

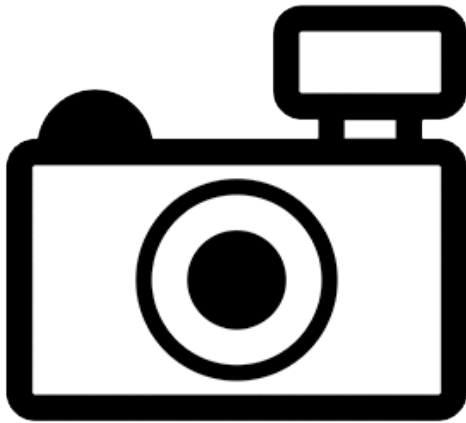
***Hypostomus luteomaculatus* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2013

Revised, August 2018

Web Version, 9/13/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: Uruguay River basin [Argentina, Brazil, Uruguay].”

Status in the United States

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

Means of Introductions in the United States

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

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Hypostomus luteomaculatus* (Devincenzi 1942) is the current valid name of this species. *Hypostomus luteomaculatus* was originally described as *Plecostomus luteomaculatus* Devincenzi in Devincenzi and Teague, 1942.

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 luteomaculatus* (Devincenzi in Devincenzi and Teague, 1942)”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 28.0 cm SL male/unsexed; [Weber 2003]”

Environment

From Froese and Pauly (2018):

“Freshwater; demersal.”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: Uruguay River basin [Argentina, Brazil, Uruguay].”

Introduced

No records of introduction were found for *Hypostomus luteomaculatus*.

Means of Introduction Outside the United States

No records of introduction were found for *Hypostomus luteomaculatus*.

Short Description

No description is available for *Hypostomus luteomaculatus*.

Biology

From Oldani and Baigún (2002):

“However, most species exhibited a nocturnal pattern including [...], *Hypostomus luteomaculatus*, [...]”

Human Uses

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

Diseases

No records of diseases were found for *Hypostomus luteomaculatus*.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introduction were found for *Hypostomus luteomaculatus*, therefore there is no information on impacts of introduction.

4 Global Distribution

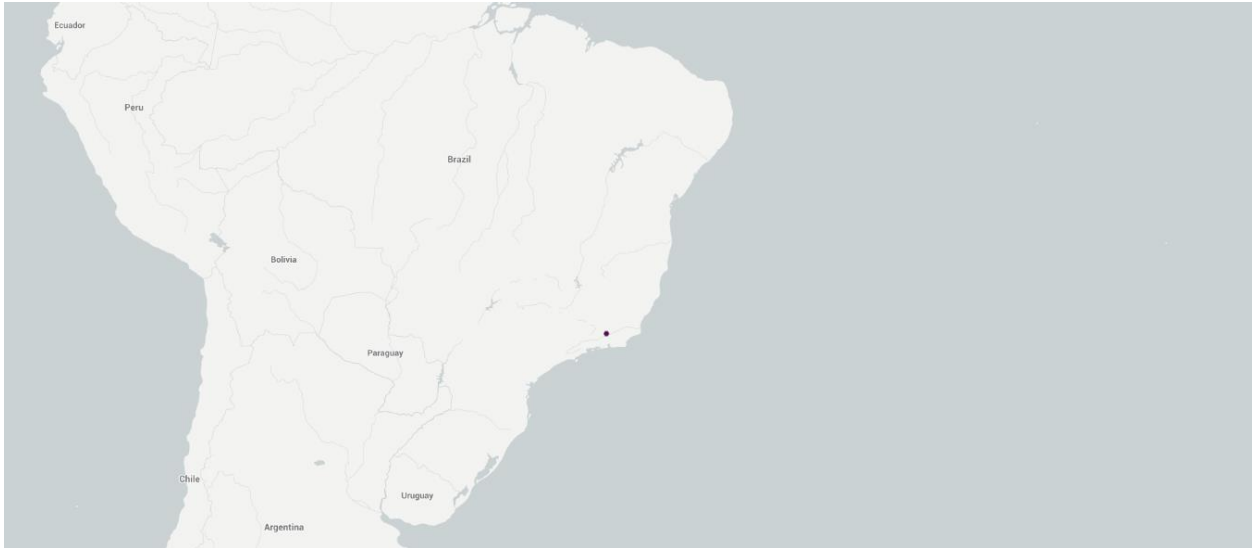


Figure 1. Known global distribution of *Hypostomus luteomaculatus*. Location is in southeastern Brazil. Map from GBIF Secretariat (2018).

No georeferenced locations are available for parts of the range in Argentina or Uruguay.

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Hypostomus luteomaculatus* was low for the majority of the contiguous United States. There is a small patch of medium-high in southeast Florida, and a medium match in most of peninsular Florida and small patches along the south Texas Gulf Coast. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.004, low. The range for a low climate score is from 0.0 to 0.005, inclusive. Florida had a high individual climate score. The climate match may be under represented because it does not include locations reported in Argentina or Uruguay. Without more detailed information on the location within these countries, we are unable to include them in the climate match.

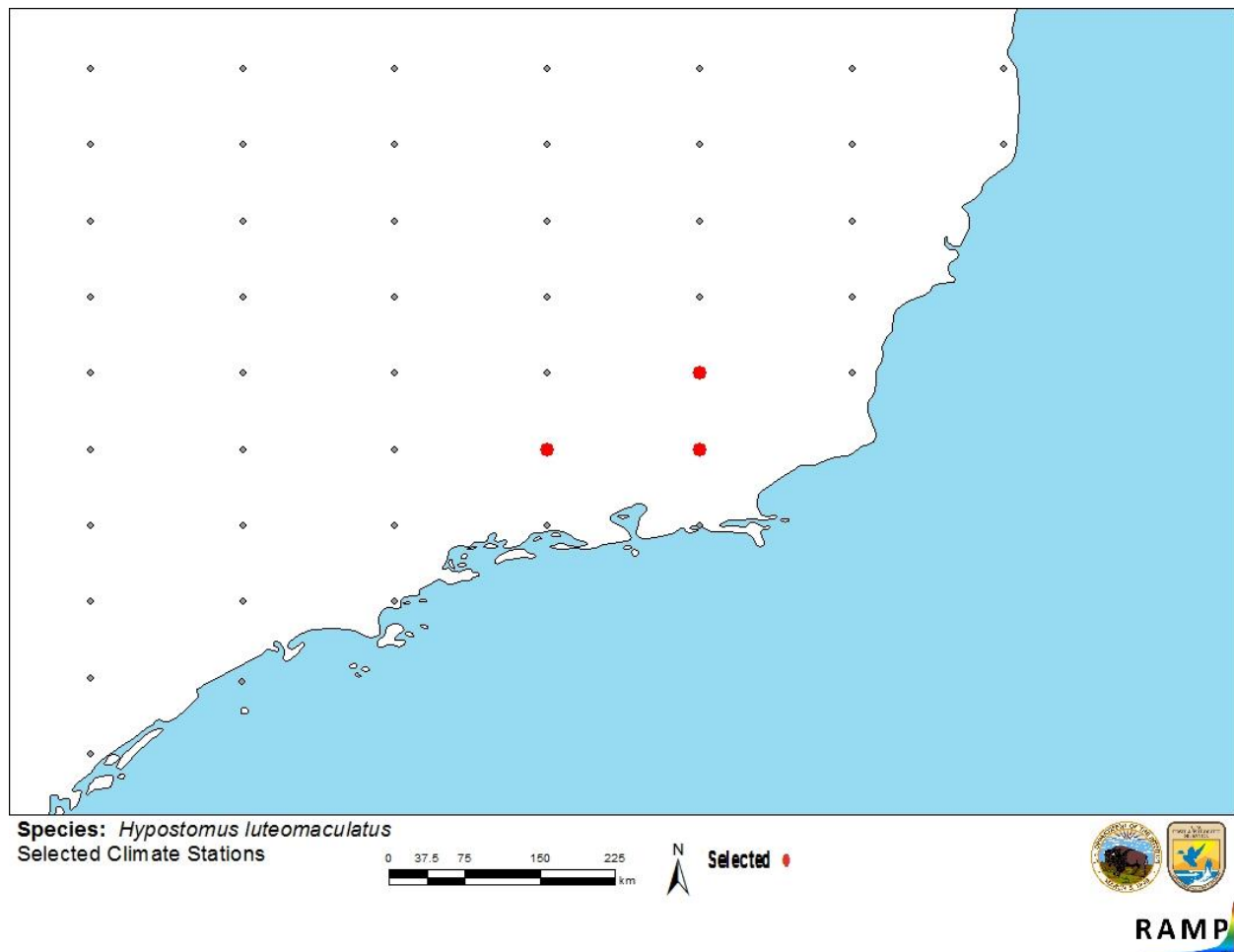


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Brazil selected as source locations (red) and non-source locations (gray) for *Hypostomus luteomaculatus* climate matching. Source locations from GBIF Secretariat (2018).

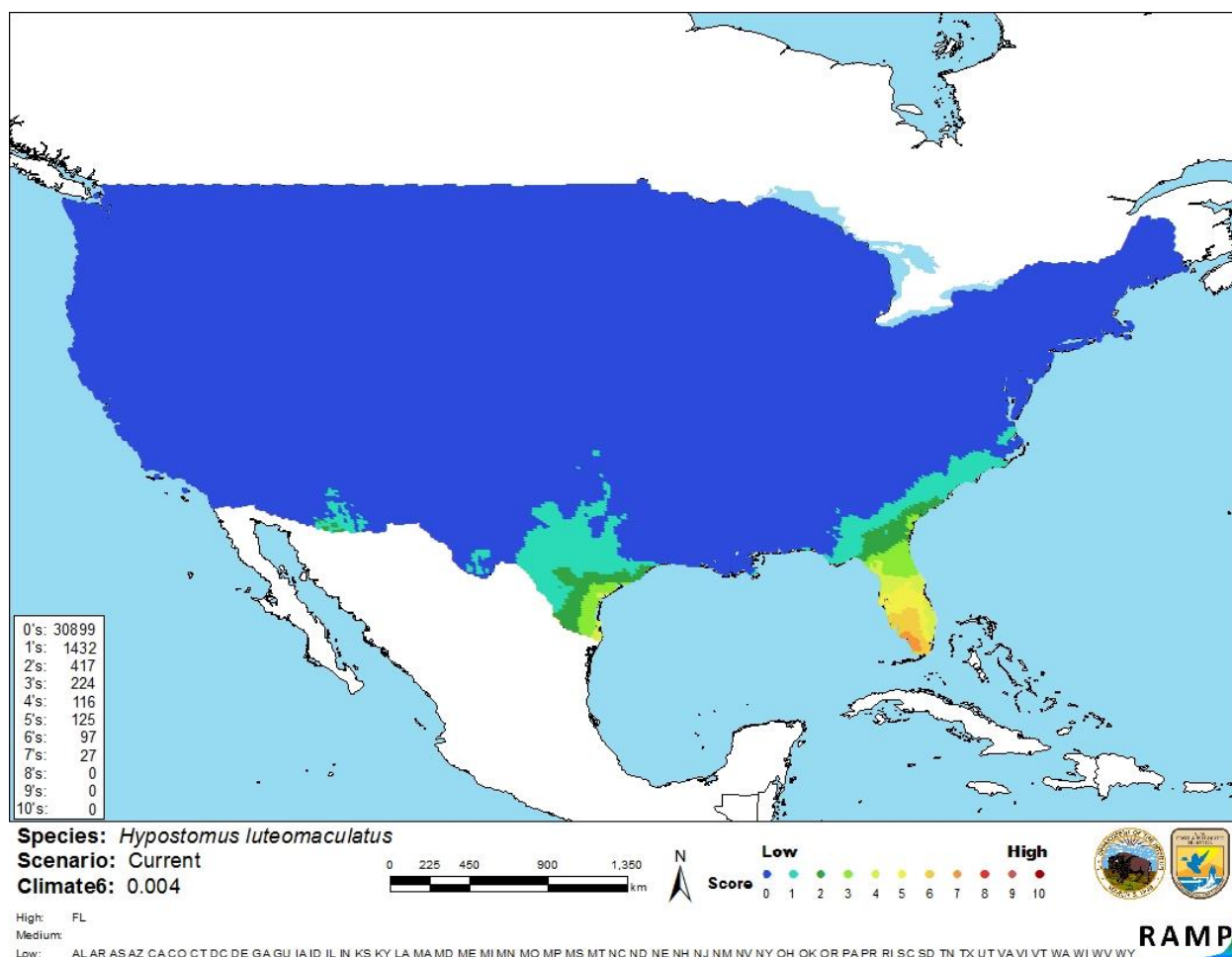


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus luteomaculatus* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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

The certainty of assessment is low. There was minimal biological information available for this species. Georeferenced locations in Argentina and Uruguay were not available for the climate match, so results may under represent the match. There were no records of introductions found, so impacts of introduction are unknown.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Hypostomus luteomaculatus is a member of the suckermouth armored catfish family (Loricariidae), native to South America. The history of invasiveness is uncertain. No records of introductions were found. The climate match was low for the contiguous United States with Florida having a high individual climate match. The climate match may be an underestimate because georeferenced locations were not available the entire range. The certainty of assessment is low due to lack of information; the overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **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.

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

Froese, R., and D. Pauly, editors. 2018. *Hypostomus luteomaculatus* (Devincenzi, 1942). FishBase. Available: <https://www.fishbase.de/summary/Hypostomus-luteomaculatus.html>. (August 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Hypostomus luteomaculatus* (Devincenzi, 1942). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5202196>. (August 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Hypostomus luteomaculatus* (Devincenzi 1942). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680195#null. (August 2018).

Oldani, N. O., and C. R. M. Baigún. 2002. Performance of a fishway system in a major South American dam on the Parana River (Argentina-Paraguay). *River Research and Applications* 18:171–183.

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.

Devincenzi, G. J., and G. W. Teague. 1942. Ictiofauna del Rio Uruguay medio. *Anales del Museo Nacional de Historia Natural de Montevideo* 5(4):1–100.

Weber, C. 2003. Loricariidae - Hypostominae (armored catfishes). Pages 351–372 *in* R. E. Reis, S. O. Kullander, and C. J. Ferraris, Jr., editors. Checklist of the freshwater fishes of South and Central America. EDIPUCRS, Porto Alegre, Brazil.