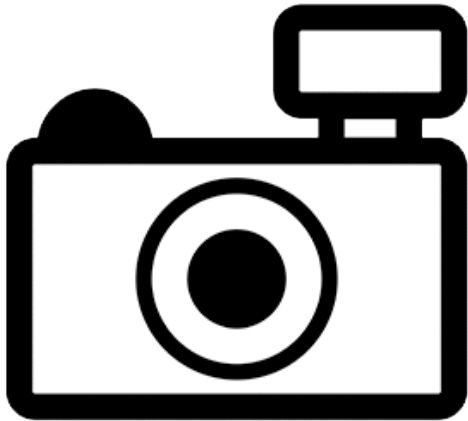


Hypostomus uruguayensis (a catfish, no common name) Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, March 2012
Revised, November 2018
Web Version, 8/14/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: Uruguay River basin.”

Froese and Pauly (2018) suggests that *Hypostomus uruguayensis* is native to Argentina and Brazil and is questionably established in Uruguay.

Status in the United States

No records were found of *Hypostomus uruguayensis* in the wild or in trade in the United States.

Means of Introductions in the United States

No records were found of *Hypostomus uruguayensis* in the wild in the United States.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2018):

“**Current status:** Valid as *Hypostomus uruguayensis* Reis, Weber & Malabarba 1990.”

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* Lacepède, 1803 – suckermouth catfishes

Species *Hypostomus uruguayensis* Reis, Weber and Malabarba, 1990”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 34.5 cm TL male/unsexed; [Zaniboni Filho et al. 2004]; max. published weight: 350.00 g [Zaniboni Filho et al. 2004]”

From Reis et al. (1990):

“Description: standard length of examined specimens 148.3 to 259.9 mm; [...]”

Environment

From Froese and Pauly (2018):

“Freshwater; demersal.”

Climate/Range

From Froese and Pauly (2018):

“Temperate”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: Uruguay River basin.”

Froese and Pauly (2018) suggests that *Hypostomus uruguayensis* is native to Argentina and Brazil and is questionably established in Uruguay.

Introduced

No records were found of introductions of *Hypostomus uruguayensis*.

Means of Introduction Outside the United States

No records were found of introductions of *Hypostomus uruguayensis*.

Short Description

From Reis et al. (1990):

“Head covered with dermal ossifications dorsally, except for a small, roughly squarish or ovate naked area on snout tip. Dorsal margin of orbit very slightly elevated, continuing in a very inconspicuous ridge on posttemporal plate. Usually three scutes boarding posterior margin of supraoccipital bone; these scutes often fragmented in up to seven small scutelets. Body moderately low; dorsal profile gently descending from origin of dorsal fin to end of caudal peduncle. Caudal peduncle roughly ovate in cross-section; slightly flattened ventrally. Dorsal scutes between end of dorsal fin sometimes with a central area devoided of odontodes.

Outer face of upper lip usually with very small odontodes areas, restricted to lateral portions; maxillary barbell much variable in size, usually moderately long. Teeth very thin, small and numerous, with a large, well developed outer cusp, always longer than half inner cusp.

Body completely covered with rows of comparatively smooth scutes dorsally. Abdomen covered with minute dermal ossifications, even in smaller individuals; some naked areas often present near base of pelvic fins. Ventral surface of head ranging from almost naked, except for a scutelets in front of gill openings, to almost completely covered with minute dermal ossifications.

Distal half of pectoral fin spines usually covered dorsally with well developed, anteriorly curved prominent odontodes in larger specimens. Adipose fin spine moderately long and slightly curved. Caudal fin margin strongly concave with long outer rays.”

Biology

From Boltovskoy and Cataldo (1999):

“Despite the fact that *L. foytunei* invaded the Parana-Rio de la Plata basin only 10 years ago, for several fish species (e.g. [...], *Hypostomus uruguayensis*, [...]) it already represents an important food item, in some cases accounting for 100% of their gut contents (unpublished data).”

Human Uses

No information was found on human uses of *Hypostomus uruguayensis*.

Diseases

No information was found on diseases of *Hypostomus uruguayensis*. **No records were found of OIE-reportable diseases (OIE 2019) for *H. uruguayensis*.**

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records were found of introductions of *Hypostomus uruguayensis*, therefore, there is no information on impacts of introductions.

4 Global Distribution

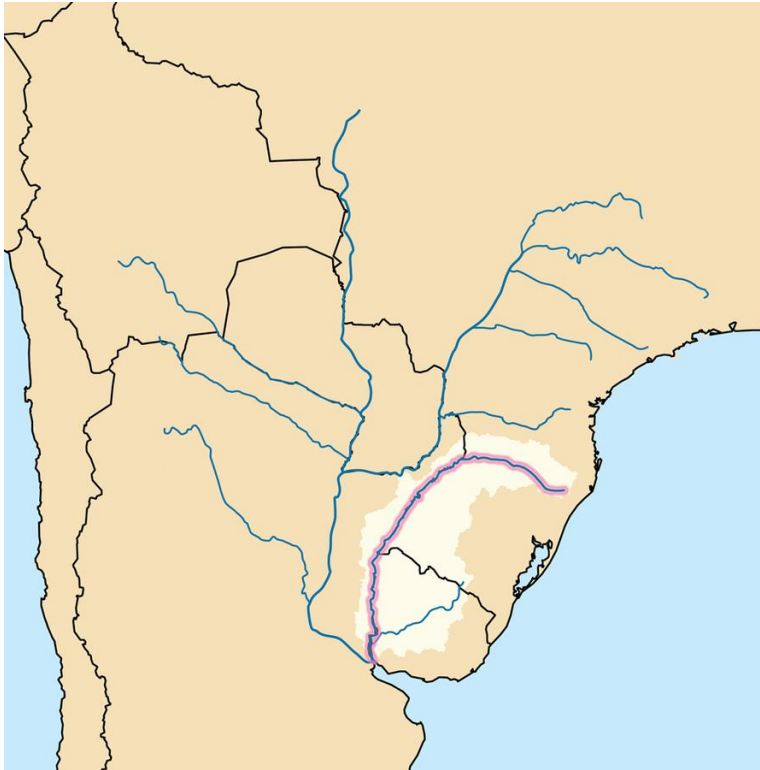


Figure 1. Map of Uruguay Basin in South America. According to Froese and Pauly (2018), *Hypostomus uruguayensis* is present in the Uruguay River basin. Map created by Karl Musser. Licensed under Creative Commons Attribution-Share Alike 3.0 Unported.

No georeferenced observations were available for *Hypostomus uruguayensis* to use as source locations for the climate match. Source points for the climate match were chosen to represent the Uruguay River basin.

5 Distribution Within the United States

This species has not been reported in the wild in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Hypostomus uruguayensis* was low for the majority of the western United States. There were areas of high match along the Atlantic Coast from Virginia to central Florida and sections along the Gulf Coast. The rest of the southeastern quarter of the contiguous United States, from central Texas to northern Virginia, had medium climate matches. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.075, medium (scores greater than 0.005, but less than 0.103, are classified as medium). Most States had low individual Climate 6 scores; however, Alabama, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Texas, and Virginia had high individual scores and Arkansas, New Jersey, Oklahoma, and Tennessee had medium individual scores.

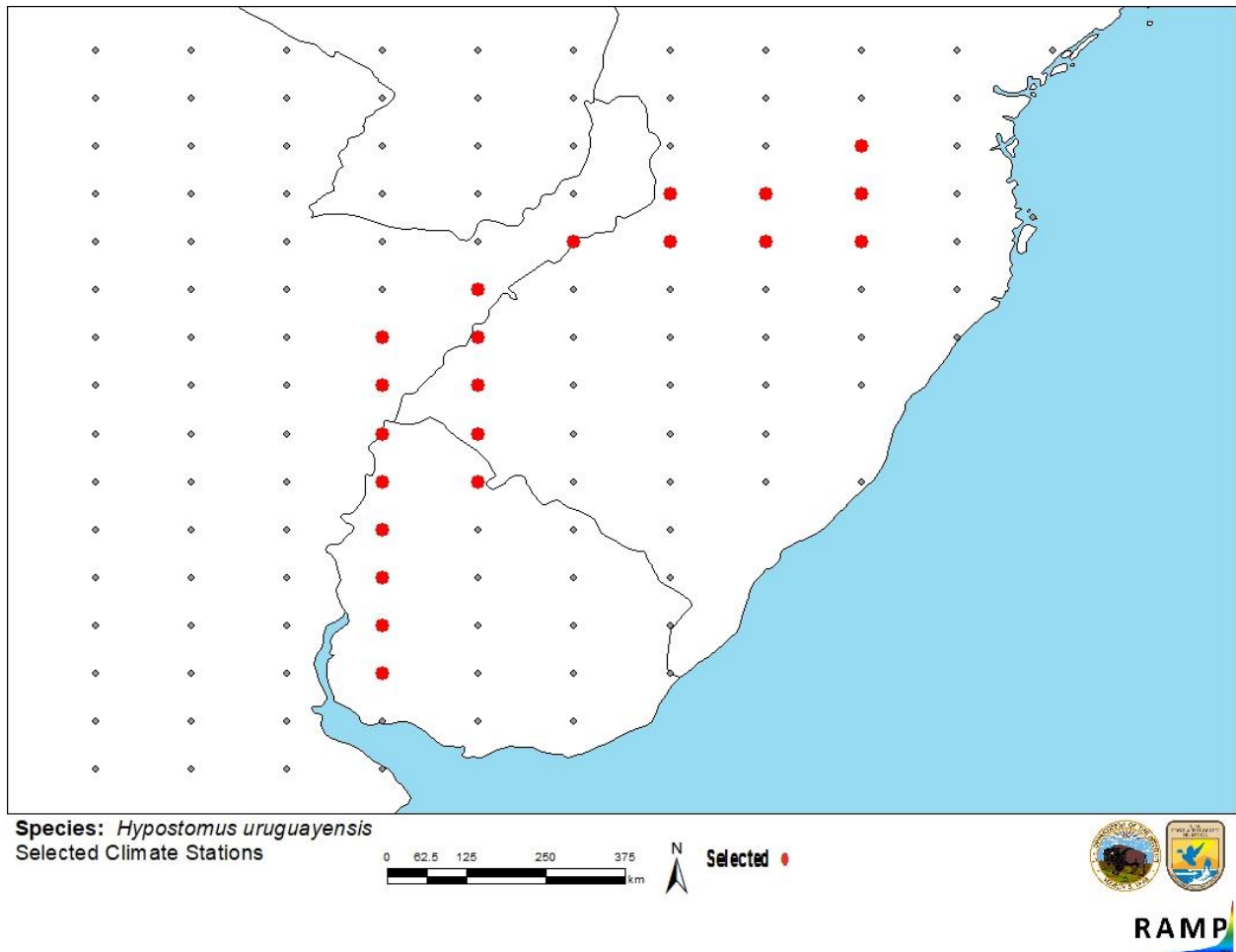


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in South America selected as source locations (red; Uruguay, Argentina, Brazil) and non-source locations (gray) for *Hypostomus uruguayensis* climate matching. Source point locations were based on the range description from Froese and Pauly (2018).

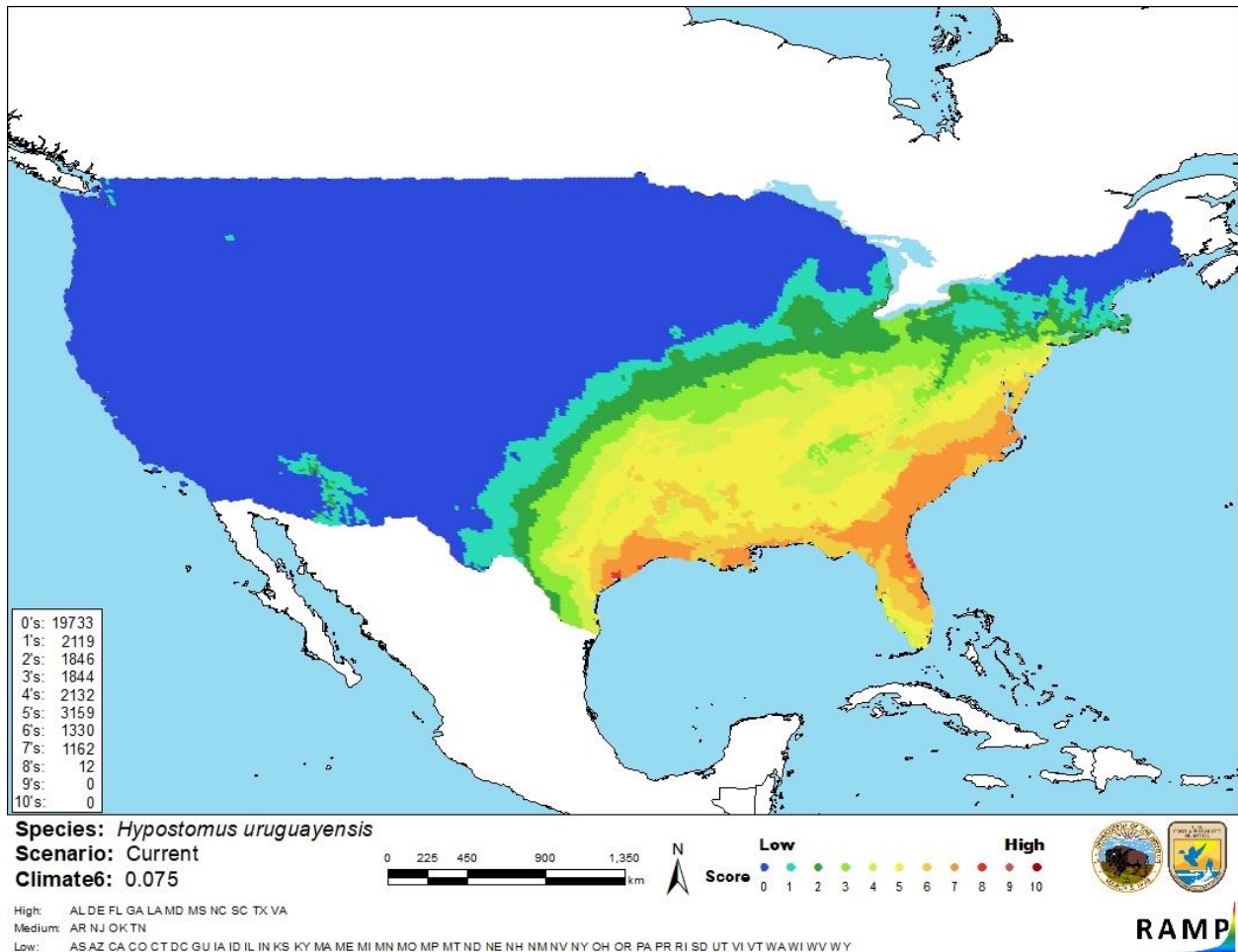


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus uruguayensis* in the contiguous United States based on source locations reported from population description from Froese and Pauly (2018). 0 = Lowest match, 10 = Highest match.

The High, Medium, and Low Climate match Categories are based on the following table:

Climate 6: Proportion of (Sum of Climate Scores 6-10) / (Sum of total Climate Scores)	Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

There is minimal information available for *Hypostomus uruguayensis*. No information was found on introductions *H. uruguayensis*; therefore, there is no information on impacts of introduction. No georeferenced observations were available for *H. uruguayensis* to use as source locations for the climate match. Source points for the climate match were chosen to represent the Uruguay River basin. The certainty of assessment for *Hypostomus uruguayensis* is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Hypostomus uruguayensis is a South American suckermouth catfish native to Uruguay River basin. It has not been reported as introduced or established anywhere in the world outside of its native range; therefore, there is no information on impact of introduction. The history of invasiveness is uncertain. The overall climate match for the contiguous United States was medium. The western and northeastern sections of the contiguous United States had low climate matches and the southeastern section had medium to high matches. Due to lack of information, the certainty of assessment is low. The overall risk assessment category for this species is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Medium**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information:** No additional information.
- **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.

Boltovskoy, D., and D. H. Cataldo. 1999. Population dynamics of *Limnoperna fortune*, an invasive fouling mollusk, in the Lower Parana River (Argentina). *Biofouling* 14(3):225–263.

Fricke, R., W. N. Eschmeyer, and R. van der Laan, editors. 2018. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (November 2018).

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Musser, K. 2009. Uruguay River Map. Available: <https://commons.wikimedia.org/wiki/File:Uruguayrivermap.png>. (November 2018).

OIE (World Organisation for Animal Health). 2019. OIE listed diseases, infections and infestations in force in 2019. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/>. (August 2019)

Reis, R. E., C. Weber, and L. R. Malabarba. 1990. Review of the genus *Hypostomus* Lacepède, 1803 from southern Brazil, with descriptions of three new species (Pisces: Siluriformes: Loricariidae). *Revue Suisse de Zoologie* 97(3):729–766.

Sanders, S., C. Castiglione, and M. Hoff. 2018. Risk assessment mapping program: RAMP, version 3.1. U.S. Fish and Wildlife Service.

10 References Quoted But Not Accessed

Note: The following references are cited within quoted text within this ERSS, but were not accessed for its preparation. They are included here to provide the reader with more information.

Zaniboni Filho, E., S. Meurer, O. A. Shibatta, and A. P. de Oliverira Nuñez. 2004. Catálogo ilustrado de peixes do alto Rio Uruguai. Tractebel Energia, Editora da UFSC, Florianópolis, Brazil.