

# Preface

Stick and leaf insects – together commonly known as phasmids – are well-camouflaged, nocturnal insects. Little is known about most of the 100 or so species found in Australia. We know more about three ‘pest’ species, mainly from the highlands of New South Wales, which have been regularly reported on since 1880. It is unfortunate that even basic information about most phasmid species, such as which plants they eat, is rarely recorded. Many species have not been studied for years and some, mainly from the rich rainforest regions of north-east Queensland, are still undescribed.

Occasionally stick insects make the Australian national or local press, usually with pictures of showy species found by residents. In 2001 there was much excitement amongst entomologists and the public when the Lord Howe Stick Insect, thought to have been extinct since 1918, was rediscovered on Ball’s Pyramid, a tiny volcanic rock jutting out of the sea, 23 km south-east of Lord Howe Island.

The lack of knowledge of Australian phasmids inspired us to write this field guide. We hope to encourage all those interested in these fascinating creatures to identify them, learn more about them, and help to conserve them. As with all wonders of the natural world, there is even an opportunity to discover species new to science – one never knows what will be encountered on excursions, even in places regularly visited. The authors have indeed been privileged to name some amazing new species.

Estimates of the true number of Australian phasmids have ranged from 150

to 200 species. There are several catalogues on Australian phasmids, the most recent being the authors’ *Studies on the Australian stick insects (Phasmida), including a checklist of species and bibliography* (2007), which lists 104 species and 1 subspecies. Many of what were originally considered to be separate species have now been ‘downgraded’ to synonyms, i.e. repeated descriptions. So far, there are 54 reported synonyms of Australian species, in many cases indicating the difficulty researchers have experienced with variation in species. Some species still await description, including a number of smaller or plain species, neglected by researchers, particularly in the genera *Candovia*, *Denhama*, *Hyrtacus* and *Pachymorpha*. In several cases, these are only known from single specimens, which it is not yet appropriate to describe. When all these genera have been thoroughly revised, there are an estimated 150 species. All described species are discussed in this book.

A taxonomic paper by Hennemann and Conle was published in late 2008 as this book was going to press. *Extatosoma tiaratum* (pages 126–128) is now in the Phasmatidae, new subfamily Extatosomatinae (from Tropicoderinae). *Ramulus stilpnoides* (page 119) is now in the Phasmatidae, subfamily Clitumninae.

The layout of this book is designed to be user-friendly and avoid very technical terms. There are practical, well-illustrated sections for even the most experienced phasmid hunter on anatomy, classification, collecting, photographing, rearing and studying these