

Ituglanis cahyensis (a catfish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, December 2016

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Photo: Sarmiento-Soares et al. (2006). Licensed under CC BY-NC.

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: known only from rio Palmares, a tributary of the rio Cahy in Bahia, Brazil.”

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 cahyensis”

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 GBIF (2016):

“KINGDOM Animalia
PHYLUM Chordata
CLASS Actinopterygii
ORDER Siluriformes
FAMILY Trichomycteridae
GENUS *Ituglanis*
SPECIES *Ituglanis cahyensis*”

“TAXONOMIC STATUS
accepted species”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 4.9 cm SL male/unsexed; [Sarmiento-Soares et al. 2006]”

Environment

From Froese and Pauly (2016):

“Freshwater; demersal.”

From Sarmiento-Soares et al. (2006):

“The rio Palmares is the northernmost tributary of the rio Cahy drainage, with shallow waters, with approximately 1.5 m of depth where the catfish samples were collected [...] The small *Ituglanis* catfishes were sampled in brown waters, with moderate flowing current and a sandy or gravel bottom. The environment around the river was deforested, with few floating meadows and moderately vegetated on its margins.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: known only from rio Palmares, a tributary of the rio Cahy in Bahia, Brazil.”

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 Froese and Pauly (2016):

“Dorsal spines (total): 0; Dorsal soft rays (total): 9; Anal soft rays: 7 - 8; Vertebrae: 40. Distinguished from most of its congeners, except *Ituglanis macunaima* and *Ituglanis parahybae*, by having a pectoral fin ray count of I,4. Differs also from all its congeners, excluding *Ituglanis parahybae*, by the coloration pattern with longitudinal rows of coalescing blotches. Can be differentiated from *Ituglanis parahybae* by the supraorbital laterosensory canal branch with pores s3 and s6 present.”

From Sarmiento-Soares et al. (2006):

“Live coloration. Ground color pale yellow, mottled with grayish brown blotches, coalescing irregularly, and spots, forming longitudinal rows on trunk. Two longitudinal rows of coalescing blotches on lateral sides of trunk, and one mid-dorsal row. Mid-dorsal row distinguished only on anterior portion of body, as blotches become progressively continue with lateral row close to dorsal-fin insertion. Head pale yellow to orange-yellow with scattered grayish brown chromatophores. Ventral surface of head and belly white. Fins almost hyaline.”

Biology

From Sarmiento-Soares et al. (2006):

“The stomach contents of two specimens were analyzed (MNRJ 28405, female, with unknown size due to a damaged caudal peduncle and MNRJ 28405, male, 41.3 mm SL). The stomachs were partially empty, but with remaining fragments of insect larvae, nymphs, and organic matter in advanced state of digestion. The macroscopic examination of gonads of both specimens revealed that the female was in maturing stage, while the male was in depletion stage, an indicative that the small catfishes were reproducing by the time of their capture.”

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.

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 [...]

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4 Global Distribution



Figure 1. Known global established locations of *Ituglanis cahyensis* in eastern Brazil. Map from GBIF (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 proportion (Sanders et al. 2014; 16 climate variables; Euclidean Distance) for *Ituglanis cahyensis* in the contiguous U.S. indicated a low climate match overall. The range of proportions indicating a low climate match is 0.000-0.005, inclusive, and the Climate 6 proportion of *Ituglanis cahyensis* was 0.005. Medium climate matches occurred in peninsular Florida and along the Texas coast. The remainder of the contiguous U.S. showed low climate matches.



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

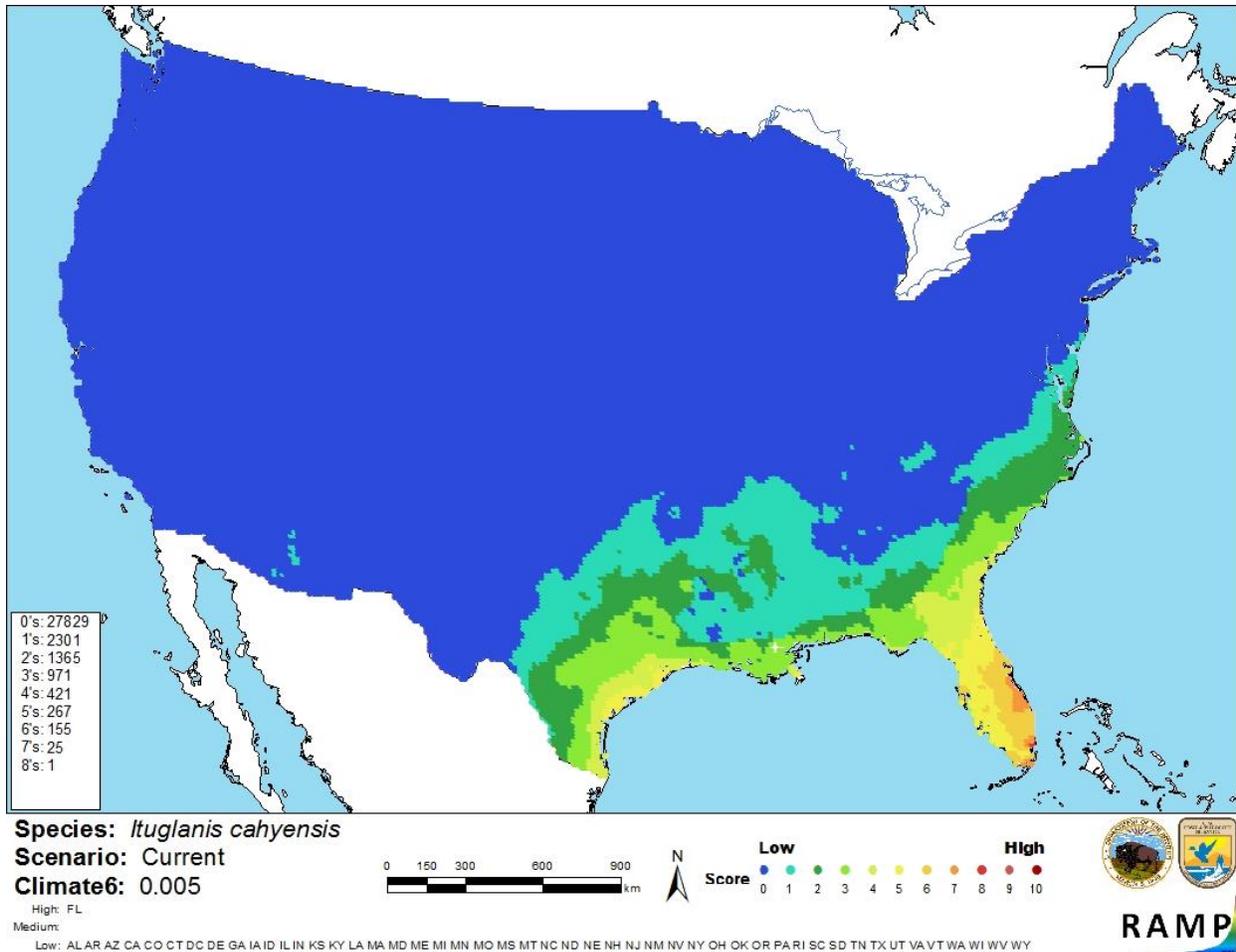


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Ituglanis cahyensis* in the contiguous United States based on source locations reported by GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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
$0.000 \leq X < 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

There was limited information available on the species *Ituglanis cahyensis*. 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 cahyensis is a trichomycterid catfish known only from one tributary in eastern Brazil. There have been no reports of this fish outside of its native range. Possession or transport of *I. cahyensis* is prohibited in the state of Florida, as is true for other trichomycterids. Due to its low climate match 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

- 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).
- Froese, R., and D. Pauly. 2016. *Ituglanis cahyensis* Sarmiento-Soares, Martins-Pinheiro, Aranda & Chamon, 2006. FishBase. Available : <http://www.fishbase.se/summary/Ituglanis-cahyensis.html>. (December 2016).
- GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Ituglanis cahyensis* Sarmiento-Soares, Martins-Pinheiro, Aranda & Chamon, 2006. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2342897>. (December 2016).
- Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. U.S. Fish and Wildlife Service.
- Sarmiento-Soares, L. M., R. F. Martins-Pinheiro, A. T. Aranda, and C. C. Chamon. 2006. *Ituglanis cahyensis*, a new catfish from Bahia, Brazil (Siluriformes: Trichomycteridae). Neotropical Ichthyology 4(3):309-318.