

The Hypostominae (Siluriformes: Loricariidae) of Argentina.

Stefan Koerber¹ & Claude Weber²

1 Friesenstr. 11, 45476 Muelheim, Germany, pecescrilloos@koerber-germany.de

2 Muséum d'histoire naturelle, Département d'herpétologie et d'ichtyologie, Route de Malagnou 1, Case postale 6434, CH-1211 Genève 6, Suisse

Abstract

During time many species of Hypostomines have been reported from the freshwaters of Argentina. Most records have been confirmed, but others must be considered erroneous. We provide lists of both categories based on our actual knowledge gained from the exhaustive collection available in MHNG and from literature accounts, sometimes forced to make educated guesses or likelihood assumptions.

Introduction

The history of Hypostomines from Argentina dates back to 1836 when Valenciennes described the first species from the La Plata basin. The first half and the mid of the 19th century was dominated by European ichthyologists, e.g. Kner and Castelnau, who received specimens gathered during expeditions and field trips and described the species based on few material and with little or no reference to geographical or systematical contexts. Towards the end of the 19th century still scientists from Europe dominated the freshwater ichthyology of Latin America but now started working on related groups or regional faunas (e.g. Boulenger, Regan, Perugia). In 1877 Weyenbergh was the first one who worked in Argentina, followed by Holmberg who in 1893 was the first Argentina born natural scientist describing a Hypostomine from his home country. Little later the Brazilian authors Miranda Ribeiro and von Ihering enlarged the list of species. During the mid of the 20th century new species from the lower La Plata basin were scarce as only Devincenzi from Uruguay and Gosline contributed to this field.

Four decades passed without any news until in Swiss Geneva a new study group started to research on Hypostomines. The fact that they thoroughly investigated the freshwaters of Paraguay gave important incentives also to our knowledge on the species composition in the surrounding areas. In the early and mid 1990ies López and Miquelarena published several papers on the 'viajas del agua' found in Argentina, in many aspects based on the remarkable faunal list published by Ringuelet et al. in 1967. Ever since we frequently learn about new species of Southern Loricariids published by authors from Argentina, Brazil, Europe and North America.

During the past years the literature on Hypostomines not only treated with new species and reviews of genera and higher taxa, but also focussed on biogeography and phylogeny and several therefrom resulting hypotheses on dispersal routes and speciation. The monophyly of *Hypostomus* is still now in question since Montoya-Burgos (2003) found out "that the genus *Hypostomus* can be divided into four monophyletic clades".

As happened in many countries, also in Argentina authors untrained in the systematics of this complicated group published new records and first findings, usually within regional or local faunal lists. These contributions resulted in several accounts of species which today we consider not to be distributed in Argentina. Unfortunately, however logically, these erroneous records were listed later in national faunal lists as the ones of López et al. (1987, 2003) and Liotta (2005) and are still today treated as being part of the Argentinean fauna. The purpose of the present contribution is to provide an overview of species which are confirmed for Argentina and others which do most probably not occur in its territory. Both lists certainly still contain errors based on our wrong assumptions. We would be glad to see if these errors were corrected by future authors.

Information already provided by López et al. (2003) is not repeated herein.

Species considered to be distributed in Argentina**ANCISTRINI*****Ancistrus cirrhosus*** (Valenciennes, 1836)

original: *Hypostomus cirrhosus*
 remarks: as listed by López et al. (2003)

Ancistrus piriformis Muller, 1989

remarks: as listed by López et al. (2003)

Ancistrus taunayi Miranda Ribeiro, 1918

type locality: Brazil, Rio Grande do Sul, Itaqui, Rio Lageado
 first record: Fisch-Muller (2003) from Misiones province, Río Uruguay basin, Arroyo Santa Maria on road to Itacaruaré
 remarks: The record of Fisch-Muller is based on a single specimen in MHNG 2611.039. There are unpublished data about 2 more Argentinean specimens from Entre Rios, Río Paraná basin, Arroyo Clé at bridge of RP11, some 16 km NW Gualeguay (ZFMK 39613-614). see: <http://www.pecescrilloos.de/en/ancistrus-taunayi>

Hemiancistrus fuliginosus Cardoso & Malabarba, 1999

first record: Miquelarena & López (2004) from Corrientes, Río Uruguay and Misiones, Yabotí and Yabotí Miní creeks
 remarks: as listed by López et al. (2003)

Megalancistrus parananus (Peters, 1881)

original: *Pterygloplichthys parananus*
 synonyms: *Chaetostomus aculeatus* Perugia, 1891
Chaetostomus gigas Boulenger, 1895
 first record: Pozzi (1945) sub *Pterygloplichthys gigas* [fide Ringuelet et al., 1967]
 remarks: as listed by López et al. (2003)

HYPOSTOMINI***Hypostomus alatus*** Castelnau, 1855

remarks: as listed by López et al. (2003)
 Weber (2003) restricts the distribution of *H. alatus* to the Upper São Francisco River basin in Brazil. Thus, the distribution of this species in Argentina might be doubtful.

Hypostomus albopunctatus (Regan, 1908)

original: *Plecostomus albopunctatus*
 remarks: as listed by López et al. (2003)

Hypostomus arecuta Cardoso, Almirón, Casciotta, Aichino, Lizarralde & Montoya-Burgos, 2012

type locality: Argentina, Corrientes, Ituzaingó, Río Paraná
 first record: Cardoso et al. (2012) from type locality, Paraná river at Yahapé in Corrientes, and Río Paraná at Candelaria in Misiones

Hypostomus aspilogaster (Cope, 1894)

original: *Plecostomus aspilogaster*
 type locality: Brazil, Rio Grande do Sul, Rio Jacuhy

first record: Cardoso et al. (2011) from Mandisoví Grande creek, tributary of Uruguay River, Entre Ríos and Punta Lara, Río de la Plata, Buenos Aires

Hypostomus borellii (Boulenger, 1897)

original: *Plecostomus borellii*
 remarks: as listed by López et al. (2003)

Hypostomus boulengeri (Eigenmann & Kennedy, 1903)

original: *Plecostomus boulengeri*
 type locality: Brazil, Mato Grosso or Paraguay, Asunción
 first record: Weber (2003)
 other records: - López et al. (2005): Corrientes and Misiones, Río Paraná
 - MHNG 2582.053: Corrientes, Corza-Cué, Río Paraná

Hypostomus cochliodon Kner, 1854

synonyms: *Cochliodon hypostomus* Kner, 1854
Loricaria melanoptera Kner, 1854
 remarks: as listed by López et al. (2003)

Hypostomus commersonii Valenciennes, 1836

synonyms: *Plecostomus limosus* Eigenmann & Eigenmann, 1888
Plecostomus spiniger Hensel, 1870
 remarks: as listed by López et al. (2003)

Hypostomus derbyi Haseman, 1911

original: *Plecostomus derbyi*
 remarks: as listed by López et al. (2003)

Hypostomus hermanni (Ihering, 1905)

original: *Plecostomus hermanni*
 type localities: Brazil, Sao Paulo, Rio Piracicaba
 first record: COMIP (1987) from Misiones, Río Paraná between Candelaria and Puerto Iguazú [fide López et al., 2003]
 other records: none
 remarks: MHNG 2388-052 contains 2 specimens of *H. hermanni* from the Paraguayan bank of the río Paraná just across from Candelaria.



fig. 1. *Hypostomus itacua*, from the original description

Hypostomus itacua Valenciennes, 1836

type locality: affluents of the Rio de la Plata

remarks: Placed by Weber (2003) in 'Species incertae sedis in Hypostominae'.
This species is known only from the illustration provided by Valenciennes. So far no type material could be found in collections nor does the figure resemble clearly any known species. As long as *H. itacua* cannot be assigned to any other taxon as a senior synonym it should be considered uncertain, thus valid.

Hypostomus laplatae (Eigenmann, 1907)

original: *Plecostomus laplatae*

synonyms: *Plecostomus commersonoides* Marini, Nichols & La Monte, 1933
Plecostomus rachovii Regan, 1913
Plecostomus taeniatus Regan, 1908

remarks: as listed by López et al. (2003)

Hypostomus latifrons Weber, 1996

synonym: *Peckoltia vittata* NON Steindachner, 1881

type locality: Paraguay, Río Aguaray-guazú, Río Paraguay basin, River Paraná system
One lot of paratypes is from the Río Paraguay where it forms the political border between Paraguay and Argentina (Ita Enramada, 11 km S of Asuncion).

first record: Meinken (1937) from Río Paraná in Corrientes sub *Ancistrus vittatus*

other records: sub *Peckoltia vittata*:
- Rodríguez & Cuello (2005): Corrientes, Río Paraná at Corza-Cué | Corrientes, río Paraná at Puerto Yahape | Santa Fe, tributary of río Paraná near city of Santa Fe sub *Hypostomus latifrons*:
- MHNG 2582.052: Corrientes, Río Paraná at Corza-Cué
- Bishop & Bishop (2004): Entre Rios, Río Paraná at city of Paraná sub *Hypostomus sp.*:
- Almirón et al. (2008): Parque Nacional Pre-Delta, several locations

remarks: The specimen in MHNG 2582.052 was identified as *H. latifrons* in 1996 but this, for being unpublished data, could not be considered to indicate a distribution in Argentina in the CLOFFSCA account of this species (Weber 2003). This was the first time that a collection lot with a locality from Argentina has been determined as *H. latifrons*. Meinken's *Ancistrus vittatus* still exists (ZMB 32513, coll. C. Hahn, Corrientes, im Río Paraná, det. H. Meinken, Dez. 1936) and could without doubt be determined as a juvenile *Hypostomus latifrons*.

Loricariid specialists in the aquarium hobby have established a system of L-numbers to provide working names to unidentified loricariid species that have been imported for aquarium purposes (Stawikowski et al., 2004).

A loricariid species imported from Paraguay had been assigned L51 (Lucas & Mahr, 1989) and was later determined as *H. latifrons* (Stawikowski et al., 2004). Another species from Paraguay initially thought to be either a *Peckoltia* sp. or a species from the *Panaque-dentex*-complex was presented as L281 (Werner, 2000) and later also determined as a juvenile of L51 (Stawikowski et al., 2004).

Animals of *Hypostomus latifrons* in an import of aquarium fishes from Paraguay with mixed sizes, showed during their growth that the species starts changing the colour pattern between 70 and 80 mm, losing the typical honeycomb drawings and part of the reddish colour (figs. 2-4.). Reaching 100 mm they finish the changing and then show the colour pattern of adults (Ingo Seidel, pers.com. 25.09.06).

Adult *H. latifrons* are reported to reach 287 mm (longest specimen in type series, Weber, 1986) and 250-300 mm (Seidel & Evers, 2005). All specimens reported so far from Argentina have been not larger than 51 mm (Meinken, 1937) or max. 55.4 mm (Rodríguez & Cuello, 2005).

The records of *Peckoltia vittata* from Argentina, all originally based on either Meinken (1937) or Rodríguez & Cuello (2005), represent juvenile *H. latifrons*.

All the above shall finally put an end to the myth of *Peckoltia* species in the La-Plata-basin.



fig. 2. *Hypostomus latifrons*, 6 cm, from Paraguay (photo: Ingo Seidel)



fig. 3. *Hypostomus latifrons*, 8 cm, from Paraguay (photo: Ingo Seidel)



fig. 4. *Hypostomus latifrons*, adult, from Paraguay (photo: Ingo Seidel)

Hypostomus luteomaculatus (Devincenzi, 1942)

original: *Plecostomus luteomaculatus*
 remarks: as listed by López et al. (2003)

Hypostomus microstomus Weber, 1987

remarks: listed by López et al. (2003) sub *Watawata microstomus*

Hypostomus myersi (Gosline, 1947)

original: *Plecostomus myersi*
 remarks: as listed by López et al. (2003)

Hypostomus paranensis Weyenbergh, 1877

type locality: Santa Fe, lakes along Río Paraná near Santa Fe
 synonym: *Plecostomus cordovae* Günther, 1880
 remarks: listed by López et al. (2003) sub *Hypostomus cordovae*

Hypostomus paulinus (Ihering, 1905)

original: *Plecostomus paulinus*
 type localities: Brazil, Sao Paulo, Rio Piracicaba
 first record: COMIP (1987) from Misiones, Río Paraná between Candelaria and Puerto Iguazú [fide López et al., 2003]
 other records: Garcia (1992) from Río Paraná, Misiones [fide Liotta, 2006].
 remarks: In addition to the records of the COMIP (1987) and Garcia (1992), both mere faunal lists, there seem to exist no further records from Argentina (Liotta, 2006). Weber (2003) restricted the distribution of *H. paulinus* to the Tietê river basin in Brazil and findings in Paraguay. Weber (1986, unpublished degree thesis) listed one lot (MHNG 2198.44-45) from the río Tembey in Southeast Paraguay, only few km from the Argentinean coast of the río Paraná. Although possibly still doubtful, we currently consider this species to exist in Argentina and future records may confirm this Southern distribution.

Hypostomus piratatu Weber, 1986

remarks: as listed by López et al. (2003)

Hypostomus regani (Ihering, 1905)

original: *Plecostomus regani*
 remarks: as listed by López et al. (2003)

Hypostomus ternetzi (Boulenger, 1895)

original: *Plecostomus ternetzi*
 remarks: as listed by López et al. (2003)

Hypostomus uruguayensis Reis, Weber & Malabarba, 1990

remarks: as listed by López et al. (2003)

PTERYGOPLICHTHINI***Pterygoplichthys ambrosettii*** (Holmberg, 1893)

original: *Liposarcus ambrosettii*
 synonyms: *Ancistrus multiradiatus* var. *alternans* Regan, 1904
Pterygoplichthys anisitsi Eigenmann & Kennedy, 1903
Pterygoplichthys juvenis Eigenmann & Kennedy, 1903

remarks: listed by López et al. (2003) sub *Liposarcus anisitsi*

RHINELEPINI

Rhinelepis strigosa Valenciennes, 1840

type locality: Corrientes, Río Paraná

remarks: listed by López et al. (2003) sub *Rhinelepis aspera*
Armbruster (1998) and Weber (2003) considered both species, *R. aspera* and *R. strigosa*, as valid species and restricted the distribution for *Rhinelepis aspera* to the Río Sao Francisco and the upper Río Paraná in Brazil.

Species assumed to have been reported erroneously from Argentina

The Argentinean reports of the following species are considered erroneous and this species shall not be listed as distributed in Argentina until future findings would confirm the respective opposite.

With the exception of *Peckoltia vittata* these records present at least one of the following characters: they have been published based on a single finding, in mere faunal lists, without any participation of ichthyologist experienced in the taxonomy of the respective group, without any comparative analysis with type material, without having the specimens been deposited in collections.

For all of these species the current literature indicates distributional patterns which do not recommend to assume their respective occurrence in the freshwaters of Argentina.

Ancistrus hoplogeny (Günther, 1864)

original: *Chaetostomus hoplogeny*

synonyms: *Chaetostomus alga* Cope, 1872
Chaetostomus cirrhosus var. *punctata* Steindachner, 1881
Chaetostomus tectirostris Cope, 1872

type localities: *alga*: Peru, Río Ambyiacu
cirrhosus var. *punctata*: Brazil, Rio Branco, Rio Guaporé in Mato Grosso, Coary, Tabatinga, Amazon
hoplogeny: Brazil, Pará, Rio Capim
tectirostris: Peru, Río Ambyiacu

first record: Berg (1897) from Entre Rios sub *Chaetostoma hoplogeny* [fide López et al., 2003]

other records: Pozzi (1945): Río Paraguay (without exact locality)

remarks: In addition to the record of Berg (1897) there seem to exist no further precise findings from Argentina (checked in Ringuélet et al., 1967; Miquelarena et al., 1994; Liotta, 2006).
Fisch-Muller (2003) indicated "Distribution: South America: Amazon, Essequibo, and Paraguay River basins. Countries: Brazil, Guyana, Paraguay, Peru" as distributional range. The distribution of this species in the Paraguay river basin could not be confirmed by Bifi et al. (2009).

Hypostomus auroguttatus Kner, 1854

synonyms: *Plecostomus luetkeni* Steindachner, 1877

type localities: *auroguttatus*: unknown
luetkenii: Brazil, Rio de Janeiro, Rio Paraíba do Sul and tributaries

first record: Perugia (1891) from Chaco, Resistencia sub *Plecostomus barbatus* [fide López et al., 2003]

other records: Garcia (1992) from Misiones, Río Paraná

remarks: Against expectations for a record dating from 1891 neither *H. auroguttatus* nor Perugia's *P. barbatus* have been listed by Ringuélet (1967), López et al. (1987), López & Miquelarena (1991) or López (1992). The assignment of Perugia's *P. barbatus* to *H. auroguttatus* by López et al. (2003) seems arbitrary as no reason

was provided. López & Miquelarena (1991) listed *H. luetkenii* from the Río Uruguay at Salto Grande with reference to López (1986), a thesis not publicly available. Weber (2003) limited the distribution of *H. auroguttatus* to the Paraíba do Sul River basin, Brazil.

Hypostomus francisci (Lütken, 1874)

original: *Plecostomus francisci*
 type localities: Brazil, Rio São Francisco
 first record: Roa & Permingeat (1999) from Misiones, Nemesio Parma [fide López et al., 2003]
 other records: None
 remarks: In addition to the mention by Roa & Permingeat (1999) there seem to exist no further precise findings from Argentina (Liotta, 2006). Weber (2003) restricted the distribution of *H. francisci* to the upper São Francisco River basin, Brazil.

Hypostomus punctatus Valenciennes, 1840

type localities: Brazil, Rio de Janeiro
 first record: Berg (1895) sub *Plecostomus commersonii affinis* [fide López et al., 2003]
 other records: Roa & Permingeat (1999)
 remarks: Berg (1895) considered Perugia's *Plecostomus punctatus* partially as a synonym of both, *P. commersonii* and of *P. commersonii affinis*. He also put *Plecostomus cordovae* Günther and *P. paranensis* Weyenbergh in the synonymy of *P. commersonii affinis*. López (1992) treated Berg's *P. commersonii affinis* as a synonym of *H. cordovae*. Therefore it could be assumed that the alleged first record for *H. punctatus* sub *P. commersonii affinis*, as listed by López et al. (2003), might have referred to *H. paranensis*.
 From the 11 species of *Hypostomus* treated by López & Miquelarena (1991) and López (1992), *Hypostomus punctatus* is the only one without reference to examined material, thus indicating a doubtful situation regarding a distribution in Argentina. Weber (2003) limited the distribution of *H. punctatus* to the Southeastern Brazilian coastal drainages.

Hypostomus variostictus (Miranda Ribeiro, 1912)

original: *Plecostomus variostictus*
 type localities: Brazil, Mato Grosso, Rio Coxim, tributary to Rio Paraguay
 first record: García (1992) from Río Paraná in Misiones
 other records: Gómez & Chebez (1996) from Río Paraná in Misiones
 remarks: In addition to the records of García (1992) and Gómez & Chebez (1996), both faunal lists, there seem to exist no further records from Argentina (Liotta, 2006). Weber (2003) restricted the distribution of *Hypostomus variostictus* to the upper Paraguay river basin in Brazil.

Peckoltia vittata (Steindachner, 1881)

remarks: see record of *Hypostomus latifrons*

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