

BOOK REVIEW

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Reid, F. A. 2009. A FIELD GUIDE TO THE MAMMALS OF CENTRAL AMERICA & SOUTHEAST MEXICO. 2nd ed. Oxford University Press, New York, 346 pp. + 52 color plates. ISBN-978-0-19-534322-6, price (hardbound), \$149.00; ISBN-978-0-19-534323-6, price (paper), \$45.00.

Fiona Reid has revised and updated her extremely useful, beautifully illustrated field guide to the mammals of the northern Neotropics. As the title states, this is a guide to the mammals of Central America and southeastern Mexico; however, this does not reflect the up-to-date, comprehensive systematic treatments, beautiful illustrations, ecological information, attention to detail, and the fact that the book is quite useful to both the north and south of Central America. Much of this work is based on her firsthand studies of mammals, both living and preserved specimens, from the region.

The seemingly bewildering array of species present in this region is nicely laid out. Introductory sections include: *How to use this book*, *How to find mammals*, *Studying mammals*, *The need for further research*, *Where to find mammals*, and *Conservation of mammals in Central America*. The main section of the book consists of species accounts for all species of native mammals, including the marine mammals that are found in the adjacent waters and 3 introduced species that occur in the region. The book includes a glossary, which defines the words in a simple manner, an extensive bibliography, and indexes to the scientific and common names. All sections are written in a user-friendly manner. Accounts are provided for 364 species, which include 14 marsupials, 3 anteaters, 3 sloths, 2 armadillos, 15 shrews, 144 bats, 8 primates, 102 native rodents, 3 introduced rodents, 4 rabbits, 27 carnivores, 1 manatee, 1 tapir, 6 artiodactyls, and 31 cetaceans. Three widespread and commonly encountered introduced species (the house mouse, black rat, and Norway rat) are included. Throughout, the text includes a brief review of the published literature and Reid's firsthand observations. These short species accounts provide a snapshot of the current systematics of these groups. Ecological notes suggest where to observe specific species, what they commonly eat, and other interesting aspects of their ecology. Most of Reid's revisions from the 1st edition pertain to the species accounts, which have been reviewed and updated where appropriate and for which the maps have been updated. The 2nd edition contains 21 new accounts of species, including 9 new species of bats that were not found in the 1st edition.

Remarkably, this volume includes 2 new species of larger mammals that were not recognized as species when Reid wrote the 1st edition 15 years ago. The Yucatán brown brocket deer (*Mazama pandora*) was elevated to full species

status in 1998, and the pygmy three-toed sloth (*Bradypus pygmaeus*) was described as new to science from Panama in 2001. Since publication of the 2nd edition additional species have been described that are endemic to this region, and more remain to be described. Reid's extensive use of preserved specimens in museums attests to the continued value of scientific research collections in modern-day conservation biology. The recognition of these new species shows how much remains to be learned about Central American mammals and the continued need and value of the study of these mammals.

The 49 color plates of mammals cover most of the species found in the region. Most plates also picture closely related species for comparison, with tracks and feet shown on the facing page. Species that are similar in appearance are placed on the same plate in some groups. Reid tells us that many of her original color plates used in the 1st edition were rescanned and the color balance improved. The brightness and improved color of several plates is quite apparent. Four colored maps, which are new to the 2nd edition, show country boundaries and elevations, locations of major parks and protected areas, biomes, and forest cover. Tracks, footpads, nose leafs of bats, and outlines of bats to distinguish the families are provided in black and white.

Reid follows essentially all recent nomenclatural changes. For those who have struggled to keep up with the considerable recent taxonomic changes for marsupials, shrews, bats (e.g., *Micronycteris* now split into 5 genera), and rodents (e.g., *Oryzomys* now split into 10 genera), this volume will provide an up-to-date source and access to the recent literature and current nomenclature. Taxonomic problems are pointed out. This is the best source for common names for this region. Reid pulls together a wide array of pertinent references that introduces the reader to the primary systematic, distributional, and ecological literature. This extensive and up-to-date bibliography is a valuable resource of some 460 references dating from the early 1900s to 2008, with a number of references in the early and mid-2000s. Distribution maps paint a broad view of general distributions, combining the historical and assumed current distribution. Because of size, the maps cannot show fine details and therefore indicate general distributions only.

This volume is remarkably free of errors given the complexity of the subject matter covered when including 364 species and 8 countries. However, the slaty mouse opossum (*Marmosops invictus*; p. 51) is more widely distributed in Panama than the map and text state (see Pine 1981). The map legends for 2 species of shrews are switched—*Cryptotis hondurensis* should be listed as occur-



ring in south-central Honduras and *Cryptotis griseiventris* should be plotted as occurring in central Chiapas and western Guatemala, as stated in the text (map 26; p. 69).

The majority of the world's mammal species are small (<0.25 kg), nocturnal, cryptically colored, and secretive. Nonspecialists perceive a difficulty in studying mammals, in part because of these life-history traits, but also because until recently a lack of adequate field guides has hindered our study and appreciation of mammals. Colorful, diurnal birds and herps are observed more easily than are most mammals; birds communicate with sounds easily audible to humans, and illustrators seem to have mastered illustrating these groups earlier than they have mammals. Field guides for birds, reptiles and amphibians, and insects have for decades enlightened readers and made the amazing diversity accessible to students of all ages, to the general public, and to professionals. Unfortunately, for mammals, field guides progressed at a much slower rate. Perhaps the problem, in addition to the life-history traits, was that those rare individuals who are skilled at art and illustration and actually truly know the mammals were missing until relatively recently. Reid is a professional illustrator, nature author, and guide, and has written (or coauthored) a considerable number of scientific papers on mammals. She is affiliated with the Royal Ontario Museum in Toronto, Canada, and makes use of that collection's major holdings of Neotropical mammals. Only a few illustrators have mastered the art of illustrating mammals, and Fiona Reid leads the list. Her *Peterson Field Guide to the Mammals of North America North of Mexico* (Reid 2006) is a natural companion volume. I first met Reid in the early 1980s on a mountaintop in Costa Rica where she was actively engaged in livetrapping and painting small mammals for the 1st edition of this work. With the extensive field research that has gone into her work on these field guides, Reid has observed firsthand more species of mammals from Central America and Mexico than any other biologist.

The southeastern Mexican and Central American region is considered a hot spot of species diversity, with one-third of the terrestrial mammals being endemic species. It has been estimated that only some 20% of the original forest in the region is intact; thus, conservation efforts based on solid scientific research and the resources needed to undertake this research are especially critical. Up-to-date identification guides such as this are exceedingly valuable resources for educators, researchers, students, the lay public, and conservation managers. Information summarized therein is often readily available only to researchers working with extensive research libraries and museum collections.

The paperback copy has high-quality paper and is well bound and no doubt will be able to withstand the rigors of field use. I used the 1st edition (Reid 1997) extensively in the field, and it held up remarkably well with hard use under adverse weather conditions. This is an outstanding field guide and ought to serve as a model for future authors undertaking the daunting task of trying to communicate a huge amount of information to both the specialist and nonspecialist.—ROBERT M. TIMM, *Department of Ecology & Evolutionary Biology and Biodiversity Institute, 1345 Jayhawk Boulevard, University of Kansas, Lawrence, KS 66045, USA; e-mail: btimm@ku.edu.*

LITERATURE CITED

- PINE, R. H. 1981. Reviews of the mouse opossum *Marmosa parvidens* Tate and *Marmosa invicta* Goldman (Mammalia: Marsupialia: Didelphidae). *Mammalia* 45:55–70.
- REID, F. A. 1997. A field guide to the mammals of Central America & Southeast Mexico. Oxford University Press, New York.
- REID, F. A. 2006. A field guide to mammals of North America north of Mexico. 4th ed. Peterson Field Guide Series. Houghton Mifflin Company, New York.