

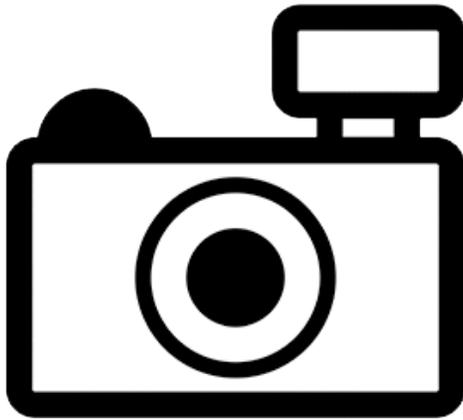
***Hypostomus borellii* (a catfish, no common name)**

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

Native Range

From Froese and Pauly (2018):

“South America: Upper and middle Pilcomayo River basin [Argentina, Bolivia, Uruguay].”

According to Litz and Koerber (2014), *Hypostomus borellii* is “considered not to be distributed in Uruguay”.

Status in the United States

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

Means of Introductions in the United States

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

Remarks

No additional information.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Hypostomus borellii* (Boulenger 1897) is the current valid name for this species. It was originally described as *Plecostomus borellii* Boulenger 1897.

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 borelli* (Boulenger, 1897)”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 16.1 cm SL male/unsexed; [Weber 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 and middle Pilcomayo River basin [Argentina, Bolivia, Uruguay].”

According to Litz and Koerber (2014), *Hypostomus borellii* is “considered not to be distributed in Uruguay”.

Introduced

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

Means of Introduction Outside the United States

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

Short Description

A short description of *Hypostomus borellii* was not found.

Biology

Information on the biology of *Hypostomus borellii* was not found.

Human Uses

Information on human uses of *Hypostomus borellii* was not found.

Diseases

Information on diseases of *Hypostomus borellii* was not found.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

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

4 Global Distribution



Figure 1. Known global distribution of *Hypostomus borellii*. Locations are in Bolivia and Argentina. Map from VertNet (2018).

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Hypostomus borellii* was low for most of the contiguous United States. There were areas of medium match in southern Florida, the Southwest from Texas to Arizona, and coastal areas of California. Southern Texas and small pockets of the southwest had high climate matches. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.002, low. The range for a low climate match is from 0.0 to 0.005, inclusive. All states had low individual climate 6 scores except for Arizona and Texas, which had medium scores.

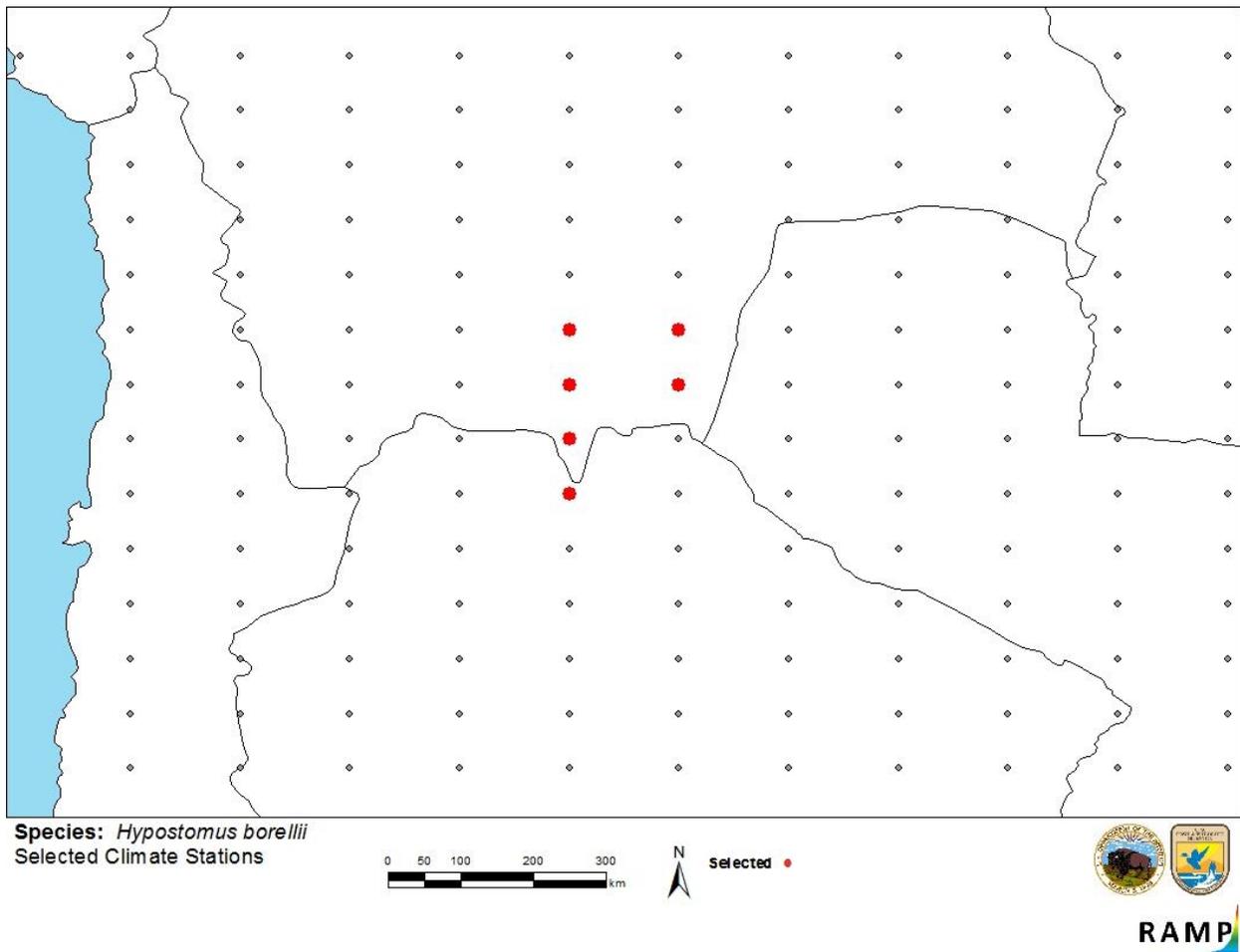


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Argentina, Bolivia) and non-source locations (gray) for *Hypostomus borellii* climate matching. Source locations from VertNet (2018).

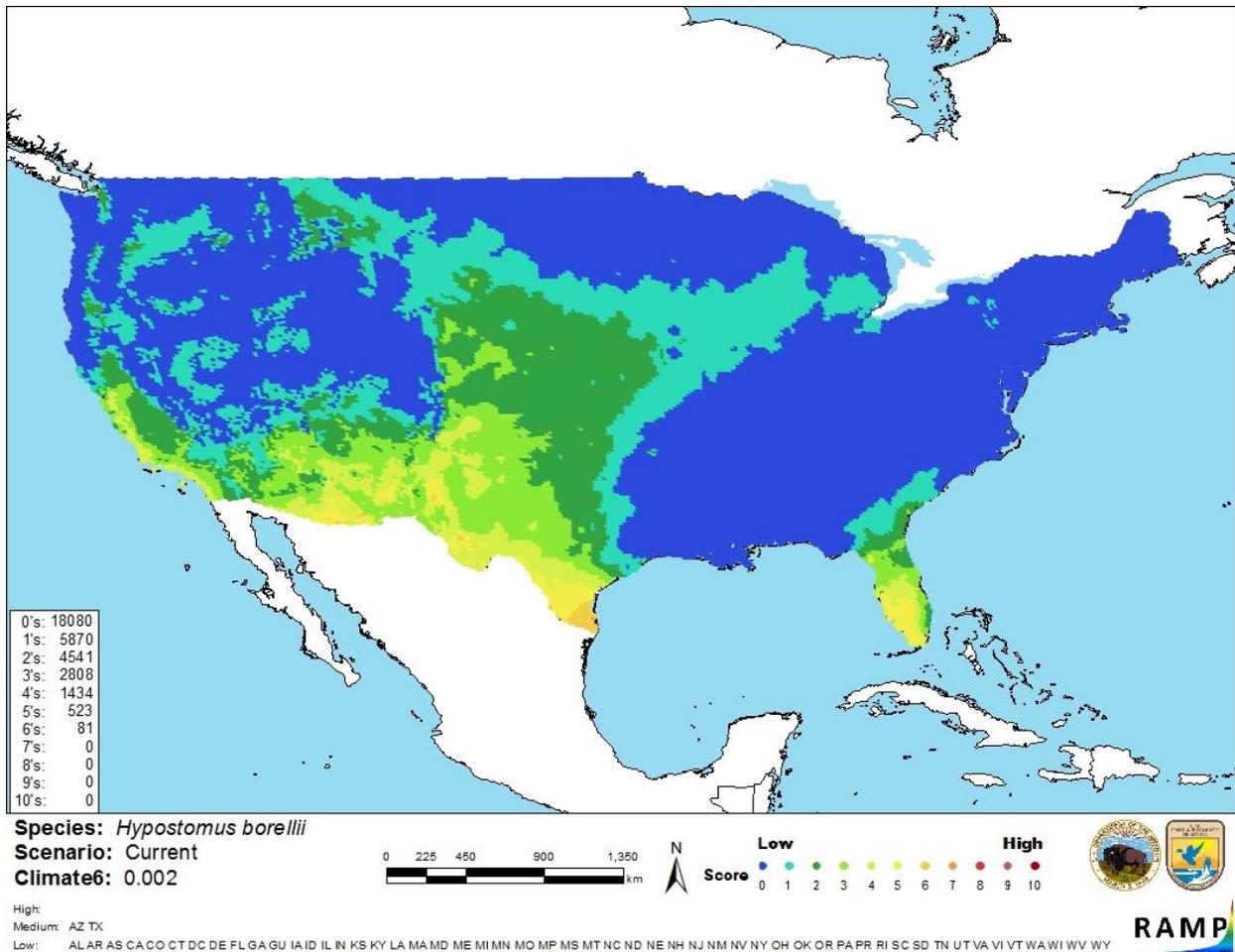


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Hypostomus borellii* in the contiguous United States based on source locations reported by VertNet (2018). 0 = Lowest match, 10 = Highest match.

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
$0.000 \leq X < 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

The certainty of assessment for *Hypostomus borellii* is low. There is virtually no general information about the species. No records of introduction were found, therefore there is no information regarding impacts of introduction. There is some dispute in the literature about whether *H. borellii* is present in Uruguay, which contributes to uncertainty in the climate match.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Hypostomus borellii is an armored catfish native to Argentina and Bolivia. There is uncertainty about whether its range includes Uruguay. The history of invasiveness is uncertain. No records of introduction were found therefore there is no information on impacts of introduction. The climate match is low but there were small areas of high match in southern Texas and the southwest. 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 borellii* (Boulenger, 1897). FishBase. Available: <http://www.fishbase.org/summary/Hypostomus-borellii.html>. (August 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Hypostomus borellii* (Boulenger, 1897). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680148#null. (August 2018).

Litz, T. O., and S. Koerber. 2014. Check list of the freshwater fishes of Uruguay (CLOFF-UY). *Ichthyological Contributions of PecesCriollos* 28:1–40.

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

VertNet. 2018. VertNet. Available: <http://portal.vertnet.org/search?q=%22Hypostomus+borellii%22>. (August 2018).

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.

Weber, C. 2003. Loricariidae - Hypostominae (armored catfishes). Pages 351–372 *in* R. E. Reis, S. O. Kullander, and C. J. Ferraris, Jr., editors. Checklist of the freshwater fishes of South and Central America. EDIPUCRS, Porto Alegre, Brazil.