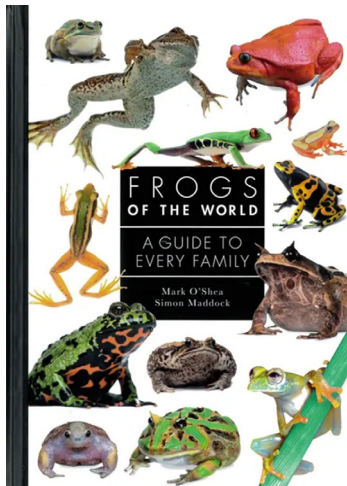


## Frogs of the World: A guide to every family

Mark O'Shea & Simon Maddock  
Princeton University Press, 2024  
978-0-691-24830-1, 240 pp.



With over 7,600 species of anurans known to science (Frost, 2024), trying to fit all of them into a single book would be impractical given the high rate of species discovery that would render such a guide obsolete within a year or two. The next best thing is to deal with anurans family by family, giving examples of interesting species in each family and this is

what 'Frogs of the World: A guide to every family' has done, offering a clear and beautifully illustrated account of this group of amphibians.

Billed as an in-depth introduction to each family with profiles of specific species to illustrate their specific characteristics and adaptations, 'Frogs of the World' would seem to be a valuable companion to anyone with an interest in anurans. The title of the book is slightly misleading as it does include toads too, although most readers with an interest in frogs would likely suspect this.

The book opens with a comprehensive introduction to the natural history, evolutionary biology, anatomy, ecological importance, and conservation of frogs and toads (to name but a few such topics). There are a number of illustrations and brilliant photographs throughout this section that put the information into context and make it accessible. This information is a good general introduction to the clade so that it applies to the majority of anuran species, which is important given their diversity and the fact that over 40% of species are threatened with extinction.

The first four families of anurans that are featured belong to the suborder Archaeobatrachia, featuring the Ascaphidae, Leiopelmatidae, Alytidae and Bombinatoridae in that order. The introductory page to this suborder describes where the species that belong to it can be found, when they evolved, and the primitive features that differentiate them from other anurans. Next comes the Mesobatrachia with Megophryidae, Pelobatidae, Pelodytidae, Pipidae, Rhinophrynidae and Scaphiopodidae. With added complexity comes additional species features, with the two subfamilies within Pipidae (Dactylethrinae

and Pipinae) being treated separately from one another. Where necessary, this format of layout and information is continued throughout the rest of the book. Finally, the book considers the Neobatrachia which encompasses 46 families – so the majority of known species and so rightfully comprises the majority of the book.

Each family summary contains a number of beautiful photographs along with information on their ecology and conservation status, as well as additional information such as a distribution map, size, diet, habitats and modes of reproduction. Given how varied frogs and toads are, it is this information that the general reader is likely to be most captivated by, if not the photos. These clear summaries allow readers to see how each family is differentiated from the others. This, I feel, is one of this book's strongest features allowing side-by-side comparisons of anurans throughout the book.

The information presented about each family or subfamily is well written, concise and accessible. For those families that are particularly large such as Microhylidae, there are double-page spreads dedicated to each subfamily to aid with the representation of both the volume and diversity of species found within them. The authors have worked hard to ensure that readers with widely differing degrees of interest in amphibians would all be able to make use of the information presented to them. The paragraphs are not overly technical or complicated, often with relevant photographs alongside the text. Furthermore, given that the book is relatively short for such a large subject, the pages are not overflowing with text, which prevents the reader from becoming overwhelmed, and instead maintains their engagement with the information throughout.

While not all anuran species are covered, which is particularly true for the larger families, the information that is present is highly relevant, and the highlighted species have been carefully chosen. For example, if a species is listed as being Endangered by the IUCN Red List, this is highlighted along with the threats to that species' conservation. Another useful feature is a summary of the species in each family or subfamily that are listed in each of the Red List threat categories, with a percentage telling the reader how many of those species are in trouble. This helps readers visualise that risk, especially when a whole family may be endangered in similar ways.

At the end of the book is an extremely helpful glossary and although most of the sections I have just described are generally free of scientific terminology, jargon is

## REFERENCES

occasionally unavoidable. There are also more definitions here than included in some more technical books, which I feel adds to the accessibility of this quick overview of the world's frogs and toads.

Given its very wide-ranging content, in a volume of only 240 pages, this book can only act as a quick guide to the anurans of the world, and so some further books and websites are suggested to help readers find additional relevant information. The book list is arranged geographically but does miss some key texts as North America, South America and Europe are only represented by a single book each. If I had a criticism it would be that the contents page at the front only lists the suborders and not the families themselves, so these need to be located by using the index at the back.

To my knowledge, this is the first book of its kind that aims to include information about every family of anuran, with up-to-date and accurate scientific information. Previously, Chris Mattison has produced at least two books with a similar title that have been published in a number of different editions on both sides of the Atlantic (Mattison 1987; 2011) and which some may argue are the spiritual precursors to the latest book. More recently, Halliday (2016) covered 600 species of anurans in depth with life-size photos and the relevant information about each that you would expect in such a tome.

Finally, given that 'Frogs of the World: A Guide to Every Family' retails for at most about £25, it is an affordable guide for anyone interested in, or working with, amphibians. It may not contain all of the information some readers or researchers may be looking for, but it provides a solid foundation that then allows for further research. The authors have succeeded in balancing accessibility with scientific depth, making complex information understandable without oversimplifying it.

- Frost, D.R. (2024). *Amphibian Species of the World: an Online Reference*. Version 6. Electronic Database accessible at <https://amphibiansoftheworld.amnh.org/index.php>. American Museum of Natural History, New York, USA.
- Halliday, T. (2016). *The Book of Frogs: A Life-Size Guide to Six Hundred Species from Around the World*. The Ivy Press, Lewes, East Sussex. 656 pp.
- Mattison, C. (1987). *Frogs and Toads of the World*. Blandford Press, London. 191 pp.
- Mattison, C. (2011). *Frogs and Toads of the World*. Natural History Museum, London. 192 pp.

STEVEN J.R. ALLAIN

Department of Animal Science, Writtle School of Agriculture,  
Animal and Environmental Sciences, ARU Writtle, Lordship  
Road, Chelmsford, Essex, CM1 3RR  
E-mail: [steveallain@live.co.uk](mailto:steveallain@live.co.uk)