

Foreword

Bees are viewed widely as beneficial. Humanity has long benefited from the domestication of a few species, most notably the European honeybee, *Apis mellifera*. These benefits include the production of honey and wax, as well as the pollination of crops and other plants. Their intricate behaviours, especially those associated with social existence, have presented stimulating models for evolutionary analysis, as well as impressive – often fanciful – templates for the imaginations of science fiction writers. Yet, few people appreciate the true variety and biological diversity of bees demonstrated so vividly in this book.

Australia harbours numerous species of native bees, many of them inconspicuous to the casual observer, and most of them found nowhere else in the world. As with other groups of insects in Australia, early taxonomists allocated many newly discovered species to Northern Hemisphere genera with which they were familiar, and the high levels of endemism and independent evolution have only become recognised as our fauna is explored in more detail. The uniqueness of our bee fauna is itself a powerful motive for conservation, but the wellbeing of bees as predominant pollinators is also integral to the conservation of much of Australia's flora. Bees can be affected by the loss of native flora and habitats and by the introduction of alien species, pesticides and other influences. Global declines of pollinators are a major concern and their wide ramifications are difficult to exaggerate.

Tarlten Rayment commented in his *A Cluster of Bees* (1935, Endeavour Press, Sydney) – an enduring classic of Australia's natural history literature – that bees are perhaps the most useful of all insect groups to humanity. Their wellbeing can be assured only through informed awareness, and any means that can increase this recognition is extremely welcome. Ways of attracting young people to wider interests in natural history (and redressing what is sometimes referred to as 'the extinction of experience') are extremely welcome. This book is a valuable contribution to that effort. James Dorey writes with knowledge and an infectious passion, and the wealth of information encompassed in his notes on each of the selection of bee species treated here will surely help to stimulate wider and enduring interest. The book is also a vehicle for displaying the author's remarkable photographs: examples that demonstrate so impressively the beauty, wonder and structural variety of Australia's bees. It also provides a useful 'foothold' for readers to start observing, collecting (with due regard to any permits needed), photographing and recording their findings on behaviour, abundance, which flowers are visited or ignored, and so on. It is easy to obtain original information – indeed, it is often difficult to find anything that has been recorded previously for many of our insect species! Novelties may include finding unusual species in a home garden, where bees can be encouraged by supplying suitable nectar sources

and nest sites. The general essays in this book focus on many topics related to this and are an important part of this volume. Some provide very practical advice on studying bees.

One important lesson, perhaps a caution, is that, although the fine illustrations cover a representative selection of bees that may be encountered, a far larger number are not included. It is sure that any persistent observer will find additional species, some closely resembling those illustrated, but others clearly different. Some may never have been seen before, especially those from the more remote parts of Australia. Our ability to interpret bee diversity and patterns of species distribution and abundance depend on continuing documentation, and the availability of collected specimens for critical examination by specialists. Readers of this welcome book can easily become contributors to this endeavour.

In short, bees are a significant focal group of insects. They are popular and appreciated, attractive in appearance and readily observed, as most are active by day – they are ideal for 'citizen science' projects or for individual interests. I hope that this book will foster these activities and lead to increased understanding of 'how bees work' in Australia.

T. R. New

Department of Ecology, Environment and Evolution, La Trobe University, Melbourne, Victoria 3086, Australia Email: T.New@latrobe.edu.au



