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Article



Astyanax pirapuan: a new characid species from the upper Rio Paraguay system, Mato Grosso, Central Brazil (Characiformes, Characidae)

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Abstract

A new characid fish is described herein from tributaries of the Rio Aricá-Mirim, Rio Cuiabá basin, Chapada dos Guimarães, Mato Grosso State, Brazil. *Astyanax pirapuan* better conforms to the *A. scabripinnis* species complex and it can be distinguished from other species of this complex by a combination of characters, including 8–9 gill rakers on the upper limb of first branchial arch, 0–1 tooth on the maxillary, 17 to 21 branched anal-fin rays, 35–37 perforated lateral line scales and two humeral spots.

Key words: Neotropical, Astyanax scabripinnis, taxonomy

Resumo

Um novo caracídeo é descrito de tributários do Rio Aricá-Mirim, bacia do Rio Cuiabá, Chapada dos Guimarães, Estado do Mato Grosso, Brasil. *Astyanax pirapuan* pertence ao complexo de espécies *Astyanax scabripinnis* e pode ser distinguido das demais espécies desse complexo pela combinação de caracteres, incluindo 8–9 rastros branquiais no ramo superior do primeiro arco branquial, 0–1 dente no maxilar, 17–21 raios ramificados na nadadeira anal, 35–37 escamas perfuradas na linha lateral e duas manchas umerais.

Introduction

The genus Astyanax was originally proposed by Baird & Girard (1854) to include their new species Astyanax argentatus, a small tetra from Upper Nueces River, Texas, USA, currently considered by Lima et al. (2003) a junior synonym of A. mexicanus (De Fillipi, 1853). To date, the genus Astyanax comprises around 130 valid species (Eschmeyer, 2010), basically defined by the presence of two-teeth rows in the premaxilla with five teeth in the inner row, complete lateral line, and caudal fin not covered by a sheath of small scales (Eigenmann, 1917; 1921). According to various authors, the genus as it stands cannot be considered a monophyletic unit (e.g. Rosen, 1972; Weitzman & Malabarba, 1998). Recently, Mirande (2009) proposed a hypothesis of the phylogentic relationships of members of the family Characidae and pointed out that the few analyzed species of Astyanax form a monophyletic clade along with Bryconamericus scleroparius (Regan 1908), Hyphessobrycon anisitsi (Eigenmann 1907), H. bifasciatus Ellis 1911, H. luetkenii (Boulenger 1887), Markiana nigripinnis (Perugia 1891) and Psellogrammus kennedyi (Eigenmann 1903), which, due to its instability, was only named the Astyanax Clade. According to Mirande's (2010) subsequent analysis, the Astyanax clade is supported only by the putatively synapomorphic presence of one or absence of maxillary teeth. This author further discussed that, according to his hypothesis, this clade would require a subfamilial category, but given the low taxon sampling and some variations observed under different searches, such an informal provisional name was employed, pending specific contributions. Thus, little light was effectively shed on the phylogenetic relationships of Astyanax.

The Astyanax scabripinnis species complex was first proposed by Moreira-Filho & Bertollo (1991), who studied karyotypical and morphological features of the Astyanax scabripinnis subspecies sensu Eigenmann (1921).