REVIEWS

EDITED BY KENNETH C. PARKES

Australian honeyeaters.—Brigadier Hugh R. Officer. 1964. The Bird Observers Club, Melbourne, Victoria, Australia; 86 pp., 12 color pls. $2.25.—One of the dominant passerine families of the Australian region is the Meliphagidae (honeyeaters). The present book, designed as a field guide, treats all species of honeyeaters occurring in Australia, on Tasmania, and on other associated islands in this area. Discussed are 69 species representing 23 genera; all are depicted in color, both sexes in cases of strong dimorphism. Taxonomic treatment follows Neville I. Cayley's *What bird is that?* (Sydney, Angus & Robertson, 1958), the standard Australian field guide. Subspecies are not mentioned except in the case of *Melithreptus lunatus*, which has two subspecific populations differing sharply in the color of the orbital bands.

The text under each species heading is broken down into the following categories: Description, Field identification, Distribution, Habits and voice, Nesting habits, and General. Of notable value here are the sections on habits and voice and on nesting habits, since very little has been published concerning these aspects of meliphagid species; much of the material is apparently original data from the author's own notes. Brigadier Officer was certainly well qualified in the undertaking of this work, having had personal field experience with almost all species treated.

One of the primary problems in the preparation of any Australian field guide has been the lack of a competent bird artist. The color plates in the present work are adequate for identification purposes and at least on a par with those in Cayley. The illustrations are considerably larger, which is a big help. Some plates, however, are noticeably crowded, resulting in unnatural shapes or poses in the birds (e.g., Yellow-tufted Honeyeater, plate IX; White-cheeked Honeyeater, plate X; Bell Miner and Yellow-throated Miner, plate XI). A few birds seem to be somewhat out of proportion (e.g., Spiny-cheeked Honeyeater, plate X; a slimmer and longer species than depicted). Since the book was designed as a field guide, perhaps the choice of a uniform pose for all birds on each plate (or at least the addition of one more plate to reduce crowding) would have improved the format. Color reproduction on some of the plates is also weak, with poor register being pronounced. In the species accounts there are no references to plate numbers and one must thumb through the book or refer to the list of illustrations in the Preface to determine on which plate each species appears.

I think perhaps the sections in the text on "Field identification" should be a little more thorough, especially since the book is designed as a field reference. For example, on p. 28 under the Tawny-crowned Honeyeater (*Gliciphila melanops*), the field identification indications are only a decidedly inadequate "a brown bird with a light-coloured crown." The Lesser Lewin Honeyeater (*Meliphaga notata*) is described (p. 42) as "an olive-green honeyeater with a yellow ear-patch," which fits half a dozen other species as well. There is no mention (p. 68) under the White-cheeked Honeyeater (*Meliornis niger*) of the most obvious field mark, the triangular white cheek patch. And for a field guide, the size of the book is somewhat awkward. Although it is relatively thin (86 pp.), its other dimensions are large and it will not fit in an average pocket.

Despite the shortcomings mentioned, the book is a useful guide for students of Australian ornithology. The color plates depicting all species and the notes on habits, voice, and breeding are well worth the remarkably low cost.—BURT L. MONROE, JR.

The birds of Arizona.—Allan Phillips, Joe Marshall, and Gale Monson. 1964. Tucson, University of Arizona Press. Pp. xx + 212 + 8 pp. unpaged index, illus., 12¼ × 9¼ in. $15.00.—The adjective "long-awaited" should probably have been honorably retired from the book-reviewer's vocabulary after the appearance of Todd's *Birds of the Labrador Peninsula* (see *Auk*, 81: 461–464, 1964). Nevertheless, the earliest drafts of Allan Phillips' *The birds of Arizona* were written some 30 years ago. As stated in Guy Emerson's preface, Phillips is a perfectionist, and was never *quite* ready to publish his Arizona book. This was complicated by his moving to Mexico and devoting his research time almost entirely to Mexican birds. A fortunate combination of circumstances and persuasion several years ago resulted in an arrangement whereby Joe Marshall, then of the University of Arizona, undertook most of the actual writing of *The birds of Arizona*, using Phillips' notes supplemented by observations of his own and of Gale Monson of the U. S. Fish and Wildlife Service. Much revision of the text was then based on conferences between Phillips and Marshall, to the extent that the latter has characterized the book (p. ix) as being "Phillips' Birds of Arizona 'as told to' Marshall and Monson."

In view of the years of cumulative Arizona field experience of the authors, and of the obvious thoroughness and care with which this, the core of the book, has been prepared, the accuracy of the distributional information seems assured. The authors' conservatism is such that scarcely a page lacks a statement querying or specifically refuting earlier records. Indeed, in discussing the repudiation of various winter records of *Buteogallus anthracinus* (p. 24), Marshall had the grace to add "It is therefore somewhat embarrassing to take the author's Olympian privilege of accepting our own [winter sight record]."

Many aspects of *The birds of Arizona*, however, transcend in their importance to ornithology those of a simple state list. Upon these, the reviewer (who has spent only about one week in Arizona) feels more competent to comment than upon local distribution.

To start with, the binding, typography, and paper of the book do credit to the University of Arizona Press. The black and white photographs accompanying a brief chapter by Phillips and Monson on historic changes in Arizona habitats are beautifully printed. There are no topographic, vegetation, or "life zone" maps, merely a crude "Map of Arizona State Highway System," of minimal usefulness. Distribution maps, scattered through the text, are relatively clear when confined to a single species, but often several species are treated together, with seasonal status for each, so that one must sort out as many as 8 or 10 different symbols on a map of 3 × 4 inches. There are 12 water color drawings by George M. Sutton at his very best. Some of the reproductions, printed on a specially textured paper, appear pale, possibly because these field sketches were not originally intended for publication. In the reproduction of his color photographs on 32 pages, Eliot Porter, a fine photographer, has been poorly served indeed. It is especially ironic, in a book co-authored by an authority on the screech owls (*Otus*), that a photograph showing the diagnostic wing pattern of *O. trichopsis* should be labeled *O. asio* and rotated a quarter-turn in reproduction, as pointed out to me by Marshall himself.

The most frustrating aspect of *The birds of Arizona* is the allocation of its actual authorship, a bibliographer's nightmare. The introduction states: "Largely from Phillips' manuscripts and files, Monson wrote the summarizing paragraph which opens each species account, and Marshall wrote the rest . . . except for those families, genera, and species marked in the text as having been prepared by Phillips himself." Portions of the text signed by Phillips include, among others, the accounts of the

families Trochilidae, Tyrannidae, Alaudidae, and Hirundinidae, the genera *Junco* and *Aimophila*, and the Masked Bobwhite and Orange-crowned Warbler. The latter two species accounts were originally prepared as samples for a contemplated "Birds of Arizona" by Phillips alone, and are organized completely differently from any other accounts in the present work. Although Marshall "wrote" the rest of the book, the account of the genus *Otus* is specifically signed by him. This means, he tells me, that he wrote this account largely from his own rather than from Phillips' notes—but he also wrote, in the same fashion, the accounts of the Bush-tit, House Wren, and Abert's and Brown towhees, none of which bears his name. On the other hand, Marshall tells me that he recognizes as his own some of the prose credited to Phillips.

In the expectation that Phillips' formal description elsewhere of a new subspecies of Vesper Sparrow would appear prior to the publication of this book, the subspecific name was used herein. Unfortunately, this proved after all to be the earliest use of the name, and with enough information to fulfill all requirements of the *International code of zoological nomenclature* for the introduction of a valid name. According to Articles 13, 50, and 51 of the *Code*, therefore, the correct citation of the original description of this subspecies must, alas, be given as:

Pooecetes gramineus altus "Phillips" = Marshall, *in* Phillips, Marshall and Monson, *Birds of Arizona*, 1964, p. 194 (caption to map), 195.

Of the text in general, it may be said at once that the distributional summaries by Monson are clear, concise, and workmanlike. The rest of the text is in a choppy, variable prose, often with unrelated facts following one another in rapid sequence, some of which may be duplicated in later paragraphs (see Great Blue Heron, Mourning Dove). There is an occasional conscious effort to be "cute"—one wonders how many readers, a few years hence, will understand the reference to the Cathartidae as "avian Digby O'Dells."

There is much variation in the amount of description devoted to both regular and peripheral members of the Arizona avifauna. Although the book is not a field guide, some species have an entire paragraph devoted to recognition marks, while descriptions are perfunctory or omitted for others. Of three sea ducks rare in Arizona, for instance, in sequence on p. 16, the Surf Scoter has a single inadequate descriptive sentence, while the White-winged Scoter and Oldsquaw have nothing. The descriptions of the Goldeneye and Bufflehead, on the other hand, occupy almost half of the space alloted to these species.

The problem of "common" or "vernacular" names has been approached in an unorthodox and, to this reviewer, irritating fashion. Virtually every English name ever applied to either the species or any of its subspecific components appears, in identically-sized large capitals, at the head of each species account. In extreme cases such as that of *Junco hyemalis* (*sensu lato*) this results in a full paragraph listing no less than 12 English names. Surely one species name could have been preferred, and the rest relegated to small type if mentioned at all; the authors have, in fact, apparently invented a few additional names of their own, such as "Northern Oriole" for the "lumped" Baltimore and Bullock's orioles.

Here and there in the text are cryptic references without documentation. Thus, under Common Loon we find a conjecture about Herbert Brown's misidentification of a specimen of *Gavia immer* as *G. stellata*, with no indication of when this took place. The discussion of the taxonomy of the White-fronted Goose abounds in authorities' names without accompanying citations of literature. Under White-tailed Kite we learn that "Phillips could find no specimen in the Pember Museum at Gran-

ville, New York, to substantiate the occurrence at Gila Bend," but we are not told why he looked there for such a specimen. A statement on the distribution of the Western Meadowlark in Nevada is given in quotation marks, apparently to register disbelief in its accuracy, but no source is given for the statement.

Phillips' strong views on taxonomy and nomenclature are decidedly reflected in *The birds of Arizona*, and Marshall's introduction states that Phillips is "responsible for the scientific names and classification used." I count about 25 genera used in a broader sense than in the A.O.U. Check-List. Many of these usages are familiar "lumpings" long ago proposed by other authors (e.g., *Chen* into *Anser*, *Lophodytes* into *Mergus*, *Telmatodytes* into *Cistothorus*, etc.). Others appear to be newly proposed here, or at least have had less publicity (*Atthis* into *Selasphorus*, *Guiraca* into *Passerina*, *Amphispiza* into *Aimophila*, etc.). In a few cases, the "lumping" seems capricious, involving world-wide groups surely not studied in their entirety by the authors (expansion of *Ardea* to include, among others, *Butorides* but not *Dichromanassa* [!!]; placing of the Evening Grosbeak in the Old World genus *Coccothraustes*). For some reason, Phillips did not actually combine genera in the jays, resorting to his well-known "sarcastic quotation marks" in giving the names "*Aphelocoma*" and "*Cissilopha*." Several old generic and specific names have been revived. For such changes, both taxonomic and nomenclatorial, the amount of explanation offered varies from full (*Toxostoma crissale* vs. *T. "dorsale"*) through minimal (*Ardea, sensu lato*) to none at all (most cases). At least one name revived without explanation, *Contopus musicus* (Swainson), would probably have qualified as a *nomen oblitum* under the controversial Article 23b of the *International code of zoological nomenclature,* and we could have gone on calling this flycatcher *C. pertinax*, as indeed we may anyway.

Two things are clearly wrong with all of this taxonomic and nomenclatorial innovation, although it has received support from a reviewer prone to the same practices (Brodkorb, *Bird-Banding*, 36: 287, 1965). I am *not* objecting to the publication of these changes, even in a "state bird-book." (Dr. Phillips is entitled to his opinions on all of these matters, and, in fact, I believe many of his proposals to be justified.) What *is* deplorable is their publication (in many cases) *without explanation. Atthis* may in fact not be separable from *Selasphorus*, and *pusillus* rather than *minimus* may be the correct specific name for the Least Flycatcher, but the reader is entitled, at least, to a reference to the evidence for such departures from familar usage; he should not be asked to repeat the necessary bibliographic research. And if, as may be the case, there is *no* previously published discussion, then Phillips should have stated his reasoning.

The other unfortunate aspect of Phillips' taxonomic treatment is its unevenness. There is no question that he has favorite groups of birds, to which he has applied his full talents. Others, equally in need of re-examination, have been completely ignored. This has resulted in a highly uneven taxonomy, whereby herons, hummingbirds, flycatchers, swallows, and sparrows have been well "lumped," whereas (for example) all of the many genera of sandpipers and all three of phalaropes are admitted, and such genera, widely discarded by other people, as *Zenaidura*, *Megaceryle*, and *Spinus* are included without comment.

The detailed discussions of distribution and migration, on the other hand, reflect the years of meticulous care that Phillips has devoted to the study of subspecific variation. His changes from A.O.U. Check-List taxonomy at this level are almost always scrupulously documented, and the significance of the study of subspecies on a continental land mass has seldom been demonstrated to better advantage.

Reading this book one may pardonably receive the impression that its authors are prickly personalities. Sarcasm appears rather frequently. There is constant reference to Phillips' obsession that all eastern birds are inevitably soot-stained. Character displacement is called "a somewhat shaky doctrine" because it does not appear to apply to the sympatric meadowlarks of Arizona! There is pure conjecture of an undocumented sort on such points as the nomenclature of the Hooded Oriole, subspecies of Brewer's Blackbird, and generic affiliations of the Beardless Flycatcher. My own paper on the redstarts (*Wilson Bull.*, 73: 374–379, 1961), if I may be permitted a moment of sensitivity, is both misquoted and misinterpreted.

In conclusion, I have learned that, in spite of the long period of genesis of *The birds of Arizona*, strong pressure was applied to the authors toward the end to complete the manuscript, read proofs, etc., in great haste. Almost certainly additional time would have permitted the correction of some of the faults I have found with the finished product (and as it stands, the book has remarkably few typographical errors). In any case, *The birds of Arizona* is a landmark among state ornithologies, and the authoritativeness of its distributional information will seldom, if ever, be exceeded.—KENNETH C. PARKES.

The ecology of North America.—Victor E. Shelford. 1963. Urbana, University of Illinois Press. Pp. xxii + 610. $10.00.—The jacket states: "This book is the first comprehensive description of North America from an ecological viewpoint as it appeared in the period 1500 to 1600. It culminates the life work of Victor E. Shelford, 'the father of modern animal ecology and bioecology'." A natural instinct of every North American reader is to turn the pages with great expectation until he arrives at the chapter or part dealing with his own particular *patria*, with the habitats he knows most about. I must prepare many readers to be disappointed upon glancing through those particular pages. True, there will be some comprehensive generalities by an expert who grasps the whole but cannot be versed in all details; Shelford emphasizes in a few words many essential ecological features of the major habitat. However, the subsequent details reveal that they are often based on brief visits, momentary impressions of a small piece of land that is presented as a representative area. There is scarce mention of the primeval conditions of the land. In chapter 8, for instance, nowhere is it said that such conditions prevailed until the beginning of this century in most of the Pacific Northwest. The next chapter deals in 21 pages with the sclerophyll forest habitats of the west and it includes only one paragraph describing the appearance of the land around 1600 and the changes that have been brought about since; later, six lines deal with Lewis and Clark's report.

This first impression, however, is not a complete judgment of the whole volume. Shelford admits on the first page that in most of North America primeval conditions were disturbed before their scientific study began. A brief, programmatic epilogue summarizes important defects in our present knowledge regarding correlated studies of plants and animals within the communities and of their interrelation, and the lack of quantitative data about populations and their food habits. Notwithstanding these, there is a wealth of information compressed into the 600 pages of the book. The ecology of North America is a huge subject and pertinent publications must fill a whole library. Shelford alone quotes from over 1,000 sources of literature. If we expect completeness we should wait for a serial publication where each region would be worked up by a team of ecologists. Lacking such a monumental work, we are indeed grateful to Professor Shelford that he has published his life's experience of the North American biomes, the field analysis of his exploring parties with many

students, and has summarized, in condensed form, richly illustrated with maps and graphs, those works, analytical as well as synthetic, of authors of the last half century which he deemed important and which serve to characterize the ecological features of the continent.

This book is a good companion for the ecologically educated field ornithologist, especially when he wants to learn about the ecology of areas he is not familiar with, or is visiting for the first time. Discussion of birds is restricted to those species which influence the biotic communities in a dominant way or which are conspicuous enough to identify them. Birds are mentioned everywhere, but the emphasis is on the biotic community. For Shelford, tiger beetles, myriapods, and digger wasps are just as important as the Chestnut-backed Chickadee or moose, if these are the particularly prominent features of a locality or if a monograph has dealt with their community or requisite relations. Through Shelford's book, I should like to see the bird ecologist become more community- and habitat-conscious, for the understanding of any biota is only made possible by considering the totality of its environmental relationships.—M. D. F. Udvardy.

The world of birds.—James Fisher and Roger Tory Peterson. 1964. Garden City, New York, Doubleday and Co. Pp. 1–288, copiously illus. (approximately 150 drawings in color, many elaborately composite, and a few black-and-white drawings, by Peterson; 95 col. family distribution maps; many photos., wash drawings, and diagrams); 13 × 10 in. $22.95.—If anyone still doubts that James Fisher and Roger Tory Peterson are more addicted to birds, as a total way of life, than anyone else in our times, with this book these two—with the happy and rarely equalled abandon of a pair of drunken sailors on shore leave—seem now to have proved it for all time. On their metaphorical spree the authors have enjoyed the unstinting indulgence of Doubleday and Co., and the inevitable result is a large, well made, and certainly novel tome that cannot but contain something desirable to nearly everyone afflicted with any form of aggravated ornithomania.

For purposes of discussion the text and illustrations, which are intricately interwoven, may be taken up separately.

The text is a lively, readable, up-to-date, and authoritative essay lightly covering manifold facets, from basic to widely peripheral, of the vast area indicated by the title. Major sections: The variety of birds (populations, faunas, migrations, anatomy, etc.); How birds live (essentially ecological); Birds of the past; Birds on the tree of life (adaptive radiation); The distribution of birds; Bird society (territory, behavior, various miscellany); The regiment of birds (95 attractive maps displaying the ranges of 199 family-level groups of birds Recent and fossil with statistics on the taxa); Birds and men (conservation, techniques of ornithology); Bibliography (classified and useful); and Index.

Aside from photographs and various diagrams, the illustrations are from Peterson's well known brush, here joyously emancipated from restrictions inherent in its more familiar employment in the illustration of its owner's numerous field guides, etc. If these activities have led to an ingrained preoccupation with sharp outlines and clear, evenly-lit patterns from which even here the artist sometimes fails to escape, it is nevertheless true that we are granted an impressive, indeed opulent, display suggesting a rich tour, in the words of a prepublication blurb, through "an aviary in print," and an intelligently arranged aviary at that. Suiting their purpose, the drawings range from simple, often very effective, illustrations of biological points

to remarkably ambitious—even flamboyant—synopses of groups and faunas. Notable are the frontispiece of feeding King Vultures; a two-page composite on "the variety of birds"; a novel full page of selected fancy feathers; a representative series of Neotropical species; and others. Perhaps as a result of the need for demonstration there is scarcely a conventional "picture" in the book, but there are, here and there (and perhaps more often than might be hoped for from any but a few living bird painters) single, elegantly well drawn birds.

The photographs and other illustrations serve well the purposes for which they are employed, and the extent to which no marginal stone is left unturned is revealed by the presence of a photograph of part of James Fisher's ornithological library, one of "Old Bird [Club] Ties," and similar items.

But size, color, and dramatic impact are not necessarily substance, and the employment of iconographic elephant guns in the work of slingshots—however impressive at the moment—demands an inefficiency equatable with luxury (one might almost substitute opulence) for its own sake. In short, the overpowering format of this book fails, in the end, to obscure its lack of serious intent to explore the "world of birds" to the extent that might sensibly be hoped for even by the numerous students and admirers of birds who do not consider themselves "professionals."

The text, however effective for its purpose, is rather more up-to-date primer than sober survey. That portion of it devoted to avian biology would equal no more than approximately 60 pages of the large-type section of the present journal. It cannot, therefore, delve deeply into very much; further, perhaps accordingly, it seems more devoted to firsts, mosts, and extremes than to possibly less exciting but more basic averages and fundamentals. While careful search reveals extremely few outright errors, it is unavoidably rife with oversimplifications and half-truths (there is no point whatever in giving space to examples) whose proper qualification would doubtless have doubled or tripled its length. It is, finally, devoid of documentation, which is often disturbing and occasionally downright irritating where novel and possibly original views are set forth. In all, it contains less information in many ways than Peterson's *The birds* (New York, Time Inc., 1963; see *The Auk*, 81: 455–457), which can or could be had for $3.95, and, allowing for the dates, much less than Fisher's scholarly and comparably inexpensive little books *A history of birds* (Boston, Houghton Mifflin, 1954) and its predecessor, in part, of 1939, *Birds as animals* (London, William Heinemann, Ltd.).

To the serious student its unique feature of attraction is the family range maps, but these come high at $22.95 [now "remaindered" near $10]. Otherwise, and especially for the various kinds of more casual admirers of birds, the appeal of the book must rest upon the strength of their wish for a single, attractively illustrated, briefly informative tribute to the birds as esthetically appealing, intellectually stimulating organisms, for that is what this work really is.—ROBERT M. MENGEL.

Catálogo de las aves Chilenas con su distribución geográfica.—Rodulfo A. Philippi-B. 1964. *Inv. Zool. Chilenas*, **11**: 1–179.—This carefully prepared checklist of Chilean birds is a useful addition to the catalogues currently appearing for various South American countries. The author follows the Wetmore sequence and models his format, to a considerable extent, on the recent A.O.U. Check-List of North American birds. For each polytypic species he gives the entire range, then he lists those subspecies recorded in Chile, with their scientific and Chilean names and their distribution. If the species is montane or local the zone of occurrence is also

indicated, and where Chilean records are very few, the locality, date, and collector's name are usually mentioned.

Included are 476 species and subspecies. Despite its latitudinal extension into the torrid zone, Chile, constituting a narrow strip hemmed in by desert to the north, the high Andes to the east, and a cool Pacific current to the west, has hardly a tinge of tropical avifauna. There are no breeding trogons, toucans, barbets, jacamars, puffbirds, motmots, antbirds, woodcreepers, cotingas, manakins, vireos, or even wood warblers. In the extreme north are found one tanager and one seedeater. Even such widespread genera as *Tyrannus* and *Pitangus* are absent. The isolation of Chile has encouraged endemism. The tapaculos, Rhinocryptidae, are best developed in Chile; many Furnariidae of open environments occur including an endemic genus, the monotypic *Chilia*; and the small family of plant-cutters, Phytotomidae, is represented by one essentially Chilean species. Of the 30 species of Tyrannidae breeding on the mainland, 10 belong to the montane ground-tyrants, *Muscisaxicola*, and 4 to the shrike-tyrants, *Agriornis*. Among the non-passerines the presence of many species closely allied to those of the north temperate zone (grebes, ducks, rails, gulls, terns, and woodpeckers) stimulates zoogeographic speculation. As with the presence of three species of *Anthus*, these similarities may only reflect the similarity of open temperate environments. But five species of siskins, *Spinus*, almost limited to the Andes, do suggest a movement from Asia down the western spine of the American continent. Chile, of course, has its share of southern species, both those characteristically South American, like the Lesser Rhea and the open-country tinamous, and those of subantarctic distribution, like the penguins and many Procellariiformes. The birds found in that part of Antarctica claimed by Chile are also included. In a relative sense the Fringillidae *sensu lato* are well represented, with such notably southern genera as *Diuca* and *Phrygilus*. The geographically well defined character of its boundaries gives Chile perhaps the most distinctive avifauna of any South American country.—E. Eisenmann.

The birds of Chile and adjacent regions of Argentina, Bolivia, and Peru. Vol. 1.—A. W. Johnson. 1965. Buenos Aires, Platt Establecimientos Gráficos S. A. Pp. 398; 100 col. pls. (by J. D. Goodall); many drawings, maps, and photos. Price, $13.00 (U. S.), if ordered direct from the author, Casilla 327, Santiago, Chile.—One of the authors of *Las aves de Chile* (1946, 1951; supplements 1957, 1964), the handbook of Chilean birds, has now produced a corresponding work in English. This first volume covers the families from the penguins through the jaegers (in the Wetmore order); the completing second volume is expected to appear late in 1966. While based on the earlier work in Spanish, this is not a mere translation. The text has been rewritten and brought down to date; additional information, some of it found in the supplements to the Spanish handbook, has been incorporated. The same color plates and photographs, plus a few new ones, are used. Some technical material is omitted, notably detailed descriptions and measurements.

In the first volume 194 species (225 forms) are treated. The "adjacent regions" mentioned in the title in smaller print are not defined; all the species in this volume seem to have occurred at least once in Chile, but their extralimital ranges are supplied. Most species are illustrated, usually in color. The color drawings, concededly, are not the work of a professional artist, but they serve for identification. Many of the photographs showing habitat or nest, occasionally a bird in the field, are strikingly attractive. They vividly evoke the rugged or beautiful Chilean landscape. A valuable introductory chapter, supported by a map, treats succinctly the geography, climate,

and zoogeography of Chile and discusses speciation and migration. Unlike other South American countries, Chile is cut off from the tropics by mountains and desert; only an insignificant proportion of the Peruvian arid tropical avifauna crosses into extreme northern Chile. The author lists 37 North American species that have appeared in Chile as migrants. Of course shorebirds predominate, but included are a few terns and jaegers, Franklin's Gull, the Peregrine Falcon, Osprey, Barn and Cliff swallows, Red-eyed Vireo, and Blackpoll Warbler (the last two each known from one specimen).

For each family treated a general summary is included emphasizing the Chilean status. Then each species (or subspecies if more than one occurs in Chile) is treated separately, with a heading providing English, Chilean, and scientific names. This is followed by citation of the original description and type locality, then by subheadings entitled Local names, Distribution, and Size (providing total length in inches and other measurements in millimeters, usually the arithmetic mean with standard deviation). This formal material precedes a pleasantly readable account which supplies information as to habitat, status in Chile, identifying characteristics, general behavior, with emphasis on nesting, and description of eggs. No explicit plumage descriptions are supplied, reliance being placed on the illustrations and on mention of distinguishing features where the form is not depicted in the book. In the case of migrant shorebirds a North American field-guide would still be useful in Chile.

Ornithologists have justly admired *Las aves de Chile*, which has long been the only work giving an account of the general biology of the entire avifauna of a single South American country. Mr. Johnson and his colleagues have wandered all over Chile studying the living birds, and confirming their identifications by adequate collection. That a demand exists for a handbook in English indicates the touristic appeal of Chile and the fact that so many travellers are interested in identifying the birds they see. But this is no mere guide to species recognition. It attempts to summarize what is known of the life history of each Chilean form, in most cases based on the author's own field experience. Over the years I have constantly turned to *Las aves de Chile* for reliable information on ecology and behavior of South American birds that I could find nowhere else. The present work in a language with which a large number of ornithologists are familiar should prove even more useful to the growing body of students interested in Neotropical zoogeography and avian life.—E. EISENMANN.

Birds around the world. A geographical look at evolution and birds.—Dean Amadon. 1966. Garden City, New York, The Natural History Press; 175 pp., 30 text-figs. (black and white drawings), $3.95.—Ornithologists, more than most scientists, have taken seriously the importance of rewriting the subject matter of their field into a form intelligible and attractive to the layman, and can pride themselves on the extent to which knowledge and appreciation of birds has entered the public domain. Feedback in the nature of support and recruits for our science is self-evident. One aspect of this is illustrated by a check I made in the Book Shop of the Field Museum of Natural History. This showed 53 different bird books for sale. They varied from those for the scholar to those for laymen, hobbyists, and children. Some of these volumes were written by ornithologists, some by writers and educators. In general, the further the authors were from firsthand knowledge of their material, the more dilute the content of the book. Hence the importance of authorities themselves pausing in their researches and recasting some of it for a wider audience.

The present volume is a happy example of this. Dr. Amadon, of the American Museum of Natural History, one of our best known ornithologists and one with world-wide experience, has written of one basic aspect of birds in this brief, semi-popular account of the factors underlying the distribution of birds and their relation to evolution. Its contents are best indicated by listing the headings of the eight short chapters: First principles, The effect of physical barriers, Ecological requirements, Harmful and beneficial factors, Species dynamics and distribution, Distribution of higher systematic categories, Geographical patterns of distribution and faunas, Ecological systems of classifying distribution.

This is a reading book, rather than a reference book. Supplemented in detail by the instructor, it could also serve as text for a college level course. For those interested in greater detail on the subjects covered, a list of 20 books for further reading is appended.—A. L. RAND.

A revised check list of African non-passerine birds.—C. M. N. White. 1965. Lusaka, Zambia, Govt. Printer. Pp. v + 299, 8½ × 5½ in. Price 10s/6d, paper-bound.—With the publication of the present volume, White completes his revised check-list of African birds; those parts dealing with the passerine birds were reviewed earlier in *The Auk* (80: 560–561, 1963; and 81: 565–566, 1964). The non-passerine part follows the format of the previous sections. In the introduction the status of each family in Africa is summarized, and there are references to recent revisions. The systematic list includes those species and subspecies recognized by White, and in the synonymies are included all names introduced since the first part of Sclater's *Systema* (1924) and those names of Sclater's that have since been reduced to synonyms. The most valuable feature of White's list are the diagnoses for each subspecies, the first time that this has been accomplished for Africa as a whole in 60 years.

In his systematic treatment, White makes no radical innovations. He uses on the whole a concept of broad genera and species, and he has followed Bock's revisions of the Ardeidae and Charadriidae. His treatment of subspecies is drastically on the conservative side, and many long familiar names now appear in synonymy. I may be doing White an injustice, but there is the distinct impression that he worked on the theory of "when in doubt, lump them." Although a certain amount of subspecific pruning has been long overdue, this philosophy can lead to outright error. A case in point is *Apus schoutedeni* Prigogine, 1960, which White places in the synonymy of *A. myoptilus chapini*. I have examined the two specimens of *schoutedeni*; they differ in color, size, and proportions from *chapini* and could not possibly belong to that form, and I doubt if they are even related closely to the species *A. myoptilus*. To place *schoutedeni* in the synonymy of *chapini* is unfair to Prigogine, and obscures the complex speciation that this genus has undergone in Africa.

There is only one nomenclatural change that is in error. White resurrects *canorus* Thunberg, 1801, as an earlier name for *Melierax musicus* (Daudin) 1800. Although Thunberg's name was first read in a dissertation in 1799, it was not actually published until 1801 (see Cat. Libr. Brit. Mus. [Nat. Hist.] vol. 4, p. 1706, 1913), and *musicus* remains the oldest available name.

Despite the above criticisms, White's Check list is an invaluable reference work for anyone with an interest in African birds. For the first time since the *Systema*, we now have an up-to-date list for Africa summarizing the large and scattered literature of the past 35 to 40 years. For this we are grateful not only to White but to the Game and Fisheries Department and the Government Printer in Zambia, who made its publication possible.—MELVIN A. TRAYLOR.

Bulletin, Nigerian Ornithologists' Society.—Edited by C. H. Fry. Vol. 1, no. 1, May, 1964 *et seq.* Dept. of Zoology, Ahmadu Bello University, Zaria, Northern Nigeria, West Africa. 10 shillings (Nigerian) for a reprint of Vol. 1, 15 shillings for Vol. 2 ff. 4 issues, approx. 100 pages, per volume.—This new journal, mimeographed on legal-sized sheets, is of rather humble appearance but of extraordinarily high quality in its ornithological content. It was begun in 1964 with only 12 subscribing members; in the latest issue at hand, Vol. 2, number 8 (the issues are numbered consecutively, not by volumes), the Society's ranks have increased to 55 members and 17 subscribing libraries, of which only three individuals and two libraries are in the U. S. The Bulletin deserves a far wider audience, as it contains data of great importance to students of the African and Palearctic avifaunas.

According to the editorial in this the first issue, the Bulletin was begun because "a regrettably high proportion of bird-watchers in the country are not permanent residents; and observations accumulated within the space of a few short years have all too often left Nigeria unpublished—or, if published, then perhaps in a museum journal inaccessible to the majority of ornithologists on the spot." As a result, the Bulletin is devoted largely to field studies of particular species of interest, behavioral notes, guides to identification, short taxonomic discussions, migrational studies (particularly of Palearctic species), and regional lists, including data on abundance, seasonal distribution, breeding dates, etc. A provisional check-list (with additions in almost every issue) for Nigeria has also been begun. Many of the contributing authors are ringing (banding) birds using mist nets, and so are catching and making observations on a wide range of species. These observations seem to be generally and consistently of high quality. Whereas this journal was initiated to serve the "local" (and apparently largely British colonial) ornithologists, the shoe is now on the other foot; those outside Africa should also have this new and valuable reference available.—MARY A. HEIMERDINGER.

A correction.—Several unfortunate errors appeared in *The Auk*'s recent review (83: 151, 1966) of a publication by Dr. Robert W. Nero. The correct title of this paper is "Birds of the Lake Athabasca region, Saskatchewan" (not "Birds of the Athabasca River region"). It was published by the Saskatchewan Natural History Society (not the "Saskatchewan Natural History Museum"). Contrary to a statement in the review, no claim was made for the first breeding data for the Savannah Sparrow for Saskatchewan. We apologize to Dr. Nero, who called these discrepancies to our attention.—Eds.