



Three new Neotropical genera of Odiniidae (Diptera: Acalyptratae)

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Abstract

Three new genera of Odiniidae (Diptera) are described from Costa Rica, including *Helgreelia* gen. nov. (type species, *albeto* sp. nov.; additional species, *parkeri* sp. nov.) and the monotypic genera *Neoschildomyia* gen. nov. (type species, *fusca* sp. nov.) and *Pradomyia* gen. nov. (type species, *hadromera* sp. nov.). A key to the New World genera of the family is provided.

Key words: Odiniidae, *Helgreelia*, *Neoschildomyia*, *Pradomyia*, new genus, new species, key, Costa Rica

Introduction

Neotropical studies of the family Odiniidae (Diptera) have had a slow start, never really gaining momentum even after the more synthetic work of Prado (1973). Besides Prado's seminal paper, few works have even hinted at the extent of the Neotropical fauna until Gaimari's (in press) treatment of the Central American genera of the family, and Gaimari & Mathis' (in press) catalog of world species including a key to all described extant genera. For the Odiniinae of the Neotropics, only a handful of species of *Odinia* Robineau-Desvoidy have been described (Johnson 1924; Sabrosky 1959; Shewell 1960; Prado 1973), but numerous new species are recognized. For the Traginopinae, most of the included genera are recorded for the region, with *Schildomyia* Malloch being the most speciose with 9 described regional species (Malloch 1926; Hennig 1969; Prado 1973), along with two extralimital species in the Palearctic. Hennig (1969) and Prado (1973) also described the two monotypic South American genera *Shewellia* Hennig and *Neotraginops* Prado, and both *Paratraginops* Hendel and *Lopesiodinia* Prado have two described Neotropical species each (Cresson 1912; Shewell 1960; Prado 1973). Of these, *Paratraginops* also has one extralimital species in the Afrotropical Region. These distributional anomalies (*Schildomyia* and *Paratraginops*) may represent misunderstandings of the circumscriptions of these genera, as the Old World is home to several recognized new genera with superficial resemblance to New World traginopine genera. Herein, three new Neotropical genera are described, all belonging to the Traginopinae. Although it is expected that Neotropical odiniids share the same general biological habits with other odiniids (i.e., close association with trees, larvae feeding within tunnels or galleries of wood boring beetles or other insects; see Gaimari & Mathis (in press)), the biology has not been recorded for any species in this region.

Materials and methods

Specimens for this study are from the Instituto Nacional de Biodiversidad, Santo Domingo de Heredia, Costa Rica (INBio) and the Utah State University Insect Collection, Logan, Utah, USA (EMUS). The holotype of