

NOTA

First Record of *Loricariichthys edentatus* (Siluriformes: Loricariidae) in the Paraná River

Primer registro de *Loricariichthys edentatus* (Siluriformes: Loricariidae) en el río Paraná

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ABSTRACT

Recent expeditions to northeastern Argentina in the Paraná River revealed the presence of the armored catfish *Loricariichthys edentatus* Reis & Pereira 2000, which represents the first record of this species to that basin.

Keywords — Corrientes province, distribution, endemism, range extension, La Plata River basin.

RESUMEN

Campanas realizadas al noreste de Argentina en el río Paraná revelaron la presencia de la vieja del agua *Loricariichthys edentatus* Reis & Pereira 2000, que representa el primer registro de esta especie para esa cuenca.

Palabras clave — Provincia de Corrientes, distribución, endemismo, extensión de rango, cuenca del Río de la Plata.

► Ref. bibliográfica: Terán, G. E.; Aguilera, G.; Serra, W. S.; Ruiz Díaz, F. J.; Mirande, J. M. 2019. "First Record of *Loricariichthys edentatus* (Siluriformes: Loricariidae) in the Paraná River". *Acta zoológica lilloana* 63 (1): 58–63. Fundación Miguel Lillo, Tucumán, Argentina. D.O.I.: <https://doi.org/10.30550/j.azl/2019.63.1/4>

► Recibido: 22/04/19 – Aceptado: 13/05/19

► URL de la revista: <http://actazoolologica.lillo.org.ar>



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INTRODUCTION

Loricariidae is one of the most diverse families within the order Siluriformes, with 988 valid species in about 70 genera (Fricke, Eschmeyer, Fong, 2019). Among members of this family, *Loricariichthys* Bleeker, 1862, is a diverse genus widespread in South America, being distributed in most major cis-Andean freshwater drainages up to the North of Buenos Aires (Reis & Pereira, 2000).

According to Rapp Py-Daniel (1997), the species of *Loricariichthys* share the following derived features: (1) third infrapharyngobranchial with a triangular lateral flange; (2) ventral shelf of the antero- and posterohyal tall, deflected posteriorly so that it nearly forms a 180° angle with the main bodies of the bones; (3) ventral processes of the Weberian complex not ossified. Also, Reis & Pereira (2000) proposed two additional characters: (1) upper lip completely fused to the premaxillary region medially, never having a free margin with barbel-like fringes along the transverse, medial portion; the fringes, when present, are restricted to the outer, more lateral portion of the lip and (2) the lower lip of immature males and females with two thick, cushion-like structures, which are covered with small papillae and have irregular fringes along the posterior edge.

Currently, *Loricariichthys* is composed of 20 valid species (Fricke, Eschmeyer, Van der Laan, 2019). Six species of the genus have been recorded from Argentina (Mirande and Koerber 2015): *Loricariichthys anus* (Valenciennes 1836), *L. edentatus* Reis & Pereira 2000, *L. labialis* (Boulenger 1895), *L. melanocheilus* Reis & Pereira 2000, *L. platymetopon* Isbrücker & Nijssen 1979, and *L. rostratus* Reis & Pereira 2000. From these, *Loricariichthys anus*, *L. labialis*, *L. platymetopon*, and *L. rostratus* are known to occur in the Paraná River.

Recent expeditions to the Paraná River in Corrientes, Argentina, revealed a distinct species in this basin. The aim of this contribution is to report the occurrence of *Loricariichthys edentatus* in the Paraná River basin for the first time.

METHODS

Morphometric measurements were taken using calipers to nearest 0.1 mm following Reis & Pereira (2000) and are expressed as percent of standard length (SL) and head length (HL). Comparative material is listed in Appendix I.

Institutional abbreviations: CI-FML: Colección Ictiológica Fundación Miguel Lillo, San Miguel de Tucumán; ZVC-P: Fish Collection of Facultad de Ciencias, Universidad de la República, Montevideo, Uruguay.

RESULTS

Loricariichthys edentatus Reis & Pereira 2000

Fig. 1, Table 1

Material examined.— CI-FML 7593, 2, 167.3 and 178.6 mm SL. Argentina, Corrientes, Ituzaingó, Paraná River at 27°34.822' S; 56°41.081' W. December 2018. Coll.: Terán, Aguilera, Ruiz Díaz & Bugeau.

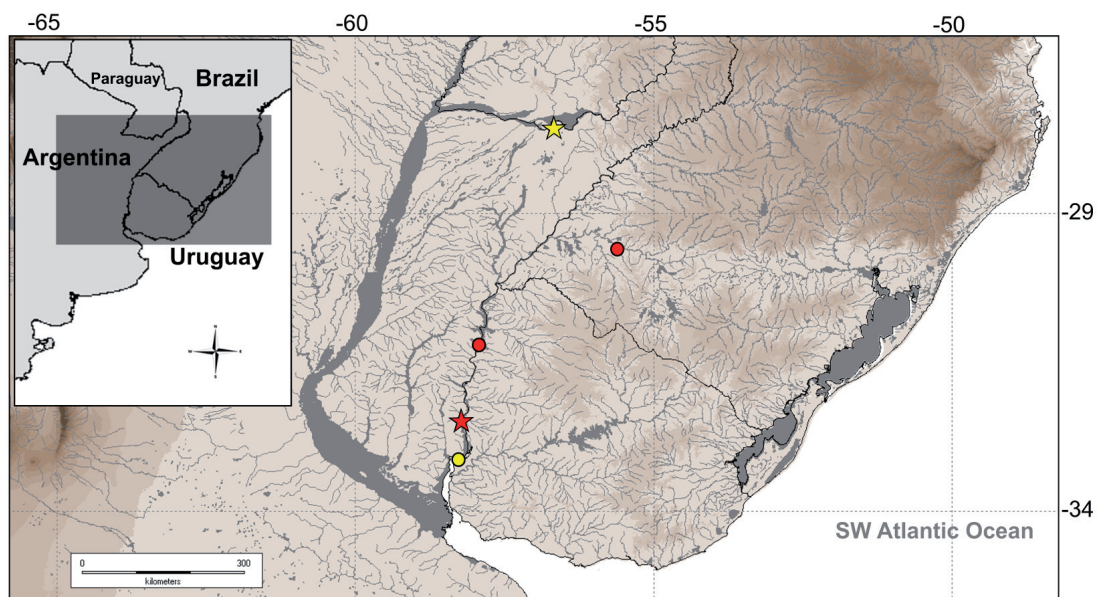
Identification.— The analyzed specimens presents the following characters: (1) absence of premaxillary teeth, (2) caudal peduncle very depressed but deepening before the caudal fin, (3) a wide rostral border (11.0 and 11.8% HL) and (4) pointed snout in dorsal view. These characters diagnose *Loricariichthys edentatus* from its congeners (Reis & Pereira, 2000). Morphometric measurements of *L. edentatus* (Fig. 1) from Paraná River are presented in Table 1.



Figure 1. *Loricariichthys edentatus* from Paraná River. 178.6 mm Standard Length. Dorsal and ventral view (mirrored).

Table 1. Morphometry of two specimens of *Loricariichthys edentatus* from Paraná River.

Morphometric measurements	specimens	
	1	2
Standard length (mm)	167.3	178.6
1. Predorsal length	35.7	36.6
2. Dorsal-fin spine length	18.6	18.8
3. Anal-fin spine length	13.2	13.7
4. Pectoral-fin spine length	14.9	15.0
5. Ventral-fin spine length	11.6	12.2
6. Upper caudal ray length	13.9	14.7
7. Lower caudal ray length	10.5	10.5
8. Head length	22.8	22.8
9. Thoracic length	16.5	15.3
10. Abdominal length	17.4	16.7
11. Cleithral width	15.7	15.0
12. Body depth	9.8	9.4
13. Depth of caudal peduncle	1.7	1.8
14. Postanal length	49.9	50.8
15. Snout length	51.3	52.5
16. Head depth	35.5	37.1
17. Interorbital width	15.0	15.0
18. Eye diameter	13.9	13.2
19. Orbital diameter	19.5	18.6
20. Rostral border length	11.0	11.8

**Figure 2.** Geographic distribution of *Loricariichthys edentatus*. Previous records in red (Reis & Pereira, 2000 and Bertaco *et al.*, 2016; star indicates type locality), new records in yellow (star indicates locality in Paraná River).

DISCUSSION

This new record expands the known distribution of *Loricariichthys edentatus* to the Paraná River basin (Fig. 2). Additionally, this is the first record for the province of Corrientes.

The known distribution range of *Loricariichthys edentatus* includes the Uruguay River basin, in Argentina, Brazil, and Uruguay. According to López *et al.* (2002) *Loricariichthys edentatus* was the only fish endemic to the «Lower Uruguay River Ecoregion». This new record expands the known distribution to the Paraná River basin, contradicting the hypothesis of López *et al.* (2002).

ACKNOWLEDGMENTS

We thank Baltazar Bugeau for field support and Pedro Sánchez for logistical assistance. This manuscript was carefully revised by Stefan Koerber. Fundación Miguel Lillo and UEL-CONICET for permanent support. This manuscript was benefited by comments of Roberto Reis and Mercedes Azpelicueta. We thank Mariano Ordano for the editorial assistance.

FUNDING

This work was supported by Fundación Miguel Lillo and UEL CONICET.

PARTICIPATION

All authors contributed equally to the idealization, analysis, and writing.

CONFLICTS OF INTEREST

Authors declare no conflict of interest.

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COMPARATIVE MATERIAL

Loricariichthys edentatus: ZVC-P 5663, 1, 113.6 mm SL, Uruguay, Río Negro Department, mouth of Yaguareté stream, Uruguay River, 33°07'09"S 58°16'22"W, 12/XII/2003, Coll.: F. Teixeira de Mello, A. D'Anatro & M. Loureiro. ZVC-P 12970, 9, 72.7-143.8 mm SL, Uruguay, Uruguay River, exact locality unknown, 2004.