



## The adults of *Harpagobaetis* Mol and *Tomedontus* Lugo-Ortiz and McCafferty (Ephemeroptera: Baetidae) with notes on the nymphal stage

J.N. FALCÃO<sup>1</sup>, F.F. SALLES<sup>2,3</sup> & N. HAMADA<sup>1</sup>

<sup>1</sup>Coordenação de Pesquisas em Entomologia, Divisão de Curso de Entomologia (DCEN), Instituto Nacional de Pesquisas da Amazônia (INPA), CEP 69011-970 Manaus, AM, Brazil

<sup>2</sup>Depto. de Ciências Agrárias e Biológicas, Centro Universitário Norte do Espírito Santo, Universidade Federal do Espírito Santo, CEP 29.933-415, São Mateus, ES, Brazil. E-mail: ffsalles@gmail.com

<sup>3</sup>Corresponding author

### Abstract

In the present study the imagos of *Harpagobaetis* Mol and *Tomedontus* Lugo-Ortiz & McCafferty are described for the first time. They can be differentiated from other genera of Baetidae by the following combination of characteristics: *Harpagobaetis*, forewing with paired marginal intercalary veins; hind wing present with two complete longitudinal veins; costal projection of hind wing pointed, placed in the basal third of anterior margin, cross veins absent; forceps three-segmented, segment I with bulbous base, segment III long, about 3 × as long as wide; *Tomedontus*, dorsal portion of turbinate eye circular; forewing with paired marginal intercalary veins; hind wing absent; forceps three-segmented, segment II with strong medial projection; subgenital plate without projection.

**Key words:** aquatic insects, description, South America, taxonomy

### Resumo

Neste trabalho são descritas pela primeira vez as imagos de *Harpagobaetis* Mol e *Tomedontus* Lugo-Ortiz & McCafferty. Os adultos podem ser diferenciados dos outros gêneros de Baetidae pela combinação das seguintes características: *Harpagobaetis*, intercalares marginais pares; asa posterior com duas nervuras longitudinais completas; asa posterior com processo costal agudo localizado no terço anterior, nervuras transversais ausentes; fórceps com três artículos, terço basal do primeiro artículo bulboso e terceiro artículo alongado, cerca de 3 × mais longo que largo. *Tomedontus*, porção turbinada dos olhos compostos circular; intercalares marginais pares; asa posterior ausente; fórceps com três artículos, segundo artículo com forte projeção medial e terceiro artículo alongado; placa subgenital sem projeção.

**Palavras-chave:** insetos aquáticos, descrição, América do Sul, taxonomia

### Introduction

The taxonomy of the mayfly family Baetidae (Insecta: Ephemeroptera), unlike most other insects, is based mainly on the nymphal stage. As a consequence, the adults of several genera and species remain unknown (Domínguez *et al.* 2006). Among the genera reported from South America, the following have been described based solely on nymphs: *Adebrotus* Lugo-Ortiz & McCafferty, *Harpagobaetis* Mol, *Cryptonympha* Lugo-Ortiz & McCafferty, *Tomedontus* Lugo-Ortiz & McCafferty, *Waltzoyphius* McCafferty & Lugo-Ortiz, and *Zelus* Lugo-Ortiz & McCafferty (Domínguez *et al.* 2006, Salles & Nieto 2008, Salles & Nascimento 2009, Chacón *et al.* 2010).

The lack of knowledge concerning the adults of the family makes studies related to Baetidae systematics and diversity difficult, since adults of the family are seldom identified even at the genus level. As a