

Mammals of the Neotropics, Volume 3, the Central Neotropics: Ecuador, Perú, Bolivia, Brazil. By John F. Eisenberg and Kent H. Redford. University of Chicago Press: Chicago, IL, USA. 1999. x + 609 pp. \$ 46.00. ISBN 0-226-19542-2 (paper).

This volume provides a synthesis of knowledge and individual species accounts for the more than 650 species of land and marine mammals found in Ecuador, Peru, Bolivia, and Brazil. It is the third and final part of a trilogy that now runs to over 1400 pages. The series began with the publication of the first volume in 1989 (The northern Neotropics: Panama, Colombia, Venezuela, Guyana, Suriname, and French Guiana), authored by Eisenberg alone. He was then joined by Redford for both the second volume (1992. The southern cone: Chile, Argentina, Uruguay, and Paraguay) and now the third. The general aim of this collection is to summarize in a single source what is known about the identity, distribution, history, and ecology of the mammalian fauna of the Neotropics. To this end, every genus and species of mammal known to occur in this biogeographic realm has been given a concise description, together with distributional maps of both known occurrences and estimated ranges. In some cases, figures of mammal parts, such as crania, and sketches and drawings of whole animals have been provided.

Although the third volume features Eisenberg and Redford as the principal authors, it also includes seven stand-alone contributions. Four are from Brazilian mammalogists, on paleontology and biogeography, chiefly of Brazil. Eisenberg himself contributes two extra essays (one on mammalian biodiversity and another on distribution and history of this fauna). Webb contributes a short essay on the history of the mammalian fauna in South America (which renders it somewhat redundant with Eisenberg's account). The book starts with a short introduction that inevitably has to repeat some information in earlier volumes, and makes it clear that this volume is to be used in conjunction with the others in the series. This may be a disappointment for some readers, because many mammal species found in the central Neotropics are also found in either the northern or southern regions already covered by the previous two volumes. Therefore, the authors have chosen to give more concise descriptions of "redundant" mammal species,

for which finer details have to be located in the other volumes.

The book itself is divided into three parts, with stand-alone contributions concentrated in Parts 1 and 3, and Part 2 being the material written by Eisenberg and Redford together. Here, 13 chapters deal separately with marsupials, edentates, insectivores, bats, primates, terrestrial carnivores, marine carnivores, whales and relatives, sea cows, odd-toed ungulates, even-toed ungulates, rodents, and rabbits. These chapters present not only taxonomic information but also ecological and behavioral characteristics, and distribution maps for most of the species. Indeed, for each species the following topics are generally addressed: Description (morphological), Range and Habitat (or Distribution), and Natural History. In some cases, there are separate sections dealing with Life History, Ecology, and miscellaneous Comments. Several tables of measurements are also found throughout the book and for some species rich groups such as bats and rodents, keys to families and genera are provided. Illustrations of crania, tooth rows, feet, and a few sketches are provided when deemed necessary by the authors, presumably as an aid in field and laboratory identification. A small number of color and black-and-white plates are grouped mid-way through the book. Each chapter and essay comes with its own bibliography, which leads to some redundancy in citations. Overall, the bibliographies are extensive, and the coverage seems exhaustive, with references updated to 1997 (it appears that the book went to press in 1998).

For such an encyclopedic effort, there are remarkably few errors of fact, as far as I can judge. There are, however, some presentation problems. The most common is that of making statements and attributing them to sources that surely did not contribute such statements. Indeed, this lack of precision in citation may be an artifact resulting from Eisenberg and Redford making separate statements without specific references, and then citing a wholesale sequel of authors. Another mistake I noticed is that of citations in the bibliographies that are

not found in the text. The opposite also happens, but less frequently. I also found it awkward that among the 19 plates depicting mammals, only one has a scale to gauge their absolute size. Nowhere are we told, either, if mammals grouped in a single plate are proportionally sized. I hope that this omission will be corrected in future editions. Inevitably for a work of this length and complexity, there are typographic errors. Many are found in the literature cited, more commonly in citations made in languages other than English. I did not detect taxonomic errors, but I am not a systematist. Some scientific names are misspelled (e.g., *culpeus* instead of *culpaeus* in p. 280; *jabcobita* instead of *jacobita* in Map 10.26), and some genera passed to synonymy are sometimes referred to by their old name (e.g., *Dusicyon* instead of *Pseudalopex* in p. 283).

All of the above may be considered nit picking in light of the tremendous contribution toward organizing in a trilogy all that is known on Neotropical mammals. I looked hard for weaknesses in the volume but I could only find strengths. Indeed, this volume is a first-rate capitulation and synthesis of hundreds of papers written in Spanish and Portuguese, thus rendering this wealth of information to the English-speaking readership for the first time. In addition, by treating comprehensively a wide swath of South America along both sides of the Equatorial line, east to west, this book provides a better understanding of the distribution of species that trespass national borders without

even noticing them. In this sense, the compilation here reviewed is much more than the summation of separate national books on "The Mammals of X". It gives an overview on the way mammals "perceive" this part of the world and face threats posed by national policies on the exploitation of natural resources. I think this book (together with the two preceding volumes) fully meets its intended aim of gathering and synthesizing disperse information, and delivers even more in the sense of giving a broad-picture of Neotropical mammal biodiversity and biogeography.

The primary readership for this book is supposed to be one of professional mammalogists worldwide. It is also a great resource for graduate students in mammalogy, and, I would add, for conservation biologists and wildlife managers in general. I think this book belongs in the personal libraries of all mammalogists interested in the Neotropics, and also in institutional libraries where students can consult it. My copy did not have a price tag, but on an Internet bookstore I got a quote of \$40.00 for the paperback version. This is very affordable, and the ratio of price to contents (and usefulness) on a per dollar base is great. I would not have skipped this bargain, had I not gotten the book for free!

FABIÁN M. JAKSIC  
Center for Advanced Studies in Ecology  
& Biodiversity  
Santiago, Chile