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Source: The Condor, 102(1) : 243

Published By: American Ornithological Society

URL: https://doi.org/10.1650/0010-5422(2000)102[0243:BR]2.0.CO;2

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The Condor 102:239–243
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BOOK REVIEWS

Antbirds and Ovenbirds: Their Lives and Homes.—Alexander F. Skutch. Illustrated by Dana Gardner. 1996. University of Texas Press, Austin, TX. xix + 268 pp., 16 black-and-white photographs, 55 line drawings, 6 tables. ISBN 0-292-77705-1. $19.95 (paper), $40.00 (cloth).

Alexander Skutch, now in his 90s, continues to publish his unique life-history overviews of Neotropical bird families. The stated goal of this tome is to familiarize ''people in northern lands [with] two families of birds refreshingly different from those familiar to them at home.'' Unlike the passerine families covered in other volumes (icterids, tanagers, and tyrant flycatchers), antbirds and Neotropical ovenbirds have no representatives north of Mexico.

The two families are discussed in about equivalent depth, and each part could easily stand as a book on its own. The information presented in each part is organized into largely parallel chapters, allowing readers to make comparisons among families. A general synopsis for each family is followed by detailed discussions of natural history and an overview of significance to humans. Each part also contains a detailed account of a single species representing the family. Those fascinating accounts, adapted from Skutch's earlier publications, fit well with the rest of the text and are a pleasure to read.

The author compiled results of more than six decades of his observations, supplemented with data from the literature. Given the vast information presented, the tables in this volume are especially welcome, not only facilitating comparisons, but also demonstrating how little is known of some aspects of biology (e.g., nest attendance, lengths of incubation and nestling periods). Unfortunately, sources of data from the literature were not provided in the antbird summary tables 3 and 5, nor in the only table of the ovenbird section. Although the literature source of most statements is clearly indicated in the text, some information cited is difficult to match with specific items in the bibliography. Furthermore, only English names are used in the text and they do not always follow standards developed for Neotropical birds. Although scientific names are provided in the Index, some species mentioned in the text (e.g., White-cheeked Antbird [*Gymnopithys leucaspis*]) are omitted from the index. Others (e.g., Wing-banded Hornero [*Furnarius figulus*]) are listed in the index without scientific names; a few scientific names are misspelled (e.g., *Glyphorynchus, Seiurus, Sylviorthorhynchus*).

Although most aspects of natural history are covered, the main focus of the book is on reproductive behavior, with separate chapters examining nest structure and construction behavior, eggs and incubation, care of nestlings, and breeding phenology. That area is where Skutch's nest finding ability, extraordinary patience and attention to detail, and training in botany really shine. Treatment of most topics is quite comprehensive, and most generalizations are accurate and well supported. Critical readers, nevertheless, should recognize problems with the plausibility of some of the adaptive explanations proposed by the author. For example, plain white antthrush eggs are hypothesized to have evolved to prevent egg breakage by adults incubating in dimly lit hollows. Skutch is apparently unaware that several thamnophilid antbirds (*Gymnopithys, Phlegopsis, Rhegmatorhina*) also nest in identical hollowed stumps, but lay heavily pigmented eggs. Some additional inaccuracies seem to reflect a Mesoamerican bias in the author's experience. For example, the statement that antbirds ''avoid sun-bathed canopy'' holds true only in Mesoamerica; in South America, however, several antbirds (e.g., *Herpsilochmus* and *Terenura* antwrens) are canopy specialists. It was also unfortunate to see such negative and unsubstantiated statements as ''too many [ovenbirds] have been killed to fill the specimen trays of natural history museums'' (p. 237), yet the acknowledgments state that museum specimens were used to produce all but one of the drawings in the book!

The author decided to treat antbirds and ovenbirds in the same volume apparently because of their phylogenetic affinities (p. xv). However, his discussions of systematic relationships do not reflect the current understandings of suboscine relationships. Skutch does not distinguish between the typical antbirds (Thamnophilidae) and the ground antbirds (Formicariidae). Worse still, he does not even mention that woodcreepers (Dendrocolaptidae) are the likely sister group of the ovenbirds, and are at times even submerged therein. Exclusion of woodcreepers is both surprising and unfortunate, given Skutch's broad experience and vast knowledge of them.

Dana Gardner's drawings of representative species are quite handsome and accurate. The artist's scratchboard technique lends itself well to subjects requiring dramatic contrasts such as most of the antbirds illustrated; the more uniformly-colored ovenbirds, on the other hand, often appear too dark. The illustrations correspond only loosely to the surrounding text, but are not merely decorative, and do help readers to visualize the tremendous diversity of forms and patterns in the two families.

It is worth mentioning (and the author himself was clearly too modest to do so) that the elegant Pale-faced Antbird illustrated on page 118 represents a unique genus, *Skutchia,* erected in honor of Skutch and his studies of Neotropical birds. In summary, Skutch's book, despite few shortcomings, is the most comprehensive compilation of information on natural history of antbirds and ovenbirds published to date. It will appeal particularly to naturalists interested in the Neotropics, amateur ornithologists, and graduate students seeking research questions. This informative and highly readable book should be part of every ornithological library.—KRZYSZTOF ZYSKOWSKI, Natural History Museum, and Department of Ecology and Evolutionary Biology, University of Kansas, Lawrence, KS 66045, e-mail: kristof@ukans.edu

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The Handbook of Bird Identification for Europe and the Western Palearctic.—M. Beaman and S. Madge. 1998. Princeton University Press, Princeton, NJ. 868 pp., 357 color plates, 625 maps. ISBN 0-691-02726-9. $99.50 (cloth).

This long-anticipated handbook (hereafter ''HBI'') is a profusely-illustrated compendium of information on field identification of some 900 western Palearctic bird species and numerous component subspecies. The number of species treated is roughly equivalent to the North American bird species total, and about 400 of them are on the American Ornithologists' Union checklist, giving broad (>40%) applicability to our continent.

Most species accounts are about a half of a two-column page, but occasionally longer—one to one and a half pages for difficult species, e.g., several raptors and gulls, the ''Arctic Redpoll'' (*Carduelis hornemanni*), and Blyth's Reed Warbler (*Acrocephalus dumetorum*). Range maps are adjacent to species text accounts, and plates are found in 13 groups throughout the book, along with numerous other color figures (including many species added after original plates were painted) within the text pages. An introduction describes the plan of the book and of the species accounts, then provides a dense and very useful 17 page primer on the field identification of birds. Numerous paintings here illustrate topography, effects of lighting, aberrant plumages, feather wear, etc.

The main plates illustrate a broad range of plumages and subspecies. Six artists (Hilary Burn, Martin Elliott, Alan Harris, Peter Hayman, Dan Zetterström, and the late Laurel Tucker) contributed paintings, and the results are generally stunning. It can occasionally be hard to tell which figure belongs to which species, as figures are not always logically organized on plates, nor always well labeled. I was frustrated by unlabeled winter flight figures on the Semipalmated/Common Ringed Plover (*Charadrius semipalmatus*/*C. hiaticula*) plate, for example, until I realized that the color of the subtle background wash was the key. Even the background color failed me on the Pacific/American Golden-plover (*Pluvialis fulva*/*P. dominica*) plate. The raptors are beautifully painted, but the explosion of figures on each plate can be confusing in the few cases (e.g. ''Common'' and Lesser Kestrel, *Falco tinnunculus* and *F. naumanni*) where more than one species is depicted on a page. At times it seems one almost has to know how to identify the bird to know which figure is which on the plate! The new *Collins Bird Guide* for the Western Palearctic by Mullarney, Svensson, Zetterström, and Grant (HarperCollins, 1999) uses a more logical and standardized plate organization. Closer to home, certain shorebird plates by Alderfer and Mullarney in the 3rd edition of the *National Geographic Society Field Guide to the Birds of North America* (1999) are exemplary in terms of logical plate organization. Despite the occasional confusing plate layout, the general quality of the artwork is excellent, with difficult groups such as raptors, gulls, chats, and thrushes handled particularly well. I found a number of minor problems with the North American species (trans-Atlantic vagrants), perhaps because these are the birds I know best: the Wilson's Warblers (*Wilsonia pusilla,* p. 817) are too short-tailed, the red of the male Summer Tanager (*Piranga rubra,* p. 799) is far too dull, and the Red-eyed Vireos (*Vireo olivaceus,* p. 794) simply look wrong.

A third to two-thirds of the text for each species is devoted to an ''Identification'' section discussing distinguishing characters from similar species. Criteria for determination of sex and age in the field are presented but lack the precision to be useful in banding. Most remaining text involves appearance, voice, habitat preferences, and (to a lesser extent) behavior. HBI provides a good overview of geographical variation, and multiple subspecies are often illustrated, but it is by no means a thorough compendium of characters of all named subspecies. Maps show breeding, resident and winter ranges and seem detailed and accurate, as one would expect from the well-studied western Palearctic, although the Lesser Flamingo (*Phoenicopterus minor*) was inadvertently given a repeat of the Greater Flamingo (*Phoenicopterus ruber*) map. There is little text information on status and distribution, however, and the book should be used in conjunction with distributional checklists.

This is a thorough and well-executed work, but the reviewer (and potential purchaser) is left wondering about the niche it fills. A book such as HBI is squeezed into a rather small niche in the competitive Western Palearctic identification guide market. Excellent field guides abound (e.g., Jonsson's *Birds of Europe* published by Christopher Helm in 1992, and the new *Collins Bird Guide*), many of which are up-to-date, remarkably thorough given the format, and beautifully and accurately illustrated. In addition, there is the encyclopedic treatment of the *Birds of the Western Palearctic* series (''BWP''), which contains nearly as much identification information as does HBI (and far more detail on plumages, molts, vocalizations, and behavior). The BWP is liberally illustrated, although plates in the older volumes are perhaps below today's standards, and it is available now in a condensed format that, while still massive, is far more portable than the entire nine volume set. Another genre, ''*An Identification Guide to the [fill in blank] of The World*'' now covers many bird families and provides extensive identification detail, further compressing the niche of HBI. It is therefore difficult to tell what role HBI will play—at 18 × 25 cm and 2.2 kg it is certainly not designed to be carried in the field. I imagine it is envisioned as that next source one checks (after pocket field guides) upon returning to the car or home; perhaps its strongest point is its inclusiveness—species marginal in the western Palearctic as well as all vagrant species are treated in some detail. Most of the difficult field identification problems covered in the guide have been treated in more detail in papers in journals such as *British Birds*, *Birding World*, *Alula,* and *Dutch Birding*; HBI does an admirable job, however, of distilling all of that detailed information into a reasonably compact volume.

Ironically, the niche for HBI is considerably less constrained in North America. A new generation of guides at the end of the millennium (e.g., 3rd edition of National Geographic Society guide and the soon-to-be-released Audubon Society Master Guide by David

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Sibley) should admirably fill the ''field guide'' niche in multi-dimensional ornithobibliospace, but the North American equivalent of BWP (the excellent *Birds of North America* series, or ''BNA'') is fundamentally different in matters of field identification. Field identification receives cursory treatment in most BNA accounts and there are no color illustrations showing age/sex/geographical variation or comparisons with similar species; most marginal and vagrant species are excluded. Identification information for North American birds at the level of detail provided by HBI is simply not available in any single volume.

North Americans concerned with field identification skills will find much to like in this massive volume, particularly those living along the east or west coasts where Palearctic strays are more regular. Those who travel only occasionally to the western Palearctic will be better served by the latest field guides, but those who are (or long to be) immersed in the western Palearctic avifauna will want to own this volume. University and museum libraries already owning BWP and other major regional handbook series will gain little by adding this volume.—KIMBALL L. GARRETT, Section of Vertebrates, Natural History Museum of Los Angeles County, 900 Exposition Blvd., Los Angeles, CA 90007, e-mail: kgarrett@nhm.org

The Colorado Breeding Bird Atlas.—Hugh Kingery (editor). Illustrated by Radeaux. 1998. Published by Colorado Bird Atlas Partnership and Colorado Division of Wildlife. Distributed by Colorado Wildlife Heritage Foundation, Denver, CO. 640 pp., 16 pages of photos, numerous black-and-white illustrations, figures, tables, and maps. ISBN 0-9668506-0-2. $34.95 (cloth).

After 8 years of intensive data collection and two years of writing and data analysis, it is nice to finally see a finished version of *The Colorado Breeding Bird Atlas*, the first work of its kind from my home state. Any effort to document the breeding of all avian species within a state the size of Colorado, with habitats ranging from semi-desert to alpine tundra is a monumental task in itself. To produce such a thorough and detailed work is most impressive.

The initial portion of the atlas is a summary of the organization of the book, with details on types of information included, an overview of methodology used to document breeding species, and some broad data analysis showing statewide patterns in the breeding-bird data. In general, that section is longer and far more detailed and gives the reader better information than most breeding bird atlases. Particularly interesting and useful are tables and maps giving information on numbers of species confirmed breeding per block and latilong, and summaries of the species with highest confirmation rates and abundances. Also useful, especially to the layman, are the 16 pages of color photographs that show examples of different habitats and types of breeding confirmation. The section on the habitats found in the state is extremely well done. Although brief, each description contains information on distribution, structure, dominant plant species, and most commonly confirmed bird species in that habitat. This gives the reader an instant feeling for the bird and plant communities in question. There is no vegetation map for the state, however, with only a figure showing the general plant communities along the 39th Parallel as it crosses the state, and a map of physiographic regions. Thus, the reader cannot get more than a general feel for the distribution of habitats on the statewide level.

The bulk of the atlas is dedicated to the accounts of the 278 bird species either confirmed (264), or probably (14) breeding in the state. In general, those accounts were longer and more detailed than those found in most atlases, with two full (facing) pages dedicated to each species. Individual accounts were written by 30 different authors, which may bother those who prefer a consistent writing style. However, each account holds the same information in a standardized format and order, so that it is easy to move back and forth between accounts and find the same types of information. Editing appears to be excellent, with few errors in the text of the many species that I read carefully. The extent of literature cited in each account varies considerably, at least in part due to the amount of scientific background of the author. A few basic references such as Bailey and Niedrach's (1953) *Birds of Colorado*, and the Bent ''life-histories'' series, are typically included as well as the ''classic'' papers on natural history of a species. In several cases, a noted expert on a species authored that species account.

In addition to the text in each account, several other features are also included in each layout. Most importantly, a map of the blocks within a state where evidence for breeding was found is present for each species. Somewhat disappointingly, Colorado decided to use the format chosen by most atlases and overlay shaded blocks designating breeding evidence on a simple map of the outline of the state and its counties. Much more useful would be an overlay of symbols on a habitat map, such as used in *The Atlas of the Breeding Birds of Alberta* (Semenchuk 1992), or on a predicted distribution model, such as used by *The Washington Breeding Bird Atlas.* Such maps allow the reader to quickly determine distribution patterns based on habitat, or locate unusual breeding records or locations without referring to the text. Nevertheless, the maps are well done and distribution patterns of most species based on breeding records appear to be accurate. A few glaring errors can be found, such as an obviously accidental inclusion of some text in the margin of the Sage Sparrow (*Amphispiza belli*) map. However, general quality is very high. A single graph, showing number of blocks with breeding confirmation and habitats in which those confirmations took place is included with each species account, as is a table showing the type and number of breeding confirmations and extreme dates of confirmation. The graph might have been more useful as a percent of blocks where confirmation took place, but the table is extremely useful in looking at the breeding phenology of those species with many confirmations.

In addition to a standard appendix listing such block attributes as name, number, observer, and number of breeding species, two other useful appendices can be found in the back of the atlas. The first is a list of population estimates for the breeding species in the

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state. As pointed out in the text, those estimates are probably low for all but the colonial species and relatively rare species, but do provide at least a basis for conservation efforts and analysis. The second, a list of all the confirmed cowbird brood-parasitism records by block and species, also contains information that may prove useful for future study.

Overall, I would say that this is an impressive atlas. It is beautifully illustrated and organized, and contains the most comprehensive and detailed information published to this point on the breeding birds of Colorado. It is especially useful when used in conjunction with *The Birds of Colorado* (Andrews and Righter 1994). The price of $35.00 for cloth is very low for a volume of this size.—JOHN W. PRATHER, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701, e-mail: jprathe@comp.uark.edu

New World Blackbirds: The Icterids.—Alvaro Jaramillo and Peter Burke. 1999. Princeton University Press, Princeton, NJ. 431 pp., 17 text figures, 39 color plates. ISBN 0-691-00680-6. $49.50 (cloth).

The New World blackbirds (Order Passeriformes, Family Emberizidae) are a diverse and interesting group of birds that range from Alaska to Cape Horn. Many common North American species have been frequently studied, but most South American species are poorly known. There are already a large number of books and articles published about blackbirds. *New World Blackbirds: The Icterids,* is the latest attempt to summarize our knowledge of, and stimulate further interest in, the icterids.

Alvaro Jaramillo and Peter Burke have attempted to present an illustrated ''comprehensive guide to the 103 members of the family Icteridae.'' It is not intended to be a field guide, nor is it intended to be a handbook. According to its authors, the book is a ''starting point'' and a ''resource to which the reader can turn when the field work is done.'' It is intended for a lay audience, and it focuses on species description, identification, and natural history. Each of the 103 entries includes a color plate and range map, and discussions of identification, voice, description, geographic variation, habitat, behavior, nesting, distribution and status, movements, molt, measurements, notes, and references.

The book begins with a brief introduction, which explains why icterids are interesting and outlines the authors' goals, and then provides a ''mini-course'' in ornithology, with brief discussions of bird systematics and taxonomy (including an interesting account of the species concept), plumages and topography, and behavior and evolution (containing the curious statement: ''Observations of how male Red-winged Blackbirds choose their territories and how females choose to settle within those territories spurned the idea of the Polygyny Threshold Theorem . . .''). The introduction concludes with notes on the organization of the species accounts, and a curious glossary of just 11 terms. The 39 color plates follow. For the most part, those plates, which depict distinct plumages of males and females, age classes, and subspecies, are extremely good, and in some cases they show plumages that have not been illustrated previously. For example, the Red-winged Blackbird (*Agelaius phoeniceus*) is depicted in its own plate (Plate 22) with 12 different illustrations. Perhaps the only missing aspect in this elaborate display is the diversity of plumage in adult females during the breeding season. My only objection to those otherwise wonderful plates is that some have backgrounds that are too dark. For example, the very dark background on Plate 21, which shows three Caribbean species of *Agelaius* blackbirds, makes them seem very drab even though they are probably quite conspicuous in their natural habitats. In addition, as a 50-year-old reader, I must note that the print is microscopic.

Jaramillo and Burke deserve praise for their attempt to describe and stimulate interest in the poorly known species of blackbirds. In my opinion, these accounts are the strength of this book—I wish they had been available when Bill Searcy, Scott Lanyon, and I were working on our phylogenetic analysis of polygyny in *Agelaius* blackbirds. It is truly amazing that blackbirds would include both the ''lab rat'' of field ornithology, the Red-winged Blackbird (its account is about nine pages long), and many species that are virtually unstudied (several South American species have accounts just over one page long each). In writing this book the authors had to deal with some problems inherent in ornithology today. For example, which plumage and molt system should be used? What taxonomy should be followed? When should a subspecies be included, and when should species be lumped or split? Readers will appreciate the authors' efforts even if they disagree with their decisions.

Although I would recommend this book for libraries of all kinds (college, museum, community, and personal), I am not sure that it hits any particular target audience very well. A lay person will find most of the book tough going, both in terms of its writing style (e.g., too ''scientific'' with its long sentences of multiple clauses) and its approach (e.g., little attempt to bring to life the ornithologists who study these birds). In contrast, the incomplete coverage and indirect referencing for areas of current interest may frustrate ornithologists. For example, the authors assert that extrapair copulations were unknown in Red-winged Blackbirds until molecular methods became available, but both direct observations and results of vasectomy studies demonstrated the existence and effectiveness of EPCs at least 15 years before DNA analyses produced quantitative estimates of extra-pair fertilization frequency.

These ''target problems'' stem in part from the book's conception by negation: it is ''not a field guide'' and ''not a handbook.'' In the final analysis, however, *New World Blackbirds: The Icterids,* is what it claims to be: a guide to the icterids that summarizes the characteristics and natural history of each species. I am pleased to have it on my bookshelf.—KEN YASUKAWA, Beloit College, Department of Biology, Beloit, WI 53511, e-mail: yasukawa@beloit.edu

Comparative Avian Nutrition.—Kirk K. Klasing. 1998. Oxford University Press, New York, N.Y. 350 pp., numerous figures and tables. ISBN 0-85199-219-6. $95.00 (cloth).

This volume is a comprehensive review of all aspects of avian nutrition, and touches on other subjects,

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such as ecology, morphology, and physiology. Organized in textbook fashion, the volume begins with an overview chapter of avian dietary patterns, followed by chapters on anatomy and physiology, digestion, nutritional strategies and requirements of different avian taxa. Five of the remaining six chapters are more detailed studies of the various nutritional components of food items (amino acids, lipids, carbohydrates, minerals, vitamins) and their nutritional pathways and fates in an avian body. A chapter on energetics is also included. Dr. Klasing, a professor at the University of California, Davis, is an obvious expert in many areas of nutrition and appears to be well qualified to author this text. His own work has focused largely on poultry nutrition, especially regarding amino acid and protein metabolism and partitioning.

Dr. Klasing's obvious strength is his knowledge of aspects of nutrition once food has been obtained and digested. This reviewer is definitely more familiar with the topics covered in the initial chapters of the book, which deal mainly with adaptations for obtaining and digesting food. In general, I found the latter chapters of the book to be more in depth, almost certainly due to the author's strength in these areas. Earlier chapters varied in quality, though all hold useful information. The chapter on dietary patterns (chapter 1) in particular is brief and obviously meant as an overview. This in no way detracts from the book, which is focused on internal nutrition, but does force the reader to go elsewhere for details regarding external factors affecting diet. All other chapters are sufficiently in-depth to give at least a detailed overview of the subject matter, and in many cases are quite comprehensive. Organization of each chapter centers around the major topic, with variously detailed subsections or paragraphs for different physiological and behavioral processes. For example, migration is addressed in subsections of one or two paragraphs in 5 different locations, 3 in the chapter on lipids, 1 (on flight muscle) in the amino acids chapter, and 1 in the energy chapter. Other topics covered in like fashion include molt, egg-laying, reproduction, and development. Overall those subsections give a good basic review of the topic as it relates to nutrition and vice versa. That sort of organization makes it easier for someone to review other literature to address a specific behavioral or physiological process, however. Aspects not directly related to nutrition are often poorly addressed or mentioned briefly. For example, timing and periodicity of molt were mentioned only in a single sentence; ''Most adult birds molt several times a year,'' and with only a single citation for reference. This is despite good reviews of molt patterns in other literature, such as found in *Avian Biology* Vol. II (1972).

Perhaps the most impressive aspect of this publication is the large amount of literature cited. These citations come from journals with a wide range of topics, including ecology, nutrition, physiology, poultry science, and wildlife biology. I am familiar with few recent citations directly related to the subject matter that were not included in at least one chapter of the book. This impressive review makes this text an excellent resource for researchers familiar with only one or two of these areas of literature, and can lead readers to other sources of information for topics that are poorly covered or tangential to the general focus of the text.

Overall, I found the book to be well organized and well written. The tables and figures included as visual aids are simple, well organized, and easy to understand. The focus of the text on aspects of nutrition once food has been digested is obvious, and makes the book more useful to those involved in research or teaching about specifics of nutrition. The price of $95.00 (cloth) will also probably make it somewhat less appealing to individuals not specifically involved in nutritional research or teaching a class in nutrition. Nevertheless, this should be a valuable resource for scientists in many areas of biology.—JOHN W. PRATHER, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701, e-mail: jprathe@comp.uark.edu

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