



<http://dx.doi.org/10.11646/zootaxa.3955.2.6>

<http://zoobank.org/urn:lsid:zoobank.org:pub:97FCBEF2-E95E-47A8-A959-408241A2574D>

A review of the ant genus *Myrmecorhynchus* (Hymenoptera: Formicidae)

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Abstract

The Australian endemic ant genus *Myrmecorhynchus* is reviewed. The genus is known from three species (*M. carteri* Clark, *M. emeryi* André and *M. nitidus* Clark) which are restricted to eastern and southern Australia. *Myrmecorhynchus musgravei* Clark and *M. rufithorax* Clark are newly synonymised with *M. emeryi* André. All species are found in forested areas where they nest arboreally or, less commonly, in soil. Foraging occurs primarily on vegetation and tree trunks.

Key words: *Myrmecorhynchus*, Australia, taxonomy, Formicidae

Introduction

Myrmecorhynchus is an endemic Australian genus, known from three species. They occur in forested areas ranging from mallee through rainforest across eastern and southern Australia. All three species are sympatric in Victoria and New South Wales, with *M. emeryi* extending westward to south-western Western Australia and northward to central Queensland, and with *M. carteri* occurring in Tasmania (Fig. 1). They are small and inconspicuous ants and are most often encountered while foraging on vegetation or tree trunks (Fig. 2). Nests are in branches, twigs and vines on shrubs or trees, or in soil. Although they can be locally common they are often overlooked because of their slow movements and arboreal habits.

Distribution patterns of *Myrmecorhynchus* species were examined using the DIVA-GIS software package. Predicted distributions were generated using Domain modelling while species richness was based on the individual species models and calculated using sum set to present/absent where present > 90. The modelling suggests that one of the species, *M. emeryi*, is likely to be more widely dispersed than currently available material suggests, while the remaining two species appear to be known from throughout their potential range. This is as might be expected for a relatively little-collected group, in this case likely because of their arboreal habits, and additional targeted collecting will likely fill the apparent gaps in our understanding of the distribution of these ants.

Myrmecorhynchus André

Myrmecorhynchus André, 1896: 253. Type-species: *Myrmecorhynchus emeryi*, by monotypy.

Diagnosis. Mandibles usually with 10 to 13 teeth, although some large individuals with as few as 6. Frontal carinae distinctly arched. Upper surface of mesosoma between metanotum and propodeum always low and flat or concave and never expanded upwards. Worker caste variable in size (strongly polymorphic) with distinct major and minor workers.

Smaller workers of *Myrmecorhynchus* are identifiable by the large number of mandibular teeth. However larger workers have a reduced number of teeth (down to 6 in some individuals) and are similar to some species of *Notoncus*. These individuals can be identified by the configuration of the frontal carinae (curved in *Myrmecorhynchus*, straight in *Notoncus*) and the polymorphic worker caste with distinct majors and minors