

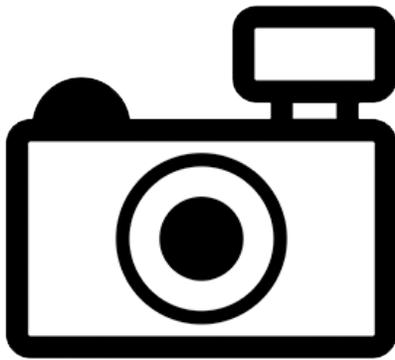
***Trichomycterus catamarcensis* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, December 2016

Revised, April 2017

Web Version, 4/30/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: Laguna Blanca basin in Catamarca, Argentina.”

Status in the United States

This species has not been reported as introduced in the United States. There is no indication that this species is in trade 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 catamarcensis*”

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 catamarcensis* Fernández and Vari, 2000”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 4.2 cm male/unsexed; [de Pinna and Wosiacki 2003]”

Environment

From Froese and Pauly (2016):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2016):

“High altitude, preferred ?; 26°S - 27°S”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: Laguna Blanca basin in Catamarca, Argentina.”

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 (2016):

“Dorsal spines (total): 0; Dorsal soft rays (total): 12-13; Anal spines: 0; Anal soft rays: 11 - 12; Vertebrae: 37 - 39. Eye covered by thin, transparent skin. Species differs from all other known members of the subfamily Trichomycterinae by the combination of its lack of both the pelvic fins and girdle, eight or nine principle dorsal fin rays, 37-39 vertebrae, 18-20 ribs on each side, the elongate body with a transversely flattened caudal peduncle, the posteriorly straight and slightly posterodorsally angled caudal fin margin, the lack of pronounced marmorated pigmentation on the body and fins, its lack of s [*sic*] very thick, rugose layer of fatty tissue on the body and head, the presence of a portion of the laterosensory canal system within the sphenotic, the lack of an extensive perforation of the skin surface by pores of the ampullary organs, and its maximum length.”

Biology

From Froese and Pauly (2016):

“Collected from a 0.5 m deep, small, clear water stream with a sandy bottom at an elevation of approximately 3500 m. The stomachs of two specimens contained dipteran larvae (Chironomidae and Ceratopogonidae), filamentous algae, and sand indicating that the species feeds, at least in part on autochthonous benthic macroinvertebrates [Fernández and Vari 2000].”

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 (2017) has listed the parasitic catfish *T. catamarcensis* as a prohibited species.

4 Global Distribution



Figure 1. Known global established locations of *T. catamarcensis* in northwestern Argentina. Map from GBIF (2016).

5 Distribution Within the United States

There are no known occurrences of *T. catamarcensis* 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 scattered areas of the western U.S. and low elsewhere. Climate 6 proportion indicated that the

contiguous U.S. has a low climate match overall. Proportions less than or equal to 0.005 are classified as low match; the Climate 6 proportion for *T. catamarcensis* was 0.000.

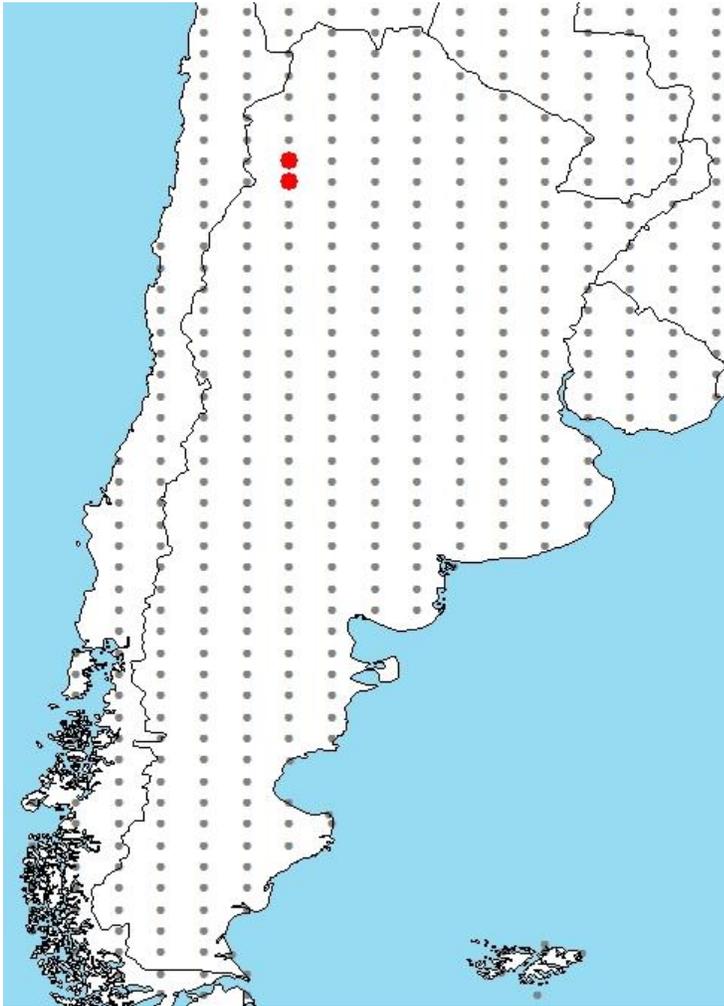


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *T. catamarcensis* climate matching in Argentina. Source locations from GBIF (2016).

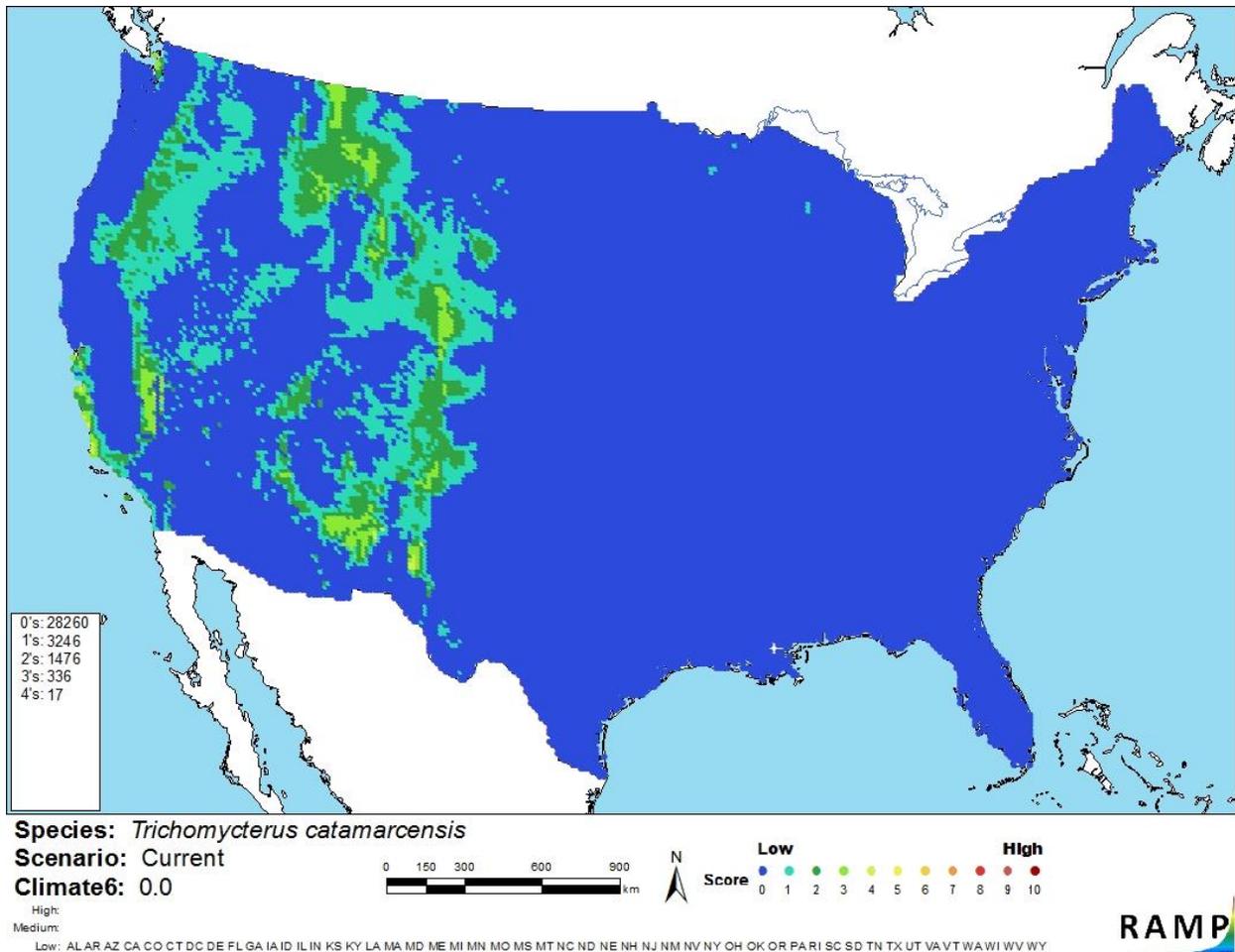


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. catamarcensis* in the contiguous United States based on source locations reported by GBIF (2016). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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

Limited information is available on the biology, ecology, and distribution of *T. catamarcensis*. The species has never been introduced outside its native range so any impacts of introduction are unknown. The certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Trichomycterus catamarcensis is a trichomycterid catfish native to high elevations in Argentina. 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. catamarcensis* to the U.S. The Florida Fish and Wildlife Conservation Commission has listed the parasitic catfish *T. catamarcensis* 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

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

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 catamarcensis* Fernández & Vari, 2000. FishBase. Available: <http://www.fishbase.org/summary/57783>. (December 2016).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Trichomycterus catamarcensis* Fernández & Vari, 2000. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2343104>. (December 2016, April 2017).

ITIS (Integrated Taxonomic Information System). 2016. *Trichomycterus catamarcensis* Fernández & Vari, 2000. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682189#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.

Fernández, L., and R. P. Vari. 2000. New species of *Trichomycterus* (Teleostei: Siluriformes: Trichomycteridae) lacking a pelvic fin and girdle from the Andes of Argentina. *Copeia* 2000(4):990-996.