

## **Description of a new species of *Caenotus* Cole (Diptera: Scenopinidae) from Baja California Sur, Mexico, with a review of the genus**

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### **Abstract**

A new species of *Caenotus* Cole is described from Baja California. The current knowledge of the systematics and states of morphological characters with putative phylogenetic importance within the genus are discussed and summarized. One species *Caenotus thompsonii* Evenhuis is placed in synonymy with *Brachylinga baccata* Coquillett (Diptera: Therevidae).

**Key words:** window fly, stiletto fly, revision, Scenopinidae, Therevidae, systematics, taxonomy

### **Introduction**

The family Scenopinidae (Insecta: Diptera: Asiloidea) or window flies, so named because the adults of the common species *Scenopinus fenestralis* (L.) are sometimes collected at windows in homes where larvae feed on larval carpet beetles (Coleoptera: Dermestidae), is worldwide in distribution, but is most rich and abundant in arid to semiarid ecosystems. Scenopinids are characterized by the presence of a patch of morphologically distinct setae (Fig. 2) of unknown function on the dorsal surface of the second abdominal segment (absent in *Caenotoides californicus* Hall). The biology is unknown for most species with less than ten percent of the known species having associated biological information (Kelsey 1969), but larvae are assumed to be uniformly predaceous on other arthropods and their larvae. Notes of adult behaviour are non-existent, but several species exhibit mouth-part morphology (i.e., elongation; Fig. 1) suggestive of nectar feeding.

Understanding the species and morphological diversity is a crucial step towards understanding the relationships among and between Asiloidea and this research attempts to build one of these steps and make such information available in the literature thus increasing the accuracy for potential higher level analyses (i.e., Yeates 2002). This paper includes