



A new species and key for *Rhaphiomidas* Osten Sacken (Diptera: Mydidae)

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Abstract

This paper describes one new species, *Rhaphiomidas ballmeri* **sp. nov.** from Sonora state, Mexico. A new key is provided for males of this genus to aid in their identification.

Key words: Diptera, Mydidae, *Rhaphiomidas*, Sonora, Baja California

Introduction

The genus *Rhaphiomidas* Osten Sacken, 1877 consists of 23 species and 5 subspecies. Since Cazier's (1985) revision there have been five additions to the genus including the species described here (Rogers 1993; Rogers & Van Dam 2007). This paper describes one new species *Rhaphiomidas ballmeri* **sp. nov.** from Sonora state, Mexico. A key is provided for males of this genus to aid in their identification.

Material and methods

The terminology of the description follows that of Sinclair *et al.* (1993) and Dikow (2009). The change in terminology from Cazier (1985) is made to recognize homologous structures across the lower Brachycera (Sinclair *et al.* 1993). One of the most noticeable changes is the use of epandrium for hemitergites in the male terminalia. The museum abbreviations are as follows: University of California Berkeley, Essig Museum of Entomology (EMEC), California Academy of Sciences (CAS). Digital photos were taken with a Canon EOS-1D Mark II camera using a Microptics Digital Imaging System. Lenses used were 2x teleconverter and HDF-2 Pro lens. CombineZM (Hadley 2006) was used to montage images for increased depth of field. Abbreviations for U.S. and Mexican states are as follows: USA; Arizona (AZ), California (CA), Nevada (NV), New Mexico (NM), Texas (TX). Mexico; Baja California (BCN), Baja California Sur (BCS), Nuevo Leon (NL), Sonora (SON).

Taxonomy

Rhaphiomidas ballmeri **sp. nov.**

Diagnosis. A medium sized species (length overall ~28 mm, mesonotal width ~7 mm), easily recognized by the combination of the elongate non-overlapping epandrium, recurved aedeagus subequal in length to the gonocoxites, hind and middle tibia and tarsi possessing short, dark brown spines, abdominal tergites with a central dark maculation, anterior margin with same dark coloration expanding to form a dark triangle at anterior margin. Epandrium elongate (5.5 mm in length by 2.45 mm in width), dark brown, bordered in light