



## Description of a new species of *Miroculis* Edmunds, 1963 (Ephemeroptera: Leptophlebiidae) from Brazil

SABRINA SANTOS COSTA<sup>1</sup> & RODOLFO MARIANO<sup>2</sup>

<sup>1</sup> Departamento de Ciências Biológicas, UESC—Universidade Estadual de Santa Cruz, Rodovia Ilhéus–Itabuna, km 16, Ilhéus, BA, Brazil. E-mail: [sabrinacosta.bio@gmail.com](mailto:sabrinacosta.bio@gmail.com)

<sup>2</sup> Departamento de Ciências Agrárias e Ambientais, UESC—Universidade Estadual de Santa Cruz, Rodovia Ilhéus–Itabuna, km 16, Ilhéus, BA, Brazil. E-mail: [rodolfomls@gmail.com](mailto:rodolfomls@gmail.com)

### Abstract

A new species of *Miroculis* is described based on material from State of São Paulo, Brazil. The imago of the new species can be separated from other species of the genus by the following combination of characters: upper part of stalked portion of compound eyes with 12 facets in the longest row; forewing translucent tinged with brown, with transverse and longitudinal veins brown; general color of abdomen brown translucent; size of penis from 0.8 to 1.0 the size of forceps segment I.

**Key words:** Mayfly, Taxonomy, South America, Atalophlebiinae

### Introduction

The genus *Miroculis* was described by Edmunds (1963) based on imagos from Peru. There are records of *Miroculis* species from Argentina, Brazil, Colombia, Peru, Venezuela, and Suriname (Dominguez *et al.* 2006). Nowadays it comprises 15 species (Salles & Lima 2011) and in Brazil it is one of the most speciose genera with nine species described, i.e. *M. (Atroari) amazonicus* Savage & Peters, 1983 (State of Amazonas), *M. (Atroari) duckensis* Savage & Peters, 1983 (State of Amazonas), *M. caparaensis* Salles & Lima, 2011 (State of Espírito Santo), *M. (Miroculis) brasiliaensis* Savage & Peters, 1983 (Distrito Federal), *M. (Miroculis) fittkaui* Savage & Peters, 1983 (State of Pará and Espírito Santo), *M. (Miroculis) marauiaie* Savage & Peters, 1983 (State of Amazonas), *M. (Ommaethus) froehlichii* Savage & Peters, 1983 (State of Rio de Janeiro and São Paulo), *M. (Ommaethus) mourei* Savage & Peters, 1983 (State of Pará and Espírito Santo), and *M. (Yaruma) wandae* Savage & Peters, 1983 (State of Amazonas) (Dominguez 2007, Salles & Lima 2011). This paper presents the description of a new species based on male imagos of *Miroculis* from Brazil.

### Material and Methods

Samples were taken with Malaise traps between 2007–2008, armed on the campus of Universidade Federal de São Carlos—UFSCAR (coordinates 21°58'07"S and 47°53'08"W), in Fazzari stream, São Carlos—SP, Brazil. The material examined was mounted on Euparal® (subgenital plate and genitalia) and dried (wings), the rest set in 80% alcohol. The types are deposited at the Museum of Zoology, Universidade de São Paulo, São Paulo, São Paulo (MZUSP) and the Museum of Zoology, Universidade Estadual de Santa Cruz, Ilhéus—BA (MZUESC).

### Results

#### *Miroculis (Miroculis) fazzariensis* sp. nov.

**Description.** Male imago. (Figs. 1–7)