



Revision of the Neotropical genus *Neoscutops* Malloch (Diptera: Periscelididae)

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Abstract

The Neotropical genus *Neoscutops* Malloch is revised and now includes 14 species. The genus is divided into two species groups: the *peruvianus* Group including *N. annulatus* sp. nov., *N. barcelosiensis* sp. nov., *N. flavoscutellatus* sp. nov., *N. luteus* sp. nov., *N. manaos* sp. nov., *N. manuensis* sp. nov., *N. melleus* sp. nov., *N. nitidus* sp. nov., *N. peruvianus* Hennig, 1969, and *N. waorani* sp. nov.; and the *rotundipennis* Group including *N. cariri* Amorim & Vasconcelos, 1990, *N. minor* sp. nov., *N. ranyseae* sp. nov., and *N. rotundipennis* Malloch, 1926. A phylogenetic analysis was performed to test the monophyly of the *Neoscutops* species groups proposed in this study. An identification key for the species of *Neoscutops* is provided.

Key words: Periscelidinae, systematic, key, Neotropical region

Introduction

Periscelididae is a small family of Diptera characterized by the convex and setose face, frons with 1–2 fronto-orbital setae, pedicel cap-like with a dorsal cleft, arista pectinate, and postocellar setae divergent or absent. These dipterans are poorly represented in collections and are seemingly rare in nature, probably because of lack of knowledge concerning their natural history (Mathis & Rung 2004).

The concept of Periscelididae, as adopted here, follows McAlpine (1978, 1983) and comprises ten extant genera and one extinct genus (*Procyamops*, known from Baltic amber). Three of the extant genera are cosmopolitan (*Cyamops* Melander, *Periscelis* Loew, and *Stenomicra* Coquillett). *Stenocyamops* Papp is known from a species from Thailand and a few species from Fiji, and the remaining genera are monotypic or contain only a few species and are mostly restricted to the Neotropics (*Diopsosoma* Malloch, *Marbenia* Malloch, *Neoscutops* Malloch, *Parascutops* Mathis & Papp, *Planinasus* Cresson, and *Scutops* Coquillett) (Grimaldi 2009). (Grimaldi 2009). Two subfamilies (Periscelidinae and Stenomicrinae) have been recognized for the Periscelididae (Grimaldi & Mathis 1993; Baptista & Mathis 1994; Mathis & Papp 1998).

Neoscutops belongs to the Periscelidinae, which also includes *Periscelis*, *Marbenia*, *Scutops*, *Diopsosoma*, and *Parascutops* (Mathis & Papp 1992, Mathis & Rung 2004). Until now three valid species were known for *Neoscutops*: the type species *N. rotundipennis* Malloch, 1926, from Costa Rica; *N. peruvianus* Hennig, 1969, from Peru; and *N. cariri* Amorim & Vasconcelos, 1990, from northeastern Brazil (Prado 1975).

In the present contribution, we revise *Neoscutops*, add new species, and provide new records for previously described ones. In order to facilitate species identification, we provide an identification key including all *Neoscutops* species. Additionally, we test the monophyly of the included species groups with a cladistic analysis.

Material and methods

The terminology adopted in the descriptions follows Cumming and Wood (2009). The terminalia was removed from the abdomen, treated with hot 85% lactic acid, and placed in a genitalia microvial containing glycerin. The