



Description of three new species of *Helconichia* Sharkey & Wharton (Hymenoptera: Braconidae: Ichneutinae) with a revised key to all species

BARBARA J. SHARANOWSKI¹ & MICHAEL J. SHARKEY²

Department of Entomology, University of Kentucky, S-225 Agricultural Science Center North, Lexington, KY 40546-0091, USA
E-mail: ¹rhubarb@uky.edu, ²msharkey@uky.edu

Abstract

Three new species of *Helconichia* Sharkey & Wharton are described: *H. sarria* Sharanowski and Sharkey, **sp. nov.** and *H. reina* Sharanowski and Sharkey, **sp. nov.** from Colombia, and *H. brenesi* Sharanowski and Sharkey, **sp. nov.** from Costa Rica. These species double the number of described species of *Helconichia*, bringing the total number to six. The key of Sharkey and Wharton (1994) is revised to include the new species. Lateral habitus images of all six holotypes of the species of *Helconichia* are included, in addition to images of character states used in the identification key.

Key words: Ichneutinae, *Helconichia*, Neotropical region, identification key

Introduction

Ichneutinae is a small braconid subfamily with only 10 genera worldwide and 83 described species (Yu 2005). Ichneutinae is unique in that it is one of only a few subfamilies of Braconidae with species known to parasitize larval Hymenoptera. Most members are koinobiont endoparasitoids of sawflies, with the majority of host records from larval tenthredinids (Shaw & Huddleston 1991). Sharkey and Wharton (1994) proposed *Helconichia* to accommodate three newly discovered species collected in lowland regions of the Neotropics: *Helconichia areolata* Sharkey & Wharton from Ecuador, *H. trichiops* Sharkey & Wharton from Brazil, and *H. trichopteryx* Sharkey & Wharton from Brazil.

A cladistic analysis demonstrated that the three aforementioned species share a synapomorphic feature of hind wing with vein R curved sharply posteriorly (Sharkey & Wharton 1994). Interestingly, all three species also possess a complete occipital carina, a plesiomorphic state not present in other ichneutines (Sharkey 1997). Based on an analysis of ground-plan coding of 36 morphological characters, Sharkey and Wharton (1994) recovered *Helconichia* as sister to the remaining genera of Ichneutinae (see Sharkey 1996 for a corrected morphological dataset). Unfortunately, nothing is known about the biology of any species of *Helconichia*.

Recent arthropod diversity surveys in the Neotropical region^{1,2} led to the discovery of three new species of *Helconichia*. The new species described herein increase the distribution range for *Helconichia* and double the number of described species to six. Interestingly, two of the new species (*H. sarria* Sharanowski and Sharkey, **sp. nov.** (Fig. 1A) and *H. reina* Sharanowski and Sharkey, **sp. nov.** (Fig. 1B)) were collected from regions of

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1. Insect Survey of a Megadiverse Country:
Colombia: <http://www.sharkeylab.org/biodiversity/static.php?app=colombia&&page=index>
 2. Arthropods of La Selva (ALAS): <http://viceroy.eeb.uconn.edu/ALAS/2005.html>