



A new genus and new species of Nearctic Therevidae (Insecta: Diptera) from Southern New Mexico

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Abstract

A new genus of Nearctic Therevidae, *Spinalobus* *gen. nov.* is described with illustrations of its genitalia and distribution information. A key is provided to identify the genus. The placement of this genus within the subfamily Therevinae is discussed.

Key words: *Spinalobus*, Therevinae, stiletto fly, Asiloidea, morphology, Nearctic, new genus, new species

Introduction

Ongoing systematic studies within the family Therevidae has revealed a new genus of therevids from New Mexico in the Nearctic Region. This genus is described herein so that the name will be available for the upcoming “Manual of Diptera of Central America” (Gaimari and Webb 2007) which will include a key to the genera of New World therevids. The single species within this genus, *Spinalobus rodmani* *spec. nov.*, is described with illustrations of its genitalia and locality information.

Spinalobus belongs to the subfamily Therevinae based on the presence of appressed, lanceolate setae on the hindfemora and the presence of two spermathecae and a spermathecal sac, following the morphological characterizations of stiletto fly subfamilies (Winterton *et al.* 2001). *Spinalobus* does not possess synapomorphies that would place it among any known therevine genera, however, it is unique in that it is the only therevine that collectively lacks the inner gonocoxal process of the male genitalia, has a male that is dichoptic, and has a single pair of scutellar macrosetae. The male genitalia (Figs. 1–6) are diagnostic and possess the autapomorphy of a ventral lobe with large, thick spines. Based on the morphological evidence currently available, the prudent hypothesis is to erect a new genus for the species.

Methods

Morphological terminology follows Irwin and Lyneborg (1981a, b), McAlpine (1981) with additional terminology from Webb and Irwin (1999). Some structures of the male genitalia follow terminology from Winterton *et al.* (1999a). Terminology for structures of the female terminalia follows Irwin (1976) as modified by Winterton *et al.* (1999a, b) and Lyneborg (2001). When more than one specimen was examined, lengths are given as a range, followed by the mean. Setae in this paper refer to filiform setae unless otherwise stated. Setae described as elongate have a length equal to or greater than the width of the scape; those described as short have a length less than the width of the scape. Macrosetae on the thorax were counted from the left half of the specimen and given as a range when variation was noted. Anteroventral and posteroventral macrosetae