

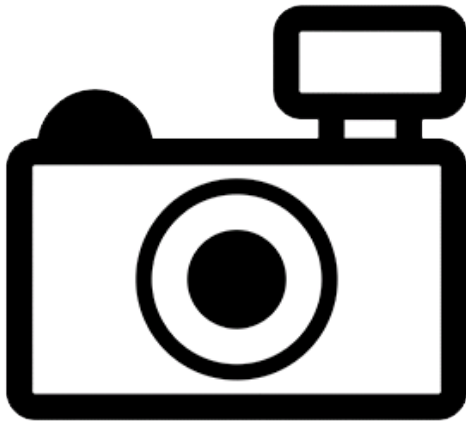
***Trichomycterus stramineus* (a catfish, no common name)**

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

Native Range

From Villa-Navarro et al. (2016):

“This species is endemic to Colombia, where it occurs in the Magdalena River basin and Cueva La Pichonera (Gachalá municipality, Cundinamarca department). Its type locality is Quebrada del Manco, tributary of river Chicamocha, Magdalena river system, municipality of Piedecuesta, Santander Department (Eigenmann 1917, Maldonado-Ocampo et al. 2005).”

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 stramineus 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

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 stramineus*

From Eschmeyer et al. (2016):

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

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 6.7 cm male/unsexed; [de Pínna and Wosiacki 2003].”

Environment

From Villa-Navarro et al. (2016):

“This species has been found in creeks.”

Climate/Range

From Froese and Pauly (2016):

“Tropical”

Distribution Outside the United States

Native

From Villa-Navarro et al. (2016):

“This species is endemic to Colombia, where it occurs in the Magdalena River basin and Cueva La Pichonera (Gachalá municipality, Cundinamarca department). Its type locality is Quebrada del Manco, tributary of river Chicamocha, Magdalena river system, municipality of Piedecuesta, Santander Department (Eigenmann 1917, Maldonado-Ocampo et al. 2005).”

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 Castellanos-Morales (2010):

“The following Inter-Andean species of *Trichomycterus* from Colombia share conical teeth, like those of *T. sketi*: *Trichomycterus banneaui*, *T. bogotense*, *T. cachiraensis*, *T. latistriatus*, *T. nigromaculatus*, *T. ruitoquensis*, *T. retropinnis*, *T. straminius* and *T. striatus*.”

“*Trichomycterus sketi* differs from *T. straminius* by having pelvic-fin origin anterior to that of dorsal fin (vs. origins of pelvic and dorsal fins vertically aligned) and 10 (vs. 9) pectoral fin rays.”

From Eigenmann (1917):

“Head 4-5-5-33 > D. 10.5; A. 8.5-9.5; P- 91 posterior margin of eye in the middle of the head ; interorbital three in the length of the head; teeth bristle-like in about three series.”

“Nasal barbels reaching base of opercular spines or beyond origin of pectorals, maxillary barbels to tip of opercular spines or axil; pectoral filament a little longer or shorter than the length of the head, the rays equal to the length of the head without the snout; origin of ventrals equidistant from the base of the middle caudal rays and a point between the axil and a little in front of the opercle (and the tips of the opercular spines in the type), tips of the ventrals slightly behind the vent; origin of the anal behind the vertical from the base of the last dorsal ray or under the posterior half of the dorsal, the distance between the base of the last anal ray and the middle caudal rays 4.5-5 in the length; accessory caudal rays very large and numerous; caudal rounded, six and a half in the length; origin of dorsal over the origin of the ventrals or but slightly behind this point, always nearer the eye than the tip of the caudal, sometimes equidistant from tip of snout and tip of caudal, its distance from the base of the middle caudal rays one and a half or less in its distance from the snout.”

Biology

No information reported for this species.

Human Uses

From Villa-Navarro et al. (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

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

The importation, possession, or trade of the catfish *T. straminius* 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



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

5 Distribution Within the United States

This species has not been reported as introduced or established 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 throughout the contiguous United States except for scattered small areas of medium match along the Pacific coast. 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 stramineus* is 0.0. All States had an individually low climate score.

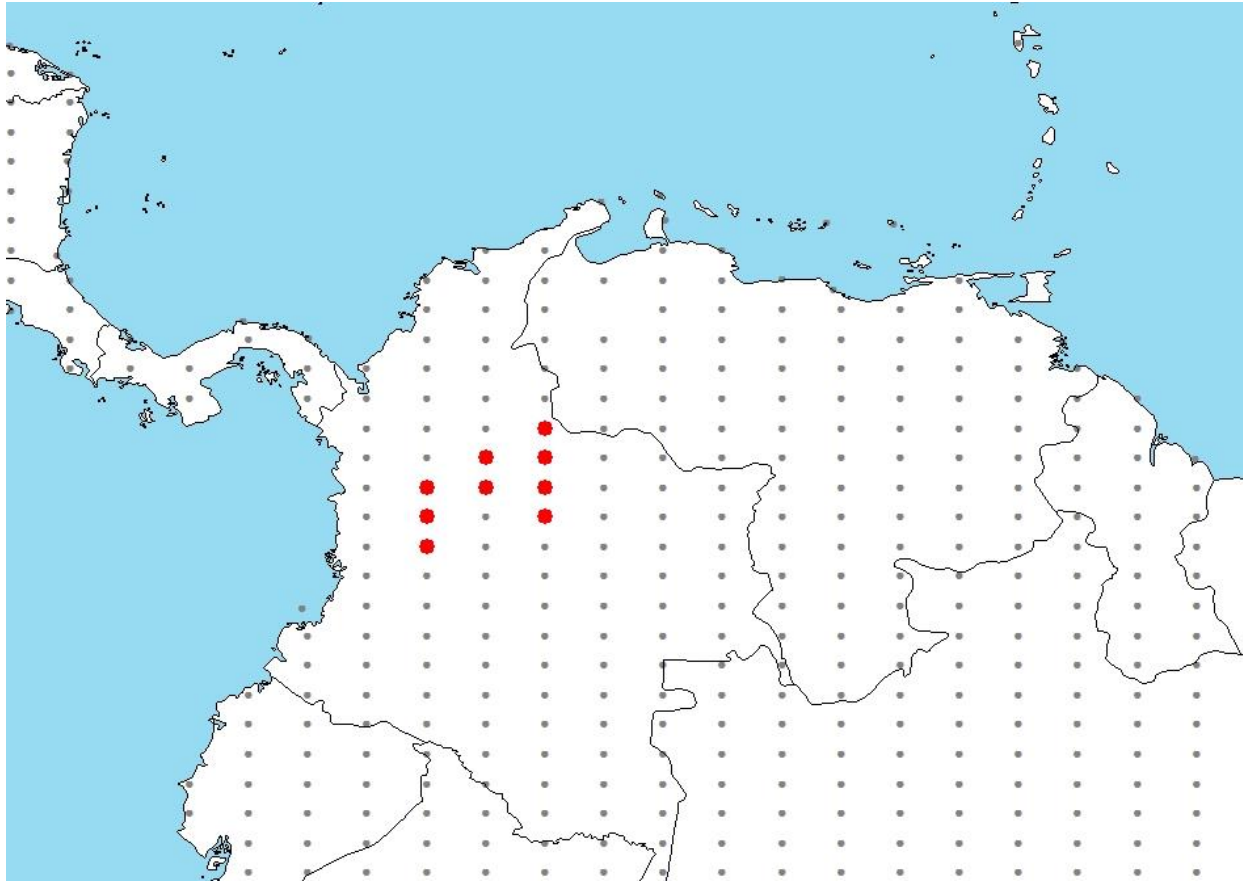


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in northern South America selected as source locations (red; Colombia) and non-source locations (gray) for *Trichomycterus stramineus* climate matching. Source locations from GBIF Secretariat (2017).

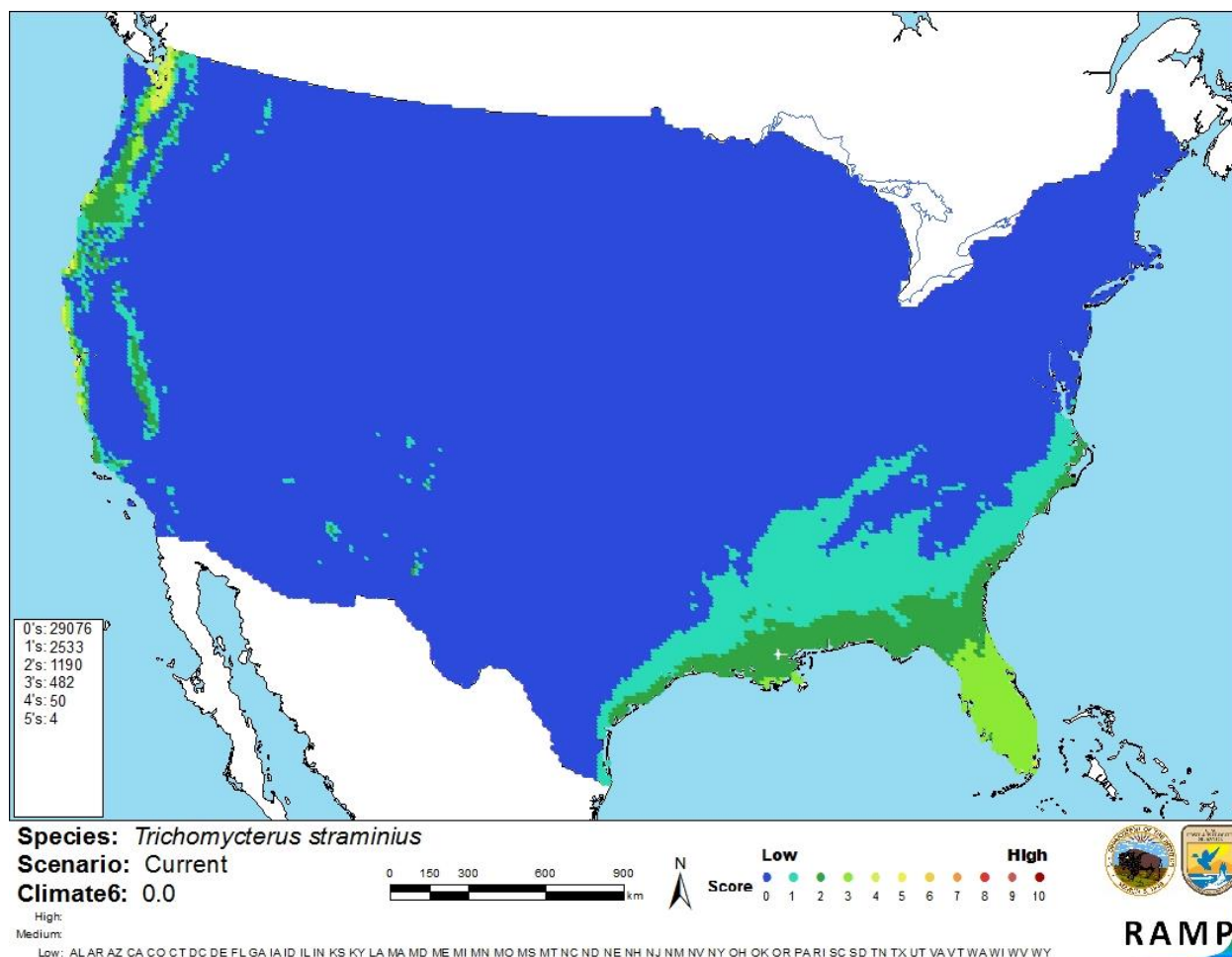


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Trichomycterus straminius* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0= Lowest match, 10= Highest match. Counts of climate match scores are tabulated on the left.

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
≥ 0.103	High

7 Certainty of Assessment

Information on the biology of *T. straminius* is not widely available. No introductions of this species outside of its native range have been documented. Therefore, data on the impacts of introductions are not available. The certainty of this assessment is low due to lack of information.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Trichomycterus stramineus is a small catfish endemic to central Colombia. Information on the biology of *T. stramineus* is not widely available. Several U.S. States prohibit or restrict the possession, transport, or trade of this species along with other members of the family Trichomycteridae. No introductions of this species outside of its native range have been documented, so history of invasiveness is uncertain. Certainty of this assessment is low due to lack of information. The climate match with the contiguous United States is low overall, with small areas of medium climate match on the Pacific coast. 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.

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- Villa-Navarro, F., P. Sanchez-Duarte, L. Mesa-Salazar, C. Lasso, and S. Usma. 2016. *Trichomycterus stramineus*. The IUCN Red List of Threatened Species 2016. Available: <http://www.iucnredlist.org/details/49830222/0>. (December 2016).

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.

Maldonado-Ocampo, J. A., A. Ortega-Lara, J. S. U. Oviedo, G. G. Vergara, F. A. Volla-Navarro, L. V. Gamboa, S. Prada-Pedrerros, and C. A. Rodriguez. 2005. Peces de los Andes de Colombia. Guia de campo. Instituto de Investigacion de Recursos Biologicos Alexander von Humboldt, Bogota, Colombia.

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