Wilson Bull., 106(3), 1994, pp. 575–584

ORNITHOLOGICAL LITERATURE

HANDBOOK OF THE BIRDS OF THE WORLD. VOLUME 1: OSTRICH TO DUCKS. By Josep del Hoyo, Andrew Elliott, and Jordi Sargatal (eds.). Lynx Edicions, Barcelona, Spain. 1992:696 pp., numerous color photographs, maps, and illustrations. $165.00.—The present volume is the first of a series that review the birds of the world in a progressive, phylogenetic fashion. After an introduction describing the general organization and purpose of the work, the book discusses the general anatomy, natural history, evolution, and taxonomy of the Class Aves. The remainder of the book is divided into sections progressively dealing with orders of birds from ostriches through ducks, geese, and swans. The discussion of each order begins with a general review of the group. Each section ends with a review of the species in the order, providing detailed taxonomy, a map of each species' distribution, and numerous references to the scientific literature dealing with that species. Final sections include references to the original scientific descriptions of each species and a fairly lengthy list of references.

This book is large in size, scope, and price, but in my view all are justified. The book should contribute to the education of persons interested in birds, but who do not possess an extensive library dealing with avian biology, taxonomy, and distribution. I applaud the combination of readable prose, extensive use of the scientific literature and beautiful, high-quality illustrative materials. The result is a very attractive volume. The text does not appear to be directed to the casual reader or the professional, but may reach an audience that often is ignored—the scholarly nonprofessional.

The book could have benefitted from some close editing. There are numerous variations of format, style, and English usage that detract somewhat from the overall appearance of the volume. An errata sheet has been issued with "sticky" corrections that may be detached and inserted into the book. My copy of the book had a few poorly printed pages on which it appeared that the press was not fully inked.

In summary, this book may well be a useful adornment to our coffee tables or may provide useful summaries of birds with which we are not familiar, but it will not replace good field guides, checklists, and more scientific texts.—C. R. BLEM.

AVIAN SYSTEMATICS AND TAXONOMY. Bulletin of the British Ornithologists' Club Centenary Volume, Supplement 112A:1–309, The British Ornithologists' Club, Henry Ling Ltd., Dorset Press, Dorchester, Dorset. Price not given—In his interesting chapter on estimating the direction and strength of natural selection, Peter Grant noted that modern systematic biology has been revitalized by molecular techniques and phylogenetic (cladistic) analysis. Therefore, to judge the significance of this book, the simple task is to assess whether it exemplifies or showcases these new trends in systematics. The simple answer is no. This book is mostly about where avian systematics has been and not about recent work or future directions. I would hope that this book is not presented to students considering research in avian systematics as a cutting edge exposé, as it poorly represents the field.

One of the high points of this book is Barrowclough's chapter. A variety of molecular techniques is available in systematics, each suited to different types of problems, or levels of taxonomic resolution. Barrowclough estimated the time it would take to solve various problems using each of several techniques, using the clever measure of "Ph.D. equivalents," that is, how many Ph.D. dissertation projects it would take to solve a given question using

a particular method. I recommend Barrowclough's chapter to anyone as an overview of the uses and limitations of molecular techniques.

Other interesting chapters include those by Panov, and LeCroy and Vuilleumier. Panov describes a situation regarding geographic variation and hybridization in wheatears. The study contained considerable data (unusual for the chapters in this book), and well reasoned analyses and interpretations. The paper by LeCroy and Vuilleumier describes some guidelines for describing new species, and rightly criticizes the recent description of a bird species based solely on its DNA and pictures of the bird prior to its release.

The description of the British Museum by Knox and Walters was very enlightening, albeit somewhat depressing. Given the modern emphasis on systematics, such as that embodied in the Systematics Agenda 2000 (e.g., Cracraft, 1991, Systematic Zoology 40:520–523), it is unconscionable to see the treatment of museums in Britain, and more recently in Canada (where curatorial staffs of the museums in Ottawa and Victoria were eliminated or cut drastically). Museums, and associated personnel trained in identification of specimens, taxonomy, and phylogenetic relationships, must form the framework of our attempt to preserve the earth's biota. Thus, it is ironic that the British Ornithologists' Club is celebrating its contributions to systematics and taxonomy when its government is strangling scientific research in its world-renowned museum.

Although there is much debate about species concepts today, most of the papers in this book either implicitly or explicitly follow the biological species concept. Two chapters specifically addressed species concepts. Haffer reviewed the history of species concepts in ornithology from the perspective of the biological species concept; hence, the review has a decided bias. Amadon and Short reviewed the species concept debate, but did not address most aspects of the current controversy. Thus, the current debate raging in many journals about species concepts is not revealed in this book. I recommend reading Donoghue (1985, Bryologist 88:172–181), De Queiroz and Donoghue (1988, Cladistics 4:317–338), Cracraft (1989, Pp. 28–59 *in* Speciation and its consequences [Otte, D., & J. A. Endler, eds., Sinauer Assoc., Inc., Sunderland, Massachusetts]), Frost and Hillis (1990, Herpetologica 46:87–104), and Davis and Nixon (Systematic Biology 41:421–435) to get a real flavor of the debate over species concepts.

Amadon and Short also suggested three new names for taxonomic categories: mesosubspecies, mesospecies and isospecies. They continue to support Amadon's older suggested category "quasi-monotypic genus," as well as others such as "megasubspecies" and "Biogeographical Unit (or Species)." Unfortunately, Amadon and Short's categories are arbitrary and subjective, and depend on individual intuition and experience. Such categories continue the "taxonomy-as-art" approach, whereas systematists are striving to make their field a more scientific endeavor. For example, "mesosubspecies" are those subspecies "not approaching species status." I do not see how one could objectively develop criteria for the recognition of this category; hence, I do not see its worth, nor the worth of these other arbitrary categories.

Bock's chapter presents his view of what systematists interested in phylogeny should be doing. Bock mentions that details of his method are contrary to the beliefs of many systematists, and notes that he has pointed this out many times in the past literature. Bock often misrepresents the field of phylogenetic systematics. For example, Bock says that PAUP and HENNIG86, two commonly used computer programs for phylogenetic inference, use "some type of correlation analysis . . ." Correlation analysis? Unless this was a *lapsus calami,* Bock's understanding of phylogenetic systematics is incomplete, as correlation analysis is a phenetic, not phylogenetic, procedure. If Bock confuses the phenetic and phylogenetic schools of systematics his criticism of either must be weighed accordingly. Bock's version of systematics requires skill to state hypotheses about phylogenetic relationships, and then

exercises called "functional-adaptive analyses" to determine if a particular character or character suite supports the stated hypothesis. I think that more than skill is required. For example, Bock asserts that a certain structure could not have evolved into another because it would not have been functional. Because we do not know what the transition states might have been, and the environments in which they existed and functioned, it requires imagination as well as skill to execute the Bockian school of systematics. Falsification of hypotheses via functional-adaptive analysis appears to be a subjective endeavor. Bock also purports to be able to assess the degree of confidence in his results, but his procedure will be mysterious to students of statistics used to more conventional views of "confidence," or to those that view topological congruence of trees as a measure of confidence in a phylogenetic hypothesis.

Other papers, such as those by Voous and Potapov, also criticize phylogenetic methods, but their criticisms are based on unfounded assertions or misrepresentations of cladistics. Voous suggests that "Pragmatic rather than scientific values should be attached to bird genera and their naming." Practitioners of phylogenetic systematics have spent a great deal of time discussing how a phylogeny could be translated into a classification, but I would wager that none of that discussion involved "pragmatic" components. Similarly, Potapov concludes that morphological characteristics are more important for classification than molecular (or other) ones, and that phylogenetic analysis plays a minor role. Potapov suggests that taxonomic rank is determined by overall degree of resemblance, judged subjectively. Modern classification studies rely on explicit phylogenetic analyses of characters, without weighting the results by subjective, personal assessments. I would point interested people to ornithological authors such as McKitrick, S. M. Lanyon, Prum, Mindell, Raikow, Cracraft, Livezey, and Seigel-Causey, to name a few, for examples of modern phylogenetic analyses and classifications of avian taxa.

A number of papers, such as those by Louette, Morel and Chappuis, and Clancey, discuss geographic variation, however, few exhibit any of the flavor of modern analyses. Most current studies of avian geographic variation employ explicit sampling methods and multivariate statistics, and sometimes biochemical assessments of patterns of geographic variation. I would direct interested persons to papers by Barrowclough, A. J. Baker, Christidis, N. K. Johnson, Rising, to name a few, for examples of modern studies of avian geographic variation.

After having read each paper in this book, I personally would not buy it (I would write for reprints of a few papers). I do not think that most libraries need it either. The book itself is not well constructed, and the glossy pages with sonograms are falling out of my copy. The British Ornithologists' Club has a long history of natural history and taxonomic research. It is unfortunate that this book badly misrepresents the modern state of systematics in general, and ornithology in particular.—ROBERT M. ZINK.

THE BIRDS OF KONZA. THE AVIAN ECOLOGY OF THE TALLGRASS PRAIRIE. By John L. Zimmerman. Univ. Press of Kansas, Lawrence, Kansas. 1993:186 pp., 8 black-and-white plates with captions, 22 numbered text figs., 13 tables, 3 appendices, 9 pp. literature cited, 6 pp. index. $19.95 (cloth).—Both the International Biological Program and the Long-Term Ecological Research program of the National Science Foundation have provided support for multi-year inventories of critical ecosystem types, including grasslands. Such funds have enabled John Zimmerman and his colleagues to collect, tabulate and analyze data from a variety of grassland habitats during the 1970s and 1980s. One such site is the Konza Prairie Natural Area which is located in east-central Kansas, owned by the Nature Conservancy and administered by Kansas State University. The Konza is a 3486 ha tract located in one

of the last major remnants of "virgin" tallgrass prairie. The management plan for the Konza includes various combinations of burned, non-burned, grazed and non-grazed treatments. These treatments, in turn, lead to a variety of localized habitats supporting, not surprisingly, a diverse avifauna.

After a series of extremely valuable and thought provoking technical-level publications dealing with his work in grasslands, Zimmerman has produced this book summarizing, primarily, data from 1981 through 1990. The book is written in a non-technical format designed to appeal to the general public. However, the nature of the material, the crisp organization, and the excellent presentation style are sufficient to keep professionals interested and, in fact, pique their curiosity. Certainly no one is better qualified to write such a book.

After a brief preface, which gives an overall introduction to the book as well as a cursory description of the field methods involved, Zimmerman gives a solid description of the natural history of the tallgrass prairie. The reader is introduced to concepts such as: these habitats are "more than just grass," they are not composed of a "unique flora," they contain few endemic species (none of which are grasses!) and the avifauna is derived from grassland habitats in other geographic areas. Based on bird distributions, Zimmerman divides the range of habitats into 4 major types: gallery forest, attenuated gallery forest, grasslands (either burned or unburned) and rock outcrop shrubs. The latter are mostly ignored in subsequent tables and figures. Birds species richness, abundance and relative frequency are tabulated by species and habitat type.

Chapter 2 gives an overview of grassland ecosystem as it relates to bird numbers. Long-term trends on the Konza are compared with data from the Breeding Bird Survey. A subsection of this chapter summarizes Zimmerman's cutting-edge work on Dickcissels (*Spiza americana*), which leaves us with a sense of foreboding that the future of this formerly abundant species is in jeopardy due to 'the detrimental impact of human activities." Chapters 3 and 4 give similar treatment to the avifauna of forest and rock outcrop, respectively, ecosystems found within the Konza.

Chapter 5 is entitled "Prairie-Chickens" and gives a brief life-history account of the Greater Prairie-Chicken (*Tympanauchus cupido*). Also included in this chapter, presumably as an unnumbered subsection, is a discussion of Migration. Given its location in the text, one might assume that this is also about Prairie-Chickens. However, this section deals with those species that "spend neither summer nor winter" on the Konza, nearly 50% of the observed species.

Chapter 6 presents the annotated checklist, obligatory in books of this genre, and covers species accounts from 1971 through 1992. This chapter will be of interest primarily to those individuals who will be "birding" the area. The Appendices present (1) a phenological checklist of the birds of Konza Prairie, (2) the vascular plants mentioned in the text and their scientific names and (3) a glossary (a handy reference which I will use repeatedly).

All in all, this book is informative, well written and well edited (of a random selection of 25 text references, all were found in the Literature Cited section). I was especially taken with Zimmerman's emotional/philosophical comments in the section "In Praise of Standing Dead." Having attended college during the sixties, this section reminded me of other impassioned pleas generated over the past 30 years. Certainly all people residing in the present biosphere would do well to heed his words, "We inflict suffering upon ourselves when we let our purposes interfere with the way the world works." Thank you Dr. Zimmerman.—ROBERT C. WHITMORE.

ATLAS OF BREEDING BIRDS OF THE MARITIME PROVINCES. By J. Erskine Anthony. Nova Scotia Museum Program of the Department of Education in conjunction with Nimbus Publishing Limited, P.O. Box 9301, Station A, Halifax, Nova Scotia, Canada B3K 5N5. 1992:

x + 270 pp., 214 distribution maps, 188 black-and-white illustrations and breeding season bar charts, 10 geographic reference maps, 9 maps summarizing results, 3 overlay sheets, softbound. U.S. $29.95.—This is a handsome and thorough addition to the growing list of breeding bird atlas publications in North America. This Atlas incorporates most of the characteristics that have become standard and brings to the mixture several innovative and useful features. Collaboration by the three provinces and rapid progress from field work to publication make this a useful and timely work.

Climatological, geographic, and cultural features of the Maritime Provinces are briefly summarized in three introductory chapters as they relate to bird distributions. Maps and narrative descriptions of geographic patterns help explain disjunct distributions of, for example, northern-associated species such as Fox Sparrow along the Atlantic coast. Patterns described in these chapters become recurrent themes throughout the book. The description of cultural patterns provides insight into historical land use impacts on bird distributions. Tabular and mapped summaries briefly highlight what the project achieved. This atlas reports on the efforts of 1120 people spending over 43 thousand reported field hours in the 1682 sampling units, 10 × 10 km in size. Ninety-six percent of the 450 priority and special squares achieved adequate coverage, defined as 75% of expected species. Of the total 214 breeding species reported and mapped, 195 were confirmed and 10 "headline" birds were reported nesting for the first time. Seven historical nesting species were not recorded during the five-year effort.

A useful chapter, immediately preceding the species accounts, prepares the reader to use the accounts and warns of their general weaknesses. In conjunction with an earlier page entitled "How to read the atlas maps," the assorted elements found in each species account are explained. The introduction sometimes leaves the expectant reader hanging. For example, of the aforementioned "headline" species it is stated that "successful nests were found only for two." Which two? The answer can be found by searching tabular summaries in Appendix E or the species accounts. Although the introductory summary appears somewhat cursory and disjunct, the reader will discover chapters following the species accounts that complete the synopsis. Minor criticisms aside, the stage is set for an enlightened reading of individual species accounts and interpretation of results.

The 188 accounts of regularly occurring species are handsomely designed to present a variety of features laid out one page per species. Bi-color maps present atlas results at two mapping scales for each species: the sampling scale and a coarser scale (20 × 20 km resolution) as a smaller insert. Breeding evidence is presented by colored dots of three sizes, identified by a key on each page at the scale of the primary map. The maps are very legible and well drawn, with handsome background detail. Each account of regularly occurring species, labeled by English, French, and scientific names, is accompanied by a generally handsome pen-and-ink illustration by Azor Vienneau, a seasonal bar chart which illustrates normal dates of eggs and young, and estimates of breeding population size in the Maritimes and its provinces. Citations are not incorporated into the text, but reference numbers are listed at the end of most species accounts. The absence of citations for some species is disheartening. The references, although relatively few, generally are selected from studies within the region.

Each species account opens with a description of the worldwide range and a general statement of the range in the Maritime Provinces. Recent range changes and responses to European settlement place the results in temporal context. Habitats, nest-site characteristics, and food preferences were summarized where these relate to distribution patterns. Atlas results, in terms of number of squares, percent confirmations, and other notable results, are briefly mentioned in the text rather than in tabular summaries, sometimes resulting in cumbersome style and unclear statements. Distribution patterns are interpreted with generally

good insight. However, identifying the New Brunswick highlands as the "southern edge of the continental range" for the Blackpoll overlooks the disjunct population well documented by the New York breeding bird atlas (1988) in the Adirondack and Catskill mountains, more than 300 km to the south. Most species accounts end with notes on conservation issues and population trends. A wide range of comments conjecture on future status. In an extreme example, the Golden-crowned Kinglet account comments that "their long-range future here is uncertain." That, for a species found in more than 80% of squares, with an estimated population of 355,000 pairs, and an increasing BBS trend! A passing mention of nuclear wastelands and repetitious references to global warming sometimes diminish the environmental comments to rhetoric.

Brief accounts and a single map each for 26 species identified as peripheral and casual follow the main body of the work, two per page. Inclusion of Bohemian Waxwing in this section broadens the description of this section to include hypothetical species (by the author's own admission) and detracts from the list. Lists of past breeders, species with nonbreeding summer records, and recently introduced species conclude the species accounts. Thoughtful groupings of species by habitat and range limits are presented in chapter VII.

Four appendices provide technical references which make this among the best documented of published atlases. Features included here rival the documentation included in the Atlas Handbook, and make this a valuable reference for anyone interested in initiating an atlas effort. Descriptions of data processing and review demonstrate that this was a well designed project. Chapter VIII summarizes and explains the innovative population estimates computed for each species. The process of computing these estimates, described in Appendix D, is essential, but probably will leave most readers confused. The analytical technique appears to be valid, although caution should be used in interpreting the resulting estimates because of species detectability problems, subjective "trimming" of records and sampling intensity, all of which are acknowledged as issues. A final appendix includes five statistical tables, summarizing the raw data of the atlas.

This atlas was handsomely designed and packaged with the reader in mind. The publication will serve well the many birders that visit the Maritimes and is a grand tribute to the residents who labored to produce it. Covering an area toward the northeastern corner of the continent, the *Atlas of Breeding Birds of the Maritime Provinces* is an essential reference for anyone interested in bird distributions in North America.—DANIEL W. BRAUNING.

THE HUMAN NATURE OF BIRDS. By Theodore Xenophon Barber. St. Martin's Press, New York. 1993:226 pp., 12 color photographs with captions (bound in center as 8 plates). $19.95 (U.S.), $26.99 (Canada).—It is said that anyone with a magnifying glass on a string around his or her neck must be a botanist, and I propose that anyone similarly adorned with the albatross of "instinctual" must be a psychologist. It is a perfectly valid dictionary entry, but in a world in which everyone else uses "instinctive" the reader knows from the very first paragraph of this book's Introduction that the author is a psychologist—although he describes himself in the opening sentence as "a behavioral scientist, with a professional reputation as a hard-headed skeptical researcher." The stereotypical psychologist's knowledge of avian behavior is restricted to the output record from a Skinner box within which a White Carneaux pigeon is pecking at an illuminated key, so *The Human Nature of Birds* portends an unusual viewpoint on the stated content of human-like cognitive capacities of our feathered friends.

The topics range widely: talking birds, food caching, tool using, territoriality, foraging, communication, song, migration and navigation, and so on. There is an appendix on the

"continuing cognitive ethology revolution" and another on "how you can personally experience a bird as an intelligent individual." A third appendix provides Latin names of species mentioned in the text, followed by "notes" (mainly references) serially numbered within chapters, and an index. It is a nice package but the white typeface within black banners at the top of each page and heading each chapter is often unreadable in my copy.

In any popularization such as this the paramount question is one of accuracy: are the facts and interpretations right, is the documentation sound? Given the enormous breadth of material, the author has done a reasonable job, but not a meticulous one. At the least one would hope for standard names of birds, spelled correctly—not such things as the "North American Nuthatch *Sitta pussila*" (p. 174) which is presumably the Brown-headed Nuthatch *Sitta pusilla* (one *s,* two *l*'s). I am not picking nits; with some 9000 species of birds in the world, it is an absolute requirement that we know which one is being discussed. The "great shearwater" of page 58 may be recognizable as the Greater Shearwater (*Puffinus gravis*) to those of us familiar with the European literature, but the former is not listed in Appendix C on "Scientific Names of Species" and the latter is given there under its nineteenth century generic name. Chapter five is about a hand-reared jay called a "scrub jay" (p. 40), but the popular book on which the chapter is based is entitled *Lorenzo the Magnificent: The Story of an Orphaned Blue Jay* (p. 191), so which is the right species?

The literature citations are impressive, but careful reading suggests that many are cribbed from secondary sources such as *The Life of Birds* by Welty and Baptista (e.g., scrutinize the notes on pp. 183–185). Was the author really able to read Homberg's paper about "Fiskande kråkor" (fishing Hooded Crows) as cited on p. 11 and listed on p. 182? When I list a paper in Swedish or Norwegian, I have (admittedly painfully) plowed my way through it; otherwise I tell the reader through whose eyes I think I know the content. The book clearly targets recent findings, continually touted as revolutionary, whereas some familiarity with original literature would have provided a more accurate setting. For example, the compressibility of territories is supposedly a new finding (p. 15), but in fact was announced to the world before I was born—by Julian Huxley in an immediately classic paper in *British Birds* in 1934 (not cited in this book, of course).

Which brings me to the "strawmanism" that permeates the volume. The book's thesis is provided up front, as they say, on the first page of the Introduction: "Since I had previously accepted the official scientific view that birds are instinctual automata, I was horrified to realize that I and virtually all other scientists have been blocked by the official taboo against anthropomorphism from perceiving the nature of reality, beginning with the intelligent nature of our close neighbors, the birds." That quote typifies the high-level confusion that dominates the structure of this book, so I will attempt partial disentanglement of this web with four specific points.

First, this reputedly "official scientific view" that birds are nothing more than little windup toys is a fignewton of the author's imagination. Over and over again in the book we are told of this view. It was never an official or even an unofficial view—in fact, never even a view—in the two sciences I dabble in, namely ethology and ornithology. So I am led to conclude that the author's brand of psychology must have official views and that those views are pretty naive when it comes to birds.

Second, any supposed taboo against anthropomorphism never inhibited the research of anyone I know. In fact, anthropomorphism is not even the issue in cognitive ethology. It is simply not scientific to attribute human characteristics to inanimate objects, animals, or natural phenomena and let it go at that. So in that sense, the taboo still exists.

Third, the real issue at stake has been how to identify and analyze complex behavior. Our advances have not all been sudden and recent, but rather episodic over a long period, and dependent upon the ingenuity of individual researchers, not the shedding of reputed

taboos. Ethology first had to prove that observed avian behavior must involve impressive complexities, and then to devise methods for analyzing those complexities. For example, Irene Pepperberg's comprehensive studies of Alex, a talking African Grey Parrot (*Psittacus erithacus*), have elucidated avian concept formation in a manner that no previous investigator could think of a way to approach. As clever as Alex is, remember that Pepperberg is really the clever one. In recounting Alex's story (pp. 4–8), the author misses this point entirely.

Last, this book seriously confounds a host of distinct concepts such as emotional organization, individual personalities, intelligence and cognitive abilities, human-like traits, sophisticated communication, and complex behavior. These are overlapping sets and just because given behavior has one of these attributes does not imply the others. Take for example an entire chapter devoted to avian navigation (pp. 58–73). The book promises (p. 3) to show that "birds are superior to humans in other kinds of intelligence (such as navigational intelligence)." I grant readily that many avian species are far superior to me, and presumably my conspecifics, in navigational abilities, but to confound this marvelous accomplishment with the notion of "intelligence" simply is not intelligent.

Even a disappointed reviewer has a responsibility to identify the good, so take this "did you know?" quiz. (1) When asked what object is red wood, Alex the parrot can pick it out from among various colors of wooden objects and various red objects made from cork, cloth, paper and so on. (2) Certain ground-nesting birds lead a potential predator away from the nest site by a "broken wing" distraction display. (3) Herons have been seen dropping bread onto water and then catching the fish that rise to nibble the bait. (4) Bird calls may "mean" different things to companions depending upon the context. (5) Bowerbirds decorate their structures with flowers and other colorful objects. (6) Homing pigeons and some diurnal migrants use a sun-compass in conjunction with an internal clock to help find their way. (7) Starlings can learn to imitate human speech and use certain phrases in appropriate contexts. (8) Some birds are known to engage in play behavior. That sample suffices. If you already knew those things, you probably would not learn much by reading this book. If such facts are new, then this book is as convenient a way to acquire them as any. Just read the specific accounts and ignore the relentless hyperbole about how everyone believed otherwise—and don't take species' identifications seriously.

The author's ultimate namesake, Xenophon (430?–355? B.C.), is remembered mainly for leading the retreat of the Ten Thousand from Persia in 401 B.C. Xenophon found only simple pleasure and delight in Athenian life, overlooking the deeper implications articulated by his older and somewhat brooding contemporary Thucydides. Our only knowledge of Socrates comes from Xenophon and his co-disciple Plato, the former respecting his master for the practical wisdom imparted, such as how to run a complex household efficiently, apparently missing entirely the philosophical content expounded by Plato. Oh, well, what's in a name?—JACK P. HAILMAN.

THE MARIN COUNTY BREEDING BIRD ATLAS: A DISTRIBUTIONAL AND NATURAL HISTORY OF COASTAL CALIFORNIA BIRDS. By W. David Shuford. Bushtit Books, Bolinas, California. 1993: xv + 479 pp., many black-and-white sketches, maps. $24.95 + $3.50 S/H (obtainable from publisher, P.O. Box 233, Bolinas, California 94924).

ATLAS OF THE BREEDING BIRDS OF MONTEREY COUNTY, CALIFORNIA. Edited by Don Roberson and Chris Tenney. Monterey Peninsula Audubon Society, Carmel, California. 1993: viii + 438 pp., many black-and-white sketches, maps. $45 (hard cover), $19.95 (soft cover) (obtainable from the publisher, P.O. Box 985, Pacific Grove, California 93950).—As the

shelf of breeding bird atlases increases with additional publications we now have the first results from a western area. Unlike the other projects which have covered a state or province each of these two new atlases covers only a single California county. Monterey County, indeed, has a greater area than two of the eastern states whose atlases are in progress.

Both projects followed the now familiar atlas methodology except that Monterey County established their grid using the Universal Transverse Mercator grid rather than the usual U.S.G.S. 7.5 minute topographic map grid. Marin County divided the topographic sheet into 16 blocks rather than the six used by most eastern atlases. Marin managed to cover all the blocks in the county, but Monterey, having a much larger area and limited manpower, had to establish a priority system and did not cover all blocks.

The species accounts in both books are extensive, and are not forced into a fixed allotment of space for each. Besides summarizing the distribution varying amounts of natural history information are given, and both books discuss conservation matters. Each account in the Monterey book is accompanied by a black-and-white sketch of the species, done by 14 different artists.

It is in the "front matter" that both of these books differ from other atlases, and here they make their greatest contribution. Both include the seemingly obligatory history of atlasing, a summary of the physical environment, and the nitty-gritty of the local atlas organization. The habitats of the county are described in more detail than has been done in the state atlases so far published. In contrast to eastern areas, both of these counties have complicated mosaics of habitats. The habitats in Monterey County are classified in 24 types and for each a map of the atlas blocks containing some of the type is given. The descriptions of the 14 Marin habitat accounts are accompanied by delightful sketches of landscape by Ane Rovetta. These add greatly to the reader's appreciation of the coastal environment.

The Marin atlas contains a long detailed discussion of the results which includes a thorough analysis of the breeding birds of each of the habitat types. This synthesis of atlas results, which is sadly lacking in most published atlases, should be required reading for all students of avian distribution. The Monterey atlas has a shorter analysis. Together these discussions give the reader a vivid picture of the avifauna of coastal California.

Atlasers from the East who have suffered through long delays in publication of their work will be chagrined to notice that the field work for the Monterey atlas was completed in the summer of 1992 and the publication reaches us in the fall of 1993. This remarkable record was accomplished by such modern tools as the word processor and "Desktop Publishing" as well as the avoidance of state bureaucracies and commercial publishing firms.

I recommend both atlases to those interested in bird distribution, and especially to other atlasers whose work has not yet been published.—GEORGE A. HALL.

SHORT REVIEWS

BIRDS OF INDIANAPOLIS. By Charles E. Keller and Timothy C. Keller. Indiana Univ. Press, Bloomington, Indiana. 1993:145 pp. 96 colored photos, 2 maps. $25 (cloth), $12.95 (paper).—A father-and-son team, the Kellers have produced an attractive addition to the local faunistic library. Short accounts are given for 125 of the most common birds to be seen in the eight-county area centered on Indianapolis, Indiana. There are excellent colored photographs of 96 species, taken by the junior author. The front matter contains suggestions for beginning birders and descriptions of a few birding spots. An appendix lists all the species known for the region. This publication should be useful for visiting birders or local neophytes.—G.A.H.

STATUS AND CONSERVATION OF THE MARBLED MURRELET IN NORTH AMERICA. Edited by Harry R. Carter and Michael L. Morrison. Proceedings of the Western Foundation of Vertebrate Zoology, Volume 5, No. 1, Camarillo, California. 1992:133 pp. $20.—The discovery that the fate of the Marbled Murrelet (*Brachyrhamphus marmoratus*) like that of the Spotted Owl (*Strix occidentalis*) is tied with the future of the old growth forests of the Pacific Northwest has stimulated work on this seabird. The present volume consists mainly of the papers given at a 1987 meeting of the Pacific Seabird Group, but many of the papers were not submitted for publication until much later, the dating of the material is misleading. There are seven papers detailing the status of the murrelet in Alaska, British Columbia, Washington, Oregon, and California. An eighth paper discusses the capture and radio-tagging of murrelets. Perhaps the most useful contribution of the paper is 12-page bibliography of the murrelet, hopefully complete through January 1992.—G.A.H.

PERDIX VI. FIRST INTERNATIONAL SYMPOSIUM ON PARTRIDGES, QUAILS AND FRANCOLINS. By M. Birkan, G. R. Potts, N. J. Aebischer and S. D. Dowell (eds). Gibier Faune Sauvage, 9: 283–918 (1992) (available from the Game Conservancy Trust, Fordingbridge, Hampshire, SP6 1EF, U.K. No price given).—The first 5 Perdix workshops were held in North America and were concerned exclusively with *Perdix perdix,* but the 1991 symposium broadened the coverage to include other Galliform species. Representatives from 26 countries met in Hampshire and we have before us this collection of 56 papers given there.—G.A.H.

IDENTIFICATION GUIDE TO EUROPEAN NON-PASSERINES. By Kevin Baker. British Trust for Ornithology Field Guide 24. Available from The National Centre for Ornithology, The Nunnery, Thetford, Norfolk, IP24 2PU, U.K. 1993:x + 332 pp., many black & white drawings. £15.—European bird ringers have had a useful guide to sexing and aging passerine species (see review, Wilson Bull., 105:544 [1993]), and now the B.T.O. has published an equally valuable treatment of the non-passerines. Since about 60 of the 119 species covered also occur in North America banders on this side of the Atlantic may find this publication of use.—G.A.H.

BIRDS OF PREY IN VIRGINIA. An addendum to specimen records. By David W. Johnston and Roger B. Clapp. Virginia Avifauna No. 5, Virginia Society for Ornithology, Gloucester, VA. 1993:ii + 23 pp. $3.—Additions to Virginia Avifauna No. 4 (see review, Wilson Bull., 103:535 (1991).—G.A.H.

This issue of *The Wilson Bulletin* was published on 27 September 1994.