



## A new miniature species of *Characidium* Reinhardt (Ostariophysi: Characiformes: Crenuchidae) from the headwaters of the rio Araguaia, Brazil

ANDRÉ L. NETTO-FERREIRA<sup>1</sup>, JOSÉ L. O. BIRINDELLI<sup>1,2</sup> & PAULO A. BUCKUP<sup>3</sup>

<sup>1</sup>Museu de Zoologia da Universidade de São Paulo, Caixa Postal 42494, CEP 04218-970, São Paulo, SP, Brazil.

E-mail: [alnferreira@gmail.com](mailto:alnferreira@gmail.com)

<sup>2</sup>Departamento de Biologia Animal e Vegetal, Universidade Estadual de Londrina, Caixa Postal 6001, CEP 86051-980, Londrina, PR, Brazil. E-mail: [josebirindelli@yahoo.com](mailto:josebirindelli@yahoo.com)

<sup>3</sup>Museu Nacional, Universidade Federal do Rio de Janeiro, Departamento de Vertebrados, Quinta da Boa Vista, 20940-040 Rio de Janeiro, RJ, Brasil. Email: [buckup@acd.ufrj.br](mailto:buckup@acd.ufrj.br)

### Abstract

*Characidium mirim* is described from the rio das Mortes, rio Araguaia basin in Central Brazil. The new species is distinguished from its congeners by having an incomplete lateral line, a conspicuous dark longitudinal stripe and dark transverse bars not extending ventrally to the lateral line, and by lacking the adipose fin and the dark caudal blotch. A phylogenetic hypothesis based on the available data on the phylogenetic relationships of the subfamily Characidiinae is presented. Results suggest that the new species is closely related to *C. bahiensis*, *C. interruptum*, *C. lagosantense*, *C. nupelia*, *C. lanei*, *C. laterale*, *C. occidentale*, *C. orientale*, *C. rachovii*, *C. stigmatosum*, *C. vestigipinne* and *C. xavante*.

**Key words:** Phylogenetic relationships, Neotropical, Freshwater fish, Teleostei, Characidiinae

### Resumo

*Characidium mirim*, proveniente do rio das Mortes, bacia do rio Araguaia no Brasil Central, é descrita. A nova espécie difere de suas congêneres por apresentar a linha lateral incompleta, uma conspícua faixa longitudinal e barras transversais não se estendendo ventralmente à linha lateral, e pela ausência da nadadeira adiposa e da mancha caudal escura. Uma hipótese filogenética é apresentada, com base nos dados disponíveis sobre as relações filogenéticas de Characidiinae. Os resultados sugerem que a nova espécie seja proximamente relacionada a *C. bahiensis*, *C. interruptum*, *C. lagosantense*, *C. nupelia*, *C. lanei*, *C. laterale*, *C. occidentale*, *C. orientale*, *C. rachovii*, *C. stigmatosum*, *C. vestigipinne* e *C. xavante*.

### Introduction

*Characidium* Reinhardt is the largest genus of the family Crenuchidae and one of the most species-rich of the order Characiformes, with 55 valid species distributed in the Neotropical region from Panama to Argentina (Breder, 1925; Géry *et al.*, 2001). Monophyly of the genus is supported by the presence of a dark spot on the base of median caudal-fin rays, despite being secondary lost in some species (Buckup, 1993a,b; Melo & Buckup, 2002). The taxonomy of the genus is still poorly known (Buckup, 1993b), although several species have been recently described (Graça & Pavanelli, 2006; Taphorn *et al.*, 2006; Graça *et al.*, 2008) or redescribed clarifying, at least in part, the identity of problematic species such as *Characidium pterostictum*, *C. rachovii*, *C. tenue*, *C. zebra* (Buckup & Reis, 1997), and *C. borellii* (Géry *et al.*, 2001).

During a field trip to the Chapada dos Guimarães and the rio das Mortes Plateau, an undescribed miniature species (*sensu* Weitzman & Vari, 1988) of *Characidium* easily distinguished from most congeners was discovered. The new species is herein described and its phylogenetic relationships are discussed.