Acestrorhynchus nasutus (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 & Charles Robertson. Licensed under Creative Commons (CC-BY-2.0). Available: http://eol.org/data_objects/27764628 (January 2018).

1 Native Range, and Status in the United States

Native Range

From Eschmeyer et al. (2017):

"Distribution: Amazon and Orinoco River basins and rivers of Guyana: Brazil, Colombia, Guyana and Venezuela."

From López-Fernández and Winemiller (2003):

"The only record for Venezuela is two *A. nasutus* specimens collected in 1989 (MCNG 23437) from Cano Cuchakén, a tributary of the Río Atabapo […] and a single specimen collected in

2002 from a tributary of the Río Ventuari (MCNG 45023). These collections represent a significant expansion of the range of the species, which was originally described from the Essequibo River at Rockstone, Guyana (Eigenmann, 1912)."

Status in the United States

This species has not been reported in the United States.

A 2009 post on the Atlanta Area Aquarium Association (2015) trading post website mentions *A. nasutus* in a list of species that the author is interested in selling at an upcoming Atlanta Area Aquarium Association event.

Means of Introductions in the United States

This species has not been reported as introduced 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 nasutus* Eigenmann, 1912"

"Taxonomic Status: valid"

Size, Weight, and Age Range

From Froese and Pauly (2018):

"Maturity: L_m ? range ? - ? cm
Max length : 6.9 cm SL male/unsexed; [Menezes 2003]"

Environment
From Froese and Pauly (2018):

"Freshwater; benthopelagic."

Climate/Range
From Froese and Pauly (2018):

"Tropical"

Distribution Outside the United States
Native
From Eschmeyer et al. (2017):

"Distribution: Amazon and Orinoco River basins and rivers of Guyana: Brazil, Colombia, Guyana and Venezuela."

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 (2018):

"A dark, longitudinal band extending from the tip of the snout through the base of the caudal fin; and snout long 42.8-48.0% HL, which distinguishes this species from all its congeners except some juvenile specimens of *A. microlepis* and *A. falcatus* [López-Fernández and Winemiller 2003]."

Biology
No information reported for this species.

Human Uses
A 2009 post on the Atlanta Area Aquarium Association (2015) trading post website mentions *A. nasutus* in a list of species that the author is interest in selling at an upcoming Atlanta Area Aquarium Association event.

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

Threat to Humans

From Froese and Pauly (2018):

"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 nasutus*, reported from South America. Map from GBIF Secretariat (2017). The easternmost point is outside the known established range of *A. nasutus* so it was excluded from the climate matching analysis.

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. 2018; 16 climate variables; Euclidean Distance) was medium on the Atlantic coast of Florida. The rest of the United States matched low. Climate 6 match indicated that the contiguous U.S. has a low climate match. The range for a low climate match is from 0.000 to 0.005, inclusive; Climate 6 match of *Acestrorhynchus nasutus* is 0.000.

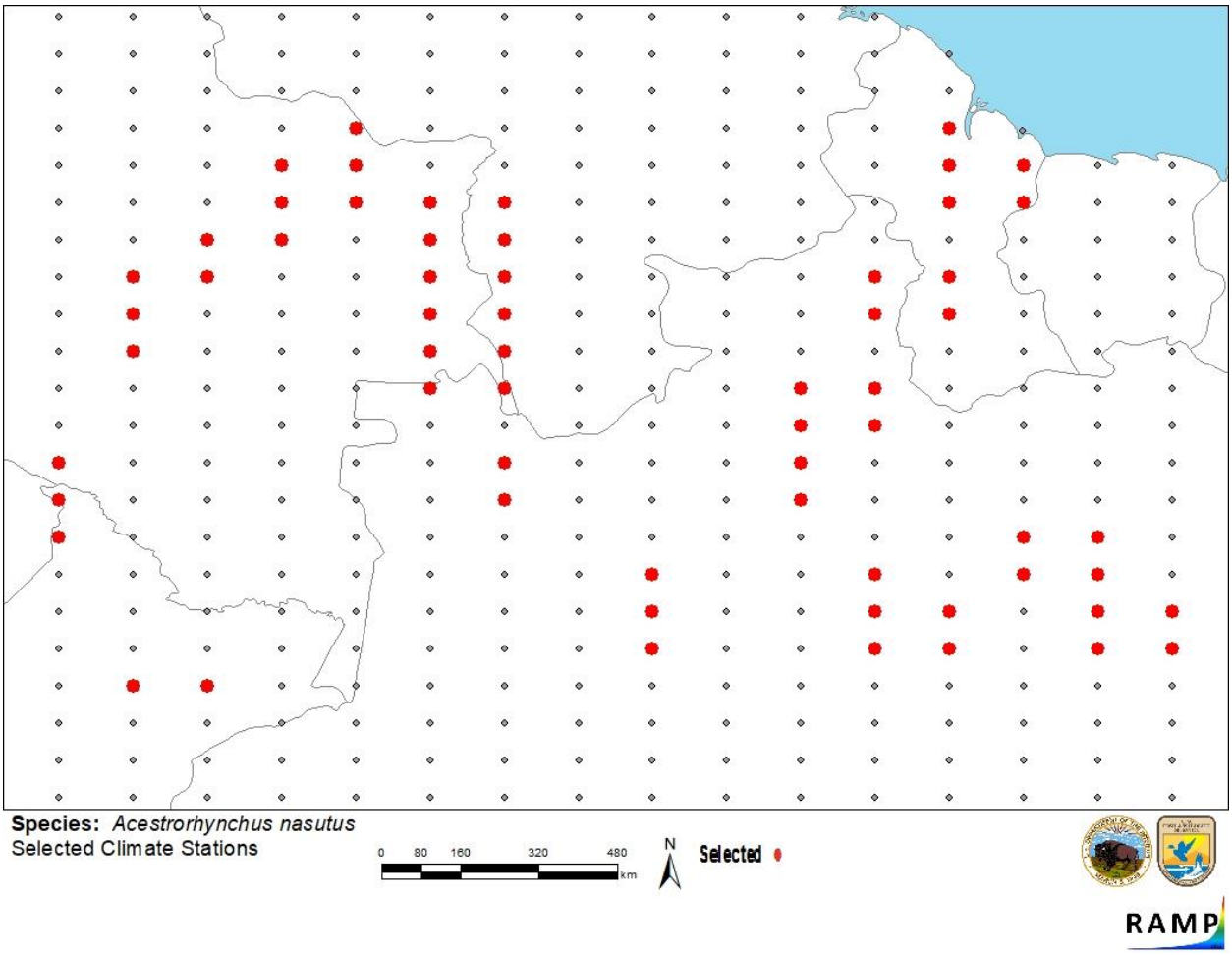

Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in northern South America selected as source locations (red; Brazil, Guyana, Venezuela, Colombia, Peru) and non-source locations (gray) for *Acestrorhynchus nasutus* climate matching. Source locations from GBIF Secretariat (2017).

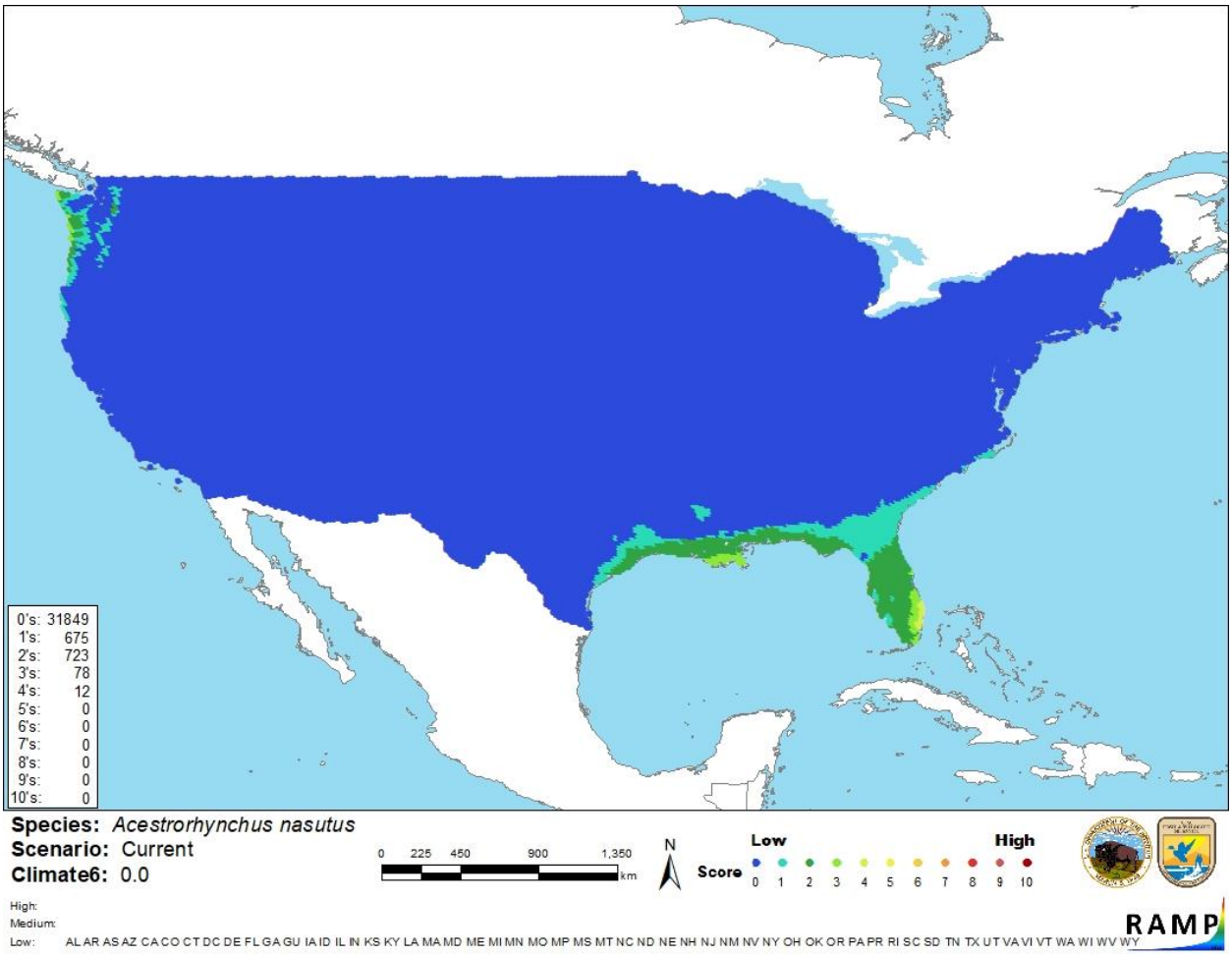

Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Acestrorhynchus nasutus* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match.

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

7 Certainty of Assessment

Information on the biology and distribution of *A. nasutus* is not widely available and scientific information on the impacts of introductions is lacking. 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 nasutus 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.

Atlanta Area Aquarium Association. 2015. Fish for sale. Available: http://www.atlantaaquarium.com/showthread.php/956-Fish-for-Sale. (June 2018).

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Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2017. 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 nasutus* Eigenmann, 1912. FishBase. Available: http://www.fishbase.us/summary/Acestrorhynchus-nasutus.html. (January 2018).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Acestrorhynchus nasutus* (Eigenmann 1912). Global Biodiversity Information Facility, Copenhagen. Available: http://www.gbif.org/species/2355585 (June 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Acestrorhynchus nasutus* (Eigenmann 1912). Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=640369 (January 2018).

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 Explorations of Freshwater 14(3):193-208.

Sanders, S., C. Castiglione, and M. H. 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.

Eigenmann, C. H. 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(1):i-xxii, 1-578.

Menezes, N. A. 2003. Family Acestrorhynchidae (Acestrorhynchids). Pages 231-233 *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.