

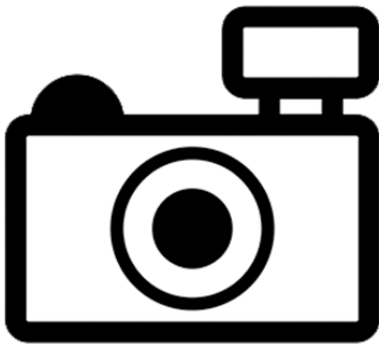
***Acestrorhynchus abbreviatus* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, March 2014

Revised, January 2018

Web Version, 5/23/2018



No Photo Available

1 Native Range, and Status in the United States

Native Range

From Froese and Pauly (2017a):

“South America: Upper Amazon and Rio Madeira basins.”

From Eschmeyer et al. (2017):

“Upper Amazon and Madeira River basins: Brazil, Colombia, Bolivia, Ecuador and Peru.”

Status in the United States

This species has not been reported in the United States. There is no indication that this species is in trade in the United States.

Means of Introductions in the United States

This species has not been reported in the United States.

Remarks

From López-Fernández and Winemiller (2003):

“*Acestrorhynchus* Eigenmann & Kennedy is a genus of piscivorous characiform fishes previously included in the family Characidae, but recently classified in its own family, Acestrorhynchidae (Buckup, 1998). Although relationships within the Characiformes are not well resolved, the Acestrorhynchidae appears to be part of a clade including the piscivorous Cynodontidae (Vari, 1995; Buckup, 1998; Lucena & Menezes, 1998).”

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 abbreviatus* Cope, 1878”

“Taxonomic Status: valid”

From Eschmeyer et al. (2018):

“Current status: Valid as *Acestrorhynchus abbreviatus* (Cope 1878).”

Size, Weight, and Age Range

From Froese and Pauly (2017a):

“[...] Max length : 22.0 cm SL male/unsexed; (Menezes 2003).”

Environment

From Froese and Pauly (2017a):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2017a):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2017a):

“South America: Upper Amazon and Rio Madeira basins.”

From Eschmeyer et al. (2017):

“Upper Amazon and Madeira River basins: Brazil, Colombia, Bolivia, Ecuador and Peru.”

Introduced

No introductions of this species have been reported.

Means of Introduction Outside the United States

No introductions of this species have been reported.

Short Description

From Froese and Pauly (2017b):

“Fishes of this family are characterized by very elongate (pike-like) bodies covered with relatively small scales. All teeth are conical and strong canines are present on the premaxilla, anterior part of the maxilla and the dentary.”

From Toledo-Piza (2007):

“Species of the *lacustris* group (Menezes, 1992) are characterized by the presence of a well-defined black, rounded humeral spot, with the group comprised of [...] *Acestrorhynchus abbreviatus* (Cope, 1878) [...]”

“*Acestrorhynchus abbreviatus* [...] have paired ventral diverging lamellae. These lamellae are situated somewhat medially relative to the lateral margin of the mesethmoid, and gradually decrease in size posteriorly as they approach the lateral ethmoid.”

“Although the foramen of the mesethmoid bone is also located ventral to the lateral wing of the mesethmoid in *A. abbreviatus* [...] the shelf formed at the posterior region of the lateral wings of the mesethmoid is less developed and does not extend as far posteriorly [...]. In addition, the posterior margin of the lateral wing of the mesethmoid is somewhat directed ventrally [...]”

“*A. abbreviatus* [...] lack gill rakers on the trailing edge of all ceratobranchials.”

Biology

From López-Fernández and Winemiller (2003):

“*Acestrorhynchus* Eigenmann & Kennedy is a genus of piscivorous characiform fishes.”

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 (2017a):

“Harmless”

3 Impacts of Introductions

No introductions of this species have been reported. Data on the impacts of introductions are lacking.

4 Global Distribution



Figure 1. Map of known global distribution of *Acestrorhynchus abbreviatus*, reported from South America. Map from GBIF Secretariat (2017). The point in southern Brazil was not included in the climate matching analysis because it is not established outside the Upper Amazon and Madeira River basins (Froese and Pauly 2017a).

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 in peninsular Florida, with the highest match occurring in southeastern Florida. Low matches occurred throughout the remainder of the contiguous United States. Climate 6 score indicated an overall low climate match for the contiguous United States. The range of scores indicating a low match is 0.005 and below; the Climate 6 score of *Acestrorhynchus abbreviatus* was 0.004.

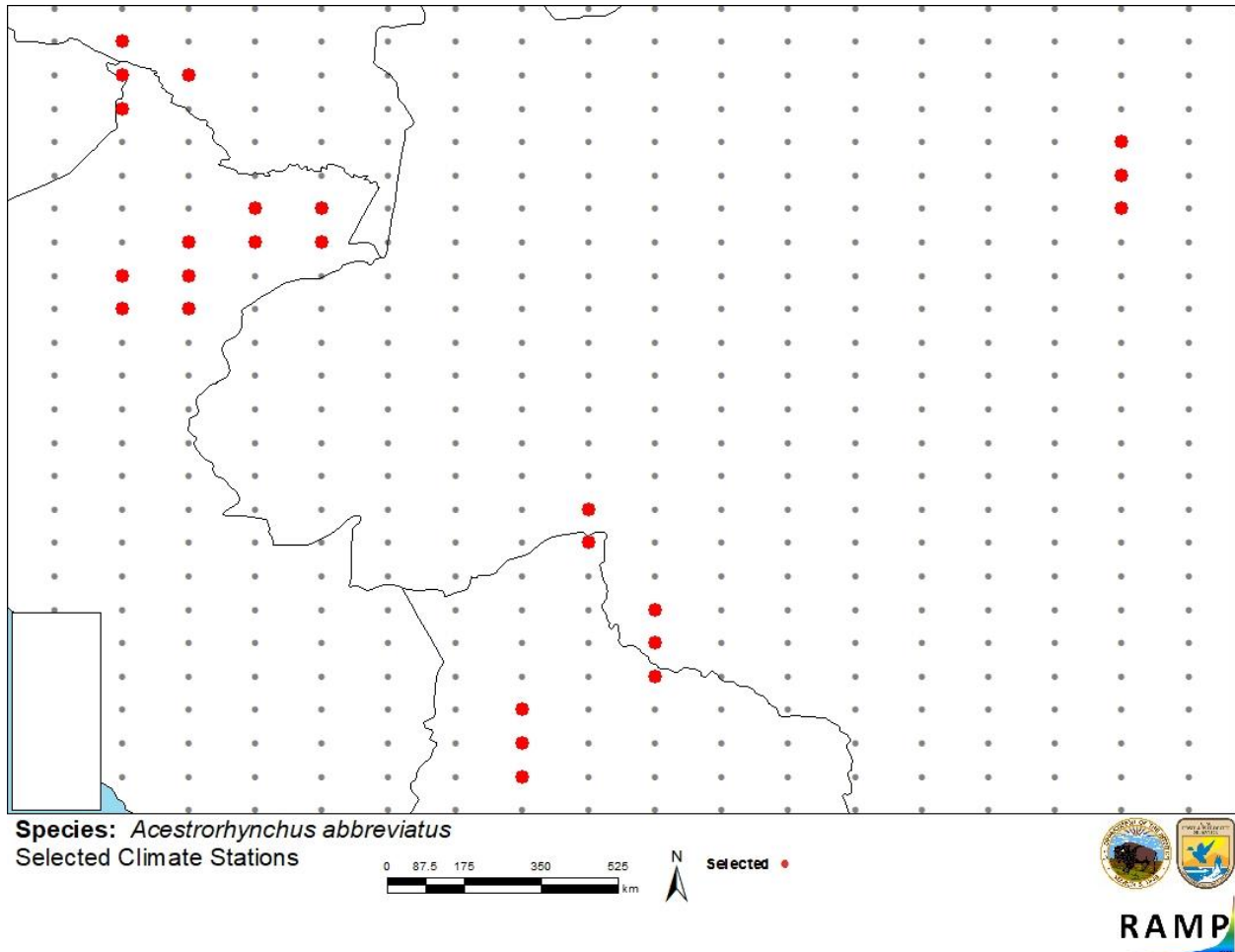


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in South America selected as source locations (red; Brazil, Colombia, Peru, and Bolivia) and non-source locations (gray) for *Acestrorhynchus abbreviatus* climate matching. Source locations from GBIF Secretariat (2017).

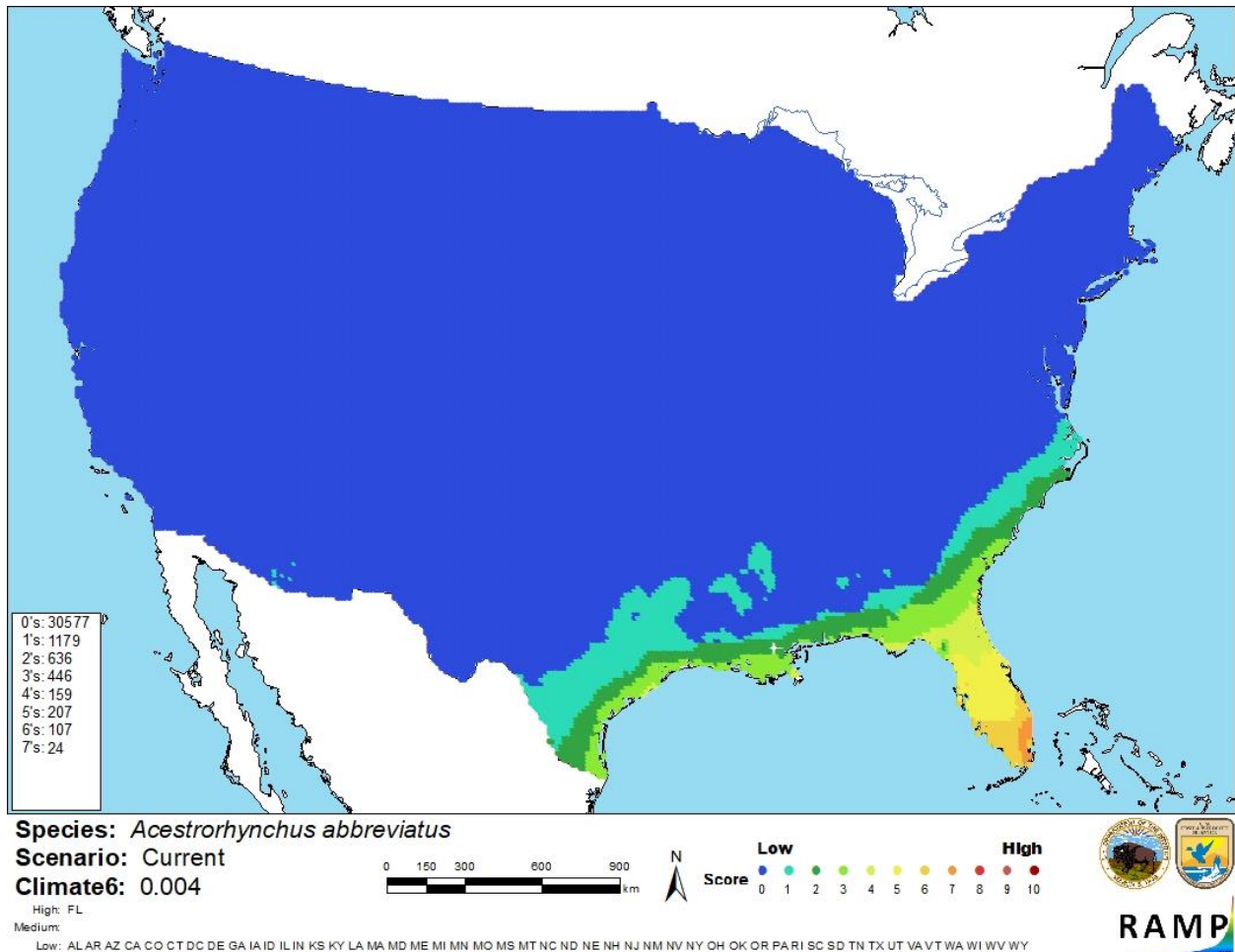


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Acestorhynchus abbreviatus* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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 of *A. abbreviatus* is not widely available. No introductions of this species have been reported. Therefore, scientific information on the impacts of introductions is lacking. Absence of this information makes the certainty of this assessment low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Acestrorhynchus abbreviatus is a freshwater fish native to northern South America. It has not been reported as introduced outside of its natural range. Data on impacts of introductions are lacking; absence of this information makes the certainty of this assessment low. Climate match with the contiguous United States is 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.

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. 2017a. *Acestrorhynchus abbreviatus* (Cope, 1878). FishBase. Available: <http://www.fishbase.se/summary/Acestrorhynchus-abbreviatus.html>. (January 2018).

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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.

Buckup, P. 1998. Relationships of the Characidiinae and phylogeny of characiform fishes (Teleostei: Ostariophysi). Pages 123-144 in L. Malabarba, R. Reis, R. Vari, Z. Lucena, and C. Lucena, editors. Phylogeny and classification of Neotropical fishes. EdIPUCRS, Porto Alegre, Brazil.

Lucena, C., and N. Menezes. 1998. A phylogenetic analysis of *Roestes* Günther and *Gilbertolus* Eigenmann, with a hypothesis on the relationships of the Cynodontidae and Acestrorhynchidae (Teleostei: Ostariophysi: Characiformes). Pages 261-278 in L. R. Malabarba, R. E. Reis, R. P. Vari, Z. M. Lucena, and C. Lucena, editors. Phylogeny and classification of Neotropical fishes. EdIPUCRS, Porto Alegre, Brazil.

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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, Brasil.

Vari, R. P. 1995. The Neotropical fish family Ctenoluciidae (Teleostei: Ostariophysi: Characiformes): supra and intrafamilial relationships, with a revisionary study. Smithsonian Contributions to Zoology 564:1-97.