

## REVIEWS

EDITED BY WALTER BOCK

**Der Zug europäischer Singvögel. Ein Atlas der Wiederfunde beringter Vogel, part I.**—Gerhardt Zink. 1973. Vogelwarte Radolfzell am Max-Planck-Institut für Verhaltensphysiologie. (Order from Vogelwarte Radolfzell, D 7761 Schloss Möggingen, Germany). DM 48.—Since its beginnings around 1920 birdbanding has had an ever-increasing attraction for ornithologists. Whatever the innermost motives of its practitioners may be, banding, either as a sort of ornithological sport or as a research technique, is widely used in Europe, especially in the western countries. The avowed goals of banding efforts are manifold, but they can often be grouped under the very general heading of “knowing more about the movements of birds.” Hence most banding sites are places where the topography concentrates migrating birds and they can be caught easily for banding. Far fewer nestlings are banded, at least among the passerines. Most banding data are temporally and geographically uneven because of an unavoidable bias from the techniques of capturing birds in large enough numbers to ensure receiving recoveries (as with mist nets) and the use of favored localities.

The patchiness of recovery data is as great or even greater; and these two difficulties combined make analyzing data, especially recoveries of birds banded during migration, a peculiarly thorny undertaking. Studies of migration using such recoveries as basic data often remain anecdotal or qualitative in nature. It is important to know that a given European species flies directly to its winter quarters in Africa, whereas some related species makes a long stopover somewhere along the way and undergoes a molt. But it is another thing to document such large differences in behavior between these hypothetical species quantitatively. As one might expect, the most highly quantitative studies of avian migration in Europe have been on relatively large, easily recovered species, especially wildfowl, rather than the small passerines, for which recoveries average less than 1% per species. Ornithologists who wish to analyze passerine migration face formidable problems because they must rely on banding recoveries as their primary source of data, for they are unlikely to have the time, manpower, and funds to launch research programs designed to answer specific questions. The problem is how to make the best of what is available, and how to avoid difficulties arising from the lack of any real sampling design (in the statistical sense) in the data at hand.

As Zink's “Migration of European passerines,” an “Atlas of recoveries of banded birds,” is the sort of work that might help those wishing to analyze migration from banding results, we must examine critically the potential usefulness of this very ambitious undertaking. Gerhardt Zink has excellent qualifications for this task. His career as a student of migration in Europe and his professional involvement with banding at Radolfzell insure that he is fully aware of the pitfalls and shortcomings inherent in these studies. In fact, Zink discusses some of these difficulties very clearly in his introduction, among other things emphasizing that the density of banding recoveries in a given area is not necessarily correlated with the density of migration there, thus accounting for some of the apparent gaps on his maps.

Zink's atlas is a successor to Schüz and Weigold's atlas of 1931. The choice of

passerines for the present work was dictated by two considerations. First Schüz and Weigold treated very few passerine species. Second the Vogelwarte Radolfzell of the Max-Planck-Institut has worked chiefly on passerines. This portfolio (the first of three projected) illustrates 30 species in the genera *Oenanthe* (1 species), *Saxicola* (2), *Luscinia* (3), *Locustella* (3), *Acrocephalus* (5), *Hippolais* (2), *Sylvia* (8, though 2 are left out of my copy by a printer's error), *Phylloscopus* (4), and *Regulus* (2). The completed atlas will include a total of about 100 species of European passerines; another 25 species are mentioned but will not be treated. Surprisingly among the latter are *Hirundo rustica*, *Parus major*, *P. caeruleus*, *Phoenicurus phoenicurus*, *Ficedula hypoleuca*, and *Fringilla coelebs*, all among the better studied European migrants. Why these 25 species were rejected is not clear to me.

An enormous volume of data has accumulated in the 40-odd years since the publication of the first atlas. Lists of recoveries or analyses of banding data have appeared in a large number of serial publications in Dutch, English, French, German, Russian, Spanish, and other European languages. An equally impressive volume of information exists in the files of some of the banding stations. Zink has made a thorough search through all this scattered material. Bibliographic lists are given for the 25 excluded species "so that the reader can find information on banding recovery for those species also." These lists do not appear to be complete, for I notice significant papers omitted for some species I have studied during migration (*Parus* spp., *Erithacus rubecula*, *Fringilla coelebs*).

For each of the 30 species treated in this first part, the references are given under three headings, always in chronological order. First the sources of data for the maps are cited, for example under *Oenanthe oenanthe* the first line indicates "Belgium: 1930, 1952, 1954 . . .," referring to the reports of banding returns published in Belgium for those years. A key in the introduction (p. 14) tells the reader all appeared in Gerfaut. Second analyses ("Auswertungen") of recoveries are listed in the form of an abbreviated reference citation. Three such citations are given for *Oenanthe oenanthe*. Finally under the heading "Other literature" are references cited in the text accompanying each map; again for *Oenanthe oenanthe* eight papers are listed. The literature citations in this atlas will form a valuable source of information on the migration of the 125 species cited, and especially so, of course, for the 100 that will eventually be mapped. The maps are well prepared, and the factual data used to construct them were carefully reviewed. Thus in spite of the excluded species, the present work when completed will be more than a simple updating of the earlier Schüz and Weigold atlas.

Zink selected an equal-area projection and warns the reader that the north to south line is perpendicular to the base of the map only in its center, so that one must make corrections to determine whether a given recovery site lies to the west or east of south. One wonders why a map showing in full all the coordinates and permitting one to make these corrections easily was not published in this portfolio (it is promised for the second). For each species the maps show a selection of returns. For species with few recoveries a single map is used (e.g. *Acrocephalus palustris*, 13 of 20 recoveries used), while for other species with many recoveries several maps have been prepared (e.g. *Sylvia atricapilla*, 584 of 761 recoveries used, 13 maps).

The maps consist of a superposition—upon base maps of Europe in most cases—of straight lines joining the banding locality and the recovery site. The first spot is not marked by any symbol (it is simply the start of the line), while the second is rendered by one of several symbols, accompanied often by a number. The symbols are explained in about two pages of the introduction, but I found this section con-

fusing. It would have been easier for the reader to understand and memorize the symbols in the legend of an explanatory map showing them all. Zink hoped these symbols would enable the reader to determine whether the bird was banded before or after fledging, the year it was banded, the month it was recovered, also whether it was recovered in the same migration period when banded or in a later one.

For each species the map or maps are accompanied by a text giving a useful summary of its migration particulars, a feature that may be the most valuable of the atlas. The maps are very uneven in their detail. Thus the few recoveries for the three species of *Locustella*, and for *Sylvia melanocephala* and *S. cantillans*, are grouped together on single maps, and the very few recoveries (only three for *Hippolais polyglotta*) of some other species occupy single maps. The use of the above maps is questionable, and the waste of space could have been avoided by a better grouping of the species. By contrast, some maps are so cluttered that individual lines are lost in a maze of others, as for example map E of *Oenanthe oenanthe*, or map D of *Sylvia communis*.

The atlas is composed of a series of unnumbered, loose-leaf signatures, each paginated differently, all enclosed in a flimsy cardboard cover. I found this format most impractical to work with and the covers of my copy are already in shreds. I hope that the publishers will plan a sturdier binding for the finished product. The signature of *Sylvia nisoria* and *S. hortensis* actually contains the text and map of *Acrocephalus palustris*; my copy of the atlas thus has two treatments of *A. palustris*, but none of the two species of *Sylvia* just cited.

My major criticism of this work concerns the cartography. I find the text well thought out and useful, but as this collection of signatures in an atlas I must mention some issues of importance in cartographic work with migration. First the maps lack distance scales (only a few have a scale in kilometers; none has a scale showing the reductions used, which vary from map to map). Second, as mentioned earlier, the points of banding and of recovery are connected by a straight line. As Zink himself points out (introduction, p. 10) these lines are only a rough approximation of the birds' actual flight paths (and how could they be otherwise?). Third, in the projection selected these straight lines do not show the minimum distance the bird covered. Thus with no correction factors to measure minimum distances between any two points on the maps, all these lines accomplish is to give the reader a graphic indication of a very general, partially incorrect view of the directional trend these migrants took. On some of the maps the blur of quasi-parallel lines indicating directions of migration might suggest a statistical trend, but there is no reason to believe this to be true, as Zink himself knows. Nor can anything be inferred about the volume of migration from the density of recoveries. The only things the maps show are the approximate distances individual birds travel and the approximate latitudinal and longitudinal limits of each species' migration. I consider these maps difficult to interpret by anyone not a specialist in European passerine migration. It is regrettable that Zink did not go one crucial step further in this publication, that of preparing interpretative maps along with those actually published in this portfolio. Two such maps are actually sketched as Figs. 1 and 2 of the introduction (p. 10), and I was greatly disappointed to find no more of them.

In summary, I find the atlas useful, not as an atlas, but as a source of bibliographic information and verbal summaries of migration. To be outstanding the work should first include all 125 species, not just an arbitrary selection of about 100 of them, and second (and above all) present a series of additional maps interpreting the data for the student who is not a migration specialist.—FRANÇOIS VUILLEUMIER.

**To the Arctic by canoe 1819–1821/The journal and paintings of Robert Hood/Midshipman with Franklin.**—C. Stuart Houston (Ed.). 1974. Montreal, McGill-Queen's University Press. Pp. xxxix + 217, 5 maps, 5 portraits, 1 silhouette of Hood, 1 page of manuscript, 1 photograph, 24 plates of Hood's drawings and paintings. \$17.50.—This is a thoughtful, scholarly presentation of Hood's field diary, most of it composed under adverse circumstances, inadequate shelter in temperatures far below zero, and with starvation a daily companion. When the temperature rose during the short summer, May through August, the clouds of mosquitos made life unbearable. What little of the explorer the mosquitos did not bite was stung by sand flies and horseflies. Writing under such circumstances is a formidable task, and to draw accurately and paint lifelike colors with Robert Hood's primitive equipment under those same conditions is an outstanding achievement. His diary is a gripping tale of endurance and achievement. It ends 15 September 1820. Whatever he wrote between that date and his death on 20 October 1821, when he was shot in the back of the head by a famine-crazed voyageur, is lost to posterity. The expedition physician and naturalist, John Richardson, M.D., who with his companion, John Hepburn, an English seaman, returned to England and told the tale.

The significance of this book to ornithologists is not its few notes on the bird life of northern Canada from the west coast of Hudson Bay to Great Slave Lake but the never-before-published fine drawings and paintings of 30 species of birds. Robert Hood painted at least five of these birds before they had been named and described. Some of the birds are out of proportion to one another and birds that do not normally congregate are gathered together on the plates, but the individual birds are well done and seem to me superior to the paintings of most of Hood's contemporaries. One plate has a misty background of trees near and far that is very effective. The incorrect caption on the Arctic Loon is not the fault of the author but is one of those errors perpetrated by editors and publishers after the author has made his final check.

A paragraph on the trapping of geese and ducks by the Cree Indians on page 77 is very interesting. Mr. Hood's announcement in one early passage that "no birds were seen" was a pleasant surprise. Most writers of field diaries do not bother to note what is absent.

Robert Hood and Richardson predated Audubon in American ornithology, so I was considerably surprised to find no mention of them in Elsa Allen's fine work, "Ornithologists in America before Audubon."—ELIZABETH S. AUSTIN.

**Man kind?/Our incredible war on wildlife.**—Cleveland Amory. 1974. New York, Harper & Row. Pp. xi + 372, 30 black-and-white photos of man the unkind and of mammals living, moribund, and dead. \$9.95.—Mr. Amory's book is, if nothing else, controversial; and his irony and satire may be over the heads of Aleut Indians in the Pribilof Islands and the Canadian fur hunters, if they read books on conservation. While the trophy hunters who go on safaris in Africa undoubtedly could understand it (most were educated in the most expensive schools in the world) or have their secretaries write short condensations for them, they don't read criticisms of their way of life. Thousands of trappers who still trade their furs to Sears, Roebuck will continue to pursue their predatory way without reading "Man kind?" In most of their homes the Sears, Roebuck catalogue and the Bible are the only reading matter available. Most of those hunters are fundamentalists and will quote the first chapter of Genesis, the 28th verse, "And God blessed them [Adam and Eve],

and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth."

I am at heart a conservationist, but I truly believe Mr. Amory's diatribe will do more harm than good. He stresses the evils of hunting mammals and barely mentions birds—just a bit about Teddy Roosevelt shooting Ostriches long ago, a quote from a Bil Gilbert article in the old "Saturday Evening Post," that mentions the destruction of the Passenger Pigeon, the Heath Hen, and the Eskimo Curlew, and a notice of spring traps catching geese and leaving them one-legged. Ornithological literature has an enormous amount of writing, literally thousands of articles and books on the evils of hunting, past and present. Such a wealth of material may have overwhelmed Mr. Amory.

"Man kind?" makes no mention of the poor fish. They must suffer from the sportsman's hook, but they and we in the U.S.A. are also suffering from the greedy European invasion of our offshore waters. Mr. Amory also neglects the reptiles. The demand for that gourmet dish, frogs' legs, is encouraging the taking of half-grown frogs with legs so small they don't furnish a good mouthful. The demand for canned rattlesnake meat is so large that rattlesnakes may soon be on the "endangered species" list.

Mr. Amory's book reminds me of those of another anti-hunting zealot who wrote and campaigned vigorously at the turn of the century. The Rev. Herbert K. Job felt that the end justified the means, and his books and articles are full of misrepresentation and distortion of the truth and in some cases outright lies. Mr. Amory's attack on the Audubon Society for taking its name from a hunter is pretty silly. Of course Audubon was a hunter, and his pictures were remarkably true to life of birds, mammals, and backgrounds. In the days before binoculars and cameras how else could an artist study wild animals but by shooting them? How was a man to eat in the wilderness if he did not shoot the abundant game of Audubon's time? Indeed Mr. Amory's very own ancestors would not have survived in harsh New England without the fur, flesh, and feathers of wild game. Indian corn and pumpkins would not have sustained them as they settled Boston. Mr. Amory's book would be more effective if he preached moderation and practiced it.—ELIZABETH S. AUSTIN.

**Les oiseaux de l'Ouest Africain.**—C. Chappuis. 1974. Alauda, Suppl. Sonore, Disque No. 1. Columbidae (side A), Cuculidae (side B). 33 $\frac{1}{8}$  rpm, 12 in. vinyl phono-disc in jacket. **Illustration sonore de problèmes bioacoustiques posés par les oiseaux de la zone Éthiopienne.**—C. Chappuis. 1974. Alauda 42: 197–222. Booklet, inserted in phono-disc jacket. Paris, Societe d'Études Ornithologiques, 46, Rue d'Ulm, 75230 Paris Cedex 05. Price listed is for society members only (30 F) and is for this number plus Nos. 2 and 3 (see below).—So far as I know, this is the first venture into publishing sound recordings undertaken by an ornithological society. The result, judging from this first volume is devoid of commercial gimmicks and is straightforwardly scientific. The jacket is plain white (which seems unnecessarily austere—even books have titles and authors listed on the cover). The booklet, reprinted as a separate from Alauda, is written as a supplement and guide to the disc contents, and introduces the listener to the disc's potential scientific values. Brief discussions of ethological problems, problems of speciation and taxonomy, of "specific reconnaissance," and evolution of songs, are followed by sections on itinerary

and description of area of geographic coverage, systematic arrangement followed, criteria for choosing sounds to be included, and techniques used in preparing the recording.

A glossary of abbreviations refers to technical terms associated with making the records. For example, "Ep" means recorded with a parabola of 60 cm diameter and 20 cm focal length; "Em" means with microphone only; "F" means sound filtered, etc. Next, the species included are listed by scientific name, French common name, and English common name, followed by a species/voice account. As the project is intended to be comprehensive, even species whose voices have not been obtained are included with a note to that effect.

The recordings are of high average quality, and each form is introduced by a human voice. They present 21 species of doves and pigeons, 5 hybrid columbids (all involving *Streptopelia* and *Stigmatopelia* spp.), and 18 species of cuckoos.

The society planned to issue two more discs on West African birds in 1974: No. 2 on the Coraciidae, Alcedinidae, Meropidae, and Bucerotidae and No. 3 on the Sylviidae and Fringillidae.—J. W. HARDY.

**Breeding biology of birds, proceedings of a symposium on breeding behavior and reproductive physiology in birds.**—Donald S. Farner (Ed.). 1973. Natl. Acad. Sci., 2101 Constitution Ave., N.W., Washington, D.C. 20418. Pp. ix + 515. Paperback. \$15.50.—One of the next important developments in ornithology is bound to be an integration of the results of physiological experiments with the results of field studies in behavioral ecology. With a few exceptions these two areas are now poles apart. This symposium, held in Denver, Colorado, in 1972 under the aegis of the National Research Council and supported by The National Science Foundation, the U.S. Department of the Interior, and the National Wildlife Federation, was a major effort toward this goal. It was an attempt to break down whatever philosophical barriers to communication exist between physiologists, ethologists, and wildlife biologists, and secondarily to recommend physiologically sound policies to wildlife managers. The fact that several of the contributors did not address the issue of synthesis among the areas of concern is unfortunate. But I prefer to judge the resulting volume not in terms of its failure to achieve an overambitious goal, but in terms of the contribution of this set of papers to ornithology. In the latter sense, and in spite of the fact that some of the material is available elsewhere, the book is outstanding.

Of the eleven chapters, four are primarily physiological. M. L. Scott discusses nutrition, J. R. King energetics, I. Assenmacher and B. Follett neuroendocrinology. The other papers range from classical ethology through behavioral ecology to population dynamics in approximately this order (not the order of presentation): C. Beer, behavioral components of reproduction; R. Drent, natural history of incubation; F. McKinney, ecoethology of waterfowl; K. Immelmann, the role of the environment as a source of predictive information; J. W. Aldrich, disparate sex ratios in waterfowl; L. von Haartman, the changing avifauna of northern Europe; and R. E. Ricklefs, avian demography. Concluding comments and a summary are given by T. S. Baskett and A. Van Tienhoven.

The physiological papers are only remotely applicable to wildlife management. But recommendations for the design of future studies emerge. Scott emphasizes that laboratory studies of chickens and game birds show that clutch size may be limited by an inadequate diet, particularly by deficiencies of calcium and the essential lineo-

leic acid. The quality of the diet as well as its quantity should be considered in studies of wild birds. King cautions that extrapolations from laboratory studies of the metabolic rates of birds, and studies showing that food shortage reduces fertility and productivity, may be misleading. Data for wild birds are not yet available. Assenmacher believes that a better understanding of the role of prolactin in avian reproduction and further work on the daily rhythms of hormone release will help to clarify our picture of avian reproductive physiology. Follett reviews again the importance of photoperiod as an environmental informational cue, but reminds us that no one has satisfactorily explained postnuptial refractoriness.

Beer is opposed to reductionism, insisting that some aspects of behavior cannot be understood in physiological terms. Acknowledging Hinde's and Lehrman's classical studies on hormone-behavior interactions in canaries and ring doves, he prefers a more ideographic approach that allows for the personal developmental history of each individual. But if physiologists are guilty of overlooking individual variation, does that mean it is futile to look for physiological bases for species-specific behavior, or for individual differences that may involve individual physiological adaptations? I think the argument backfires in the discussion of the problem of the adaptiveness of different social systems. Jenni suggests that a team approach including micro-analytical methods for determination of hormone levels in the American Jaçana may help to account for polyandry in that species.

Drent's biophysical interpretation of the functional aspects of incubation is a beautiful example of the usefulness of this approach. McKinney emphasizes the dangers of generalizing from one species to another when he discusses the differences in behavior of closely related pairs of ducks, the Steller's and Common Eiders, the Northern Shoveler and the Pintail. In spite of this, Gordon Orians suggests that efforts to formulate general models would be worthwhile. Immelmann's excellent review of proximate environmental cues is reminiscent of his review in "Avian biology, volume 1." But his position that the role of the environment is smaller in the tropics than in temperate regions has become tiresome. Both this paper and the review by Ricklefs of fecundity and mortality in birds make the reader aware of the need for experimental work in these areas.

Physiologists, ethologists, and wildlife biologists do not speak the same language yet, but useful interactions are possible, as this volume illustrates. The synthesis will only be possible if ornithologists from all three areas begin to use a team approach and design studies that allow disciplines to converge.—FRANCES C. JAMES.

**Flight identification of European raptors.**—R. F. Porter, Ian Willis, Steen Christensen, and Bent Pors Nielsen. 1974. Berkhamsted, England, T. and A. D. Poyser Ltd. 184 pp., 78 line drawings, 80 pages of black-and-white photos. £4.80.—This is the finest, most comprehensive, detailed, and useful work on the field identification of raptors for any area of the world. It concentrates on the details of shape, structure, and silhouette of each of the 38 species recorded in Europe, as well as their field characteristics and plumage variation. The superb line drawings illustrate with striking accuracy the shape and "gizz" of each species, including nearly all of the plumages discussed. Many drawings of upperparts are included. Soaring and gliding wing positions are discussed and figured. The black-and-white photographs were chosen carefully to illustrate aspects described in the text. Originally presented as an 8-part series in *British Birds*, this book provides an excellent model for anyone studying raptor identification anywhere, and the authors and

artist are to be heartily congratulated for their painstaking, careful work and presentation.—BEN KING.

**Field studies of the Falconiformes of British Columbia.**—Frank L. Beebe. 1974. Victoria, B.C., British Columbia Provincial Mus., Occ. Pap. No. 17, 163 pp. \$3.00—For half a century, Frank Beebe has been studying, flying and, more recently, rearing in captivity, western American hawks and falcons. This experience, together with judicious use of the literature, is incorporated into this well-written and detailed monograph of the diurnal raptors of British Columbia (most of the species range continent-wide). Beebe is known for his earlier excellent paper on Peale's race of the Peregrine Falcon and for his "North American falconry and hunting hawks" (with Harold Webster). He illustrated all three works himself; his paintings vary from competent to excellent. Although some of Mr. Beebe's earlier views have been controversial, little controversy exists in the present work. Rather it contains much new data and a stimulating consideration of raptorial behavior, and it is recommended to both the professional and amateur ornithologist.—DEAN AMADON.

**Migration and survival of the birds of Asia.**—H. Elliott McClure. 1974. Bangkok, Thailand, U.S. Army Medical Component, SEATO Medical Project. 478 pp. No price given, but could well be available gratis from the publishers.—This is a careful, detailed report of the amazingly productive bird banding activities of the Migratory Animal Pathological Survey (MAPS), which the author and Col. C. M. Barnes, U.S. Army, founded in 1963 and expanded over the next 8 years to carry on banding work in 18 eastern Asiatic countries. In this time a working staff of 171 people banded the grand total of 1,165,288 birds of 1218 species. McClure presents and analyzes his banding, return, and recovery data clearly and methodically, with prodigal use of tables, diagrams, and maps that lend greatly to easy comprehension by the reader. As game laws are nonexistent or only lightly enforced throughout eastern Asia, and practically all birds are hunted either for the pot or caging as pets, the recovery rates are gratifyingly high, particularly in the small passerines. McClure's breakdown of the recovery ratios by country—in the light of human population density and religious, literacy, and game laws—is most enlightening. The international scope of the operation is little short of astounding. The banding teams operated in at least 11 languages, and recoveries were reported from places where as many other languages were used—Russian, Burmese, Balinese, and "hundreds of dialects." The only nation that failed to cooperate was mainland China, with 3.7 million square miles and some 730 million people. From this "Great Void" in the very center of eastern Asia only one recovery was reported—a swallow. From the hundreds of recoveries received from surrounding Japan, Korea, Taiwan, "Indochina," Burma, India, and Siberia, the fate of the data on the thousands of ringed birds that must have come to human notice in China is a mystery indeed.

I strongly advise everyone interested in Asiatic birds, migratory movements, and banding problems to try to obtain a copy of this invaluable work.—O. L. AUSTIN, JR.

**Another copy of Audubon's double elephant folio.**—Since the publication of my "The double elephant folio: The story of Audubon's birds of America" (reviewed in *Auk* 1975, 92: 186) I have learned of another set in Australia that should be added to page 343, where the set in the State Library of Victoria is listed.



Rose T. Smith, Special Collections Librarian of the Library of New South Wales in Sydney, wrote me 29 November 1974 that her library (known formerly as the Public Library of New South Wales) holds a complete set of the 4-volume double elephant folio, together with the 5-volume "Ornithological biography." The library acquired the set from the Australian Museum, which purchased it from Sotheran in 1884.—WALDEMAR H. FRIES.

## ALSO RECEIVED

**Feather fashions and bird preservation/A study in nature protection.**—Robin W. Doughty. 1975. Berkeley, Univ. California Press. 184 pp., 8 pp. black-and-white photos. \$10.95.—This scholarly work makes a fine complement to Helen Ossa's "They saved our birds," which I recommended in these pages a year ago (1974, *Auk* 91: 648). Doughty's work concerns itself strictly with the feather trade, which it documents in much greater detail than Mrs. Ossa did. In fact his constant documenting (hardly a page lacks a footnote, and some pages are half footnotes) makes for slow, needlessly interrupted reading. Mrs. Ossa's book is not only far more readable but carries the cause further into the pesticide dangers, and the need to preserve the environment against man's population explosion. Doughty goes little beyond the end of the traffic in wild bird plumes.—O.L.A., JR.

**The bird watcher's America.**—Olin Sewall Pettingill, Jr. (Ed.). 1974. New York, Thomas Y. Crowell Co., paperbound Apollo Edition. v + 441 pp., a number of black-and-white drawings by John Henry Dick. \$4.50.—Gathered together under this title are 46 accounts of fine birding areas throughout the United States, each written by a person thoroughly familiar with birding in that particular countryside. Every account is preceded by a short biographical sketch of the author, personal vignettes written with charm and warmth of a man speaking in admiration of his friends. Even if one cannot carry this book from Alaska to the Florida Everglades and from the Pacific to the Atlantic to actually follow Olin Sewall Pettingill's footsteps, one can be a joyous armchair traveler with him and his friends in "The bird watcher's America."

We should be grateful to Crowell Co. for putting this fine book in print again. Even though they repeated typographical errors, they have given us an easy to carry edition of a book that should go on vacations with its privileged owners. It also gives us a chance to renew old friendships with people like Robert Porter Allen, Alexander Sprunt, Jr., Olaus J. Murie, Paul L. Errington, and Allan D. Cruickshank, who today can go birding with us only in their writings. It's a book that will appeal to ornithologists as well as bird watchers.—E.S.A.

**Summer of a million wings/Arctic quest for the Sea Eagle.**—Hugh Brandon-Cox. 1974. New York, Taplinger Publ. Co. 184 pp., 26 photos, 1 map, and a few drawings by the author. \$8.95.—This journalistic account of bird life in the Lofoten Islands is full of ornithological inaccuracies. The first chapter makes one question all the words that follow. Speaking of Black-backed Gulls, the author calls them (p. 13) "These vicious killers," "With several gulps the killers swallowed their victims," and "the ravens would have added their beaks to the already formidable array of death-dealing bills waiting to hack the black and white young (murrees and

Razorbills) to pieces." He does not call the natives vicious or killers when they take the same birds and salt them down for variety in their diet.

Readers interested in the Sea Eagles will miss the yellow journalism of Hugh Brandon-Cox but get a much more accurate account of the species' life history from Brown and Amadon's "Eagles, hawks and falcons of the world" and a far better view of northern seabirds from Fisher and Lockley's "Sea-birds." The only bit of information I gleaned from this Taplinger introduction was the method used by Norwegian bounty hunters to trap and kill Sea Eagles.

Mr. Brandon-Cox has some strange ideas about language. No one has told him "penguin" is an obsolete term when applied to living alcid. He uses again and again the word "rorbu," which at long last with the assistance of the research library I discovered is Norwegian patois for a fisherman's shanty.—E.S.A.

**Azraq: desert oasis.**—Bryan Nelson. 1973. London, Allen Lane (Penguin Books). xix + 436 pp. Photos by the author and E. Hosking, drawings by J. Busby. £6.—Azraq, its pools and marshes fed by aquifers, is the only extensive wetland in Jordan. Of major importance to Eurasian migrant and wintering birds, it could become one of the finest wildlife areas in the Middle East. The Jordanian government has designated it as a national park, but unsettled politics and the pressures of the ancient Bedouin and their livestock on the one hand, and on the other of the modern craze for development, make its future uncertain. Dr. Nelson and his wife, following earlier expeditions led by G. Mountfort and M. Nicholson, went to Azraq to survey its resources and to draw up plans for their preservation and upgrading. Hostilities obliged them to leave early, but Nelson made the most of his opportunities and has written what could be a blueprint for the wise management of desert wetlands anywhere in the world. An ornithologist, more than one-third of Nelson's text pertains to birds, and it contains much original and valuable data. Highly recommended.—DEAN AMADON.

**Die Tannenmeise.**—Hans Löhrl. 1974. Wittenberg Lutherstadt, Die Neue Brehm-Bücherei. 110 pp., 56 illus. including several graphs and maps, 4 spectrograms, a number of black-and-white photos by the author and others, and a few drawings. No price given.—This is a well-written life history of *Parus ater*, the bird the British call a Coal Tit, the French call a Black Tit, and the Germans call a Fir Tit. The German is uncomplicated and easily read. A great many nest boxes were put out in groups in the Black Forest, visited regularly, and records kept for 13 years in a detailed report of every phase of a Fir Tit's life. The good multilingual bibliography covers the titmouse family in general. The only titles that were to me obvious by their exclusion were the many oriental titles on the titmice, especially those from Japan where the Varied Titmice are household pets, accomplished thespians, fortune-tellers, and an integral part of the folklore.—E.S.A.

**Birds in Japan/A field guide.**—Yoshimaro Yamashina. 1974. Tokyo, Japan, Tokyo News Service, Ltd. (Kosoku Doro Building, 10 Ginza Nishi 8-chome, Chuo-ku, Tokyo). Second printing, 266 pp. U.S. \$29.50, ¥4,800.—For a review of the first edition see Auk (1962, 79: 284). This edition contains 34 more pages than its predecessor, most of them devoted to color plates of additional species. For the non-Japanese speaking visitor who wants to go birding in Japan, this book is a must.—O.L.A., JR.