

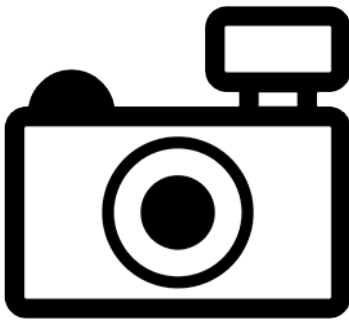
***Trichomycterus albinotatus* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, December 2016

Revised, March 2017

Web Version, 4/24/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: Preto River, tributary of Paraíba do Sul River in Brazil.”

Status in the United States

This species has not been reported as introduced in the United States. This species is not reported to be in trade in the United States.

From FFWCC (2016):

“Prohibited nonnative species are considered to be dangerous to the ecology and/or the health and welfare of the people of Florida. These species are not allowed to be personally possessed or used for commercial activities. Very limited exceptions may be made by permit from the Executive Director [...] [The list of prohibited nonnative species includes] *Trichomycterus albinotatus*”

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 (2016):

- Kingdom Animalia
 - Subkingdom Bilateria
 - Infrakingdom Deuterostomia
 - Phylum Chordata
 - Subphylum Vertebrata
 - Infraphylum Gnathostomata
 - Superclass Osteichthyes
 - Class Actinopterygii
 - Subclass Neopterygii
 - Infraclass Teleostei
 - Superorder Ostariophysi
 - Order Siluriformes
 - Family Trichomycteridae
 - Subfamily Trichomycterinae
 - Genus *Trichomycterus*
 - Species *Trichomycterus albinotatus* Costa, 1992”

“Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length: 4.6 cm male/unsexed; [de Pinna and Wosiacki 2003]”

Environment

From Froese and Pauly (2016):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: Preto River, tributary of Paraíba do Sul River in Brazil.”

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 Bockmann and Sazima (2004):

“Several species of *Trichomycterus* display a two-layer pattern of pigmentation [...] The deeper layer of pigmentation is usually composed of larger blotches and spots, formed by densely grouped chromatophores. [...] The blotches of each row may sometimes coalesce, forming [...] an interrupted longitudinal stripe (e.g., *T. albinotatus* [...]) [...] Pectoral-fin ray number is [...] usually I+7 (e.g. *T. albinotatus* [...]) [...].”

Biology

No information available.

Human Uses

No information available.

Diseases

No information available.

Threat to Humans

From Froese and Pauly (2016):

“Harmless”

3 Impacts of Introductions

No introductions of this species have been reported. The Florida Fish and Wildlife Conservation Commission has listed the parasitic catfish *T. albinotatus* as a prohibited species.

4 Global Distribution



Figure 1. Known global established locations of *T. albinotatus*, reported in Brazil. Map from GBIF (2016).

5 Distribution Within the United States

This species has not been reported as introduced 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 high along parts of the southern Florida coast, medium in the remainder of peninsular Florida and coastal Texas, and low elsewhere in the contiguous U.S. Climate 6 proportion indicated that the contiguous U.S. has a medium climate match overall. Proportions between 0.005 and 0.103 indicate a medium climate match; the Climate 6 proportion for *T. albinotatus* was 0.007.



Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in South America selected as source locations (red; southeastern Brazil) and non-source locations (gray) for *T. albinotatus* climate matching. Source locations from GBIF (2016).

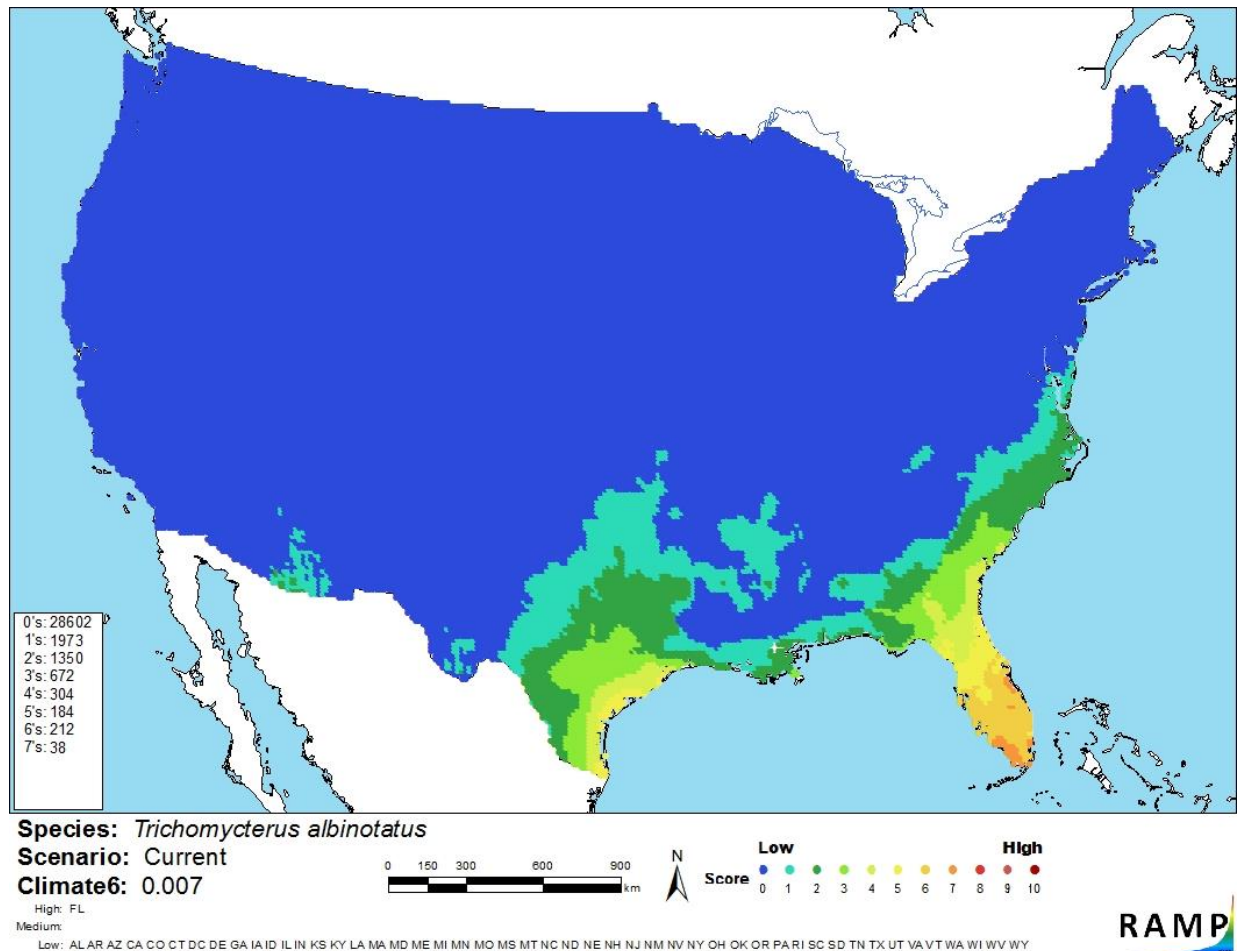


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. albinotatus* in the contiguous United States based on source locations reported by GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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

7 Certainty of Assessment

The biology and ecology of *T. albinotatus* are poorly known. It has never been introduced outside its native range, so impacts of introduction remain unknown. The certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

T. albinotatus is a catfish known only from a tributary of the Paraíba do Sul River in Brazil. It has a medium climate match to the contiguous United States. *T. albinotatus* has not been introduced outside of its native range. Without being able to observe introductions in other parts of the world, it is impossible to know the potential impacts of introduction of *T. albinotatus* to the U.S. The Florida Fish and Wildlife Conservation Commission has listed the parasitic catfish *T. albinotatus* as a prohibited species. The overall risk of this species is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Medium**
- **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.

Bockmann, F., and I. Sazima. 2004. *Trichomycterus maracaya*, a new catfish from the upper rio Paraná, southeastern Brazil (Siluriformes: Trichomycteridae), with notes on the *T. brasiliensis* species-complex. *Neotropical Ichthyology* 2(2):61-74.

FFWCC (Florida Fish and Wildlife Conservation Commission). 2016. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/>. (December 2016).

Froese, R., and D. Pauly, editors. 2016. *Trichomycterus albinotatus* Costa, 1992. FishBase. Available: <http://www.fishbase.se/summary/58383>. (December 2016).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Trichomycterus albinotatus* Costa, 1992. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2342974>. (December 2016).

ITIS (Integrated Taxonomic Information System). 2016. *Trichomycterus albinotatus* Eigenmann, 1912. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682172#null. (December 2016).

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.

de Pínna, M. C. C., and W. Wosiacki. 2003. Trichomycteridae (pencil or parasitic catfishes). Pages 270-290 *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.