

ular research interest without really illustrating how that perspective might aid management.

Although most of us conduct our research in smaller areas, without the resources or broad management perspective of Savannah River Site, this collection of papers aptly illustrates the difficulties of successfully integrating research and management. Blake and LeMaster provide an educational review of the history of identifying management information and research needs, designing research with both credible and useful results, and translating those results into land management decisions at the Savannah River site. Having worked on public lands for years, I can only admire the process they developed, the research that has resulted, and the management that has occurred. This book deserves to be carefully read by everyone whose research depends on the continued management of their research site and by every manager. Ecologists struggling with the dichotomy between "basic" and "applied" ecology can find heart in the rigorous research opportunities that exist within an applied framework.—REED BOWMAN, *Archbold Biological Station, P.O. Box 2057, Lake Placid, Florida 33862-2057, USA. E-mail: rbowman@archbold-station.org*

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- + 852 pp. ISBN 84-87334-28-8. Cloth, \$115 (launch price \$95.00).
- This is an encyclopedic work—3.5 kg, large pages, very small print, 2,300 references, six forewords (two of them royal), and 1,000 contributors. No other book covers this subject as exhaustively, and this work thus becomes the standard reference on threatened birds worldwide. As such, it should be in every library and may be an excellent purchase for many individuals, at both the lay and professional levels, if they are interested in bird conservation and will not become morbidly depressed by the magnitude of the problem described. A short introductory chapter lays out the nature of bird extinction—over 12% (1,186) of all birds globally threatened, 99% by human activities, and a real prospect of 500 species declining to extinction by 2100. A world map shows the distribution of the threat, with Brazil and Indonesia sharing the lead with 114 threatened species each (the United States is in tenth place, with 53). A series of histograms shows the distribution among habitats (75% of those species depend on forests). Another set of histograms shows the threats (the main three, by far, are habitat loss or degradation, exploitation, and invasive species). For habitat loss, it is not surprising that various kinds of logging and agriculture are the dominant problems, but it may surprise readers to learn the scope of the threat posed by exploitation. For instance, 233 birds are affected by hunting for food and 111 by trapping for the cage trade. Among introduced species, predators (especially on islands) are well-known threats, affecting 298 species. It is not as well known that ~70 birds are threatened by introduced plants and another 70 by introduced herbivores. In other words, the threats of introduced species and habitat destruction are often similar.

The heart of the book is a half-page for each of the 1,186 threatened species plus three conservation-dependent species, complete with range map and small but accurate and vividly colored picture. Each account gives identification features, range and population data, trends, basic ecology, threats, conservation activities and plans, short-term targets, and (for most species) references. Over 700 species at lower risk each receive shorter treatment, minus map and illustration, as do 128 species extinct since 1500. In the final section, all those species are again listed, this time by nation, and tabulated with respect to threat category. The species accounts are prefaced by one chapter on how degree of threat is established and another on how to use the book. The latter is important, because the editors have managed to include a huge amount of information by using a plethora of symbols and conventions that will be mysterious without explanation.

In spite of the dire situation, this book relentlessly projects an air of optimism, arguing convincingly that, if humankind wants to save these species, they can all be saved. A short early chapter details the

The Auk 118(4):1112–1113, 2001

Threatened Birds of the World.—BirdLife International. 2000. Lynx Edicions, Barcelona, Spain. xii

sorts of approaches needed, giving examples of successful rescue and rehabilitation. Even better, for 1,033 of the 1,186 threatened species, conservation targets are specified, mostly entailing direct action such as protecting certain key sites, preventing some sort of exploitation, or restoring a habitat. Where information is insufficient to formulate specific actions, a focused research agenda is proposed.

Given the coordinative effort and resources brought to bear on this book, it seems almost heretic to criticize it, but there are some points of concern. Because the book directly reflects Birdlife International's World Bird Database and their (GIS) database, changes should be straightforward if needed. Of most concern is the accuracy of the species accounts. Because of the global coverage and army of collaborators, I sought advice from several authorities around the world on a small sample of species accounts. The result is a mixed bag. For about a third of the accounts, there was no substantial complaint. For another third, there were minor inaccuracies. Those include identifying features of both the threatened birds and similar species, quantitative inconsistencies between different parts of the same report, and imprecise or erroneous geographical designations. A limitation is that the range maps and range descriptions often fail to distinguish between major populations of a species and occasional records of a few individuals. For the remaining third, there are more substantial inaccuracies, such as incorrect breeding habitat, partially inaccurate range description, questionable listing of threats, or substantial error in estimated population size. Those problematic accounts tended to cluster geographically. This exercise suggested to me that a more thorough review process is needed for many species, this in spite of a listing of ~800 experts described as having provided individual feedback and information.

Two changes would make it easier to access specific accounts of interest. First, the index lists all common names, and all genera, but the species within genera are not listed under each genus. Rather, they are listed under the specific name. Thus, the Saffron Siskin is listed as "Siskin, Saffron," and as "*sie-miradzki*, *Carduelis*," but under "*Carduelis*" one finds only the page number where this genus begins, which is not where this particular species is located. Thus a reader wanting a quick scan in the index of all listed *Carduelis* will not find it and will have to go page-by-page. Second, the species lists in the nation section are not indexed to the species accounts. Thus, one must turn to the index to find the page numbers of the accounts.

In sum, future editions need editing, and details of the status of any one species will require one to investigate the cited sources (not always the best, but a good start). However, for summary quantitative data and an overview of the entire problem, this volume is indispensable.

For advice on specific accounts, I am deeply grateful to Sheila Conant, Todd Engstrom, Hiroyoshi Higuchi, Matthieu Le Corre, and Javier Lopez de Casenave.—DANIEL SIMBERLOFF, *Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, Tennessee 37996, USA. E-mail: dsimberloff@utk.edu*

The Auk 118(4):1113–1114, 2001

Birds of the Southwest: Arizona, New Mexico, Southern California, and Southern Nevada.—John H. Rappole. 2000. Texas A&M University Press, College Station, Texas. xv + 329 pp., 456 color plates, 45 black-and-white photos, 458 maps. ISBN 0-89096-958-2. Paper, \$17.95.—This latest book in the W. L. Moody, Jr., Natural History Series, from Texas A&M Press, is one of a very few intermediate-level, regional identification/birdfinding guides. In the same spirit as Rappole and Blacklock's *Birds of Texas—A Field Guide* (1994), the author's goal is to help the reader "develop some sense of what a particular bird is about" within the Southwest, to help one both find and better appreciate the region's 457 avian species. The Southwest is defined for this book as southern California (north to Monterey Bay, the southern Sierra Nevada, and Death Valley), the southern tip of Nevada (including Lake Mead and the Las Vegas area), nearly all of Arizona and New Mexico, and the northern fringes of Baja California Norte, Sonora, Chihuahua, and the Trans-Pecos region of Texas. The target audience appears to be birders who are interested in seeing and learning more about southwestern birds. It is written in a nontechnical style, with relatively few references and should be easily understood by the layperson.

Short, introductory chapters cover the region's habitats and explain how to use the guide, but the bulk of the book consists of the color plates (photographs, typically of the adult, or adult male if sexes are distinctive), and the species accounts (written in a standard format) of all of the region's birds. Appendices include a list of casual and accidental species and a southwestern birding site guide, with sites arranged alphabetically within states. A list of photographers and photographs and an index (to common and scientific names, birding sites, and other items) complete the book.

In this reviewer's opinion, the book does achieve its goals of increasing the reader's understanding of southwestern birds, and it will likely help in planning birding trips, especially a first visit to the region. The reader will soon realize that most birds