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Belicinus Rhomboideus, a new genus and species of Psepheninae (Coleoptera: Byrrhoidea: Psephenidae) from Belize

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Abstract

Belicinus rhomboideus gen. nov., sp. nov. is described and illustrated based on specimens collected in Belize. Belicinus gen. nov. can be distinguished from other Psepheninae genera by the following characteristics: pronotal shape, tibiae and tarsomeres (Psephenus, Psephenops); antennae, tibiae, tarsomeres and phallobase (Pheneps); antennae, pronotum and tibiae (Psephenotarsis); maxillary palpi and tibiae (Psephenopalpus). Belicinus appears to be more closely related to Psephenotarsis than to other Psepheninae genera. The larvae and habitat are described. A key for American Psepheninae genera is provided.

Key words: Psephenidae, Psepheninae, new genus, key, Belize

Introduction

The subfamily Psepheninae is represented in the New World by the genera *Psephenus* Haldeman, *Psephenops* Grouvelle, *Pheneps* Darlington, *Psephenotarsis* Arce-Pérez and *Psephenopalpus* Arce-Pérez (Brown 1981; Spangler 1982; Arce-Pérez and Novelo-Gutiérrez 2001; Arce-Pérez and Shepard 2001; Arce-Pérez 2004a, Lee *et al.* 2005). *Psephenus* contains 15 species with seven in North America (Shepard 2002), two of which are also found in Mexico; four in Mesoamerica; three in Brazil, and one in Peru (Arce-Pérez and Novelo-Gutiérrez 2001). *Psephenops* has eight species (Arce-Pérez and Novelo-Gutiérrez 2000; Bameul 2001; Arce-Pérez 2002) with a tropical distribution, including two in Mexico, one in Guatemala, one in Costa Rica, one in Haiti, one in the Antilles with two subspecies, one in Colombia that is also found in Costa Rica, and one in Argentina. *Pheneps* has eight species (Arce-Pérez and Novelo-Gutiérrez 2001; Souza Fernandez *et al.* 2001) also with a tropical distribution: one in Cuba, one in Haiti, one in Suriname, one in Venezuela which also is found in Brazil, and another four in Brazil. *Psephenotarsis* includes two species (Arce-Pérez and Novelo-Gutiérrez 2001; Arce-Pérez 2004a): one in Mexico, and the other in Guatemala. *Psephenopalpus* has only one species, which is found in Mexico (Arce-Pérez 2004b).

Material and methods

Thirty three adults were examined and observations carried out in 70% ethanol except for the observations of the vestment. Microphotographs were taken with a scanning electron microscope (Joel model JSM- 5600LV, magnification 200X and 1000X). Four larval specimens and female adults of *Belicinus* **gen. nov.** were collected in the submerged part of the stones not exposed to the current, and their comparison with other known larval of Psepheninae allows the larvae to be associated with the adults of the new taxon (Bameul 2001; Lee *et al.* 2003; Souza *et al.* 2001; Spangler 1968). Drawings were made with a Leica MZ12.5 dissecting scope equipped with a camera lucida, with specimens in either ethanol or glycerine. Nomenclature of dorsal sulci (this is a larval characteristic, Fig. 23) follows Lee *et al.* (2003).