



A new species of *Paramaka* Savage & Domínguez, 1992 (Ephemeroptera: Leptophlebiidae: Atalophlebiinae) from Brazil

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Abstract

A new species of *Paramaka* is described based on nymphs and male imagos from State of Mato Grosso, Brazil. The imago of *Paramaka pearljam* sp. n. can be easily separated from the other species of the genus by the presence of a conspicuous and large median projection with apex curved ventrally on styliger plate; and in nymph by the gills not ended in a thin apical process and tarsal claw without accessory denticles. A new key is proposed and new geographic records for the genus are reported.

Key words: Ephemeroptera, Leptophlebiidae, *Hermanella* complex, *Paramaka*

Introduction

The family Leptophlebiidae (Ephemeroptera) is the most diverse family in the Neotropics, with approximately 45 genera and 220 species, all belonging to the subfamily Atalophlebiinae (Barber–James *et al.* 2008). Some genera are monotypic, while others are species–rich (Domínguez *et al.* 2006). The *Hermanella*–group is composed of the following genera: *Hermanella* Needham & Murphy (1924), *Hydromastodon* Polegatto & Batista (2007), *Hydrosmilodon* Flowers & Domínguez (1992), *Hylister* Domínguez & Flowers (1989), *Leentvaaria* Demoulin (1966), *Needhamella* Domínguez & Flowers (1989), *Paramaka* Savage & Domínguez (1992) and *Traverella* Edmunds (1948).

Flowers & Domínguez (1991) presented the first cladistic analysis of the *Hermanella*–complex. Since then, additional cladistic analyses have been proposed (Domínguez *et al.* 2001; Domínguez & Cuzzo 2002, Sartori 2005). In all the publications of Domínguez, *Hylister* and *Hermanella* were shown as sister groups and *Leentvaaria* was a sister group of *Needhamella*; the position of *Hydrosmilodon* was uncertain. Polegatto & Batista (2007) described a new genus *Hydromastodon* with a new species *H. sallesi* Polegatto & Batista, and a new combination *Hydrosmilodon miki* (Thomas & Boutonnet, 2004). Polegatto & Batista (2007) suggested that *Hydromastodon* was closely related to *Hydrosmilodon* and *Leentvaaria* based on the large galealacinal tooth of the maxilla.

The genus *Paramaka* was established by Savage and Domínguez (1992) for the species *Thraululus convexus* described by Spieth (1943) based on two imagos from Surinam. The genus belongs to the *Hermanella* complex based on numerous synapomorphies that define this complex. Recently, Blanco–Belmonte & Peters 2003 described the nymph of *Paramaka convexus*. In 2005, Sartori described a new species from Guyana, *Paramaka antonii* Sartori, showing the monophyly of *Paramaka*, and pointing out that *Hydrosmilodon* appeared to be a paraphyletic group, but in his analyses he did not use imaginal characters.

Based on a material from Brazil a new species of *Paramaka* is described. The specimens are deposited in Museum of Zoology, São Paulo State, Brazil (MZUSP).