



## The genus *Iare* Barbalho and Penteadó-Dias (Hymenoptera: Braconidae: Doryctinae) in Mexico, with the description of two new species

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### Abstract

Two new species of the doryctine genus *Iare*, *I. mexicanus* **sp. nov.** and *I. cheguevarai* **sp. nov.**, are genetically and morphologically described from a tropical dry forest in Jalisco, Mexico. *Iare belokobylskiji* Marsh is also reported for the latter region. These species represent the northernmost distribution records for the genus. A simultaneous Bayesian analysis with COI and 28S DNA sequence data recovered the three examined species of *Iare* within a single clade, though with low support. This genus appears nested within a large doryctine Neotropical clade as sister group of a cluster containing species of *Callihormius* Ashmead, *Leluthia* Cameron, *Histeromeroides* Marsh and *Panama* Marsh.

**Key words:** Apocrita, parasitoid wasps, Jalisco, tropical dry forest

### Resumen

Dos especies nuevas del género de doryctinos *Iare*, *I. mexicanus* **sp. nov.** y *I. cheguevarai* **sp. nov.**, se describen genética y morfológicamente de un bosque tropical caducifolio en Jalisco, México. *Iare belokobylskiji* Marsh es registrada también para la misma región. Estas especies representan los registros más norteños en la distribución del género. Un análisis bayesiano simultáneo empleando secuencias de ADN de los genes COI y 28S reconstruyó un árbol con las tres especies examinadas de *Iare* dentro de un mismo clado, aunque con un soporte bajo. Este género aparece dentro de un clado mayor representado por doryctinos del Neotrópico como grupo hermano de un subclado con las especies de los géneros *Callihormius* Ashmead, *Leluthia* Cameron, *Histeromeroides* Marsh and *Panama* Marsh.

### Introduction

The braconid wasp genus *Iare* Barbalho & Penteadó-Dias was recently erected within the subfamily Doryctinae to include two species from Brazil, *I. rochae* Barbalho & Penteadó-Dias and *I. ariquemés* Barbalho & Penteadó-Dias (Barbalho & Penteadó-Dias, 2002). Almost simultaneously, two additional species of this genus were described both from Costa Rica and Panama, *I. belokobylskiji* Marsh and *I. gauldi* Marsh (Marsh, 2002). Specimens of this genus were also reported in the latter work for Mexico and Bolivia, although neither species nor localities were specified for them. Species of *Iare* are clearly distinguishable from all other New World doryctines by the fusion of the first three metasomal tergites. This feature is only found within Doryctinae in species of two other distantly related genera, the Australian, Oriental and East Palaearctic *Arhaconotus* Belokobylskij and *Mimipodoryctes* Belokobylskij (Belokobylskij, 2000, Belokobylskij *et al.*, 2004).

Recently, several specimens assigned to *Iare* were collected in the Chamela-Cuixmala Biosphere Reserve in Jalisco, Mexico, as part of a DNA barcoding study of the doryctine fauna from that region. Here we present