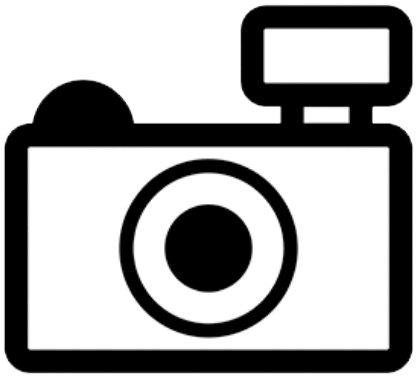
Ituglanis parkoi (a catfish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2017
Revised, February 2017
Web Version, 1/31/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

"South America: Amazon River basin. [Brazil]"

Status in the United States

This species has not been reported in the United States.

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. […]
Freshwater Aquatic Species […]
Parasitic catfishes […]
Ituglanis parkoi"

Means of Introductions in the United States
This species has not been reported in the United States.

Remarks
From GBIF (2016):

"BASIONYM
Pygidium parkoi Miranda Ribeiro, 1944"

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 *Ituglanis*
Species *Ituglanis parkoi* (Miranda Ribeiro, 1944)"

"Taxonomic Status: valid"

Size, Weight, and Age Range
From Froese and Pauly (2016):

"Max length : 17.0 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 River basin. [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 Datovo and Landim (2005):

"[…] brownish background, lighter on belly, with obscure dark spots […]"

Biology
From Wosiacki et al. (2012):

"The species of *Ituglanis* inhabit small streams and rapids, and include a few troglomorphic forms (Bichuette & Trajano, 2004, 2008)."

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 (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. […]
Freshwater Aquatic Species […]
Parasitic catfishes […]
Ituglanis parkoi"

4 Global Distribution

Figure 1. Known global established locations of *Ituglanis parkoi* in 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 match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout the contiguous U.S., reflected in a Climate 6 score of 0.0. Climate 6 scores between 0.000 and 0.005 indicate a low climate match.

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

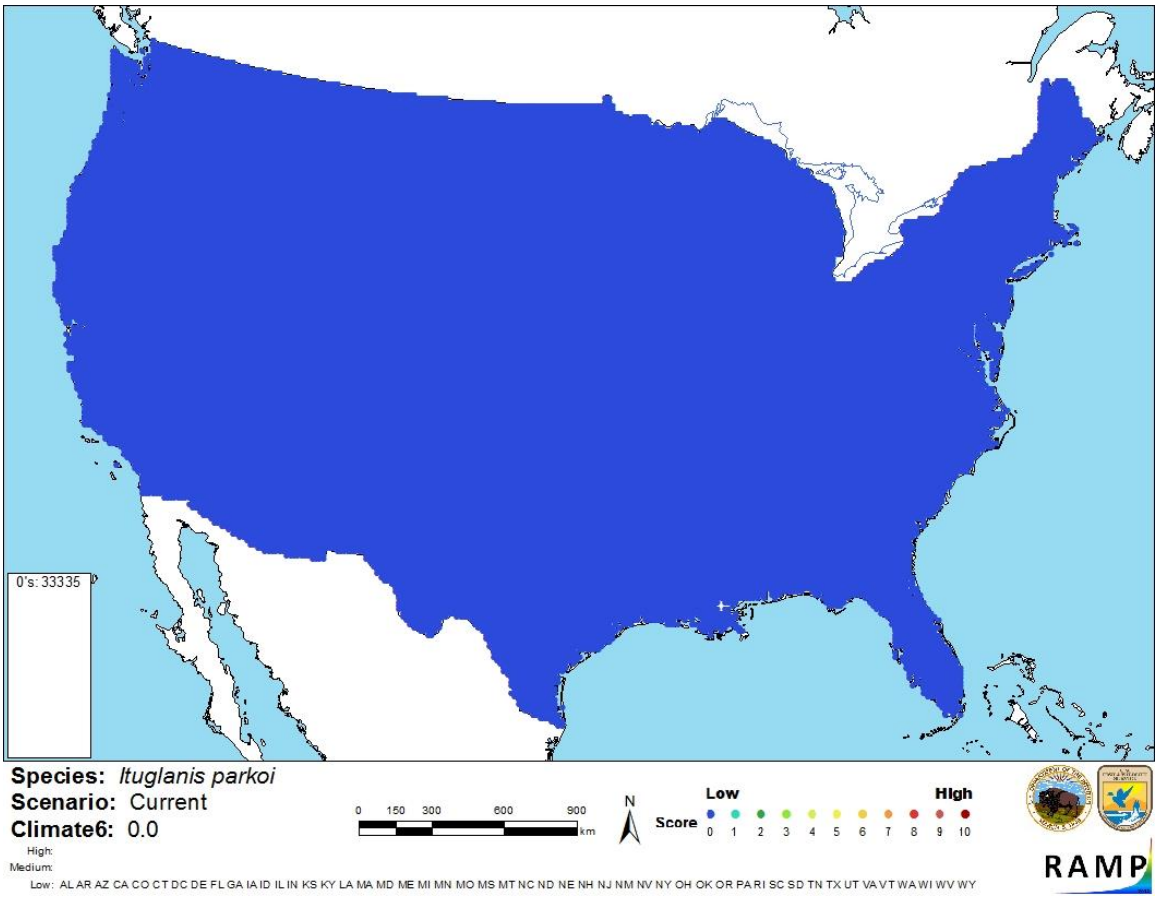


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Ituglanis parkoi* in the contiguous United States based on source locations reported by GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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 biology of *Ituglanis parkoi*. This species has not been reported outside of its native range so impacts of introduction are unknown. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Ituglanis parkoi is a trichomycterid catfish native to the Amazon River Basin in Brazil. There have been no reports of this fish outside of its native range. Like other trichomycterids, *I. parkoi* is a prohibited species in the state of Florida. 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

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.

Datovo, A., and M. I. Landim. 2005. *Ituglanis macunaima*, a new catfish from the rio Araguaia basin, Brazil (Siluriformes: Trichomycteridae). Neotropical Ichthyology 3(4):455-464.

FFWCC (Florida Fish and Wildlife Conservation Commission). 2017. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/#nogo. (January 2017).

Froese, R., and D. Pauly. 2016. *Ituglanis parkoi* (Miranda Ribeiro, 1944). FishBase. Available: http://www.fishbase.se/summary/Ituglanis-parkoi.html. (January 2017).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Ituglanis parkoi* (Miranda Ribeiro, 1944). Global Biodiversity Information Facility, Copenhagen. Available: http://www.gbif.org/species/2342922. (January 2017).

ITIS (Integrated Taxonomic Information System). 2017. *Ituglanis parkoi* (Miranda Ribeiro, 1944). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682127#null. (January 2017).

Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. U.S. Fish and Wildlife Service.

Wosiacki, W. B., G. M. Dutra, and M. B. Mendonça. 2012. Description of a new species of *Ituglanis* (Siluriformes: Trichomycteridae) from Serra dos Carajás, rio Tocantins basin. Neotropical Ichthyology 10(3):547-554.

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.

Bichuette, M. E., and E. Trajano. 2004. Three new subterranean species of *Ituglanis* from Central Brazil (Siluriformes: Trichomycteridae). Icthyological Explorations of Freshwaters 15:243-356.

Bichuette, M. E., and E. Trajano. 2008. *Ituglanis mambai*, a new subterranean catfish from a karst area of Central Brazil, rio Tocantins basin (Siluriformes: Trichomycteridae). Neotropical Ichthyology 6:9-15.

de Pínna, M. C. C., and W. Wosiacki. 2003. Trichomycteridae (pencil or parasitic catfishes). Pages 270-290 *in* R. E. Reis, S. O. Kullander, and C. J. Ferraris, Jr., editors. Checklist of the freshwater fishes of South and Central America. EDIPUCRS, Porto Alegre, Brazil.