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## ***Loricaria luciae*, a new species of whiptail catfish (Siluriformes: Loricariidae) from the Paraguay and lower Paraná River basins of southeastern South America**

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### **Abstract**

*Loricaria luciae*, new species, is described from the the rio Paraguay basin of Bolivia, Brazil, and Paraguay, south to its confluence with the rio Paraná in Argentina. It is distinguished from all congeners by the following combination of characteristics: pectoral girdle entirely naked or with small isolated plates near base of pectoral fin, post-ural plate at base of caudal fin large (plate length 17.0–20.3% HL), and total lateral plates 32–33 (modally 32). The new species occurs in a variety of habitats ranging from small, seasonally intermittent streams with clear water to large, turbid rivers over sand and mud substrates. It is sympatric with at least three other species of *Loricaria* in the Paraguay and lower Paraná drainages, including *L. apeltogaster* Boulenger 1895, *L. coximensis* Rodriguez *et al.* 2012, and *L. simillima* Regan 1904.

**Key words:** Loricariidae, Loricariinae, *Loricaria*, South America, taxonomy, armored catfishes

### **Introduction**

The South American genus *Loricaria* Linnaeus 1758 is a group of armored catfishes distributed in the Amazon, Orinoco, Paraguay, Paraná, and smaller coastal rivers draining the Guiana and Brazilian Shields. The species of *Loricaria* generally occur over sandy or muddy substrates in a variety of water bodies ranging from insular streams to large lowland rivers, floodplain lakes, and coastal areas (Taylor 1983; Le Bail *et al.* 2000; Thomas & Rapp Py-Daniel 2008).

A discrepancy currently exists in the number of species recognized in the genus. Following a revision by Isbrücker (1981), 11 nominal species were recognized. A reclassification by Isbrücker in Isbrücker *et al.* (2001) resulted in the transfer of two species, *L. prolixa* Isbrücker 1979 and *L. lentiginosa* Isbrücker & Nijssen 1978, to a new genus, *Proloricaria*, reducing the species to nine. *Proloricaria* was treated as a synonym of *Loricaria* by Ferraris in Reis *et al.* (2003) and Covain & Fisch-Muller (2007) due to a lack of clear diagnostic characters; however, it was recognized as valid by Ferraris (2007). Although the genus *Loricaria* can be diagnosed, its species can be difficult to distinguish and their taxonomic status, complete distributions, and interrelationships are uncertain (Isbrücker 1981).

Recent work indicates that *Loricaria* is more diverse than previously considered (Isbrücker 1981, 2001) with six additional species described during the past decade (Rodriguez & Miquelarena 2003; Thomas & Rapp Py-Daniel 2008; Thomas & Sabaj Pérez 2010; Rodriguez *et al.* 2012). Upon examination of loricariine catfish

*Loricaria simillima*: ECUADOR: AMAZON BASIN: PASTAZA PROVINCE: BMNH 1880.12.8.77, lectotype, 163.1mm, rio Bobonaza (Marañon drainage) at Canelos, 01°39'S, 77°46'W, 1880; BMNH 1880.12.8.78, (paralectotype, 158.0 mm), same data as BMNH 1880.12.8.77; BMNH 1880.12.8.79, (paralectotype, 151.3 mm), same data as BMNH 1880.12.8.77. BRAZIL: PARAGUAY BASIN: MATO GROSSO STATE: MCP 15755 (4, 215.7–239.4 mm) small stream draining into rio Paraguay ca. 99 km S of Barra do Bugres, 15°45'S, 57°20'W, 11 August 1991; MCP 15805 (1, 178.7 mm), small stream draining into rio Paraguay ca. 69 km WNW of Cáceres, 15°49'S, 58°17'W, 13 August 1991; MNRJ 21518 (1, 201.5 mm), rio Cuiabá about 1 km from Baús. PARAGUAY: PARAGUAY BASIN: AMAMBAY DEPARTMENT: UMMZ 206802 (1, 264.0 mm), rio Apa, ca. 0.5 km upstream of bridge between Brazil and Paraguay in Bella Vista, 22°06'30"S, 56°30'W, 27 July 1979. PARAGUARÍ DEPARTMENT: UMMZ 207531 (3, 250.0–263.0 mm), small bay along rio Tebicuary at km 159 and just N of new bridge on Rte 1 at Villa Florida, 26°24'S, 57°4'W, 27 August 1979. PRESIDENTE HAYES DEPARTMENT: UMMZ 207148 (4, 168.0–235.0 mm), Riacho Je-e at bridge on paved hwy, ca. 67.5 km NW of Benjamin Aceval (rio Aguaray-Guazu drainage), 24°34'54"S, 58°01'W, 15 August 1979; UMMZ 207570 (2, 261.0–263.0 mm), rio Pilcomayo and adjacent overflow pools at bridge (Puerto Falcon) to Argentina, ca. 12 km WSW Chaco-i, 25°15'48"S, 57°42'W, 29 August 1979.

*Loricaria tucumanensis*: ARGENTINA: SALÍ-DULCE BASIN: TUCUMÁN PROVINCE: USNM 88669 (holotype, 121.2 mm), rio Salí near San Miguel de Tucumán, 26°47'S, 65°15'W, February 1928; USNM 217426 (paratype, 113.1 mm), same data as USNM 88669.

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