



REVISION OF THE ANT GENUS *MELOPHORUS* (HYMENOPTERA, FORMICIDAE)

BY

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Melophorus nemophilus Heterick, Castalanelli & Shattuck, sp. n.

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Honeypot or 'furnace' ants of the genus *Melophorus* (Hymenoptera: Formicidae) are endemic to Australia, although other genera of formicine ants with similar habits occur in North America and Mexico, and also in Africa and around the Mediterranean. Most species of *Melophorus* are notably thermophilic in behaviour, and all nest terrestrially. Little is known of the habits of many species, and most are assumed to be generalists. However, a few groups are obligate seed harvesters while several specialized taxa raid ant or termite nests. This monograph, which uses both molecular and morphological taxonomic methods, recognizes 93 species, of which 73 are described as new. An additional new species is mentioned but not described. A diagnosis of all adult castes and a key to the workers is provided, along with descriptions, photographs and maps for individual taxa. Based on genetic data of select species, the phylogeny and likely evolution of the group is discussed. This genus has not previously been monographed, despite its undoubted ecological importance. Some desert-dwelling *Melophorus* are also providing researchers with important information about how organisms orientate themselves in bland and seemingly featureless environments.



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