



A polychromatic new species of *Apiomerus* (Hemiptera: Reduviidae: Harpactorinae) from Central America

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Abstract

Apiomerus barrocoloradoi **sp. nov.** is described from Costa Rica and Panama. This new species is highly polychromatic, a judgment based on specimens of the same locality. Dorsal habitus images documenting the range of variation of the color pattern are provided. Male and female genitalia are documented in detail to provide unambiguous characters for species recognition. Color variation is discussed with regard to traditional species limits.

Key words: Heteroptera, Apiomerini, taxonomy, genitalia

Introduction

Apiomerus is the most diverse genus of the tribe Apiomerini (Harpactorinae) and one of the largest in the Reduviidae. They are commonly known as bee-assassins because of their frequent association with stingless and other bees (Weaver *et al.* 1975; Johnson & Wiemer 1982; Poinar 1992; Gonzales-Bustamante 1994; Marques *et al.* 2003; da Silva & Gil-Santana 2004).

There are 101 valid species of *Apiomerus* (Maldonado 1990; Gil-Santana & Milano 2007), but at least 114 names (including subspecies) and proposed synonymies to evaluate (Martinez 1981; Maldonado 1990; Gil-Santana *et al.* 2006). *Apiomerus* is restricted to the Western Hemisphere, the species distribution ranging from the United States to Argentina, with most of the diversity found in the tropical region of South America.

Apiomerus has never been fully revised taxonomically, but several publications have dealt with the description of new species, usually focusing on a geographically restricted fauna. In a pioneering work, Champion (1899) treated all species from Central America known at the time. Several new species have since been described, mostly from South America, and usually relying on color patterns for species recognition (Costa Lima *et al.* 1951, 1952; Costa Lima & Mendes 1952; Prosen & Martinez 1955; Buckup 1957; Prosen *et al.* 1959, 1962; Carcavallo *et al.* 1964; Gil-Santana & Milano, 2006). Szerlip (1980), in an unpublished dissertation, proposed several new species of *Apiomerus* from North and Central America, and provided a hypothesis of relationships for eight species groups that he had defined within *Apiomerus*.

In this paper, we describe a new species of *Apiomerus* from Costa Rica and Panama, and provide evidence for its highly variable coloration. Furthermore, we document in detail the male and female genitalia, in order to provide unambiguous morphological characters that 1) show that all color morphs treated in this paper are actually the same species, and 2) support the hypothesis of this taxon as being a new species.

Material and methods

Specimens: 146 specimens were examined for this project. They are deposited in the following entomological collections: American Museum of Natural History, New York, USA (AMNH); B. D. Gill collection, Ottawa,