

## The Neotropical caddisfly genus *Tolhuaca* (Trichoptera: Glossosomatidae)

DESIREE R. ROBERTSON & RALPH W. HOLZENTHAL

University of Minnesota, Department of Entomology, 1980 Folwell Ave., Room 219, St. Paul, Minnesota  
55108, U.S.A. (robe0494@umn.edu; holze001@umn.edu)

### ABSTRACT

The caddisfly genus *Tolhuaca* Schmid 1964 (Glossosomatidae: Protoptilinae) is diagnosed and discussed in the context of other protoptiline genera, and a review of its taxonomic history is provided. A new species, *Tolhuaca brasiliensis*, from southeastern Brazil, is described and illustrated, and the type species, *Tolhuaca cupulifera* Schmid 1964, from Chile, is redescribed and illustrated. Additionally, females of the genus are described and illustrated for the first time. Characters of the female genitalia, wing venation, and thorax suggest that *Tolhuaca* is more primitive than any other protoptiline genus and probably deserves a basal placement within the subfamily. The genus shows a broadly disjunct distribution perhaps reflecting an ancient southern Gondwana pattern.

**Key words:** Trichoptera, Glossosomatidae, Protoptilinae, *Tolhuaca*, new species, caddisfly, male genitalia, female genitalia, Neotropics, Southern Cone, Chile, Brazil, phylogeny, biogeography

### INTRODUCTION

The genus *Tolhuaca* Schmid 1964, belongs to the saddle-, or tortoise-case making caddisfly family Glossosomatidae. The family contains approximately 500 species worldwide and consists of 3 subfamilies: Agapetinae (~200 spp.), Glossosomatinae (~100 spp.), and Protoptilinae (~200 spp.). Members of the subfamily Protoptilinae, to which *Tolhuaca* belongs, are very minute (1.5–6 mm) and were originally thought to belong to the family Hydroptilidae, the microcaddisflies. Following Mosely's (1937) suggestion, Ross (1938) transferred *Protoptila* Banks 1904, the first genus to be described in the protoptiline group, to Glossosomatinae, at that time a subfamily within Rhyacophilidae. Mosely (1954) later added to the protoptiline group by transferring *Antoptila* Mosely 1939 (junior synonym of *Itauara* Müller 1888), *Canoptila* Mosely 1939, *Culoptila* Mosely 1954, *Mexitrichia* Mosely 1937, and *Mortoniella* Ulmer 1906 from Hydroptilidae, and