

## First records of *Corydoras polystictus* (Siluriformes: Callichthyidae: Corydoradinae) from the province of Misiones, Northeast Argentina.

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### Abstract

*Corydoras polystictus* has been reported for Argentina only from the records published by Lüling in 1980 and 1982 from the río Gualeguay, an affluent of the lower río Paraná in the province of Entre Ríos. This author stated that the distribution of this species in Argentina would be linked to the middle and lower río Paraná basin. In this note, we provide the first Argentinean records from the río Paraná basin in the province of Misiones.

### Resumen

*Corydoras polystictus* ha sido reportado para Argentina solo por los registros publicados por Lüling en 1980 y 1982 para el río Gualeguay, un afluente del río Paraná inferior, en la provincia de Entre Ríos. Este autor mencionó que la distribución de esta especie en Argentina estaría vinculada con la cuenca media e inferior del río Paraná. En este trabajo, proveemos los primeros registros de esta especie para la provincia argentina de Misiones en la cuenca del río Paraná.

### Introduction

Species of the genus *Corydoras* Lacépède, 1803 have a wide distribution in different basins of South America. They constitute one of the most diverse groups of catfishes in the Neotropics, with more than 160 species considered as valid (Reis, 2003). From Argentina, 12 species were reported (Mirande & Koerber, 2015), some of which have very large populations with a wide distribution, as *C. paleatus*, while other species are scarce and only known from few records. This is the case for *C. polystictus*, a species originally described by Regan (1912), based on few specimens collected in the río Paraguay at Descalvados, Mato Grosso, Brazil. In Argentina, this species is only known by the reports of Lüling (1980, 1982) who was the first to cite *C. polystictus* from the río Gualeguay in Entre Ríos province. He stated that the distribution of this species would be linked with the middle and lower basin of the río Paraná. The specimens examined by Lüling were collected and exported as ornamental fish. Although Lüling did not describe these specimens, he published a good photo of one of them (Lüling, 1982:251) which allows to distinguish the characteristic pattern of pigmentation of this species. Subsequent to these, no further records from Argentina have been published for *C. polystictus*, a fact which let Chebez et al., (2009) consider this species as "rare". The aim of this paper is to present the first records of this species from two locations of the río Paraná in the North and South of Misiones province (fig. 1).



fig. 1. Map of Misiones province. 1) Urugua-í stream, downstream of the Urugua-í dam, Department of Iguazú; 2) Yabebirí stream, Department of San Ignacio.

fig. 2. *Corydoras polystictus* (CFA-IC-4434) recently collectedfig. 3. *Corydoras polystictus* (CFA-IC-4434) in alcohol

### Abbreviations

BMNH: British Museum Natural History, London, Great Britain

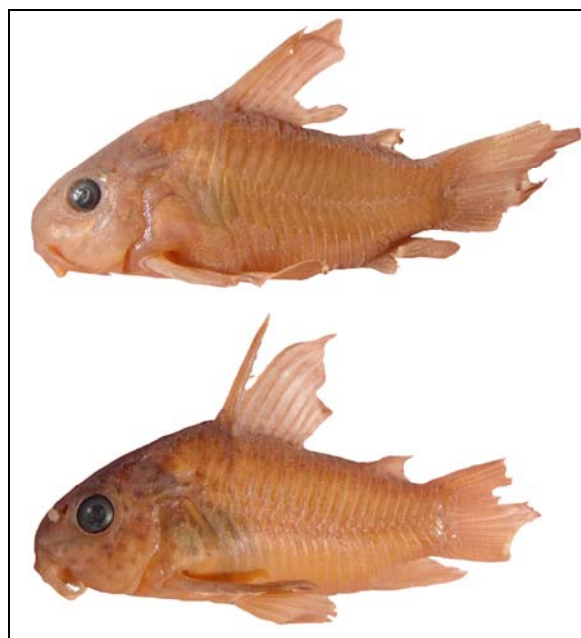
CFA-IC: Colección ictiológica de la Fundación Azara, Buenos Aires, Argentina.

### *Corydoras polystictus* Regan, 1912

#### Material examined

*Corydoras polystictus*: CFA-IC-4434, Urugua-í stream, downstream of Urugua-í dam, (25° 53.249'S / 54° 35.276'W), río Paraná basin, Department of Iguazú, Misiones province. Coll. S. Bogan y J.M. Meluso. 01/05/2015. (figs. 2 and 3)  
CFA-IC-1275 (ex ILPLA uncataloged), Yabebirí stream, río Paraná basin, Departament of San Ignacio, Misiones. Coll. A. Acosta. November 1972. (fig. 4)

BMNH 1895.5.17.63 (paralectotype) and BMNH 1895.5.17.62 (lectotype), photographs.

fig. 4. *Corydoras polystictus* (CFA-IC-1275) collected in November 1972

### Description

Examined specimens of standard length 2.6-3.7 mm and high body size. Constant number of lateral plates: 21 dorsal and 20 ventral. The fourth plate of the upper series is the widest of all plates on flank; also notable in the image of the paralectotype BNMH 1895.5.17.63 (Knaack, 2007). Dorsal fin with a spiny radius at its posterior edge serrated and 7-8 rays. Regan (1912) revealed I-7 for the type specimen and this count is consistent with the image of lectotype BMNH 1895.5.17.62 while Knaack (2007) mentioned I-6 for BNMH 1895.5.17.63. Anal fin I-6-7 for the examined individuals.

Colour in life: Based on CFA-IC-4434. Ground colour of the dorsal cephalic region is very lightly brown or yellowish, turning into silver-grey towards the caudal peduncle. Dorsal surface of head until adipose fin is entirely covered by numerous rounded dark dots. In the head the dots are also present laterally. Opercular and cleithral regions with golden and green reflections. Ventral region uniformly white. Translucent fins. Pectoral and pelvic fins are yellowish without dots. Dorsal fin is light orange with small brown dots, arranged only in the rays. Anal and caudal fins light orange without dots.

Colour in alcohol: Based on CFA-IC-4434. Dorsal of body with brown background colour and darker brown spots. In the laterals of the head and cleithral region, the spots are more scattered. The lower part of the laterals of body is whitish and spotless. Caudal and anal fins brownish-grey; pelvic fins whitish; pectorals fins with the first ray greyish, clarifying progressively towards the last.

Adipose fin with few brown dots. Dorsal fin with inter-ray membrane colourless, rays with brownish background colour and dark brown spots. The specimens CFA-IC-1275, after 43 years in alcohol, present the same coloration pattern, with dorsal spots less conspicuous.

Habitat: CFA-IC-4434 was collected in the clear waters of the Urugua-í stream over muddy substrate with abundant organic matter in decomposition (leaves and tree branches). The specimen was among the roots of a driftwood tree deposited very close to the bank (fig. 5). We do not have ecological information for CFA-IC-1275.

### Discussion

Following the morphological characteristics mentioned for the examined specimens, we determine these as *Corydoras polystictus*. This species increases the fish fauna diversity of Misiones province. Only five species of *Corydoras* were previously known from this province: *C. aeneus*, *C. carlae*, *C. ellisae*, *C. hastatus* and *C. paleatus* (López et al., 2005). In Brazil the distribution range of *C. polystictus* is limited to río Paraguay basin (Britto, 2007), while in Argentina it was also reported from the río Paraná basin. Despite being a "rare" species (in terms of abundance), *C. polystictus* shows a wide distribution. The samples studied here are the most Northern reports of this species from the río Paraná basin.

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fig. 5. Urugua-í stream, collection site of CFA-IC-4434

**References**

- Britto, M.R. (2007). Family Callichthyidae. *In*: Buckup, P.A., N.A. Menezes, & M.S. Ghazzi (eds.): Catálogo das espécies de peixes de água doce do Brasil. Museu Nacional, Universidade Federal, Rio de Janeiro, Brazil. 195 p.
- Chebez, J.C., H. López & J. Athor (2009): Peces de agua dulce amenazados de la Argentina. 32-54. *In*: Chebez, J.C. (ed): Otros que se van. Fauna Argentina amenazada. Albatros, Buenos Aires. 544 p.
- Knaack, J. (2007). Beiträge zur Kenntnis der Callichthyidae (Teleostei: Siluriformes). II. Das Typusmaterial von *Corydoras paleatus* (Jenyns, 1842). *Vertebrate Zoology* 57 (1): 23-33
- López, H.L., A.M. Miquelarena & J. Ponte Gómez (2005): Biodiversidad y distribución de la ictiofauna Mesopotámica. *Insugeo, Miscelánea* 14: 311-354
- Lüling, K.H. (1982). Nachgezüchtet: Fische aus Argentinien. *Das Aquarium* 16 (155): 249-252.
- Lüling, K.H. (1980). Im Kernland von *Cynolebias* in der argentinischen Provinz Entre Rios. *Tetra-Informationen* 15 (49): 30-34
- Mirande, J.M. & S. Koerber (2015): Checklist of the Freshwater Fishes of Argentina (CLOFFAR). *Ichthyological Contributions of Peces Criollos* 36: 1-68
- Regan, C.T. (1912): A revision of the South-American siluroid fishes of the genus *Corydoras*, with a list of the specimens in the British Museum (Natural History). *Annals and Magazine of Natural History* 8 (10): 209-220
- Reis, R.E. (2003). Family Callichthyidae (Armored catfishes). 291-309. *In*: Reis, R.E., S.O. Kullander & C.J. Ferraris (eds.): CLOFFSCA - Check list of the freshwater fishes of South and Central America. Edipucrs, Porto Alegre. 729 pp.

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