

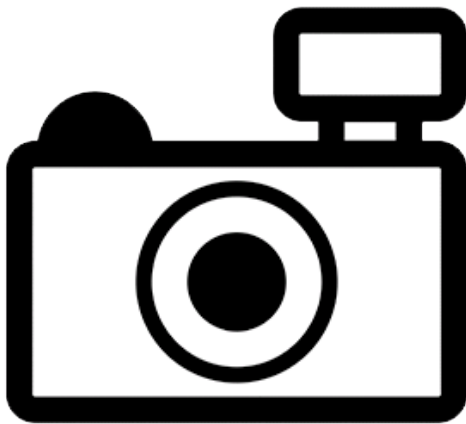
## ***Hypostomus ericius* (a fish, no common name)**

### **Ecological Risk Screening Summary**

U.S. Fish & Wildlife Service, February 2013

Revised, August 2018

Web Version, 8/31/2018



No Photo Available

## **1 Native Range and Status in the United States**

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### **Native Range**

From Froese and Pauly (2018):

“South America: Upper Rio Amazonas drainage in Peru.”

From Chocano and Hidalgo del Aguila (2016):

“This species occurs in the Amazon river basin in Peru (Ortega et al. 2012). An hydrobiological study carried out in November 2010 found three specimens of this species in the Apurimac River Valley (Paredes 2010). Rengifo et al. (2007) listed its presence in the Alto Yurúa Basin. Its type locality is 1 kilometer upstream from Caterpiza, River Mara  n, Amazonas, Peru (Armbruster 2003).”

### **Status in the United States**

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

## Means of Introductions in the United States

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

## Remarks

No additional remarks.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Hypostomus ericius* (Armbruster 2003) 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 ericius* Armbruster, 2003”

### Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 18.7 cm SL male/unsexed; [Armbruster 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: Upper Rio Amazonas drainage in Peru.”

From Chocano and Hidalgo del Aguila (2016):

“This species occurs in the Amazon river basin in Peru (Ortega et al. 2012). An hydrobiological study carried out in November 2010 found three specimens of this species in the Apurimac River Valley (Paredes 2010). Rengifo et al. (2007) listed its presence in the Alto Yurúa Basin. Its type locality is 1 kilometer upstream from Caterpiza, River Marañon, Amazonas, Peru (Armbruster 2003).”

### Introduced

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

## Means of Introduction Outside the United States

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

## Short Description

From Armbruster (2003):

“Diagnosis: *Hypostomus ericius* can be separated from all other members of the *H. cochliodon* group by coloration: light tan-gray with well-separated spots and no stripes. In addition, *H. ericius* differs from *H. hemicochliodon* by a lack of a buccal papilla and from *H. pyrineusi* by the presence of strong, sharp keels on the lateral plates. *Hypostomus ericius* is most similar to *H. oculus* from which it differs mainly in coloration and morphometrics [...].”

“Coloration generally tan-gray with large, widely-spaced spots. Spots present over entire body and becoming larger posteriorly. Caudal-fin membrane and rays often with black wash distally, and lighter area proximally instead of being spotted. Spots on fin spines and rays occasionally large. Spots less pronounced in juveniles, spots may be absent on abdomen. Juveniles with four faint dorsal saddles: first below anterior rays of dorsal fin, second below posterior rays of dorsal fin and slightly posterior to dorsal fin, third slightly anterior to and ventral to adipose fin, and fourth at base of caudal fin.”

“Dorsal fin moderately long, usually just barely reaching preadipose plate when depressed. Depressed pectoral-fin spine ventral to pelvic fin reaches beyond bases of pelvic-fin rays. Pectoral-fin spine supporting numerous stout, recurved, hypertrophied odontodes in nuptial males.”

“Keels sharp, very strongly developed. Orbits forming ridge distinctly raised above medial surface of head; ridges of dorsal and lateral aspect of head well-developed. Longitudinal ridge

formed of raised bone and slightly larger odontodes absent on pterotic-supracleithrum beginning at postdorsal corner of orbit. Opercle usually not supporting odontodes, but sometimes up to 10 odontodes may be present on opercle [...]. Nuptial body odontodes present [...]. Plates in skin anterior to dorsal-fin spine usually absent or not numerous [...]. Cheek plates generally support several stout odontodes slightly larger than surrounding odontodes. Head appears wider and taller than in other species of *Hypostomus*.”

“Each jaw with 5-9 teeth [...], teeth large and spoon-shaped. Average angle between dentaries 53° [...]. Lateral line plates 27-28; dorsal plates 7-9; interdorsal plates 5-7; adipose caudal plates 9-10.”

## **Biology**

From Chocano and Hidalgo del Aguila (2016):

“Tropical benthic freshwater fish. It occurs in clear and white waters with sandy or clay bottoms. It feeds on periphyton and submerged vegetation.”

## **Human Uses**

From Chocano and Hidalgo del Aguila (2016):

“Its [*sic*] has ornamental use (Rengifo 2007).”

## **Diseases**

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

## **Threat to Humans**

From Froese and Pauly (2018):

“Harmless”

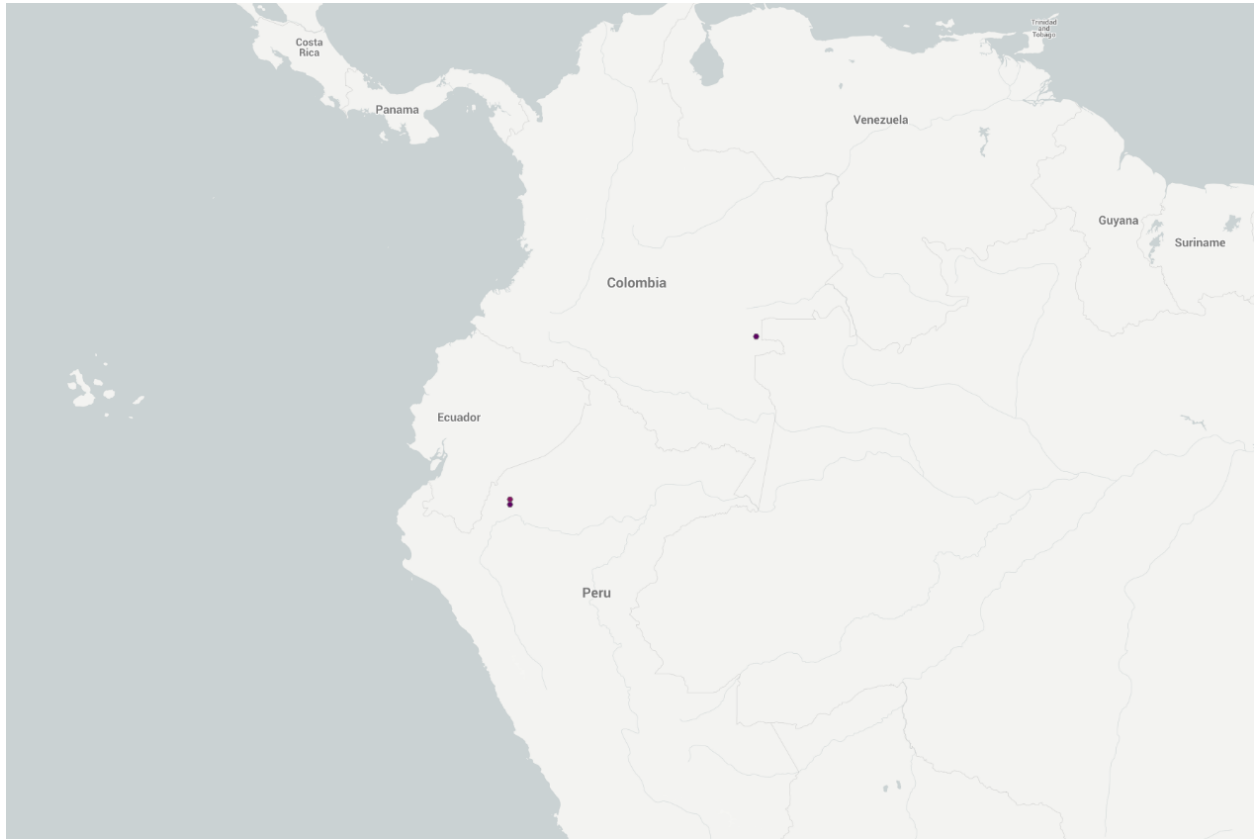
# **3 Impacts of Introductions**

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

## 4 Global Distribution

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**Figure 1.** Known global distribution of *Hypostomus ericius*. Locations are in Peru and Colombia Map from GBIF Secretariat (2018).

The location in Colombia (Figure 1) was not used as a source point in the climate match. The species is identified as *H. ericius* and the river it was collected from is part of the Amazon River basin but the existence of a population in the Colombia portions of the basin was not corroborated anywhere else.

## 5 Distribution Within the United States

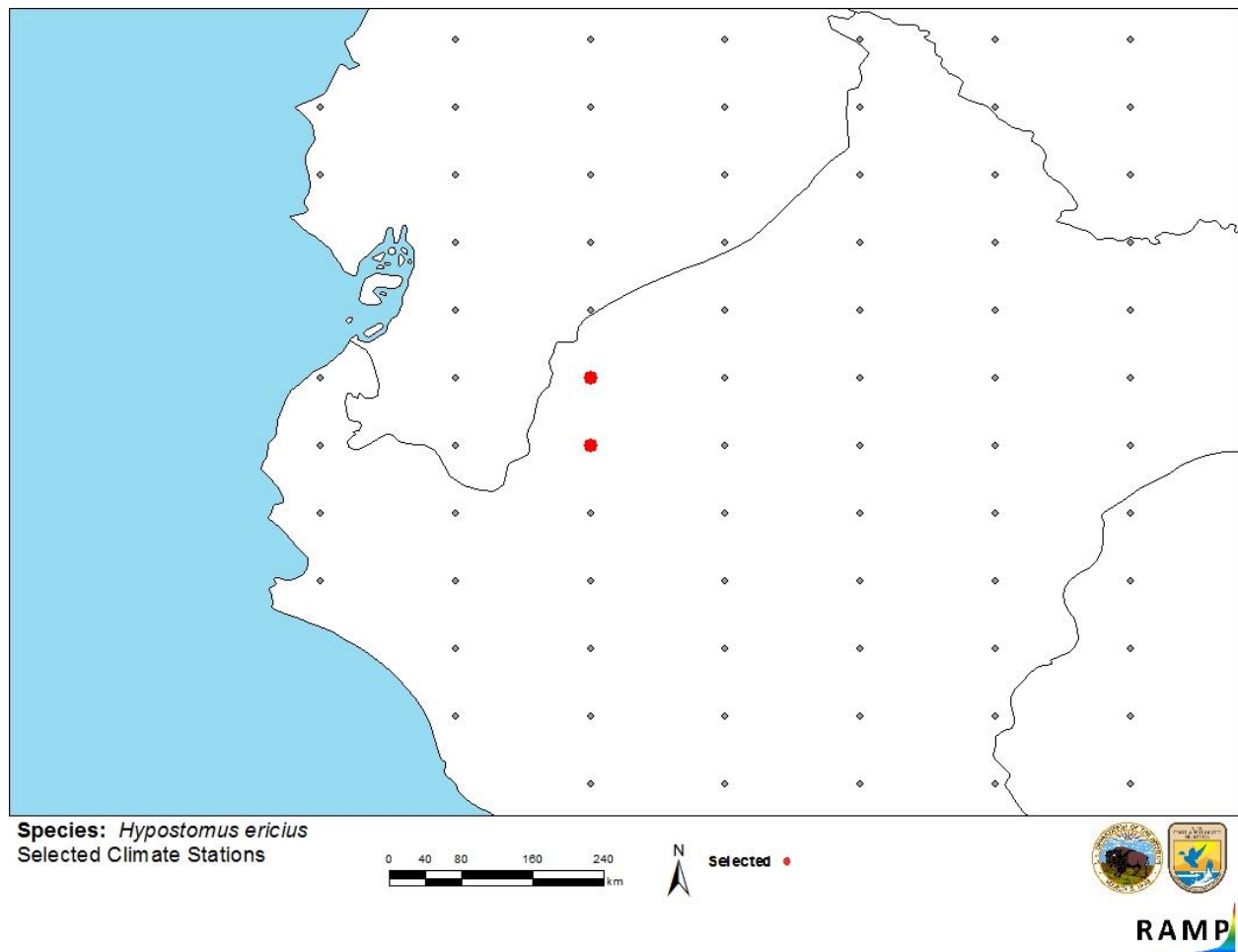
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No records of *Hypostomus ericius* in the wild in the United States were found.

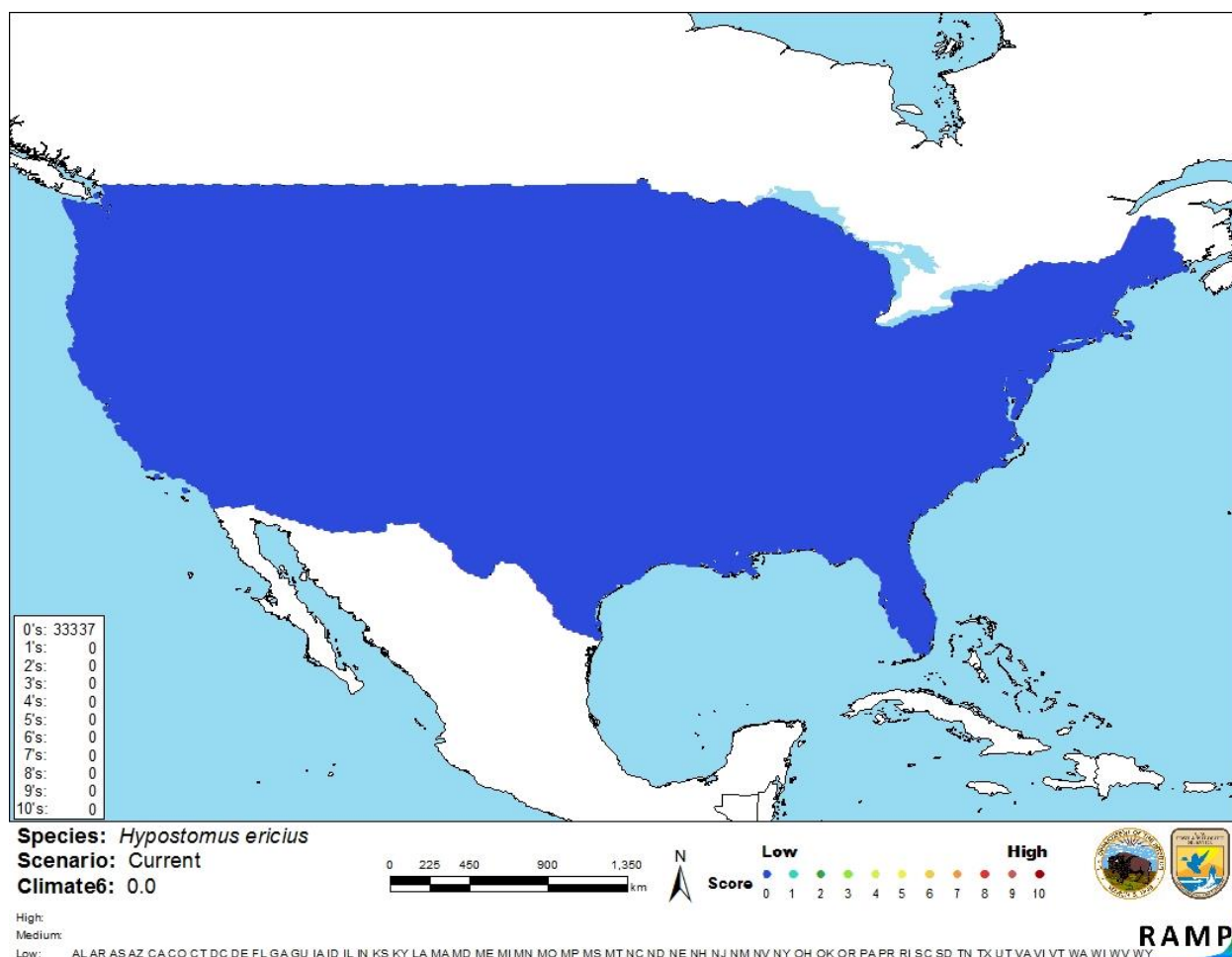
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Hypostomus ericius* was low for 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 with all states having a 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 Peru selected as source locations (red) and non-source locations (gray) for *Hypostomus ericius* climate matching. Source locations from GBIF Secretariat (2018).



**Figure 3.** Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus ericius* 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<br>(Sum of Climate Scores 6-10) / (Sum of total Climate Scores) | Climate Match<br>Category |
|------------------------------------------------------------------------------------------|---------------------------|
| $0.000 \leq X \leq 0.005$                                                                | Low                       |
| $0.005 < X < 0.103$                                                                      | Medium                    |
| $\geq 0.103$                                                                             | 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, therefore there is no information on potential for invasiveness.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Hypostomus ericius* is a member of the suckermouth armored catfish family (Loricariidae), native to South America. There is little information available for this species, however it has ornamental uses. The history of invasiveness is uncertain. 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. 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

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**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. 2003. The species of the *Hypostomus cochliodon* group (Siluriformes: Loricariidae). *Zootaxa* 249:1–60.
- Chocano, L., and M. Hidalgo del Aguila. 2016. *Hypostomus ericius*. The IUCN Red List of Threatened Species 2010: e.T49830215A53818023. Available: <http://www.iucnredlist.org/details/49830215/0>. (August 2018).
- 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 ericius* Armbruster, 2003. FishBase. Available: <https://www.fishbase.de/summary/Hypostomus-ericius.html>. (August 2018).
- GBIF Secretariat. 2018. GBIF backbone taxonomy: *Hypostomus ericius* Armbruster, 2003. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5202154>. (August 2018).
- ITIS (Integrated Taxonomic Information System). 2018. *Hypostomus ericius* (Armbruster, 2003). Integrated Taxonomic Information System, Reston, Virginia. Available: <https://www.itis.gov/servlet/SingleRpt/SingleRpt#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

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**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.**

Ortega, H., M. Hidalgo, G. Trevejo, E. Correa, A. M. Cortijo, V. Meza, and J. Espino. 2012. Lista anotada de los peces de aguas continentales del Perú: Estado actual del conocimiento, distribución, usos y aspectos de conservación. Ministerio del Ambiente, Dirección General de Diversidad Biológica - Museo de Historia Natural, UNMSM, Lima, Peru.

Paredes, P. 2010. Hidrobiología, Informe temático. Proyecto Mesozonificación Ecológica y Económica para el Desarrollo Sostenible del Valle del Río Apurímac - VRA. Instituto de Investigaciones de la Amazonía Peruana, Iquitos, Perú.

Rengifo, B. 2007. Diversidad de peces en la cuenca del Alto Yuruá (Ucayali, Perú). Revista Peruana de Biología 13(3):195–202.