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Two new species of *Apobaetis* Day, 1955 (Ephemeroptera: Baetidae) from Brazil

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Abstract

Apobaetis Day, 1955 species are known for their small size and preference for sandy stream substrate. Species which possess such habitat preference commonly possess long and slender legs and claws, but, in *Apobaetis*, the length of the tarsal claw rarely is so long that it exceeds the length of tarsus, occurring only in two species: *A. lakota* McCafferty, 2000 from USA and *A. hamadae* Cruz, Boldrini & Salles, 2011 from Brazil. In the present study, two new species with tarsal claws that exceed the length of the tarsi are described: *Apobaetis pucupi* sp. nov. from southeast Brazil and *Apobaetis kethepiali* sp. nov. from northernmost Brazil. Additionally, a new key for nymphs of *Apobaetis* is proposed.

Key words: South America, description, long claw, psammophilous

Introduction

The Pan-American genus *Apobaetis* Day, 1955 was originally described based on nymphs and adults from the United States of America. Subsequently, Lugo-Ortiz & McCafferty (1997) extended the geographic range of the genus to the Neotropics, describing *A. signifer* Lugo-Ortiz & McCafferty, 1997 from Paraguay and Brazil. In the last two decades, researchers from South America have been increasing the number of species and geographic records of *Apobaetis* (e.g. Salles & Lugo-Ortiz 2002; Salles *et al.* 2004; Salles *et al.* 2010; Falcão *et al.* 2011; Nieto 2006; Cruz *et al.* 2011; Boldrini *et al.* 2012). Even with such expertise concentrating on local research, the knowledge about the distribution and diversity of *Apobaetis* remains scarce due to the common phenomenon of extremely low numbers of specimens being known for each species (e.g. Nieto 2006; Cruz *et al.* 2011; Salles & Lugo-Ortiz 2002; McCafferty 2000), resulting in few or no data being published by researchers (personal observation); and due to the preference of larvae for sandy substrates, which have been significantly overlooked by fieldwork in the past (Lugo-Ortiz & McCafferty 1997; McCafferty 1991).

Currently, *Apobaetis* is represented by nine valid species, *A. futilis* (McDunnough 1931), *A. etowah* (Traver 1935), *A. signifer*, *A. lakota* McCafferty 2000, *A. fiuzai* Salles & Lugo-Ortiz 2002, *A. insolitus* Nieto 2006, *A. kallawaya* Nieto 2006, *A. niger* Nieto 2006, *A. hamadae* Cruz, Boldrini & Salles 2011; and the genus has been reported only from Argentina, Bolivia, Brazil, Colombia, Mexico, Paraguay, and the United States of America (Nieto 2006).

Nymphs of the genus can be distinguished from other genera of Baetidae mainly by features of the mouthparts, as such segment II of the labial palp having a strong projection medially and labrum laterally expanded, 2 times wider than long; and long and slender claws. Among species of Baetidae, very long tarsal claw are commonly found on psammophilous groups (e.g. Glazaczow 1997), but, in *Apobaetis*, the length of the tarsal claw rarely is so

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