

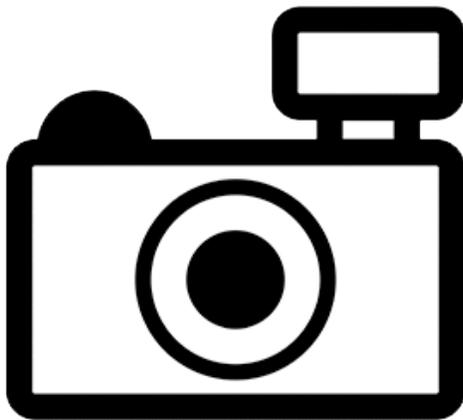
***Hypostomus lima* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, January 2013

Revised, August 2018

Web Version, 9/14/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: São Francisco River basin [Brazil].”

From Ratton et al. (2018):

“The most common species found in the Eden Cave [Brazil] were *Astyanax fasciatus* (n ¼ 6) and *Pimelodella lateristriga* (n ¼ 5). We also found one specimen each of *Hoplias malabaricus* and *Hypostomus lima* in the cave.”

Status in the United States

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

Means of Introductions in the United States

No records of *Hypostomus lima* 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 lima* (Lütken 1874) is the current valid name of this species. *Hypostomus lima* was originally described as *Plecostomus lima* Lütken 1874.

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 lima* (Lütken, 1874)”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 13.6 cm SL male/unsexed; [Zanata and Pitanga 2016]”

Alves and Pompeu (2005) list the maximum length of *Hypostomus lima* as 21.0 cm.

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: São Francisco River basin [Brazil].”

From Ratton et al. (2018):

“The most common species found in the Eden Cave [Brazil] were *Astyanax fasciatus* (n ¼ 6) and *Pimelodella lateristriga* (n ¼ 5). We also found one specimen each of *Hoplias malabaricus* and *Hypostomus lima* in the cave.”

Introduced

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

Means of Introduction Outside the United States

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

Short Description

From Zanata and Pitanga (2016):

“From congeners known to occur in the rio São Francisco basin, *Hypostomus leucophaeus* further differs [...] spots on anterior portion of trunk similar in size or slightly larger than those on head (vs. spots on trunk twice as large as those on head in *H. lima* (Lütken)), [...]”

Biology

Alves and Pompeu (2005) list algae as the main food item of *Hypostomus lima*.

Human Uses

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

Diseases

No information on diseases of *Hypostomus lima* was found.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

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

4 Global Distribution



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

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Hypostomus lima* was low for the majority of the contiguous United States with a medium match in southwestern Florida, southern Texas, and small areas of southern Arizona and the southern California coast. 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.

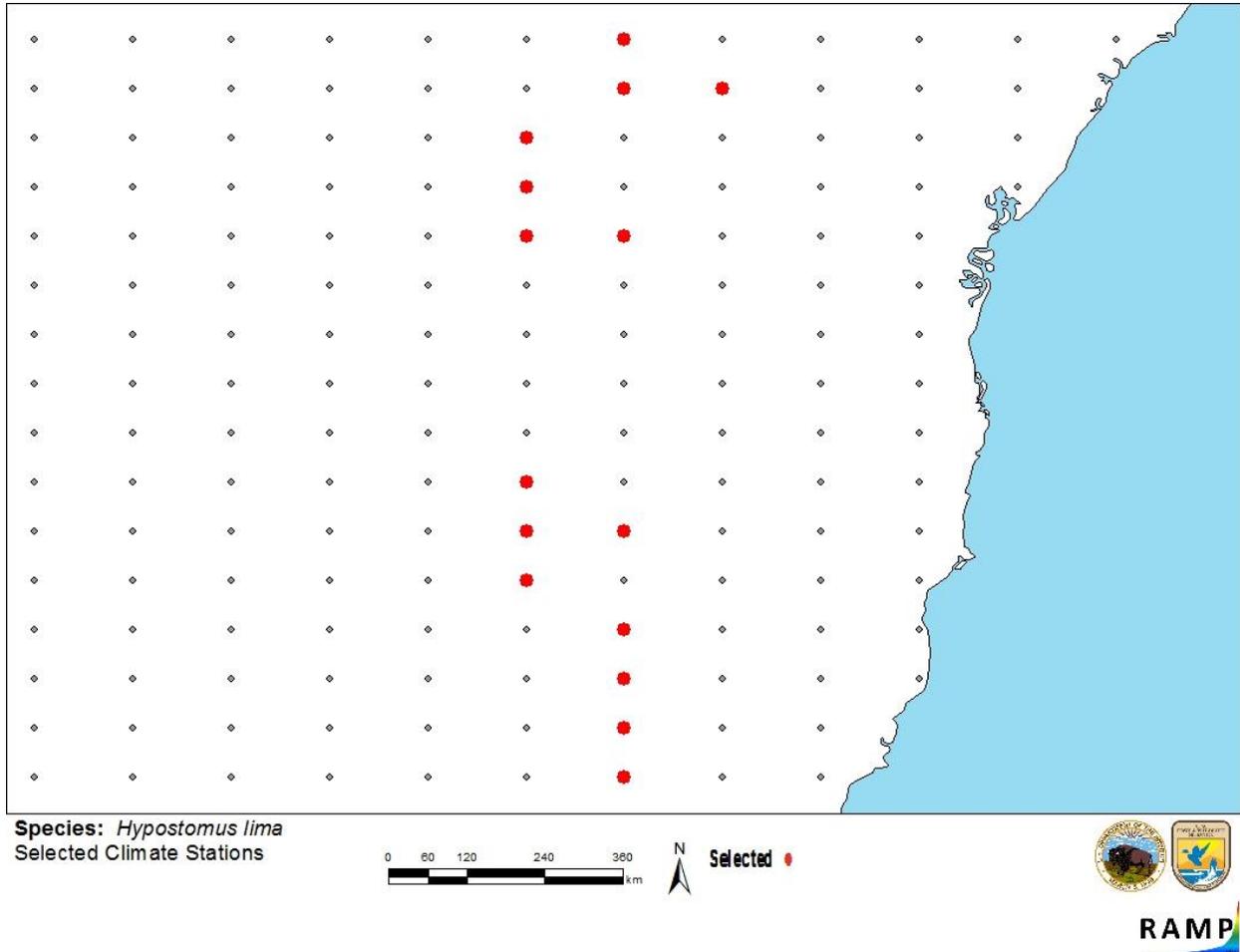


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in eastern Brazil selected as source locations (red; Brazil) and non-source locations (gray) for *Hypostomus lima* climate matching. Source locations from GBIF Secretariat (2018).

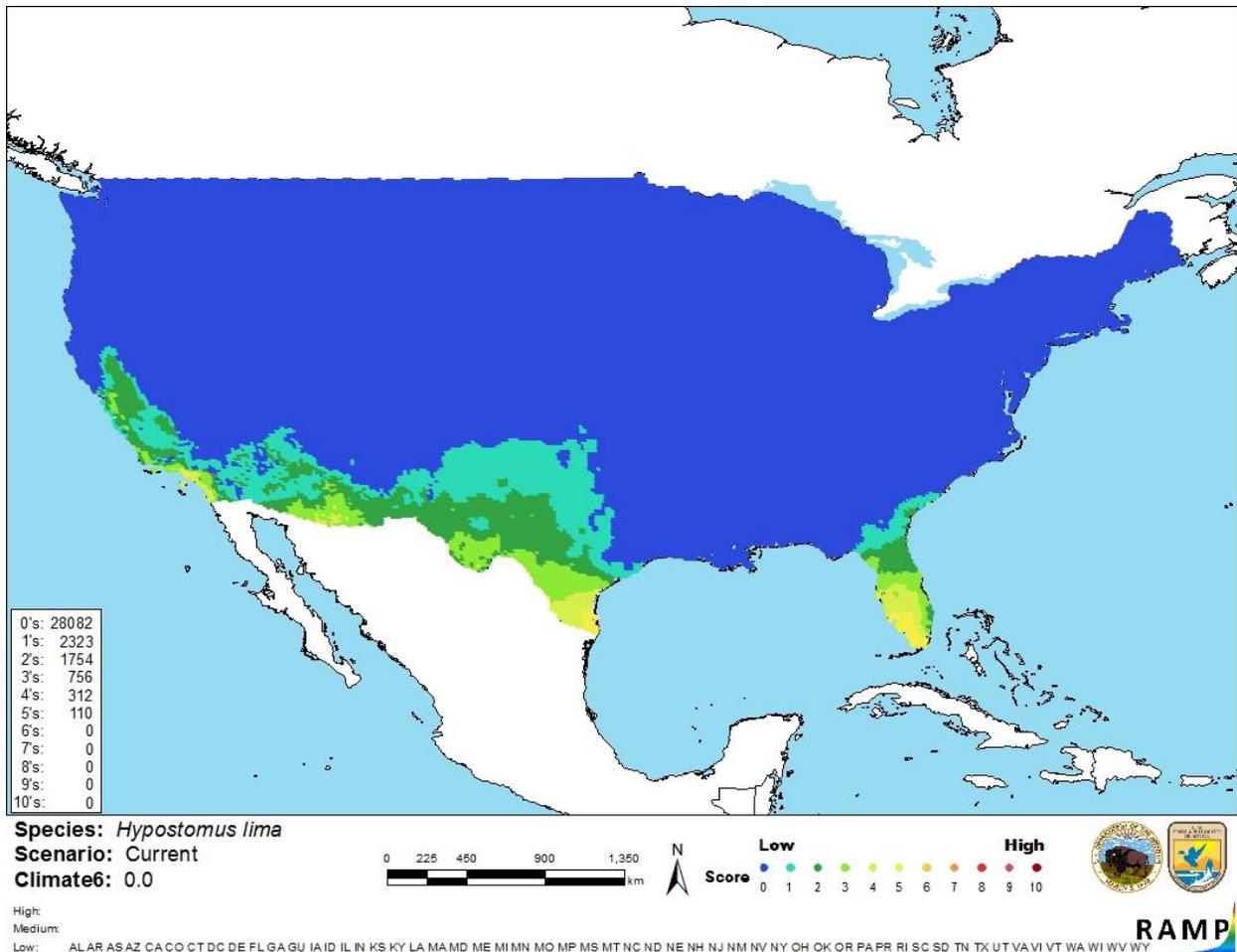


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus lima* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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. There were no records of introductions found so there is no information on impacts of introductions to evaluate.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Hypostomus lima is a member of the suckermouth armored catfish family (Loricariidae), native to the São Francisco River basin in Brazil. The history of invasiveness is uncertain. No records of introductions were found. The climate match was low for the contiguous United States. Due to lack of information 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.

Alves, C., and P. Pompeu. 2005. Historical changes in the Rio das Velhas fish fauna– Brazil. Pages 587–602 in J. N. Rinne, R. M. Hughes, and B. Calamusso, editors. Historical changes in large river fish assemblages of the Americas. American Fisheries Society Symposium 45, Bethesda, Maryland.

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 lima* (Lütken, 1874). FishBase. Available: <https://www.fishbase.de/summary/Hypostomus-lima.html>. (August 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Hypostomus lima* (Lütken, 1874). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5202164>. (August 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Hypostomus lima* (Lütken, 1874). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680191#null. (August 2018).

Ratton, P., R. L. Ferreira, and P. S. Pompeu. 2018. Fish community of a small karstic Neotropical drainage and its relationship with the physical habitat. *Marine and Freshwater Research* 69(8):1312–1320.

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

Zanata, A. M., and B. Pitanga. 2016. A new species of *Hypostomus* Lacépède, 1803 (Siluriformes: Loricariidae) from rio Itapicuru basin, Bahia State, Brazil. *Zootaxa* 4137(2):223–232.

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.

Lütken, C. F. 1874. Siluridae novae Brasiliae centralis a clarissimo J. Reinhardt in provincia Minas-geraës circa oppidulum Lagoa Santa, praecipue in flumine Rio das Velhas et affluentibus collectae, secundum characteres essentialia breviter descriptae. *Oversigt over det Kongelige Danske Videnskabernes Selskabs Forhandling og dets Medlemmers Arbejder* (Kjøbenhavn) 1874(1):29–36.