

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

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, December 2016

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Web Version, 4/30/2018

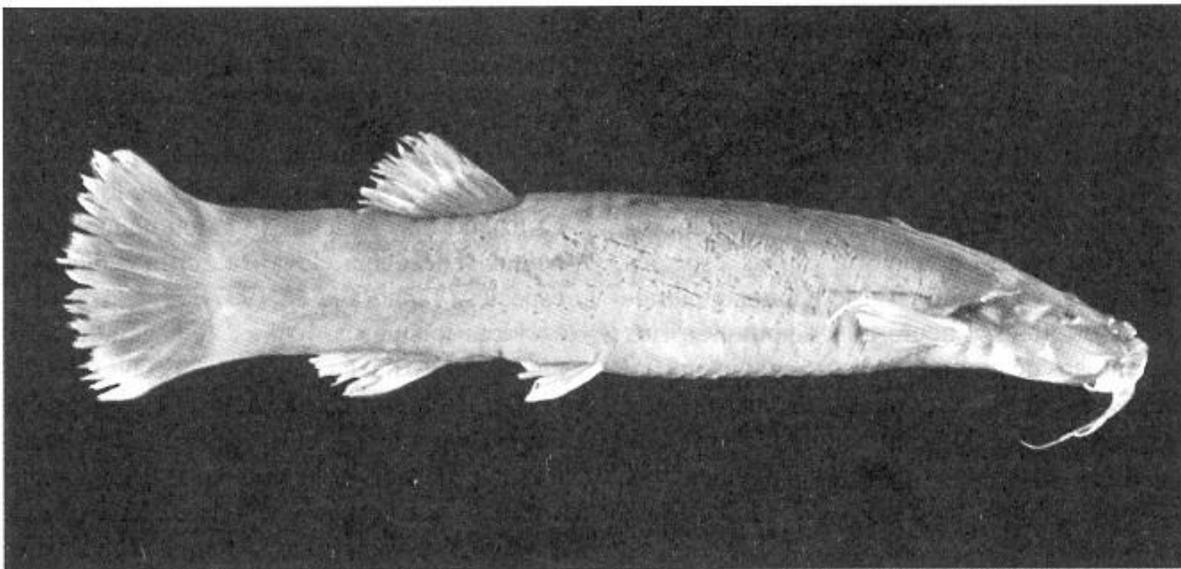


Photo: Lasso and Provenzano (2002). Licensed under Creative Commons.

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: Venezuela.”

Status in the United States

This species has not been reported in the United States.

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 celsae*”

Means of Introductions in the United States

This species has not been reported 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 celsae* Lasso and Provenzano, 2002”

“Taxonomic Status: valid”

Size, Weight, and Age Range

No information available.

Environment

From Froese and Pauly (2016):

“Freshwater; demersal.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: Venezuela.”

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 Lasso and Provenzano (2002):

“*Trichomycterus celsae* has a uniform light brown color on dorsum and sides of the body; the ventral surface is yellowish or creamy. [...] in *T. celsae*, the skull has the fontanelles well separated [...] In *T. celsae*, the dorsal border of the hyomandibula has a conspicuous notch.”

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

No introductions of this species have been reported.

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

4 Global Distribution



Figure 1. Known global established locations of *T. celsae*, reported from Venezuela. Map from GBIF (2016).

5 Distribution Within the United States

This species has not been reported 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 low in all regions of the contiguous U.S. Climate 6 proportion also indicated a low climate match for the contiguous U.S. overall. Climate 6 proportions of 0-0.005, inclusive, are classified as low match; the Climate 6 proportion for *T. celsae* was 0.000.

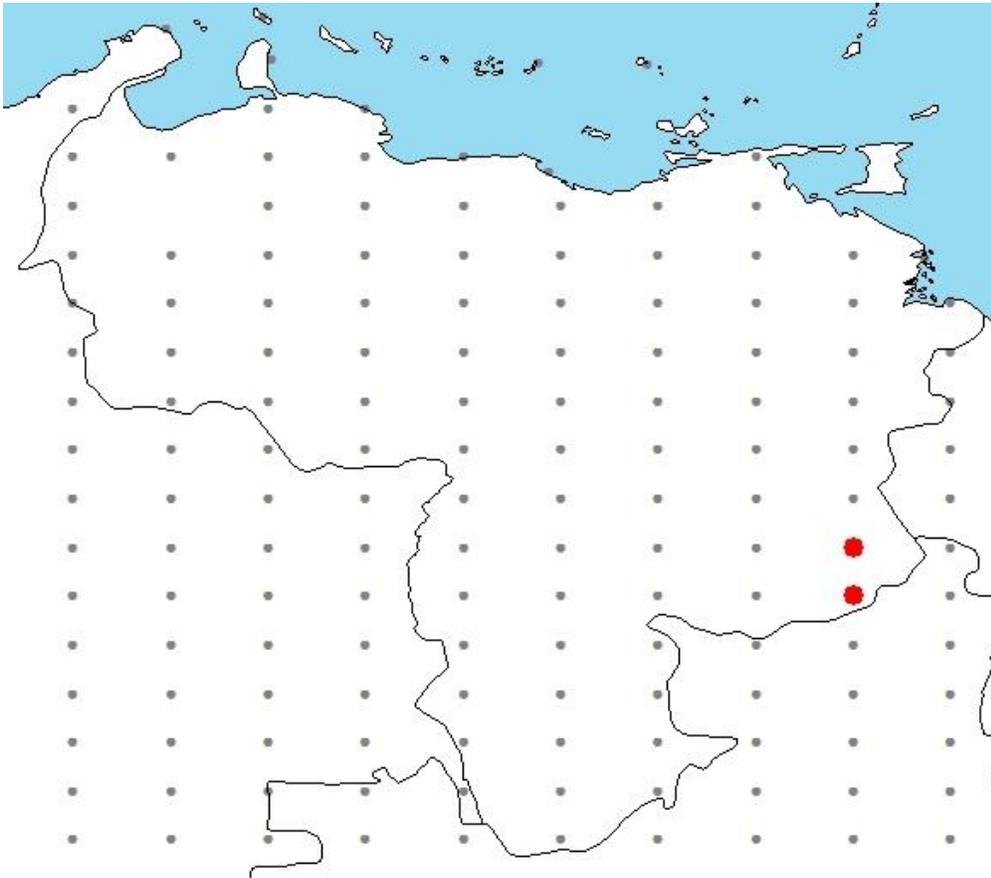


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in Venezuela selected as source locations (red) and non-source locations (gray) for *T. celsae* climate matching. Source locations from GBIF (2016).

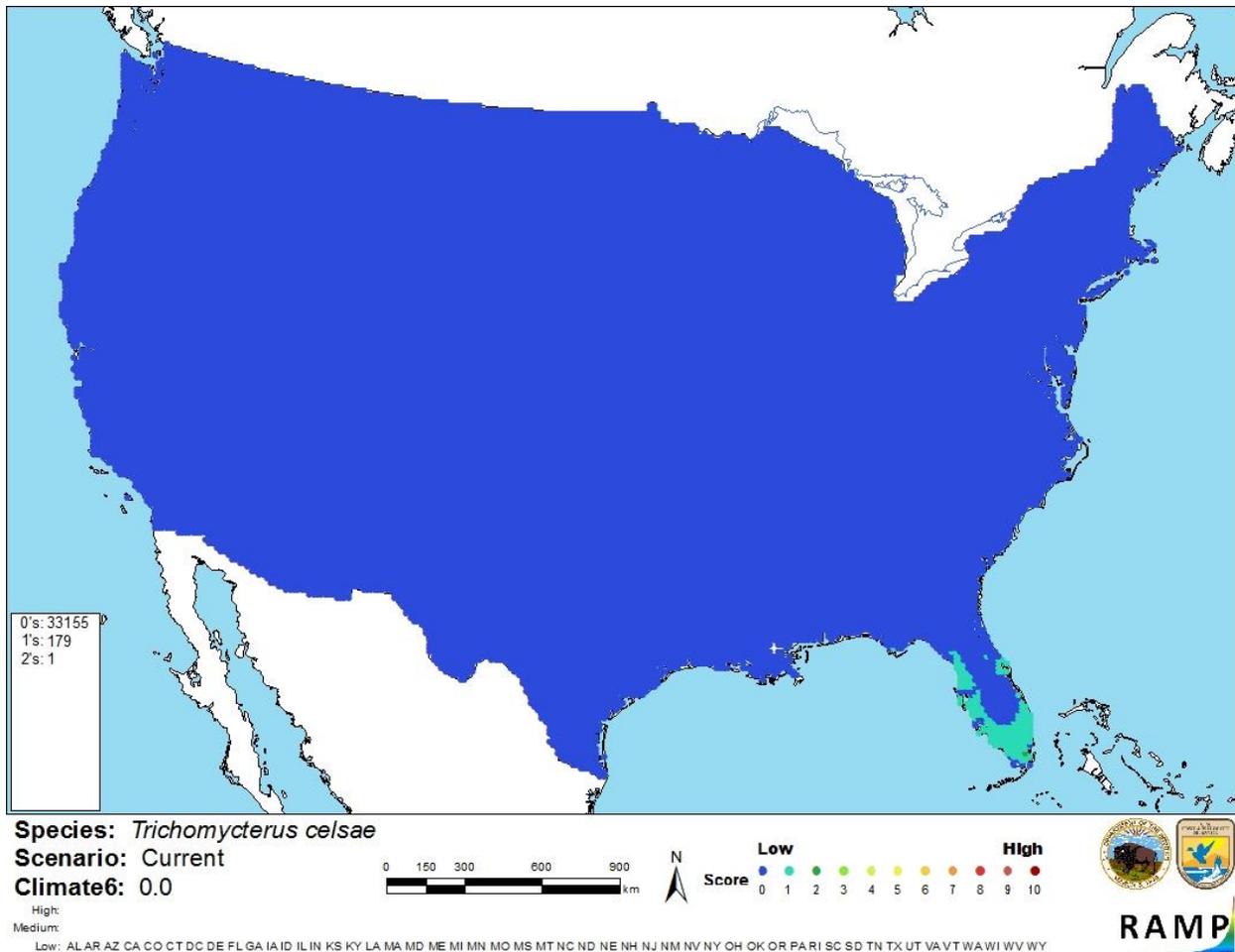


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. celsae* in the contiguous United States based on source locations reported by GBIF (2016). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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

T. celsae has never been reported as introduced outside its native range, so impacts of introduction remain unknown. Little is known about the biology and ecology of this species. The certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Trichomycterus celsae is a trichomycterid catfish native to southeastern Venezuela. It 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. celsae* to the U.S. The Florida Fish and Wildlife Conservation Commission has listed the parasitic catfish *T. celsae* as a prohibited species. Climate match to the contiguous U.S. is low. The 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

- 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/>. (January 2017).
- Froese, R., and D. Pauly, editors. 2016. *Trichomycterus celsae* Lasso & Provenzano, 2003. FishBase. Available: <http://www.fishbase.org/summary/Trichomycterus-celsae.html>. (December 2016).
- GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Trichomycterus celsae* Lasso & Provenzano, 2003. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2343191>. (December 2016, April 2017).
- ITIS (Integrated Taxonomic Information System). 2016. *Trichomycterus celsae* Lasso & Provenzano, 2003. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682191#null. (December 2016).
- Lasso, C. A., and F. Provenzano. 2002. Dos nuevas especies de bagres del género *Trichomycterus* (Siluriformes: Trichomycteridae) de la Gran Sabana, Escudo de las Guayanas, Venezuela. *Revista de Biología Tropical* 50(3-4):1139-1149.
- Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. U.S. Fish and Wildlife Service.