



## Three new species of *Anacroneuria* (Plecoptera: Perlidae) from Centre-West and Southeast Brazil

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### Abstract

Three new species of *Anacroneuria* are described herein: *A. otafroehlichii* sp. n., *A. terere* sp. n. and *A. singularis* sp. n. In addition, we report the presence of *A. atrifrons* Klapálek and *A. pastaza* Stark for the first time in Mato Grosso do Sul State. The reported distributions of *A. payagua* Froehlich and *A. ofaye* Froehlich are expanded into Mato Grosso do Sul State.

**Key words:** Plecoptera, Perlidae, *Anacroneuria*, Mato Grosso do Sul State, Brazil

### Introduction

*Anacroneuria* is the largest Neotropical stonefly genus, distributed from the southern United States to northern Argentina, with at least 316 valid species known (Stark et al. 2009, DeWalt et al. 2010). In Brazil this genus is highly diversified and widely distributed, with 75 species (Froehlich 2010). This is the only genus of Perlidae known to occur in Mato Grosso do Sul State; the first record of which was made by Navás, describing *A. genualis* (Navás, 1932) and *A. melzeri* (Navás, 1932). According to Froehlich (2007) the knowledge of the stonefly fauna from this state is poor; exceptions are Navás's species and the three species described by Froehlich (2007): *A. ofaye*, *A. guaikuru* and *A. payagua*. Here three new species of *Anacroneuria* are described and new records of several other species in the genus are presented.

### Material and methods

Most specimens were collected in the municipality of Chapadão do Sul, Mato Grosso do Sul State, in 4<sup>th</sup> to 5<sup>th</sup> order rivers belonging to the Upper Paraná River basin. The collection sites are in an area where the original vegetation is Cerrado ("Brazilian savannah") and an elevation is approximately 370 m. This area has experienced strong environmental pressure due to the construction of several dams, of which at least six are in the process of installation.

Other specimens were collected in the municipality of Bonito, within the Bodoquena plateau, a peculiar karst region at the southern border of the Pantanal, still covered by Cerrado. Here, specimens were collected from 1<sup>st</sup> to 4<sup>th</sup> order streams in the Upper Paraguai River basin at elevations near 600 m.

One species, *A. singularis*, was also collected in the municipality of Pedregulho, São Paulo State. The stream is located in a valley at an elevation of approximately 680 m, where the slopes are predominantly covered by semi-deciduous forest, and in the upper plateau, at an elevation of 960 m, the vegetation is Cerrado.

Most material was collected at night using light traps. All new specimens were preserved in 80% EtOH. They and all other examined material reside in the Museum of Zoology (University of São Paulo). Morphological terminology follows that of Zwick (1980).