



HUSEMANN M. & HAWLITSCHKE O. (eds) 2026: GRASSHOPPERS, LOCUSTS, AND CRICKETS OF THE WORLD. Princeton University Press, Princeton and Oxford, 320 pp. ISBN 978-0-691-28105-6. Price USD 29.95 / GBP 25.00.

Grasshoppers, locusts, crickets, bush crickets, and katydids – collectively forming the order Orthoptera – comprise approximately 30,000 described species distributed on all continents except Antarctica. Despite this impressive diversity, and despite the fact that many species are conspicuous, acoustically active, and ecologically important components of terrestrial ecosystems, Orthoptera have long suffered from a relative lack of public and scientific attention. General natural history books cover beetles, butterflies, and bees in abundance, but comprehensive treatments of Orthoptera have remained scarce. *Grasshoppers, Locusts, and Crickets of the World* is a direct and admirably successful attempt to fill this gap. Edited by leading orthopterologists Martin Husemann and Oliver Hawlitschek, the book is co-authored by a remarkable international team of 72 specialists from 25 countries, making this volume a truly global synthesis of current knowledge on the order.

The book is organised into eight thematic chapters. Chapter 1 (*Evolution and Systematics*) addresses the deep evolutionary history of Orthoptera, tracing the group's origins and diversification across 300 million years. Among the highlights are sections on Orthoptera fossil history, convergent evolution in band-winged grasshoppers, the spectacular radiation of Hawaiian crickets – with more than 170 described species on a single island archipelago – and the evolutionary history of camel crickets. This chapter firmly establishes the evolutionary context for the rest of the volume.

Chapter 2 (*Biology and Ecology*) covers the ecological roles of Orthoptera with thematic breadth and depth. Subsections deal with their place in food webs, crypsis, masquerade and mimicry, the extraordinary biology of ant crickets that live in chemical disguise within ant colonies, the mating behaviour of bush crickets, and the remarkable case of raspy crickets that serve as pollinators of orchids. Chapter 3 (*Pests*) provides a well-rounded treatment of locusts as agricultural pests, with historical and contemporary perspectives, a discussion of major locust pest species and outbreak frequencies, and a fascinating case study on *Barbitistes vicetinus*, a species that transitioned from obscurity to pest status.

Chapter 4 (*Song and Hearing*) is one of the most engaging in the book. It explores the diverse mechanisms of sound production in Orthoptera, the sophisticated hearing organs of crickets and their relatives, and the variety of singing styles found across crickets, katydids, mole crickets, and grasshoppers. A particularly noteworthy section examines whether complex courtship songs prevent or promote hybridisation between grasshopper species – a question with broader implications for speciation research. This chapter will be of special interest to bioacousticians and evolutionary biologists.

Chapter 5 (*The Diversity of Orthoptera Around the World*) is the most extensive in the volume and is organised by geographic

region: Australia and Pacific, Asia, Europe, Africa, and the Americas. For each region, regional overviews are combined with focused accounts of particular groups or species. These include sandgropers (Cylindrachetidae), the unique underground-dwelling orthopterans of Australia; wetas of New Zealand (Anostomatidae); the extraordinary orthopteran diversity of Singapore as an urban hotspot; the Mediterranean biodiversity hotspots shaped by geological history; the locusts and desert-adapted Orthoptera of the Sahara; the colourful lubber grasshoppers (Romaleidae) of the Americas; and the neotropical monkey grasshoppers described as among the most colourful insects in the world. Large-format, high-resolution colour photographs accompany all regional accounts, making this chapter as visually impressive as it is informative.

Chapters 6 through 8 address topics that extend the book beyond a purely biological treatment. Chapter 6 (*Research and Resources*) provides valuable perspectives on natural history museum collections as research platforms, including historical vignettes on the Linnaean Orthoptera collection and the Naturalis collection, as well as an introduction to artificial intelligence in Orthoptera identification. It also includes authoritative chapters on the Orthoptera Species File (OSF), the freely accessible global taxonomic database of the order, and on DNA barcoding as a tool for cataloguing orthopteran diversity. Chapter 7 (*Conservation*) addresses the pressing challenges facing Orthoptera in the Anthropocene, covering climate change responses of central European species, shrinking alpine refuges, and case studies on the threatened speckled buzzing grasshopper and the mysterious extinction of the Rocky Mountain locust. Chapter 8 (*Cultural Aspects*) is a welcome and unusual addition, covering cricket fighting in China (a tradition over 2,500 years old), keeping the giant hooded katydid *Silicofera grandis* as a pet, Orthoptera ecotourism in southeastern Europe, and the use of grasshoppers as food.

The production quality of the book is excellent. The volume is richly illustrated throughout with striking colour photographs contributed by researchers and nature photographers from around the world. The hardcover binding and large-format layout make it a pleasure to use. Text is well-written and accessible, with scientific terminology explained where necessary, ensuring the book is useful to both specialists and educated non-specialists. The inclusion of a glossary, comprehensive reference list, and a full index further enhances its utility as a reference work. At a list price of USD 29.95 / GBP 25.00, the book represents outstanding value for such a richly produced volume.

Alongside its many strengths, a few minor shortcomings are worth noting. The book presents the latest research across a wide range of topics in accessible, generalised texts deliberately free of methodological detail and formal citations. While this approach ensures readability for a broad audience, it would be beneficial if each contribution were accompanied by a short list of key references pointing readers directly to the primary literature on which the text is based – not citations in the conventional academic sense, but signposts enabling interested readers to pursue topics further. A second observation concerns the captions ac-

companying the photographs. The volume contains a wealth of superb images of Orthoptera in their natural settings, yet locality information is conspicuously absent throughout. Even a country or continental origin for each photograph would add considerable value, particularly in the general thematic chapters where such context is most relevant. These are minor points that do not diminish the overall quality of the work, but addressing them in a future edition would further enhance the book's utility.

In conclusion, *Grasshoppers, Locusts, and Crickets of the World* is a landmark publication that the orthopterological community has long needed. By combining the expertise of 72 au-

thors from 25 countries, the editors have produced a volume that is simultaneously comprehensive and engaging, covering evolutionary history, ecology, bioacoustics, regional diversity, conservation, and cultural dimensions of a group that deserves far greater public and scientific attention. It is warmly recommended to orthopterists, entomologists, naturalists, ecologists, and anyone with an interest in the biodiversity of our planet's insect life. This book deserves a place in every entomological library.

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