

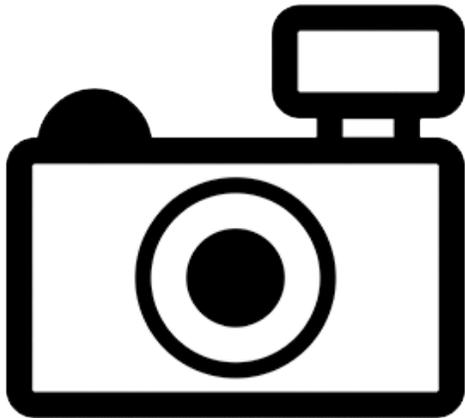
***Hypostomus hemiurus* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2013

Revised, August 2018

Web Version, 9/11/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: Guianan coastal drainages.”

“[In Guyana:] Occurs in Amatum [Burgess 1989].”

From Reis and Lima (2009):

“This species is found in the Upper Esequibo drainage of Guyana, with a possibly wider distribution.”

From Garavello and Garavello (2004):

“[...] *Hypostomus hemiurus*, and *Hypostomus emarginatus* as common species dwelling [...], in the hydrographic basin of the Rupununi River, British Guyana.”

Weber et al. (2012) lists collections of *Hypotomus hemiurus* in Siparuni River (Guyana), Rupununi River (Guyana), Arakwai River (Guyana), and Parapapoy River (Venezuela).

From Armbruster et al. (2000):

“*Hypostomus hemiurus* (Eigenmann) occurs in the Potaro River both above and below the Kaieteur Falls (Guyana).”

Status in the United States

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

Means of Introductions in the United States

No records of *Hypostomus hemiurus* 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 hemiurus* (Eigenmann 1912) is the current valid name for the species. It was originally described as *Plecostomus hemiurus*.

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 hemiurus* (Eigenmann, 1912)”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 20.1 cm SL male/unsexed; [Eigenmann 1912]”

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: Guianan coastal drainages.”

“[In Guyana:] Occurs in Amatok [Burgess 1989].”

From Reis and Lima (2009):

“This species is found in the Upper Esequibo drainage of Guyana, with a possibly wider distribution.”

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From Armbruster et al. (2000):

“*Hypostomus hemiurus* (Eigenmann) occurs in the Potaro River both above and below the Kaieteur Falls (Guyana).”

Introduced

No records of introductions were found for *Hypostomus hemiurus*.

Means of Introduction Outside the United States

No records of introductions were found for *Hypostomus hemiurus*.

Short Description

A description of *Hypostomus hemiurus* was not found.

Biology

From Reis and Lima (2009):

“*H. hemiurus* is a demersal (living at or near the bottom of the water body) species that inhabits small tributary environments, having sandy and or rocky bottoms.”

Human Uses

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

Diseases

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

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

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

4 Global Distribution



Figure 1. Known global distribution of *Hypostomus hemiurus*. Locations are in Venezuela, Guyana, and Brazil. Map from GBIF Secretariat (2018).

The location in southern Brazil (Figure 1) was not used as a source point for the climate match. It is extremely far from the described native range of the species (Froese and Pauly 2018) and no other sources support the existence of an established population at this location.

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Hypostomus hemiurus* was generally low across the contiguous United States. Southern Florida and small areas along the Gulf Coast had medium climate match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for contiguous United States was 0.000, low. All States had low individual climate scores except for Florida, which had a medium climate score.

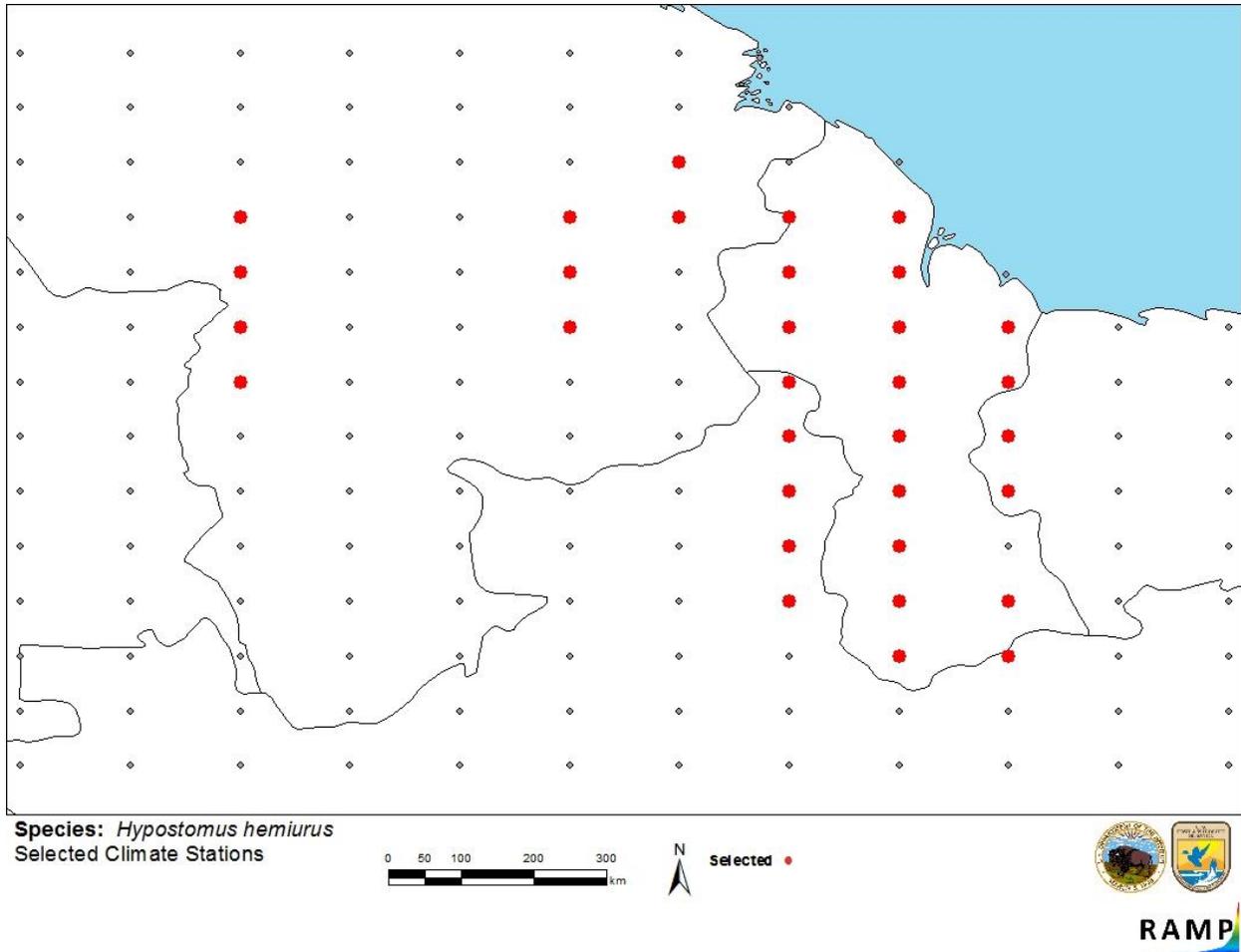


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Venezuela, Guyana, Brazil, Suriname) and non-source locations (gray) for *Hypostomus hemiurus* climate matching. Source locations from GBIF Secretariat (2018).

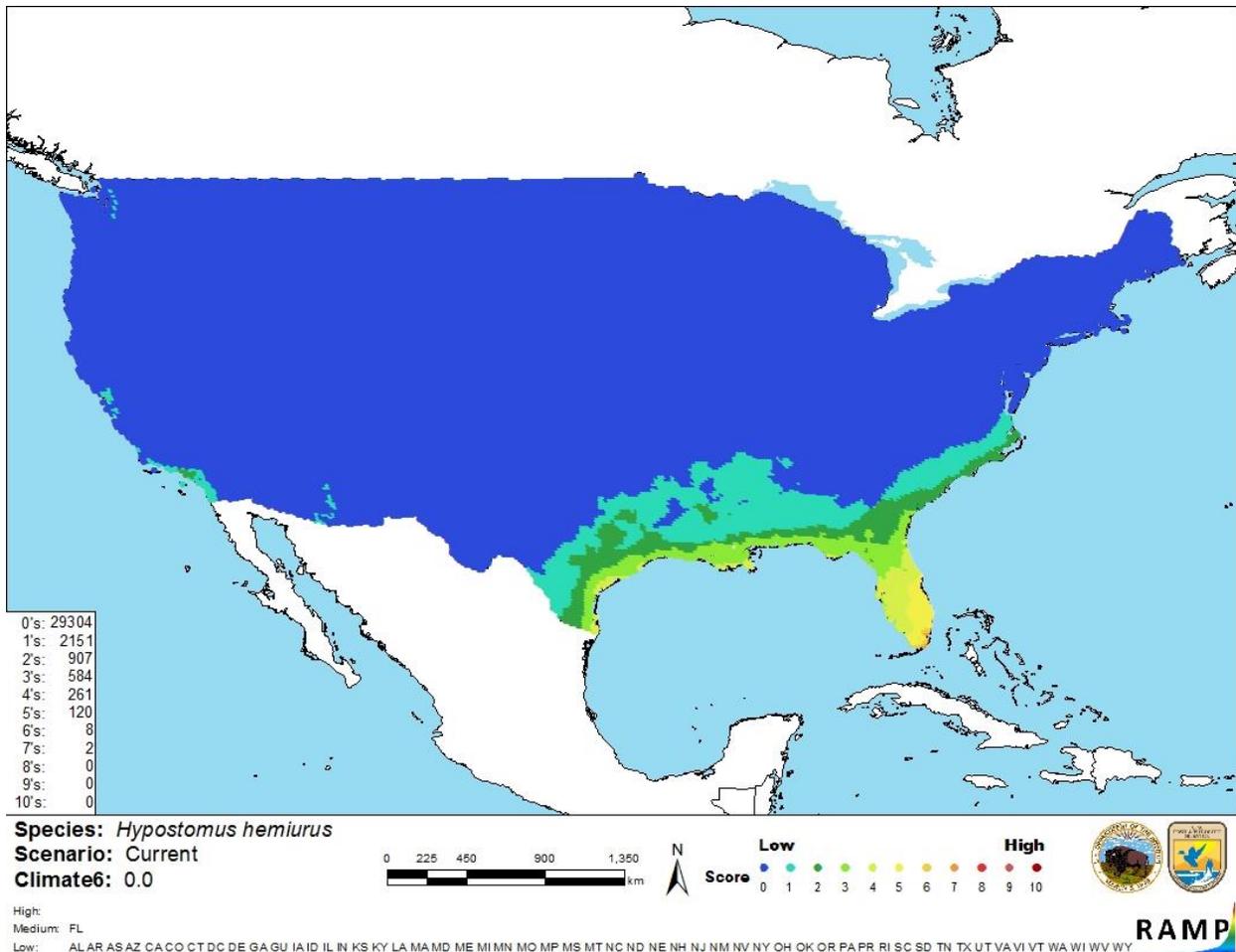


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus hemiurus* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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 for *Hypostomus hemiurus* was low. There was some general information available about the species but no records of introductions. Subsequently, there is no information on impacts to be evaluated.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Hypostomus hemiurus is an armored catfish native to coastal drainages in northeastern South America. The history of invasiveness is uncertain. There were no records of introductions found and no indication of this species in trade. The climate match was low. However, Florida had a medium individual climate score. The certainty of assessment is low. The overall risk assessment 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.

- Armbruster, J. W., M. H. Sabaj, M. Hardman, L. M. Page, and J. H. Knouft. 2000. Catfish genus *Corymbophanes* (Loricariidae: Hypostominae) with description of one new species: *Corymbophanes kaiei*. *Copeia* 2000(4):997–1006.
- 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 hemiurus* (Eigenmann, 1912). FishBase. Available: <http://www.fishbase.se/summary/Hypostomus-hemiurus.html>. (August 2018).
- Garavello, J. C., and J. P. Garavello. 2004. Spatial distribution and interaction of four species of the catfish genus *Hypostomus* Lacépède with bottom of Rio São Francisco, Canindé do São Francisco, Sergipe, Brazil (Pisces, Loricariidae, Hypostominae). *Brazilian Journal of Biology* 64(3b):103–141.
- GBIF Secretariat. 2018. GBIF backbone taxonomy: *Hypostomus hemiurus* (Eigenmann, 1912). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5202218>. (August 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Hypostomus hemiurus* (Eigenmann, 1912). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680176#null. (August 2018).

Reis, R., and F. Lima. 2009. *Hypostomus hemiurus*. The IUCN Red List of Threatened Species 2009: e.T167709A6371075. Available: <http://www.iucnredlist.org/details/full/167709/0>. (August 2018).

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

Weber, C., R. Covain, and S. Fisch-Muller. 2012. Identity of *Hypostomus plecostomus* (Linnaeus, 1758), with an overview of *Hypostomus* species from the Guianas (Teleostei: Siluriformes: Loricariidae). *Cybrium* 36(1):195–227.

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.

Burgess, W. E. 1989. An atlas of freshwater and marine catfishes. A preliminary survey of the Siluriformes. T.F.H. Publications, Neptune City, New Jersey.

Eigenmann, R. S. 1912. The freshwater fishes of British Guiana, including a study of the ecological grouping of species, and the relation of the fauna of the plateau to that of the lowlands. *Memoirs of the Carnegie Museum* 5.