



Article

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Sinigarra napoense, a new genus and species of labeonin fishes (Teleostei: Cyprinidae) from Guangxi Province, South China

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Abstract

A new garrain genus and species are described from the Zuo-Jiang of the Zhu-Jiang (Pearl River) drainage in Guangxi Province, South China. *Sinigarra*, new genus, is characterized by having the lower lip modified into a mental adhesive disc posteriorly discontinuous with the mental region. It is distinguished from all other disc-bearing genera, namely *Garra*, *Placocheilus*, *Discocheilus* and *Discogobio*, by having the anterior edge of the mental adhesive disc not modified to form an anteromedian crescentic fold, an upper lip present, but separated from the upper jaw, and indistinct papillae scarcely scattered over the rostral cap and lower lip or absent.

Key words: Cypriniformes, Labeonini, Garraina, taxonomy

Introduction

The Labeonini is a monophyletic assemblage of Cyprinidae that comprises a large number of fish species broadly known from the freshwaters of tropical Africa and Asia (*sensu* Reid 1982; Stiassny & Getahun 2007). There are about thirty-five genera presently referred to the Labeonini, with the high diversity of this tribe at the generic-level rank concentrated in South China where twenty-six genera occur, accounting for about 72.2% of the total (Yang & Mayden 2010; Zhu *et al.* 2011). Unshared with all other cyprinid fish groups, the Labeonini exhibits a high degree of morphological modification in its oromandibular structures, which is the basis for recognition of most of the included genera (Zhang *et al.* 2000). As a result, the taxonomy of the Labeonini at the generic-level rank is poorly understood. This tribe is the subject of recent molecular phylogenetic analyses (Zheng *et al.* 2010; Yang & Mayden 2010). These investigations indicated that the monophyletic nature of some currently recognized genera, e.g. *Bangana*, *Cirrhinus*, and *Garra*, is not confirmed. Each of them should be split into several distinct genera. Evidently, generic classification of the Labeonini requires additional in-depth study.

In the past fifteen years, the first author and coauthors described five new labeonin genera from South China, i.e., *Pseudocrossocheilus* Zhang & Chen 1997, *Qianlabeo* Zhang & Chen 2004, *Akrokolioplax* Zhang & Kottelat 2006, *Hongshuia* Zhang *et al.* 2008, and *Cophecheilus* Zhu *et al.* 2011. The species currently referred to three genera, namely *Pseudocrossocheilus*, *Akrokolioplax* and *Hongshuia*, were assigned to other labeonin genera. These three taxa merit generic status as each of them has its own uniquely modified oro-mandibular structures, as do *Qianlabeo* and *Cophecheilus*. The validity of these five genera was verified by molecular phylogenetic analyses (Zheng *et al.* 2010; Zhu *et al.* 2011). Undoubtedly, our taxonomic works on Chinese labeonin species indicated that subtle distinctions in oro-mandibular structures provide sufficient evidence to define genera of this subtribe.

A fish field survey conducted in November 2009 into a tributary of the Zuo-Jiang flowing into the Zhu-Jiang (Pearl River) drainage, in Napo County, Guangxi Province, South China, yielded nine specimens that are referable to the Labeonini. These specimens, however, possess a lower lip modified into a mental adhesive disc whose posterior margin is discontinuous from the mental region. They have unique morphological modifications in the mental adhesive disc that do not allow their placement into any currently recognized disc-bearing genus, therefore representing an undescribed genus from South China. This paper provides a formal account of this genus, here named *Sinigarra*.