

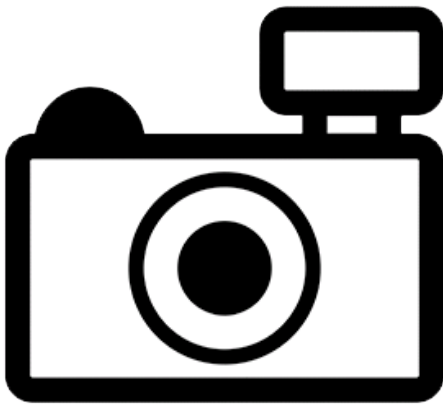
Hypostomus meleagris (a catfish, no common name)

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, February 2012

Revised, September 2018

Web Version, 4/1/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Fricke et al. (2018):

“Upper and middle Paraná River basin: Argentina, Brazil and Paraguay.”

Status in the United States

This species has not been reported as introduced or established in the United States. However, unidentified members of the genus are established in the United States.

From Nico et al. (2018):

“Several morphologically distinct but unidentified *Hypostomus* species have been recorded as established in the United States: these included populations in Indian Springs in Nevada; Hillsborough County in Florida; and the San Antonio River and San Felipe Creek in Texas (Courtenay and Deacon 1982; Courtenay et al. 1984, 1986; Courtenay and Stauffer 1990; Page and Burr 1991; López-Fernández and Winemiller 2005). A population of an unidentified *Hypostomus* species is firmly established in Hawaii (Devick 1991a, b). Reported from Arizona,

Colorado, Connecticut, Louisiana, and Pennsylvania. Failed in Connecticut, Massachusetts, and Pennsylvania.”

This species was not found for sale from U.S.-based online aquarium retailers and it does not appear to be in trade in the United States.

Means of Introduction into the United States

This species has not been reported as introduced or established in the United States. However, unidentified members of the genus are established in the United States.

From Nico et al. (2018):

“Members of this genus have been introduced through a combination of fish farm escapes or releases, and aquarium releases (Courtenay and Stauffer 1990; Courtenay and Williams 1992). In Texas, the initial introduction occurred when *Hypostomus* entered local streams after escaping from pool and canal systems of the San Antonio Zoological Gardens in or before 1962 (Barron 1964); the Comal County introduction was probably due to an aquarium release (Whiteside and Berkhouse 1992).”

Remarks

From Nico et al. (2018):

“The genus *Hypostomus* contains about 116 species (Burgess 1989). Highlighting the serious need for additional taxonomic and systematic work, Armbruster (1997) concluded that it is currently impossible to identify most species in the genus. Several apparently different *Hypostomus* species have been collected in the United States but not definitively identified to species level (Page and Burr 1991; Courtenay and Stauffer 1990). Distinguishing characteristics of the genus and a key to loricariid genera were provided by Burgess (1989) and Armbruster (1997). Photographs appeared in Burgess (1989) and Ferraris (1991). *Hypostomus* has officially replaced the generic name *Plecostomus*. The genus was included in the key to Texas fishes of Hubbs et al. (1991) and several identifying traits were also given by Page and Burr (1991).”

According to Fricke et al. (2018), the original name of this species was *Plecostomus meleagris*. Information searches for this report were conducted using both the original name and the currently accepted scientific name.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2018):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata

Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Siluriformes
Family Loricariidae
Subfamily Hypostominae
Genus *Hypostomus*
Species *Hypostomus meleagris* (Marini, Nichols and La Monte, 1933)”

“Current Standing: valid”

From Fricke et al. (2018):

“**Current status:** Valid as *Hypostomus meleagris* (Marini, Nichols & La Monte 1933).
Loricariidae: Hypostominae.”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 30.0 cm SL male/unsexed; [Weber 2003]”

Environment

From Froese and Pauly (2018):

“Freshwater; demersal.”

Climate/Range

From Froese and Pauly (2018):

“Subtropical”

Distribution Outside the United States

Native

From Fricke et al. (2018):

“Upper and middle Paraná River basin: Argentina, Brazil and Paraguay.”

Introduced

No introductions of this species have been reported.

Means of Introduction Outside the United States

No introductions of this species have been reported.

Short Description

From Marini et al. (1933):

“Adipose fin present, well developed. Opercle and interopercle not margined with bristles. Length of mandibular ramus, 1.4 to 1.6 in interorbital. Some of the scutes weakly carinate. Depth of body 5 to 6 in standard length. Eye, 6.5 to 7 in head at 200-250 mm. standard length. Lateral scutes 25-28. Dorsal large, the last ray reaching almost to adipose when the fin is depressed.”

“Snout broad and rounded; orbital rim, center of supraoccipital and temporal plates slightly raised. Pectoral spine reaching to about the middle of ventral spine, which in turn reaches about to anal axil and the anal $\frac{2}{5}$ to caudal base. The free margin of the dorsal is somewhat rounded. When depressed, the spine reaches past the middle of the last ray which extends $\frac{3}{4}$ the distance to the adipose. Caudal obliquely lunate, the lower lobe somewhat the longer. Supraoccipital bordered posteriorly by a single scute, the one or two series of scutes along the dorsal and ventral lines weakly carinate. The lateral series anteriorly over the pectoral alone having a pronounced keel. Ventral surface of peduncle flat, not rounded, a small area at the tip of the snout and the upper lip without scales. Ventral surface mostly covered by small scales, but an area anteriorly in line with the gill openings and a broad area between and before the ventrals scaleless, except for very fine scales near the midline.”

“Color grayish black on back, sides, and fins, with numerous more or less pronounced pale rounded spots. These are smallest and most closely spaced on the head. Lower surfaces and ventral spines pale.”

Biology

Information not available.

Human Uses

Information not available.

Diseases

Information not available. No OIE-reportable diseases have been documented in this species.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No introductions of *H. meleagris* have been reported outside its native range so no impacts of introduction are known. However, unidentified members of the genus are established in the United States.

From Nico et al. (2018):

“The effects of these loricariid catfish is largely unknown. In Texas, Hubbs et al. (1978) reported possible local displacement of algae-feeding native fishes such as *Campostoma anomalum* by *Hypostomus*, and López-Fernández and Winemiller (2005) suggest that reductions in *Dionda diaboli* abundance in portions of San Felipe Creek are due to population increases of *Hypostomus*. Because of their abundance in Hawaii, introduced *Hypostomus*, *Pterygoplichthys*, and *Ancistrus* may compete for food and space with native stream species (Devick 1989; Sabaj and Englund 1999).”

4 Global Distribution

No georeferenced occurrences were available for *H. meleagris* (GBIF Secretariat 2017).

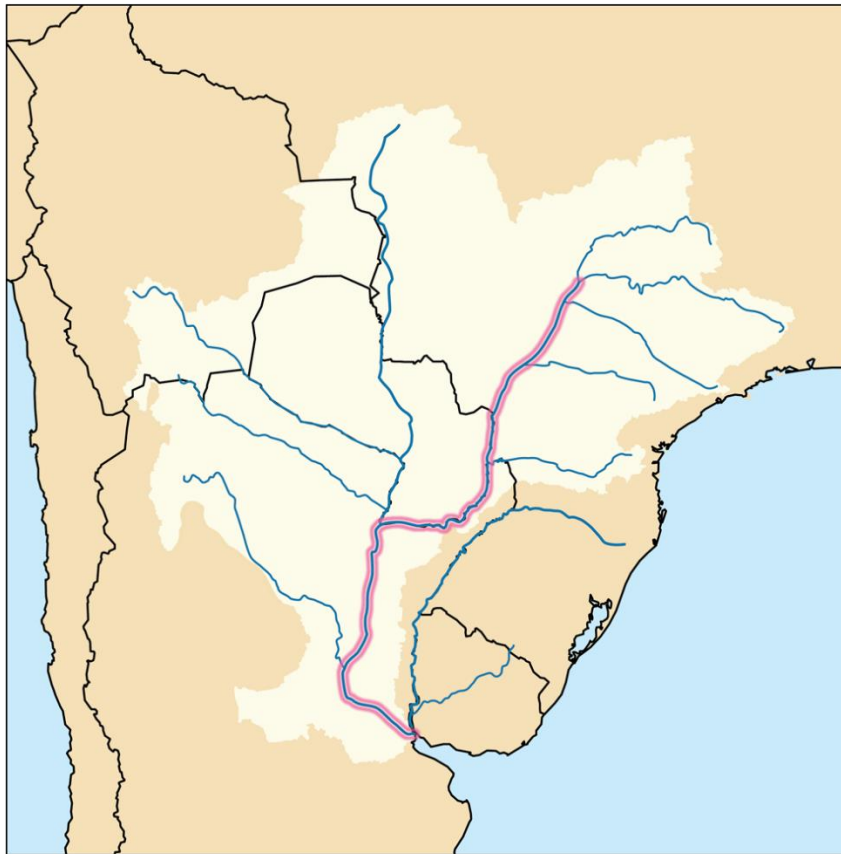


Figure 1. Map of the Paraná River basin in South America with the Paraná River (flowing through Brazil, Paraguay, and Argentina) highlighted in pink. *Hypostomus meleagris* is native to the Upper and Middle Paraná River basin. Map: Kmusser. Licensed under Creative Commons (BY-SA 3.0). Available: <https://commons.wikimedia.org/w/index.php?curid=8772576>. (September 2018).

5 Distribution within the United States

There is currently no known distribution of *Hypostomus meleagris* within the United States; however, unidentified species of *Hypostomus* are established in Nevada, Florida, Texas, and Hawaii.

6 Climate Matching

Because of the lack of georeferenced occurrences combined with the vaguely defined range of the species, no climate matching analysis could be conducted.

7 Certainty of Assessment

Extremely limited information was available on the biology and ecology of *H. meleagris*. No georeferenced occurrences or precise descriptions of collection locations were available for the climate matching analysis. *H. meleagris* has not been reported as introduced outside its native range, so no impacts of introduction are known. However, unidentified species of *Hypostomus* have become established in the United States, and it is possible that one or more of those populations could be identified later as *H. meleagris*. There is considerable uncertainty about the taxonomy of this genus and about species-level identification. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Hypostomus meleagris is a catfish native to the upper Paraná river basin in Brazil, Paraguay, and Argentina. This species has no documented history of introduction in the United States or elsewhere outside its native range, and it is not known to be in trade. However, unidentified species of *Hypostomus* are established in the United States. History of invasiveness is uncertain. No climate matching analysis was possible because of the lack of georeferenced occurrence information, whether in the form of geographic coordinates or verbal description. Because of the lack of documented introduction history and substantial taxonomic uncertainty, certainty of this assessment is low and overall risk is uncertain.

Assessment Elements

- **History of Invasiveness: Uncertain**
- **Climate Match: --**
- **Certainty of Assessment: Low**
- **Overall Risk Assessment Category: Uncertain**

9 References

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.

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10 References Quoted But Not Accessed

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