

***Acestrorhynchus minimus* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, March 2014

Revised, January 2018

Web Version, 6/12/2018



Photo: Clinton and Charles Robertson. Licensed under Creative Commons (CC-BY-2.0).
Available: http://eol.org/data_objects/27764626. (January 2018).

1 Native Range, and Status in the United States

Native Range

From Eschmeyer et al. (2018):

“Distribution: Amazon and Orinoco River basins: Brazil and Venezuela and Brazil-Colombia border, Bolivia.”

Status in the United States

This species has not been reported as introduced or established in the United States. No evidence was found of this species being in trade in the United States.

Means of Introductions in the United States

This species has not been reported as introduced or established in the United States.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2018):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii
Infraclass Teleostei
Superorder Ostariophysi
Order Characiformes
Family Acestrorhynchidae
Genus *Acestrorhynchus*
Species *Acestrorhynchus minimus* (Menezes 1969)”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2017):

“Maturity: Lm ? range ? - ? cm
Max length : 6.3 cm SL male/unsexed; [Oyakawa 1998]”

Environment

From Froese and Pauly (2017):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2017):

“Tropical”

Distribution Outside the United States

Native

From Eschmeyer et al. (2018):

“Distribution: Amazon and Orinoco River basins: Brazil and Venezuela and Brazil-Colombia border, Bolivia.”

Introduced

This species has not been reported as introduced outside of its native range.

Means of Introduction Outside the United States

This species has not been reported as introduced outside of its native range.

Short Description

From Froese and Pauly (2017):

“Differs from *A. grandoculis* and *A. microlepis* for lack of a small, dark spot behind the opercle. Scales on lateral line 74-85; scale rows between the lateral line and the dorsal fin 12-14. Distinguishable from the remaining Venezuelan congeners, except *A. nasutus*, by its small size up to 9.15 cm SL and by the presence of a narrow, dark line that extends from behind the opercle to about two thirds of the body length [López-Fernández and Winemiller 2003].”

Biology

No information reported for this species.

Human Uses

No information reported for this species.

Diseases

No information available. No OIE reportable diseases have been documented for this species.

Threat to Humans

From Froese and Pauly (2017):

“Harmless”

3 Impacts of Introductions

There are no reported introductions for this species. Data on the impacts of introductions are lacking.

4 Global Distribution



Figure 1. Map of known global distribution of *Acestrorhynchus minimus*, reported from South America. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

This species has not been reported as introduced or established in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was medium for most of peninsular Florida and the southern Gulf Coast of Texas. The rest of the contiguous

United States had a low match. Climate 6 match indicated that the contiguous U.S. has a low climate match. The range for a low climate match is from 0.0 to 0.005, inclusive; Climate 6 match of *Acestrorhynchus minimus* was 0.003.

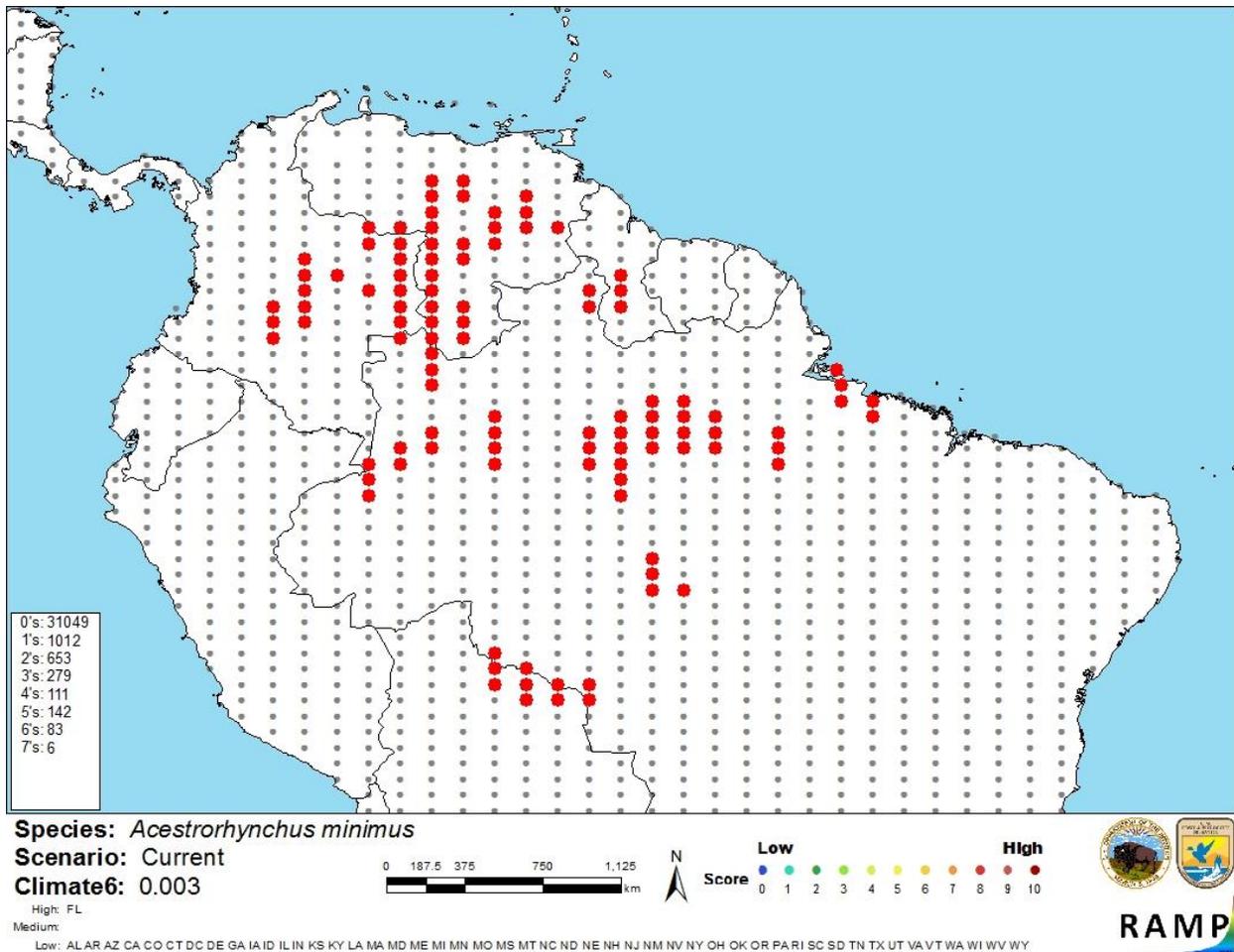


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in South America selected as source locations (red; Brazil, Bolivia, Colombia, Venezuela, and Guyana) and non-source locations (gray) for *Acestrorhynchus minimus* climate matching. Source locations from GBIF Secretariat (2017).

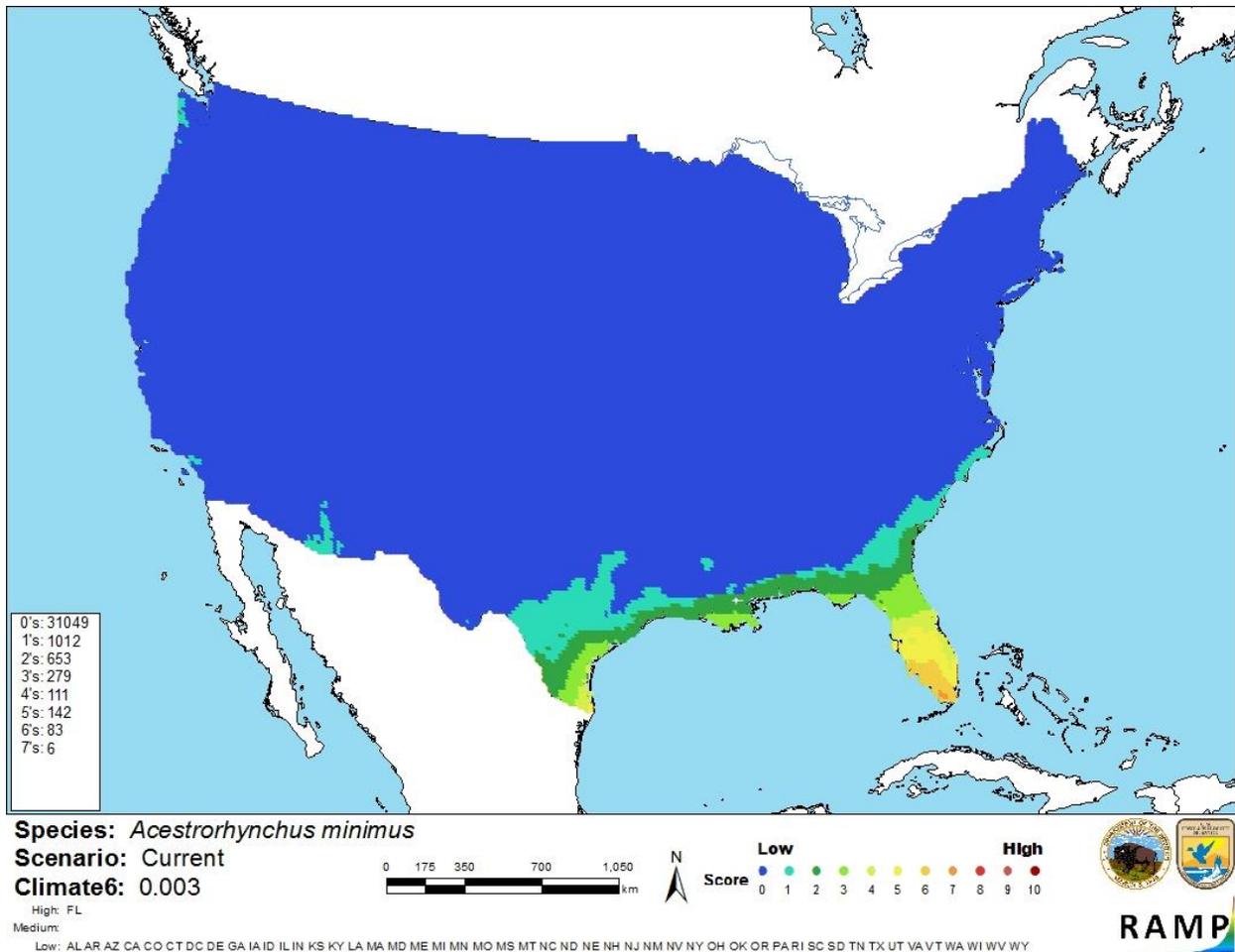


Figure 3. Map of RAMP (Sanders et al. 2017) climate matches for *Acestorhynchus minimus* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match.

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

7 Certainty of Assessment

Information on the biology and distribution of *A. minimus* is not widely available and scientific information on the impacts of introductions is lacking because no introductions of this species have been reported. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Acestrorhynchus minimus is a freshwater fish species native to South America. No introductions of this species have been reported. Climate match with the contiguous United States is low. More information is needed to understand the impacts from introductions of this species; absence of this information makes the certainty of this assessment low. Overall risk posed by this species is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **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.

- Encyclopedia of Life (EOL). 2017. *Acestrorhynchus minimus*. Available: <http://eol.org/pages/223193/media>. Photo license available: <http://creativecommons.org/licenses/by-nc/3.0/legalcode>. (March 2014).
- 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>. (January 2018).
- Froese, R. and D. Pauly, editors. 2017. *Acestrorhynchus minimum* Menezes, 1969. FishBase. Available: <http://www.fishbase.us/summary/Acestrorhynchus-minimus.html>. (January 2017).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Acestrorhynchus minimus* Menezes, 1969. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2355565> (January 2017).
- ITIS (Integrated Taxonomic Information System). 2018. *Acestrorhynchus minimus* (Menezes 1969). Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=640368. (January 2018).
- Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. 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.

López-Fernández, H., and K. O. Winemiller. 2003. Morphological variation in *Acestrorhynchus microlepis* and *A. falcatus* (Characiformes: Acestrorhynchidae), reassessment of *A. apurensis* and distribution of *Acestrorhynchus* in Venezuela. *Ichthyological Exploration of Freshwaters* 14(3):193-208.

Oyakawa, O. T. 1998. Catalogo dos tipos de peixes recentes do Museu de Zoologia da USP. I. Characiformes (Teleostei: Ostariophysi). *Papeis Avulsos de Zoologia (Sao Paulo)* 39(23):443-507.