



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

Resumo

Phallobrycon adenacanthus, gênero e espécie novos, pertencentes ao Clado A de Malabarba & Weitzman (2003), são descritos. O novo táxon é o único Characidae que possui dois espinhos desenvolvidos na porção não ramificada do quinto, sexto e sétimo raios da nadadeira anal associados a uma massa intumescida de tecido glandular na porção anterior da nadadeira anal de machos maduros. Outros caracteres diagnósticos não exclusivos do grupo são: papila urogenital modificada em um órgão copulador, ausência de ganchos nos raios da nadadeira pélvica e tecido glandular da nadadeira anal não formando um órgão. A distribuição destes caracteres entre os membros do Clado A é discutida a fim de inferir as possíveis relações de *Phallobrycon*.

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 *Monotocheiroduon* 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