



Terry Houston: A guide to the native bees of Australia

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Concerns over declines of pollinating insects, and the consequences for both human food supply and natural flora are predominant themes in insect conservation. Evaluating losses of bees, and other pollinators, depends heavily on recognition and monitoring of the focal taxa—and outside the northern temperate regions, this task can be formidable. Dr Terry Houston's new book, drawing on a lifetime of interest, enthusiasm and study of Australia's bees, is a notable contribution toward rendering these insects more familiar—and also to revealing the high richness of around 2000 species, of which a very high proportion are endemic and associated with native flora. Houston notes that these bees pollinate a large percentage of that flora—and are the only pollinators of many plant species. Yet Australia's bees have a very low conservation profile; fewer than a handful have any formally recognised conservation status, although many species are known from very limited areas, seem to be 'rare', appear to be ecological specialists, and could be threatened as losses of native vegetation continue.

This splendid book presents a thorough and magnificently illustrated synopsis, supported by keys to distinguish the five families, infrafamily groups and 58 genera. The taxonomic account is preceded by much general information on bees, written in simple language but without sacrificing detail, and constituting a valuable natural history introduction to the fauna, which will be welcomed by non-specialist readers. The list of themes treated in this 'Overview of bees and their biology' (pp. 1–85) is comprehensive, and the section also contains numerous relevant colour photographs—which, indeed, are a feature of the entire book. Many are

by the author, but others by a range of expert wildlife photographers.

The second, larger, section ('Identification of bees', pp. 89–248) is a clear synopsis of the varied Australian bee fauna. The introductory sections ('Identifying bees', 'Is it a bee?', 'Native bee or honeybee', 'Regarding names: scientific versus common') together with the morphological and biological information in the first section ease readers gently into what might otherwise seem a daunting task. Discussion of the essential differences between the major categories of 'short-tongued' and 'long-tongued' bees, and a tabular diagnostic comparison of families precede a very clear and readable systematic account of all taxa down to generic level. The reassuringly lucid text includes features such as derivation of scientific names and, as well as morphological information (again with well-selected and universally clear colour illustrations, ranging from whole insects to small differentiation features such as tibial and labral form) and recognition features, and also much biological information. The sequence of treatment begins with Colletidae, the 'short-tongued native bees' that includes more than half of Australia's described bee species, and is followed by Stenotritidae (a small and exclusively Australian family), Halictidae (with about 400 Australian species), Megachilidae and Apidae, with a concluding chapter on the six species of bee introduced into the country. A useful glossary, comprehensive bibliography and index complete the book. This well-produced book is excellent value.

Terry Houston's deep and enduring passion for Australia's bees has resulted in an original, perceptive, accessible and highly informative book which will be used widely. It displays the entrancing diversity of these insects, and should do much to increase awareness of the variety of native bees and of their ecological importance.

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