

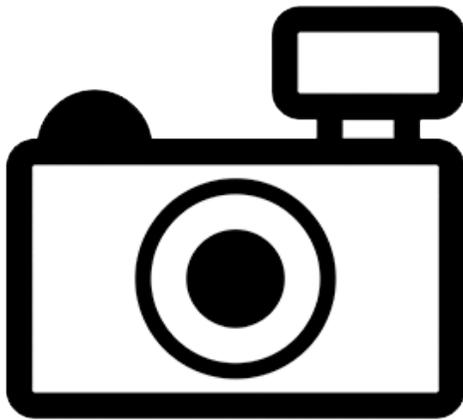
# ***Trichomycterus taczanowskii* (a catfish, no common name)**

## **Ecological Risk Screening Summary**

U.S. Fish and Wildlife Service, December 2016

Revised, February 2018

Web Version, 2/27/2020



No Photo Available

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

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### **Native Range**

From Hidalgo del Aguila (2016):

“This species occurs in the Amazon river basin in Peru (Ortega et al. 2012). Its type locality is the Huambo and Tortora rivers near Chirimoto, Peru (Steindachner 1882).”

### **Status in the United States**

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

From Arizona Secretary of State (2006):

“Fish listed below are restricted live wildlife [in Arizona] as defined in R12-4-401. [...] South American parasitic catfish, all species of the family Trichomycteridae and Cetopsidae [...]”

From Dill and Cordone (1997):

“[...] At the present time, 22 families of bony and cartilaginous fishes are listed [as prohibited in California], e.g. all parasitic catfishes (family Trichomycteridae) [...]”

From FFWCC (2019):

“Nonnative Conditional species (formerly referred to as restricted species) and Prohibited species are considered to be dangerous to Florida’s native species and habitats or could pose threats to the health and welfare of the people of Florida. These species are not allowed to be personally possessed, but can be imported and possessed by permit for research or public exhibition; Conditional species may also be possessed by permit for commercial sales. Facilities where Conditional or Prohibited species are held must meet certain biosecurity criteria to prevent escape.”

*Trichomycterus taczanowskii* is listed as a Prohibited species in Florida.

From Louisiana House of Representatives Database (2010):

“No person, firm, or corporation shall at any time possess, sell, or cause to be transported into this state [Louisiana] by any other person, firm, or corporation, without first obtaining the written permission of the secretary of the Department of Wildlife and Fisheries, any of the following species of fish: [...] all members of the families [...] *Trichomycteridae* (pencil catfishes) [...]”

From Mississippi Secretary of State (2019):

“All species of the following animals and plants have been determined to be detrimental to the State's native resources and further sales or distribution are prohibited in Mississippi. No person shall import, sell, possess, transport, release or cause to be released into the waters of the state any of the following aquatic species or hybrids thereof.  
[The list includes all species of] Family Trichomycteridae”

From Legislative Council Bureau (2018):

“Except as otherwise provided in this section and NAC [Nevada Administrative Code] 504.486, the importation, transportation or possession of the following species of live wildlife or hybrids thereof, including viable embryos or gametes, is prohibited [in Nevada]: [...] All species in the families Cetopsidae and Trichomycteridae”

From Utah DNR (2012):

“All species of fish listed in Subsections (2) through (30) are classified [in Utah] as prohibited for collection, importation and possession [...] Parasitic catfish (candiru, carnero) family Trichomycteridae (All species)”

## Means of Introductions in the United States

This species has not been reported as introduced or established in the United States.

## 2 Biology and Ecology

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### 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 taczanowskii*

From Fricke et al. (2020):

“Current status: Valid as *Trichomycterus taczanowskii* Steindachner 1882. Trichomycteridae: Trichomycterinae.”

### Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 11.3 cm male/unsexed; [de Pínna and Wosiacki 2003]”

### Environment

From Hidalgo del Aguila (2016):

“It lives in fast-flowing white water rivers, on rocky substrate.”

### Climate/Range

From Froese and Pauly (2016):

“Tropical”

## **Distribution Outside the United States**

### **Native**

From Hidalgo del Aguila (2016):

“This species occurs in the Amazon river basin in Peru (Ortega et al. 2012). Its type locality is the Huambo and Tortora rivers near Chirimoto, Peru (Steindachner 1882).”

### **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**

No information available.

## **Biology**

From Hidalgo del Aguila (2016):

“It feeds on invertebrates.”

“It lives in fast-flowing white water rivers, on rocky substrate.”

## **Human Uses**

From Hidalgo del Aguila (2016):

“The species is not utilized.”

## **Diseases**

No OIE-reportable diseases (OIE 2020) 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 importation, possession, or trade of the catfish *T. taczanowskii* is prohibited or restricted in the following states: Arizona (Arizona Secretary of State 2006), California (Dill and Cordone

1997), Florida (FFWCC 2019), Louisiana (Louisiana House of Representatives Database 2010), Mississippi (Mississippi Secretary of State 2019), Nevada (Legislative Council Bureau 2018), and Utah (Utah DNR 2012).

## 4 Global Distribution

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**Figure 1.** Known global distribution of *Trichomycterus taczanowskii*, reported from Peru. Map from GBIF Secretariat (2017).

## 5 Distribution Within the United States

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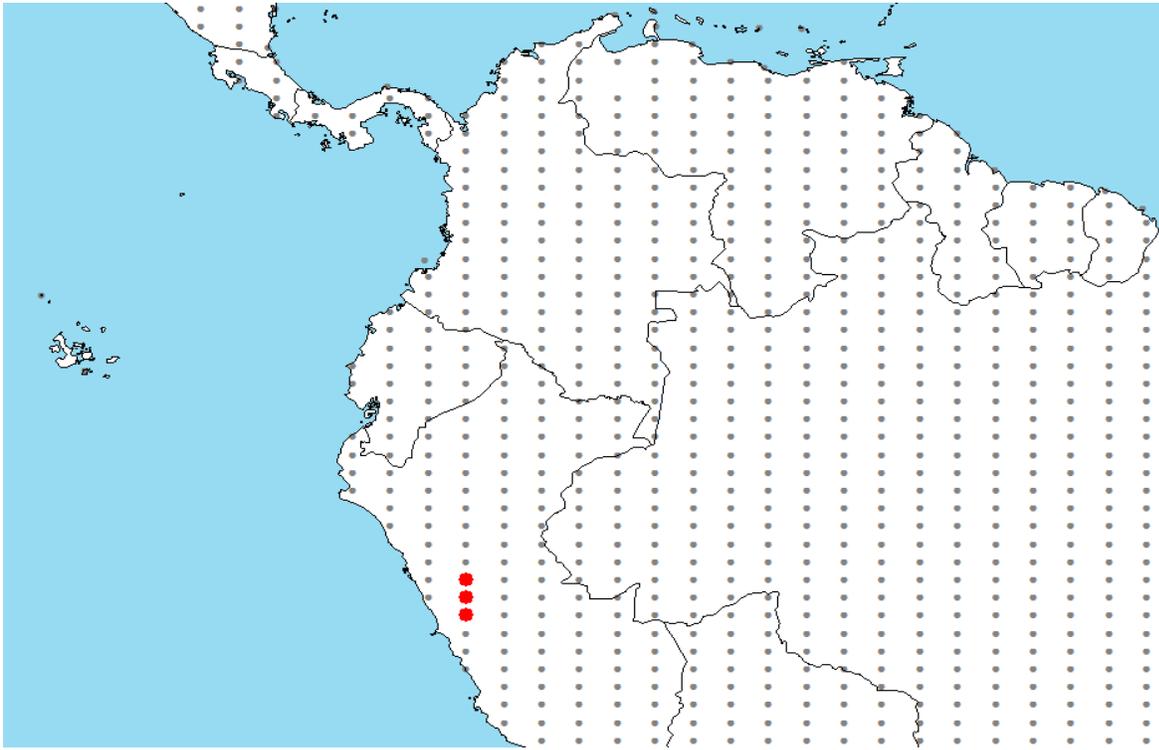
This species has not been reported as introduced or established in the United States.

## 6 Climate Matching

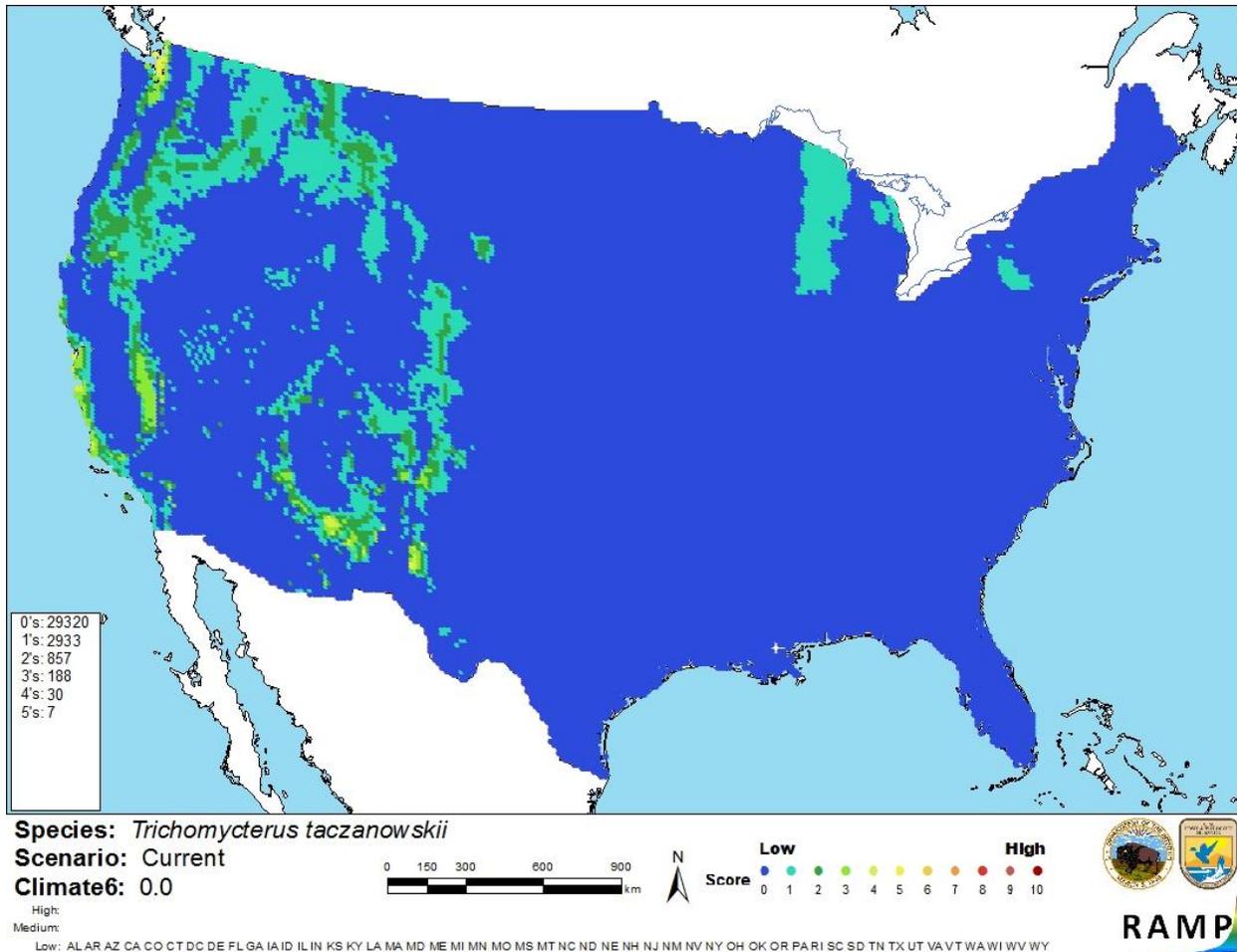
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### Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout the contiguous United States, except for a few small patches of medium match on the Pacific Coast and in the Southwest. The Climate 6 score indicated that the contiguous United States has a low overall climate match. (Scores between 0.000 and 0.005, inclusive, are classified as low.) The Climate 6 score of *Trichomycterus taczanowskii* is 0.000. All States had individually low climate scores.



**Figure 2.** RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Peru) and non-source locations (gray) for *Trichomycterus taczanowskii* climate matching. Source locations from GBIF Secretariat (2017).



**Figure 3.** Map of RAMP (Sanders et al. 2014) climate matches for *Trichomycterus taczanowskii* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 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
$\geq 0.103$	High

## 7 Certainty of Assessment

Information on the distribution of *T. taczanowakii* is available, but information on the biology of this species is limited. There are no documented introductions of this species outside of its native range. Therefore, data on the impacts of introductions are lacking; absence of this research makes the certainty of this assessment low.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Trichomycterus taczanowskii* is a small catfish native to the Amazon River basin in Peru. It lives in fast-moving, rocky streams, and feeds on invertebrates. Several U.S. States prohibit or restrict the possession, transport, or trade of this species along with other members of the family Trichomycteridae. There are no documented introductions of this species outside of its native range. History of invasiveness is uncertain. Certainty of the assessment is low due to lack of information. *T. taczanowskii* has a low overall climate match with the United States. 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

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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.**

Arizona Secretary of State. 2006. Restricted live wildlife. Arizona Administrative Code, R12-4-406.

Dill, W. A., and A. J. Cordone. 1997. History and status of introduced fishes in California, 1871-1996. California Department of Fish and Game. Fish Bulletin 178.

FFWCC (Florida Fish and Wildlife Conservation Commission). 2019. Florida's nonnative fish and wildlife. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <https://myfwc.com/wildlifehabitats/nonnatives/>. (November 2019).

Fricke, R., W. N. Eschmeyer, and R. van der Laan, editors. 2020. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (February 2020).

Froese, R., and D. Pauly, editors. 2016. *Trichomycterus taczanowskii* (Steindachner 1882). FishBase. Available: <http://www.fishbase.ca/summary/Trichomycterus-taczanowskii.html> (December 2016).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Trichomycterus taczanowskii* (Steindachner 1882). Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2343015>. (February 2018).

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## 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.**

- Ortega, H., M. Hidalgo, G. Trevejo, E. Correa, A. M. Cortijo, V. Meza, and J. Espino. 2012. Lista anotada de los peces de aguas continentales del Perú: Estado actual del conocimiento, distribución, usos y aspectos de conservación. Ministerio del Ambiente, Dirección General de Diversidad Biológica - Museo de Historia Natural, UNMSM, Lima, Peru.

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.

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