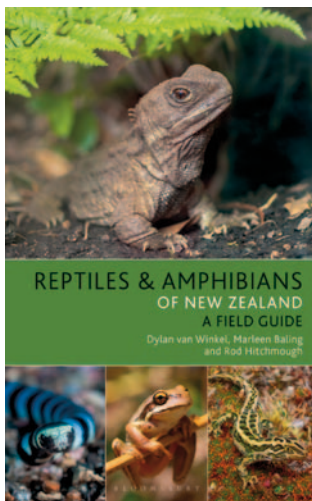


## Reptiles and amphibians of New Zealand: A Field Guide

Dylan van Winkel, Marleen Baling & Rod Hitchmough  
Bloomsbury Wildlife, 2019, ISBN 9781472974990, pp 366 + x, flexiback



Readers who travelled to Aotearoa New Zealand (NZ) for the 9th World Congress of Herpetology in January 2020 may well have been accompanied by this UK republication from 2019. Other attendees may have purchased the original, NZ version (van Winkel et al., 2018) at a congress sales table. Either way, you are unlikely to have been disappointed. As stated on the back cover of the UK version, this book aims to be “the ultimate photographic field guide to New Zealand’s

herpetofauna, and ... a gateway into the world of these fascinating tetrapods for amateur and expert herpetologists alike”. Indeed, it is.

As the authors note, New Zealand’s endemic herpetofauna is famous for its tuatara and leiopelmatid frogs (modern representatives of long-distinct lineages). However, it is also notable for its diversity of long-lived lizards, almost exclusively viviparous. Though only two families of lizards are present (dipodactylid geckos and skinks), over 100 species have been proposed. Much of this diversity is morphologically cryptic, recognised using molecular approaches and awaiting formal description; undescribed taxa are recognised here with ‘tag names’, following the approach taken by the NZ Department of Conservation’s threatened species listings (Hitchmough et al., 2016). This field guide also includes the visiting marine snakes and turtles (migrants or vagrants), as well as several introduced frogs and a skink, all Australian in origin, that have naturalised in NZ (the skink is an ‘Unwanted Organism’ under biosecurity legislation).

Physically, this book is a suitable size for a backpack (about 22 x 14 cm, and just under 725 g). The cover of the UK version is attractive (though not in my view as fresh and compelling as that of the NZ version, with its greater number of endemic taxa on a white background). The inside covers provide a useful quick guide with page references to the different genera. The text begins with a generous and comprehensive introduction of 29 pages, covering the history of human attention from the arrival of Polynesian

settlers, diversity and origins, extinctions and introductions, conservation of endemic species, and NZ’s ecosystems and geographic history. The legislation that makes it “... illegal to capture, collect, hold in possession or deliberately disturb...” native reptiles and amphibians without an authority under the Wildlife Act 1953 is explained, as is the process of application if one wishes to keep species in captivity. The introduction states the book’s aim as to help “you, the reader, identify reptiles and amphibians encountered in New Zealand, particularly in the field, where species identification can be challenging”. Given the encouragement to take high-quality, close-up photographs for identification purposes (p. 26), it would have been useful to restate the legislative requirements at this point and resolve the tension in achieving a close-up examination without prior authority.

In the species accounts that follow, each major section (tuatara, geckos, skinks, frogs, marine turtles and marine snakes) is first introduced with a helpful biological overview. Each recognised taxon then receives an account of at least two pages, including a reasonably detailed physical description, a summary of known distribution, habitat, natural history and etymology. The text is crisp, clear and informative. Unsurprisingly for a field guide, no sources are given in the species accounts; thus, the expert will want to consult additional references, such as the more recent of those in the modest list of ‘Further Reading’ near the back of the book (for example, Chapple 2016 for NZ lizards). A distribution map that distinguishes predicted (based on database records plus a realistic buffer) from potential (crude estimates of adjacent areas where the taxon is considered also likely to be present) are helpful, without giving away sensitive information. I would have liked to see the release sites from recent conservation translocations distinguished from areas of natural occurrence. I’d also have liked an obvious rationale for the order of species within each section (it seems neither alphabetical nor geographical); this is particularly problematic for the >60 skinks in the genus *Oligosoma* where the index becomes crucial for finding a given species, and a page-holder ribbon would also have helped. Each section (other than for the monospecific tuatara) is followed by a key to species. Towards the end of the book there is a regional checklist of species (particularly helpful for NZ herpetologists) and a useful glossary.

A stand-out feature of this book is the superb photography, much of it by Dylan van Winkel. Many taxa are helpfully

photographed against a uniform white background, often with additional supporting photographs illustrating colour variations, habitats or life-history stages other than adults. In the general accounts, there are also often excellent line diagrams of morphological features.

The authors are NZ wildlife ecologists and a conservation-science advisor, with expertise (collectively over 60 years) in herpetological restoration projects, biosecurity, taxonomy and conservation-status listings. They have produced a field guide that is both beautiful and useful – a major step up on earlier guides such as that of Jewell (2011). It comes as no surprise to learn that the original NZ version received a Certificate of Commendation for best field guide in the 2019 Whitley Awards of the Royal Zoological Society of New South Wales. Whilst I can't comment on the usefulness of the keys, or whether the taxonomy recognised here will be followed by formal descriptions that stand the test of time, I certainly recommend this book to all those who seek an introduction to the NZ herpetofauna. The retail price for the UK publication is 30 pounds; cheaper prices for this or other versions may be found on-line.

## REFERENCES

- Hitchmough, R., Barr, B., Lettink, M., Monks, J., Reardon, J., Tocher, M., van Winkel, D. & Rolfe, J. (2016). Conservation status of New Zealand reptiles, 2015 *New Zealand Threat Classification Series 17*. Wellington: Department of Conservation. 14 pp.
- Chapple, D.G., ed. (2016). *New Zealand Lizards*. Switzerland: Springer. 375 pp.
- Jewell, T., with photographs by Morris R. (2011). *A Photographic Guide to Reptiles and Amphibians of New Zealand*. Revised edn. Auckland: New Holland Publishers. 144 pp.
- van Winkel, D., Baling, M., & Hitchmough, R. (2018). *Reptiles and Amphibians of New Zealand: A Field Guide*. Auckland University Press: Auckland. 376 pp.

ALISON CREE

Department of Zoology, University of Otago, Ōtepoti Dunedin,  
Aotearoa New Zealand  
Email: alison.cree@otago.ac.nz

*Received: 18 February 2020*