

## **Handbook of the Mammals of the World**

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## Book Review

**Wilson D.E. & Mittermeier R.A. (eds.) 2019: Handbook of the Mammals of the World – Vol. 9, Bats.** Lynx Edicions, Barcelona: 1008 pp., 74 colour plates, more than 450 colour photos, 1423 distribution maps. ISBN: 978-84-16728-19-0.

The last, but not the least, final volume of the *Handbook of the Mammals of the World*, which illustrates and describes in detail every mammalian species on the planet, is dedicated to a spectacular group of bats. It completes the comprehensive multi-volume series that is comparable only with the *Handbook of the Birds of the World*, which was finalized in 2013.

Our knowledge of bats has been growing dramatically over the past few decades, including description of new species. Bats occupy almost every habitat on six continents and their ecology is incredibly diverse. Therefore, the task of compiling this information on this second largest mammalian group (almost 1,400 species) into a limited number of pages appears all but impossible. To tackle this problem, the authors have minimized the introductory chapter and summarized the bibliography on a separate CD-ROM (available on the Lynx Edicions website), as well as adopting abbreviations.

The main text applies to bat families whose order reflects insights into chiropteran phylogenetics; the families of the Yinpterochiroptera (7 families) are followed by Yangochiroptera (14 families). An explanation of how the families are grouped is presented in the introductory part. Unfortunately, a general phylogenetical tree describing their relationships is missing, even though for the most

complex families (*Pteropodidae* and *Vespertilionidae*), figures are presented breaking these families down into subfamilies and tribes. Excellent wildlife photographs that document a variety of behaviours of family members are presented. The species chapters are relatively short due to space requirements, but in many cases also reflecting a lack of relevant information. The descriptions of bat species includes basic morphological parameters, including body and skull measurements, body weight, dental formula, and chromosome numbers. Usefully, echolocation call characteristics are also presented in a paragraph on activity patterns. Each species is carefully illustrated and its distribution map is presented. Unfortunately, a separate text which deals with the ecology of bat species (Habitat, Feeding and Breeding Ecology, etc.) is sometimes relatively short, mirroring the limited available information for some species.

The overall importance of this volume of the *Handbook of the Mammals of the World* is not only in its description of the extraordinary diversity of bats, but also in the support for their conservation, with the involvement of Conservation International and the International Union for Conservation of Nature. This volume will undoubtedly help guide future bat research worldwide. The editors and authors of this last volume deserve respect and gratitude for the excellent job they have done.

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