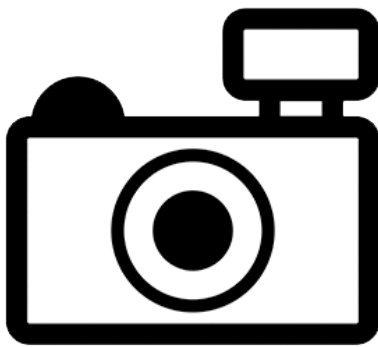


# ***Trichomycterus reinhardti* (a catfish, no common name)**

## **Ecological Risk Screening Summary**

U.S. Fish and Wildlife Service, January 2017  
Revised, April 2017  
Web Version, 5/4/2018



No Photo Available

## **1 Native Range and Status in the United States**

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### **Native Range**

From Froese and Pauly (2016):

“South America: upper São Francisco 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 reinhardti*”

### **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

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### Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2017):

“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 reinhardti* (Eigenmann, 1917)”

From Eschmeyer et al. (2017):

“Current status: Valid as *Trichomycterus reinhardti* (Eigenmann 1917). Trichomycteridae: Trichomycterinae.”

### Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 6.5 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: upper São Francisco 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 Eigenmann (1917):

“Head 6.5; D. 9.5; A. 8.5 counting the minute rudimentary rays in both dorsal and anal; P. 6; eye in anterior half of head; interocular 3 in head. Teeth conic.”

“Nasal barbel nearly as long as the maxillary barbel which reaches the edge of the gill-membrane. First pectoral ray with its filament equal to the length of the head, much longer than the divided rays; ventrals reaching beyond the vent, their origin very little nearer tip of pectorals than base of middle caudal rays; origin of anal under middle of dorsal; distance between the base of the last anal ray and the middle caudal rays five and a half in the length; caudal narrow, a little longer than the head, the accessory rays inconspicuous; origin of dorsal over middle of ventrals, its distance from the middle caudal rays nearly two in its distance from the snout (19 and 36 mm. respectively).”

“A broad, dark stripe with notched edges from opercle to middle of caudal, bordered above and below by light bands; an irregular series of spots below the lower light band; a series of small spots more or less confluent forming a narrow, dark stripe above the upper light band; back and fins lightly spotted, a short dark bar in front of the opercle, a longer one above the middle of preopercle.”

## **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

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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 reinhardti* as a prohibited species (FFWCC 2017).

## 4 Global Distribution

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**Figure 1.** Distribution of *Trichomycterus reinhardti* in southeastern Brazil. Map from GBIF (2016). The southernmost occurrence is not within the known range of the species (see Distribution Outside the United States) and was excluded from climate matching.

## 5 Distribution Within the United States

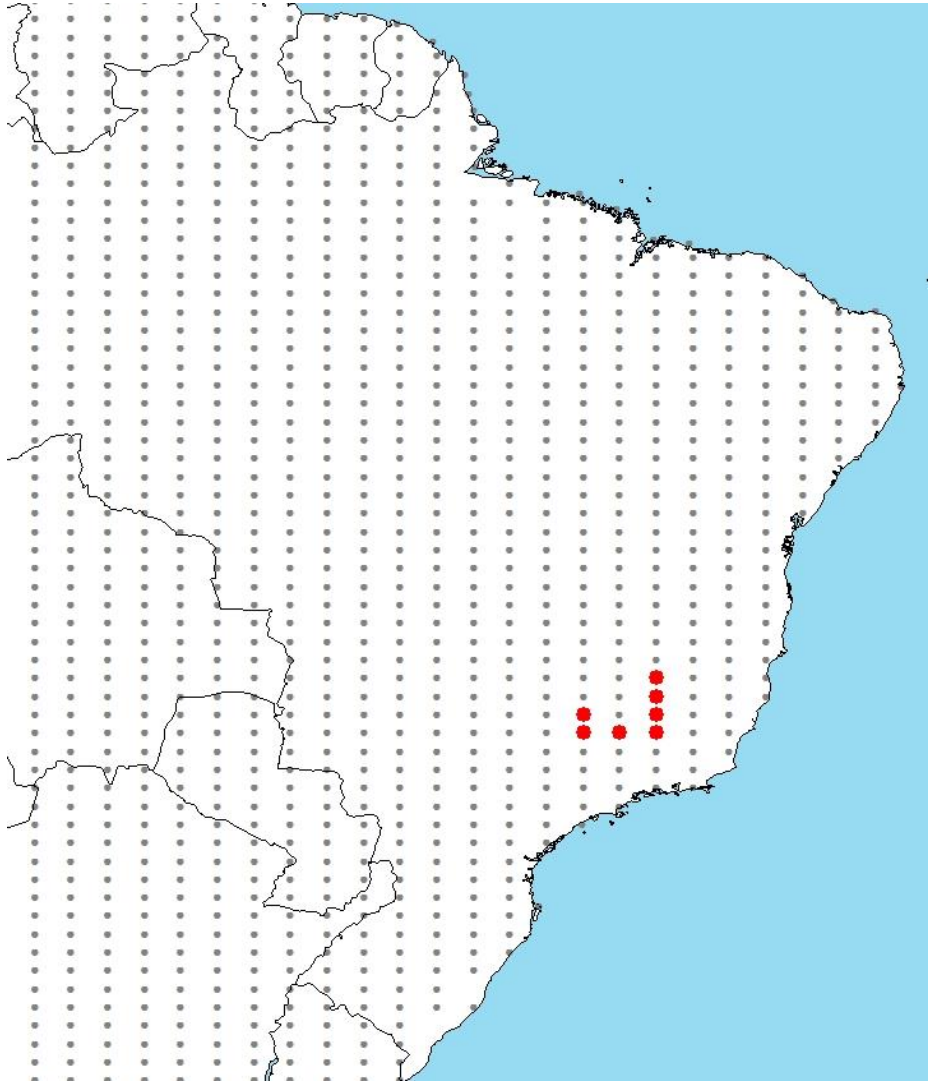
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This species has not been reported as introduced or established in the U.S.

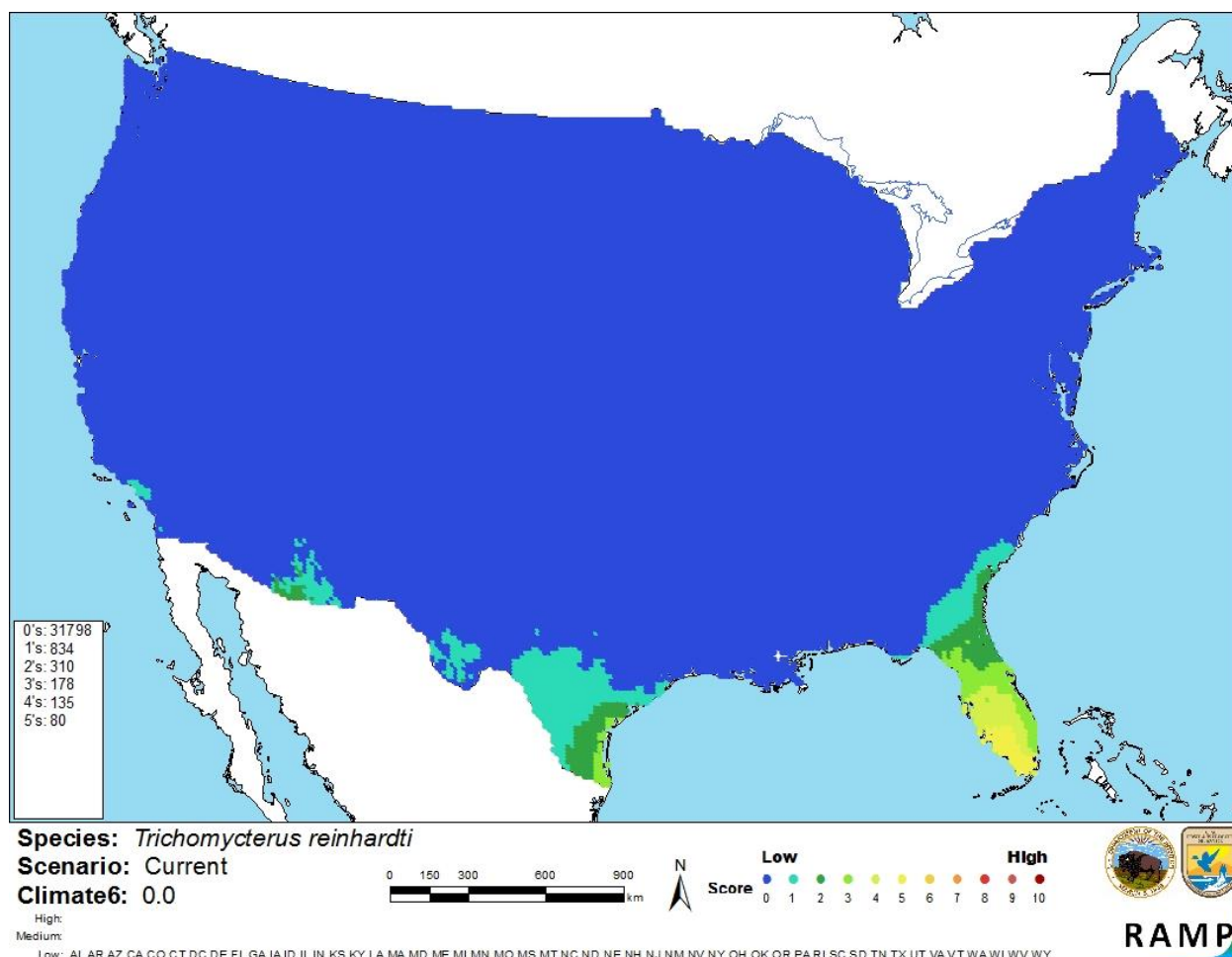
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was medium in southern Florida and low throughout the rest of the U.S. Climate 6 proportion indicated that the contiguous U.S. has a low climate match. Climate 6 proportions that indicate a low climate match are those equal to or less than 0.005; the Climate 6 proportion of *Trichomycterus reinhardti* was 0.000.



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



**Figure 3.** Map of RAMP (Sanders et al. 2014) climate matches for *Trichomycterus reinhardti* 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<br>(Sum of Climate Scores 6-10) / (Sum of total Climate Scores) | Climate Match<br>Category |
|------------------------------------------------------------------------------------------|---------------------------|
| $0.000 \leq X \leq 0.005$                                                                | Low                       |
| $0.005 < X < 0.103$                                                                      | Medium                    |
| $\geq 0.103$                                                                             | High                      |

## 7 Certainty of Assessment

There is little information available on *T. reinhardti*, including no information on the biology of the species. No negative impacts from introductions of this species have been documented because this species has never been reported outside of its native range. Further information is needed to assess the risk poses to the U.S. Certainty of this assessment is low.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Trichomycterus reinhardti* is a small catfish native to the São Francisco River basin in Brazil. This species has a low climate match with the U.S., with the area of highest match located in Florida. The Florida Fish and Wildlife Conservation Commission has listed the parasitic catfish *T. reinhardti* as a prohibited species. This species has no documented history of invasiveness. 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

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**Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.**

Eigenmann, C. H. 1917. Descriptions of sixteen new species of Pygidiidae. *Proceedings of the American Philosophical Society* 56:690-703.

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>. (January 2017).

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/>. (April 2017).

Froese, R., and D. Pauly, editors. 2016. *Trichomycterus reinhardti* (Eigenmann, 1917). FishBase. Available: <http://www.fishbase.org/summary/Trichomycterus-reinhardti.html>. (January 2017).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Trichomycterus reinhardti* (Eigenmann, 1917). Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2343010>. (January, April 2017).

ITIS (Integrated Taxonomic Information System). 2016. *Trichomycterus reinhardti* (Eigenmann, 1917). Integrated Taxonomic Information System, Reston, Virginia. Available: [https://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=682253#null](https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682253#null). (January 2017).

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**

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**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.