A new genus and species of inseminating characid fish from the rio Xingu basin (Characiformes: Characidae)

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Abstract

Phallobrycon adenacanthus, is described as a new genus and species belonging to Clade A characids of Malabarba & Weitzman (2003). The new taxon is the only characid possessing two developed spines on unbranched portions of fifth, sixth and seventh anal-fin rays associated with intumescent glandular tissue on the anterior portion of the anal fin of sexually mature males. Other non-exclusive diagnostic features of the new genus (observed in male specimens) are: urogenital papilla modified into a copulatory organ, absence of pelvic-fin hooks and glandular tissue not organized into an organ. The presence of these features in members of Clade A and other characids is discussed in order to hypothesize the relationships of Phallobrycon.

Key words: Clade A; Histology; Systematics; Ostariophysi; Sexual dimorphism; Neotropical region

Introduction

Specimens of the new characid genus and species herein described were found among specimens from the rio Xingú basin tentatively identified as Knodus because of the presence of external morphological features attributable to that characid genus. However closer examination of the specimens indicated the presence of well-developed spines on some branched anal-fin rays of the anterior anal-fin lobe, where glandular tissue is concentrated, and of a urogenital papilla. These features are not known in Knodus and in the other genera of Clade A characids of Malabarba & Weitzman (2003), to which the new genus and species also seem to belong. A urogenital papilla was described by Burns & Weitzman (2006) in as yet still undescribed species of Monotocheirodon Eigenmann & Pearson, but this genus has other characters not shared with Phallobrycon (see below).

We think that the preliminary results indicating a close relationship between Phallobrycon and other recently described taxa with members of Clade A characids still needs confirmation, because the monophyletic condition of some of the included genera has not been fully demonstrated, as emphasized by...