



## New species of Polycentropodidae (Trichoptera: Annulipalpia) from Northeast Region, Brazil

ALBANE VILARINO<sup>1</sup> & ADOLFO R. CALOR<sup>2</sup>

Universidade Federal da Bahia, Instituto de Biologia, Departamento de Zoologia, PPG Diversidade Animal, Laboratório de Entomologia Aquática - LEAq. Rua Barão de Jeremoabo, 147, campus Ondina, Ondina, CEP 40170-115, Salvador, Bahia, Brazil.

E-mail: <sup>1</sup>[albanevilarino@gmail.com](mailto:albanevilarino@gmail.com); <sup>2</sup>[acalor@gmail.com](mailto:acalor@gmail.com)

### Abstract

Three new species of Polycentropodidae (Insecta: Trichoptera) from the Northeast Region of Brazil are diagnosed, described, and illustrated. *Polycentropus brevicornutus* n. sp. of the *Polycentropus gertschi* Group can be diagnosed mainly by its much reduced, almost vestigial intermediate appendages, and by the inferior appendages, which are deltoid and very linear in lateral aspect. The two new species of *Polyplectropus* are *P. anchorus* n. sp. and *P. auriplicatus* n. sp. in the *P. annulicornis* and *P. bredini* Groups, respectively. *Polyplectropus anchorus* n. sp. is very similar to *P. annulicornis* Ulmer 1905, but can be distinguished from its congener mainly by the endotheal spines without setae and with their apices directed dorsolaterad. *Polyplectropus auriplicatus* n. sp. resembles *P. brasiliensis* but can be distinguished mainly by the shorter and deltoid intermediate appendages, the straighter dorsolateral processes of the preanal appendages, and the inferior appendages each with its mesoventral branch more developed and rounded.

**Key words:** adults, caddisflies, Neotropics, *Polyplectropus*, *Polycentropus*, taxonomy

### Introduction

Polycentropodidae (Ulmer 1903) is a cosmopolitan family comprising approximately 775 described species in 14 genera (Johanson *et al.* 2012). Two genera in the family (*Eodipseudopsis* (Marlier 1959) and *Tasmanoplegas* (Neboiss 1977)) have doubtful status (Oláh & Johanson 2010; Chamorro & Holzenthal 2011). *Polycentropus* (Curtis 1835), with approximately 200 species (Johanson *et al.* 2012), and *Polyplectropus* (Ulmer 1905), with almost 260 species (Chamorro & Holzenthal 2010), are the largest genera within the family, occurring in all biogeographical regions. Recent phylogenies for the family with morphological (Chamorro & Holzenthal 2011) and molecular data (Johanson *et al.* 2012) have questioned the monophyly of both genera. Otherwise, the *Polycentropus gertschi* Group (*sensu* Hamilton 1986), which includes most of the Neotropical species of the genus, is presented as monophyletic (Hamilton 1986; Hamilton 1987; Johanson *et al.* 2012), and the New World *Polyplectropus* clade is also well supported (Chamorro & Holzenthal 2010).

Approximately 50% of the species in these genera have Neotropical distribution. *Polycentropus* comprises 102 Neotropical species, 25 of them belonging to the Brazilian fauna (Hamilton & Holzenthal 2011), and *Polyplectropus* comprises 92 species, 25 of them occurring in Brazil (Chamorro & Holzenthal 2010).

In this paper, we describe three new species: *Polycentropus brevicornutus*, belonging to the *Polycentropus gertschi* Group, *Polycentropus jorgenseni* species complex; and *Polyplectropus anchorus* and *Polyplectropus auriplicatus* in the *P. annulicornis* and *P. bredini* Groups, respectively.

### Material and methods

The adults were collected using UV light pan traps (Calor & Mariano 2012), UV and white lights placed in front of a white cloth, and Malaise traps. The specimens collected by Malaise and pan traps were preserved in 80% ethanol.