



BOOK REVIEW

The Lives of Frogs: A Natural History

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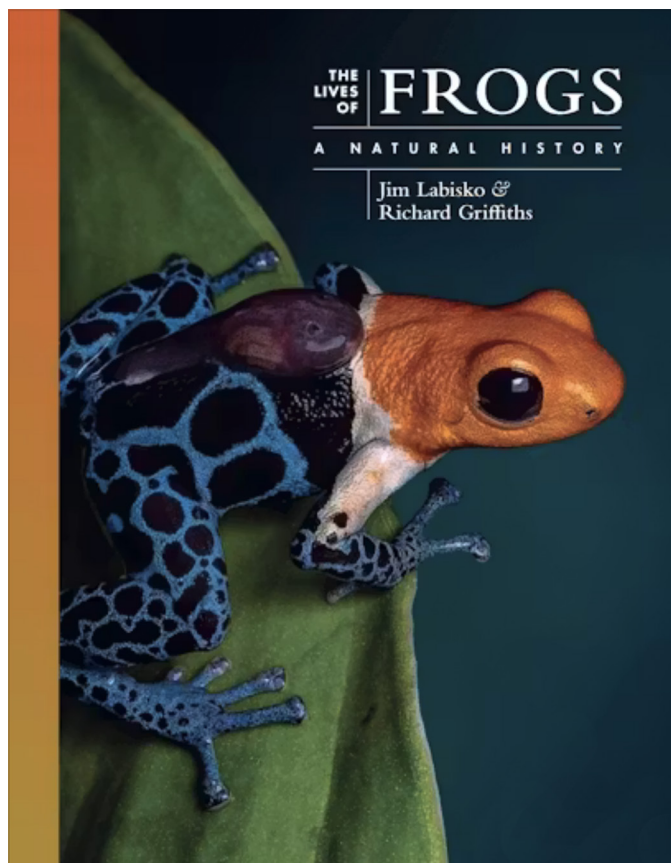
***The Lives of Frogs: A Natural History*. 2025. Jim Labisko and Richard Griffiths. Princeton University Press, Princeton, New Jersey, USA. 288 pp. Hardback – ISBN 9780691255019. \$35.00.**

Natural history publishing has undergone a remarkable renaissance over the past decade, with a growing emphasis on integrating evolutionary biology, behavioral ecology, conservation science, and high-quality visual presentations. Princeton University Press's *The Lives of the Natural World* series exemplifies this trend, and *The Lives of Frogs: A Natural History* by Labisko and Griffiths is among its strongest contributions. Drawing on decades of research in amphibian ecology and conservation, the authors present a richly illustrated synthesis of frog biology that is simultaneously accessible to general readers and informative for professional biologists. Rather than functioning as a field guide or taxonomic handbook, the volume explores frogs and toads through the lens of natural history, examining their evolution, anatomy, physiology, behavior, ecology, reproduction, communication, and increasingly uncertain conservation status.

The authors are exceptionally well qualified for this undertaking. Jim Labisko has worked extensively on amphibian biodiversity and ecology and Richard Griffiths is internationally recognized for his contributions to amphibian conservation biology, particularly in Europe. Their combined expertise is evident throughout the volume, in which a broad biological synthesis is consistently informed by firsthand field experiences rather than a literature review. Indeed, one of the most striking features of the book is that its authority derives not only from scientific knowledge but also from decades spent observing amphibians in their natural habitats. This personal familiarity lends warmth and authenticity to what might otherwise have been a conventional survey of amphibian biology.

As with other titles in the series, this book follows a thematic rather than taxonomic organization. Beginning with the deceptively simple question “What is a frog?”, the authors proceed through chapters examining anatomy, evolution, life on land and in water, communication, reproduction, feeding ecology, defense, biodiversity, conservation, and finally the future of amphibians. Representative species

are used throughout to illustrate broader biological principles rather than serving as the primary focus. This organizational strategy is particularly successful. With over 9,000 currently recognized anuran species occupying habitats ranging from tropical rainforests and alpine tundra to deserts and urban gardens, a comprehensive taxonomic treatment would inevitably become encyclopedic. Instead, Labisko and Griffiths ask the more interesting biological questions: How do frogs function, why have they evolved such extraordinary diversity, how do they interact with their environments, and why are they disappearing at such an alarming rate? This thematic approach also allows readers to appreciate frogs and toads as evolutionary solutions to ecological problems rather than simply as collections of anatomical characteristics. Throughout the book, physiology and behavior are explained



in terms of adaptive function, rendering evolutionary thinking the unifying framework.

One of the book's greatest strengths lies in its treatment of amphibian evolution. Frogs and toads possess one of the most distinctive body plans among vertebrates, characterized by powerful hindlimbs, specialized sensory systems, highly permeable skin, and complex life cycles linking aquatic and terrestrial environments. Rather than presenting these characteristics as isolated facts, the authors consistently relate them to ecological pressures and evolutionary history. The discussion of amphibian skin exemplifies this approach. Skin is presented not merely as an anatomical feature but as an interface between frogs and their environment, facilitating respiration, water balance, chemical defenses, and communication. Similarly, chapters dealing with locomotion and feeding emphasize how seemingly familiar frogs have evolved remarkably diverse adaptations for climbing, burrowing, gliding, aquatic life, and highly specialized diets.

These sections compare favorably with standard amphibian textbooks because they maintain scientific rigor while avoiding excessive technicality. Undergraduate students will find sufficient biological depth to support introductory studies, whereas experienced naturalists will appreciate the breadth of examples drawn from around the world. The behavioral chapters are among the volume's most engaging. Frogs are frequently perceived as relatively simple animals whose principal behaviors consist of calling and breeding. Labisko and Griffiths demonstrate how misleading this stereotype is. Communication receives particularly strong treatment. Acoustic signaling, visual displays, chemical communication, territoriality, mate choice, and parental care are woven together into a coherent narrative illustrating the remarkable behavioral diversity of anurans. Species profiles highlight extraordinary reproductive strategies, including foam nests, direct development, transport of tadpoles, gastric brooding (historically), and extensive parental care. The discussion benefits greatly from the authors' field experiences. Behavioral ecology is inherently difficult to communicate without observation, and the examples presented throughout the text reflect decades spent studying living frogs rather than preserved museum specimens.

Readers familiar with *Biology of Amphibians* (Duellman and Trueb 1994) and *The Ecology and Behavior of Amphibians* (Wells 2007) will recognize many of the same themes, although these other titles are wider in scope in that they address all amphibians. Wells's monumental volume remains the definitive scholarly treatment of amphibian behavioral ecology, spanning more than 1,000 pages, although research has moved on since the mid-2000s. Labisko and Griffiths (2025) do not attempt to rival its depth, instead, they distill many of its central concepts into an engaging narrative suitable for a much wider audience. In this respect, *The Lives of Frogs* serves as an ideal gateway to the primary literature. If the

earlier chapters celebrate frog diversity, the final sections confront its fragility. Amphibians are widely recognized as among the most threatened vertebrate groups globally, with habitat loss, climate change, pollution, invasive species, and emerging infectious diseases (particularly chytridiomycosis) driving unprecedented population declines.

Although *The Lives of Frogs* shares the same subject as *Frogs of the World: A Guide to Every Family* (O'Shea and Maddock 2024) and *The Book of Frogs: A Life-Size Guide to Six Hundred Species from around the World* (O'Shea and Halliday 2025), each adopts a different editorial philosophy and serves a different audience. *Frogs of the World* is organized taxonomically, introducing every recognized frog family. Its principal strength lies in providing a clear overview of global anuran diversity and evolutionary relationships, making it an excellent reference for readers interested in classification and comparative diversity. Although ecological and conservation information is included, the emphasis remains on documenting taxonomic breadth rather than developing a broader natural-history narrative. *The Book of Frogs* takes a more species-centered and visual approach. Featuring life-sized images of 600 species accompanied by concise accounts, it celebrates the extraordinary morphological diversity of frogs. It is less concerned with synthesis than with illustrating the richness of anuran biodiversity and is likely to appeal particularly to naturalists, wildlife photographers, and general readers. The three books are therefore complementary, with *The Lives of Frogs* providing the strongest synthesis of biology and conservation. Together they reflect the growing strength of modern amphibian natural history publishing and demonstrate how accessible, well-illustrated books can successfully combine scientific accuracy with broad public appeal.

The concluding chapter, "Frogs in the Future," is arguably the most important in the volume. Rather than presenting only depressing statistics, the authors examine successful conservation initiatives, recent technological advances in monitoring populations, habitat restoration, captive breeding programs, and opportunities for public engagement. This optimistic yet realistic perspective distinguishes the book from many conservation texts, which can leave readers overwhelmed by the scale of biodiversity loss. This conservation emphasis reflects Griffiths' own career in amphibian conservation biology and elevates the book beyond descriptive natural history. Frogs and toads are presented not simply as fascinating organisms but as indicators of environmental health whose future is intimately connected with that of the world's freshwater ecosystems.

The Lives of Frogs occupies an interesting position within the broader literature on amphibians. Compared with Wells (2007), it is necessarily less comprehensive and less technical. Wells (2007) remains indispensable for researchers requiring detailed treatment of life histories, reproductive strategies,

population ecology, and behavioral evolution. However, its scale and technical sophistication make it unsuitable for most general readers. Labisko and Griffiths achieve something arguably more difficult by preserving scientific accuracy while rendering complex ideas accessible.

Like other volumes in Princeton's series, the book is visually exceptional. More than 150 color photographs are integrated closely with the text, illustrating anatomical features, behaviors, habitats, and representative species. The photography serves a genuine educational function rather than merely decorative purposes. Images reinforce discussions of camouflage, sexual dimorphism, parental care, habitat diversity, and morphological adaptations. Particularly effective are photographs showing frogs and toads within ecological context, reminding readers that amphibians cannot be understood independently of the environments in which they live. The layout is similarly successful, balancing substantial text with illustrations, maps, and species profiles. This design makes the book approachable without sacrificing intellectual gravity.

No synthesis of global frog biology can be entirely comprehensive, and *The Lives of Frogs* inevitably makes compromises. Readers seeking detailed taxonomic revisions, phylogenetic analyses, or molecular evolutionary discussions will need to access the more specialized literature. Likewise, although disease ecology receives appropriate attention, topics such as genomics, environmental DNA monitoring, and quantitative conservation planning are discussed only briefly. Some readers might desire more explicit treatment of recent advances in amphibian phylogenomics, which have substantially reshaped understanding of frog evolution over the past two decades. Similarly, greater integration of indigenous ecological knowledge and cross-cultural perspectives on amphibians would have broadened the book's appeal. These, however, are relatively minor criticisms of a work with a primary objective of synthesis rather than exhaustive review.

The Lives of Frogs succeeds admirably as a modern work of natural history. It combines evolutionary biology, behav-

ioral ecology, conservation science, and exceptional visual presentations into a coherent and engaging whole. The writing is authoritative without being technical, enthusiastic without becoming sentimental, and scientifically rigorous without sacrificing accessibility. Its greatest achievement lies in demonstrating that frogs and toads deserve attention not merely because they are threatened but because they represent one of evolution's most remarkable vertebrate radiations. Throughout the book, Labisko and Griffiths consistently remind readers that frogs are extraordinarily successful organisms whose adaptations have allowed them to colonize an astonishing diversity of environments over more than 200 million years of evolutionary history.

For professional herpetologists, the volume provides an excellent synthesis suitable for teaching and outreach. For students, it offers an ideal introduction to amphibian biology. For conservation practitioners, it represents an effective tool for communicating the urgency of amphibian conservation to wider audiences. And for naturalists, it is simply a beautiful celebration of one of Earth's most remarkable groups of vertebrates. Like the finest works of natural history, *The Lives of Frogs* ultimately accomplishes more than the communication of biological facts, it encourages readers to look more closely, think more deeply, and recognize that even familiar pond frogs embody evolutionary histories and ecological relationships of extraordinary complexity. In doing so, Labisko and Griffiths have produced one of the most engaging general accounts of amphibian natural history currently available.

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