

BOOK REVIEWS

Status, Distribution and Biogeography of the Birds of Paraguay.—Floyd E. Hayes. American Birding Association Monographs in Field Ornithology No. 1, American Birding Association, Colorado Springs, Colorado. 230 pp., 27 figures (15 in color). A colored photograph of a Greater Rhea graces the front cover, Figure 6 (map of the major vegetation units) is reprinted in color on the back cover and ten unnumbered pen and ink sketches of birds are scattered through the text. ISBN 1-878788-30-2. \$29.95 (paper) plus \$3.75 shipping and handling. Available from ABA Sales, P. O. Box 6599, Colorado Springs, CO 80934 (telephone 800/634 7736).

The American Birding Association has initiated its new monograph series with the first extensive work on the birds of Paraguay since Laubmann's *Die Vögel von Paraguay* (Vols. 1 and 2, 1939 and 1940, Strecker und Schröder Verlag, Stuttgart).

Land-locked and lacking elevations above 800 m, Paraguay has not attracted ornithologists to the extent that most South American countries have. The country's principal features are three river systems: the Río Paraná on its eastern and southern borders, the Río Pilcomayo on the long southwestern border, and the Río Paraguay, dividing the country into the eastern Oriente and the western Chaco. A cline in increasing rainfall from less than 400 mm per year in the extreme west to more than 1,400 mm in the eastern part of the country is important in producing vegetational changes which in turn affect bird distribution.

The introductory sections provide valuable information for visitors to the country. Along with accounts of Paraguay's geography, geology, and the ornithological history, they include bits of practical information such as how to pronounce words in Guarani, which is the official language of the country as well as the origin of some well-known bird names including tinamou and jacana.

The distributional data are found in four sections. The first is a 31-page table presenting in an abbreviated form the English and scientific names, status, habitat(s), and relative abundance of each species of bird in the seven geographical regions of Paraguay. This is followed by detailed distributional notes for 323 of these species, taxonomic notes for 21 species, and an annotated list of 104 "hypothetical" species. Specimen data from 21 museums (7 in Paraguay and Argentina, 7 from Europe, and 7 from the United States), and sight reports largely by the author and his colleagues are included. This enormous amount of information both brings what is known about the distribution of Paraguayan birds up to date and provides a basis for faunal analyses. It is worth noting that the author is careful to explain his methods for evaluating records.

An extended section is devoted to biogeographical analyses of this country's avifauna. A major conclusion is that the Río Paraguay, although an important barrier to the distribution of most terrestrial vertebrates, is at best a poor one for flying birds. For the latter, abrupt

changes in vegetational types appear to have been more effective. This contrasts with the situation across some of the wider rivers in Amazonia.

As early as 100 years ago, ornithologists commented on the need for the conservation of birds and other wildlife in the country. The pace of destruction of the native grasslands by grazing and of the forests by cutting for agriculture and by the damming of the rivers, especially the Río Paraguay, continues to increase. While more than twenty protected natural areas have been set aside, many are small and there are insufficient funds to patrol even the large ones. Paraguay has lost two birds, the Glaucous Macaw, which probably became extinct over one hundred years ago, and the Brazilian Merganser, which appears to have been extirpated from its limited range in the country. In addition, twenty species are currently listed as threatened and thirty-five as near threatened. It is clear that, although commendable efforts are being made, conservation is still a problem in Paraguay, as it is where population pressures throughout the world threaten natural habitats.

The book is large (8" × 11") and attractively designed, and there are few typographical errors. Information on where to purchase it is omitted.

The photographs reproduced in color are useful in depicting some habitats and, for me, bring back vivid memories of camping in the rain beside a wide road of red mud, the Río Paraguay in flood, and the Jabiru, my first "life" bird seen from the air. The pen and ink drawings of birds are less successful and include a Pied-billed Grebe with boldly striped flanks and a down-curved mandible and a White-winged Becard on the rim of a cup-shaped(!) nest, both of which might better have been omitted.

The monograph is a fine start for the new series. It is a must for ornithologists and birders visiting Paraguay, for use in museums, and for those interested in the biogeography of South America. Its gazetteer of the localities mentioned in the text includes many for sight reports and is valuable in augmenting Paynter's *Ornithological Gazetteer of Paraguay* (2nd. ed., 1989, Museum of Comparative Zoology, Cambridge, MA).—ROBERT W. STORER, Museum of Zoology, University of Michigan, Ann Arbor, MI 48109-1079.

Shrikes (Laniidae) of the World: Biology and Conservation.—Reuven Yosef and Fred E. Lohrer, editors. 1995. Western Foundation of Vertebrate Zoology, Camarillo, California. ix + 343 pp., 81 tables, 172 figures including 2 black-and-white plates. ISBN 0511-7550. \$25.00 (paper).

This volume represents the proceedings of the First International Shrike Symposium held at the Archbold

Biological Station in Florida, 11–15 January 1993. Also included are 11 papers not presented at the symposium. Papers are arranged into eight major sections with additional abstracts of two papers not included in the proceedings. Two appendices contain common names of shrikes in ten languages, and distribution maps for shrikes of the world.

The general comments section contains two interesting papers that provide a good introduction to the volume. In the first paper, Cade does an excellent job in summarizing unique aspects of shrike ecology with emphases on shrikes as small raptors and factors that may contribute to population declines. In the second paper, Temple uses evapotranspiration as an indicator of primary productivity to explain variation in clutch size for the 30 species of *Lanius*. However, since we know nothing about post-fledging survival of shrikes, I question Temple's implied link between clutch size and population limitation.

The section on evolution, systematics, and biogeography contains four papers (three concerned with systematics and one covering evolution) that present shrike taxonomy as an incredibly complex problem which may never be fully resolved. Several morphologically distinct species apparently interbreed freely over large areas, while other taxonomic groups, currently classed as subspecies, are actually composed of reproductively isolated "good" species (see papers by Kryukov and Panov).

The largest section in the book contains 25 papers that deal primarily with population status and trends of *L. excubitor*, *L. collurio*, *L. ludovicianus*, and *L. minor*. The section is poorly organized and, at times, makes for tedious reading. For example, the 13 separate papers that deal with breeding status and population trends of *L. excubitor* are spread throughout the section.

Notwithstanding the above criticism, the trends segment is worth reading for two reasons. First, it presents a wide geographical coverage of population declines in Europe and North America, and second, it presents some of the most plausible hypotheses for those declines. Most authors suggested that declines in shrike populations are due to habitat alteration. Low overwinter survival, inclement weather, and heavy use of insecticides also are commonly implicated. Unfortunately, the authors present very little direct data to support any hypothesis for the population declines of shrikes.

Several authors (e.g., Laporte and Robert; Peakall) present convincing evidence indicating habitat availability alone cannot explain all of the population declines. A potential answer to the quandary is suggested by Carlson who used Land's fragmentation model to account for empty habitat in a fragmented landscape. Carlson also suggested that the number of new settlers will be smaller in a patchy environment than in an unfragmented landscape. Thus, suitable habitat located in a fragmented landscape will be unoccupied by shrikes.

Anyone interested in population declines in shrikes should read "Decline and Fall of the Red-backed Shrike in Britain" by Peakall who summarizes population trends and their driving forces from 1850–1989. The ultimate reason for the decline to extinction of the Red-

backed Shrike in Great Britain evades Peakall. He concludes his paper with an applicable quote from Peal on the Wryneck (*Jynx torquilla*): "it is now one of our rarest breeding species, for reasons which are anything but obvious." I suspect that the above quote could eventually apply to many species of shrikes.

The section on foraging ecology and habitat selection contains papers covering breeding biology, habitat selection, nestling growth rates, food habits, and foraging behavior. Most of the papers deal either with *L. ludovicianus*, *L. collurio*, or *L. cristatus*. As with the preceding section, this portion is poorly organized with respect to geographic region and species.

Most of the papers dealing with habitat selection in shrikes are disappointing. Habitat was commonly evaluated by quantifying sightings of shrikes among grossly defined habitat classes such as cereal crops, forest, row crops, and pastures. Another shortcoming was to focus analyses on habitats adjacent to nest-sites. If habitat alteration is driving shrike population declines, we need to determine which habitat variables are correlated with population viability. Thus, appropriate habitat variables should be identified and precisely measured as did Gawlik and Bildstein. In addition, as Novak suggested, landscape features should be screened to determine their possible role in determining suitable habitat.

Two papers located in other sections of the book presented interesting approaches to habitat evaluation and should have been included here. Rothhaupt (in the population trends section) compared habitat structure between regularly and intermittently occupied territories. In addition, Yosef and Grub (in the techniques section) used ptilochronology (analysis of feather growth bars) to assess territory quality. Yosef and Grub found that feather regrowth and habitat quality, were inversely related to territory size.

The section on reproductive ecology presents some of the most fascinating data of the symposium. Results of supplemental feeding studies were particularly interesting. For instance, Woods found that a group of supplementally fed *L. ludovicianus* experienced greater reproductive success than did non-fed controls. The increase may be due to added vigilance at the nest by well-fed adults. In addition, Yosef and Pinshow found that supplementally fed *L. excubitor* laid a second clutch immediately after their first clutch hatched, whereas control pairs laid a second clutch after their first clutch fledged.

Shrikes also adjust their breeding behavior in response to neighbors. For instance, Lorek found substantial differences in breeding behavior among pairs of *L. excubitor* associated with proximity of other nesting shrikes.

Given that shrike populations worldwide are declining, the information on captive breeding in the next section may be of paramount importance to survival of several species. Azua and Lieberman described techniques used to successfully breed the San Clemente Loggerhead Shrike, *L. l. mearnsi*, Fiscal Shrike, *L. colaris*, and Southern Boubou *Laniarius ferruginus*. In a related paper, Kuehler et al. present methods for artificial incubation and rearing of *L. l. mearnsi*, and the adjacent Mainland subspecies.

The last major section contains five papers covering conservation strategies, and research priorities. Because we do not know exactly why most shrike populations are declining, widely applicable management recommendations are difficult to prescribe. Consequently, one will find few general management recommendations in this section. However, several authors present convincing recommendations for specific populations.

The concluding paper is set apart in its own section and focuses on potential research and conservation issues. While many of the ideas presented are interesting, I strongly disagree with the suggestion that shrikes be used as bioindicators. We cannot use shrikes as bioindicators until we know why their populations are declining.

Overall, I was very pleased with the book. Many of the papers present quite a bit of data, and all of the papers are worth reading. However, organization within some sections was haphazard, which detracted slightly from the book's readability. In addition, I found myself looking for summary chapters in each section. Perhaps construction of chapter summaries would have shown the need for reorganization. Finally, the title of the book is misleading as it implies coverage of all of the species of shrikes of the world. Most of the African and many of the Asian species were not covered in the volume.

In closing, I would highly recommend this book to anyone interested in shrikes. It is full of information and good ideas, contains a fairly extensive literature review, and is as broad in scope as currently possible. —CHRIS KELLNER, Department of Biology, Arkansas Tech University, Russellville, AR 72801.

Chickadees, Tits, Nuthatches & Treecreepers.—Simon Harrap and David Quinn. 1995. Princeton University Press. Princeton, NJ. + 464 pp., 36 color plates, 110 color maps, numerous text figures. ISBN 0-691-01083-8. \$49.50 (cloth).

Before delving into the content of this sumptuous handbook, consider some problems that are in no way the fault of author Harrap or illustrator Quinn. The title forgot the comma after "Tits" on the title page, although the comma is there on the dust cover (same title design) and also on the copyright page. Remember when the copyright page of a book stated clearly "@date owner"? In this volume the only indication of year is in "QL696.P2615H37 1995," which I suppose to be the official Library of Congress Catalog number. Who knows who owns the copyright? The book is laid out in fairly small print—which at least some of us appreciate as a mechanism for keeping the price down—but the bibliography is in four-column format of a typeface so small that you may find a new use for your dissecting microscope. Type size is not the whole story of readability, though. Studies have shown that serif fonts promote better reading speed and comprehension: all those little adornments on letters apparently help keep the eye on the line. This book is set wholly in a sans-

serif typeface, making it unnecessarily difficult to read quickly and accurately. Finally, there are no running heads on the text pages (the page numbers being stuck at the bottom, outer corner), a point to which I return.

Look again at the title, which seems to say the book covers just the Paridae ("Chickadees, Tits"—an apparent pleonasm), Sittidae ("Nuthatches"), and Certhiidae ("Treecreepers"). Actually, the Aegithalidae (long-tailed tits) is also included, which is perhaps why "Tits" is in the title along with "Chickadees." The Wallcreeper (*Tichodroma muraria*) is included with the nuthatches, the Spotted Creeper (*Salpornis spilonotus*) with the treecreepers, and the penduline tits (subfamily Remizinae) with the chickadees and tits, so the coverage is complete. Still, without perusal, you might not realize that species such as the Bushtit (*Psaltriparus minimus*) and Verdin (*Auriparus flaviceps*) were encompassed by the title. Included in the Paridae is the Sultan Tit (*Melanochlora sultanea*), which has traditionally been placed with real tits mainly because no one knows what else to do with it—a point mentioned in the account (p. 420). Ditto the Yellow-browed Tit (*Sylviparus modestus*).

The color plates are nice, although the portraits hardly match the standards of, say, a Roger Tory Peterson. Many birds have a "heavy" look and their proportions are often not life-like. Parids in particular are consistently too short-tailed, and some (like the Crested Tit, *Parus cristatus*, on p. 74) are virtually caricatures, looking as much like cartoons of baby birds than anything else. Conveniently placed facing the plates are descriptive accounts and maps showing the year-round range in green overlay, in some cases with other colors to indicate seasonal range segments. Unfortunately, you must read and remember the explanations of these other colors on p. 33, as there is no reminder on the maps themselves or in the text by them. The maps are not uniformly successful; for example, that of the European Penduline Tit (*Remiz pendulinus*) is a complex of dots and small patches in three colors, the entire range being confined to about a quarter of the large-scale base map showing all of Eurasia and most of Africa (p. 56).

The text (p. 109–444), with accompanying line drawings, has everything you would expect in a handbook and more. The sequence, though, is not that of the title; instead, the order is nuthatches, treecreepers, parids and long-tailed tits. Each account begins with a bite, such as this for *Sitta victoriae* (p. 125): "Endemic to the Mount Victoria region in SW Burma, this is perhaps the rarest nuthatch in the world and its long-term survival must be in doubt given the scale of forest destruction in tropic Asia." Then follow sections entitled identification, sex/age, voice, distribution and movements, habitat, population, habits, breeding biology, description, molt, geographic variation, relationships, and references. Some accounts have a section on hybrids as well. I delight in the section on voice, which gets noticeably short shrift in *Birds of North America* accounts. Truly useful additions to the text are line drawings, variously illustrating range details, rectrices (used in ageing), behavior in a few cases, and even an occasional sonogram (special plaudits). Nevertheless, figure captions are inconsistent in identifying

species, and with the aforementioned lack of running heads, you encounter such things as "Figure 65.1 Tail of adult male" (p. 310), so must flip pages back to the start of that account to find out what species is being illustrated. Nor are rules for abbreviating Latin names followed. For example, "Fig 85.6 Tail of adult *P. m. minor*" (p. 364) should mean *Parus minor minor* (no such bird exists), whereas the book intends *Parus major minor*, which cannot be abbreviated in the manner done. That kind of mistake permeates the book and is both annoying and often downright confusing.

At core, a handbook such as this is useful in proportion to the homework behind it: how accurate and complete are the accounts? It is an uncomfortable duty of the reviewer to bluster in where angels fear to venture, making pronouncements about things on which he or she would not give a public opinion under other circumstances. So, biting the bullet, I scrutinized some accounts of parids with which I have more than passing familiarity. Consider two examples.

Begin with one of the most familiar and intensively studied avian species in North America, the Black-capped Chickadee (*Parus atricapillus*). The come-on bite (p. 265) states that "Its complex vocalizations are thought to approach human language in terms of the quality of information that they convey." That half-truth is extracted from the text (p. 267), which more accurately states that chick-a-dee calls constitute "the only known system of combinatorial animal communication apart from human language." The homework behind this explanation seems to come from secondary sources, which one supposes not because references to my several senior-authored papers on the topic are missing (true as that is), but rather because of misstatements such as "Each phrase is made up for four different note types, dubbed A, B, C and D" (p. 267). In actuality, only about 2% of chick-a-dee calls include all four note types; nearly half are composed of only A and D, and another quarter are of B, C, and D. Perhaps I pick nits. Standard information (identification, distribution and so on) is generally solid; drawings of the outer rectrices accurately portray the typical difference between adults and first-year birds; sonograms are good; and the lengthy summary on hybrids is perhaps the best in print. The assertion (p. 274) that the Mexican Chickadee (*Parus sclateri*) may belong to the same superspecies appears to be a misreading (or non-reading) of Gill's more recent evidence that *sclateri* is actually part of the group of brown-backed forms such as the Boreal Chickadee (*Parus hudsonicus*), and only superficially resembles the Black-capped Chickadee group. On the whole, though, the account gets good marks.

Compare the Siberian Tit (*Parus cinctus*), the only parid common to the Old and New Worlds. The Alaska part of the range map (p. 72) is dead wrong. Insofar as I am aware, there is no record of this species on the huge Seward Peninsula, which is completely colored-in on the map. Distribution in Scandinavia is also incorrect, the southern Norway population actually being disjunct; the species does not range so far southward in Sweden as shown. Library research on the book must have ceased before several recent things appeared clarifying vocalizations. The mention that this species "may be double-brooded" in southern Siberia was probably

gleaned from a comment in the Russian handbook of Dement'ev and Gladkov, and is not traceable to marked birds and is almost certainly wrong. The breeding season ("May-June") is merely a centrum; laying might begin as early as the end of April (at least occasionally in southern areas) and certainly is recorded well into July, with dependent young into August. The classic monograph of Haftorn (1973) is cited once for a specific point under voice but goes unlisted among the general papers cited at the end. Yet until the recent *Birds of North America* account coauthored by Haftorn, his monograph was the best general treatment of this species, probably overlooked here as elsewhere because it is in Norwegian (but with an extensive English summary). The foregoing notes suffice to demonstrate that accounts vary in quality.

Considerable warts and all, this volume is an impressive endeavor. You cannot believe everything you read in this book, but then the same caveat applies to this review. The accounts are generally at least as good as those in the seven-volume, old standby of Cramp and Perrins on western Palearctic birds, although of course shorter and less well documented than separates of the newer *Birds of North America* series. College libraries always buy books of this sort without being prompted, and anyone studying the birds treated will want to own a personal copy. I resist telling others how to spend their hard-earned salaries, but at half a kilobuck, this comprehensive and well illustrated volume has to be considered something of a bargain.—JACK P. HAILMAN, Department of Zoology, University of Wisconsin, Madison, WI 53706.

Sparrows and Buntings. A Guide to the Sparrows and Buntings of North America and the World.—Clive Byers, Jon Curson, and Urban Olsson. 1995. Houghton Mifflin Co., Boston; simultaneously published in the United Kingdom by Pica Press. + 334 pp., 39 color plates, 110 species, each with text, map and illustrations. ISBN 0-395-73873-3. \$40.00 (cloth).

An attractive book treating a rather eclectic selection of Emberizids. The scope is Holarctic in focus, but this geographical division does not result in a particularly natural grouping of species. The authors treat all Holarctic buntings and sparrows, but several African buntings also are included because they are in the primarily Holarctic genus *Emberiza*. In the New World, all North American sparrows and buntings are included, as well as three genera (*Pipilo*, *Melospiza*, and *Arremonops*) with varying numbers of Neotropical species. Readers will not find any sparrow or bunting genera (tribe Emberizini) whose distribution is primarily Neotropical (e.g., *Arremonops*, *Atlapetes*), even if some members stray north of tropical latitudes.

There are six introductory chapters that cover an explanation of the species accounts, identification, taxonomy, breeding, escaped birds, and hybrids. The latter three chapters are very short, do not provide much information, and might better have been included as paragraphs under one of the earlier chapters. The order of species follows Sibley and Monroe (*Distribution and*

Taxonomy of Birds of the World, 1990, Yale University Press, New Haven, CT).

The bulk of each species account is composed of descriptions of plumages. An initial identification section provides a description of varying length and rather long and tedious comparisons with other similar species. This is followed by an optional section on hybridization. Next is the descriptive section where the authors seem most at home. Bring your magnifying glasses along here for a virtual feather-by-feather descriptive tour of male and female breeding plumages. Subsections treating more plumages, e.g., non-breeding adult male and female plumages, first-winter male and female plumages, juvenile plumage; in some cases, even first summer male and female, and second summer male and female plumages are described. And there is still more, for there is a section on molt and aging, another on sexing, and yet another on geographical variation where differences among all subspecies are described. A section on measurements of wing, tail, bill and tarsus (but curiously no weights) completes the descriptive tour of each species. It's a heavy dose of tedious fine print, but potentially a very useful resource for those needing it.

The remainder of each species account features sections on taxonomic relationships, voice, habits, status and habitat, distribution and movements, and references. Some sections are optional, and most seem to consist of information recycled from a nucleus of pre-existing books. Use of the literature is not always as extensive as it could have been. The strength of this book is in the descriptive material, not in the arenas of ecological and behavioral information. Despite the general lack of new or creative material in these latter sections, there is a lot of information on sparrows and buntings here, albeit in a rather dry, technical, "cookie-cutter" format.

The artwork is a major strength of this book. A large number of plumages are illustrated by Clive Byer (presumably he is the artist but curiously an artist's name is never specifically credited anywhere in the book!). Byer's work is uniformly very good—the best of any artist of the Helm's series guides that I have seen. Byer combines a softness of color with excellent feather detail and the result is a set of very pleasing, accurate plates that bring to mind the masterful work of Louis Agassiz Fuertes. It is perhaps a shame that arrows pointing out key identification marks weren't added to the plates, especially because so many plumages of each species are illustrated.

The amount of effort labored on identification and description in the text is a little overwhelming and, assuming it is all relatively accurate, likely to be much more useful to banders and museum workers than to field observers. Sketches of wing and tail feathers, useful for in-hand work, are scattered throughout the text. The maps are a welcome addition to the text, but I found no reference as to the sources used to prepare them (i.e., museum specimens, sight records, maps published in other books, etc.). Given the relatively generous size of the maps, the boundaries of countries, and states in some cases, should have been added to improve their resolution. Areas of occurrence during migration also could have been shown on the maps. North Americans also may be surprised to see North

American species written with an English spelling (i.e., Clay-coloured Sparrow)

The audience for this book will be relatively limited, in part because the number of species covered is too small for this book to be of much help to the traveler or anyone afield. It will find an audience among banders and among those seeking information on plumages, molt and the sexing of these birds, and as a compact reference.

For the relatively modest price this book should find its way onto the shelves of many libraries and those with a serious interest in sparrows and buntings. The beautiful plates are worth the price.—STEVEN L. HILTY. 6316 West 102nd Street, Shawnee Mission, KS 66212.

Crows and Jays: A Guide to the Crows, Jays, and Magpies of the World.—S. Madge and H. Burn. 1994. Houghton Mifflin Company, New York. xxiii + 191 pp., 30 color plates, 6 text figures. ISBN 0-395-67171-X. \$40.00 (cloth).

Madge and Burn have teamed up to produce an excellent field guide and authoritative account of the family Corvidae (or Tribe Corvini, if you prefer). The book begins with a systematic list of all genera, subgenera, and species within the family. Other introductory materials include a list of globally endangered or threatened species of corvids, a discussion of corvid systematics and taxonomy, unifying behavioral and morphological traits of the taxon, a synopsis of biogeographic patterns, a short glossary, and a detailed description of the format of the species accounts.

Thirty full color plates illustrate all extant species, including juvenile forms and covering the range of plumage variation of polytypic species. The plates are superbly done. The species that I am most familiar with are very well represented, and I suspect that that is generally true of all species. Accompanying the plates are brief descriptions of habitat, behavior, and plumage details that assist identifying the species in the field. Special attention has been given to distinguishing similar species within areas of sympatry. Range maps clearly illustrate the distribution of each species, although in a few cases they are difficult to interpret (e.g., Central Asian ground jays) or lack detail (e.g., island crows).

Species accounts begin with a short description of generic characteristics followed by tips on identification, a technical description of plumage and other body characteristics, sex and age differences, body measurements, and a brief summary of geographic variation. The behavior of each species includes descriptions of vocalization, general habits (foods, feeding behavior, social structure, etc.), breeding behavior, and habitats where the birds are likely to be encountered. These descriptions are not exhaustive, and much interesting material has been omitted. The focus is on those behavioral traits that help to distinguish similar species or add to the uniqueness of a particular species. A description of the geographic range supplements and, where necessary, clarifies the range maps. The status of each species is given, including recent population

trends for the rarer species. Each account ends with several references, however, most of these are dated and refer mostly to the secondary literature. Those searching for recent sources in the primary literature will find little help here.

There are several books that survey the family Corvidae, including the fine book by Goodwin (*Crows of the World*, 1976, Cornell University Press), but this volume is by far the best available. The species accounts are thorough, detailed, and accurate. A great

deal of attention has been paid to geographic variation in morphology, vocalizations, and behavior, providing a reference that should be useful throughout the world. The text is organized, informative, readable, and well-coordinated with the attractive plates. I highly recommend this book to libraries and to bird enthusiasts and ornithologists desiring a synopsis of this interesting assemblage of birds.—STEPHEN B. VANDER WALL, Department of Biology, University of Nevada, Reno, NV 89557.