OF THE CLAPPER RAIL OF THE ATLANTIC COAST SALT MARSH. By Brooke Meanley. Tidewater Publishers, Cornell Maritime Press, Centreville, Maryland, 1985:123 pp. \$8.95.—For some of us the sight of a marsh brings forth a strange itching among the toes, an almost overpowering urge to plunge in. A colleague jokingly chides that we need to soak our webs. Brooke Meanley is obviously such a biologist—and his plunges, backed by a fine ability to see, understand, and artfully describe, have yielded a quantity of informed research on marsh species.

His most recent publication, "The Marsh Hen" summarizes his years of observations on Atlantic salt-marsh ecology, and particularly his studies of the nesting populations of the Clapper Rail (*Rallus longirostris*); it brings together the most important literature (1808–1983) on those populations. It contains less original research than did his parallel study of the King Rail (*R. elegans*) (North Am. Fauna 69:1969), and is written in a more informal style appropriate for a paperback aimed at both the scientists and the informed layman.

The 12 2–17-page chapters cover the waterfront, from discovery and history, Clapper-King Rail relationships, habitat, feeding behavior, nesting, etc., through natural catastrophes, predators, and pollution. Five appendixes discuss the subspecies found in the United States, sexing and aging, methods of capture and censusing, and scientific names used in the text.

The book is well-illustrated with excellent photographs of salt-marsh life and ecology as well as with superb photographs of Clapper Rails, mostly by the author, and with pleasing to very nice black-and-white drawings by John W. Taylor, who also did the colored cover.

Criticisms are minimal, considering the broad audience for which the book was designed. I was amused at the tertiary references cited for the relationships of the King-Clapper Rail complex (Mayr and Short 1970, Ripley 1977), when Meanley's own work, in a large part, formed the basis for those pontifications. I believe too much credence was placed on Christmas Counts for winter abundance and fluctuations, and I would have predicted the Black-crowned Night-Heron (*Nycticorax nycticorax*) would be on the list of predators. But this is carping. "The Marsh Hen" is a must for all game managers dealing with aquatic birds, and for all those with swamp mud in or on their shoes. It will edify and entertain all who enjoy good field natural history and good writing.—ROBERT W. DICKERMAN.

THE PARASITIC COWBIRDS AND THEIR HOSTS. By Herbert Friedman and Lloyd F. Kiff. Proceedings of the Western Foundation of Vertebrate Zoology, Vol. 2, no. 4, 1985:pp. 227–302. \$10.00—This publication summarizes the series of seven papers on parasitic cowbirds begun by Herbert Friedman back in 1929 and adds new records since the last listing was published in 1977. Up-to-date catalogs of the hosts of three parasitic species are presented with detailed subspecific allocations for both hosts and parasite. The listings now include 220 species (389 species and subspecies) parasitized by the Brown-headed Cowbird (*Molothrus ater*), 201 species (264 species and subspecies) parasitized by the Shiny Cowbird (*M. bonariensis*), 77 species (98 species and subspecies) parasitized by the Bronzed Cowbird (*M. aeneus*), and 1 species (*M. badius*) parasitized by the Screaming Cowbird (*M. rufoaxillaris*).

The high rate of egg mortality would seem to make brood parasitism a perilous way of life, but all three cowbird species are doing well and all are expanding their ranges. The authors discuss this matter and conclude that the evidence available points to a very high fecundity in cowbirds. The underlying mechanisms remain unclear, but cowbirds do lay more eggs than do nonparasitic passerines, and the female cowbirds appear to be somewhat released from normal hormonal restraints that restrict the number of developing follicles in the ovary.

The book is a valuable and informative summary of present knowledge.—GEORGE A. HALL.

JOHANN FRIEDRICH VON BRANDT: *ICONES AVIUM ROSSICO-AMERICANARUM. TABULAE VII, INEDITAE*; WITH COMMENTS ON BIRDS, EXPEDITIONS AND PEOPLE INVOLVED. By Bernt Løppenthin. Scandinavian fine Editions, Copenhagen, Denmark, 1984:70 pp., 11 text fig., 1 uncolored and 7 colored plates. 385 DKr.—In 1872, Otto Finsch published a paper in which

he made reference to a set of seven colored lithographs of 49 birds from the north Pacific and adjacent coastal areas (Finsch, *Abh. naturw. Ver. Bremen* 3:17-86, 1872). These plates were drawn around 1835 by W. Pape for Johann Friedrich von Brandt, presumably to illustrate a major treatise on the birds of Russian America. Brandt's monograph was never completed, however, and the plates remained unpublished. Very few sets apparently were produced, and their existence essentially was forgotten until 1971, when a complete set from a private collection was brought to the library of the University of Copenhagen for identification (the set has since been donated to the Library). The discovery of these plates prompted Bernt Løppenthin, at that time the chief librarian at the Scientific and Medical Department of the University Library, to research the provenance of this material and to review the history of exploration and discovery in the far northern Pacific Ocean and the surrounding coastal areas. These studies uncovered new information of interest to historical ornithology and corrected a number of misunderstandings in the literature. Dr. Løppenthin's results are presented in this book.

A principal motive for the choice of a large format (overall dimensions of 27.5 × 32.0 cm) is the publication of Brandt's plates; these are very nicely reproduced in color with an additional black-and-white copy of Brandt's Plate I showing the handwritten notes (ca 1839) of the Danish zoologist D. F. Eschricht. The text is divided into several sections including a short biography of Brandt, an account of the explorations of the North Pacific up until 1835, and comments on each of the species illustrated in the plates. An extensive list of references and a thorough index complete the volume.

Despite acknowledged assistance with the language, the text reads as though it were written by someone not comfortable with English; many of the grammatical constructions are odd and the style is quite disjointed. It might have been better if the manuscript had been written in Danish and then translated. However, the scholarship is considerable, and Dr. Løppenthin appears to have been quite thorough in reviewing the primary literature (much of which is obscure). The extensive notes dealing with each of the birds illustrated in Brandt's plates analyze the nomenclatural knots surrounding many of these species as well as comment on past and current distributions and the history of discovery of these birds.

At first glance this volume appears to belong with the growing number of books devoted to ornithological illustration. However, it deserves a much wider audience because of the variety of taxonomic, biogeographical, and historical information covered. That this information is sometimes difficult to extract is a relatively minor criticism. Any serious ornithological library should acquire this volume, and students of the birds of the North Pacific should find it quite useful.—D. SCOTT WOOD.

ESKIMO YEAR. Second Edition. By George Miksch Sutton. Univ. Oklahoma Press, Norman, Oklahoma, 1985:321 pp., 48 black-and-white photographs, 24 drawings. \$14.95.—George M. Sutton has long been acclaimed not only for his artwork and scientific endeavors but also for his popular writing. His reputation in this latter arena was initiated with the first edition of "Eskimo Year," first published in 1934 and reprinted in 1936, but long out of print and not readily available to recent generations of naturalists. This new edition, differing from the first only by the addition of a new preface by Dr. David F. Parmalee, remedies this situation.

"Eskimo Year" is the story of the year that Sutton spent with the Aivilikmiut (walrus-hunting) Eskimos on Southampton Island in the Canadian Arctic. This part of the world was little known at the time of Sutton's visit (1930), although the trappings of western civilization were becoming an increasingly large part of the Eskimo's life even then. The visit meant a radical change in comfort and life style for Sutton and proved to be an adventure

of the first order. Fortunately for those of us not wishing (or able) to forsake the comforts of home, Sutton has provided a vicarious adventure to the far north.

Sutton was first an artist; all his actions were influenced by artistic considerations. Thus the book, although chronologically arranged, is a series of individual detailed sketches taken from his year's experience. Sutton's pen-and-ink drawings are liberally sprinkled through the text, and his photographs provide further documentation of the people and scenes described. The author's love of the Arctic and its people and wildlife is apparent in each chapter, but he also conveys the awe with which such a harsh environment must be viewed. That the expedition was primarily scientific (the technical results were published as Vol. XII, Part 2, Mem. Carnegie Mus., 1932) is clear from the accounts, but the emphasis here is on the interaction between Sutton and the Eskimos he lived with. The images he projects are important historically because so much has changed for the Eskimos in the past half century. I thoroughly enjoyed the book and recommend it not only to those with an interest in the Arctic but to all who are armchair adventurers.—D. SCOTT WOOD.

THE STATUS AND DISTRIBUTION OF NEW JERSEY'S BIRDS. By Charles F. Leck. Rutgers Univ. Press, New Brunswick, New Jersey, 1984:214 pp., 1 map, 2 Tables. \$25.00 (cloth).—This 9½" × 6⅞" book is written in an easily readable style, has large print, and no illustrations. Its introduction cites the diversity of habitats and birdlife in New Jersey. Included are 450 species, 36 of which "need better confirmation—to consider them fully documented for New Jersey." Nomenclature follows the A.O.U. 6th edition Check-list. With a few species Leck uses two English names; the A.O.U.-chosen name and a second one used widely in recent field guides. The first Table gives additions to New Jersey avifauna, 1960–1981, including 36 species, 8 of which are shown with a "?"—those with some problem of identification, or of origin (wild or escaped). The questioned entries include Yellow-billed Loon (*Gavia adamsii*), Rufous-necked Stint (*Calidris ruficollis*), and Band-tailed Pigeon (*Columba fasciata*), each with some question of accuracy in identification. Table 2 lists 28 species new to the list of breeders within the state, most added since 1920. Included here are Glossy Ibis (*Plegadis falcinellus*), Black Vulture (*Coragyps atratus*), Chuck-will's-widow (*Caprimulgus carolinensis*), and White-throated Sparrow (*Zonotrichia albicollis*).

The main part of the book, Species Accounts (169 pages), gives the English and Latin names for each species, general distribution in this hemisphere, and current status in New Jersey. The latter includes the usual set of classes—migrant and winter resident, breeder, summer resident, etc., with modifiers such as rare, common, abundant, hypothetical, and extinct, etc. Although each species occupies only one or two paragraphs, with two or three species per page, considerable information is given for migratory habits, nesting habitat preferences, and periods of abundance. Specific arrival and departure information is lacking. The principal emphasis in the Species Accounts, and perhaps the only really innovative information in this type of book, is the citing of "high counts" of bird numbers, either single-day counts, season totals, in some cases breeding pair counts, or counts of birds banded in a season or a day. One or more type of count is given for about 250 species, mostly the more common birds, but also for some that are strictly migratory in the state. Examples include: Fall season banding total, Sharp-shinned Hawk (*Accipiter striatus*)—3539, Cape May, 1979; Northern Saw-whet Owl (*Aegolius acadicus*)—110, Cape May, 1981; Yellow-bellied Flycatcher (*Empidonax flaviventris*)—51, Island Beach, 1963; Single-day counts, American Kestrel (*Falco sparverius*)—24,875, Cape May, 15 Oct. 1970; Short-billed Dowitcher (*Limnodromus griseus*)—25,000, Brigantine National Wildlife Refuge, 2 Aug., 1972; Eastern Bluebird (*Sialia sialis*)—750–1000, Cape May, 28 Oct., 1981; and Breeding pairs (in one area), Marsh Wren (*Cistothorus palustris*)—160, Troy Meadows, 1947; Brown

Thrasher (*Toxostoma rufum*)—est. 200, Sandy Hook, June 1976. No citations of published accounts are given for these or other high-count information data.

A major fault in the main body of the text is the inclusion of reliable *and* unreliable information in the Species Account section. The author apparently wrestled with the problems of what to do with single sightings—Brown-crested Flycatcher (*Myiarchus tyrannulus*), a single bird, considered hypothetical, Brown-headed Nuthatch (*Sitta pusilla*), one at a suet feeder in 1876; and Whooping Crane (*Grus americana*), which “at one time probably occurred along the Atlantic coast, including New Jersey, during migration.” In addition, several introduced birds which failed to survive have been listed, e.g., Eurasian Skylark (*Alauda arvensis*). All of the above are listed in the main text of the Species Account, along with the reliable known breeding or migrant birds! This adds to the reader’s confusion—what is the New Jersey bird list?

Following the Species Account is the section, Unestablished Exotics, Escapes, and Unsuccessful Introductions (8 pp., 38 species), which is seemingly a better place for the entries in the paragraph above.

The next section, A Guide to Lesser Known Locations (4 pp., approximately 120 named locations) is a list of towns, marshes, inlets, reservoirs, etc. cited in the main text as locations where specific birds have been found, counted, or banded. The only map in the book is of New Jersey, with only the county outlines given. It would have been helpful if the list of places had been numbered, and the numbers inserted in a map. Spare pages were available; pages 12 and 182 are completely blank.

A 6-page Bibliography includes recent ornithological references covering New Jersey, and also parts of the neighboring states of Pennsylvania, New York, and Delaware. Finally, a 14-page Index lists all the English and Latin names in the book.

For those interested in the high-count data, and distributional material for birds of the state, the book is recommended, but as a definitive list of birds of New Jersey, I am led to withhold my recommendation.—GEORGE B. REYNARD.

HAWAII'S BIRDS. 3rd Edition, revised. By Robert J. Shallenberger (ed.). Hawaii Audubon Society, Honolulu, Hawaii, 1984:96 pp., numerous color photographs, paintings, and maps. \$4.95 (paper).—This is a revision of the standard field guide and brief introduction to the Hawaiian avifauna, previously reviewed in *The Wilson Bulletin* (96:152, 1984). Order by mail from the Hawaii Audubon Society, Box 22832, Honolulu, Hawaii 96822. Add \$0.70 postage for surface delivery or \$1.03 for air mail.—ROBERT J. RAIKOW.

BRIEFLY NOTED

AN ANNOTATED BIBLIOGRAPHY OF LITERATURE ON THE SPOTTED OWL. By R. W. Campbell, E. D. Forsman, and B. M. Van Der Raay. Land Management Report No. 24, Ministry of Forests, Province of British Columbia, Victoria (Available from Queen's Printer, Victoria, B.C.), 1984:116 pp., \$7.50—Contains 586 entries arranged alphabetically but indexed by subject and geographical area. The annotations average about one sentence each.—G.A.H.

A NATURAL HISTORY OF DIGGES SOUND. By A. J. Gaston, D. K. Cairns, R. D. Elliot, and D. G. Noble. Canadian Wildlife Service, Report Series No. 46, 1985:62 pp., many black-and-white photos, maps, and graphs. \$8.00 (in Canada), \$9.60 (elsewhere).—Despite the

title, this work concentrates on the seabirds: eiders, gulls, one tern, and 4 alcids. Notes on breeding biology are given, and predation by falcons, foxes, and ravens is discussed.—G.A.H.

BIRDS OF THE NASHVILLE AREA. Fourth Edition. By David F. Vogt, C. Gerald Drewry, Paul B. Hamel, and Stephen J. Stedman. Nashville Chapter, Tennessee Ornithological Society, 1985:iv + 60 pp. \$4.00 (obtain from the Treasurer, Nashville Chapter, T.O.S., P.O. Box 24573, Nashville, Tennessee 37202-4573)—Lists 306 species known for the region with brief annotations, and the conventional bar graphs showing seasonal occurrences and abundances.—G.A.H.

ILLINOIS BIRDS: VIREOS. By Jean W. Graber, Richard R. Graber, and Ethelyn L. Kirk. Illinois Natural History Survey Biological Notes 124, Champaign, Illinois. 1985:38 pp., 27 black-and-white figs., photographs, graphs and maps. No price given.—This is the tenth in a series of short publications being issued in lieu of a state bird book. Each of the seven species accounts includes sections on Spring Migration, Distribution, Nesting Habitats, and Populations (for the 6 nesting in Illinois), Nesting Cycle, Fall Migration, Food, and Specimen Data. A map of the continental range and one of the Illinois range, a photo of the bird at the nest, a graph showing the egg-laying and migration seasons, and tables of spring and fall densities are included for each species. A valuable and informative publication.—G.A.H.