



# Article

urn:lsid:zoobank.org:pub:EC0F0A87-8BF4-42C6-8561-0AC2ED45E00F

## The new genus *Acrocephalomyia*, and a new species of *Ropalomera* from Costa Rica, with additional records for other Mesoamerican species (Diptera: Ropalomeridae)

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### Abstract

New taxa of the family Ropalomeridae from Costa Rica are described, and additional records of ropalomerid flies from Mexico and Central America are provided. The new genus and species *Acrocephalomyia zumbadoi* can be easily distinguished from all other ropalomerid genera by the following combination of characters: angular forward projection of head, absence of ocelli, flat face, bare arista, long scutum, and scutellum triangular-shaped and dorsally flattened with only one pair of apical bristles with bases approximated. The new species *Ropalomera aterrima* can be recognized from congeners by remarkable differences of the head, the shape of the scutellum, the absence of scutal vittae, fumose wings, and by the black coloration of the body, ocellar bristles large, one postpronotal bristle, scutum without pollinose vittae and flat scutellum. *Lenkokroeberia chryserea* Prado and *Kroeberia fuliginosa* Lindner are newly confirmed for Costa Rica.

**Key words:** Ropalomeridae, Sciomyzoidea, Central America, Mexico, Neotropics

### Introduction

Ropalomeridae is a small family of Neotropical Diptera related to Coelopidae, Dryomyzidae, Sciomyzidae, Helosciomyzidae and Sepsidae, all of which constitute the superfamily Sciomyzoidea of Acalyptratae Muscomorpha (Woodley *et al.* 2009). Ropalomerid adult flies are easily distinguished from all other Sciomyzoidea by the excavated vertex, usually a median swelling on the face, the presence of a precoxal bridge, a greater ampulla, and vein M bent anteriorly, all of which are considered synapomorphies of the family (*sensu* McAlpine 1989). Only one species, *Rhytidops floridensis* has been found north of Mexico, and three others occur as far south as northern Argentina, but most species occur in the central portion of South America (Steyskal 1967, 1987). Their biology is poorly known, but adults have been found feeding on gummy resinous secretions of plants, while the immature stages were reared from decaying wood of *Cocos nucifera* L., *Spondias lutea* L., *Sabal* spp. and banana trees (Hendel 1923, Fischer 1932, Lopes 1932, Prado 1966, Steyskal 1987).

The Ropalomeridae restricted to tropical and subtropical America consists of 31 valid species in nine genera (Ibáñez-Bernal & Hernández-Ortiz 2010, Kirst & Ale-Rocha 2012), including a remarkable new genus and two new species are here described.

### Materials and Methods

We had the opportunity to review specimens loaned by the Instituto Nacional de Biodiversidad (INBIO) of Costa Rica, Utah State University, Logan (USU), and the United States National Museum, Washington, D.C. (USNM).