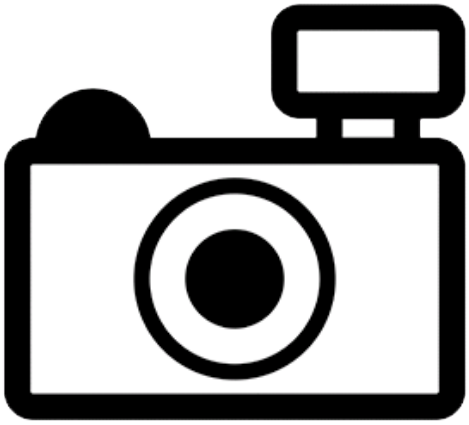
Hypostomus jaguribensis (a catfish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2013
Revised, August 2018
Web Version, 9/14/2018



1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

"South America: Jaguaribe River basin [Brazil]."

Status in the United States

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

Means of Introductions in the United States

No records of *Hypostomus jaguribensis* 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 jaguribensis* (Fowler 1915) is the current valid name of this species. *Hypostomus jaguribensis* was originally described as *Plecostomus jaguribensis* Fowler 1915.

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 jaguribensis* (Fowler, 1915)"

Size, Weight, and Age Range

From Froese and Pauly (2018):

"Max length : 12.0 cm TL male/unsexed; [Baensch and Riehl 1995]"

Environment

From Froese and Pauly (2018):

"Freshwater; demersal. […]; 24°C - 27°C [assumed to be recommended aquarium temperature] [Baensch and Riehl 1995]"

Climate/Range

From Froese and Pauly (2018):

"Tropical; […]"

Distribution Outside the United States

Native

From Froese and Pauly (2018):

"South America: Jaguaribe River basin [Brazil]."

Introduced

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

Means of Introduction Outside the United States

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

Short Description

No description of *Hypostomus jaguribensis* was found.

Biology

From Rodrigues-Filho et al. (2018):

"Benthic grazers feeding mostly on detritus. Most abundant in streams with riffles."

Human Uses

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

Diseases

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

Threat to Humans

From Froese and Pauly (2018):

"Harmless"

3 Impacts of Introductions

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

4 Global Distribution

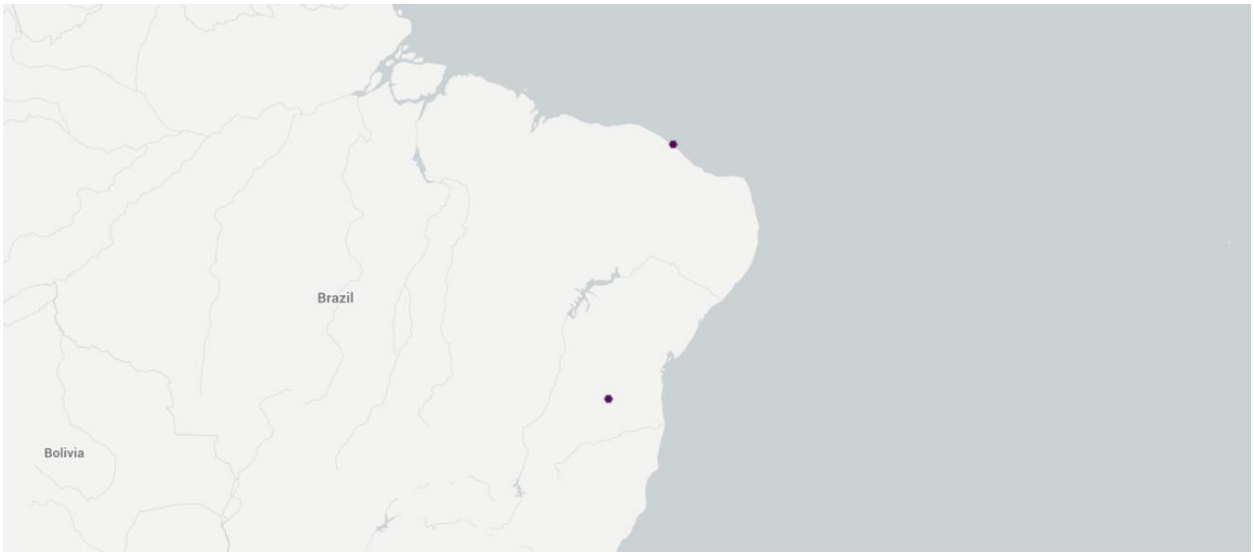


Figure 1. Known global distribution of *Hypostomus jaguribensis*. Locations are in eastern Brazil. Map from GBIF Secretariat (2018).

The southern location (Figure 1) was not used as a source point in the climate match. The collection is far outside the described range of the species (Froese and Pauly 2018) and no other information was found to support the existence of a population at this location.

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Hypostomus jaguribensis* was low for the all of the contiguous United States. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low. The range for a low climate score is from 0.0 to 0.005, inclusive. All States had low individual climate scores.

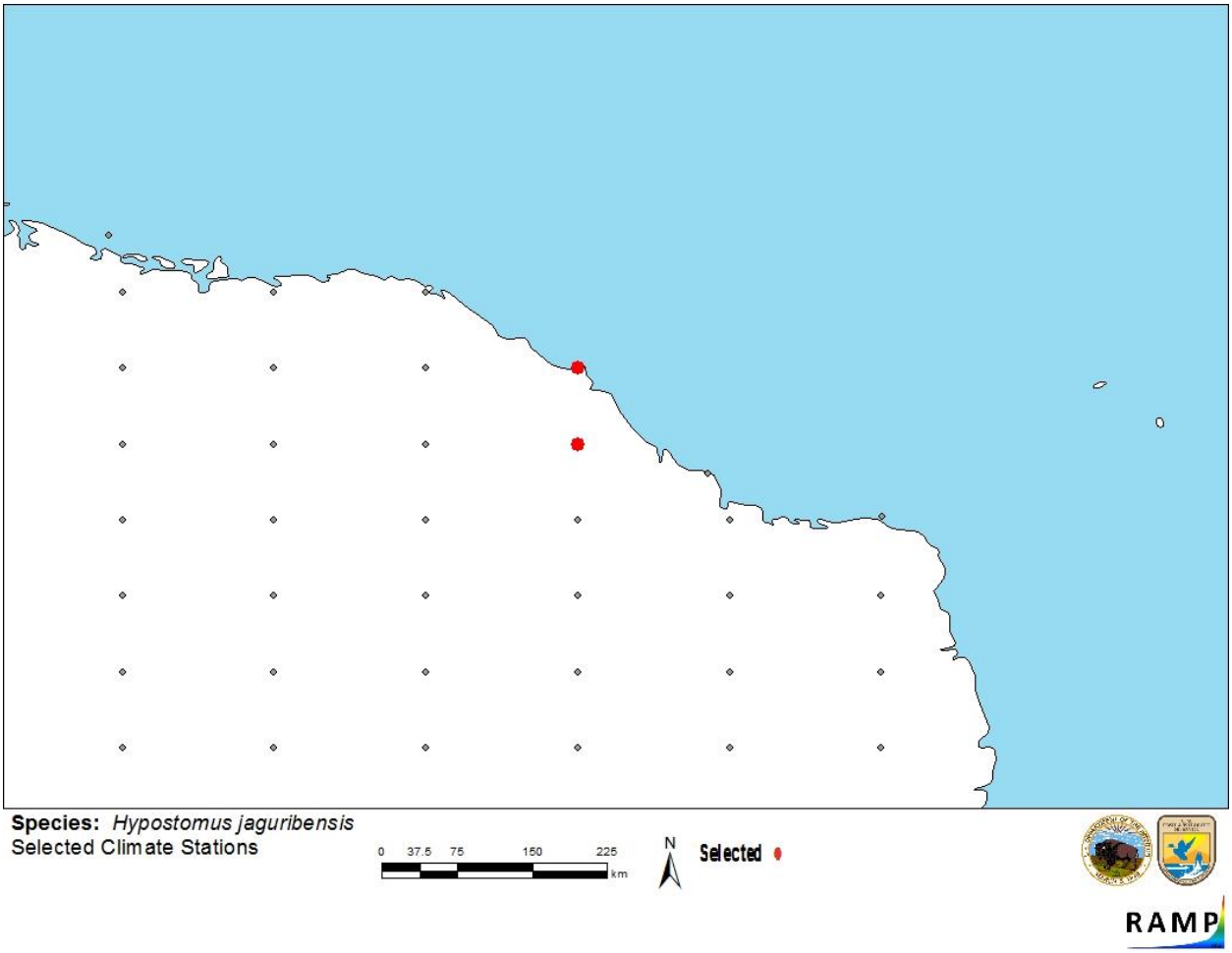


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Brazil) and non-source locations (gray) for *Hypostomus jaguribensis* climate matching. Source locations from GBIF Secretariat (2018).

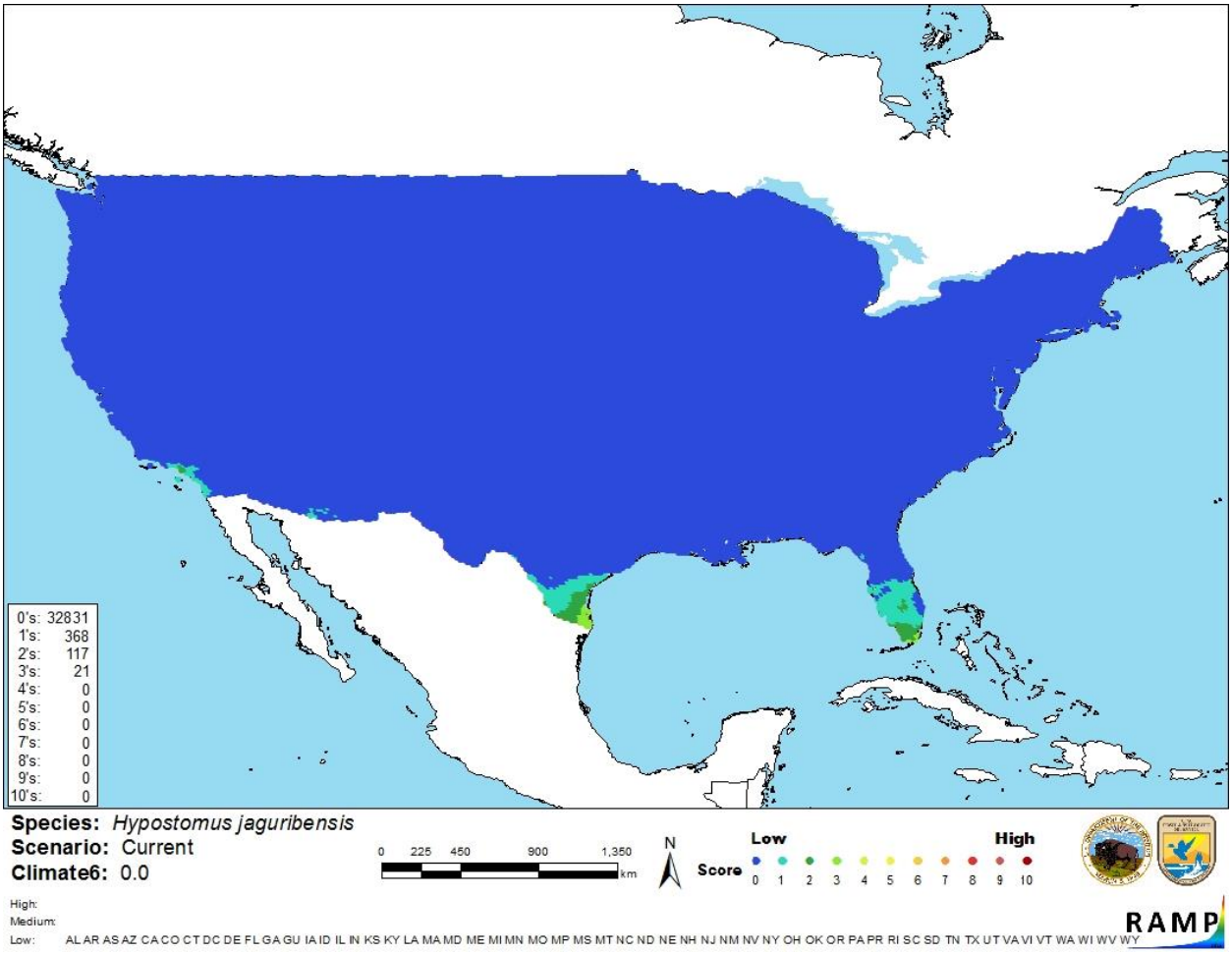


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus jaguribensis* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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≤X≤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. 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 jaguribensis is a member of the suckermouth armored catfish family (Loricariidae), native to South America. Little information is available about this species. The history of invasiveness is uncertain. No records of introductions were found. The climate match was low for the contiguous United States. The certainty of assessment is low; 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 jaguribensis* (Fowler, 1915). FishBase. Available: https://www.fishbase.de/summary/Hypostomus-jaguribensis.html. (August 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Hypostomus jaguribensis* (Fowler, 1915). Global Biodiversity Information Facility, Copenhagen. Available: https://www.gbif.org/species/5202263. (August 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Hypostomus jaguribensis* (Fowler, 1915). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680184#null. (August 2018).

Rodrigues-Filho, C. A. S., R. C. Gurgel-Lourenco, L. A. V. Bezerra, E. F. de Oliveira, R. P. Leitao, D. S. Garcez, and J. I. Sanchez-Botero. 2018. How are local fish communities structured in Brazilian semiarid headwater streams? Hydrobiologia 2018:1–16.

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.

Baensch, H. A., and R. Riehl. 1995. Aquarien atlas. Band 4. Mergus Verlag GmbH, Verlag für Natur-und Heimtierkunde, Melle, Germany.

Fowler, H. W. 1915. Cold-blooded vertebrates from Florida, the West Indies, Costa Rica, and eastern Brazil. Proceedings of the Academy of Natural Sciences of Philadelphia 67:244–269.