Contribution to the knowledge of the preimaginal stages of the genus *Smicridea* McLachlan in South America (Trichoptera: Hydropsychidae: Smicrideinae)

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Abstract

Species of *Smicridea* occur in South and Central America, the major islands of the Antilles, and in the southwestern United States. Of the 172 known species in the genus, the preimaginal stages of only 16 have been described. In the present work, the larvae and pupae of 5 species of *Smicridea* are described from South America: *S.* (*Smicridea*) *annulicornis* (Blanchard), *S.* (*Rhyacophylax*) *dithyra* Flint, *S.* (*S.*) *frequens* (Navás), *S.* (*R.*) *pampeana* Flint and *S.* (*R.*) *spinulosa* Flint. *Smicridea* (*R.*) *dithyra* Flint is recorded for the first time from South America.

Keywords: Trichoptera, Hydropsychidae, *Smicridea*, larva, pupa, South America, Argentina, Neotropics, new record

Introduction

Hydropsychid caddisflies are extremely important in the ecology of running water systems because of their usually ubiquitous occurrence, high abundance, and large biomass (Wiggins 1996), and they are important participants in energy flow and nutrient dynamics in the aquatic environment (Flint *et al.* 1999). Identification of immature stages of hydropsychids is important not only for increasing taxonomic knowledge of this group, but also for applications like water quality monitoring and ecological studies. Studies of these and other phenomena of hydropsychid species are usually not possible unless the larvae and pupae can be identified.

The species of *Smicridea* are separated into 2 subgenera, *S.* (*Smicridea*) and *S.* (*Rhyacophylax*) (Flint 1974a), placed in the subfamily Smicrideinae of the Hydropsychidae (Shefter 1996). Their distribution extends from the southwestern United States, throughout Central and South America, and the major islands of the Antilles