



Taxonomic revision of the ant (Hymenoptera: Formicidae) genus *Paraparatrechina* in the Afrotropical and Malagasy Regions

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Abstract

The taxonomy of the Afrotropical and Malagasy *Paraparatrechina* fauna is revised for the first time. Thirteen species are revealed, of which eight are described as new: *P. brunnella* LaPolla & Cheng; *P. concinnata* LaPolla & Cheng; *P. gnoma* LaPolla & Cheng; *P. myops* LaPolla & Fisher; *P. ocellatula* LaPolla & Fisher; *P. oreias* LaPolla & Cheng; *P. splendida* LaPolla & Cheng; *P. umbrantatis* LaPolla & Cheng. An identification key to the worker caste is provided.

Key words: Formicinae, *Nylanderia*, *Paratrechina*, *Prenolepis* genus-group

Introduction

Recently LaPolla *et al.* (2010) elevated the formerly synonymized ant subgenus *Paraparatrechina* Donisthorpe (1947) to genus rank based on both morphological and molecular data. A full diagnosis of the genus is provided by LaPolla *et al.* (2010), but in summary *Paraparatrechina* are small (typically around 1–2 mm in total length) formicine ants, which often reflect a metallic iridescence (blue, purple and pink hues have been observed) under light microscopy. In darker species, the iridescence tends to be a darker bluish-purple, while lighter colored species either show little iridescence or reflect a more pinkish-purple hue. *Paraparatrechina* are usually easily distinguishable from other formicine genera by a unique mesosomal setal pattern: two pairs of erect setae on the pronotum, one pair on the mesonotum and one pair on the propodeum. *Nylanderia*, the genus most likely confused with *Paraparatrechina*, never possesses a pair of erect setae on the propodeum. The mandibles of *Paraparatrechina* also possess five teeth, while in *Nylanderia* six teeth are usually present.

Paraparatrechina is restricted to the Palearctic. Only five species of *Paraparatrechina* were known from the Afrotropical and Malgasy regions prior to this study (LaPolla *et al.*, 2010). Therefore, this study, with the description of 8 new species, increases the known species richness of *Paraparatrechina* in these regions by nearly two-thirds. Twenty-five species and subspecies are currently known from Asia and Australia, although preliminary study suggests that there are many undescribed species, and the species total for the region will change once a revision of the fauna is completed (S. Shattuck, pers. comm.).

One of the more surprising results of the LaPolla *et al.* (2010) study was that the two Afrotropical species formerly placed in *Pseudolasius* (*bufonus* and *weissi*), were found to belong in *Paraparatrechina*, with strong measures of clade support. This small group was treated by LaPolla (2004) and found to contain two valid species. The placement of *bufonus* and *weissi* within *Paraparatrechina* is elaborated upon in LaPolla *et al.* (2010) and we do not treat these species here as part of this revision, although they are listed in the provided key. Examination of the male genitalia of *P. albipes* and *P. glabra* in this study (fig. 15) revealed that the