

## Book reviews

### REPTILES AND AMPHIBIANS OF AUSTRALIA: SEVENTH EDITION

By Harold G. Cogger

2014. Published by CSIRO Publishing, Melbourne, Victoria, Australia. 1064 pp.

Hardback, AU\$150, ISBN 9780643100350.

*Reptiles and Amphibians of Australia*, commonly known as Cogger, has been the major reference work for Australian herpetologists since it was first published in 1975. Now up to its seventh edition, each edition has not only updated the previous version, but also improved it and this latest edition is no exception.

This seventh edition includes an extra 168 species described since the sixth edition was published in 2000, with a further 10 species and 2 genera described in 2013 included as an appendix. This brings the total number of reptiles and amphibians described in Australia (up until October 2013) to an incredible 1226 species, including the world's richest reptile fauna. Introductory sections for families and genera have been updated where appropriate and, in some cases, expanded. All the latest taxonomic changes, such as the recognition of the Limnodynastidae and numerous new genera and generic reallocations, have also been included. Species restricted to offshore islands have now been included in the keys in the main text instead of being separated after the main text.

This edition has also incorporated several significant improvements on the previous edition, including a list of all currently recognised species presented as a checklist for each state, offshore island (e.g. Christmas and Lord Howe) and major

biogeographical region; plus the addition of useful sections on 'Distribution maps and how to interpret them', 'Patterns of frog and reptile distributions in Australia' and 'Compiling species lists' in the Introduction. Other improvements include a greatly expanded section on 'Keys and their use' which, combined with the addition of colour to highlight features used in the dichotomous keys and the addition of illustrations showing the diagnostic features of frogs, greatly facilitates the use of the dichotomous keys. I also found the addition of a bookmark a nice and useful touch.

Cogger's *Reptiles and Amphibians of Australia* still remains the standard reference book for Australian herpetologists as it is the only book that provides dichotomous keys for all reptiles and amphibians known in Australia and its island territories. Species-level distribution maps and notes on natural history provide a wealth of data and most species are also illustrated with photographs. It has a detailed glossary and a very useful and extensive reference list. Furthermore, as stated previously, each edition updates and improves on earlier editions so that its indispensability only increases with each edition. Given the large number of species described since the sixth edition was published, even owners of that edition will want to own the seventh edition. The numerous additions and significant improvements, including the use of the dichotomous keys, make this a sound investment. This book belongs on the bookshelf of every amateur and professional herpetologist in Australia, as well as anyone with a more than passing interest in our rich and diverse herpetofauna.

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### CARNIVORES OF AUSTRALIA: PAST, PRESENT AND FUTURE

By A.S. Glen and C. R. Dickman (Eds.)

2014. Published by CSIRO Publishing, Collingwood, Victoria, Australia. 448 pp.

Hardback, AU \$89.95, ISBN 9780643103108.

In preparing to write this review, I wanted to find out whether similar books have previously been written about Australian carnivores, or if this text was the first of its kind. A quick search of the National Library of Australia's *Trove* database using the terms 'carnivor\*' AND 'Australia' returned 1988 records, with the first few hundred titles being about carnivorous plants! I refined the search by adding the term 'animal', which got rid of one quarter of the previous records. Of the remaining 1500, two stood out to me: 'Predators with pouches' (Jones *et al.* 2003), and 'A fragile balance: the extraordinary story of Australian marsupials' (Dickman 2007)—(although I'll admit that I only looked at the first 100 records).

Nevertheless, it appears as though this new text edited by Al Glen and Chris Dickman is the first volume to tackle Australia's carnivores free of taxonomic prejudice. The book is introduced as being about 'carnivores with a small c', i.e. its scope isn't limited to those members of the order Carnivora, nor even to the class Mammalia. Instead, the content includes discussion of small and large mammals, both native and introduced, as well as the important raptors and reptiles that are often overlooked in discussion of carnivores.

The book is structured around 18 chapters with good doses of biology, ecology, conservation and management found throughout. The 47 authors represent a wealth of accumulated knowledge from universities, state government agencies, NGOs and private consultants. This diversity of authors is probably a by-product of the complexities that are inherent in carnivore conservation and management and hence form a consistent theme throughout the book.

Chapters 2–5 provide prehistoric and historic perspectives on Australia's carnivores, which begin 30 million years ago with Chris Johnson's discussion of prehistoric marsupial carnivores. Then we step back even further into the Cenozoic

(~65 million years ago) with John Scanlon's discussion of giant reptilian carnivores (Chapter 3). The next two chapters then move onto the three eutherian carnivores that are relatively recent additions to Australia's fauna: dingoes, cats and foxes. These predators feature strongly in at least half of the book's chapters, which is perhaps commensurate with their key ecological roles across the continent.

The next three chapters pay testament to that idea, with Chapter 6 dedicated to 'Management of wild canids', Chapter 7 posing the question 'When is a dingo not a dingo?' and Chapter 8 on the very timely topic of 'Measuring and managing the impacts of cats'. The progression of decreasing body size continues with Chapter 9 dedicated to quolls and devils, and Chapter 10 to 'micro-carnivores', i.e. dasyurids <500 g. The remaining eight chapters cover reptiles and birds (Chapters 11 and 12), predator interactions (Chapters 12 and 13), olfaction (Chapter 17), and conservation and management (Chapters 14–16 and 18).

The strength of a book like this one lies in the freedom it provides authors to delve into detail that journal word limits normally don't allow. This is perhaps best illustrated in Chapter 6, 'Management of wild canids', by Peter Fleming *et al.* The chapter begins by outlining principles of adaptive management and then identifies the most appropriate framework for management of wild canids. This is followed by a detailed examination of the damage caused by wild dogs and foxes and techniques for their control. Finally, the chapter gives a practical discussion of how an adaptive management framework can be applied to this issue.

The book comes at an exciting time for carnivore ecology in Australia and elsewhere globally. Our understanding of the ecological roles of carnivores is increasing rapidly, but at the same time many carnivores are on the brink of extinction (Ripple *et al.* 2014). This coincidence presents conservation

practitioners with unique challenges, particularly where human–carnivore conflicts occur. Chapter 13 by Chris Dickman *et al.* integrates both of these issues in discussing carnivore interactions and the somewhat vexed topic of dingoes as trophic regulators. In the final chapter, Al Glen *et al.* sum things up nicely by saying that '*The daunting but imperative task of Australia's next generation of wildlife managers is to meet these challenges, and exploit the opportunities that effective use of carnivores should bring*'. The high quality science presented in this book will undoubtedly act as a catalyst for advancing the conservation and management of Australia's carnivores into the future.

Overall, this book is an important contribution to the literature on Australia's carnivores. It has broad appeal to researchers, land managers and conservation practitioners working not only on carnivores, but also more generally in the fields of wildlife management and conservation. This book is certainly one to sink your teeth into.

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## References

- Dickman, C. R. (2007). 'A fragile balance: the extraordinary story of Australian marsupials.' (Mallon Publishing: Melbourne.)
- Jones, M., Archer, M., and Dickman, C. R. (Eds) (2003). 'Predators with pouches.' (CSIRO Publishing: Melbourne.)
- Ripple, W. J., Estes, J. A., Beschta, R. L., Wilmers, C. C., Ritchie, E. G., Hebblewhite, M., Berger, J., Elmhagen, B., Letnic, M., Nelson, M. P., Schmitz, O. J., Smith, D. W., Wallach, A. D., and Wirsing, A. J. (2014). Status and ecological effects of the world's largest carnivores. *Science* **343**, 1241484. doi:10.1126/SCIENCE.1241484.