



## The presence of *Homoeoneuria* s.s. (Ephemeroptera: Oligoneuriidae) in South America with the description of a new species

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### Abstract

In the present work a new species of *Homoeoneuria* is described based on nymphs and adults from Southeastern Brazil. Based on cladistics, the new species belongs to the subgenus *Homoeoneuria*s.s. *Homoeoneuria* (*H.*) *watu* sp. n., besides being the second species of the genus reported from South America, is the first representative of the subgenus from the region. The new species can be distinguished from the other described species of the genus by the following combination of characters: In the adult stage, (1) pronotum with prominent posteromedian pale yellow spot almost reaching anterior margin; (2) abdominal color pattern; (3) shape of penes. In the nymph, (1) head heavily washed with brownish-orange between compound eyes and ocelli; (2) antennal pedicels with short, thick setae; (3) small paired tubercles present on vertex and anterior margin of pronotum; (4) galea-lacinia of maxillae with submarginal row of 20–21 long, spinous setae; (5) abdominal color pattern. Comments on the biology of the new species are also provided.

**Key words:** Taxonomy, Neotropics, cladistics, new records

### Introduction

The mayfly genus *Homoeoneuria* Eaton (Ephemeroptera: Oligoneuriidae) consists of the following species and subgenera: *H.* (*Homoeoneuria*) *ammophila* (Spieth), *H.* (*H.*) *dolani* Edmunds, Berner & Traver, *H.* (*H.*) *salviniae* Eaton, *H.* (*H.*) *alleni* Pescador & Peters, *H.* (*H.*) *cahabensis* Pescador & Peters, and *H.* (*Notochora*) *fittkai* Pescador & Peters. Except for *H.* (*H.*) *salviniae*, recorded from Central America, all species of *Homoeoneuria* s.s. are recorded from North America, whereas *H.* (*N.*) *fittkai* is the only species known until now from South America (Northern Brazil) (Pescador & Peters 1980, Da-Silva 1992).

In the present work a new species of *Homoeoneuria* is described based on nymphs and adults from Minas Gerais State, Southeastern Brazil. In order to infer the systematic position of the new species, a cladistic analysis was performed. Comments on the biology of the new species are also provided.

### Material and methods

Collected specimens were preserved in 80% ethanol. Body parts of nymphs and adults were mounted on microscope slides in Euparal® and drawn with the aid of a camera lucida attached to a stereomicroscope. Digital photographs were taken with a Camera DP 70 attached to a stereomicroscope Olympus SZX 12 (up to 144x), and edited using Image-Pro Plus®. The analysis of the particle size of the sand bottom river sample