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SUPPLEMENTARY MATERIAL S1

TABLE S1 | Morphological traits derived from the different morphometric measurements taken from the specimens of *Serrapinnus notomelas* and *Serrapinnus* sp.1 in a lake in the Upper Paraná River floodplain, Brazil.

Morphological traits		
	Formulas	**Explanations**
Ecomorphological index		
Compression index	CI = MBH/MBW	Higher values indicate lateral compression of the fish, which is expected for fish that explore habitats with slower water velocity habitats.[3,4]
Depression index	DI = BMH/MBH	Lower values are associated with fish that explore habitats closer to bottom habitats.[4,6]
Relative lenght of caudal peduncule	RLPd = CPdL/SL	Fishes with long caudal peduncle are goods swimmers. However, fishes adapted to rapid water flow, but no necessarily nektonic as armored catfishes, also presented long caudal peduncules in function of propulsion in short distances.[4,6,7]
Relative height of caudal peduncule	RHPd = CPdH/MBH	Lower values indicate greater maneuverability potential.[7]
Relative width of caudal peduncule	RWPd = CPdW/MBW	Higher relative values indicate better continuous swimmers.[7]
Relative lenght of head	RLHd = HdL/SL	Larger relative values of head length are found in fishes which feed of larger prey. This index should be larger for piscivores.[4,7,8,12,15]
Relative height of head	RHHd = HdH/MBH	Larger relative values of head height are found in fishes which feed of larger prey. Larger values for this index are expected for piscivores.[7,15]
Relative width of head	RWHd = HdW/MBW	Larger relative values of head width are found in fishes which feed of larger prey. Larger values for this index are expected for piscivores.[7,15]
Relative height of mouth	RHM = MH/MBH	Relative mouth height allows to infer over the relative size of the prey.[3,7,15]
Relative width of mouth	RWM = MW/MBW	Larger relative values of mouth length suggest fishes which feed of larger prey.[3,5,7,14]
Eye position	EP = EH/HdH	This index is related to foods detection and it provides information on the visual predation activities. It can indicate the preferential position of the species in the water column.[12]
Relative area of dorsal fin	RAD = DA/(SL)	Dorsal fins with larger relative areas have better capacity of stabilization in deflections.[2]
Aspect ratio of caudal fin	ARC = (CH)2/CA	Fishes showing higher aspect ratio of the caudal fin are active and continuous swimmers. These fish have a tendency for greater caudal fin bifurcation and reduction of area.[1,3,5]
Aspect ratio of anal fin	ARA = (AL)2/AA	Anal fins with larger aspect ratio indicate a higher capacity to make rapid progression and regression movements.[13]
Aspect ratio of pectoral fin	ARPt = (PtL)2/PtA	Higher ratio indicates long and narrow pectoral fins, which is more expected on fish that are continuous high-speed swimmers and prefer pelagic regions.[11]
Aspect ratio of pelvic fin	ARPv = (PvL)2/PvA	Larger values for the aspect ratio of pelvic fin are found for pelagics fish and indicate a higher capacity to balance. Lower ratio are associated to benthic fishes, because help to maintain the body on the rocky bottoms of lotic habitats.[3]
Trophic apparatus		
Number of teeth cuspids	Dentary teeth slender	For caracids, teeth with three or five cuspids indicate diet onivora and teeth multicuspidados indicate algivorous habit.[17,18]
Intestinal coeficcient	ICO = gut length/SL	Processing of energy poor resources. High values indicate herbivorous diet and / or detritus, low carnivorous diet values.[3,9]
Gill raker length	GRL = the longest gill raker/SL	Filtering ability or gill protection.[10,16]

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