



## Two new species of *Atanatolica* Mosely 1936 (Trichoptera: Leptoceridae) from Peru and Northeastern Brazil

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### Abstract

We describe and illustrate two new species of *Atanatolica* from Brazil and Peru, representing the first record of the genus from Peru and the first record of the genus from Ceará state, Brazil. *Atanatolica nordestina* sp. nov. is recognized by short inferior appendages, with their basal portions subquadrangular, in ventral view; and by tergum X without the typical digitate apical processes, but with a pair of short rounded projections. *Atanatolica quechua* sp. nov. is recognized by preanal appendages long and slender, by the inferior appendages with the apicodorsal portion broader distally, and by the apicolateral processes of tergum X slightly capitate.

**Key words:** Grumichellinae, caddisflies, taxonomy, Neotropics

### Introduction

*Atanatolica* Mosely 1936 is an endemic Neotropical genus of long-horned caddisflies (Trichoptera: Leptoceridae) assigned to the subfamily Grumichellinae Morse 1981 (Malm & Johanson 2011). Grumichellinae is the sister lineage of Leptocerinae (Malm & Johanson 2011) and includes five other Neotropical and Australasian genera (Calor & Holzenthal 2008).

Originally, the genus was erected by Mosely (1936) to include a single species, *Mystacides brasiliamus* Brauer 1865, from Brazil. Flint (1968, 1981) described 2 new species and Holzenthal (1988) reviewed the genus, adding 14 species. Recently, Costa & Calor (2014) described 1 species from Brazil. Currently, *Atanatolica* includes 18 species recorded from Bolivia, Brazil, Colombia, Costa Rica, Dominica, Ecuador, Guadeloupe Island, Panama, and Venezuela (Holzenthal 1988; Flint *et al.* 1999; Costa & Calor 2014).

According to Holzenthal (1988), *Atanatolica* can be divided in two monophyletic groups: The *A. dominicana* Group includes 15 species from Central America, the Lesser Antilles, and northern South America and the *A. brasiliana* Group includes only three species from Brazil (Costa & Calor 2014). The new species described here are biogeographically interesting because they are from regions with no previous records of *Atanatolica*. The new species described from Northeastern Brazil is also remarkable because it seems more similar to species of the *A. dominicana* Group (whose species occur from Central America to northern South America) than to the *A. brasiliana* Group (Southern and Northeastern Brazil).

Flint (1968) provided the first larval description for the genus with the association of immature stages of *Atanatolica dominicana* Flint 1968. Holzenthal (1988) described larvae for 5 additional species. The immature stages of *Atanatolica* are recognized by their long, slender, and gradually curved cases composed entirely of darkened silk or more commonly mineral fragments (Holzenthal 1988). Other features that distinguish *Atanatolica* larvae from others are the larval metanotum with three sclerites, a large anteromedian plate (*sa1* and *sa2* sclerites fused) and two posterolateral plates (*sa3*), and each anal claw with a short accessory tooth (Angrisano 1995). The larvae inhabit fast flowing (lotic erosional) reaches or waterfalls, usually on rock surfaces covered with a thin, flowing water film (hygropetric habitat). These larvae are found in streams in forested mountainous areas and the

*dominicana* Group, but the new species can be easily distinguished from all other species included in the genus by the peculiar male genitalia with short inferior appendages (only as long as tergum X), and with apicolateral processes of tergum X absent.

Regarding morphological features, *Atanatolica quechua* **sp. nov.** is a more typical representative of genus *Atanatolica*. This new species also agrees with the features characteristic of the *A. dominicana* Group, and it shares morphological similarities with *A. botosaneanui* Flint 1981, *A. manabi* Holzenthal 1988, and *A. zongo* Holzenthal 1988, such as the similar long and digitate processes of tergum X. The new species is distinguished from these three species by the apicolateral process in tergum X slightly longer than the previous species and by the tips of apicolateral processes capitates. *Atanatolica quechua* **sp. nov.** represents the first record of the genus from Peru.

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