U.S. Fish & Wildlife Service

Hypostomus itacua (a catfish, no common name)
Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, February 2012
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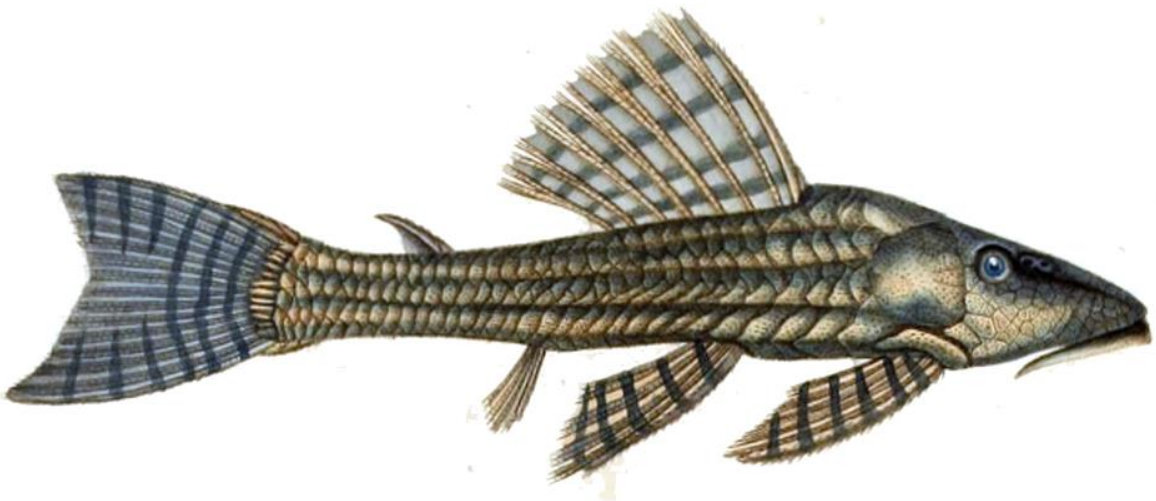

Image: P. L. Oudart *in* Voyage dans l'Amérique méridionale. Public Domain. Available: https://commons.wikimedia.org/w/index.php?curid=18653835. (September 2018).

1 Native Range and Status in the United States

Native Range

From Fricke et al. (2018):

"Middle Paraná River basin: Argentina, Brazil (?) and Paraguay (?)."

From Koerber and Weber (2014):

"type locality: affluents of the Rio de la Plata [Argentina]"

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 Froese and Pauly (2018a):

"The type is lost and no characters are known for assigning it to any particular genus. It is sometimes treated as a a [*sic*] species of *Hemiancistrus*. Incertae sedis in Loricariidae according to Ferraris 2007 […]."

From Koerber and Weber (2014):

"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."

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)."

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Froese and Pauly (2018b):

"Biota > Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > Pisces (Superclass) > Actinopterygii (Class) > Siluriformes (Order) > Loricariidae (Family) > Hypostominae (Subfamily) > *Hypostomus* (Genus) > *Hypostomus itacua* (Species)"

"Status accepted"

From Fricke et al. (2018):

"Current status: Valid as *Hypostomus itacua* (Valenciennes 1836). Loricariidae: Hypostominae."

Size, Weight, and Age Range

From Froese and Pauly (2018a):

"Max length : 11.0 cm TL male/unsexed; [Weber 2003]"

Environment

From Froese and Pauly (2018a):

"Freshwater; demersal."

Climate/Range

From Froese and Pauly (2018a):

"Temperate"

Distribution Outside the United States

Native

From Fricke et al. (2018):

"Middle Paraná River basin: Argentina, Brazil (?) and Paraguay (?)."

From Koerber and Weber (2014):

"type locality: affluents of the Rio de la Plata [Argentina]"

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 Günther (1864):

"Occiput with a slight prominence. Eye of moderate size, its diameter being two-thirds of the width of the interorbital space. Body with light longitudinal bands; fins with bluish cross-bands."

Biology

No information available.

Human Uses

No information available.

Diseases

No information 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. itacua* 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

Figure 1. Map of the Rio de la Plata basin. *Hypostomus itacua* was originally described from tributaries of the Rio de la Plata (Koerber and Weber 2014); Fricke et al. (2018) describe its native range as the middle Paraná River. Map: Kmusser, elevation data from SRTM, drainage basin from GTOPO (USGS), all other features from Vector Map. Licensed under Creative Commons (BY-SA 3.0). Available: https://commons.wikimedia.org/w/index.php?curid=11713483. (September 2018).

5 Distribution within the United States

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

6 Climate Matching

No georeferenced occurrences were reported for *H. itacua* (GBIF Secretariat 2017) and the type locality is vague, encompassing a large area of eastern South America. No climate matching analysis is possible without at least one specific occurrence location for the species.

7 Certainty of Assessment

Extremely limited information was available on the biology, ecology, and distribution of *H. itacua*. No occurrences of this species have been reported so a climate matching analysis could not be completed. *H. itacua* 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. itacua*. 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 itacua is a catfish native to the Rio de la Plata basin in Argentina and possibly Paraguay and Brazil. This species has no documented history of introduction in the United States or elsewhere outside its native range. However, unidentified species of *Hypostomus* are established in the United States. History of invasiveness is uncertain. *H. itacua* does not appear to be present in trade in the United States or elsewhere. No climate matching analysis was conducted due to a lack of species occurrence data. 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**
- **Important additional information: Type specimen lost; species only known from illustration.**
- **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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