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## FINDING OF THE HOLOTYPE OF *Farlowella paranaense* MEINKEN, 1937

*Hallazgo del holotipo de Farlowella paranaense Meinken, 1937*

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**Abstract.** The species *Farlowella paranaense* Meinken, 1937 was originally described from Corrientes Province, Argentina. The holotype material was housed in the Museum für Naturkunde, Berlin where it was purportedly destroyed during the Second World War. The aim of the present note is to report the finding of the specimen. The validity and taxonomical affinities of the species are also discussed.

**Keywords.** *Farlowella paranaense*, holotype, Corrientes, Argentina.

**Resumen.** La especie *Farlowella paranaense* Meinken, 1937 fue descrita originalmente para la provincia de Corrientes, Argentina. El material holotipo, alojado en el Museum für Naturkunde en Berlin se creyó destruido durante la segunda Guerra Mundial. El objetivo de la presente nota es el de dar a conocer el hallazgo de dicho ejemplar, ampliando la descripción original. Se discute la validez y afinidades taxonómicas de la especie.

**Palabras clave.** *Farlowella paranaense*, holotipo, Corrientes, Argentina.

## INTRODUCTION

The genus *Farlowella* Eigenmann and Eigenmann, 1889 comprises stick-shaped loricariids distributed in all basins of South America, from the Magdalena River to the Río de la Plata. Following Eschmeyer (2015) 45 nominal species were described from which only 25 are considered valid (Retzer, 2006; Ferraris, 2007). Only two species of these morphologically curious loricariids were described from the lower Paraná River in Corrientes: *F. paranaense* Meinken, 1937 and *F. hahni* Meinken, 1937. The objective of this short note is to inform about the rediscovery of the holotype of *Farlowella paranaense*.

**Material examined.** *Farlowella hahni*: Museo Argentino de Ciencias Naturales Bernardino Rivadavia, Buenos Aires (MACN 7237), 14 specimens. Museum d'histoire naturelle, Genève (MHNG), 3 specimens, 2582.063; 2582.050; 2573.067. *Farlowella amazonum*: (MHNG), 4 specimens, 2551.086; 2601.045; 2601.045; 2601.065.

## DESCRIPTION

**Holotype of *Farlowella paranaense* Meinken, 1937, Museum für Naturkunde (ZMB) 33788, 132.93 mm SL (133 in the original description)**

**Morphological characters.** The specimen does not have a particular pigmentation pattern; the coloration is uniform, scarcely clear ventrally; the snout shows a faint reticulation. The only striking character is the possession of two half-moon shaped plates around the anus. The odontodes have similar sizes along body. Most teeth of both jaws are lost (Figures 1-3).

Body of cleithrum exposed with lower body wrapping around the pectoral-fin base, body of cleithrum with similar size in its entire depth; coracoid small. Snout very broad, relatively short (distance between anterior and posterior margins of mouth/snout-mouth length 1.94). Preorbital ridge strong, orbital margin on head elevated. One anterior median abdominal scute at the level of pectoral-fin origin; one scute anterior to pelvic-fin origin; rhomboidal anterior lateral scutes, scutes of lateral row without posterior process; scutes of caudal peduncle larger than wide.

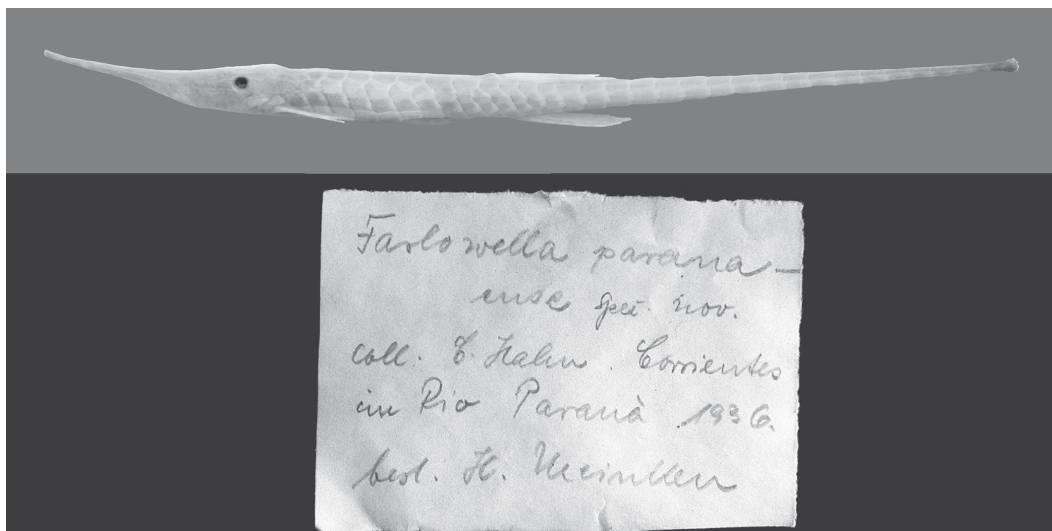
Pectoral fin short, ratio pectoral-fin length/length between pectoral and pelvic fin origins 0.68 (Figures 1-3).

**Measurements.** SL 132.93; body width 9.0; body depth 6.0; head 33.31; head width at opercular level 8.99; snout 18.05; snout-mouth length 6.85; maximum width of snout 5.86; orbital width 2.2; interorbital width 6.85; dorsal-fin length 17.44; pectoral-fin length 11.73; length between pectoral and pelvic fin origins 17.15; pelvic-fin length 8.8; pelvic-fin spine 7.98; anal-fin length 17.96.

**Counts.** Predorsal scutes 8; postdorsal scutes 19; abdominal scutes 11; postanal scutes 22; anterior lateral scutes 13; posterior lateral scutes 19; abdominal median scutes 1.

## DISCUSSION AND RESULTS

Isbrücker (1978) published a paragraph of a letter from Meinken in which he commented the destruction of type material during the Second World War. Nonetheless, while searching for Meinken's specimen of *Ancistrus vittatus* in the collection of the



**Figure 1** - *Farlowella paranaense* Meinken, 1937. Holotype, ZMB 33788, 132.93 mm, with the original label.



**Figure 2** - *Farlowella paranaense* Meinken, 1937. Holotype, ZMB 33788, 132.93 mm. at top, dorsal view; at bottom, ventral view.

Museum für Naturkunde, Berlin, Germany (Koerber and Weber, 2014), the missing holotype was incidentally rediscovered. The specimen is a female, 132.93 mm SL, with a completely broken caudal fin. The characters observed in the specimen agree with those of the original description (see below).

Retzer and Page (1996) expressed that the poor description of Meinken does not permit

to separate the species from *F. amazonum* (Günther, 1864) and synonymized it. An examination of the holotype reveals the presence of similar characters of *F. amazonum*, although, because of the short size of the specimen, the ratio snout-mouth length/ interorbital width is lower than 3.3 (=2.7).

It is highly unusual that no records of *F. paranaense* were made in the lower Paraná

River since the publication of its original description. All records of *Farlowella* in this portion of the river correspond to *F. hahni*, following results of different ichthyofaunal studies and personal observations (Ringuelet *et al.*, 1967; Almirón *et al.*, 2008).

*Farlowella hahni* has a different number and arrangement of abdominal scutes from those of *F. paranaense*. The number of abdominal scutes is higher than 20 in *F. hahni* whereas *F. amazonum* has 11-17; the abdominal scutes between pectoral and pelvic fins have a third median row, sometimes incomplete, of small scutes in *F. hahni* vs. rectangular scutes without a median series in *F. amazonum*. *Farlowella hahni* has a rectangular head and a slender snout, increasing its width from anterior tip to posterior margin whereas the snout of *F. amazonum* is wide in the major part of its length.

The presence of *F. amazonum* in the lower Paraná River could be explained by different hypothesis: 1- the species had a larger distribution in the past recent years and it is absent in that part of the river at present. This fact is supported by the finding of specimens belonging to *F. amazonum* in the upper Paraguay River (Retzer and Page, 1996; Britski *et al.*, 1999). 2- Another possibility is that Meinken made a mistake when labeling the specimen, inverting the localities where he had received specimens from. The description of *Lebiasina intermedia* Meinken, 1936 shows that during the mid 1930ies he has received material from Santarém, the same region where the type of *F. amazonum* originates from. 3- a third possibility is the arrival of the specimens with aquatic vegetation during an important flooding period.

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