

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

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, January 2017

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1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: Colombian Andes.”

From Castellanos-Morales and Galvis (2012):

“Distribution: Cauca System [Cardona et al. 1998; Maldonado-Ocampo et al. 2005] and Magdalena [Regan 1903] system.”

Status in the United States

This species has not been reported as introduced or established in the U.S.

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 retropinnis*”

Means of Introductions in the United States

This species has not been reported as introduced or established in the U.S.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2017):

“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 retropinnis* Regan, 1903”

From Eschmeyer et al. (2017):

“Current status: Valid as *Trichomycterus retropinnis* Regan 1903. Trichomycteridae: Trichomycterinae.”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 8.0 cm TL male/unsexed; [de Pínna and Wosiacki 2003]”

Environment

From Froese and Pauly (2016):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: Colombian Andes.”

From Castellanos-Morales and Galvis (2012):

“Distribution: Cauca System [Cardona et al. 1998; Maldonado-Ocampo et al. 2005] and Magdalena [Regan 1903] system.”

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 Regan (1903):

“Length of head $5\frac{1}{2}$ times in the total length. Head as broad as long. Diameter of eye about 4 times in the interocular width, which is $3\frac{1}{3}$ times in the length of head. Snout as long as the postorbital part of head. Barbels equal to about $\frac{4}{5}$ the length of head. Dorsal with 6 branched rays, originating above or slightly behind the anal opening, the distance from its point of origin to the caudal $2\frac{2}{5}$ times in the distance from the former to the tip of the snout. Anal with 4 branched rays, originating below the anterior third of the dorsal, the distance from the base of its last ray to the caudal $5\frac{2}{5}$ times in the total length. Longest branched ray of the pectoral $\frac{2}{3}$ the length of the simple outer ray, which is equal to $\frac{5}{6}$ the length of the head. Ventrals not quite reaching the anal opening. Caudal truncate-rounded. Brownish, with an indistinct darker stripe along the middle of the side and traces of some dark spots.”

Biology

From Jimenez-Segura and Villa-Navarro (2016):

“It inhabits creeks of fast flowing clear water with riparian vegetation and rocky substrates.”

From Jiménez-Segura et al. (2016):

“Carnivore”

Human Uses

From Jimenez-Segura and Villa-Navarro (2016):

“The species is not utilized.”

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

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

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

4 Global Distribution



Figure 1. Distribution of *Trichomycterus retropinnis*, reported from Colombia. Map from GBIF (2016).

5 Distribution Within the United States

This species has not been reported as introduced or established in the U.S.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout the entire U.S. except for medium match in northern coastal Washington. Climate 6 proportion indicated that the contiguous U.S. has a low climate match. Climate 6 proportions are classified as low climate match if they are ≤ 0.005 ; the Climate 6 proportion of *Trichomycterus retropinnis* was 0.0.

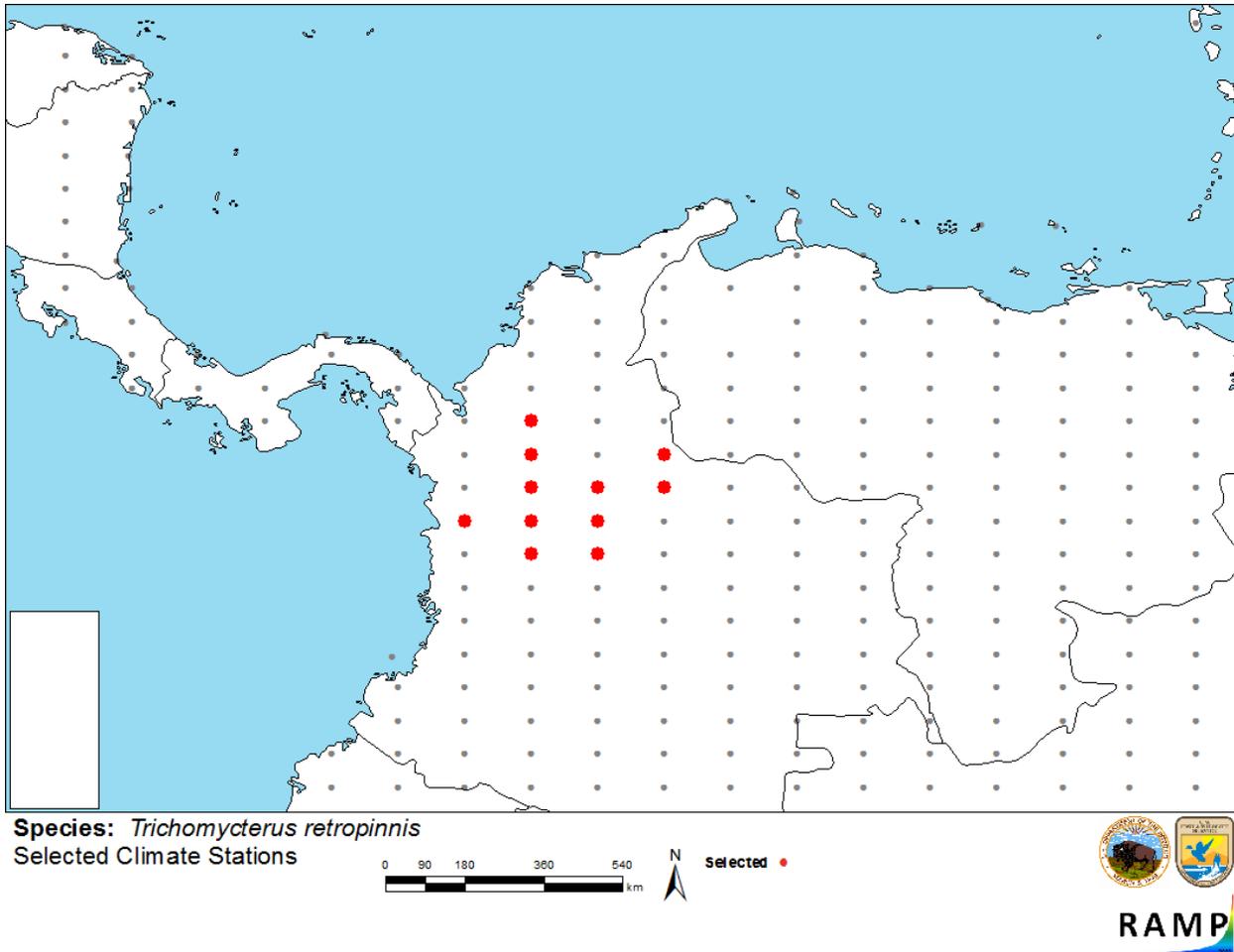


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in northwestern South America selected as source locations (red; Colombia) and non-source locations (gray) for *Trichomycterus retropinnis* climate matching. Source locations from GBIF (2016).

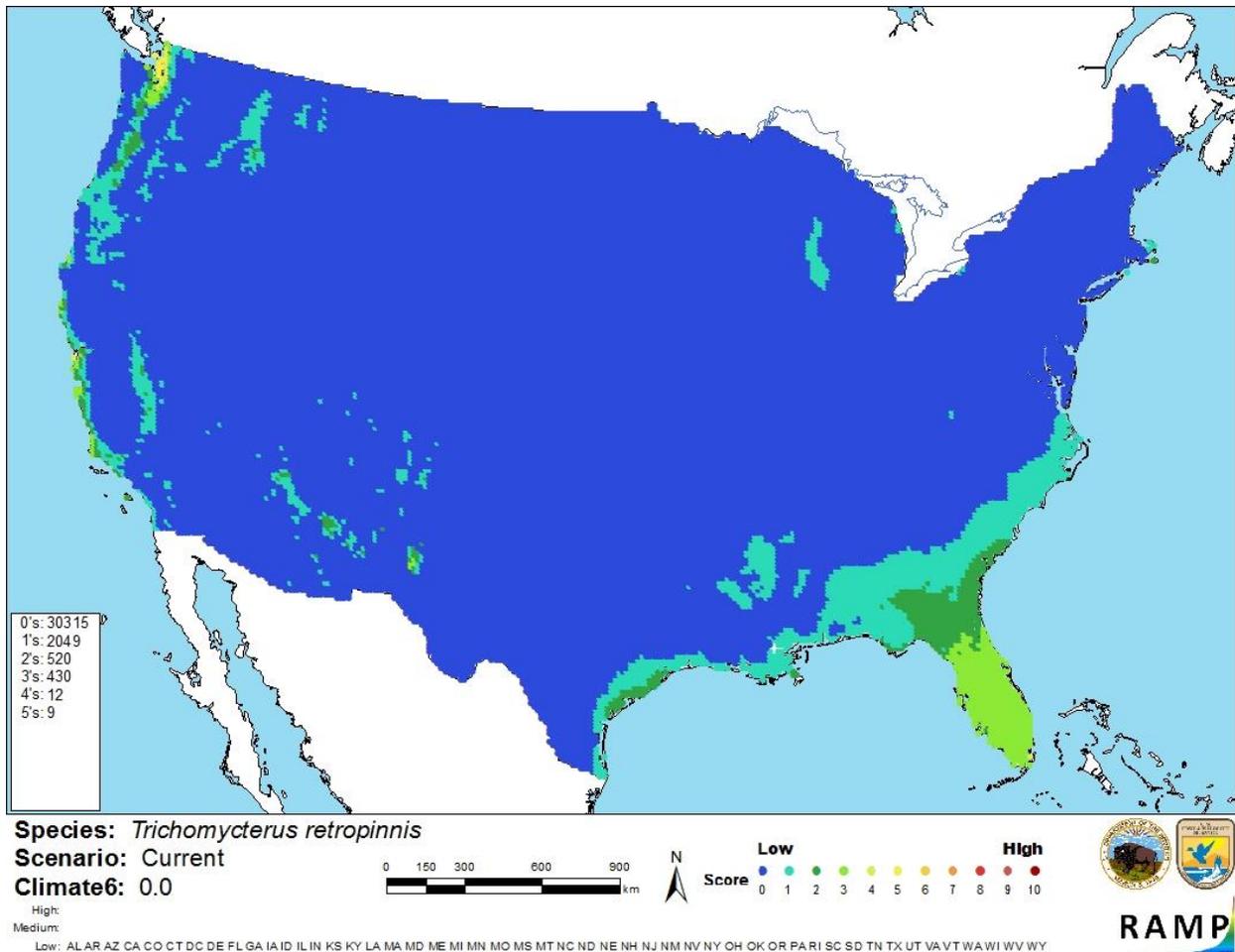


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Trichomycterus retropinnis* in the contiguous United States based on source locations reported by GBIF (2016). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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

There is little information available on *T. retropinnis*. This species has no history of invasiveness because it has never been documented as introduced outside of its native range. Further information is needed to increase the certainty of this assessment. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Trichomycterus retropinnis is a small catfish native to Colombia. This species has no documented history of introduction, so impacts of introduction remain unknown. *T. retropinnis* has a low climate match with the United States. The Florida Fish and Wildlife Conservation Commission has listed the parasitic catfish *T. retropinnis* as a prohibited species. Further information is needed to adequately assess the risk this species poses. Overall risk assessment category 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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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.

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