

BOOK REVIEW

The Sand Wasps - Natural History and Behaviour

Howard E. Evans and Kevin M. O'Neill (2007)

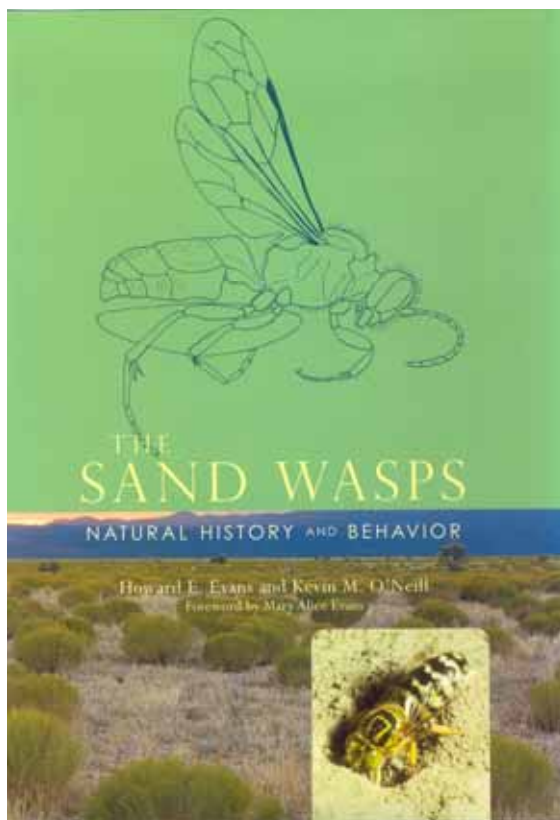
Published by Harvard University Press, ISBN- 13:978-0-674-02462-5 and ISBN-10:0-674-02462-1
340pp, RRP A\$84.24 (hardback)

Howard E. Evans' unfinished update to his 1966 work "*The Comparative Ethology and Evolution of the Sand Wasps*" has been completed well by his co-author and student Kevin M. O'Neill. The introductory chapter covers natural history, classification and biology of the wasps of the Bembicinae (Sphecidae). This is followed by a chapter of updates for each tribe and then specifically for the genus *Bembix*. The final chapter on Comparative Ethology covers diverse aspects of behaviours such as nest construction, prey selection, brood parasitism and sleeping and then discusses Sand Wasp conservation.

The book will assist the general observer and non-specialist to relate to Sand Wasps. These insects present a diverse array of fast-moving colourful, tiny to large busy creatures that are hard to differentiate and identify. The global coverage with frequent mention of Australian species helped draw me into this work which seems to indicate that each insect has a wasp waiting to prey upon it.

What I found enlightening and reassuring was the book's emphasis on detailed field observations. Apart from important information these bring joy and broader understanding of the ethology and ecology of these wasps. The complexity and diversity of relationships within and among the species and habitats is communicated well throughout the book. The black and white action photographs of individual wasps and of nests are fine though the addition of a few black and white specimen plates may have assisted the non-specialist to identify wasps they may have encountered.

This book is a valuable, on-going reference and an enjoyable, informative wander into the world of these often dismissed insects that reflect an ecological health that is too often damaged. In response to the final line (which could apply to many insects), "*How can we convince the public that Sand Wasps matter?*" I think in this book a contribution has been made towards this.



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BOOK REVIEW

Bugs Alive! A guide to keeping Australian invertebrates

Alan Henderson, Deanna Henderson and Jessie Sinclair (2008)

Published by Museum Victoria, Melbourne, Victoria, ISBN 9780975837085

200pp. RRP A\$29.95 (Paperback)

It is all too easy to think that keeping insects alive in captivity is a simple task. However, anyone who owned a 'bug catcher' or 'ant farm' as a child could probably testify to the difficulty in keeping critters alive for more than a couple of weeks. Trying to get insects to breed in captivity, and then successfully raising the offspring is even more difficult. However, captive breeding of insects is likely to play an important role in native insect conservation as urban development, habitat degradation and the impact of predicted climate change impacts Australia's invertebrate fauna. For many people, an ant is an ant and a beetle is a beetle and the biological and ecological differences within each of these insect groups may come as a surprise. Understanding these differences can, however, make a significant difference in the successful maintenance and captive breeding of many insects. For the almost 100 species covered in **Bugs Alive! A guide to keeping Australian invertebrates** the authors have included details on feeding, housing and routine care requirements as well as a guide to sex determination, lifespan and behaviour. There is also information on species specific considerations and a listing of species with similar care requirements and likely compatibility with other species. The book is structured very well and divided into three main sections, **Australian Bugs** covering the basics of invertebrates, **Care guides** for sixteen invertebrate groups and a **Reference** section that covers in detail options for housing, feeding and displaying invertebrates as well as some health issues that may arise. The reference section is very useful with practical information on the previously mentioned topics. Taking escape prevention as an example, information on oils, fluon, silicone spray and moats is included. Likewise, general lighting, substrate and food requirements (including some recipes for invertebrate species meals) are discussed at length. While insects make up the majority of entries, spiders, scorpion, snails and slugs all get a mention too. The diverse range of invertebrates covered includes a few species that, for various reasons, can be tricky to keep in captivity. Easy to keep species such as the common garden snail (*Cantareus aspersa*), spiny leaf insect (*Extatosoma tiaratum*) and black field cricket (*Teleogryllus commodus*) are a good starting point for aspiring entomologists but for those up for a more challenging (or potentially dangerous) species, bull ants (*Myrmecia* spp), Sydney funnelweb (*Atrax robustus*), redback spider (*Latrodectus hasselti*), the giant panda snail (*Hedleyella falconeri*), Mitchell's cockroach (*Polyzosteria mitchelli*) and rainbow stag beetle (*Phalacrognathus muelleri*) are included too.

The layout of the book is excellent. A single page is dedicated to each species with a beautiful colour photograph. Common and scientific names are listed along with a brief species description and the level of difficulty in keeping is included also. Housing requirements are simple and clear with details on enclosure type, substrate type and enclosure inclusions all listed along with temperature, humidity and lighting requirements as well as the suitability for keeping each species in groups or as individuals. The standard layout for each species makes comparisons easy and would certainly be useful when selecting an invertebrate to keep (very handy for helping parents determine which animal their child is allowed to keep too). Overall, a fantastic investment for novice, amateur or professional entomologists alike, this book is an extremely useful and informative guide.



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