



EDITED BY ROBERT M. ZINK

The following critiques express the opinions of the individual evaluators regarding the strengths, weaknesses, and value of the books they review. As such, the appraisals are subjective assessments and do not necessarily reflect the opinions of the editors or any official policy of the American Ornithologists' Union.

The Auk 112(3):807–808, 1995

The Birds of Kentucky.—Burt L. Monroe, Jr. 1994. With paintings by William Zimmerman. Indiana University Press, Bloomington, Indiana. 248 pp., 50 color plates, 1 text figure (map), summary bar chart. ISBN 0-253-33892-1. \$49.95 cloth.—This modern state bird book combines the vibrant bird paintings of Indiana wildlife artist, William Zimmerman, with the unsurpassed experience of lifelong Kentucky ornithologist, Burt L. Monroe, Jr. The result is a coffee-table-sized book (9¼ × 12 inches; 23.5 × 30.5 cm) that is both a visual delight and an accurate account of the 345 species of birds currently listed for the state. It is targeted to the general reader, local birder, and ornithologist who has an interest in the birds of the Commonwealth.

No one was better qualified to write *The Birds of Kentucky* than Burt Monroe, Jr. He was thrust into birding in this his native state as a boy by his father, Burt L. Monroe, Sr., a Louisville businessman who's dedication to Kentucky birds led to his appointment as State Ornithologist for Kentucky and elected officer of the American Ornithologists' Union. Burt, Jr., achieved international acclaim as a consummate professional ornithologist, remaining in Kentucky where he inexhaustibly elevated the level of ornithology in the state. His extensive field experience and knowledge of birds statewide is well demonstrated in the species accounts of this volume.

The Introduction is short (only five pages) and provides a brief history of ornithology in the state that John James Audubon called home between 1807 and 1820, and of the state's physiography that the species distributions are tied to. Robert S. Mengel in his *The Birds of Kentucky*, 1965, took 150 pages to cover the same topics and scholars wishing the additional detail he provides are referred to his text. I would have liked a little more of the rich ornithological history of Kentucky, but Monroe does provide the reader with a feeling for the major events and players that have shaped our knowledge of, and the causes for, change in the Kentucky avifauna. Monroe has combined the

seven physiographic regions of Kentucky into four major birding regions based on topographical relief and on the similarities of the avifauna within them: Southwestern, Central and Western, Cumberland Plateau, and Cumberland Mountains. Although the text provides a satisfactory sketch of landscapes within these birding regions and some of their breeding birds, the section could have been improved with the additions of habitat photographs or illustrations of major plant communities. Lastly, in a state that has seen much of its original forests and grasslands lost to settlement, agriculture, logging, and stripmining for coal, it would be informative to see a section concerned with the future of Kentucky's avifauna and the conservation measures that are underway to preserve the rich birdlife of the state.

The species accounts make up the bulk of the text and they are the heart of the book. Monroe lists 345 species combined from 331 species documented by an identifiable photograph or a specimen, and 14 additional species based solely on sight records (and therefore insufficiently documented). Forty-nine species were added to the list of Kentucky birds since Mengel's (1965) book was published. Over 75% of the references were published in *The Kentucky Warbler*, the quarterly journal of the Kentucky Ornithological Society. For most species there is information on basic identification (which for some species includes descriptions of vocalizations), ecology, and behavior notes. Species abundance, seasonal status, and any migratory movements are noted along with dates. Suspected and known causes for population changes are discussed. Nidification, clutch size, and number of clutches are given for all species known to breed in the state. Records of unusual numbers of individuals, along with the locations, dates of the observations, and the observers are given for many species, especially waterbirds and shorebirds. The basis for documentation for all accepted species is given, along with an explanation for all dubious records. Species that are recognized officially as being endangered, threatened, in need of management, or of special concern in the state are noted in the species accounts. For those species that are of accidental occurrence in

Kentucky, all records and observers are listed along with a brief statement of the normal geographical range of the species.

The species descriptions include many personal anecdotes that not only make the text more readable, but more informative. In addition to Burt Monroe the scientist, Burt Monroe the teacher comes warmly through the pages, and the reader enjoys a learning experience as he reads the species accounts. One of Monroe's great talents was in the field of avian taxonomy. Each species listed for which there is a current taxonomic problem is given the author's best sense of what is in its taxonomic future. So, we learn the most unwarbler-like Yellow-breasted Chat has biochemistry that proves that it is, indeed, a wood-warbler. That Northern Oriole will soon be split once again into Bullock's Oriole and Baltimore Oriole, and that Monroe is so sure he already feels comfortable referring to Kentucky's bright orange and black oriole as the Baltimore Oriole. Although the eastern and western populations of the Yellow-rumped Warbler are most distinctive, their classification remains controversial. The species accounts are useful to both the general reader and to birders within the Bluegrass State.

The book is especially attractive because of the generous use of 50 full-page color plates (two of which cover two full-spread pages: spring wood-warblers and winter finches). Internationally known wildlife artist William Zimmerman created two original paintings for this work (a Barred Owl in a Kentucky coffee tree that appears only as the cover on the dust jacket and a nesting pair of Kentucky Warblers joined by a Swainson's Warbler and a Worm-eating Warbler as they are being threatened by a black king snake) and contributed 49 more from his collection. Zimmerman is known for his detail and tight style of painting. He brings a great eye for color and natural backgrounds to each painting. I find a few of the birds in positions that seem a little rigid; the size of the female American Kestrel seems equal to that of the male shown with her, and the Swamp Sparrow is a little large for the other finches in the winter plate. The only plate I really have a problem with is the one with a Rough-legged Hawk that seems out of proportion, with a body too squatty and compressed for a head seemingly too large and massive. However, these are the few small distractions.

By all measures the majority of the paintings are outstanding and for most readers will add great value to the book. My favorites include the flight of three Chimney Swifts that seem to be enjoying their dynamic peregrinations; one can almost hear the alarm notes of the Kentucky Warblers and their paruline allies as the snake approaches their nest; the Carolina Wren and Brown Creeper on the dead stub with the orange splash of bittersweet is a restful winter scene; the Mourning Doves nesting in the wild rose is almost romantic; the splash of color of both kinglets and a

Blue-gray Gnatcatcher on the delicate spring branches of serviceberry are as stirring as the season they depict. Finally, the diminutive size of the Hermit Thrush is forcefully brought into focus by Zimmerman's thoughtful placement of it with a pair of Eastern Bluebirds foraging on the fruit of black gum. Monroe has provided a thumbnail sketch of each illustrated species on the back of the plate that adds insight to the stopframe moment in the life of the species depicted. In the Index, the names of illustrated birds are in boldface allowing easy access to a favorite painting.

An Addenda adds records for Kentucky species noted subsequent to the original writing of the main text and attempts to keep the work as up to date as was possible with additional information on 33 species recently evaluated and accepted for the state.

The final section of the book is a series of charts called Occurrence and Abundance. This is a summary bar chart providing a quick visual reference to the seasonal occurrence (by month) and relative abundance (by width of horizontal bars) of each of the 345 species treated in the species accounts. This section provides a quick, easy way to follow the likelihood of finding any species in the state at any time of year and is most useful for any birder in Kentucky.

I found almost no errors in the text (only three typos a spell checker would have missed) and one slightly inaccurate statement on page 37 about the Golden Eagle, "The species has essentially disappeared as a breeder in eastern North America, although it may still persist in the Smoky Mountains". Alas, it does not.

This is a wonderful book for anyone interested in the birds of Kentucky. It is authored by a skillful ornithologist with a long association with Kentucky's avifauna. It is meticulously researched, comprehensive, informative, and free of careless errors. It will certainly take its place as the standard reference for local ornithologists, conservationists and birders. As a native Kentuckian I am happy to add it to my library and feel it will be a most useful addition to college, museum, community, and personal libraries.—FRED J. ALSOP, III, P.O. Box 70703, Department of Biological Sciences, East Tennessee State University, Johnson City, Tennessee 37614, USA.

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Dean of the Birdwatchers: A Biography of Ludlow Griscom.—William E. Davis, Jr. 1994. Smithsonian Institution Press, Washington and London. xvi + 234 pp., 27 photographs. ISBN 1-56098-310-8. \$29.95 cloth.—Before I read this book, I was well aware that

the image of Ludlow Griscom encapsulated in the book's title is vastly oversimplified; Griscom's name now seems to be invoked primarily as a symbol of the ascent of sight records over collecting for documentation of the presence of bird species through the increase of identification skills. On the other hand, those few remaining ornithologists, the reviewer included, who are concerned with the alpha taxonomy and the distribution of Neotropical birds find Griscom's tracks all through the literature of the years from 1920 through 1957. I confess, however, that until I read the book I had had no idea of the extent of Griscom's consuming interest in and participation in the field of conservation, a subject occupying one-sixth of the text. He held highly influential positions in both the National and Massachusetts Audubon Societies, and was a representative or consultant to such organizations as the Advisory Council of the Massachusetts Division of Fisheries and Game, the National Research Council, and the U.S. Fish and Wildlife Service.

Griscom's image as the guru of sight records needs some clarification. It is true that the documentation in the 19th Century of the distribution of North American birds was in large part based on collection of specimens, but this was during what I have called elsewhere (Ornithol. Monogr. 36:1025, 1985) the "Inventory" and "Descriptive Zoogeography" stages of ornithological knowledge. By the early 20th Century, field knowledge of local birds was taken for granted, as is demonstrated by the massive 150-page section devoted to "local lists" and the table of spring arrival dates of migrants from 27 localities in Eaton's *Birds of New York*, vol. 1 (1909). By Griscom's day, collecting had become the principal method of verification of the occurrence of rare birds, such as first state records, especially those thought to be difficult to identify except in the hand. Griscom acknowledged this difference in an early paper (Auk 39:31-40, 1922), mentioning "the importance and necessity of sight identifications when it comes to studying habits, life histories, migration, and local or detailed distributions The cumulative value of the data collected under these heads by amateur students all over the country is too well known and obvious to require elaboration." Later in the same paper, however, Griscom presents a list of birds of the eastern United States that he regarded as "practically impossible" to separate in the field, birds for which he had "never been able to discover a reliable diagnostic field character." The list seems almost bizarre in this era of sophisticated field guides. It included "immature Forster's, Arctic, and Common Terns; females of the two Widgeon and the two Golden-eyes; the two Scaups; immature American and King Eiders; males of the larger species of *Accipiter* compared with females of the smaller species; non-breeding Alder and Acadian Flycatchers; immature Blackpoll and Bay-breasted Warblers." In addition to this "impossible" list, he also

presented a "very difficult class" that could, "as a general principle, . . . only be identified by trained ornithologists under very favorable circumstances." Some of these may still be considered difficult, such as immatures of the two night-herons, but Griscom goes on to indicate that the Ring-billed Gull can only be safely identified "if you see the color of its legs, but usually you cannot get near enough." Most of the rest of the paper is devoted to a discussion of the criteria of acceptability of sight records from the viewpoint of an editor or regional compiler; there is little to argue about in this.

Griscom clearly believed in the importance of collecting specimens of vagrants, especially those he considered difficult to identify under field conditions. He published an account (Auk 33: 319, 1916) of his collecting of an Arctic Tern on Cayuga Lake, New York, only the second specimen for the state and probably, to this day, the only inland specimen from New York. This seemingly straightforward account reveals several things about Griscom's erratic nature. He gave the date of collection as 20 May 1915, but the correct year is 1916 (specimen label examined). Half of his note is taken up with dubious extrapolations from this one record about the spring migration of the Arctic Tern, and he inexplicably stated that the species breeds in Wisconsin! An ironic fact, unknown to Griscom's biographer, is that during the same boat trip on Cayuga Lake that produced the tern specimen, Louis Agassiz Fuertes, who also was aboard, collected the first specimen from inland North America of the Little Gull (*Larus minutus*); both Griscom and Fuertes took it to be a Bonaparte's Gull (*L. philadelphia*)! It reposed in the Cornell collection for many years before Arthur A. Allen recognized its true identity.

Although many of Griscom's admirers are quoted at length by Davis, he also pulls no punches in reflecting the less attractive aspects of Griscom's personality. Griscom was clearly a supreme egotist. Many of his written statements in the taxonomic literature reveal his dogmatic nature. His authoritarian approach sometimes had a pernicious and long-lasting influence. For example, in discussing the then-unique holotype of *Dendroica goldmani* (now *D. coronata goldmani*) Nelson from Hacienda Chancol, Guatemala, Griscom wrote (Bull. Am. Mus. Nat. Hist. 64:331, 1932) "I regard this bird as the winter plumage of the real *nigrifrons* Brewster [the subspecies of "Audubon's Warbler" of northwestern Mexico]. . . there is not a shadow of evidence for believing that this bird was anything but a migrant from considerably farther north." In fact, *goldmani* is an exceedingly distinct isolated melanistic subspecies of Yellow-rumped Warbler, breeding in the mountains of Guatemala and adjacent Chiapas. It is illustrated by Curson (*Warblers of the Americas*, Houghton Mifflin, plate 7, 1994); unfortunately the painting does not do justice to the substantially larger body size of this subspecies. Griscom's influence was so pervasive that the fact of a

distinctive breeding population of Yellow-rumped Warbler in Guatemala and Chiapas was not to be found in the standard literature until 1968, when it was listed by Lowery and Monroe (in *Check-list of Birds of the World*, vol. 14:31), based on the then-unpublished work of Hubbard (Auk 86:414–416, 1969). In spite of this recognition, the “revised” edition of *The Warblers of America* (Doubleday), of which Griscom was senior editor, still omitted *goldmani* as late as 1979, although it had already been figured (crudely) in a field guide (L. I. Davis, *A Field Guide to the Birds of Mexico and Central America*, Univ. Texas Press, plate 44, 1972).

Griscom was the first graduate student to have been directed by Arthur A. Allen, who was also my advisor at Cornell. Dr. Allen had many anecdotes about Griscom. One of the best concerned Griscom as a frustrated perfectionist. He was irritated at the fact that he could not prepare a well-made study skin of a bird. Determined to overcome this deficiency, he went to Florida during the Christmas recess of 1915 to collect birds and practice specimen preparation. He came back with 90 bird skins, and Professor Allen told us with great glee that the 90th was just as badly made as the first. Griscom collected a single flycatcher specimen on Chinchorro Bank, off the Yucatan Peninsula, on 21 January 1926, and described it as a new species, *Elaenia chinchorrensis*. Many years later I was examining two Carnegie Museum specimens of *Elaenia* from Glover’s Reef, off Belize, that had been tentatively identified by W. E. Clyde Todd as *E. martinica chinchorrensis*. I took these to the American Museum of Natural History to compare with the holotype, and found that I could only invoke upperparts characters, as Griscom had put almost no “stuffing” in the specimen, and had sewn it in such a fashion that most of the underparts feathers were *inside* the specimen!

Although I had heard him speak at ornithological meetings, I met Ludlow Griscom only once, during my first visit to the Museum of Comparative Zoology when I was a graduate student, a year or two before he suffered his first major stroke. My most vivid memory of that visit was seeing Griscom and James Lee Peters going outside the Museum and sitting by the entrance to have their smoke. The prohibition against smoking inside the Museum had nothing to do with health problems, as such prohibitions are justified today—it was simply that the Museum of Comparative Zoology was considered to be a firetrap! As Davis points out, Griscom’s 2½-packs-per-day smoking habit undoubtedly contributed to the severe health problems that ultimately led to his demise.

Thus far I seem to have been reviewing Ludlow Griscom rather than his biography. To turn back to the book itself, Davis has organized it in only partially chronological sequence. Although beginning with “Background and Family” and ending with “The Last Decade,” he elected to divide most of the book into five parts containing 16 chapters that cover distinct

aspects of Griscom’s career, although many of these overlapped chronologically. Chapters in Part 2, Ornithology, are devoted to the American Museum of Natural History, the Museum of Comparative Zoology, Ornithological and Birding Expeditions, the A.O.U., the Nuttall Ornithological Club, and the Boston Museum of Science. Part 3, called *In the Field*, includes *From Shotgun to Binoculars*, *Birdwatching with Griscom*, and *Sight Records and Collecting*. It is the 42 pages of this part that cover the Griscom “deanified” if not deified by today’s birdwatchers. Part 4 covers *Conservation*, with special emphasis on Griscom’s relationships with the National and Massachusetts Audubon Societies. Part 5, *The Final Years*, includes the chapter on *The Last Decade* and a brief *Epilogue*. This is followed by 12 pages of *Notes* (mostly source attributions for statements in the text), a *Bibliography* of Griscom’s published works, and an *Index*.

Davis’s book is thorough and scholarly, although remaining eminently readable. He has emulated more stuffy scholarly works in one way that I found distracting and annoying, namely the abundant superscript numbers referring to notes in the back of the book. These refer primarily to sources, mostly letters but also organizational minutes, publications, and Griscom’s own journals. Most readers of this book will probably not be academic scholars, and will not want or need the detailed source attributions. Citations in some instances could be placed on the page with the quotation if desirable, but I think that a simple statement that a future Griscom researcher could obtain the source details from the author would be sufficient for most of the book’s potential audience.

There are a few typographical errors, mostly in names: “Rolland Clements” for Roland Clement on p. 162 (repeated in the index), “Codman” for Godman on p. 214, “Emilo” for Emilio on pp. 217 and 224, “*Ohilomachus*” for *Philomachus* on p. 219, and (alas!) “Parks” for Parkes on p. 210. There is a discrepancy on pp. 184–185, with wording implying that Griscom attended the 1953 AOU meeting in Los Angeles and also in Wisconsin. The 1953 meeting was indeed in Los Angeles; the Wisconsin meeting was in 1954.

Finally, I was personally disconcerted by one of the author’s statements (p. 186): “The normal deterioration that accompanies old age began to afflict him.” As I am now seven years older than Griscom was when he began to “deteriorate,” I would not care to think that such deterioration was in any way “normal!”—KENNETH C. PARKES, *Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pennsylvania 15213, USA*.

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A Century of Avifaunal Change in Western North America.—Joseph R. Jehl, Jr., and Ned K. Johnson, Eds. 1994. Cooper Ornithological Society, Studies in Avian Biology No. 15. vi + 348 pp., 2 color plates, many text figures. ISBN 0-935868-72-0. \$40.00.—A most timely subject for a Cooper Ornithological Society centennial volume is the idea of avifaunal change in western North America. As pointed out by the editors in the introductory "Overview," members of the Society were key in the early systematic documentation of the western North American avifauna, and the region is a rich mosaic of different communities and ecosystems that can be used as a laboratory for the study of changes occurring for both natural and human-caused reasons.

The authors of this volume took a variety of approaches to assessing avifaunal change in western North America, on both regional and taxonomic bases. For regional studies, elegant standouts include the chapter on natural avian range expansions by Ned Johnson, that on the early ornithological exploration of the Hawaiian Islands by Storrs Olson and Helen James, and that on saline lake avifaunas by Joseph Jehl. Each of these and others discuss and demonstrate the dimensions of change in geographic distributions of birds in particular regions by using as much historical information as was available.

The other approach taken is that of assessing dimensions of changes in certain taxonomic groups. Groups treated include raptors, Song Sparrows, Common Yellowthroats, Marbled Murrelets, Spotted Owls, and Brown-headed Cowbirds. Among these, the chapter by Joe Marshall and Kent Dedrick on the disappearance of the well-marked salt-marsh forms of Song Sparrows and Common Yellowthroats is fascinating, and Stephen Rothstein's chapter on cowbirds is frightening. Of course, the balance of increasing versus decreasing species is heavily tipped in favor of those that are decreasing.

Additional approaches to the study of avifaunal change are available, but not employed in this volume—that of comparing avifaunas present at single sites between historical and recent surveys. This approach would be fascinating for this region, owing to the numerous early surveys carried out and documented in detail by the Museum of Vertebrate Zoology crew, especially Grinnell, Miller, and their students. Sites that would be potentially fruitful include the San Jacinto Mountains, parts of Joshua Tree National Monument, and many of the isolated mountain ranges in Death Valley, among others. I used this approach in studies of the avifauna of a remote mountain range in southern California to show apparent appearances and disappearances of several species in the local avifauna (Peterson, 1990, *Western Birds* 21: 127–135). Exploration of its utility elsewhere in west-

ern North America and in tropical ecosystems potentially would yield many fascinating insights into "molecular-level" changes within or at the edges of species' distributions (e.g. Goodman and Ingle, 1993, *Oryx* 27:174–180). Studies based on geographic information systems also are not included, though they offer potentially important inferential tools where information available is incomplete.

All in all, this volume is interesting reading, and is well edited and attractively published. It suffers from a few confusions (e.g. the inclusion of Hawaii in "western North America"), and scattered chapters are not up to the interest and quality of the rest. Nevertheless, the volume as a whole is well worth reading, and can serve as a reference for future efforts in the same or other regions. I certainly recommend it for all ornithologists' libraries, because this material is the stuff of the future for all of us—ecologists, systematists, conservation biologists—everyone.—A TOWNSEND PETERSON, *Natural History Museum, The University of Kansas, Lawrence, Kansas 66045 USA.*

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Birds of Europe with North Africa and the Middle East—Lars Jonsson. 1992. Princeton University Press, Princeton, New Jersey. 559 pp., 300+ color plates, numerous text figures. ISBN 0-691-03326-9. \$39.50.—This new field guide by Swedish author and artist Lars Jonsson is the best field guide to European birds yet produced. It provides a comprehensive guide to the birds of Europe, North Africa, and the Middle East, and describes more than 400 species that breed or winter in the region, or that occur there as vagrants. The guide had its origins in a five-volume series entitled *Fåglar i Naturen (Birds in the Wild)* published between 1976 and 1980, and it was originally intended that this book would condense the material from these volumes into a single guide. However, expanded descriptions and new information, coupled with 140 entirely new and 40 revised plates, make this a new book.

The guide begins with a useful 27-page Introduction that discusses bird identification, defines terminology, and outlines such topics as molt, migration, distribution, and behavior. The remainder of the book is comprised of the individual species descriptions, plates, and distribution maps. In the earlier series of books, species were grouped on the basis of habitat affinities, an arrangement that prompted some criticism. Jonsson avoids that problem here by largely following Vouss's 1977 List of Holarctic bird species, but he also incorporates some recent taxonomic

changes. For example, both the Yellow-legged Gull (*Larus cachinnans*) and the Yelkouan Shearwater (*Puffinus yelkouan*) are treated as species rather than as races of, respectively, the Herring Gull (*L. argentatus*) and Manx Shearwater (*P. puffinus*).

The species descriptions are excellent, as throughout the text Jonsson makes a determined effort to provide not only routine identification features, but to convey a holistic impression of the birds he is describing. This approach will be appreciated equally by beginning and more experienced birders. Because of the detailed descriptions provided, most accounts are considerably longer than those in other European field guides. For example, seven pages are devoted to the four species of divers (loons), which contrasts with the two pages more usually allotted in field guides. Such largesse with pages allows summer and winter plumages, as well as adult and immature plumages to be described in detail, but reduces the guide's portability (it weighs more than 1 kg).

The species descriptions are accompanied by equally fine illustrations. The plates include an interesting mix of styles that reflect the long genesis and hybrid nature of the project. Only a few species are included in each plate, and the birds are shown in a variety of poses, including on page 93, a head-on view of a rather belligerent-looking Northern Shoveler (*Anas clypeata*). Because each plate illustrates only a few species, Jonsson has been able to render individuals considerably larger than they are portrayed in other field guides. This large format works well, particularly in the plates of larks, buntings, and shrikes. The other advantage of limiting the number of species per plate is that multiple individuals can be shown of species with numerous races (e.g. the Yellow Wagtail, *Motacilla flava*), or that have complicated series of immature plumages (e.g. the large *Larus* gulls).

Jonsson uses a range of background colors for the plates and often sets birds in natural surroundings. In general, this approach works well. The woodpecker and "desert" lark plates, in particular, benefit from this treatment. Unfortunately, the chosen backgrounds spoil some plates. For example, those used for the auks and black-backed gulls are too dark and lend a gloomy aspect to the illustrations.

The distribution maps by Magnus Ullman are rendered in considerable detail, and there are few broad swathes of color, except in the former Soviet Union. Considering the dimensions at which they had to be produced, the maps are, in general, very good. Some recent changes in distribution, however, are not included. For example, the Corncrake (*Crex crex*) is shown as breeding over most of the British Isles, although it now breeds only in the Western Isles of Scotland and at a few locations in Ireland.

Such minor flaws, however, detract little from the impressive guide that Jonsson has produced. If you will be birding in Europe, you should have a copy because Jonsson's is the best field guide to European

birds currently available. Libraries with an ornithology collection should possess it, and the book should be owned by all those with an interest in European birds.—NEIL J. BUCKLEY, *Department of Biology, University of Vermont, Burlington, Vermont 05405, USA.*

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The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991—compiled by David Wingfield Gibbons, James B. Reid, and Robert A. Chapman. T. & A. D. Poyser, London. 520 pp. ISBN 0-85661-075-5. \$60.00.—This volume reports the results of four years of fieldwork conducted between 1988 and 1991, under the auspices of the British Trust for Ornithology, the Irish Wildbird Conservancy, and the Scottish Ornithologists' Club, that was designed to evaluate the breeding distributions and abundance of Britain and Ireland's birds. As the title implies, the *New Atlas* is not the first breeding atlas to cover the birds of the British Isles, having been preceded by the pioneering *Atlas of Breeding Birds in Britain and Ireland* (Sharrock, 1976, T. & A. D. Poyser). However, the *New Atlas* is more than just a repetition of the earlier survey and, in many ways, is an equally pioneering volume that expands greatly on the organizational and methodological framework established by the 1976 atlas.

As was the case for the 1976 atlas, almost all of the data for the *New Atlas* were gathered by thousands of volunteer fieldworkers, who accumulated a total of 551,370 records from the 3,858 10-km squares in the British Isles. However, during the 1976 atlas surveys, only the presence or absence of species was recorded; for the *New Atlas* a measure of each species' relative abundance (proportion of occupied 2-km squares within each 10-km square) also was obtained. These abundance estimates were based on multiple 2-h counts in each 10-km square and, although the data obtained do not provide an absolute measure of a species' abundance (nor allow interspecific comparisons to be made), they do yield a detailed picture of regional variations in the abundance of individual species.

Over 200 breeding species were recorded during the survey period and all but the rarest of these are allotted a two-page account. Thus, the individual species accounts (which total more than 400 pages) make up the bulk of the volume's 520 pages. The remainder of the book consists of an introduction, methods, several chapters that summarize trends in the data, a set of six appendices, references, and an index.

Each species account includes a brief essay, a line drawing of the subject species, and a set of maps. Essays are authored by experts on the species under review and outline the bird's breeding biology and

current status, as well as discuss factors likely to have affected its distribution and abundance in recent years. Clear and extremely readable, the essays are not only a valuable aid in interpreting the maps, but make the *New Atlas* a volume that can be browsed through at leisure.

However, enjoyable as the essays are, it is the maps that are the most important feature of the atlas. Most species accounts include three maps that show, respectively, breeding distribution, changes in distribution since the 1976 atlas, and relative abundance. The distribution and change maps are similar to those that have been produced for atlas studies elsewhere and use filled or unfilled circles to indicate status. The abundance maps, however, offer an eye-catching contrast. Ten colors, ranging from light blue to dark red, are used to indicate increasing relative abundance and the resulting contour diagrams show regional variations with great clarity. Thus, a glance at the abundance map for the European Robin (*Erithacus rubecula*) reveals that, although this species breeds throughout the British Isles, it is far more common in Ireland and southern England than it is in Scotland. Similarly, it is readily apparent from their respective maps that Pied Flycatchers (*Ficedula hypoleuca*) are most common in Wales, that Jays (*Garrulus glandarius*) are most abundant in the south of England, and that although more Swifts (*Apus apus*) occur in England than in Ireland, the reverse is true for Rooks (*Corvus frugilegus*). Explaining these and other patterns should keep ecologists and biogeographers occupied for many years.

The sheer amount of information that the use of color allows to be compressed into the maps and the ease with which patterns can be discerned make this means of displaying abundance data far superior to other approaches (such as the use of 3-D plots or different-sized symbols) that have been used elsewhere. Color printing is expensive, but these superb abundance maps more than justify the costs involved in their production. The *New Atlas* has set a high standard in biological cartography that future atlas projects will be hard-pressed to meet.

This volume makes a major contribution to the cause of bird conservation in Britain and Ireland. As a readily accessible repository of abundance and distribution data the *New Atlas* will be of immense value to conservation organizations and an important tool in the fight to protect Britain and Ireland's birds. The thousands of anonymous fieldworkers who collected the data and those who collated and analyzed it can be well satisfied with the final result of their efforts. This book represents remarkable value for money and should be in the libraries of all those with an interest in British and Irish birds and of those interested in patterns of avian abundance. University libraries with an ornithology collection also should possess a copy.—NEIL J. BUCKLEY, *Department of Biology, University of Vermont, Burlington, Vermont 05405, USA.*

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Warblers of the Americas: An Identification Guide.—Jon Curson, David Quinn, and David Beadle. 1994. Houghton Mifflin, New York, New York. ix + 252 pp., 36 color plates. ISBN 0-395-70998-9. \$40.00 cloth.—Curson, Quinn, and Beadle's stated aim was to "provide a detailed identification guide, with notes on aging and sexing where this is possible, and to summarize the existing information on distribution, habits, breeding biology, moult and voice for each species, and, in particular, to cover all the tropical species in the depth which they deserve." They have achieved all their objectives to varying degrees.

The majority of birders, surely the intended audience of this book, will be pleased with the color plates and the text. Although the illustration styles of Quinn (21 plates) and Beadle (15 plates) differ somewhat, the plates are attractive and generally effective in depicting the postures, shapes, colors, and patterns of wood-warblers. Three or four plumages (up to 13 for the Yellow Warbler complex) were illustrated for most North American species, whereas two plumages were portrayed for most tropical wood-warblers. Juvenile plumages of many wood-warblers were omitted, including those of most tropical species. As the authors stated, "good specimens of warblers in full juvenile plumage are few and far between." However, some of the missing juvenile plumages are represented in museum collections. Only a few distinctive adult plumages were not illustrated (e.g. *Dendroica dominica flavescens* of the Bahamas). In total, 391 plumages (figures or partial figures) representing 116 species were portrayed.

Many of Quinn's figures, several of which are superb, appeared to have been traced from photographs. His artistic strengths are facial geometry and aspect; the face of his Orange-crowned Warbler (fig. 5c) is exquisite. I was pleased to see Quinn's figure 40b, a ventral view of the Elfin Woods Warbler. Field-guide authors seem to have forgotten that nearly all birds in the canopy of tall forest are observed from below.

My criticisms of Quinn's work are few: the bill of his Flame-throated Warbler (fig. 13a) is too thick; the bills of all the figures on plate 14 are too heavy; the crown of the Swainson's Warbler is too dark and the underparts too pale; the legs of the *cairnsi* race of the Black-throated Blue Warbler (fig. 18e) should be dark brown rather than flesh-colored. Figure 49c is exciting! What is it? It appears to be some strange amalgam of a juvenile Louisiana Waterthrush and Swainson's Warbler. Postures and habitat vignettes were generally appropriate with few exceptions. The Swainson's Warbler (fig. 46) is perched on a branch, the usual location where birders observe them after bombarding their territories with taped playback. Yet, more than 95% of foraging bouts of Swainson's Warblers are terrestrial and a large percentage of the advertising songs of undisturbed birds are from the ground.

In contrast, the Worm-eating Warbler is portrayed on the ground, whereas nearly all its foraging is performed arboreally. Despite these criticisms, Quinn's paintings are on par with the best field-guide illustrations.

Beadle's figures have a flashier, more schematic, and somewhat flatter appearance. I like his figures, but Beadle exaggerated the differences among species and the contrast between different plumage elements was often too clear-cut (e.g. crown stripes and loreal spots in *Basileuterus* spp.). In reality, wood-warbler plumage patterns are not that distinct—not in the field, not in the hand, and not in the museum tray. Figure 43e (also on back cover of dust jacket) is among the oddest illustrations in the book. With few exceptions, Beadle's paintings serve their purpose admirably. Together, Quinn and Beadle's paintings are the reason to buy this book.

The text is a different matter. To be fair, this book is intended mainly as a field guide, but the introduction might tempt some to use it as a general reference on wood-warblers. This action would be ill advised. The species accounts include brief sections on identification, description, geographical variation, voice, habitat and habits, breeding, status and distribution, movements, moult, skull, measurements, and references. In general, these sections are straightforward and provide basic information for the casual birder. Serious students will want more than this book delivers, however. The textual material is largely a regurgitation of several standard compilations, sparingly supplemented with selected references for particular species. It is a puzzle as to why certain obscure and trivial papers were cited, whereas many important ones were not. Surely the authors could have spent a few hours with the *Zoological Record* to ferret out crucial references. The authors generally resisted the urge to tamper with well established English common names. A pitiful exception is their proposal of "whitestart" as a group name for species of *Myioborus* (usually known as "redstarts"). Curson et al., like many other well intended revisionists, fail to grasp the fact that "common names" are just that—common! They serve as mnemonic identifiers for the layman. Many of our beloved common names have very little to do with plumage, behavior, food habits, or habitat (e.g. Tennessee Warbler, Worm-eating Warbler, Magnolia Warbler, Cape May Warbler, Connecticut Warbler, Nashville Warbler, etc.). Birders should vigorously reject naive meddling with traditional common names. Criticism of Curson et al.'s aging criteria and taxonomic usage is beyond the scope of this brief review.

Birders appreciate good distributional maps. Unfortunately, maps in this book are of poor quality and measure 31 × 45 mm, regardless of scale. Mapping errors are frequent. For example, two species were shown as breeding in peninsular Florida, when in fact they do not (e.g. Swainson's Warbler, Hooded Warbler).

Voice descriptions are telegraphic and poor (the addition of spectrograms would have been useful). Nest descriptions are fair, but some are questionable. Perhaps reflecting the authors' zeal for birding rarities, vagrant records are mentioned for every migratory species, although some important records were missed (e.g. Red-faced Warbler in Louisiana). For example, the Ovenbird (p. 165–166) is "vagrant west of the Rockies, north to Alaska but most regularly in California; also to Greenland and British Isles (5 records, 3 of them dead)."

Textual material opposite the plates is good, but a quick perusal revealed a couple of errors (e.g. the white primary patch of male *Dendroica caerulescens cairnsi* is not larger than that of the nominate race). The conservation status of species is given, many with curious references to BirdLife International. For example, the status of Kirtland's Warbler (p. 143) is "very rare and local, classified as endangered by BirdLife International"! The vast majority of North American birders have never heard of BirdLife International. Given the intended audience, a more appropriate and relevant listing would have been the endangered species designation of the U.S. Fish & Wildlife Service.

Hybridization was given cursory treatment. Hybrids from three different combinations of parental species were illustrated, including two figures each of "Brewster's" Warbler and "Lawrence's" Warbler. The difficulties birders or banders may have in identifying hybrids in the field was not addressed. With rare exceptions, sight records and photographs of hand-held birds are insufficient to document hybridization. Suspected hybrid individuals (with the exception of Blue-winged × Golden-winged warbler) should be collected for scientific study whenever they are encountered at banding stations (which would amount to a few specimens a year countrywide).

In aggregate, the text could have been substantially improved by careful review by experts in wood-warbler biology. Finally, typographical errors were not common, but they were not rare either. I found several egregious mistakes in boldface type and a smattering of misspelled words in the species accounts. Another competing wood-warbler book for the Peterson Field Guide series is nearing completion and I suspect that Curson et al.'s book was rushed to press. A few more days of editing would have erased these blemishes.

Despite my misgivings about the text, I rather liked this book, and I am sure every enthusiastic birder will feel the same way. However, it should not be purchased or used as a scholarly reference to wood-warblers. GARY R. GRAVES, *National Museum of Natural History, Smithsonian Institution, Washington D.C. 20560, USA.*

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Skua and Penguin: Predator and Prey.—Euan Young. 1994. Cambridge University Press, Cambridge, United Kingdom. xvi + 452 pp., 53 line diagrams, 44 half-tones. ISBN 0-521-32251-0. \$99.95 cloth—The skua and penguin with title billing in this book are specifically the South Polar Skua (*Catharacta maccormicki*) and the Adélie Penguin (*Pygoscelis adeliae*). More specifically, they are the populations of those two species that breed at Cape Bird on Ross Island, Antarctica (77°14'S, 166°28'E), where the author and his students and colleagues conducted research during 1965–1970. Young presents the results of that research (with apologies for the long delay), using later research conducted by others on these species to help evaluate and interpret the findings from his program.

The author outlines his objectives even before the title page: He wishes to “consider the relationship between these two species” and to challenge “the traditional view that skuas are totally dependant [sic] on penguin eggs and chicks for food.” By examining the species’ impact on each other, he intends to present “further evidence that the two species occur together independently as a consequence of limited breeding space, rather than as a result of a distinct predator-prey relationship.”

Those who have had the privilege to study these species might wonder who holds the “traditional view” that South Polar Skuas are “totally” dependent on penguins. Even E. A. Wilson, in his report of the British National Antarctic Expedition 1901–1904 (*Aves*, British Museum, 1907) offered evidence to the contrary. He observed adult skuas delivering fish to their chicks, remarked on the skuas’ diverse and opportunistic food habits, recorded nesting skuas far from penguin colonies, and recognized that even skuas nesting near penguins had to find other sources of food before and after the penguin breeding season. Nevertheless, some scientists have tended to overestimate the importance of penguins to skuas, and the general public—exposed to countless nature films depicting skua attacks on penguin eggs and chicks—may well hold this view.

In any case, the author’s broader objective—to explore the relationship of the two species in detail—will be greatly appreciated by both skua and penguin biologists. The extent to which these species affect each other’s reproductive success and behavior remains unclear; therefore, Young’s attention to this issue is welcomed.

In the introduction (p. 4), Young also sets his sights on a wider audience, namely those interested in predator-prey relationships in general. The advantage of studying such relationships in Antarctica, he suggests, is that “general rules might become more obvious than in more complex systems.” On the back cover, the publishers add that this book “will be of

interest to all ornithologists.” Finally, the book is part of Cambridge University Press’s Studies in Polar Research series, which is “aimed at all scientists with an interest in the world’s cold regions.”

The organization of the book, presented in welcome detail in the table of contents, follows a logical progression of topics aimed at answering a series of questions about the two focal species. The final chapter, entitled “Synthesis,” summarizes some of the main findings from the other chapters. Details of statistical tests are provided at the ends of chapters rather than cluttering the text. Raw data that form the bases for some analyses are provided in five appendices. Vivian Ward’s delightful art work heads each chapter; photographs produced by Iain MacDonald admirably illustrate the author’s points throughout the text. Figures are generally adequate for their purposes, although in a few cases the thinnest or lightest lines were barely visible (e.g. figs. 2.1, 12.1). A reference section and nicely detailed index complete the contents of the book.

The author clearly appreciates well organized material and tries to provide it for the reader. He frequently enumerates choices of methods, hypotheses, explanations, etc., which helps the reader follow his train of thought. Young’s refreshing candor sets an informal tone to the writing, enhances the author’s credibility, and provides useful discussion of topics such as researcher disturbance of the birds.

Despite these positive efforts, there are some flaws in both organization and detail. The “Synthesis,” for example, introduces new data and figures that should have been included in earlier chapters. Those intrigued by results from skua enclosure experiments on page 303 must wait until page 325 for the methods to be described. Some information is repeated unnecessarily; other information is entirely missing (e.g. How were skua sexes determined? Why are published hatching dates for Brown and South Polar skuas on Anvers Island omitted from table 12.3?). I was disappointed to find no comparisons with Pietz (*Auk* 103:726–736, 1986) in his discussions of diurnal activity patterns and length of foraging trips of South Polar Skuas, or with Court (Ph.D. thesis, Univ. Otago, N.Z., 1992) in discussions of reproductive success and nonbreeder activities of skuas at Cape Bird. There are a number of typographical errors, some misspelled references (e.g. Sinif instead of Siniff), a few grammatical mistakes, a couple of arithmetic errors (e.g. p. 288), and at least one inconsistency between text and figure (p. 397, fig. 12.2). One might have expected the publisher’s editorial staff to catch more of these.

To accommodate generalist readers, Young includes some introductory material on the Antarctic environment and on taxonomy and ecology of skuas and penguins. The maps provided will help those unfamiliar with this part of the world. There are several places referred to in the text, however, that are not included on any of these maps and for which no

map coordinates are given. Latitude/longitude information for sites is offered only sporadically (i.e. pp. 24, 391, 395).

Readers browsing for specific findings may be challenged by tables entitled "Percentage of eggs laid. . . ." or "Foraging times. . . ." with no reference to species. This is not a problem when the tables are encountered in context, of course. Similarly, parts of the text only make sense strictly *in situ*. When Young discusses whether skuas are primarily predators or scavengers, for example, one must bear in mind that his comments refer only to the way skuas obtain food at penguin colonies; obviously, skuas are predators when they catch live fish.

As scientists, we are constantly battling our own preconceptions to determine the truth. Rarely are there indications that Young ever lost this battle. In one case, it is by virtue of the author's candor that a potential bias comes to light: on page 170, he admits surprise that female and male skuas showed no statistical difference in their aggressiveness at the penguin colony; however, by page 269 he seems to have forgotten this result when he refers to the "generally more aggressive activity of the males of pairs compared with the females."

Readers may find Young's descriptions of skua and penguin behavior too anthropomorphic on occasion (e.g. individual skuas are "timid" or "pugnacious"; a female skua exhibited "foolhardy behavior" as a predator; penguins can be "angry" or "furiously" alert after a skua attack). My reaction to such descriptors is mixed: as a behavioral ecologist, I balk; as an experienced observer of skua behavior, I almost sympathize; and as a reader, I appreciate the added vitality in the text.

More important, of course, is how well the author succeeds in meeting his objectives. For specific questions addressed in the text, the author provides some convincing answers and some partial answers. Despite the "relative simplicity" of the Antarctic system, the author could not always test or even identify all the variables involved. In other cases, the reader may speculate that another approach to the data analysis would have given a different result or that an alternative hypothesis was not given adequate consideration. At the very least, however, Young has provided the reader with enough information to see how he arrived at his conclusions. This, in itself, is a notable accomplishment and serves as the basis for more informed questions on the reader's part.

On the whole, the author succeeds in meeting his broader objectives regarding skua and penguin relationships. Researchers involved with these species will want to read this book for the wealth of data offered, whether they agree with all of his conclusions or not. As for its more general appeal, the book has two drawbacks. First, although Young alludes to wider applications of his data (e.g. for optimal-foraging theory), he does not tackle generic predator-

prey issues himself. It is left to the reader to find any "general rules" that may be supported by the skua-penguin story. Second, the book's price tag is too high for most readers with only a tangential interest; students, particularly, may find the cost prohibitive. For the sake of these readers, university libraries should consider adding this book to their collections. Skua and penguin biologists, Antarctic ornithologists, and polar-research libraries will want their own copies.—PAMELA J. PIETZ, *National Biological Service, Northern Prairie Science Center, 8711 37th Street S.E., Jamestown, North Dakota 58401, USA.*

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The Eastern Screech Owl: Life History, Ecology, and Behavior in the Suburbs and Countryside.—Frederick R. Gehlbach. 1994. Texas A & M University Press, College Station, Texas. xiv + 302 pp., color frontispiece, 36 black-and-white photographs, 23 figures, 27 tables, 10 appendices. ISBN 0-89096-609-5. \$45.00 cloth.—The Eastern Screech-Owl (*Otus asio*) inhabits woodlands throughout much of the eastern and central United States. It also seems to do well in proximity to humans. In light of these facts, it has received relatively little attention from ornithologists. Gehlbach's book is a highly personal account of his 25-year study of Eastern Screech-Owls near the western edge of the species' range in central Texas. The book includes a substantial amount of previously unpublished information. More importantly, it represents the only North American study that compares the behavior and ecology of a bird species in adjacent rural and suburban habitats. Given the increasing size of our human population, more studies of this ilk are needed.

Gehlbach chose to record numerous details from a small number of pairs rather than attempt to follow many different pairs. He also adopted the novel approach of conducting a nine-year exploratory study (1967-1975) during which he perfected his research techniques. This was followed by a 12-year "confirmatory study" (1976-1987) in rural and suburban study areas 7 km apart and each about 270 ha in size. Additional data were collected in the main suburban area through 1991.

Detailed results are presented in chapters on feeding ecology, body-mass dynamics, clutch size and incubation, brood rearing and dispersal, vocalizations, lifetime reproduction, and population structure. The black-and-white photographs scattered throughout the book generally are quite good and complement the text nicely. The large number of typographic errors (at least 17) suggests that the text was not edited carefully.

Whenever possible, comparisons are made between suburban and rural owls. Initial fecundity of the two groups was equal, but suburban owls occurred in higher densities, initiated nesting earlier, and had higher nesting success. Gehlbach attributes the suburban advantage to milder climate (owing to the urban "heat island" effect), higher food availability, and lower predation (human presence may deter owl predators) relative to more natural settings.

Gehlbach writes for a lay audience but professes to include "quantitative detail sufficient to be relevant to ecologists and ornithologists." Indeed, regarding statistical details, he encourages nonprofessionals to "read right past them" (p. xi). Despite this caveat, statistical methods are described in a manner clearly directed at readers with little statistical background. This attempt to please amateurs and professionals alike is not successful. Statements supported by *P*-values often are not accompanied by sample sizes, test statistics, or even the identity of the tests that were performed. For example, "suburban clutches in 1976-79 were significantly larger . . . than in 1980-83 . . . and 1984-87 . . . and accompanied by 1.5 times more rain and 2.3 times more food ($P < 0.02$)" (p. 89). In other cases, results are woven into sentences that become agonizingly convoluted. For instance, "Multiple stepwise regressions of the 5-10-day mean weight difference among chicks on weight of the oldest and brood size, then on weight of the youngest and the brood, indicate that the youngest chick's mass is more important ($r^2 = 0.66$, $P < 0.001$) than brood size (r^2 added = 0.11, $P < 0.001$)" (p. 115). Who wouldn't "read past" that sentence? Clearly, the presentation of quantitative details should have been much more consistent and coherent.

Another aspect of the book that makes for difficult reading is the placement of notes and comments (including all text citations) into a 26-page section toward the back of the book. Thus, one must first turn to the "Notes" and then consult the list of references to obtain documentation for statements in the text. Because the notes often contain nothing but two or three citations, it would have been better to have included all citations in the text. On a final nit-picky item, the term "screech-owl" is unhyphenated throughout the text. This was done "in the interest of simplicity and correct English." Curiously, however, the English names for the Great Horned Owl (*Bubo virginianus*) and Great Gray Owl (*Strix nebulosa*) are incorrectly rendered "great-horned owl" and "great-gray owl," respectively.

Although this is not an easy book to read, those

who persevere will be rewarded. Gehlbach presents excellent information on timing of replacement clutches, egg-laying and hatching intervals, lifetime reproduction, and age structure of the population. On page 82 he describes a gravid female that "waited five days" near a nest box occupied by a litter of squirrels before dumping two eggs on the ground beneath her roost. Twice he observed females carrying eggs (presumably added) in their mouths away from nest cavities (p. 88), and he also watched females remove eggshells at hatching (p. 105). Events such as these are revealed only to keen and persistent observers, and they are seldom described in journal articles.

Gehlbach sometimes falls short in documenting his statements adequately. On page 36, for example, he states that some females temporarily vacate their nesting territories in winter (presumably to reduce competition with their mates for food). Yet, the birds were not radio-tagged, and there is no mention of how the alleged movements were detected. It appears that the birds were not roosting in their boxes or adjacent natural cavities, but this is not proof that they vacated their territories. In the chapter on feeding ecology, comparisons of use and availability of different food types rely heavily on Gehlbach's measures of abundance of various species of prey. For the most part, he ignores problems in estimating prey abundance and assumes that his sampling schemes accurately reflect the availability of prey to the owls. I suspect that most biologists will not accept these conclusions at face value. In a similar vein, Gehlbach tends to equate causation with correlation. When a multiple regression of various environmental factors on laying date reveals a significant negative correlation with minimum temperature, Gehlbach concludes that "suburban owls lay their first eggs earlier when nighttime temperatures are warmer, because energy for maintenance versus reproduction favors the latter" (p. 83). This is but one of many such examples.

Many of the problems with this book apparently stem from the attempt to appeal to a wide audience. This is unfortunate, because I am convinced that the book would have been better received had it been prepared specifically for either advanced amateurs or professional biologists. Nonetheless, *The Eastern Screech Owl* has much to offer, and it will be useful to anyone with a need to learn more about cavity-nesting owls. The book is suitable for both community and university libraries, and it should be on the shelves of all serious students of owl biology.—JEFFREY S. MARKS, *Montana Cooperative Wildlife Research Unit, University of Montana, Missoula, Montana 59812, USA.*