

***Ituglanis amazonicus* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, December 2016

Web Version, 1/29/2018



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http://eol.org/data_objects/26104158. (December 2016).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: Amazon [Brazil; de Pínna and Wosiacki 2003] and Suriname River basins [Suriname, French Guiana; Alonso and Berrenstein 2006]”

Status in the United States

This species has not been reported in the United States.

From FFWCC (2016):

“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. [...]

Freshwater Aquatic Species [...]

Parasitic catfishes [...]

Ituglanis amazonicus”

Means of Introductions in the United States

This species has not been reported 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 *Ituglanis*
Species *Ituglanis amazonicus* (Steindachner, 1882)”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 7.5 cm NG 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: Amazon [Brazil; de Pínna and Wosiacki 2003] and Suriname River basins [Suriname, French Guiana; Alonso and Berrenstein 2006]”

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

From Mol (2012):

“*Diagnostic characteristics*: body elongated, circular in cross-section; snout rounded, two pairs of maxillary barbels and one pair of nasal barbels; mouth subterminal; interoperculum with numerous small odontodes; dorsal positioned far backward on the body, no adipose fin, pelvic fins close to anal fin, pectoral fins with one spiny ray and 6-7 soft rays; body color with numerous rounded brown spots separated by narrow, unpigmented spaces”

Biology

From Froese and Pauly (2016):

“Lives mainly in little forest creeks with notable current and a sandy-rocky substrate. It is not known whether it feeds on flesh or blood of living animals or it lives on carrion. Opercle hooks enable it to cling to and to dig little tunnels into its prey's flesh [Le Bail et al. 2000]”

From Mol (2012):

“*Position in the water column*: bottom”

From Landeiro et al. (2008):

“Streams in Central Amazonia harbor a diversified fish fauna composed largely of small Characiforms (tetras) and Siluriforms (catfishes) (Sabino & Zuanon 1998, Lowe-McConnell 1999, Mendonça et al. 2005). Common species in leaf litter at the study sites include *Helogenes marmoratus* Günther, *Ituglanis amazonicus* Steindachner and *Apistogramma* aff. *steindachneri* Regan.”

Human Uses

No information available.

Diseases

No information available.

Threat to Humans

From Froese and Pauly (2016):

“Harmless”

3 Impacts of Introductions

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

From FFWCC (2016):

“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. [...]

Freshwater Aquatic Species [...]

Parasitic catfishes [...]

Ituglanis amazonicus”

4 Global Distribution



Figure 1. Known global established locations of *Ituglanis amazonicus*. Map from GBIF (2016). Only locations in Brazil, Suriname, and French Guiana were used for the climate matching analysis because these are the only countries in which *I. amazonicus* is reported as established (Mol 2012; Froese and Pauly 2016).

5 Distribution within the United States

This species has not been reported within the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean Distance) indicated that the contiguous U.S. has a low climate match overall. The range for a low climate match is 0.000-0.005; the Climate 6 score of *Ituglanis amazonicus* is 0.004. Medium climate matches occurred only in peninsular Florida. The rest of the contiguous U.S. showed low climate match.

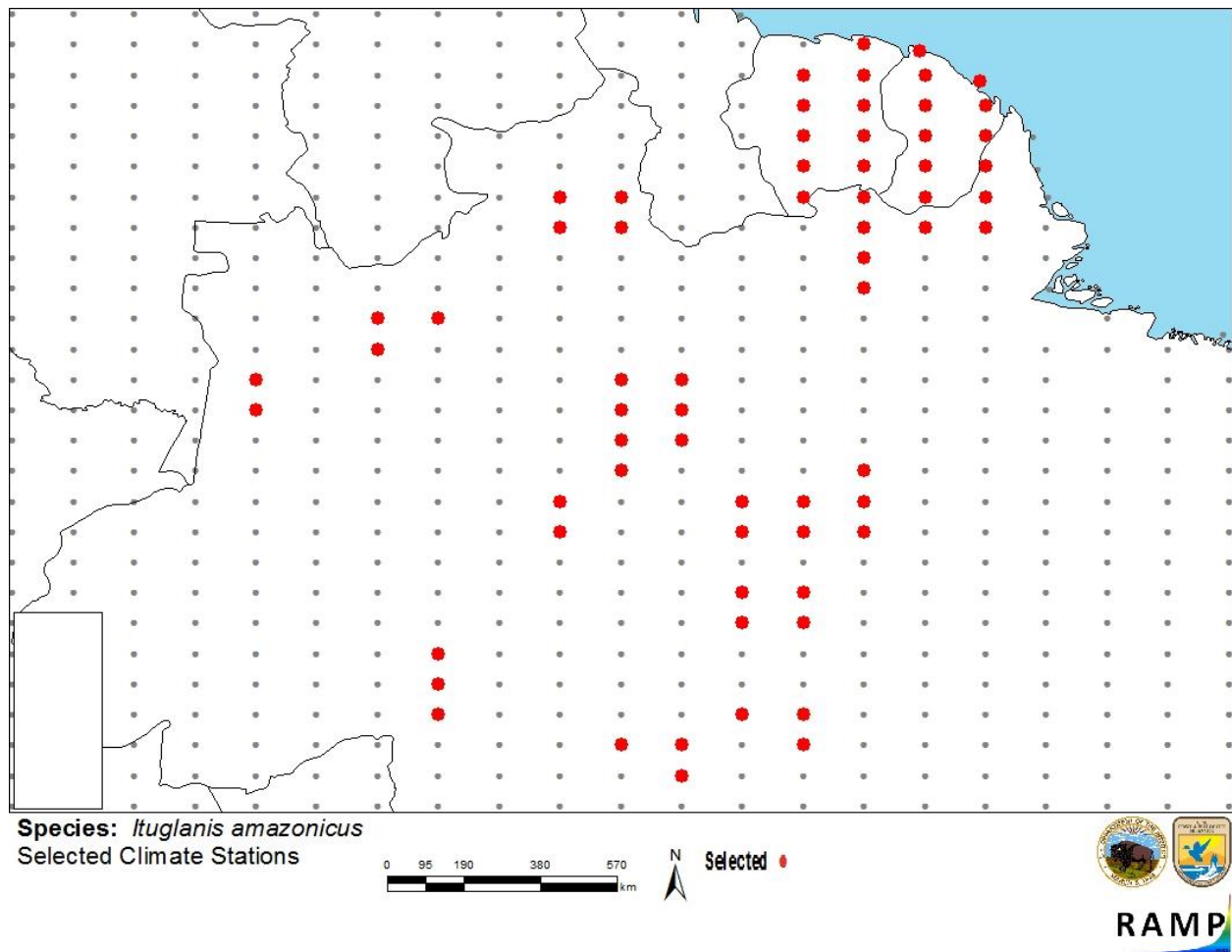


Figure 2. RAMP (Sanders et al. 2014) source map of northeastern South America showing weather stations selected as source locations (red) and non-source locations (gray) for *Ituglanis amazonicus* climate matching. Source locations from GBIF (2016).

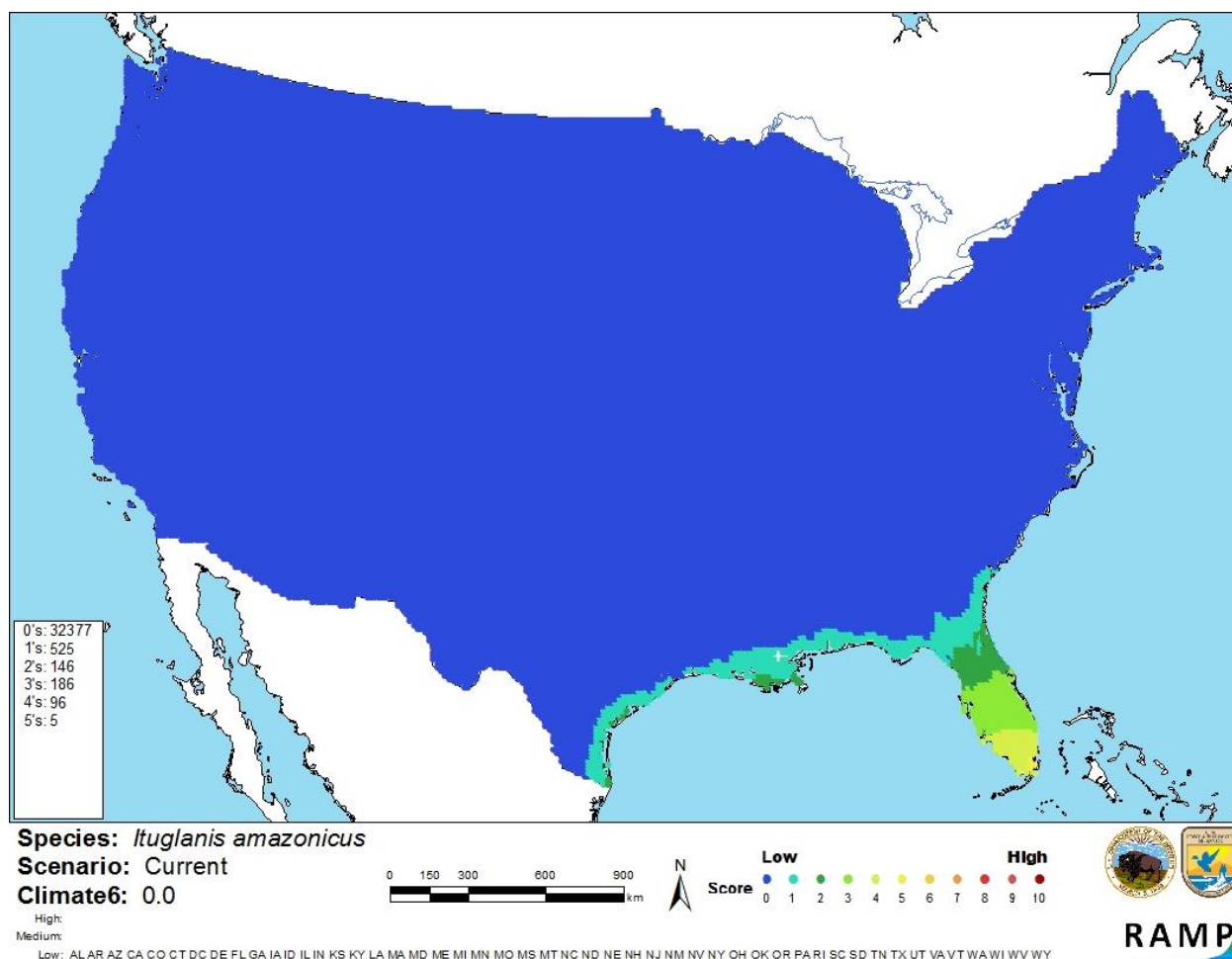


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Ituglanis amazonicus* in the contiguous United States based on source locations reported by GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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 was limited information available on the species *Ituglanis amazonicus*. 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.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Ituglanis amazonicus is a trichomycterid catfish found in South America in the Amazon and Suriname River Basins in Brazil, Suriname, and French Guiana. It can be found in leaf litter in forest creeks; its feeding habits are unknown. There have been no reports of this fish outside of its native range. Due to its low Climate 6 score and absence of introduction history, the overall risk for 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). 2016. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/#nogo>. (December 2016).
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- ITIS (Integrated Taxonomic Information System). 2016. *Ituglanis amazonicus* (Steindachner, 1882). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682116#null. (December 2016).
- Landeiro, V. L., N. Hamada, and A. S. Melo. 2008. Responses of aquatic invertebrate assemblages and leaf breakdown to macroconsumer exclusion in Amazonian “terra firme” streams. *Fundamental and Applied Limnology/Archiv für Hydrobiologie* 172(1):49-58.
- Mol, J. H. A. 2012. The freshwater fishes of Suriname. Brill, Boston.

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.

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Le Bail, P.-Y., P. Keith, and P. Planquette. 2000. Atlas des poissons d'eau douce de Guyane, volume 2. Fascicule II: Siluriformes. Collection Patrimoines Naturels 43(II). Publications scientifiques du Muséum national d'Histoire naturelle, Paris.

Lowe-McConnell, R. H. 1999. Estudos ecológicos de comunidades de peixes tropicais. Edusp, São Paulo, Brazil.

Mendonça, F. P., W. E. Magnusson, and J. Zuanon. 2005. Relationships between habitat characteristics and fish assemblages in small streams of Central Amazonia. *Copeia* 4:751-764.

Sabino, J. L., and J. Zuanon. 1998. A stream fish assemblage in Central Amazônia: distribution, activity patterns and feeding behavior. *Ichthyological Exploration of Freshwaters* 8:201-210.