Trichomycterus meridae (a catfish, no common name)
Ecological Risk Screening Summary

1 Native Range and Status in the United States

Native Range
From Froese and Pauly (2017):

“South America: Albirregas River basin in Venezuela.”

Status in the United States
T. meridae has not been reported in the wild or in trade in the United States.

From Arizona Office of the Secretary of State (2013):

“I. Fish listed below are considered restricted wildlife: […]
9. All species of the family Cetopsidae and Trichomycteridae. Common name: South American catfish.”
From California Department of Fish and Wildlife (2019):

“It shall be unlawful to import, transport, or possess live animals restricted in subsection (c) below except under permit issued by the department. […] Family Trichomycteridae (Pygidiidae)-Parasitic Catfishes.: All species”

The Florida Fish and Wildlife Conservation Commission has listed *Trichomycterus meridae* as a prohibited species. Prohibited nonnative species (FFWCC 2017), "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.

From Georgia DNR (2020):

“The exotic species listed below, except where otherwise noted, may not be held as pets in Georgia. This list is not all inclusive. […] Parasitic catfishes; all species”

From Louisiana State Legislature (2019):

“No person, firm, or corporation shall at any time possess, sell, or cause to be transported into this state 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: freshwater electric eel (*Electrophorus* sp.); rudd (*Scardinius erythrophthalmus*); all members of the families Synbranchidae (Asian swamp eels); Channidae (snakeheads); Clariidae (walking catfishes); 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. However, species listed as prohibited may be allowed under a permitting process where environmental impact has been assessed. […] Pencil or parasitic catfishes Family Trichomycteridae **** [indicating all species within the family are included in the regulation]”

From State of Nevada (2018):

“Except as otherwise provided in this section and NAC 504.486, the importation, transportation or possession of the following species of live wildlife or hybrids thereof, including viable embryos or gametes, is prohibited: […] South American Parasitic Catfish......All species in the families Cetopsidae and Trichomycteridae”
From Oklahoma Secretary of State (2019):

“Until such time as is necessary for the Department of Wildlife Conservation to obtain adequate information for the determination of other harmful or potentially harmful exotic species, the importation into the State and/or the possession of the following exotic fish or their eggs is prohibited: […]
Parasitic South American Catfish group (Candiru), genera & species of the Trichomycteridae family. *Vandellia* spp., *Tridens* spp., and *Pyqidium* spp.”

From Texas Parks and Wildlife (2020):

“The organisms listed here are legally classified as exotic, harmful, or potentially harmful. No person may possess or place them into water of this state except as authorized by the department. Permits are required for any individual to possess, sell, import, export, transport or propagate listed species for zoological or research purposes; for aquaculture (allowed only for Blue, Nile, or Mozambique tilapia, Triploid Grass Carp, or Pacific White Shrimp); or for aquatic weed control (for example, Triploid Grass Carp in private ponds). […]
South American Parasitic Candiru Catfishes, Family Trichomycteridae All species”

From Utah Office of Administrative Rules (2019):

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

**Means of Introductions in the United States**

*T. meridae* has not been reported in the United States.

**Remarks**
No additional remarks.

**2 Biology and Ecology**

**Taxonomic Hierarchy and Taxonomic Standing**
According to Eschmeyer et al. (2018), *Trichomycterus meridae* Regan 1903 is the current valid name for this species and is the original name for this species.

From ITIS (2017):

Kingdom Animalia
  Subkingdom Bilateria
    Infrakingdom Deuterostomia
      Phylum Chordata
        Subphylum Vertebrata
          Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Siluriformes
Family Trichomycteridae
Subfamily Trichomycterinae
Genus *Trichomycterus*
Species *Trichomycterus meridae* Regan, 1903

**Size, Weight, and Age Range**
From Froese and Pauly (2017):

“Max length : 9.9 cm male/unsexed; [de Pinna and Wosiacki 2003]”

**Environment**
From Froese and Pauly (2017):

“Freshwater; benthopelagic.”

**Climate**
From Froese and Pauly (2017):

“Tropical”

**Distribution Outside the United States**
Native
From Froese and Pauly (2017):

“South America: Albirregas River basin in Venezuela.”

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

**Means of Introduction Outside the United States**
This species has not been reported as introduced outside of its native range.

**Short Description**
No information available.

**Biology**
From Baskin et al. (1980):

“*T. meridae* feed only on benthic insects”
Human Uses
No information available.

Diseases
No information available. No records of OIE-reportable diseases (OIE 2021) were found for Trichomycterus meridae.

Threat to Humans
From Froese and Pauly (2017):

“Harmless”

3 Impacts of Introductions
This species has not been reported as introduced outside of its native range, so impacts of introductions are unknown.

Trichomycterus meridae is regulated in multiple States.

4 History of Invasiveness
This species has not been reported as introduced outside of its native range, so history of invasiveness is classified as No Known Nonnative Population.
5 Global Distribution

6 Distribution Within the United States
This species has not been reported within the United States.

7 Climate Matching

Summary of Climate Matching Analysis
The majority of the contiguous United States had a low climate match. Medium climate match occurred in peninsular Florida and southern Texas. There were no areas of high match. The overall Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean Distance) for the contiguous United States was 0.000, low. (Scores between 0.000 and 0.005, inclusive, are classified as low.) All States had low individual Climate 6 scores.
Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Trichomycterus meridae* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

The High, Medium, and Low Climate match Categories are based on the following table:

<table>
<thead>
<tr>
<th>Climate 6: (Count of target points with climate scores 6-10) / (Count of all target points)</th>
<th>Overall Climate Match Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000 ≤ X ≤ 0.005</td>
<td>Low</td>
</tr>
<tr>
<td>0.005 ≤ X &lt; 0.103</td>
<td>Medium</td>
</tr>
<tr>
<td>≥ 0.103</td>
<td>High</td>
</tr>
</tbody>
</table>

8 Certainty of Assessment

There was limited information available on the species *Trichomycterus meridae*. This species has not been reported outside of its native range so impacts of introduction are unknown. With such little information known on this species the certainty of this assessment is low.
9 Risk Assessment

Summary of Risk to the Contiguous United States

*Trichomycterus meridae* is a South American, trichomycterid catfish found in the Albirregas River basin in Venezuela. *T. meridae* feeds on benthic insects. There were no records of this species in trade or other human uses. *T. meridae* is regulated by multiple States. There have been no reports of this fish outside of its native range. The history of invasiveness is classified as No Known Nonnative Population. The overall climate match was Low. There were areas of medium match in peninsular Florida and southern Texas and no areas of high match. The certainty of assessment is Low due to a general lack of information. The overall risk for this species is Uncertain.

Assessment Elements

- History of Invasiveness (Sec. 4): No Known Nonnative Population
- Overall Climate Match (Sec. 7): Low
- Certainty of Assessment (Sec. 8): Low
- Remarks/Important additional information: No additional remarks
- Overall Risk Assessment Category: Uncertain

10 Literature Cited

*Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 11.*

Arizona Office of the Secretary of State. 2013. Live wildlife. Arizona Administrative Code, Game and Fish Commission, Title 12, Chapter 4, Article 4.


Louisiana State Legislature. 2019. Exotic fish; importation, sale, and possession of certain exotic species prohibited; permit required; penalty. Louisiana Revised Statutes, Title 56, Section 319.


11 Literature Cited in Quoted Material

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.
