



Description of the last-instar larva and pupa and the bionomics of *Smicridea* (*Smicridea*) *truncata* Flint (Trichoptera: Hydropsychidae) in Central Amazonia, Brazil

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Abstract

The larva and pupa of *Smicridea* (*Smicridea*) *truncata* Flint 1974 (Trichoptera: Hydropsychidae) are described and illustrated. Larvae of *S. truncata* can be distinguished by the concave line on the median region of the frontoclypeus and presence of the tubular structures, located in the dorsolateral region of abdominal segment VIII, which were not observed in any of the described larvae of *S. (Smicridea)*. This species was collected in a small wooden water trough at the Aruanã Farm, Itacoatiara municipality, and in four streams in Presidente Figueiredo municipality in the state of Amazonas, Brazil. The larval diet was determined by stomach-content analysis; this caddisfly species feeds mainly on algae and diatoms.

Key words: Aquatic insects, caddisfly, Central Amazon, Neotropical streams, stomach contents

Introduction

The family Hydropsychidae is cosmopolitan, with a distribution that includes many isolated oceanic islands. The immatures inhabit primarily flowing waters. The larva constructs a type of silken net, attached to a retreat, by means of which it filters their food from the flowing water (Merritt and Cummins 1996). This family is divided into four subfamilies: Diplectroninae, Arctopsychinae, Smicrideinae, Hydropsychinae and Macronematinae; only the last three subfamilies are found in the Amazon region (Flint 1978), the last two are widely distributed around the world.

The subfamily Smicrideinae Flint was elevated from the status of a Hydropsychinae tribe by Scheffer (1996) to include Australasian genera *Asmicridea* Mosely (3 species) and *Smicrophylax* Neboiss (2 species) and Australasian and New World genus *Smicridea* McLachlan (178 species) (Morse 2008). Genus *Smicridea* is composed of two subgenera: *Rhyacophylax* Muller with 65 species in the Neotropical and southern Nearctic Regions and *Smicridea* with 113 species in the Australasian, southern Nearctic, and Neotropical Regions (Morse 2008).

Only one Smicrideinae genus, *Smicridea*, is found in South America, this genus being a dominant component of the caddisfly fauna in the Neotropical region (Flint 1974a). This genus is found throughout the South-American continent, extending northward to the southwestern United States; it is also found in Australia and on the major islands of the Antilles (Wiggins 1996). According to Flint (1978), the immature stages of this genus are more tolerant to warmer and to more slowly flowing streams than are those of other genera in the family.