



<http://dx.doi.org/10.11646/zootaxa.4059.1.2>

<http://zoobank.org/urn:lsid:zoobank.org:pub:C9F9B55A-B48C-4619-AB45-4102FBD26CBE>

## New species of *Exochus* Gravenhorst and *Trieceles* Townes (Hymenoptera, Ichneumonidae, Metopiinae) and first record of seven species from Brazil

IVY FRIZO DE MELO<sup>1,4</sup>, CAROLINA RODRIGUES ARAÚJO<sup>2</sup> & ANGÉLICA MARIA PENTEADO-DIAS<sup>3</sup>

<sup>1</sup>Programa de Pós-Graduação em Ecologia e Recursos Naturais, Universidade Federal de São Carlos. Rod. Washington Luiz, Km 235, CP 676, CEP 13565-905, São Carlos, SP, Brazil. E-mail: [ivyfrizo@yahoo.com.br](mailto:ivyfrizo@yahoo.com.br)

<sup>2</sup>Laboratório de Ecologia de Artrópodes e Pequenos Vertebrados, Embrapa Meio-Norte, UEP Parnaíba, BR 343, Km 35, CP 341, CEP 64200-970, Parnaíba, PI, Brazil. E-mail: [carolina.araujo@embrapa.br](mailto:carolina.araujo@embrapa.br)

<sup>3</sup>Universidade Federal de São Carlos. Departamento de Ecologia e Biologia Evolutiva. Rodovia Washington Luiz, Km 235, CP 676, CEP 13565-905, São Carlos, SP, Brazil. E-mail: [angelica@ufscar.br](mailto:angelica@ufscar.br)

<sup>4</sup>Corresponding author. E-mail: [ivyfrizo@yahoo.com.br](mailto:ivyfrizo@yahoo.com.br)

### Abstract

*Exochus atlanticus* sp. n., Melo & Penteado-Dias, and *Trieceles broadi* sp. n., Melo & Penteado-Dias, are described and illustrated in Brazilian fauna. The genus *Exochus* and the species *E. ablatus*, *E. izbus*, *T. azipas*, *T. riordinis*, *T. wardae*, *T. upermia* and *T. wascia*, are recorded for the first time from Brazil. Diagnosis and distribution information for each species are provided.

**Key words:** taxonomy, Neotropical region, parasitic wasps, South America

### Resumo

*Exochus atlanticus* sp. nov., Melo & Penteado-Dias, e *Trieceles broadi* sp. nov., Melo & Penteado-Dias, são descritas e ilustradas para a fauna brasileira. O gênero *Exochus* e as espécies *E. ablatus*, *E. izbus*, *T. azipas*, *T. riordinis*, *T. wardae*, *T. upermia* e *T. wascia*, são citadas pela primeira vez para o Brasil. São apresentadas diagnoses e informações sobre a distribuição geográfica para cada espécie.

**Palavras chave:** taxonomia, região Neotropical, vespas parasitoides, América do sul

### Introduction

Species of Metopiinae are koinobiont endoparasitoids of Lepidoptera. They are distinguished by having the lower face and clypeus confluent and not separated by an impressed groove, the malar space is short without subocular groove. The upper margin of lower face forming a shelf-like protuberance below the antennal insertion, variously developed medially upwards between the antennal sockets, scape short and are more or less goblet-shaped. Most exhibit a laterally concave, and rather broadly rounded posteriorly, pronotum, broadly occluding the spiracular sclerite (Gauld *et al.*, 2002).

The Metopiinae is a medium-sized cosmopolitan subfamily of Ichneumonidae, with approximately 700 described species world-wide, classified in 26 genera (Yu, Achterberg & Horstmann, 2012). The subfamily is well represented in all parts of the world, representing 14 genera in Neotropical region (Townes & Townes, 1966; Gauld *et al.*, 2002; Yu, *et al.*, 2012). In Brazil this group is not broadly studied, representing just 12 species distributed in six genera (De Santis, 1980; Herrera *et al.*, 2011a; Herrera *et al.*, 2011b; Araujo & Penteado-Dias, 2011, 2012).

*Exochus* Gravenhorst, 1829 is a large cosmopolitan genus present in Afrotropical, Eastern Palaearctic, Europe, Nearctic, Neotropical, Oriental and Western Palaearctic regions with approximately 280 described species (Yu,