

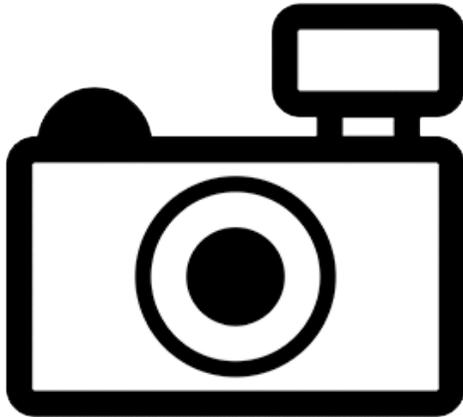
***Hypostomus ericae* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2013

Revised, August 2018

Web Version, 8/31/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: Upper Tocantins River drainage in Brazil.”

From Hollanda Carvalho and Weber (2004):

“Upper Tocantins River drainage, State of Goiás, Brazil, on the region of influence of the Serra da Mesa dam.”

Status in the United States

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

Means of Introductions in the United States

No records of *Hypostomus ericae* 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 ericae* (Hollanda Carvalho and Weber 2005) is the valid name for this species; it is also the original name.

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 ericae* Carvalho and Weber, 2005”

Size, Weight, and Age Range

From Hollanda Carvalho and Weber (2005):

“Standard length of examined specimens 104.6 to 199.0 mm; [...]”

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: Upper Tocantins River drainage in Brazil.”

From Hollanda Carvalho and Weber (2004):

“Upper Tocantins River drainage, State of Goiás, Brazil, on the region of influence of the Serra da Mesa dam.”

Introduced

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

Means of Introduction Outside the United States

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

Short Description

From Hollanda Carvalho and Weber (2004):

“Adipose-fin spine strongly curved on adult specimens [...] ; caudal peduncle deeper (2.3 to 3.0 in caudal peduncle length); 31 vertebrae [...]”

“*Hypostomus ericae* is distinguished from *H. soniae*, *H. sculpodon*, *H. simios* and *H. hemicochliodon* by the number of odontodes in the opercle (0 to 10 versus more than 10); from *H. waiampi*, *H. oculus* and *H. pyrineusi* by its colour pattern, with widely spaced spots covering its body (versus close-set spots; [...]), from *H. ericius*, by the presence of a buccal papilla (versus absence), from *H. paucipunctatus* by a deeper caudal peduncle (2.3 to 3.0 in caudal peduncle length versus 1.8 to 2.3), darker body colour and less vertebrae (31 versus 33 on holotypes); from *H. levis* it is distinguished by the presence of an adipose fin (versus absence). Its low number of teeth (6 to 9) also distinguishes it from *H. levis*, *H. soniae*, *H. simios* and *H. sculpodon* (more than 10); its particular adipose fin spine, strongly curved in adult specimens [...] distinguishes it from all species of *Hypostomus cochliodon* group of Amazon Basin.”

“Head dorsally covered with dermal ossifications, except for a small amorphous naked area on snout tip, as large as nostril. Profile almost straight, with a light depression between eyes. Dorsal margin of orbit slightly elevated, weakly continuing in an inconspicuous ridge on posttemporal plate and following plates. A single plate bordering posterior margin of supraoccipital plate, sometimes subdivided in two. Opercle supporting less than 10 odontodes. Outer face of upper lip covered with small odontodes, concentrated on middle and distal areas in smaller specimens. Barbells [*sic*] short. Few (6 to 9) large spoon shaped teeth, with a small outer cuspid in younger specimens. Body relatively deep and wide, covered with five rows of plates on each side, slightly smoother in younger specimens. Dorsal profile almost straight descending from dorsal-fin spine usually up to second plate after adipose fin. Caudal peduncle roughly ovoid in cross section, sometimes laterally compressed. Dorsal plates between end of dorsal fin and adipose spine

flattened in their dorsal portion, those closer to dorsal fin usually not meeting at midline, leaving naked central area. Ventral surface of head and abdomen completely covered by small platelets, except areas around urogenital opening, lower lip and fin insertions, and in some specimens a small naked area in the middle of coracoidal band.”

“Pectoral fin spines covered with odontodes, progressively larger as approaching distal tip, hooked and more developed in larger specimens. Adipose fin spine long and strongly curved, tip more curved in larger specimens [...]. Caudal fin concave to strongly concave. Medium sized outer rays; lower lobe longer than upper one. Dorsal fin usually reaching up to the first or second preadipose plate when depressed.”

“Living specimen. Ground colour lighter, with spots and stripes better defined and more contrasting. Darkened belt present from tip of snout to mid distance between nostrils, and also darkened areas on opercle and square area between eyes and dorsal spine. Fading dark vertical bars under dorsal fin and caudal peduncle. Belly with strong creamy colouration. Lips and ventral area between opercular openings and mouth with yellowish colouration.”

Biology

No information on the biology of *Hypostomus ericae* was found.

Human Uses

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

Diseases

No information on diseases of *Hypostomus ericae* was found. **No records of OIE-reportable diseases were found for *H. ericae*.**

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

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

4 Global Distribution

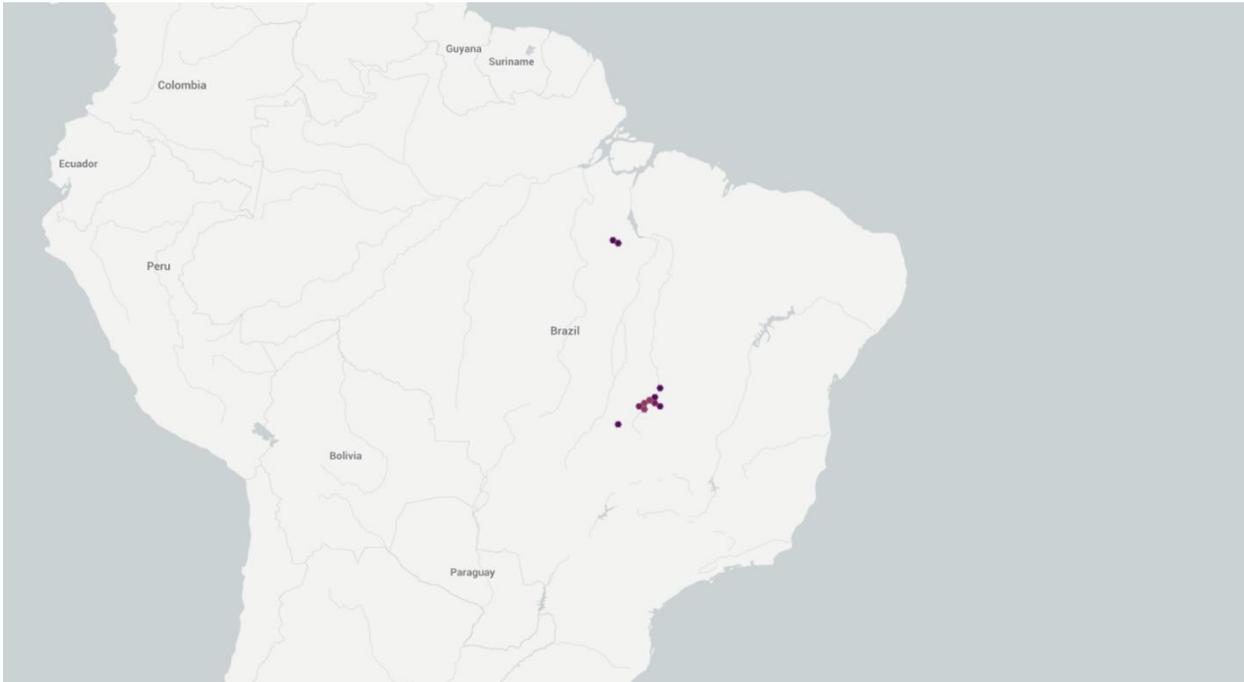


Figure 1. Known global distribution of *Hypostomus ericae*. Locations are in Brazil Map from GBIF Secretariat (2018).

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Hypostomus ericae* was low for the majority of the contiguous United States with a small patch of medium match in southern Florida. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low with all states having low individual climate score. The range for a low climate score is from 0.0 to 0.005, inclusive.

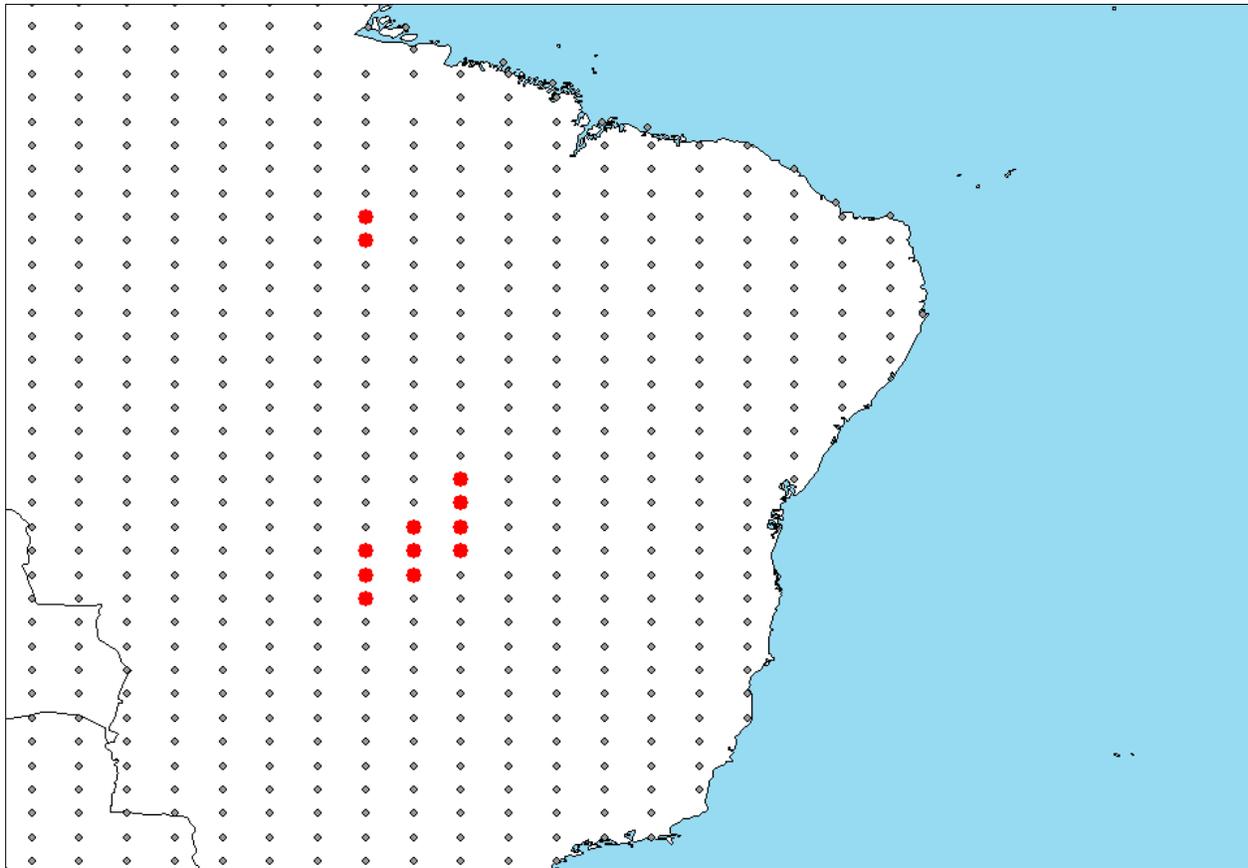


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Brazil selected as source locations (red) and non-source locations (gray) for *Hypostomus ericae* climate matching. Source locations from GBIF Secretariat (2018).

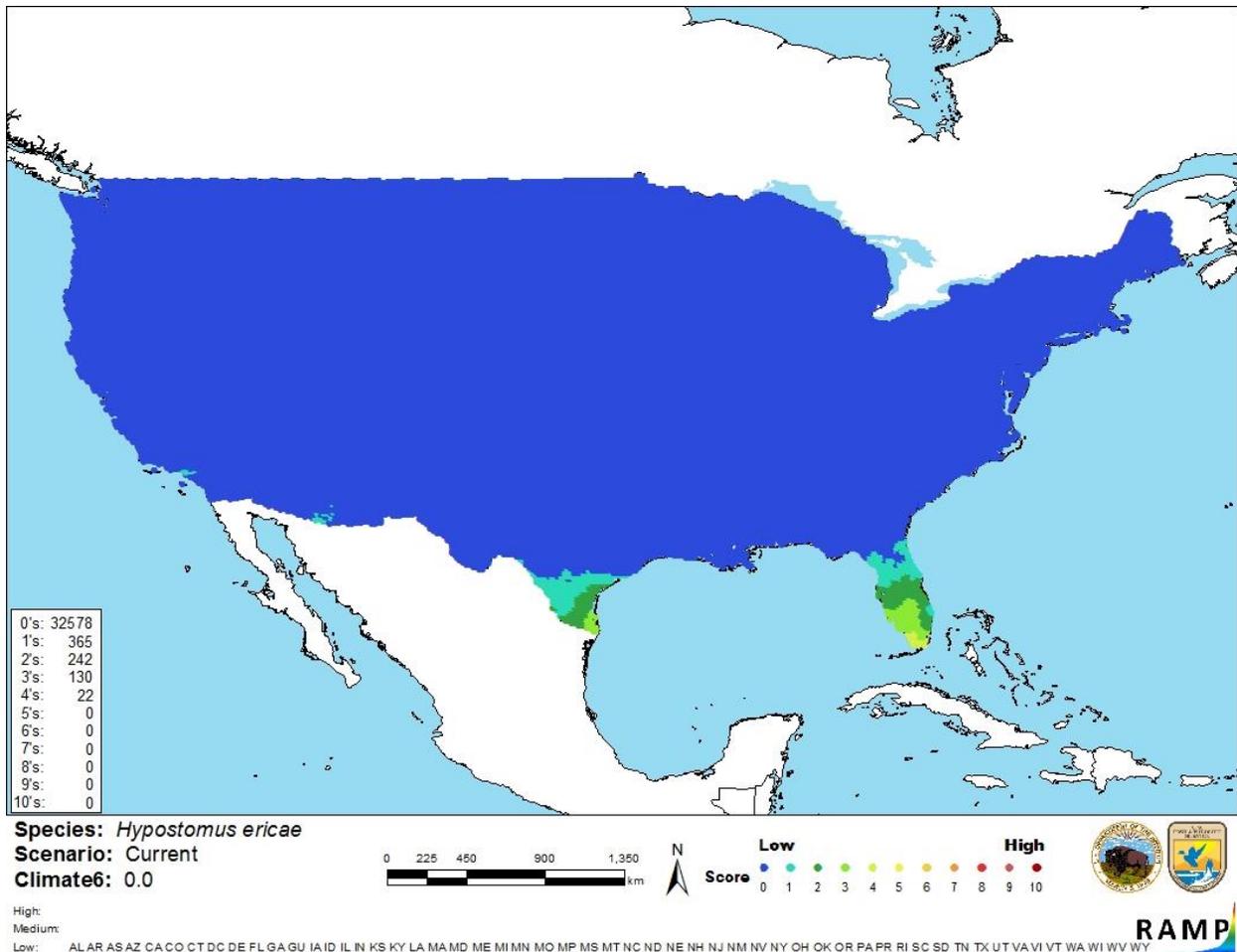


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus ericae* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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 was no information on impacts of introduction to evaluate.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Hypostomus ericae is a member of the suckermouth armored catfish family (Loricariidae), native to South America. There is little information available for this species. The history of invasiveness is uncertain. *H. ericae* has not been found in trade and it has not been reported as introduced or established outside of its native range. The climate match analysis resulted in a low match for the contiguous United States. The certainty of this 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 ericae* Carvalho and Weber, 2005. FishBase. Available: <https://www.fishbase.de/summary/Hypostomus-ericae.html>. (August 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Hypostomus ericae* (Carvalho and Weber, 2005). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5202151>. (August 2018).

Hollanda Carvalho, P., and C. Weber. 2005. Five new species of the *Hypostomus cochliodon* group (Siluriformes: Loricariidae) from the middle and lower Amazon System. *Revue Suisse de Zoologie* 111(4):953–978.

ITIS (Integrated Taxonomic Information System). 2018. *Hypostomus ericae* (Carvalho and Weber, 2005). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680166#null. (August 2018).

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.

No references in this section.