BOOK REVIEWS

Biodiversity, Ecosystems, and Conservation in Northern Mexico, edited by Jean-Luc E. Cartron, Gerardo Ceballos, and Richard S. Felger. 2005. Oxford University Press. 514 pages. Hardback, $99.50. ISBN13: 978-0-19-515672-0, ISBN10: 0-19-515672-2.

Mexico is blessed with an amazing biological heritage. It has been identified as one of 17 megadiversity countries in the world, owing largely to a high degree of endemism. It has one of the highest species counts of vascular plants and amphibians; it hosts 12% of the world's mammal species and over 1000 bird species. And these riches are not limited to the country's tropical southern regions: more species of reptiles are said to occur in Mexico than in any other country, thanks largely to the diversity of arid habitats found in northern Mexico; the Baja California peninsula has the highest known density of scorpion species in the world; the state of San Luis Potosí has the highest known concentration of cactus species. Facts like these are presented in this welcome volume and serve as the backdrop for further discussions regarding the conservation of these threatened resources.

Eighty-two authors, the majority Mexican, combined to prepare 23 chapters presented in three sections: Historical, Geographic, and Legal Setting (4 chapters); Patterns of Species Diversity and Ecological Importance of Natural Ecosystems (12 chapters); and Natural Resource Impacts and Conservation at a Population, Species, and Landscape Level (7 chapters). Chapters address terrestrial, marine, and freshwater species, geology, human history, and environmental laws of the region. I appreciated learning of underlying factors (e.g., geology, oceanography) that help determine the distribution of birds and other organisms.

Five chapters cover all of northern Mexico, while the Baja California peninsula (5 chapters) and Chihuahuan Desert (4 chapters) are the regions covered best. As for taxonomic groups, birds receive the most coverage, with five chapters. Six chapters cover all biota, with additional ones emphasizing mangroves and marine invertebrates. There are chapters on plants (4), mammals (3), herptiles (2), and scorpions and freshwater fish (1 each).

Bird chapters address hummingbird communities in Sonora, arroyo and oasis bird communities in Baja California Sur, the effects on raptors and ravens of concrete power poles in northwestern Chihuahua, grassland birds in the Chihuahuan Desert, and nesting seabirds in the Gulf of California (defined here and elsewhere in the book as extending south to Cabo Corrientes, Jalisco). I believe the seabird summary by Velarde et al. is one of the strongest chapters in the book, while the power-pole chapter was narrower in scope than the others and seemed a little out of place.

Unfortunately, the arroyo and oasis chapter contains a number of obvious errors. Some may argue that occasional incorrect species identifications are insignificant when larger ecological matters are considered, but insufficient care was taken in reporting the following species from Baja California Sur: the Striated Heron (*Butorides striatus*), Yellow-bellied Sapsucker, Northern Flicker, Blue-headed Vireo, and Canyon Towhee. While each of these can be explained away by noting that the congener common in the area was not listed, the same cannot be said of the reported Gray Hawk and Buff-breasted Flycatcher. It is likely that other species such as Hammond's and Dusky Flycatchers were also misidentified. Species that may have been correctly identified but are misreported as "known to nest…in Baja California Sur" include the Zone-tailed Hawk, Black-chinned Hummingbird, Belted Kingfisher, Marsh Wren, Lark Bunting, Western Meadowlark, and Brown-headed Cowbird. The last two species were first confirmed nesting in the state only in 2006. As has been done previously, it is reported (p. 347) that "the oasis at Santiago no longer exists" and that the endemic Belding's Yellowthroat (*Geothlypis beldingi*) no longer occurs there. Yet the species

has been seen regularly at Santiago since 2000, with a maximum of 21 recorded on 19 January 2004 (*N. Am. Birds* 58:287).

The chapter on mangroves in Baja California Sur includes a table of bird use that also has a number of errors and omissions, although they are generally minor. The record of the Virginia Rail nesting at La Paz has rightly been questioned previously (*Am. Birding Assoc. Monogr. Field Ornithol*. 3:192). I did not discern any misidentification problems elsewhere in the book, although my expertise quickly fades away from the Baja California peninsula and among taxa other than birds.

Chapters I found especially well done or interesting focused on northwestern Mexico: *Macrofaunal diversity in the Gulf of California* by Brusca et al., *Cetacean diversity and conservation in the Gulf of California* by Urbán R. et al., *Baja California's enduring Mediterranean vegetation: Early accounts, human impacts, and conservation status* by Minnich and Franco-V., and *Sea turtles in northwestern Mexico: Conservation, ethnobiology, and desperation* by Felger et al.

I learned the following from these and other chapters: It is estimated that more than half of the species of marine invertebrates in the Gulf of California have not been described. The most recent population estimate for the Vaquita (*Phocoena sinus*), the smallest marine cetacean and endemic to the northern gulf, is 567. Another gulf endemic, the fishing bat *Myotis vivesi*, numbers 12,000 to 15,000 on Isla Partida in the northern gulf. A mandible of a mouse opossum (*Marmosa* sp.) was found in a Barn Owl pellet at San Ignacio, Baja California Sur. It is assumed that the mandible belonged to a Gray Mouse Opossum (*M. canescens*) but, just as bird-records committees debate some records, mammalogists debate the natural occurrence of that individual. "Mouse opossums frequently have been discovered in loads of fruit" (Gardner, A. L., and Cortés-Calva, P. 1999. Didelphidae, pp. 29–37 in *Mamíferos del Noroeste de México*. Alvarez-Castañeda, S. T., and Patton, J. L. eds., Centro de Investigaciones Biológicas del Noroeste, S. C., La Paz, Baja California Sur.). The largest extant prairie dog (*Cynomys*) town known in North America was discovered in northwestern Chihuahua in 1987; American Bison (*Bison bison*) still roam there, and Black-footed Ferrets (*Mustela nigripes*) were reintroduced in 2001.

Recurring themes in the book include the acceleration of threats from rapid human population growth and attendant development, water diversions (especially on the lower Colorado River), exotic species, overfishing and associated disturbance, and agriculture. The editors also lament the lack of enforcement of existing laws such as those regarding sea turtles. But they also highlight the growing number of conservation organizations and universities engaged in conservation in Mexico since about 1990 and the amount of land set aside in protected areas. They present specific recommendations to consolidate and enhance the value of protected areas on both sides of the international border. Various authors point out regions or topics in need of further research.

A larger, rather similar eclectic collection of papers appeared in 1993 (Ramamoorthy, T. P., Bye, R., Lot, A., and Fa, J. *Biological Diversity of Mexico: Origins and Distribution*. Oxford Univ. Press, Oxford, England.). It was followed quickly by a more systematic summary—state-by-state and taxon-by-taxon—by O. Flores Villela and P. Gerez (1994. *Biodiversidad y Conservación en México: Vertebrados, vegetación y uso del suelo*. CONABIO and UNAM, México, D.F.). Another large collection of papers focusing on the Sonoran Desert, but covering a wider range of subject matter, just appeared (Felger, R. S., and Broyles, B., eds. 2007. *Dry Borders: Great Natural Reserves of the Sonoran Desert*. Univ. Utah Press, Salt Lake City.). It is heartening to see the arrival of these works along with others such as those by H. Gómez de Silva and A. Oliveras de Ita (eds. 2003. *Conservación de Aves: Experiencias en México*. CIPAMEX, México, D.F.) and G. Ceballos and L. Márquez Valdelamar (eds. 2000. *Las Aves de México en Peligro de Extinción*. Instituto de Ecología, UNAM, Mexico, D.F.).

Biodiversity, Ecosystems, and Conservation in Northern Mexico was generally well edited, and I found very few typos, although in several chapters I sorely missed a useful abstract, summary, or conclusion. The index appears complete and useful. While I encourage you to seek out this book and examine its contents (every serious library should have a copy), probably only a limited number of readers of *Western Birds* will need to add it to their permanent collections.

Richard A. Erickson

Birds of Lane County, Oregon, edited by Alan L. Contreras. 2006. Oregon State University Press. 366 pages. 130 black-and-white photos, illustrations, and figures. Paperback, $20.00. (ISBN 0-87071-180-6).

The size of Delaware, Rhode Island, and 26 Districts of Columbia combined, Lane County is Oregon's sixth largest county. Stretching from the crest of the Cascades across the farmlands and wetlands of the Willamette Valley and over the Coast Range to the Pacific, its topographical diversity gives it more bird species (403 recorded) than any other county in the state.

Birds of Lane County, Oregon, is both a birding guide and a comprehensive treatment of the status and distribution of the county's avifauna. The first half of the book surveys 100 birding locations with site guides authored by 12 contributors. The second half consists of species accounts authored by the book's editor, Alan Contreras.

This volume offers much of interest for Oregon birders and field ornithologists, as suggested by its brisk early sales. Readers from outside Oregon may find it useful for two reasons. First, because Lane County is a representative microcosm of the Pacific Northwest, the book is instructive for understanding this region's habitats and avifauna. Second, the book serves as an outstanding model for a county bird book—a genre of which I expect we will see more and more in the years ahead.

After introducing Lane County's physical geography, the book takes us on a tour through its 100 featured sites. This survey is organized by region across 12 chapters, with the Eugene–Springfield metro area receiving more detailed attention than do the less populated outlying regions. The site guides are straightforward, readable, informative, and follow a style similar to that of the ABA bird-finding series. Maps, well executed by Kit Larsen, superimpose roads and locations of interest over topographical backgrounds and provide an appropriate level of detail. For each site, icons relate the quality of birding by season, the availability of handicapped access, and (for coastal sites) the best tides at which to visit. For all these reasons, *Birds of Lane County* will prove valuable for the visiting birder.

Following the site guides come the 403 species accounts. Each account focuses on status and distribution within the county—a wise choice in prioritizing space, since the biology and broader status of Oregon's birds were so admirably covered in *Birds of Oregon: A General Reference* (reviewed in *Western Birds* 34:178–181, 2003). Contreras, an editor of that tome, has gone to impressive lengths to uncover occurrences of birds from old and obscure literature and from the field notes and dimming memories of the living. As a result, *Birds of Lane County* boasts considerable scientific merit in establishing an accurate and comprehensive historical record.

The species accounts also showcase Contreras's skill at communicating the essence of a bird's status and distribution accurately and insightfully within a concise format. The editor is an accomplished (and published) poet, and although he keeps his prose terse and pragmatic in this volume, his economy and efficacy with words are apparent.

The text is leavened with attractive and lifelike illustrations drawn by Barbara Gleason. It also features numerous photographs of rarities and other species of interest, although in my copy some photos are printed too dark and others do not show up well in black and white. For selected species, graphs portray data on seasonality,