



A new species of the genus *Pareiorhina* (Teleostei: Siluriformes: Loricariidae) from the upper rio Paraná basin, southeastern Brazil

VALTER M. AZEVEDO-SANTOS¹ & FÁBIO F. ROXO²

¹Laboratório de Ictiologia, Departamento de Zoologia, IBB-UNESP, Campus de Botucatu, Botucatu, SP, 18618-970, Brazil.

E-mail: valter.ecologia@gmail.com

²Laboratório de Biologia e Genética de Peixes, Departamento de Morfologia, IBB-UNESP, Campus de Botucatu, Botucatu, SP, 18618-970, Brazil. E-mail: roxoff@hotmail.com.br

Abstract

Pareiorhina pelicicei sp. n., a new Loricariidae, is described from the rio Grande, upper rio Paraná basin, southeastern Brazil. The new species differs from its congeners by combination of the following characters: teeth with a minute lateral cusp; absence of small plates scattered on the thorax and abdomen; tip of the snout naked; lower predorsal length; higher number of premaxillary and dentary teeth.

Key words: Taxonomy, Neotropical fishes, rio Grande basin, Stream fishes, South America

Resumo

Pareiorhina pelicicei sp. n., um novo Loricariidae, é descrita do rio Grande, bacia do alto rio Paraná, sudeste do Brasil. A nova espécie difere de seus congêneres pela combinação dos seguintes caracteres: dentes com uma minúscula cúspide lateral; ausência de pequenas placas espalhadas sobre o tórax e abdômen; ponta do focinho nua; menor comprimento predorsal; maior número de dentes no pré-maxilar e no dentário.

Palavras chaves: Taxonomia, Peixes Neotropicais, bacia do rio Grande, Peixes de riachos, América do Sul

Introduction

Loricariidae is a fish family with over 850 valid species (Eschmeyer & Fong 2014). Within this group, *Pareiorhina* was proposed by Gosline (1947) to allocate *Rhinelepis rudolphi* Miranda Ribeiro, 1911 and remained monotypic up to the description of *P. carrancas* (Bockmann & Ribeiro 2003). After that, several new species have been described from Brazilian watersheds, totaling five valid species: *P. rudolphi* (Miranda Ribeiro, 1911); *P. carrancas* Bockmann & Ribeiro 2003; *P. brachyrhyncha* Chamon, Aranda & Buckup 2005; *P. cepta* Roxo, Silva, Mehanna & Oliveira 2012; and *P. hyptiorhachis* Silva, Roxo & Oliveira 2013.

In recent collecting expeditions along the headwaters of the rio Grande basin, upper rio Paraná, southeastern Brazil, we identified an undescribed Neoplecostominae species that, based on the combination of characters proposed by Bockmann & Ribeiro (2003), is best allocated to the genus *Pareiorhina*. This species is formally described herein.

Material and methods

All measurements were carried out from point to point, by using a digital caliper to the nearest 0.1 mm. Counts and measurements were taken on the left side of each specimen under a stereomicroscope. The measurements followed Bockmann & Ribeiro (2003), with modification made by Silva *et al.* (2013). We added the following

Pareiorhina sp. n.: LBP 17393, 32, 23.2–37.1 mm SL, Cristiano Ottoni Municipality, Minas Gerais State, rio Paraopeba, rio São Francisco basin. *Pareiorhina* sp. n.: LBP 1097, 1, 30.5 mm SL, Desterro do Melo Municipality, Minas Gerais State, rio Doce basin.

Acknowledgments

We wish to thank Lucas R. P. Paschoal, for helping with the fish sampling during the first collection; Eugen E. Horváth, by the photo of the type locality (Fig.4); Gabriel SC Silva with laboratory assistance; and Ricardo C. Benine (UNESP), for laboratorial support. This research was supported by the Brazilian agencies FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo; proc. 2014/05051-5, to FFR), MCT/CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico - Edital Universal, proc. N. 441347/2014–2 coord, to FFR) and CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, to VMAS).

Literature cited

- Arratia, G. & Huaquin, L. (1995) Morphology of the lateral line system and of the skin of diplomystid and certain primitive loricarioid catfishes and systematics and ecological considerations. *Bommer Zoologische Monographien*, 36, 1–110.
- Bockmann, F.A. & Ribeiro, A.C. (2003) Description of a new suckermouth armored catfish of the genus *Pareiorhina* (Siluriformes: Loricariidae), from southeastern Brazil. *Ichthyological Exploration of Freshwaters*, 14, 447–458.
- Chamon, C.C., Aranda, A.T. & Buckup, P.A. (2005) *Pareiorhina brachyrhyncha* (Loricariidae: Siluriformes): a new species of fish from the Paraíba do Sul slope of Serra da Mantiqueira, southeastern Brazil. *Copeia*, 3, 550–558.
- Cramer, C.A., Bonatto, S.L. & Reis, R. (2011) Molecular Phylogeny of the Neoplecostominae and Hypoptopomatinae (Siluriformes: Loricariidae) using Multiple Genes. *Molecular Phylogenetic and Evolution*, 59, 43–52.
- Eschmeyer, W.N. & Fong, J.D. (2014) Species by family/subfamily. <http://research.calacademy.org/redirect?url=http://researcharchive.calacademy.org/research/Ichthyology/catalog/SpeciesByFamily.asp> (accessed 14 Oct. 2014).
- Gosline, W.A. (1947) Contributions to the classification of the loricariid catfishes. *Arquivos Museu Nacional, Rio de Janeiro*, 41, 79–134.
- Lundberg, J.G. & Baskin, J.N. (1969) The caudal skeleton of the catfishes, order Siluriformes. *American Museum Novitates*, 2398, 1–49.
- Pelice, F. M., Agostinho, A. A. & Thomaz, S. M. (2005) Fish assemblages associated with *Egeria* in a tropical reservoir: investigating the effects of plant biomass and diel period. *Acta Oecologica*, 27, 9–16.
- Pelice, F. M., Pompeu, P. S. & Agostinho, A. A. (2014) Large reservoirs as ecological barriers to downstream movements of Neotropical migratory fish. *Fish and Fisheries*. <http://dx.doi.org/10.1111/faf.12089>.
- Roxo, F. F., Silva, G. S. C., Mehanna, M. & Oliveira, C. (2012a) Description of a new species of *Pareiorhina* (Siluriformes: Neoplecostominae) from Rio São Francisco basin. *Zootaxa*, 3512, 64–74.
- Roxo, F. F., Zawadzki, C. H., Costa-Silva, G.J., Chlachio, M.C. Foresti, F. & Oliveira, C. (2012b) Molecular systematics of the armored neotropical catfish subfamily Neoplecostominae (Siluriformes: Loricariidae). *Zootaxa*, 3390, 33–42.
- Roxo, F. F., Albert, J. S., Silva, G. S. C., Zawadzki, C. H., Foresti, F. & Oliveira, C. (2014) Molecular phylogeny and biogeographic history of the armored Neotropical catfish subfamilies Hypoptopomatinae, Neoplecostominae and Otothyridinae (Siluriformes: Loricariidae). *PLoS ONE*, 9 (8), e105564. <http://dx.doi.org/10.1371/journal.pone.0105564>
- Schaefer, S.A. (1997) The Neotropical cascudinhos: Systematics and biogeography of the *Otocinclus* catfishes (Siluriformes: Loricariidae). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 148, 1–120.
- Silva, G.S.C., Roxo, F.F. & Oliveira, C. (2013) *Pareiorhina hyptiorhachis*, a new catfish species from Rio Paraíba do Sul basin, southeastern Brazil (Siluriformes, Loricariidae). *ZooKeys*, 315, 65–76.
- Taylor, W.R. & Van Dyke, G.C. (1985) Revised procedures for staining and clearing small fishes and other vertebrates for bone and cartilage study. *Cybium*, 9 (2), 107–119.