

Macropods: The Biology of Kangaroos, Wallabies and Rat-Kangaroos. Author(s): Daniel T. Blumstein Source: The Quarterly Review of Biology, Vol. 86, No. 2 (June 2011), p. 151 Published by: The University of Chicago Press Stable URL: <u>http://www.jstor.org/stable/10.1086/659929</u> Accessed: 07/08/2011 18:26

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studies have a North American focus, but some sections represent carnivores in Europe and elsewhere. A number of synthesis chapters explore issues influencing human-wildlife conflict, interactions between urban carnivore species, and issues associated with the conservation of urban carnivores.

On the whole, the subject is very intriguing. Carnivores represent a threatened group of mammals, but they also show considerable adaptability, living across a vast range of habitats and environments. One possible outcome of this is that they might be well suited to utilize some of the most heavily populated and altered landscapes on the globe, our urban centers. However, the fact that they live at relatively low densities and have properties are particularly susceptible to persecution might make them more vulnerable in such areas. This book provides interesting perspectives on this issue, but clearly this is an area of research that needs greater development. More questions are raised than are answered. Many of the details presented are probably not of value for a broader perspective. Later chapters focus on species characteristics and their implications for exploiting urban environments. Indeed, reading this book makes one question the kind of studies that would be needed to properly understand this topic. Ideally, this requires unbiased assessments of habitat use across gradients of human-altered landscapes and controlled comparisons of life-history traits inside and outside urban areas. This field itself is in its infancy.

Overall, this is a very important area of study, and this book successfully highlights the shortcomings in our knowledge. However, readers will be left without a greater understanding of the process due to a lack of information.

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MACROPODS: THE BIOLOGY OF KANGAROOS, WALLA-BIES AND RAT-KANGAROOS.

Edited by Graeme Coulson and Mark Eldridge. Collingwood (Australia): CSIRO Publishing: AU\$150.00 (paper). xiv + 408 p.; ill.; species and subject indexes. ISBN: 978-0-643-09662-2. 2010.

This book emerged from a 2006 symposium on macropodids (kangaroos and their close relatives) held at the University of Melbourne. The volume contains 32 chapters by 82 authors and is arranged into four sections: Genetics, Reproduction and Development; Morphology and Physiology; Ecology; and Management.

The book contains a mix of review and empirical papers. The scope of the empirical papers ranges from geographically narrow (e.g., a study of road mortality of wallabies on a specific island in Chapter 25) to geographically broad (e.g., a study that uses harvest statistics to follow temporal variation in a large region in Chapter 32). I felt that some of these empirical chapters might have been better published in the primary literature.

There were some excellent comparative reviews; for example, reviews of sperm competition (Chapter 6), the energetics of locomotion (Chapter 9), helminth parasites (Chapter 21), translocation efforts in rat-kangaroos (Chapter 22), and road effects on macropodids (Chapter 24). I felt that the reviews were sufficiently broad in scope or integrated data from grey literatures to be particularly useful. Because tammar wallabies (Macropus eugenii) are a species with a sequenced genome (completed in 2005), early findings from this project are discussed (Chapter 1). Indeed, genetic resources for kangaroos and their allies are reasonably well developed and this information and potential uses of these resources are nicely described in Chapter 4.

There were also some tutorial papers. One provides a detailed review of cross-fostering (Chapter 23), a technique that is important for both research and management. Another provides details on darting kangaroos (Chapter 28). Both are required reading for anyone who wishes to engage in either of these techniques.

Although behavior, per se, is not specifically listed as a section of the book, a number of chapters address behavioral problems. I found the papers on sperm competition (Chapter 6) and flight behavior in response to vehicles (Chapter 26) especially interesting. The management chapters nicely illustrate some of the conservation and management problems facing macropodids, and some of the contemporary approaches to addressing the problems.

In summary, this volume will be of general interest to macropodid enthusiasts, and to those who wish to have an introduction to the diversity of literature on macropodids. Although this book should be in every good library, at its current price when sold outside of Australia, I find it difficult to recommend for personal libraries.

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CENOZOIC MAMMALS OF AFRICA.

Edited by Lars Werdelin and William Joseph Sanders. Berkeley (California): University of California Press. \$95.00. xxi + 986 p.; ill.; index. ISBN: 978-0-520-25721-4 (hc); 978-0-520-94542-5 (eb). 2010.

Since the publication of *Evolution of African Mammals* (V. J. Maglio and H. B. S. Cooke. 1978. Cambridge (MA): Harvard University Press), new discoveries,