



***Mexiare* gen. nov., a new Doryctinae genus (Hymenoptera: Braconidae) from Mexico with fused first and second metasomal tergites**

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Abstract

A new braconid genus from the subfamily Doryctinae, *Mexiare* **gen. nov.** (type species *M. toledo* **sp. nov.**) is described from the state of Morelos in Central Mexico. The described species of this genus is characterised by having immovably fused first and second metasomal tergites, a feature also present in species of two Oriental (*Arhaconotus* Belokobylskij and *Mimipodoryctes* Belokobylskij) and one Neotropical (*Iare* Barbalho et Pentead-Dias) genera. The new genus, however, can be distinguished from the Neotropical *Iare* by the presence of a semi-oval basal area on the second metasomal tergite, distinctly short submedial (subbasal) cell of hind wing, more than three hamuli, considerably short second radio-medial (submarginal) cell, narrow radial (marginal) cell of fore wing and mostly smooth mesoscutum. A phylogenetic analysis among doryctine genera based on two gene markers (28S and COI) placed *Mexiare* **gen. nov.** within a previously recovered major South American clade, though its relationships with other taxa remain unclear.

Key words: Neotropics, parasitoid, Ichneumonoidea, morphology, taxonomy

Introduction

The immovably fused first and second metasomal tergites is a morphological condition that distinguish the members of the braconid subfamilies Telengainae, Cheloninae and Adeliinae (van Achterberg, 1993; Belokobylskij & Tobias, 1998). However, this feature also occurs in species of a few genera of the braconid subfamilies Brachistinae, Braconinae, Lysiterminae and Rogadinae, and was recently discovered in Doryctinae (Belokobylskij, 2000; Barbalho and Pentead-Dias, 2002).

The first two doryctine genera with fused first and second metasomal tergites, *Arhaconotus* Belokobylskij, 2000 and *Mimipodoryctes* Belokobylskij, 2000, were described from the Oriental and Australasian regions (Belokobylskij, 2000). Two years later, a third doryctine genus with the above feature, *Iare* Barbalho et Pentead-Diaz, 2002, was erected based on two species from Brazil (Barbalho & Pentead-Diaz, 2002). Only few additional species of these three genera have been subsequently described (Belokobylskij, 2001; Marsh, 2002; Martinez *et al.*, 2010; Belokobylskij & Maeto, 2006, 2009).

Recent examination of material collected in the state of Morelos (Central México) showed the presence of various specimens belonging to a doryctine species with fused first and second metasomal tergites. Morphological and molecular examination of this species revealed that it is distinct from the species of the three currently recognised doryctine genera with fused first two metasomal tergites. In this work, we describe a new monotypic genus, *Mexiare* **gen. nov.** We also assessed the phylogenetic affinities of this new genus within the Doryctinae based on nuclear and mitochondrial DNA sequence data.

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