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New species of *Ablabesmyia* Johannsen from the Neotropical region: first report of a sponge-dwelling Tanypodinae

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Abstract

The larva, pupa and male of a new Neotropical chironomid species, *Ablabesmyia tucuxi* Neubern *et* Fusari **sp. n.**, are described and illustrated. The larvae were found in freshwater sponge colonies of *Drulia uruguayensis* Bonetto *et* Ezcurra de Drago, 1968 and *Oncosclera spinifera* (Bonetto *et* Ezcurra de Drago, 1973) in Brazilian savanna streams. The morphological characteristics of the larval head and the presence of fine particles in the larval gut contents suggest that the larvae probably feed on the sponge tissue or on other animals that live inside the sponges.

Key words: Diptera, Chironomidae, biology, freshwater sponges, Amazonia

Introduction

Chironomid larvae associated with freshwater sponges have been studied by several authors (Steffan 1967, Roback 1968, Tokeshi 1993, 1995, Matteson & Jacobi 1980, Melão & Rocha 1996). The genera that are recognized as dependent on freshwater sponges are *Xenochironomus* Kieffer, 1921, *Demeijerea* Kruseman, 1933, and *Oukuriella* Epler, 1986. However, in state of Roraima, Brazil, we found a species in the genus *Ablabesmyia* that is the first Tanypodinae known to be associated with freshwater sponges.

The genus *Ablabesmyia* was created by Johannsen (1905), based on *Tipula monilis* Linnaeus, 1758. According to the World Catalogue of Chironomidae (Ashe & O'Connor 2009), the genus is one of the most widespread and has 60 valid species. Currently, nine species are recorded for the Neotropical region: *A. punctulata* (Philippi, 1865), *A. costarricensis* (Picado, 1913), *A. infumata* (Edwards, 1931), *A. cinctipes* (Johannsen, 1946), *A. metica* Roback, 1983, *A. bianulata* Paggi, 1988, *A. reissi* Paggi *et* Suarez, 2000, *A. oliveirai* Neubern *et* Gessner, 2006 and *A. platensis* Siri *et* Paggi, 2010.

The genus has a cosmopolitan distribution (except Antarctica) (Ashe *et al*. 1987). Although the larvae have been reported in a wide variety of aquatic habitats, including bromeliads and macrophytes, the group has not been previously found living in association with freshwater sponges. Freshwater sponge species are among the red-listed animals in Brazil (e.g., MMA, Instrução Normativa nº 6, Set. 2008), which gives urgency to carrying out biodiversity surveys to gather baseline data for conservation.

In early 2000 we started a project with the purpose of surveying chironomids in freshwater sponges in Brazilian aquatic ecosystems (Roque *et al*. 2004, 2007, 2010, Fusari *et al*. 2008, 2009). Here we describe and illustrate adult male, pupa and larva all of a new species, *Ablabesmyia tucuxi*, the first Tanypodinae known to be associated with freshwater sponges.

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