

ORNITHOLOGICAL LITERATURE

VOICES OF NEW WORLD NIGHTBIRDS. Record # ARA-6. Produced and narrated by John William Hardy. Principal recordist, Ben B. Coffey, Jr. Produced in the Bioacoustical Laboratory of the Florida State Museum. ARA Records, 1615 N.W. 14th Ave., Gainesville, Florida 32611, 1980. One LP record in jacket. \$7.00.—For cogent commentary and background on this series see the reviews by Stuart Keith (Wilson Bull. 88:525-526, 1976; 90:148-150, 1978).

Presumably I was asked to review this effort because my wife and I are among the comparatively few who have engaged in the "tedious work . . . at what for most of us are 'unnatural' times for concentrated, accurate endeavor," involving "considerable danger . . . and immense patience" in efforts to extend our knowledge beyond "mysterious . . . evidence that some birds out there are doing something" (jacket text). Our efforts (for part see Living Bird 10:170-184, 1971) involved only Chuck-will's-widows (*Caprimulgus carolinensis*) and Whip-poor-wills (*C. vociferus*) in tame Kansas. We rarely found the work tedious, however, and for us the dangers were limited to inconveniencing the odd copperhead and, once, nearly netting a deputy sheriff on his way to an accident. But we did learn how difficult the work can be and I am awestruck by the amount that underlies this pioneer compilation (30+ contributions by Coffey, the rest by a long series of others, especially Paul Schwartz, George Reynard, Joe T. Marshall, Jr., and Hardy).

Therein appear vocalizations attributed, at least tentatively, to about 45 species of owls and 30 of caprimulgiforms. Hardy tells me that about 35 of these are presented here for the first time on a commercially available disc. Most, if not all, are basic territorial "songs" or epigamic vocalizations. Since these night birds communicate mainly by sound, probably all employ considerable vocabularies, as we found for the Kansas goatsuckers. Although vocalizations other than advertising song are now known for at least a few species, Hardy did not use these, probably because of space limitations.

Perhaps also for this reason, the record lacks the extensive spoken commentary with which Stuart Keith earlier took issue (at length notable for a discourse on succinctness). The record would have been enhanced by written commentary more extensive than the jacket will accommodate, but this will mainly concern those of us who are laypersons concerning the esoterica of nightbird systematics. Space, again, may have prevented identification of some of the fascinating sounds that appear as background.

Acoustical quality ranges from good to superb, perhaps depending somewhat upon distance. I was impressed by how many owls and goatsuckers sound much alike, respectively, and by how consistently the sound-alikes are allopatric. It is not far from this to the notions that quite a few of these sounds must be primitive for the groups, hence without systematic information content at the alpha level, and that few patterns suggest the shared derivation that would convey such information (*Caprimulgus carolinensis*-*C. rufus* may be one of these).

The first of two cuts given as "*Caprimulgus parvulus*" belongs to a population now regarded as a distinct species, *C. anthonyi* (Schwartz, Condor 70:223-227, 1978; Bock and Farrand, Am. Mus. Novit. 2703:25, 1980).

This record represents a heroic collective effort and, besides being of considerable value, provides very pleasant and often amusing listening. Hardy is again to be congratulated.—ROBERT M. MENGEL.

THE MOLT OF SCRUB JAYS AND BLUE JAYS IN FLORIDA. By G. Thomas Bancroft and Glen E. Woolfenden. Ornithological Monographs No. 29, American Ornithologists' Union, Washington, D.C., 1982:vii + 51 pp., 15 text figs., 16 tables. \$8.00 (\$6.50 to AOU members).—

This monograph describes in detail the molt of Scrub Jays (*Aphelocoma coerulescens*) and Blue Jays (*Cyanocitta cristata*) resident at the Archbold Biological Station in central Florida. The thorough presentation of this information, in text and a series of tables and figures, is the crux of the publication. It seems likely, based on this publication, that these jays will now be used to exemplify the passerine molt pattern and as a basis for comparison within the passerines.

A series of short, to-the-point, comparative and analytical discussions are included. Comparison is made within each species between the molt of the different age/sex/breeding status classes. Published accounts of molt in other populations are used in a second intraspecific comparison. Finally, the two species are compared to each other. The authors attempt, with healthy restraint, to put molt differences into an ecological context. For example, a major difference between the species occurs in the first prebasic molt. Young Scrub Jays molt their head feathers gradually, earlier in the summer, while Blue Jays have a sudden capital tract molt late in the season. During nesting, the authors suggest, juvenal head feathering may reduce aggression. After territoriality ceases, an adult appearance may be best in terms of establishing a position in aggregations. The persistence of nesting and territoriality by Blue Jays for two months longer than Scrub Jays may be the reason for the delayed juvenal head molt in young Blue Jays.

The two species provide differing contributions to the publication. A great deal is known about Scrub Jays, in Florida and elsewhere. Very little is known about Blue Jays. These particular Scrub Jays have been under study by Woolfenden since 1969, and virtually all were banded, with age, sex, and breeding history known, at the beginning of the fieldwork for this paper. Few of the Blue Jays were already banded, and, amazingly, no other papers have detailed the molt or breeding biology of Blue Jays. In filling the molt part of this void, the inclusion of the Blue Jay is justified. However, analysis in this paper relies largely on data from the Scrub Jays.

The knowledge, for Scrub Jays, of individual breeding status and timing is critical, allowing a more detailed level of analysis than is the norm in molt studies. For example, Blue Jay and Scrub Jay molt as a whole seems to overlap with breeding. For Scrub Jays, the overlap can be more closely examined. It appears that most birds, including breeding males and helpers, initiate molt in May, regardless of the individual state of breeding, although breeding males may be molting at a slow rate while eggs are in the nest. The breeding females do delay molt until after their eggs hatch.

With this detailed view, additional discussion centers on molt and the breeding season. The species are appropriate for further questioning of this relationship, firstly because of the individual knowledge of breeding timing, and secondly because they are resident species in a moderate climate zone. Complicating stresses of migration and cold are not present.

After carefully estimating the energetic cost of molt, the authors reject the idea that molt and breeding are separated by energy restrictions. Molt is suggested to be not so expensive, at least not initially and not when protracted. Anyway, it is the foraging males and the helpers that appear to be expending the most energy, while it is the breeding female that delays her molt. The authors discuss other possible explanations, preferring the idea that a complete feather coat protects the female, restricted to the nest, from solar radiation. Males and helpers have less need for such protection because they can move about and use microhabitats. Other factors, such as water balance, may also be involved.

The terminology is dense at times, but the methods section, read carefully, will keep things straight. I would prefer precise definitions for such terms as "adult" and "yearling," or use of the strictly defined age codes used by bird-banders. Pertinent literature, including Russian publications, is thoroughly reviewed, although the absence of reference to a paper on Blue Jays in central Florida (Nicholson, *Wilson Bull.* 48:26-33, 1936) seems peculiar.

This monograph combines a wealth of detail with an interesting approach to the social and ecological contexts of molt. I strongly recommend it.—PETER F. CANNELL.

BIRDS AT RISK. A COMPREHENSIVE WORLD-SURVEY OF THREATENED SPECIES. By Ralph Whitlock. Moonraker Press, Wiltshire, United Kingdom (distributed in U.S. by Humanities Press, Atlantic Highlands, New Jersey), 1981:159 pp., numerous color paintings (by Matthew Hillier), color and black-and-white photos, and maps. \$30.00.—Although this book purports to be a global survey of avian extinction and its causes, its author is plainly out of his depth when he ventures beyond the British Isles. The text wanders erratically among topics of varying relevance to the subject (such as eutrophication), repeating much of the material twice or three times in different chapters. The illustrations, though attractive, are poorly chosen; the abundant White-winged Dove (*Zenaida asiatica*), not mentioned in the text, is the subject of a full-page color photograph.

Poor organization, however, is a minor problem compared with the numerous inaccuracies in the text. Misspellings of Latin, vernacular, and place names abound. Nomenclature is often incorrect or out of date (*Siphonorhis* spp., for instance, are repeatedly called “night-hawks”). Taxonomic misstatements place *Diomedea irrorata* as a race of *D. exulans* (p. 49), *Rhipidura* in the Remizidae (p. 63), *Burhinus* as “a near relation of the bustards” (p. 123), icterids as “closely allied to the European Starling” (p. 145), and the Tuatara as a lizard (p. 24)! Other errors cover, for instance, distribution (the Ruby-throated Hummingbird [*Archilochus colubris*] is not found “in the western states of America and British Columbia” [p. 146]), status (the possibly extinct Paradise Parrot [*Psephotus pulcherrimus*] is hardly “reasonably safe” [p. 74]), and ecology (not only is the Nihoa Millerbird [*Acrocephalus kingi*] not a “reed-haunting species” [p. 53], Nihoa lacks reeds!).

The author appears unaware of much of the recent literature, including the revised edition of the IUCN Red Data Book volume on Aves. He has overlooked the rediscoveries of the Maui Akepa (*Loxops coccinea ochracea*) (p. 21), Maui Nukupu'u (*Hemignathus lucidus affinis*) (p. 22), Auckland Island Rail (*Rallus pectoralis muelleri*) (p. 27), Guadeloupe House Wren (*Troglodytes aedon guadeloupensis*) (p. 34), Giant Canada Goose (*Branta canadensis maxima*) (p. 39), Maui Parrotbill (*Pseudonestor xanthophrys*) (p. 52), and Night Parrot (*Geopsittacus occidentalis*) (p. 103); recent records of Madagascar Teal (*Anas bernieri*) (p. 73) and Western Tragopan (*Tragopan melanocephalus*) (p. 95); removal from endangered status of the Narcondam Hornbill (*Aceros narcondami*) (p. 61) and Tinian Monarch (*Monarcha takatsukasae*) (p. 65); and addition to the Red Book of the Tooth-billed Pigeon (*Didunculus strigirostris*) (p. 32).

The author's attempt to discuss extinction and its causes betrays a poor understanding of both biology and history. According to Whitlock, the disappearance of the Laysan Honeyeater (*Himatione sanguinea freethi*) “seems to have been [!] in some way associated with the introduction of rabbits” (p. 23); “Starlings are usually able to adapt themselves, and this species [*Aplonis corvina*] was a large and robust bird, so its disappearance seems strange” (p. 32); “The second extinct wader of the Pacific . . . is extinct only as far as Christmas Island is concerned” (p. 33); oceanic island birds “are inclined to adopt the form of birth control which consists of laying only one egg a year” (p. 47); “To maintain a stable population it needs only for a pair of birds to reproduce themselves before their decease. Most small birds do this in a single year, so their own survival into a second year is not important” (p. 143)!

These are only a few (and not necessarily the worst) of the errors and misconceptions in this slipshod work. Its publication smacks of exploitation, and should be condemned by

conservation-minded ornithologists working to bring the real facts before the public. It is most unfortunate that Whitlock's book has received the recommendation, proudly displayed on the dust jacket, of the World Wildlife Fund.—RONALD I. ORENSTEIN.

HAWAIIAN BIRDLIFE, 2nd edition. By Andrew J. Berger. The University Press of Hawaii, Honolulu, Hawaii, 1981:260 pp., 67 color plates, 137 black-and-white figs. \$29.95.—This is an expanded and updated version of the standard work on the birds of the Hawaiian Islands. Like the first edition (1972) it differs from the most state bird books in giving not only species descriptions and distributions, but in emphasizing the ecological and historical effects of man's insensitive exploitation of Hawaii on its remarkable avifauna. The new edition shows that the islands still hold some ornithological surprises, such as the discovery in 1973 of a new passerine genus, *Melamprosops*. Additionally, a great deal has been learned in the past decade about the life histories of Hawaiian birds, and this has been incorporated into expanded species accounts. Unfortunately, too many people are still largely unknowing or uncaring about the devastating effects of habitat destruction and the introduction of exotic species on the native birds. Berger writes (p. 23) “. . . because of the destruction of so much native vegetation, there are many forests in Hawaii where one can expect to hear only the calls and songs of introduced birds. Moreover, there are some forests that, at times, appear to be completely devoid of birdlife. I have walked through such forests, hearing only the sounds of my own footsteps.”

With this new, modestly priced edition “Hawaiian Birdlife” will continue to provide the people of Hawaii with an insight into their natural heritage. For readers elsewhere it remains the basic reference to the history and status of a unique avifauna.—ROBERT J. RAIKOW.

NORTH AMERICAN GAME BIRDS AND MAMMALS. By A. Starker Leopold, Ralph J. Gutiérrez, and Michael T. Bronson. Illus. by Gene M. Christman. Charles Scribner's Sons, New York, New York, 1981:198 pp., 137 illus., with captions, 113 range maps. \$19.95.—The stated purpose of this book is to provide a companion reference to field guides that deal, at least in part, with game birds and mammals. The authors propose that it will be of value to hunters, wildlife biologists, students of natural resources, and others interested in learning about these species (e.g., bird-watchers and naturalists). A brief introduction deals with some basic concepts of habitat requirements and population dynamics of wildlife. The body of the text is apportioned into two major sections, birds and mammals. Within each section species are grouped taxonomically, and for each species (or group of closely related species), the range, habitat, and selected aspects of the life history are given. For birds, incubation periods, clutch-sizes, appearance of the species, and sex and age groups, and other comments, such as notes on behavior, specific habitat needs, diet, harvest figures, or hunting compose the “Remarks” section for each species; comparable information is provided for mammals. Illustrations include detailed pencil sketches of the animals, both male and female of sexually dimorphic species, and continental distribution maps. Many birds are shown in flight and there are a number of line drawings of physical characteristics and displays of birds. For mammals, a drawing of a skull typical of the family is included, as is the dental formula for each species. A glossary, bibliography, and index complete the book.

The text is well written in a comfortable, rather non-technical style with few grammatical errors. Distribution maps are very well done and are far more useful than those found in most field guides. Although only 105 citations are listed in the bibliography, the authors identified primary references for most species or groups. Generally, the life history infor-

mation about the 135 species is very accurate, although a few technical errors occur. For example, the lek mating system of Sage Grouse (*Centrocercus urophasianus*) may well be classical, but it is not as the authors describe. Unlike Prairie Chickens (*Tympanuchus* spp.) and Sharp-tailed Grouse (*T. phasianellus*), Sage Grouse tend to have multiple activity centers on a lek. It is curious that the authors included the Passenger Pigeon (*Ectopistes migratorius*) but ignored other recently extinct species or forms. The sketches, described by the publisher as "superb," in a number of instances fall well short of excellence, although patterns of plumage or pelage and proportions of animals are generally accurate. Some drawings, such as the display postures of grouse, are almost crude.

I believe that this book will be of interest to hunters and non-hunters alike. It could be useful in introductory level university courses dealing with game species, although its greatest utility is that of a reference rather than a text. It would not suffice as a text for advanced courses, and it would be of only limited value to the wildlife manager, scientist, or biologist.—
JOHN A. CRAWFORD.

NEW STUDIES OF TROPICAL AMERICAN BIRDS. By Alexander F. Skutch. Illus. by Dana Gardner. Publ. Nuttall Ornithol. Club No. 19, Cambridge, Massachusetts, 1981:281 pp., 7 tables, 11 figs. \$29.50.—To those already familiar with Skutch's "life histories," the present volume presents no novelties in terms of scope or approach: it consists of descriptions of the natural history and breeding biology of 27 species of (mostly) Costa Rican birds. For 22 species, the information consists of the updating or filling in gaps of previously published life histories, while Skutch publishes here for the first time on five species. For one of these (Rufous-winged Woodpecker [*Piculus simplex*]), his account is the first significant published description of its nesting behavior. For each of the updated accounts, a brief summary of previously published information is given and is most welcome as many of the older accounts are now out of print or difficult to obtain. The book is illustrated by Dana Gardner with pen-and-ink drawings of a number of the species discussed. Although not always entirely accurate with respect to details of shape and markings of the birds, these drawings definitely add to the attractiveness of the book. Skutch's writing is as graceful and articulate as ever, and the book is well printed on good paper, with very few typographical errors.

While one might cavil at this or that limitation (e.g., the lack of statistical analysis, the approach to aggressive behavior), this is to miss the main point of Skutch's contribution. This book should be judged not as an isolated work but as another step forward in its author's continuing studies of neotropical birds. These studies are providing a solid natural history data base that continues to serve as a stimulus and starting point for studies on ecology and behavior. As a worthy continuation of this unique and valuable enterprise, the present volume should be welcomed by all those with an interest in neotropical ornithology.—F. GARY STILES.

BIRDS OF THE WORLD: A CHECKLIST. Third edition. By James F. Clements. Facts on File, Inc., New York, New York, 1981:xxxviii + 562 pp. \$19.95.—Neither the first nor the second edition of this book was reviewed in *The Wilson Bulletin*. The reader is therefore referred to my review of the first edition in *The Auk* (92:821–824, 1975), as I shall be making comparisons between the first and third editions in the present review.

The body of Clements' book consists of a species list of birds of the world, with English and scientific names, a brief statement of distribution, and (new in this edition) a three-part numerical code (order, family, species), which the author suggests can be used for comput-

erization. Space is left under the distribution statement for each species for the owner to write in the date and location of a species' first sighting. Although the page size is 12 mm higher and 20 mm wider than in the first edition, a larger and coarser typeface has resulted in a less attractive page, with less space for notes.

Supplementary lists in this edition include "Major field guides and references" (author and title only); orders and families, with numerical codes and page references; "birds that have become extinct (or presumed extinct) since 1600"; [the following lists are presented under typographical subheads that make them appear to be part of the "extinct" category] "birds known from a single specimen (unique species)"; "birds known from such a small series that their status is in doubt"; "hypothetical and doubtful species"; "probable hybrids"; "probable races or subspecies"; species included that are omitted for various reasons from Morony, Bock, and Farrand's list; species listed by those authors but deleted by Clements.

Needless to say, these lists contain many errors and inconsistencies. To give only a few examples, Clements states in his text that *Muscicapa lendu* is known from one specimen from Zaire, but this species does not appear in his "known from one specimen" list, and the author overlooked the literature reference to the rediscovery of this species in Uganda in my review of the first edition. Incidentally, the index reference to *Muscicapa* directs the reader to pp. 375-376, whereas entries for this genus actually occupy pp. 387-388. I have no idea (nor any inclination to check) how many other indexing errors of this sort there may be.

There is no entry at all for the problematical *Phasmornis mystica* Oberholser, a hummingbird described from a unique holotype that cannot now be found (see Browning, Proc. Biol. Soc. Washington 91:89-90, 1978).

The list of "birds known from such a small series that their status is in doubt" is a hodge-podge. There is nothing "doubtful" about *Molothrus armenti* except whether to consider it conspecific with *M. aeneus*; Clements' statement that it is known from only two specimens from Leticia is incorrect (Friedmann, Auk 74:497-498, 1957). On the other hand, *Knipolegus subflammulatus* is no longer "doubtful" as it has been shown to be a plumage stage of *K. cabanisi* (Mayr, J. Orn. 112:313, 1971).

Clements has made several changes since the first edition, many no doubt in response to criticisms by reviewers. His partly alphabetical species sequence, for example, has been abandoned for (in general) the sequence provided by Morony, Bock, and Farrand. Yet his weird division of melanerpine woodpeckers between the genera *Melanerpes* and *Centurus*, taken from no known published list, taxonomically impossible, and mentioned specifically in my 1975 review, remains intact. Clements states in his introduction that he has now endeavored to separate breeding and winter ranges in the distribution statements, but the goose ranges I cited in my earlier review as "horrible examples" remain virtually unchanged, including the attribution of a Holarctic range to *Branta leucopsis*. The Eskimo Curlew (*Numenius borealis*) is one of the few shorebirds for which the summer and winter ranges are actually given separately, but the former is erroneously given as "Holarctic." More typical is the complete omission of the winter range, as in the Northern Phalarope, for which the entire distribution statement is "Circumboreal," or combined statements such as that for the Stilt Sandpiper (*Calidris himantopus*), "Arctic North America to South America." The Ruff (*Philomachus pugnax*) is inexplicably stated to be of "Wide distribution worldwide except for South America." My judgment is that the distribution statements have been very little improved over those in the first edition.

The general lack of quality control in this book is also manifested in the abundance of typographical errors (or misspellings). One "Minus" in the midst of *Mimus* spp. is an obvious typesetting error, but what are we to think of all three of the species of *Chlidonias* terns being listed as "*Cihlidonias*"? Typos turn up in the most embarrassing places: on p. xiv the

reader is directed to look up *Lucustroica* in the index and told that he will find *Lucustroica* there. Speaking of the index, Clements has tried to include "discontinued" genera as a service, stating that he has incorporated almost 600 in the index with a reference to their current generic names. Looking through Oberholser's "Bird Life of Texas," a current reference work notorious for use of obsolete genera, I found no fewer than 15 such names unindexed by Clements, and I only went as far as the end of the Anatidae.

Several rival "birds of the world" books have appeared since Clements' first edition, and each has strong and weak points. In spite of the change mentioned above, Clements' book still has perhaps the most attractive-looking pages, and his new numbering system may prove useful. However, the number of errors and inconsistencies detracts enormously from the value of the book. The acknowledgments section clearly implies that the only person who checked the entire manuscript was a graduate student. The concept of this book remains valid, so Clements and his publisher would be well advised to have the manuscript of any future edition scrutinized by a paid professional. Dr. Clements, although an experienced birder, is not a professional ornithologist, and there are many manifestations in his book of his limited knowledge, especially of the periodical literature. Even Dr. Clements, I am sure, must be appalled at the blatant naiveté of the publisher's blurb on the dust jacket that claims the author to be "one of a handful of naturalists to have seen and identified all known species of birds in their natural habitat"!—KENNETH C. PARKES.

WHERE TO FIND BIRDS IN NEW YORK STATE. By Susan Roney Drennan. Syracuse University Press, Syracuse, New York, 1981:499 pp., 106 maps. \$38.00 cloth, \$18.95 paper.—During one of my undergraduate summers I worked in the Rockies with a high school senior from Walla Walla, Washington, who truly believed that the entire state—not just city—of New York was paved over, a belief he attributed to one of his teachers. What a revelation for that teacher and that boy it would be to read Susan Drennan's new book! For their edification and that of any others with similar delusions, a recent U. S. Forest Service survey shows that New York State is now 61% forest, 22% farmland, and only 17% cities and suburbs. The presence in New York of those several major urban population centers, however, has provided the state with a large, dedicated, and knowledgeable corps of birders, organized into the Federation of New York State Bird Clubs, Inc. In the mid-1970's, the Federation's Executive Committee thought the time ripe for a comprehensive birding "Baedeker" for their state, and invited Susan Drennan, Associate Editor of *American Birds*, to write the text. In doing so, she has undoubtedly surpassed any similar book published for any other state or region of North America.

Among the eastern United States, New York is rivalled (possibly) only by North Carolina for diversity of bird habitats. New York's mountains are the southern outpost for such boreal species as the Three-toed Woodpecker (*Picoides tridactylus*) and Gray Jay (*Perisoreus canadensis*), and Long Island is the site of recent northward pioneering of breeding Chuck-will's-widows (*Caprimulgus carolinensis*) and Boat-tailed Grackles (*Quiscalus major*). The state borders on two of the Great Lakes and includes many smaller lakes and several major rivers. On Long Island and satellite islands are some of the most important northeastern colonies of herons, ibises, terns, and other water birds.

The book begins with brief introductory chapters (New York State Avian Records Committee, New York State Rare Bird Alerts, Ornithological Collections and Libraries, Physiographic Regions), followed by a section for each of the ten regions of the state recognized in the Federation's journal, *The Kingbird*, and additional chapters on "Seabirds and Pelagic Birding," and "Hawk Migration." Needless to say, Mrs. Drennan relied heavily on information and advice from regional experts, and these are duly acknowledged.

Obviously, this is not a book to read, but to use. I read one chapter thoroughly as a sample—that on the Finger Lakes (Region 3), an area that I once thought I knew well. I was amazed at the detailed information given about birding areas that I had often visited and others of which I had never heard. It is obvious that knowledge of the local distribution of birds has expanded tremendously since I covered Region 3 for *The Kingbird* in 1951 and 1952. Each region is introduced with a general description, mentioning its outstanding geological and vegetational features, and the birding information for each of the localities is often interspersed with comments on ferns, flowers, and trees. Each locality is rated on a * to **** scale for birding possibilities in each of the four seasons, and detailed directions are given for finding the best spots for particular groups of birds. Localities are indexed, and there is a taxonomically arranged index to bird species, giving their breeding or occurrence status for each of the regions.

Each chapter is illustrated with maps, the first a general map of the region showing not much more than county boundaries and the approximate location of principal birding areas, shown in more detail on additional maps of various scales. My only serious criticism of the book refers to distances; none of the maps has a scale of miles or kilometers. Although driving distances are often given in the text, they are equally often omitted; natural features, road intersections, and other landmarks are mentioned without indicating how far one must drive before beginning to watch for the landmark. I know from experience that this can often result in overshooting the mark, especially in heavy traffic on major roads.

Although the price of the hard-bound edition is a bit steep, I recommend its purchase by birders residing in or frequently visiting New York. Judging from the review copy, I doubt that the relatively lightweight covers of the paperback edition will stand up under the kind of use that this book will certainly and deservedly get.—KENNETH C. PARKES

THE EFFECT OF WEATHER ON AVIAN MORTALITY. By James A. Gessaman and Gary L. Worthen. Privately published, 1982:173 pp., paper covers. \$12.00.—This book is a source of information from the literature on the relationships between weather and avian mortality. The bulk of the text consists of abstracts of 223 papers on the subject. Access to this literature compilation is provided by indexes of key words in their titles, authors and co-authors, year of publication, geographical location, and species. The authors do not claim to have exhausted the literature in their survey, and request that readers provide additional references for a planned supplementary volume. To obtain a copy send a check payable to James A. Gessaman, UMC 53, Utah State University, Logan, Utah 84322.—R.J.R.

A BIBLIOGRAPHY OF ALBERTA ORNITHOLOGY. By Martin K. McNicholl, Philip H. R. Stepney, Peter C. Boxall, and David A. E. Spalding. Provincial Museum of Alberta, Natural History Occasional Paper No. 3, 1981:377 pp., paper cover, price not given.—This compilation includes a history of ornithology in Alberta, a check-list of Albertan birds with habitat, abundance, and status information, a list of sources, and indices to authors and bird species. The bulk of the work consists of the bibliography itself, with listings grouped under ten subject headings: Nomenclature and Taxonomy; Distribution and Migration; Paleontology, Archeology and Extinct Birds; Morphology and Physiology; Ecology and Life History; Disease and Parasitology; Management and Conservation; Bibliographic Profiles; Miscellaneous; and Semi-popular. Copies may be obtained by writing to: Provincial Museum of Alberta, Alberta Culture, 12845-102 Avenue, Edmonton, Alberta T5N 0M6, Canada.—R.J.R.