

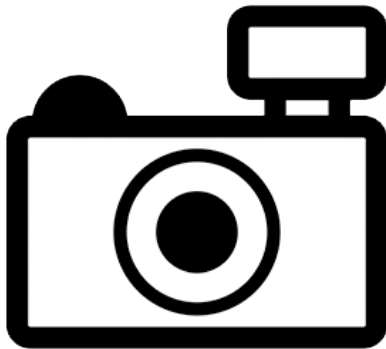
***Trichomycterus santaeritae* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, December 2016

Revised, May 2017

Web Version, 5/4/2018



No Photo Available

1 Native Range, and Status in the United States

Native Range

From Froese and Pauly (2016):

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

Status in the United States

This species has not been reported as introduced or established in the U.S.

From FFWCC (2017):

“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 santaeritae*”

Means of Introductions in the United States

This species has not been reported as introduced or established in the U.S.

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 santaeritae* (Eigenmann, 1918)”

From Eschmeyer et al. (2016):

“Current status: Valid as *Trichomycterus santaeritae* (Eigenmann 1918). Trichomycteridae: Trichomycterinae.”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 6.6 cm male/unsexed; [de Pínna 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, Paraíba do Sul River basin in Brazil.”

Introduced

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

Means of Introduction Outside the United States

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

Short Description

From de Pínna (1989):

“Eigenmann (1918: 341) described the teeth of *T. santaeritae* as "in a single series or in a very narrow band." [...] Another remarkable feature is the length of the nasal barbels, which are very short in [...] *T. santaeritae*. [...] Although not mentioned in the description, the bony base of the maxillary barbel illustrated for *T. santaeritae* seems to be very elongate [...] Another noteworthy character present in *T. santaeritae* is the very large eye [...]"

Biology

No information available.

Human Uses

No information available.

Diseases

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

Threat to Humans

From Froese and Pauly (2016):

“Harmless”

3 Impacts of Introductions

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

The Florida Fish and Wildlife Conservation Commission has listed the parasitic catfish *Trichomycterus santaeritae* as a prohibited species (FFWCC 2017).

4 Global Distribution



Figure 1. Distribution of *Trichomycterus santaeritae*, reported from Brazil. Map from GBIF (2016).

5 Distribution Within the United States

This species has not been reported as introduced or established in the U.S.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was medium to high in peninsular Florida and low throughout the rest of the contiguous U.S. Climate 6 proportion indicated that the contiguous U.S. has a low climate match. Proportions less than or equal to 0.005 are classified as low match; the Climate 6 proportion for *Trichomycterus santaeritae* was 0.004.

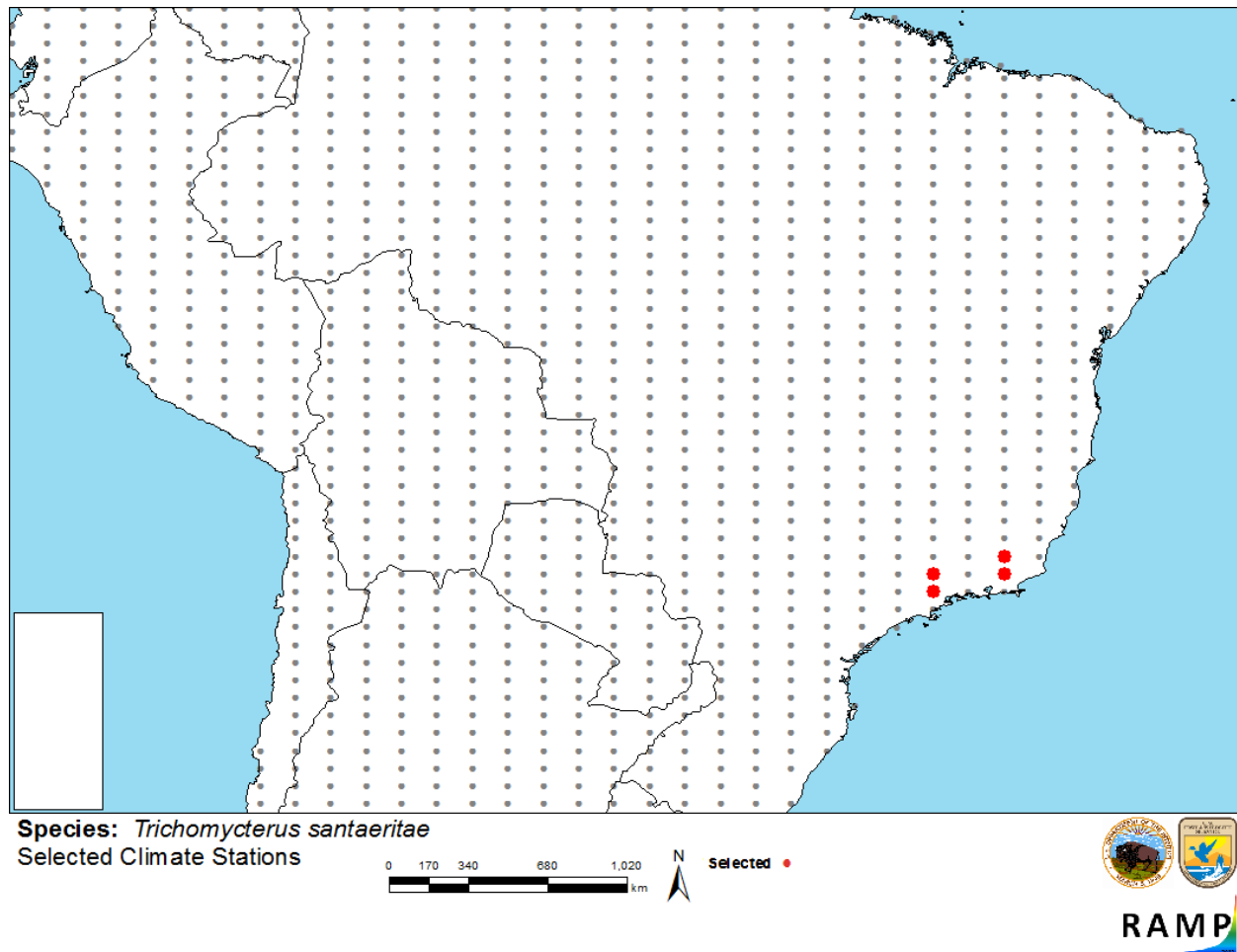


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in South America selected as source locations (red; eastern Brazil) and non-source locations (gray) for *Trichomycterus santaeritae* climate matching. Source locations from GBIF (2016).

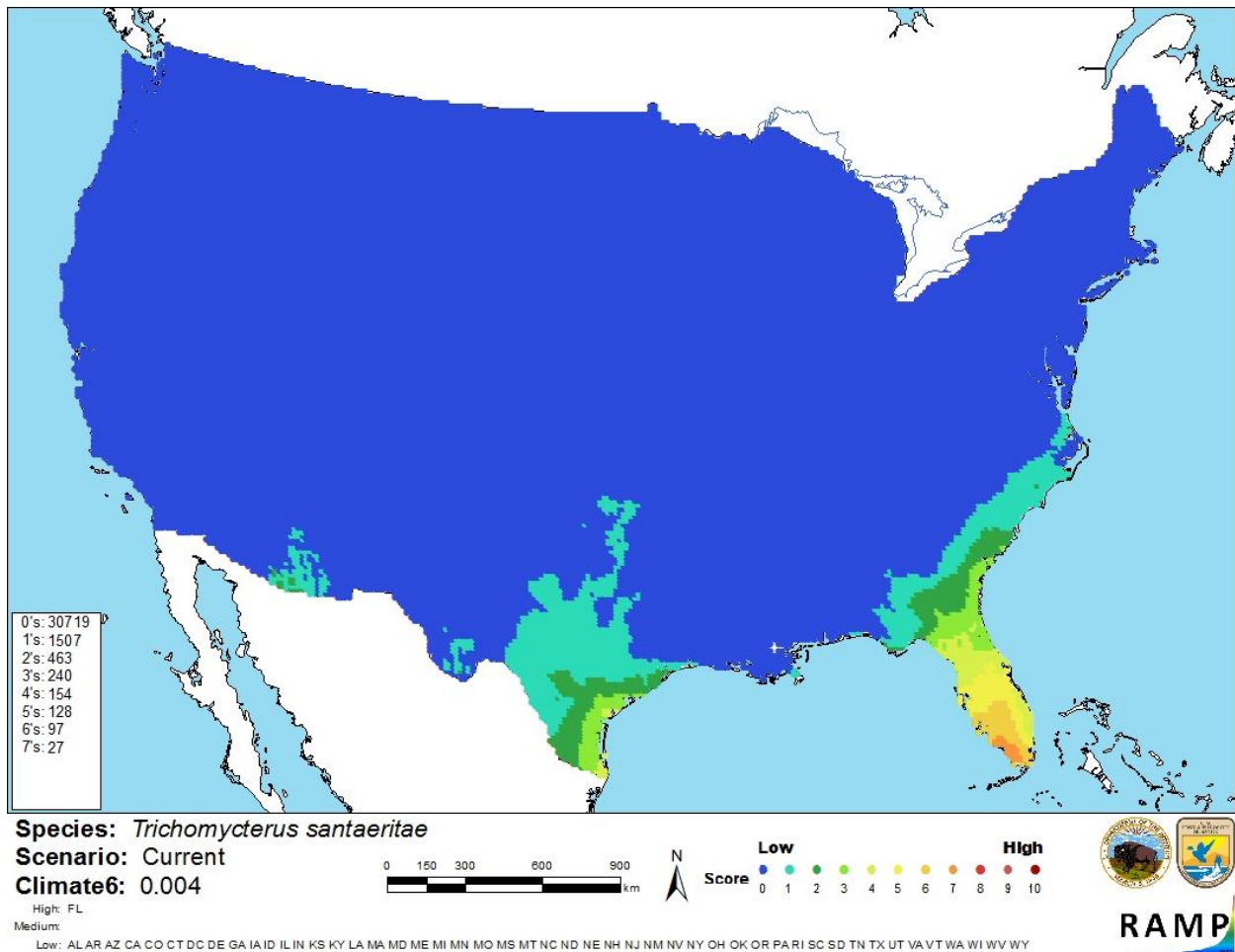


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Trichomycterus santaeritae* in the contiguous United States based on source locations reported by GBIF (2016). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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

There is little information available on the biology and habitat of *T. santaeritae*. There are only two locations of occurrence for this species on which to base the climate match. Further information would be needed to adequately assess the risk this species poses. Certainty of this assessment is low because of the lack of information.

8 Risk Assessment

Summary of Risk to the Continental United States

Trichomycterus santaeritae is a small catfish native to Brazil. *T. santaeritae* has a low climate match with the United States. There are no documented introductions of this species outside of its native range from which to evaluate a history of invasiveness. The Florida Fish and Wildlife Conservation Commission has listed the parasitic catfish *T. santaeritae* as a prohibited species. Overall risk assessment category for 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.

- de Pínna, M. C. C. 1989. A new sarcoglanidine catfish, phylogeny of its subfamily, and an appraisal of the phyletic status of the Trichomycterinae (Teleostei, Trichomycteridae). *American Museum Novitates* 2950:1-39.
- Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2016. *Catalog of fishes: genera, species, references*. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (December 2016).
- FFWCC (Florida Fish and Wildlife Conservation Commission). 2017. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/>. (May 2017).
- Froese, R., and D. Pauly, editors. 2016. *Trichomycterus santaeritae* (Eigenmann, 1918). FishBase. Available: <http://www.fishbase.org/summary/Trichomycterus-santaeritae.html>. (December 2016).
- GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Trichomycterus santaeritae*, Eigenmann, 1918. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2342985>. (December 2016).
- ITIS (Integrated Taxonomic Information System). 2016. *Trichomycterus santaeritae* (Eigenmann, 1918). Integrated Taxonomic Information System, Reston, Virginia. Available:

https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682259#null. (December 2016).

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

Eigenmann, C. 1918. The Pygidiidae, a family of South American catfishes. *Memoirs of the Carnegie Museum* 7(5):259-398.