

BOOK REVIEWS

California Bird Species of Special Concern, by W. David Shuford and Thomas Gardali, editors. 2008. *Studies of Western Birds* no. 1, Western Field Ornithologists and California Department of Fish and Game. xiii + 450 pp. Softback, \$12.00. Available from Allen Press at <http://bookstore.allenmm.com> or by phone at 800-627-0326. ISBN 978-0-9790585-1-6. Also available as a PDF at www.dfg.ca.gov/wildlife/nongame/ssc/birds.html.

It is hard to imagine a more important inaugural publication for a series titled *Studies of Western Birds*. As a contribution to conservation of one huge state's avian diversity, it contributes to the future of a substantial portion of western North America's avian heritage. Western Field Ornithologists and the California Department of Fish and Game can take pride in an obviously immense effort. It is light-years beyond what J. V. Remsen Jr. could have envisioned at the time of his seminal monograph, "Bird Species of Special Concern in California," published by the Department of Fish and Game in 1978.

An adjective in the foreword—"definitive"—sets forth the ambitious goal. It is definitive, of course, only at the moment. The subject is a perpetual work in progress because much remains unknown about the birds and much remains undone about protecting them. But the word is surely justified by the results of this intensive collaboration by prominent ornithologists, wildlife biologists, and conservationists. Their commitment to factual accuracy and informed interpretation is evident on every page.

Editors W. David Shuford and Thomas Gardali and 49 authors of individual species accounts set a high goal for themselves at the outset, and they have met it in an outstanding demonstration of meticulous planning, organization, analysis, and clarity in presentation. It is hard to escape thinking that there must have been disagreements and doubts—perhaps also some discouragement—during the 10 years of hard work leading to the book. If so, then we should be extra-thankful that such problems were overcome.

The long subtitle tells us what to expect: "A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California." The collaborators rank conservation action at three levels of priority. Birds are assigned either to currently recognized taxonomic classifications or to unclassified but geographically defined populations, all of which are judged as appropriate units of conservation. The term "immediate" points to a goal of management on a scale currently manageable in California (not, for example, a long-term response to climate change).

The book is divided into two parts. First is a 54-page overview in which Shuford and Gardali explain and discuss informatively the project's philosophies, methods, and findings. Second is the essence of the book: detailed accounts of 63 taxa judged by the experts to warrant immediate conservation concern.

When I first looked briefly at the overview, I recoiled at a specter of bureaucratic wrangling—a morass of incomprehensively complex listings and footnote-burdened tables. Five taxa are assigned to the list on the basis of a "BSSC definition." Six are assigned because they listed as threatened or endangered by the U.S. government but not the state of California. The main 63 are rated as warranting special concern by either or both of two different ranking schemes, one termed "linear," the other "categorical." Other birds are placed on a "California Bird Responsibility List" because they are endemics, near-endemics, and—good grief—"semi-endemics." Finally, there is an annotated list of "Taxa to Watch."

Well, after I read all of the intricacy carefully and gave it a lot of thought, almost everything does make sense to me. Eventually, although it took a while, I found out why the California population of Yellow-billed Cuckoo and the Least Bell's Vireo are

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not included on the special-concern list. We certainly cannot accuse the participants of settling for less than a thorough treatment.

Two sections of the overview deserve special comment because they reflect well-known controversies, which the editors cover valiantly. Each reader will have to decide how convincing are the explanations and the advisory committee's decisions, but the attention given to these two issues is commendable.

One section, "Units of Conservation," will definitely not satisfy everyone—an unavoidable situation, considering the diverse opinions about how biologically, ecologically, and evolutionarily significant populations should be approached as targets of conservation. Shuford and Gardali sort out the competing concepts carefully, and they show no hesitation in expressing the committee's explicit stand on the characters it chooses to emphasize: phenotypic, not genotypic. Genetic characters are viewed as limited in applicability to California's birds at the present stage of knowledge, and phenotypic features are emphasized as likely to represent ecological adaptations worth conserving. Thus the recommendations for genetic analyses of taxa such as the Mount Pinos Sooty Grouse (*Dendragapus fuliginosus howardi*), Catalina California Quail (*Callipepla californica catalinensis*), and San Francisco Common Yellowthroat (*Geothlypis trichas sinuosa*), however desirable, diverge from this principle. For any population of birds, how much genetic differentiation merits conservation, to be judged on what portion of the genome? Reassessment of phenotypic characters is desirable too, as the validity of some subspecies has been questioned. Another doubt arises about the definition of a distinct population as "well isolated geographically (and likely genetically)." This focus on geographic isolation is at variance, for example, with the listing of the Modesto Song Sparrow (*Melospiza melodia maillardi*), not isolated geographically and dubiously distinctive phenotypically but apparently well separated ecologically from adjacent populations. Perhaps the study has underemphasized the importance of ecological isolation in some taxa that are not listed. As the collaborators realize, everyone who looks at the listings will find something to question.

The other section, aptly titled "Elusiveness of a Perfect Ranking Approach," addresses two long-standing questions that the editors tell us were "debated at length" by the advisory committee. The debate is about what criteria should be used to judge the basis for concern and, more particularly, how the factors should be analyzed to prioritize conservation action. Criteria adopted are population trend, range trend, population size, range size, percentage of entire range in California, population concentration, and projected impact of threats. Two different analytical methods are employed and, in fact, are combined in the apparent absence of a consensus. A linear scheme simply adds scores for the factors together, giving extra weight to population trend, range size, and impact of threats. A categorical scheme is more complex, using various numerically rated combinations of factors. In this case, results of the two methods do not differ strikingly. Perhaps neither do they differ meaningfully in light of the admittedly subjective, uncertain, and arbitrary nature of the judgments, as well as the incompleteness of much fundamental data. Two thirds of the special-concern taxa rank equally in both schemes; the other third differ only at the second- vs. third-priority level.

The excellent species accounts are the heart of the book. These are organized in a logical structure consisting of the bird's priority rank, Breeding Bird Survey statistics when appropriate, general (i.e., global) range and abundance, seasonal status in California, historic and recent range and abundance in California, ecological requirements, threats, management and research recommendations, and monitoring needs. In every account, a long list of literature cited demonstrates the author's commitment to extensive research. No one shirked his or her duty to scholarship.

Historical information, of course, relies heavily on *The Birds of California* by W. L. Dawson (1923), *The Distribution of the Birds of California* by Joseph Grinnell and A. H. Miller (1944), *Birds of Southern California: Their Status and Distribu-*

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tion by Kimball Garrett and Jon Dunn (1981), and the state's enviable array of classic county-level treatises.

Data on recent distribution and abundance are drawn from nearly every resource imaginable, although there is a surprising absence of information from the journal now titled *North American Birds*. The sections on recent populations appear to cover the state well, and they are amazingly detailed for patchily located species such as the Black Swift, Vermilion Flycatcher, Lucy's Warbler, and Summer Tanager. In the most remarkable cases, it seems that virtually every known site of isolated nesting pairs and small colonies is included. There is refreshing candor about large gaps in knowledge of some species' population sizes, such as those of Long-eared Owl and Short-eared Owl.

Admirable candor appears as well in the sections on ecological requirements. Some birds' preferences are, naturally, easy to state—for example, the Cactus Wren's predilection for cholla and prickly pear and the association of Le Conte's Thrasher with saltbush. Contrastingly, there is emphasis on how little is known about some birds' needs—for example, the Gray Vireo's nesting ecology is "poorly known in California," and the San Clemente Spotted Towhee's requirements are "largely undescribed." For every bird listed, there is no shortage of important topics for researchers to tackle.

Many threats are presented in general terms such as loss and degradation of riparian, forest, grassland, and wetland habitat. Others focus on very specific problems such as competition from alien herbivores on the Channel Islands and, ironically, lethal control of the very rare subspecies *vanrossemi* of the Gull-billed Tern to protect federally listed Snowy Plovers and Least Terns.

Management recommendations range similarly from broad actions such as preservation of areas from urbanization to eradication of particular invasive plants. Data on population trends and distribution are so insufficient that basic monitoring of many species remains an essential but elusive goal. Unless adequate funding is obtained and committed researchers are willing to undertake extensive work, approaching an adequate determination of the status of many taxa may remain a pipedream.

Technically, the writing and editing are superb throughout the book. In the introductory material and the overview, all of the topics are explained thoroughly. In the species accounts, the prose style and construction are consistent, references are given for every statement of fact, and authors' speculations and opinions are expressed conservatively. I noticed only two flaws in the text: a typo, "suppport," on page vi; missing words in "the riparian these species mainly co-occur" on page 238.

A map with each account carefully illustrates past and present distribution, and the caption in most cases summarizes the bird's status aptly in just a sentence or two. The line art by Andy Birch and Tim Manolis is of high quality. The best, in my view, is a Cactus Wren perched on a prickly pear against a background of habitat destruction. I wish all of the illustrations had been planned to depict different threats in this thematic fashion.

What comes next? The overview concludes with 11 recommendations for future actions that are at least as ambitious as the initial effort. These include annual reviews of the status of birds at risk, updates and thorough revisions of the list at least every five years, reports identifying research priorities and possible effects of climate change, formation of a volunteer monitoring program, and outreach to official agencies, other bird-conservation groups, and the public. Another recommendation is a website tracking new information on taxa of special concern, updating criteria scores, and providing a basis for discussion of changes and additions. Such a website would be a welcome resource for all of us who are concerned about bird conservation but have no easy access to ongoing, unpublished research. It would also be worthwhile to provide the names and ranking scores of all 283 taxa originally nominated for the list.

A final thought: The best state-level publication of this kind that I had previously encountered is volume 5 of *Rare and Endangered Biota of Florida* (University Press

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of Florida, Gainesville, 1996). Florida's book still sets an admirable standard 13 years later, but it does not approach the astonishing depth and detail of *California Bird Species of Special Concern*. David Krueper, president of Western Field Ornithologists, expresses hope in the foreword that this new book will stimulate "comparable works on at-risk birds elsewhere." Perhaps a truly comparable work is too much to ask, but we should hope along with Krueper that experts in other regions will be inspired to try.

Paul Hess

Wings in the Desert: A Folk Ornithology of the Northern Pimans, by Amadeo M. Rea. 2007. University of Arizona Press, Tucson. 320 pages, illustrated. Hardcover, \$70. ISBN 978-0-8165-2459-4.

Wings in the Desert is a most impressive example of what ethno-ornithology can teach us. Amadeo Rea celebrates here the traditional environmental knowledge and wisdom of the Piman peoples of the Sonoran Desert and adjacent Sierra Madre Occidental from Arizona's Gila River Pimans (the Akimel O'odham or "river people") and "Papago" (the Tohono O'odham or "desert people") south to the Pima Bajo along the Yaqui River in southern Sonora and the Pima Alta of the adjacent Sierra.

The book is the concluding volume of Rea's Piman quartet, the product of a 45-year immersion in the natural history of the Sonoran Desert and consideration of its human face, the Piman peoples. Rea's first volume, *Once a River* (1984), was a historical ecology of Arizona's Gila River, more ornithological than ethnobiological. Rea followed with an ethnobotany, *At the Desert's Green Edge* (1997) and a treatise on Piman knowledge of mammals, *Folk Mammalogy of the Northern Pimans* (1998). In *Wings in the Desert* Rea returns to the birds that were his original inspiration.

Rea comes to ethnobiology—which is first of all an anthropological discipline—from an unusual direction, a professional base as a museum ornithologist. He acquired the anthropological expertise and sensibility from his close and enduring friendships with Piman elders met in the course of his field studies of Sonoran Desert ecology begun in 1963. Even then Piman ethnobiological research was a salvage project, as but fragments of the rich biocultural tapestry of his subject matter had come down to the generations that Rea knew. A wealth of detail has been lost to the social and natural transformations consequent to European colonization. As Rea, writes, "I have used the past tense frequently in this chapter because feather use by River Pima and Pima Bajo has all but ceased. Shamans and healers still use those feathers that are needed in their profession. But even among Tohono O'odham, who have maintained more of their traditional ceremonial life, knowledge of folk taxonomy and of uses of avian species is now greatly eroded among younger and even middle-aged generations. No longer are the folk identification, ecology, and behavior of birds and other animals the currency of thought among younger O'odham. Without these three, metaphors collapse" (p. 71).

Rea has scoured the ethnohistorical, ethnographic, and linguistic records of the past 400 years and has applied his expert knowledge of bird biology and behavior and of the Sonoran Desert to capture the sophistication and subtlety of the ancestral Piman appreciation of birds.

Wings in the Desert is in two parts. First is a series of eight chapters to introduce Rea's Piman teachers, many now passed on, to describe the variety of Piman cultures and their habitats, both north and south of the Mexican border, and to summarize Piman bird taxonomy and nomenclature and the peoples' economic, aesthetic, and spiritual relationships with birds. The second part treats each of some 85 named Piman bird categories in exquisite detail. These species accounts may run to as many as 10 three-column pages, most notably for the birds most charismatic to the Pima: the Turkey Vulture, Golden Eagle, Scarlet Macaw, Great Horned Owl, and Common Raven.

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Piman ornithology is selective, greatly elaborated in some cases but less concerned to recognize the smaller species, especially those that pass through in migration (though the diminutive Verdin and the several nondescript thrasher species receive careful attention). Yet for the 74 Piman “folk generic” taxa, eight of which are further differentiated at the “folk specific” rank for a total of 85 terminal taxa, Piman ornithology demonstrates acute powers of observation on a par with those of the professional ornithologist. Seemingly obscure details of anatomy and behavior may be embedded in Piman origin myths and other sacred stories. For example, *ñui*, the Turkey Vulture, is a culture hero who carved the landscape with his wings to conserve the scarce rainfall essential for Piman agriculture. He is considered also to be a warrior, recognized by his “white leggings.” Rea notes the Turkey Vulture’s characteristic behavior of urinating on its legs to facilitate evaporative cooling, the residue of uric acid coating its pink feet white (p. 97). Another telling detail is the Turkey Vulture’s large perforate nostrils, coinciding with this species’ exceptional olfactory sensitivity. Piman myths note this same feature as the piercing of a warrior’s nasal septum, an honor reserved for those who have killed an enemy combatant. Rea concludes, “Almost all that is known to Western science about the behavior and anatomy of this marvelous bird [the Turkey Vulture] has somehow been encoded into Piman mythology” (p. 95).

Rea helps us make sense of what might seem irrational or “primitive,” as with the Piman concern with “staying sickness,” a potentially fatal affliction: “Left untreated, staying sickness ultimately invades the whole body, causing death” (p. 45). We might understand it as a sort of spiritual cancer. It is brought on by human actions—intentional or not—that offend, typically, an animal spirit. As many as 40 species of animals have been implicated as causing this malady, including ten birds. Offenses include improper killing, butchering, or disposing of the remains of the animal, actions considered to be disrespectful of the animal. “It could also mean ridiculing the animal or even watching it die slowly; [if killed] it must be dispatched as quickly and painlessly as possible” (p. 47). Piman shamans were called upon to treat staying sickness, divining the offensive action (with the aid of a feathered divining wand). Rea’s teacher, Leonard Pancott, explained, “The medicine man looks at him and visualizes what causes it.... Then they find somebody who sings the songs.... Have to have the song for ... what you killed or what you abused. Sing all night. Then he will get over it.” (p. 49). Those who know these songs acquired them on a vision quest during which they “met” the animal spirit that serves thenceforth as their guardian. Thus a person may be known as a “Great Horned Owl meeter,” a “Prairie Falcon meeter,” even an “ant meeter.” There is then a spiritual connection that gives the person “great knowledge or seeing” (p. 46).

These essentials of Piman traditional spiritual understanding represent a Piman expression of an animistic understanding that is widely shared among the world’s surviving hunting-gathering and horticultural peoples, that human beings and the natural world of animals, plants, wind, and water are bound together by a Golden Rule that transcends mere human society, a sensibility lost to those who understand the natural world as but a machine, however marvelously intricate.

Wings in the Desert rewards careful and repeated readings.

Eugene S. Hunn

Birds of the Inland Northwest and Northern Rockies, by Harry Nehls, Mike Denny, and David Trochlell. 2008. R. W. Morse Company, Olympia, Washington. 422 pages, over 260 color photographs. Paperback, \$18.95. ISBN 98780964081062.

This book is the latest in a series of small pocketable guidebooks that focus on the west coast of North America. (Others include *Birds of Southwestern British Columbia*, *Birds of the Puget Sound Region*, *Birds of the Willamette Valley Region*, and

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Birds of the Los Angeles Region.) *Birds of the Inland Northwest and Northern Rockies* covers the identification of the common species of eastern Washington, eastern Oregon, Idaho, and western Montana. The book contains a “quick guide to local birds” (with useful small photographs) at the front and a very helpful “short index” and a longer “index/checklist of birds” in the back. Other introductory sections include a map, information on birding in general, identifying birds, attracting yard birds, bird habitats in the area, where to go to find birds in the field, and a useful list of resources such as journals, books, websites, stores, and nature centers in the area covered.

In most cases unusually large photographs face the page with the species account. If there is a major difference between the sexes or between the breeding plumage and the juvenile plumage, one or more photographs are added to highlight the information. Each species account includes a “description” with the bird’s particular features highlighted in boldface, a section “similar birds” with features relevant to note, “voice” with the species’ main calls and songs, “where to find” with seasonal movements along with general locations and habitats, “behavior” highlighting feeding, movement, and flight, “did you know?” giving extra information usually not found in guide books, and, finally, “date and location seen,” with some extra blank lines to record your sightings.

At first glance, it would be easy to pass by this book and others in the series as oriented strictly for beginners. After all, the book seems small: 5.9 × 4.5 × 0.9 inches. Plus, for visual depiction of species it relies entirely on photographs, which are sometimes not favored by many seasoned birders who prefer more universally depicted painted or computerized illustrations of species. And, finally, it is indeed localized in coverage and does not cover the odd vagrant that might show up in the region.

Birds of the Inland Northwest and Northern Rockies has strengths, however, that raise it beyond a simplistic introductory guide. First, the book’s localized coverage is one of its main strengths. The text is written by local experts who have birded the region for many years and know the distribution of each species intimately. The information presented is not plucked out of the air, so to speak, by an outside group that has come in to produce a regional guide on an assembly line as is seen in some other recent small-format guides.

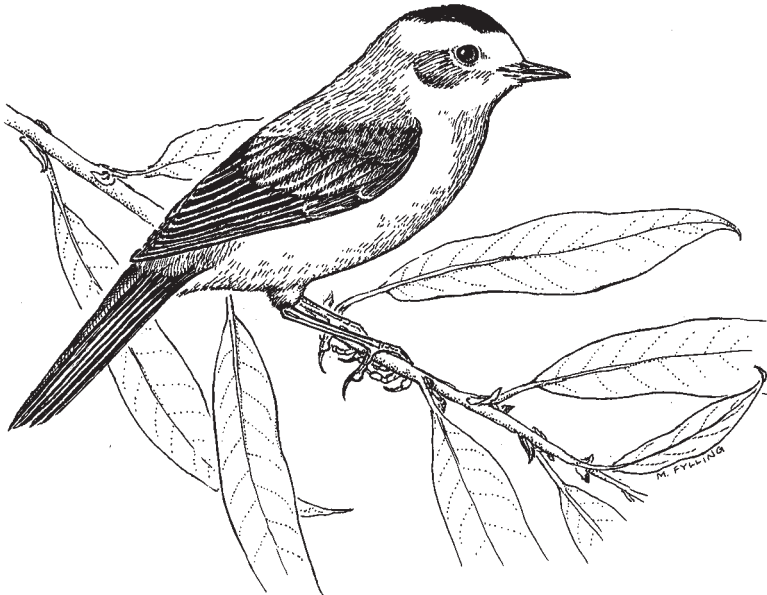
Second, the supplementary information gives the book depth. Examples are descriptions of bird behavior and interesting trivia such as how the bird was named or how many subspecies are in the region. Even the photographs were primarily taken by local western photographers, reinforcing the “by the locals, for the locals” flavor of the book. The birds illustrated are primarily of local subspecies, which are often not the ones that appear in national field guides. Additionally, errors seem to be few (e.g., a photograph of a coastal subspecies of the Downy Woodpecker instead of an interior one—a mistake that will be rectified in the next printing according to one of the authors; perhaps the photograph of a Song Sparrow not showing the breast spot in a clear fashion). The first printing had text transplanted between the Yellow-headed Blackbird and the crossbills (pp. 389 and 405). Subsequent printing rectified this error.

It is doubtful that you could find a better book to recommend for local backyard birders or birders starting to explore their neighborhood. The clear and simple approach also makes it superbly suitable for education and field instruction. I have used a sister publication here in western Oregon, *Birds of the Willamette Valley Region*, for those times when we need a quick identification on bird walks with a local group of fourth-grade students. It has also been repeatedly useful with adults on local outings when the main guide is left back in the car. It is small enough to be carried easily in a pocket—even a rear pants pocket—and then always easily available when you are out with a group or when someone from the general public runs across you staring at tree or shrub with your binoculars and wonders what is going on.

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This book and the series in general will be highly useful for beginner to intermediate birders who want an easily carried field guide with sharp photographs of the species most likely to be encountered. You can leave your favorite general guide back home or in the car. Also, the book and series are highly useful for those who want to share their enthusiasm with others on the trail. The books have been helpful to me both in my local birding activities and superbly in helping to inspire and educate many new birders. I have given away many books in this series and wore out and/or lost many others in the field. If there ever could be such a thing as disseminating “good birding karma,” you need not look further than the little book in your hand. Give one to your neighbor.

John Thomas



Wilson's Warbler

Sketch by © Marni Fylling