



## A new *Pamphorichthys* (Cyprinodontiformes: Poeciliidae: Poeciliini) from central Brazil

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### Abstract

A new species of *Pamphorichthys* is described from Preto river, tributary of the São Francisco river drainage. The new species is the sister group of the remaining species of *Pamphorichthys*, showing synapomorphies of the genus, including the reduced number of gonapophyses and gonapophyses tips parallel to the vertebral spine. The diagnosis is given by the following unique features: outer row of teeth on pre-maxilar and dentarium with bilobed incisive teeth; distal segments of the third ray of the gonopodium and an elongated anterior branch of the fourth ray with a putative origin in the fusion of several distal segments; anterior and posterior branches of gonopodium ray 6 with distal segments fused into only one segment; six dorsal-fin rays in males; and urogenital region of reproductive females with heavy dark pigmentation all around the anus and urogenital opening.

**Key words:** Systematics, Taxonomy, Poeciliinae, Livebearer, Endemism

### Resumo

Uma nova espécie de *Pamphorichthys* é descrita do Rio Preto, tributário da bacia do rio São Francisco. A nova espécie é o grupo irmão das demais espécies do gênero, incluindo o reduzido número de gonapófises e a ponta das gonapófises paralela à espinha vertebral. A diagnose é dada pelas seguintes características exclusivas: série externa de dentes no pré-maxilar e dentário com dentes bilobados; segmentos distais dos raios 3 e ramo anterior do raio 4 alongados aparentando ter sua origem na fusão dos segmentos mais distais; ramos, anterior e posterior do raio 6 do gonopódio com os segmentos distais fusionados em um só segmento; seis raios na nadadeira dorsal de machos; região uro-genital de fêmeas reprodutivas com forte pigmentação escura a toda a volta do ânus e abertura urogenital.

### Introduction

Although the Subfamily Poeciliinae, and especially the tribe Poeciliini, are well-known to scientists and aquarium hobbyists, an expedition to the São Francisco river system in central Brazil in 1998 collected a small (ca. 20 mm max.), unknown fish species of the tribe Poeciliini. Members of this subfamily are often used as models in evolutionary and behavioral studies, as well as in many research projects that require sturdy, aquatic organisms with short generation time. Studies on phylogenetic relationships of the genera composing Poeciliinae have been conducted (Figueiredo, 2003; Lucinda & Reis, 2005) to allow comparative analysis in these model systems. These studies made the generic placement of these species possible and brought to light an unknown biodiversity, represented in part by the highly endemic species herein described.