

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

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, December 2016

Revised, February 2017

Web Version, 1/27/2018

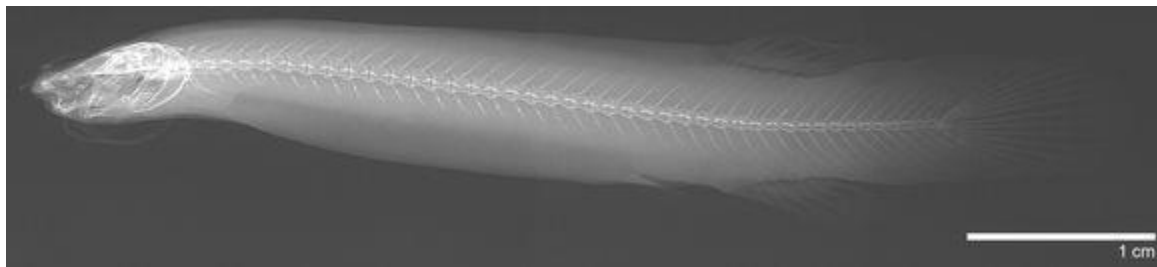


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1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: Guyana.”

From O’Shea et al. (2011):

“Kutari [River, Suriname]”

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 gracilior”

Means of Introductions in the United States

This species has not been reported in the United States.

Remarks

From GBIF (2016):

“BASIONYM

Pygidium gracilior Eigenmann, 1912”

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 gracilior* (Eigenmann, 1912)”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 7.9 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: Guyana.”

From O’Shea et al. (2011):

“Kutari [River, Suriname]”

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 Eigenmann (1912):

“Head 6; depth 9; D. 8; A. 6; eye about 2 in the snout; interorbital a little greater than snout, snout 3 in the head. Slender, head as broad as long; maxillary barbel reaching tip of pectoral; nasal barbel to origin of pectoral; outer pectoral ray prolonged, about equal to the head in length. Origin of the anal under origin of dorsal; distance from origin of dorsal to origin of caudal 3.5 in the length; length of caudal 5 in the length. All upper parts obscurely spotted.”

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).”

From Datovo and de Pinna (2014):

“Most epigeal species of *Ituglanis* have microhabitat preferences favouring interstices within leaf litter, wood debris and gravel.”

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 [...] *Ituglanis gracilior*”

4 Global Distribution



Figure 1. Known global established locations of *Ituglanis gracilior*. Map from GBIF (2016). Points outside Guyana and Suriname were excluded from climate matching because they lie outside the known established range of the species (see Distribution Outside the United States).

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) for *Ituglanis gracilior* was low throughout the contiguous U.S., reflected in a Climate 6 proportion of 0.0. The range of proportions indicating a low climate match is 0.000-0.005.



Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) in Guyana and Suriname and non-source locations (gray) for *Ituglanis gracilior* climate matching. Source locations from O'Shea et al. (2011) and GBIF (2016).

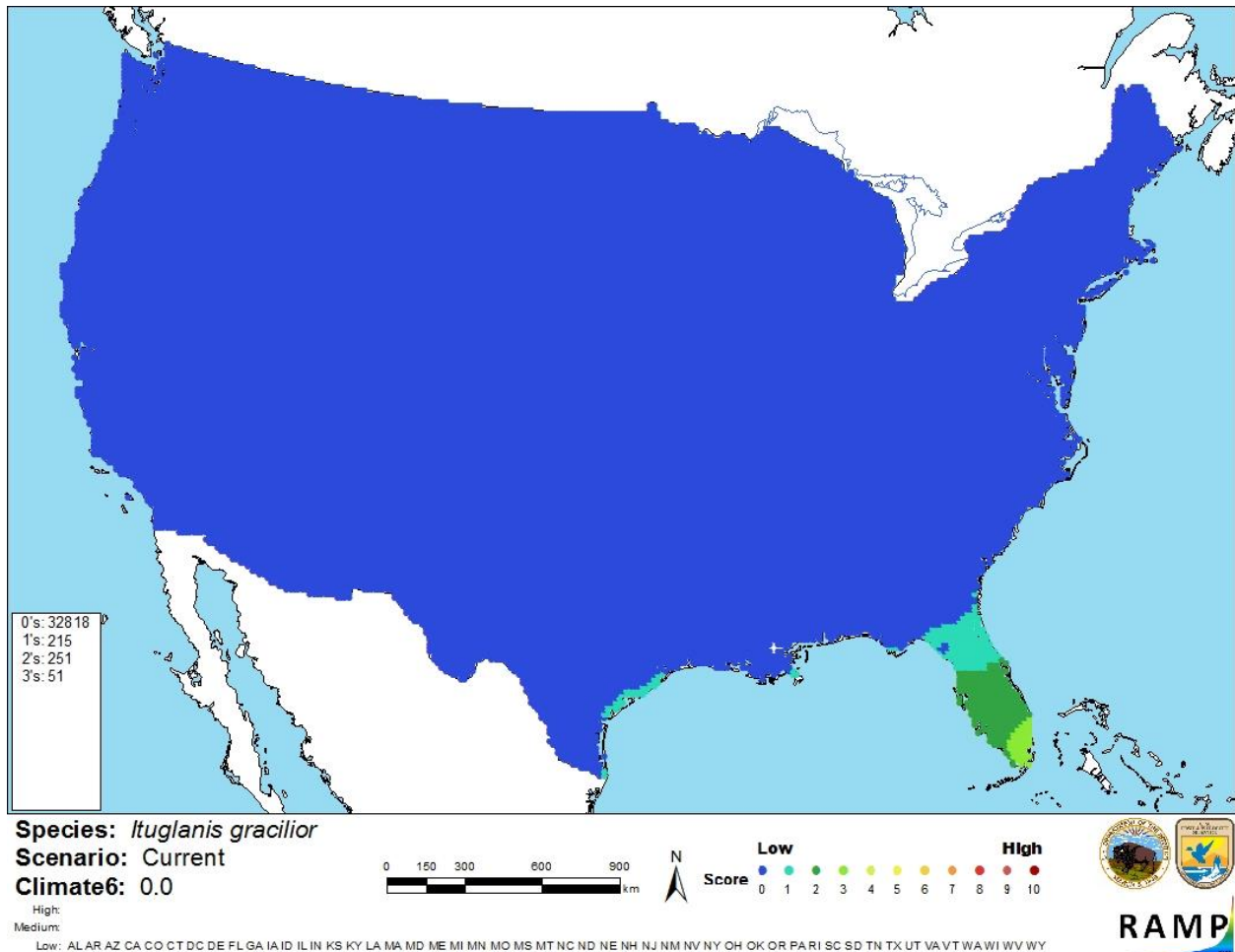


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Ituglanis gracilior* in the contiguous United States based on source locations reported by O’Shea et al. (2011) and GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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 gracilior*. This species has not been reported outside of its native range so impacts of introduction are unknown. With such little information, the certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Ituglanis gracilior is a trichomycterid catfish found in Guyana and Suriname. There have been no reports of this species outside of its native range, so impacts of its introduction to novel habitats are unknown. Possession or transport of *I. gracilior* is prohibited in the state of Florida, as is true of other trichomycterids. Due to its low climate match and absence of introduction history, the 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.

- Datovo, A., and M. C. C. de Pinna. 2014. A new species of *Ituglanis* representing the southernmost record of the genus, with comments on phylogenetic relationships (Teleostei: Siluriformes: Trichomycteridae). *Journal of Fish Biology* 84:314-327.
- Eigenmann, C. H. 1912. The freshwater fishes of British Guiana, including a study of the ecological grouping of species and the relation of the fauna of the plateau to that of the lowlands. *Memoirs of the Carnegie Museum* 5.
- 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, editors. 2016. *Ituglanis gracilior* (Eigenmann, 1912). FishBase. Available: <http://www.fishbase.org/summary/Ituglanis-gracilior.html>. (December 2016).
- GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Ituglanis gracilior* (Eigenmann, 1912). Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2342901>. (December 2016).
- ITIS (Integrated Taxonomic Information System). 2016. *Ituglanis gracilior* (Eigenmann, 1912). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682120#null. (December 2016).

- O'Shea, B. J., L. E. Alonso, and T. H. Larsen. 2011. A rapid biological assessment of the Kwamalasamutu region, southwestern Suriname. RAP Bulletin of Biological Assessment 63. Conservation International, Arlington, Virginia.
- 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). Ichthyological Explorations of Freshwaters 15:243-356.
- Bichuette, M. E., and E. Trajano. 2008. *Ituglanis mambai*, a new subterranean catfish from a karst área 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.