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A new species of cave catfish from Brazil, *Trichomycterus rubbioli* sp.n., from Serra do Ramalho karstic area, São Francisco River basin, Bahia State (Siluriformes: Trichomycteridae)

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Abstract

Trichomycterus rubbioli, herein described, is a new species from the limestone caves of the Água Clara system from the Serra do Ramalho karstic area, southwest of Bahia State, north-eastern Brazil. The new species is diagnosed by the combination of the following non-exclusive characters: highly reduced skin pigmentation; reduced eyes, externally visible as small black or reddish-brown spots; long barbels, especially the nasal (86.9–127.1% of head length) and maxillary (98.1–129.3% of head length); and pectoral-fin ray count reaching I, 9. The troglolitic status is suggested by the presence of troglomorphisms on an advanced degree, especially the reduction of skin pigmentation and the regression of the eyes, besides the absence of individuals in superficial drainages of the region. Population densities, recorded on two occasions, were extremely low. *Trichomycterus rubbioli* occurs in water bodies formed by infiltration in the rock, and, because of this, it must be considered fragile and as a priority in conservation programs of Brazilian karstic areas.

Key words: New cavefish, troglolite, subterranean ichthyofauna, north-eastern Brazil, taxonomy

Introduction

Brazil has one of the most remarkable subterranean ichthyofaunas in the world, comparable to just a few other countries or geographically comparable karst areas, such as Mexico, China and southeastern Asia (Bichuette & Trajano, 2008; Trajano *et al.*, 2009; Trajano & Bichuette, 2010). Brazilian cavefishes have worldwide relevance not only in terms of species richness, but also in view of the high diversity of their ecological and evolutionary patterns (Trajano & Bichuette, 2010). Up to now, 25 troglolitic species (exclusively subterranean, usually troglomorphic, i.e., with reduction of eyes and pigmentation, among other characters) have been reported; many still await formal description (Trajano & Bichuette, 2010). Most are siluriforms (Callichthyidae, Loricariidae, Heptapteridae and Trichomycteridae), and trichomycterids are so far the richest family, with 12 reportedly troglolitic species (Trajano & Bichuette, 2010; Rizzato *et al.*, 2011).

The Trichomycteridae, widely distributed in freshwaters from Central and South America, include more than 250 valid species (Nelson, 2006; Castellanos-Morales, 2008; Datovo & Bockmann, 2010, Eschmeyer & Fong, 2012). Their monophyly is well corroborated and their most conspicuous synapomorphies are based on its highly specialized opercular-interopercular apparatus (de Pinna, 1998; Datovo & Bockmann, 2010). Trichomycterid catfishes are among the most successful colonizers in subterranean habitats (Castellanos-Morales, 2008), including 15 nominal troglolitic species in four genera, *Silvinichthys* (Argentina), *Glaphyropoma* (Brazil), *Ituglanis* (Brazil), and *Trichomycterus* (Proudlove, 2010), besides several trogloliphilic populations (populations of species that are able to live and complete their life cycle both on the surface and in subterranean habitats) throughout Brazil (Mattox *et al.*, 2008; E. Trajano & M.E. Bichuette, unpubl. data).

With more than 150 species already described and many others waiting for description, *Trichomycterus* is the most speciose trichomycterid genus (Alencar & Costa, 2004; Wosiacki, 2005; Wosiacki & de Pinna, 2008; Fernández & Vari, 2009), showing a great potential to colonize extreme habitats, including subterranean habitats (Fernández &