Reviews

EDITED BY BRUCE M. BEEHLER

The Auk 109(2):398, 1992

Birds of Jamaica: A Photographic Field Guide.—Audrey Downer and Robert Sutton. 1990. Cambridge University Press, Cambridge and New York. 152 pp., 73 color photographs by Yves-Jacques Rey-Millet, 5 color maps. ISBN 0-521-38309-9. $29.95 cloth, $13.95 paper. **Birds of the Eastern Caribbean.**—Peter G. H. Evans. 1990. Macmillan Education Ltd., London. vi + 162 pp., 115 unnumbered color photographs, 1 map, 1 line-drawing. ISBN 0-333-52155-2. £4.95 paper.—A number of West Indian bird books have appeared in the past decade, all more geographically specialized than the long-time but now obsolete standard, *Birds of the West Indies* (1936–1985, 5 editions) by the late James Bond. The new books on the birds of Jamaica and the Eastern Caribbean fill important gaps in the modern generation of West Indian field guides and annotated checklists.

The compact book by Downer and Sutton is filled with valuable information, including an excellent review of Jamaica's geography, climate, geology, habitats, and birdwatching localities. The "Introduction to Jamaican birds" on pages 29–33 is informative as well, although the discussion of north-south migration is confused by using "longitudinal" when the authors really mean "latitudinal." The main text of *Birds of Jamaica* covers most of what you should know to identify Jamaica's resident birds, many of which are endemic species or subspecies. A field guide for North American birds is needed to identify the migrants. The species accounts are broken down into the useful categories of Status, Identification, Voice, Habitat, Habits, and Range. Some of the accounts are too brief; that of the scarce Black-billed Parrot (*Amazona agilis*), for example, lacks a description of the habitat or range of this species, other than its being endemic to Jamaica.

As anyone who consults an AOU *Check-list* will testify, the common names of birds are a guaranteed source of controversy. Maybe the worst common name in *Birds of Jamaica* is "Sad Flycatcher" for the endemic *Myiarchus barbirostris*. During my three trips to Jamaica in 1978 and 1983, Jamaicans called *M. barbirostris* the "Little Tom Fool," an endearing name that compares favorably with "Sad Flycatcher" and already has been used in the scientific literature (i.e. David Lack, *Island Biology, Illustrated by the Land Birds of Jamaica*, p. 298–299, 1976).

Birds of the Eastern Caribbean, like *Birds of Jamaica*, begins with informative introductory material. This book covers the Lesser Antilles and Virgin Islands (i.e. all islands between, but not including, Puerto Rico and Tobago). It is less effective as a field guide than *Birds of Jamaica*, in part because the species accounts are not categorized. The checklist (pages 141–158) is the most important part of the book. Unfortunately, both the text and the checklist overlook most records of historically, and all records of prehistorically, extirpated populations. Inclusion of such records would have provided a more complete picture of natural distributions and, thus, would have made this book as useful to biogeographers as to birdwatchers.

Conservation problems in the West Indies, as pointed out in both books, deserve much attention and action. In neither book does the conservation discussion have any depth of time. Human-caused environmental degradation in the Caribbean began thousands of years before Christopher Columbus initiated the period of Afro-European influence 500 years ago. If not for millennia of human occupation, birdwatching today would include, for example, opportunities to see a flightless ibis (*Xenicibis xympithecus*) in Jamaica and extirpated rails, flamingos, parrots, owls, and tremblers (*Porzana flaviventer, Porphyrula martinica, Phoenicopterus ruber, Amazona* sp., *Athene cunicularia, Cinclocerthia ruficauda*) in Antigua.

Both books have occasional misspellings of scientific names. In general, the photographs are of higher quality in *Birds of Jamaica*, the result of involving a professional photographer. This brings up the most glaring inaccuracy in *Birds of the Eastern Caribbean*—the misidentification of birds in five photographs. On page 21, the "Red-footed Booby" is actually a Masked Booby (*Sula dactylatra*), and vice versa on page 23. On page 31, the "Yellow-crowned Night-Heron" is really a Green-backed Heron (*Ardeola virescens*). On page 54, the "Willet" is a Lesser Yellowlegs (*Tringa flavipes*) and vice versa on page 57. The photographs also would be more useful if the island where the photograph was taken was named, especially for the resident landbirds that vary subspecifically. In spite of shortcomings, these two books are important additions to anyone's library of West Indian ornithology.—DAVID W. STEADMAN, *Biological Survey, New York State Museum, The State Education Department, Albany, New York 12230, USA.*

The Auk 109(2):398–400, 1992

The Kestrel.—Andrew Village. 1990. T. and A. D. Poyser, London. 352 pp., 32 black and white photographs, 85 text figures, 77 tables. ISBN 0-85661-054-

2. $35.00.—This book is an informative and enjoyable look at the Eurasian Kestrel (*Falco tinnunculus*), a small, widespread falcon of the Old World. Most of the information for the book was gathered by the author during the course of his own investigations of Eurasian Kestrels in Great Britain. Under the supervision of Ian Newton, Village studied kestrels at Eskdalemuir, an area of ungrazed grasslands and young conifer plantations about 100 km south of Edinburgh, Scotland. This work was conducted from 1975 to 1979, and formed the basis of Village's Ph.D. thesis. In 1980, the author began a seven-year study of kestrels in two English study areas, "the mixed farmland area" (characterized by row crops interspersed with pastures) and "the arable farmland area" (intensive row cropping). Village uses his experiences in three different habitats to good advantage, and much of the information in the book is presented in a comparative fashion, illustrating how individual kestrels and populations behave under different suites of environmental influences and constraints. In addition, the author brings together some of the pertinent literature on Eurasian Kestrels and related species to fill in the gaps and to place the biology of this species in perspective with that of other falconiform birds.

The organization of the book, which is similar to that of other T. and A. D. Poyser titles, is logical and easy to follow. To introduce this species, the first chapter contains a brief, one-page summary of the fundamental aspects of the natural history of Eurasian Kestrels. Next, the three study areas and the basic methodologies are described. Techniques included applying rings and colored patagial tags (the author color-marked more than 300 kestrels in Scotland and 500 in England), radio telemetry, and small-mammal trapping. Specific details on the measurement of kestrel diets and the determination of home ranges and territories are included in the appendices.

The second chapter deals with the taxonomic and morphological relationship of Eurasian Kestrels to other species of kestrels throughout the world. This is followed by discussions of kestrel biogeography and the relatively poorly understood evolutionary relationships among kestrel species.

The next 18 chapters, which constitute the main body of the text, are devoted to the various life-history aspects of the Eurasian Kestrel. Separate chapters cover diet and prey selection, foraging behavior, energetics and body weight, molt, territoriality, winter density, reproduction (seven separate chapters focus on the breeding cycle), migration, population turnover, age and sex ratios, mortality, and population regulation. The chapters are topically arranged to represent, as much as possible, the annual cycle in the life of Eurasian Kestrels. Each of these chapters concludes with a summary of the main points that were discussed.

Throughout the book, Village emphasizes the important influence that the availability of voles has on Eurasian Kestrel behavior and population dynamics. As elsewhere, vole numbers in Britain are subject to rather large, regular annual fluctuations. In the final chapter, Village discusses how Eurasian Kestrels and other raptors respond to these vole cycles.

Village does an admirable job of interpreting an enormous amount of data and presenting it in a very readable form. Figures are used effectively to illustrate analytical results, and the photographs and drawings are very informative. There is a wealth of data made available in 77 tables; these are included as an appendix so that the text is not cluttered unnecessarily. Although much of the subject material is rather technical in nature, Village employs an easy, comfortable writing style that is sure to appeal to a very broad audience. For example, Village has this to say about hovering flight: "Anyone who has watched a Kestrel hovering on a blustery day cannot fail to marvel at the incredible co-ordination required to maintain position in a constantly changing airstream. While the Kestrel's wings and body are buffeted about like a flapping rag, its head stays fixed, as if pinned by invisible clamps."

The illustrations by Keith Brockie are absolutely superb. Using a black-and-white medium, Brockie manages to convey all the subtle nuances of his subjects. The bird on the page projects an amazing lifelike quality; with very little effort, one can imagine that image moving and breathing. Moreover, Brockie has captured the personality of little falcons, which is clearly evident in his drawings. Each chapter begins with an approximately half-page illustration related to the chapter topic. The chapter on diet and prey selection has a particularly attractive drawing: a close-up view of a mouse on the ground while a Eurasian Kestrel hovers above in the background. The bibliography is illustrated with a single rectrix. Several other drawings within chapters exemplify themes discussed in the text, while enhancing the overall appearance of the book.

The book is not without a few imperfections. For example, in figure 7, a map of the distribution of seven kestrel species, the ranges are identified only by number; the reader must turn to an appendix for cross-referencing. In figure 9, the reader is not told which species are represented by solid circles, open circles, or solid squares. Within figure 33, letters used to identify territorial males are not consistent with those of the legend. There also is an error in the legend of figure 51. Village states on page 57 that in American Kestrels, "wintering males take more insects and fewer vertebrates than do males." Several other typographical errors such as this are scattered throughout the text. All of these flaws are minor, however, and do not substantially detract from the overall effectiveness of Village's presentation.

Village's account of the life of the Eurasian Kestrel is a scholarly piece of work. Based on 12 years of rigorous data collection, the book is technically very

informative and well documented, and should serve as a valuable reference text. In addition, Village's manner of presentation and Brockie's excellent artwork make *The Kestrel* a pleasure to read. The modest price also is attractive. This book is highly recommended for both institutional and personal libraries.—JOHN A. SMALLWOOD, *Department of Wildlife and Range Sciences, University of Florida, Gainesville, Florida 32611, USA.*

The Auk 109(2):400–401, 1992

Voices of the New World Pigeons and Doves (Columbiformes: Columbidae).—J. W. Hardy, George B. Reynard, and Ben B. Coffey, Jr. 1989. ARA Records, P.O. Box 12347, Gainesville, Florida 32604. Audio cassette and detailed brochure. $10.00. **Voices of the New World Nightjars and Their Allies (Caprimulgiformes: Steatornithidae, Nyctibiidae, and Caprimulgidae).**—Same authors and publisher above. 1989. Audio cassette and detailed brochure. $10.00. **Voices of the New World Owls (Strigiformes: Tytonidae, Strigidae).**—J. W. Hardy, Ben Coffey, Jr., and George B. Reynard. Same publisher as above. 1989. Audio cassette and detailed brochure. $10.00—All three cassettes are revisions of earlier productions, with the New World nightjar and owl voices now presented on separate tapes. These new editions offer a number of improvements over the originals. Voices of several species are produced for the first time, the vocal repertoire has been expanded for a number of species, and the quality has been improved for many of the vocalizations that appeared on earlier editions.

The supplemental liner notes are now so packed with information not readily available elsewhere that they alone are worth obtaining. If you want to find out what the latest taxonomic thinking is on these groups, the accompanying notes are a good place to begin. References are conveniently provided so that the reader can dig deeper into the taxonomic problems.

The annotated list of species contains information on the type of vocalization (song, call, whether syringeally or mechanically produced), locality, date, recorder, deposition of material, and the conditions under which the recording(s) was made (i.e. if the bird was a captive, it is so noted). Those species for which no vocalization is available are emphasized on the tapes and the supplemental information.

Pigeons and doves.—A total of 61 of the 70 (includes 4 introduced species) New World columbids are reproduced on this cassette. Intriguingly, the genus *Metriopelia* (three species, all in South America) is unrepresented; the simple reason appears to be that these species rarely sing. One field worker who has had a fair amount of experience with this group over a 15-year period has never heard them vocalize!

The vocal representation of the White-winged Dove is a good example of the taxonomic uncertainties that still abound in this group. The voice of the North and Central American populations of this dove differ radically from that of the western South American populations. These vocal distinctions, along with the described morphological differences, beg for this species to be split. Hardy et al. have been wisely cautious in their presentation of the songs of *Columba plumbea* and *C. subvinacea*—the vocalizations of these two species often are confused and more than the two currently recognized species may be involved.

Errors still exist in the liner notes. For example, the distribution of *Geotrygon veraguensis* is almost completely erroneous. This little-known dove is found from the Caribbean slope of Costa Rica through Panama south along the western side of the Andes to northwestern Ecuador. Also, to state that this species occurs in the mountains is misleading, as it is found in the lowlands throughout much of its range. In South America, it appears to be most abundant in the foothills where it has been recorded as high as 900 m. The distribution of the threatened *Leptotila ochraceiventris* should be clarified to read: SW Ecuador and NW Peru.

Nightjars and allies.—As mentioned above, much of the material on this cassette was included with the owls on *Voices of the New World Nightbirds* (1980, 1986, 1988). Sixteen taxa are included on the new tape that were not represented on the 1986 edition (the most recent that I have). Since the current edition's release, at least two additional species' voices, *Nyctibius leucopterus* and *Nyctiphrynus rosenbergi* (see *N. ocellatus*), have been obtained. Now the voices of only five taxa remain elusive (*Siphonorhis americanus* [possibly extinct], *Caprimulgus saltarius, Caprimulgus whiteleyi, Caprimulgus candicans,* and the monotypic *Eleothreptus*). Recent field work by several people has confirmed that the voice attributed to *Nyctibius bracteatus* on this cassette is incorrect. This unique potoo's voice is surprisingly *Otus*-like.

Owls.—On this edition, the correct voice of the Northern Hawk Owl (*Surnia ulula*) is finally given, along with three other taxa (including the newly described *Otus hoyi*) that were not on the 1988 cassette. Four described species still remain to be recorded and the vocal repertoire of a number of species, principally *Otus,* are incomplete. Recent field work has confirmed that the cut attributed to *Pulsastrix melanota* is indeed of that species.

For the first time, systematic and ecological information are included on the accompanying liner notes. There are errors in some of the supplemental information (e.g. the range of *Otus colombianus* is incorrectly stated to include "E foothills in S Ecuador and N Peru," and the distribution of *Otus roboratus* should be given as follows: W Peru, SW Ecuador). Incidentally, a careful comparison of the voice of *colombianus* with the other screech-owls reveals that it is most

similar to *Otus ingens*, and not its purported closest relative, *O. petersoni*.

From a vocal perspective and, hence, a taxonomic one, the least understood group is the pygmy-owls (*Glaucidium*). Since the publication of this edition, there have been two taxonomic revisions. Vielliard (Rev. Bras. Zool. 6:685–693, 1989) acknowledged Hardy's contributions by naming the Amazonian populations of the Least Pygmy-Owl (*G. minutissimum*) complex in his honor. The voice of *G. hardyi* can be heard on the second cut of the Least Pygmy-Owl account.

The vocally distinct *Glaucidium* that ranges from the Pacific lowlands of southwestern Ecuador and western Peru up to at least 2,900 m in elevation on the western slope of the Peruvian Andes has finally been named (*G. peruanum*; König, Ökol. Vögel 13:15–76, 1991). Its primary vocalization is represented on the Hardy et al. tape by the second cut of the Ferruginous Pygmy-Owl (*G. brasilianum*) sequence.

The above revisions are just a beginning, as much work remains to elucidate the relationships of these morphologically cryptic owls. Despite two recent papers on *G. nanum*, its taxonomic status still remains highly controversial. The Northern Pygmy-Owl (*G. gnoma*) situation is far more complicated than what is presented on the Hardy et al. cassette. There are apparently at least four distinct vocal song patterns in just the United States and northern Mexican part of *gnoma*'s range (Steve Howe, pers. comm.).

This tape was recently reviewed in great detail by Joe Marshall et al. (Wilson Bull. 103:311–315, 1991). Their review contained one opinion, treating *Otus petersoni* as conspecific with *O. marshalli*, that I and others familiar with South American *Otus* consider, at best, premature. No unequivocal tape of the voice of *Otus marshalli* exists, and the rather pronounced differences in plumage morphology between it and *petersoni* are evident when the frontispieces that accompany the original descriptions (Auk 98:1–7, 1981; Wilson Bull. 98:1–14, 1986) are compared. In the Marshall et al. review, a recording attributed to R. Ridgely from Paramba, Ecuador was inadvertently placed under *Otus atricapillus guatemalae*. This recording apparently is of *O. vermiculatus*, and the correct locality is El Placer, Prov. Esmeraldas, Ecuador at 670 m in elevation.

These tapes should be a part of every person's library who is interested in the vocal variation within these groups. Researchers will find the liner notes useful in focusing on groups that need taxonomic revision. Field observers will find the tapes invaluable for identifications and obtaining views of the more elusive species. If you own copies of the earlier editions, the many improvements and additions dictate an upgrade!—MARK B. ROBBINS, *Department of Ornithology, Academy of Natural Sciences, 19th and The Parkway, Philadelphia, Pennsylvania 19103, USA.*

The Auk 109(2):401–402, 1992

Birds by Night.—Graham Martin. 1990. T. and A. D. Poyser Ltd., London. ix + 227 pp., 45 line drawings, 19 text figures. ISBN 085661-059-3. $35.00.—While perhaps less than 3% of bird species are strictly nocturnal, a surprising number and variety of diurnal species have some activities that extend into the hours of darkness. Nighttime feeding, courtship, singing, and migration are practiced by many birds that are essentially diurnal. *Birds by Night* is the first book on this interesting subject. It analyzes the ecological and behavioral origins of nocturnality, and examines the physiological bases that make it possible. It covers birds that are only intermittently nocturnal or crepuscular, as well as those principally so.

Martin shows that visual acuity is not significantly greater in partially or even primarily nocturnal birds, compared with most birds or even with humans. Other senses are used in combination with vision for navigation and foraging; among the most highly nocturnal birds, hearing and olfaction, as well as touch and taste, often are more developed than in diurnal species.

Martin first defines nocturnality, explaining the extreme variety of light levels available at "night" in different seasons, habitats, and latitudes. He then reviews the variety of nocturnal activities of essentially diurnal birds, including passerine migrants, pelagic seabirds, and crepuscular foragers like falcons and skimmers. Most of the material presented here will be familiar to diurnal ornithologists, but is a good introduction to students just learning about the range of bird behavior.

The second half of the book is devoted to the avian nocturnal specialists, principally caprimulgids and owls. Here there is more information many ornithologists may not have encountered. The analysis of ecological factors on nocturnality in owls is particularly useful. Only some 30% of owls are strictly nocturnal. All of the nocturnal owls that are well known inhabit forests, are sedentary and territorial, and are prey generalists. In contrast, the owls that live or hunt in open country are often prey specialists, active by day, and migratory or nomadic. Martin shows that sensory limitations require nocturnal owls (and birds that use echolocation in dark caves) to live permanently in areas they can learn well; these limitations also prevent these owls from adopting a restricted diet.

Martin's analysis is thought-provoking. It makes clear how much interesting research, ecological and physiological, is needed before we can thoroughly understand the evolution and adaptations of birds for exploiting the world of darkness. Most of the examples and citations are Palaearctic, but the conclusions are a useful starting point for investigations anywhere. This is a valuable book for universities and

for anyone interested in what birds do when they are hardest to see.—ROGER F. PASQUIER, *120 East 79th Street, New York, New York 10021, USA.*

The Auk 109(2):402–403, 1992

Owls, Caves and Fossils. Predation, Preservation, and Accumulation of Small Mammal Bones in Caves, with an Analysis of the Pleistocene Cave Faunas from Westbury-sub-Mendip, Somerset, United Kingdom.—Peter Andrews, with scanning electron microscopy by Jill Cook. 1990. University of Chicago Press, Chicago, Illinois. viii + 231 pp., 59 tables, 89 numbered plus many unnumbered figures. ISBN 0-226-02037-1. Cloth $39.95.—The underpinning for paleoecological studies of fossil-bone deposits is provided by the study of taphonomy, defined in this book as covering all processes that affect bones as they become changed from being parts of living animals to being preserved as fossils. The field of taphonomy has grown tremendously in recent decades but, at the same time, larger mammals have been favored as research subjects, while small mammals, despite their fossil abundance, have not enjoyed equal attention. Peter Andrews seeks to remedy this by laying a firmer foundation for paleoecological reconstruction based on careful taphonomic studies of small mammals (<5 kg) from cave deposits. His general approach, as well as much of the specific information in the book, would be applicable to the avian remains that often occur in the same deposits.

Owls, Caves and Fossils is an outgrowth of a long-term, multidisciplinary research project and has as its ultimate goal the reconstruction of climate in the middle Pleistocene of Great Britain. The book progresses from taphonomy to paleoecology, with enough logic and clarity to give it the quality of a good detective story. Andrews first seeks a taphonomic signature for each of the many sources of sampling bias that prevent fossil assemblages from being a proportional sample of the animals that were present in the ecosystem. These signatures become his tools for unravelling the history of how specific faunas came to be preserved in caves. Knowledge of this history in turn provides the needed control for paleoecological inference.

The first four chapters introduce the reader to taphonomic considerations for cave deposits, covering a range of subjects from animal behavior to cave formation. Andrews includes an impressive amount of data from his own taphonomic experiments, comparative studies of modern prey assemblages, and studies of fossil faunas. The emphasis is on predators, particularly owls, as the agents through which most small bones are accumulated in caves. Andrews strongly rejects the notion that the presence of bones of a predatory species in a deposit is evidence that the prey were accumulated by that predator. To identify the predator involved, he relies instead on patterns of bone loss and modification in the prey assemblage. Andrews' approach is a good one for the faunas of interest to him, but it would be less applicable in cases where it cannot be assumed that modern predators are responsible (i.e. the Quaternary of some oceanic islands, and older continental faunas).

Ornithologists will find chapters 2 and 3 to be a rich source of data on digestion and breakage of prey skeletons by raptors. Also of ornithological interest is a 37-page appendix with additional data and summaries of predatory habits for 40 modern predators that may at times bring small bones into caves. The most detailed coverage is provided for the following 10 species of owls: Barn Owl, Snowy Owl, Long-eared Owl, Short-eared Owl, Verreaux Eagle Owl, Spotted Eagle Owl, European Eagle Owl, Great Grey Owl, Tawny Owl, and Little Owl. It is to be hoped that Andrews' efforts to compile data on this subject will inspire others to make similar contributions, as the information is greatly valued by paleontologists.

The second half of the book carries the reader through the steps involved in paleoecological reconstruction for a complex series of middle Pleistocene faunas from Westbury-sub-Mendip Cave in Somerset, Great Britain. During excavations at this cave, Andrews and his coworkers enjoyed the convenience of working in the open air; the cave itself had long since filled in and collapsed, leaving the fossiliferous sediments to be exposed later by a quarrying operation. A brief description of the geomorphology and stratigraphy of the Westbury cave in chapter 5 is followed by detailed taphonomic description and analysis of each stratigraphically segregated fossil fauna in chapter 6. Data on the distribution of bone, skeletal proportions, bone breakage, digestion of bone, and post-depositional modification lead to conclusions about the prey bias expected for each fauna.

All of the preceeding chapters are drawn together in the final one (chapter 7), dealing with the paleoecology of the Westbury small-mammal faunas. Andrews relies heavily on a taxonomic habitat index, expressed as a cumulative histogram of habitat-preference scores for each small mammal in the fauna. (Habitat preference is based on the presence and relative abundance of the taxon in broad habitat categories, such as tundra, deciduous forest, and steppe.) Through evaluation of the taxonomic habitat index and the probable prey bias, a general statement emerges of the paleoenvironment indicated by each fauna. From this, Andrews infers a paleoclimatic curve for the entire Westbury sequence, spanning two cycles from warmer to cooler climate. A difficulty arises because there are no absolute radiometric dates for the Westbury cave faunas, causing Andrews to resort

to less precise land-mammal ages to estimate the temporal context of his faunas. Perhaps for this reason, he does not attempt to correlate the paleoclimatic curve with oxygen-isotope data. He does compare it with palynological data from the same time frame, with results that are not entirely reconcilable.

Ornithologists may feel disappointed that very little is said about the birds that were present in the Westbury deposits, and justifiably so, because birds are sometimes more useful than mammals for paleoecological reconstruction (e.g. Olson and Rasmussen, Science 233:1202–1204, 1986; Cheneval, Palaeogeogr. Palaeoclimatol. Palaeoecol. 73:295–309, 1989).

A strength of the book, indeed the impetus for writing it, is the beautiful series of SEM photographs prepared by Jill Cook to illustrate the effects on small bone of gnawing, weathering, abrasion, corrosion, root growth, breakage, and digestion. In addition to the SEM work, the text is abundantly illustrated with high-quality photographs, graphics, and lively sketches of predators and prey. The sketches and many of the figures appear in the text without figure numbers, and I noted some editorial inconsistency in the decision to assign a figure number or not. This hardly detracts from the readability of the book, because text and figures are very logically arranged throughout.

Owls, Caves and Fossils is a resource of the sort that becomes indispensable the moment it is published to those working in its sphere of coverage. It is favorably priced, and the information on paleontology and raptor behavior would make it a useful addition to ornithological libraries. Anyone who plans to contribute to raptor-prey analyses or taphonomic studies of small birds will need to refer to it. Even to those who find the subject matter only peripherally of interest, I recommend the book as a thoughtfully organized and readable example of the rewards of a long-term, wholistic approach to research.—HELEN F. JAMES, *Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, USA.*

The Auk 109(2):403–404, 1992

A Complete Checklist of the Birds of the World.—Richard Howard and Alick Moore. 1991. Academic Press, London, xxiv + 622 pp. ISBN 0-12-356910-9. $49.50. **Birds of the World: A Check List.**—James F. Clements. 1991. Ibis Publishing Co., Vista, California. xix + 617 pp. ISBN 0-934797-04-8. $30.00.—The almost simultaneous appearance of major revisions of these two lists can be appreciated from a variety of viewpoints. Most journals find it convenient to suggest to authors various standard references that define the ground rules for manuscripts. Two examples are a particular dictionary and a style manual. This is done to facilitate communication and, when necessary, to adjudicate matters of usage, spelling and style. When it comes to the issue of bird names, and these volumes are natural candidates to be used as a standard, the problem is slightly more complex. The AOU *Check-list* serves for birds of North America. But the problem of usage for the birds of the world is not solved as easily. Further, there is the matter of who checks the checklist regarding not usage, but spelling. As a matter of fact, Howard and Moore use "checklist," Clements employs "check list," and the AOU prefers "check-list"! A typographical gaff in either the scientific or the common name of any species, much less a style preference, is inexcusable. So the question of accuracy hovers perpetually in the background as one thumbs through any list. Communication requires uniform standards; it is important to know precisely what organisms are under study. A checklist developed for this, and many other purposes, must be accurate, compact, current, and easy to use. A convenient spin-off would be a spelling checker for bird names for use on computers, and several are now available.

These two lists, and there is hardly another term to describe them, are different from the world checklists, such as the Peters series (Bock, Auk 107:629–639, 1990) or various handbooks (Vuilleumier, Auk 107: 809–812, 1990). They are considerably less ambitious intellectually and smaller physically than the recent *Distribution and Taxonomy of Birds of the World* by Sibley and Monroe (Yale University Press, 1991). Neither Howard and Moore, nor Clements had been revised in about a decade and much has happened in that time. So, in addition to timeliness, there are technical, scientific, and even political aspects to be addressed. For example, irrespective of the sequence of families used, there is still a need to stabilize the names of groups, and the Standing Committee on Ornithological Nomenclature (SCON) of the International Committee on Zoological Nomenclature is currently working towards this goal. However, it must be kept in mind that the lists provide a service, namely providing the names of the species of the birds of the world, a bit on their distribution, and not much more.

The authors of both lists considered here are conservative in their treatment of the orders and families. Howard and Moore essentially follow Peters (the Basel sequence) and Clements the one developed by Storer (Avian biology, vol. 1:1–18, D. S. Farner, J. R. King and K. C. Parkes, Eds., 1971) and modified recently by Gill (Ornithology, W. H. Freeman, 1989). Neither adopts, although both mention, the new taxonomy proposed by Sibley, Ahlquist and Monroe (Auk 105:409–423, 1988). Howard and Moore believe that, while the Sibley et al. work will have some influence in the future, they prefer a traditional approach to produce "a list we can use because we know where to look and what to look for." (They also misspell

Ahlquist throughout their introduction, which may give the reader pause!)

Both volumes are forced to deal with the choice of English names, and the authors concede that this was one of their biggest problems. It is not easy, because there is no simple solution and certainly no widespread agreement. The common names of birds are continually under revision or being updated. Further, every list author has favorites that are usually quite colorful and descriptive, which they may include for esthetic reasons. Although there is always hope that agreement will be reached in the future, we would lose if some of these names are lost or replaced by less enchanting ones. There are, of course, fewer differences regarding the scientific names of species, but the authors of both works struggle with generic placements at one point or another (but not necessarily the same point). Neither book uses a numbering system like that in the AOU *Check-list*, nor do they include extensive citations in the lists themselves. Both acts affect information retrieval and may be changed in the future. But if these are lists in the strictest sense there is no pressing reason to change.

A major difference between the two lists is that Howard and Moore include subspecies, while Clements does not. Otherwise, the books are quite similar, and reasonably "user-friendly." A chatty introduction is followed by a list of orders and families. The bulk of both volumes is the list (two columns/page in Howard and Moore; one page in Clements); then there are indices of scientific and English names. Both sets of indices are useful and apparently complete. References in Howard and Moore are included in the introductory material; the bibliography in Clements follows the list. Clements includes a one-page addendum to reflect the most recent supplement (July 1991) to the AOU *Check-list*.

Anyone interested in birds should probably own one of these, or at least have access to one. The lists would be useful in any library, and are a must for serious authors—scientific, commercial or recreational. "Listers" will relish them. Do you need both? Probably not, unless you are truly compulsive. If you are, and you comb them for minute differences, mistakes or typos, please share your findings. In the meantime, enjoy these works.—ALAN H. BRUSH, *Department of Physiology and Neurobiology, University of Connecticut, Storrs, Connecticut 06268, USA.*

The Auk 109(2):404–405, 1992

A Guide to the Birds of Thailand.—Boonsong Lekagul and Philip D. Round. 1991. Saha Karn Bhaet Co., Ltd., Bangkok, Thailand [6 Charoen Krung 36 (Soi Rong Phasi) Bangrak, Bangkok 10500, Thailand]. 457 pp., 135 color plates, and 915 range maps. ISBN 974-85673-6-2. Cloth, price not given.—In 1968 Boonsong Lekagul published the first edition of his guide to birds of Thailand, and a slightly updated second edition appeared in 1974. Not too long afterward, the book was somewhat overshadowed by the appearance of the Southeast Asian guide written by Ben King and E. C. Dickinson, and illustrated by Martin Woodcock. The latter guide (hereafter called "King") covered all of mainland Southeast Asia, and the text and plates were more detailed and more polished than the first two editions of Boonsong's Thailand guide.

We now have a third edition of the guide to Thai birds and, appropriately, it is Ben King who has written a very complimentary foreword to this wholly revised edition. King makes it clear that this new work has set a high standard for future field guides to the southern Asian region.

This new book is the culmination of the decades of work of Boonsong Lekagul who, almost singlehandedly, created a movement for wildlife study and conservation in Thailand. Incredibly, Dr. Boonsong also was responsible for Thai guides to mammals (recently revised) and butterflies, so it is clear that his vision was broad.

This new bird guide also is a reflection of the field expertise of Philip Round, who, along with King, has pioneered the art of field ornithology in that remarkably rich part of the globe. Between Round and Boonsong, the correct mix of talents has produced a work of ornithological excellence.

Now, to the book. It is handsomely produced in a compact format (5.75 × 8.75 inches) so it can easily be carried into the field. Although the species accounts comprise 90% of the text of the book, there are introductory sections on conservation, birdwatching in Thailand, the natural history of the country, and history of bird study in Thailand.

This introductory material is both fascinating reading as well as informative. How remarkable that 66 species have been added to the Thai bird list since 1974! It is not amazing that the White-eyed River-Martin (*Pseudochelidon sirintarae*) was discovered as recently as 1968? Still virtually nothing is known of that rarely-seen bird, the sole member of the genus (itself of uncertain proveniance). For the conservation-minded reader, the fact that less than 20% of Thailand remains under forest cover of any type is a somber reality, hammered home by the full-color habitat map for the country, showing explicitly the insular nature of Thailand's remaining forest tracts. Humid (here termed evergreen) forest can be found in areas along the western border and in smaller quantities in the southeastern part of the country. But vast stretches of Thailand now support no natural forest of any kind.

The introductory sections on natural history and birdwatching in Thailand are altogether excellent—

a perfect preparation for the first-time visitor. Phenomena such as "bird waves," the rich assemblages of fruit-eaters at large fig trees, and the importance of dry-season flowering trees as food resources are very helpful to would-be field observers. Where still little is known about a subject (as with breeding seasonality), the authors point this out and, in so doing, offer future research projects for dedicated amateurs or professionals looking for a new focus. For the active lister, 33 good birding sites are described briefly and located on a map.

The color plates are interleaved with the species accounts in order to place them as close as possible to the appropriate text. In many, but not all, instances a species account faces the illustration of the bird in question. The authors did not sacrifice text length in order to follow the "newer" text-with-plate style that has become so popular in Western field guides. Since each species is given a unique number that is used both on the plate and in the text account (as had been done so successfully in King), moving from one to the other is not a problem.

Each species account includes an initial characterization of the bird, field marks for the distinct plumages, description of voice, habitat requirements, and status in Thailand. The color plates often depict two or more plumages per species, with Peterson-style pointers indicating key field marks. Succinct accounts precede each family and also are included for distinct genera or lineages within the family treatments (e.g. the dabbling ducks within the Anatidae). A color-coded map of each species' distribution within Thailand appears with each species account. These are very well-produced, probably the best of any field guide outside of North America and Europe.

Nomenclature follows King's Southeast Asian guide, but with emendation. In some instances, unrelated groups are placed near each other in the book for ease of identification (larks and pipits, swifts and swallows). Thai names appear for each species, but only a minimum of alternative English or scientific names is included. This is perhaps unfortunate, because there are a great number of current synonyms in use in southern Asia. That being said, the authors' choice of nomenclature appears current and sensible.

The color plates have been reproduced beautifully. Painted by Kamol Komolphalin and Mongkol Wongkalasin, they are generally good or excellent, although in most instances there are too few birds and too much white space on each plate. A more compact book could have been produced if some of the plates had been combined into more "species-rich" assemblages. I suspect that, in many instances, the actual figured birds would not have required any reduction in size. One does notice an apparent evolution in style of the plates. It is evident that both of the illustrators improved in style and composition during the project. As an example of this, compare plate 26 (falcons) with plate 2 (boobies and shearwaters).

The color reproduction appears excellent throughout. On a number of plates, individual figures will appear "small headed." This may be a product of an inability to observe some of these species in the field. With the likes of Don Eckelberry, Guy Tudor, Al Gilbert, Jim Coe, and other superlative bird illustrators in our midst, it is easy for North Americans to become overly critical.

The text is strongly geared to field identification. I would have preferred to see somewhat more on the habits of some species. For instance, no mention is made that the White-bellied Yuhina travels in very tight monospecific flocks, especially in the nonbreeding season. This seems to be true of most species of *Yuhina*, and a number of the *Alcippe* babblers, which often join mixed flocks with the former. It would also be useful to have a brief indication of the complete (world) range of each species. This would certainly have broadened the utility of the book. These are minor criticisms of what is essentially a splendid piece of work. One wonders how easy it will be to obtain in North America, as it does not appear to have an American distributor at this time. Perhaps this can be remedied in a second printing.—BRUCE M. BEEHLER, *Division of Birds, MNH MRC 116, Smithsonian Institution, Washington, D.C. 20560, USA.*

DATE OF ISSUE (Vol. 109, No. 2): 8 May 1992