



***Diaphoromyrma*, a new myrmicine ant genus (Hymenoptera: Formicidae) from North Eastern Brazil**

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Abstract

Diaphoromyrma sofiae, **new genus** and **new species**, is a Myrmicinae ant described from workers from the State of Bahia, Brazil. This taxon is characterized by the following traits: Antenna 9-segmented with 2-segmented club, trapezoidal promesonotum in dorsal view, propodeal spiracles situated on the propodeal edges, and the fourth abdominal sternite with a pair of rounded recurved anterolateral extensions which curve up onto the dorsal surface of the segment. Apparently this ant is close to the genera *Allomerus* and *Diplomorium* in the Solenopsidini, but its tribal attribution remains difficult because of the inadequate resolution of the phylogenetic relationships within the Myrmicinae.

Key words: Brazil, Formicidae, Hymenoptera, *Diaphoromyrma sofiae*, new genus, new species

Introduction

In taxonomic terms ants are currently one of the better known insect groups, with most recent publications dealing with descriptions of new species rather than higher taxa. Discovery of new taxa above the species level seems to be increasingly uncommon. With the widespread use of Winkler sampling (Agosti *et al.* 2000), the exploration of the subterranean realm (Wilkie *et al.* 2007) and the recognition of special microhabitats such as the insides of termites mounds (Rosa da Silva *et al.* 2009), however, new higher taxa continue to be revealed, even at the level of subfamily (e.g. Rabeling *et al.* 2008).

In this paper we describe a new myrmicine ant genus based on specimens collected in the State of Bahia, North-Eastern Brazil. This ant cannot be securely placed in any of the currently accepted myrmicine tribes, as proposed in Bolton (2003).

Methods

All known specimens come from litter samples submitted to Winkler extractors.

Measurements were made using an Optical Instruments stereomicroscope at 80X magnification, studied under a white light lamp. All measurements are in mm: HW—Head width: maximum width in full face view; HL—Head length: maximum length, in full face view, from the clypeus apex to middle of the vertex; SL—Scape length (excluding basal condyle), chord distance; EL—Maximum eye length; PW—Pronotal width;