

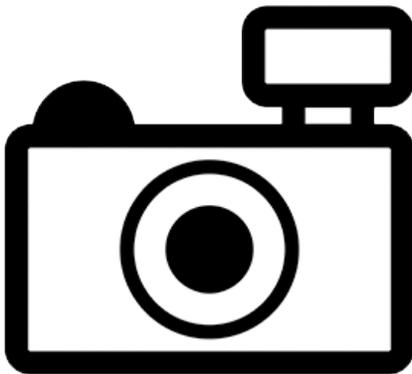
## ***Ituglanis eichorniarum* (a catfish, no common name)**

### **Ecological Risk Screening Summary**

U.S. Fish & Wildlife Service, January 2012

Revised, February 2017

Web Version, 1/27/2018



No Photo Available

## **1 Native Range and Status in the United States**

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### **Native Range**

From Froese and Pauly (2016):

“South America [Brazil, Uruguay, Argentina]: upper Paraguay River basin [de Pínna and Wosiacki 2003] Reported from the Paraña [López et al. 2005].”

### **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. Very limited exceptions may be made by permit from the Executive Director [...]  
Freshwater Aquatic Species [...]  
Parasitic catfishes [...]  
*Ituglanis eichorniarum*”

## Means of Introductions in the United States

This species has not been reported in the United States.

## Remarks

From GBIF (2016):

“BASIONYM

*Trichomycterus eichorniarum* Miranda Ribeiro, 1912”

## 2 Biology and Ecology

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### 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 eichorniarum* (Miranda Ribeiro, 1912)”

“Current Standing: valid”

### Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 5.7 cm SL male/unsexed; [Ferrer et al. 2015]”

### 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 [Brazil, Uruguay, Argentina]: upper Paraguay River basin [de Pínna and Wosiacki 2003] Reported from the Paraña [López et al. 2005].”

Introduced

No introductions of this species have been reported.

## **Means of Introduction Outside the United States**

No introductions of this species have been reported.

## **Short Description**

From Datovo and Landim (2005):

“*Ituglanis eichorniarum* posses [sic] i,5 pectoral-fin rays and 38-39 vertebrae [...]”

From Datovo and de Pinna (2014):

“[...] dark brown spots not coalesced into stripes [...]”

## **Biology**

From Datovo and de Pinna (2014):

“Most epigean species of *Ituglanis* have microhabitat preferences favouring interstices within leaf litter, wood debris and gravel. Such cryptic behaviour is attenuated in subterranean species.”

From Texeira-de Mello et al. (2016):

“Benthivorous”

## **Human Uses**

No information available.

## **Diseases**

No information available.

## Threat to Humans

From Froese and Pauly (2016):

“Harmless”

## 3 Impacts of Introductions

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No introductions of this species have been reported.

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 [...]  
Freshwater Aquatic Species [...]  
Parasitic catfishes [...]  
*Ituglanis eichorniarum*”

## 4 Global Distribution

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**Figure 1.** Known global established locations of *Ituglanis eichorniarum* in South America. Map from GBIF (2016). Westernmost point was excluded from climate matching because this point is located in the Amazon River basin, outside of the described established range of *I. eichorniarum* (see Distribution Outside the United States, above).

## 5 Distribution within the United States

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This species has not been reported in the United States.

## 6 Climate Matching

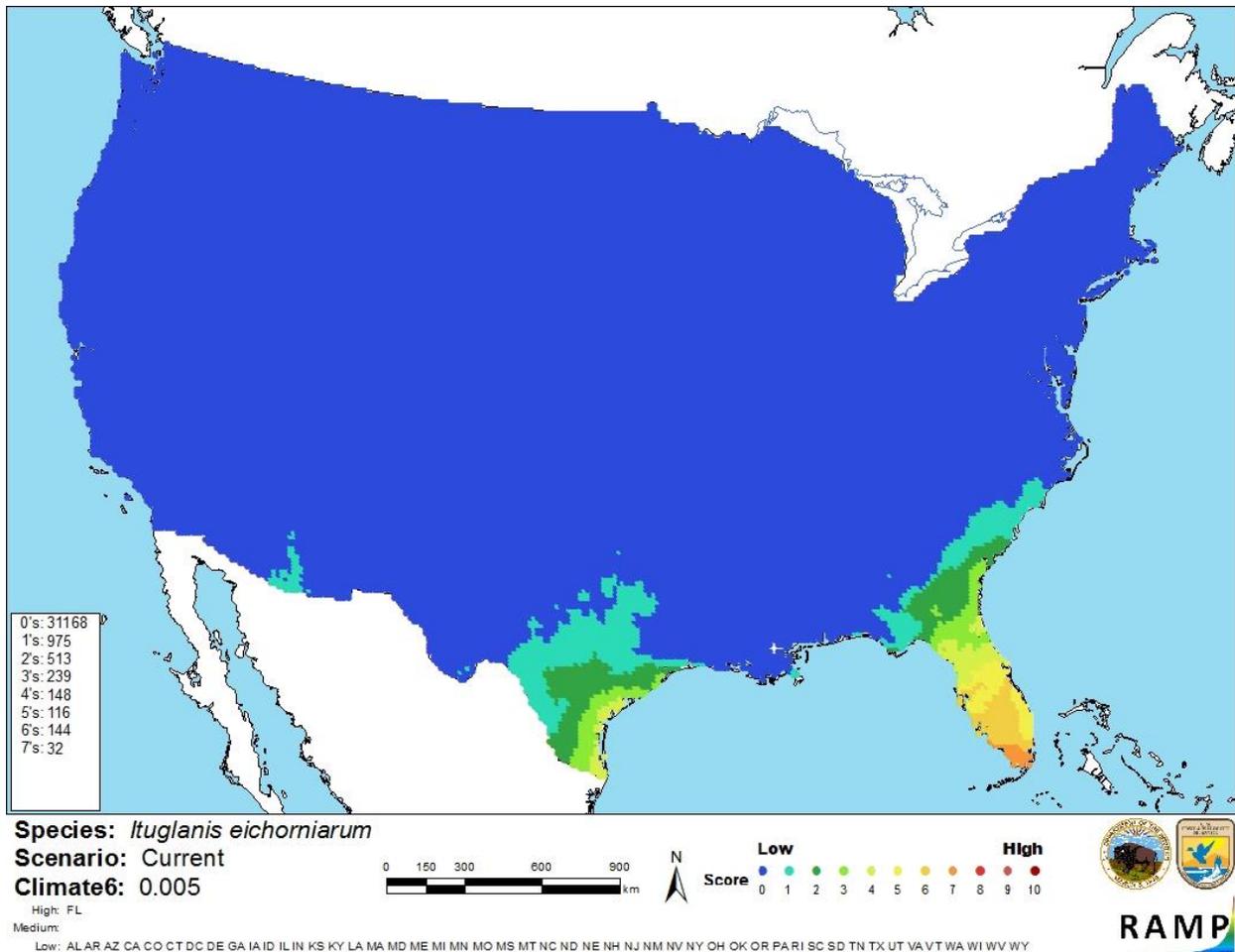
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### Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was medium in peninsular Florida and southeastern Texas, and low across the remainder of the contiguous United States. The Climate 6 proportion indicated that the contiguous U.S. is a low climate match overall. The range of proportions indicating a low climate match is 0.000-0.005 inclusive; the Climate 6 proportion for *Ituglanis eichorniarum* was 0.005.



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



**Figure 3.** Map of RAMP (Sanders et al. 2014) climate matches for *Ituglanis eichorniarum* 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
$\geq 0.103$	High

## 7 Certainty of Assessment

Little information is available on the biology, ecology, or distribution of *Ituglanis eichorniarum*. No introductions of the species have been reported, so impacts of introduction are unknown. Certainty of this assessment is low.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Ituglanis eichorniarum* is a trichomycterid catfish recorded from the upper Paraguay and the Paraña river basins running from southeastern Brazil to northeastern Argentina. No introductions of this species have been reported, so impacts of introduction are unknown. Like other trichomycterids, *I. eichorniarum* is classified as a prohibited species by the state of Florida. Climate match to the contiguous U.S. is low. Overall risk posed by *I. eichorniarum* is uncertain.

### Assessment Elements

- **History of Invasiveness: Uncertain**
- **Climate Match: Low**
- **Certainty of Assessment: Low**
- **Overall Risk Assessment Category: Uncertain**

## 9 References

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**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.
- 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/>. (February 2017).
- Froese, R., and D. Pauly, editors. 2016. *Ituglanis eichorniarum* (Miranda Ribeiro, 1912). FishBase. Available: <http://www.fishbase.org/summary/SpeciesSummary.php?ID=48679&genusname=Ituglanis&speciesname=eichorniarum&AT=ituglanis+eichorniarum&lang=English>. (February 2017).
- GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Ituglanis eichorniarum* (Miranda Ribeiro, 1912). Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2342915>. (February 2017).
- ITIS (Integrated Taxonomic Information System). 2017. *Ituglanis eichorniarum* (Miranda Ribeiro, 1912). Integrated Taxonomic Information System, Reston, Virginia. Available: [https://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=682118#null](https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682118#null). (February 2017).

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

Teixeira-de Mello, F., V. A. de Oliveira, S. M. Loverde-Oliveira, V. L. M. Huszar, J. Barquín, C. Iglesias, T. S. F. Silva, C. H. Duque-Estrada, A. Silió-Calzada, and N. Mazzeo. 2016. The structuring role of free-floating plants on the fish community in a tropical shallow lake: an experimental approach with natural and artificial plants. *Hydrobiologia* 778(1):167-178.

## 10 References Quoted But Not Accessed

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**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.**

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.

Ferrer, J., L. M. Donin, and L. R. Malabarba. 2015. A new species of *Ituglanis* Costa & Bockmann, 1993 (Siluriformes: Trichomycteridae) endemic to the Tramandaí-Mampituba ecoregion, southern Brazil. *Zootaxa* 4020(2):375-389.

López, H. L., A. M. Miquelarena, and J. Ponte Gómez. 2005. Biodiversidad y distribución de la ictiofauna Mesopotámica. *Miscelánea* 14:311-354.