



Taxonomy of the catfish genus *Pseudoplatystoma* Bleeker (Siluriformes: Pimelodidae) with recognition of eight species

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Abstract

The genus *Pseudoplatystoma* Bleeker consists of three species long recognized as: *P. fasciatum* (Linnaeus), *P. tigrinum* (Valenciennes), and *P. corruscans* (Spix & Agassiz), and five species recently recognized or described here: *P. punctifer* (Castelnau), *P. reticulatum* Eigenmann & Eigenmann, *P. orinocoense* n. sp., *P. metaense* n. sp., and *P. magdaleniatum* n. sp. The eight species form a monophyletic group with two clades that are supported by anatomical features (i.e., skeletal anatomy and myology). One clade (*P. tigrinum* and *P. metaense*) is restricted to the Orinoco and Amazon basins, and the other clade, comprised of the remaining six species, is found in the Guyanas, Orinoco, Amazon, and Paraná basins. The species are diagnosed on the basis of body shape, color pattern (e.g., bars, loops, and spots), skeletal anatomy, and vertebral numbers. *Pseudoplatystoma punctifer* and *P. tigrinum* are sympatric in the Amazon Basin, *P. metaense* and *P. orinocoense* in the Orinoco Basin, and *P. corruscans* and *P. reticulatum*, are sympatric in the Paraná. *Pseudoplatystoma magdaleniatum* (Magdalena basin) and *P. fasciatum* (Guyanas) each occur as the only species of *Pseudoplatystoma* in their respective individual ranges. *Pseudoplatystoma reticulatum* may be sympatric with the two other species in the Amazon Basin, but we have no records of them being captured together in the mainstream or tributaries. All eight species are used as food in both commercial and subsistence fishing, and there is a moderate-sized ornamental fish market for the young and juveniles. A key to adults of the eight species is included.

Key words: *Pseudoplatystoma*, Pimelodidae, South America, tiger catfishes, principal components analysis

Introduction

As recently delimited, the family Pimelodidae (Long-Whiskered Catfishes) is now restricted to about 30 genera and 90 recognized and known but unnamed species (Lundberg and Littmann, 2003), all of which are found in the fresh waters of South America and the lower Isthmian regions. *Pseudoplatystoma*, the subject of this revision, is a monophyletic (Buitrago-Suárez, 2005) assemblage of boldly striped or spotted catfish populations placed in the family Pimelodidae. Standard references and catalogs record only three recognized species in the genus, *P. fasciatum*, *P. corruscans* and *P. tigrinum* (e.g., Burgess, 1989, Lundberg and Littmann, 2003). The diversity of this genus has been underestimated and their systematics are poorly known, in part, because geographic variation in morphology and coloration are displayed and because of a lack of taxonomic studies that firmly diagnose taxa and delimit species boundaries—a situation that has resulted in doubts of the status of such commercially important species as *P. tigrinum*. The absence of a critical review of the taxonomy reflects a lack of consensus on the number of species in the genus. Some authors consider *P. tigrinum* as a synonym or simply as a subspecies of *P. fasciatum* (Burgess, 1989). Two of the nominal species do not have a designated primary type (*P. fasciatum* and *P. corruscans*), and another has no specified type locality (*P. tigrinum*). *Pseudoplatystoma fasciatum* was considered a widespread species in classical works (e.g., Eigenmann