

Ituglanis nebulosus (a catfish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, December 2016

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Photo: S. Brosse. Licensed under Creative Commons BY-NC 3.0. Available: <http://www.fishbase.se/photos/PicturesSummary.php?ID=62279&what=species>. (February 2017).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: French Guiana.”

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 nebulosus”

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 Ostariophysii

Order Siluriformes

Family Trichomycteridae

Subfamily Trichomycterinae

Genus *Ituglanis*

Species *Ituglanis nebulosus* de Pinna and Keith, 2003”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From de Pinna and Keith (2003):

“Standard length (mm) [mean =] 34.3”

Environment

From de Pinna and Keith (2003):

“All material of [*I. nebulosus*] was collected at a slow-flowing section of the river, about 3 meters wide, 20-50 cm deep, and densely shaded by tropical rain forest (gallery forest). The bottom was sandy, covered with leaf litter. Water was clear, slightly tea-stained.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: French Guiana.”

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 de Pinna and Keith (2003):

“It differs from all other species of *Ituglanis* by a color pattern composed of large, round spots irregularly distributed on body and not coalesced into longitudinal stripes. It is also diagnosable from most congeners by the round caudal fin and the reduced number of vertebrae (35 or 36).”

Biology

From de Pinna and Keith (2003):

“The exact microhabitat of the specimens could not be determined, because collecting was done with rotenone. Eight species were found together with *Ituglanis nebulosus*: *Dysichthys coracoideus*, *Helogenes marmoratus*, *Bryconops affinis*, *Hoplias aimara*, *Gasteropelecus sternicla*, *Copella carsevennensis*, *Astyanax meunieri*, and *Poptella brevispina*. Stomach contents seen by transparency in the cleared and stained paratype of *I. nebulosus* show numerous arthropod remains.”

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 nebulosus”

4 Global Distribution



Figure 1. Known global established locations of *Ituglanis nebulosus* in French Guiana. Map from GBIF (2016). The location in Suriname was not used in climate matching because Suriname is 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 nebulosus* 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 to 0.005.

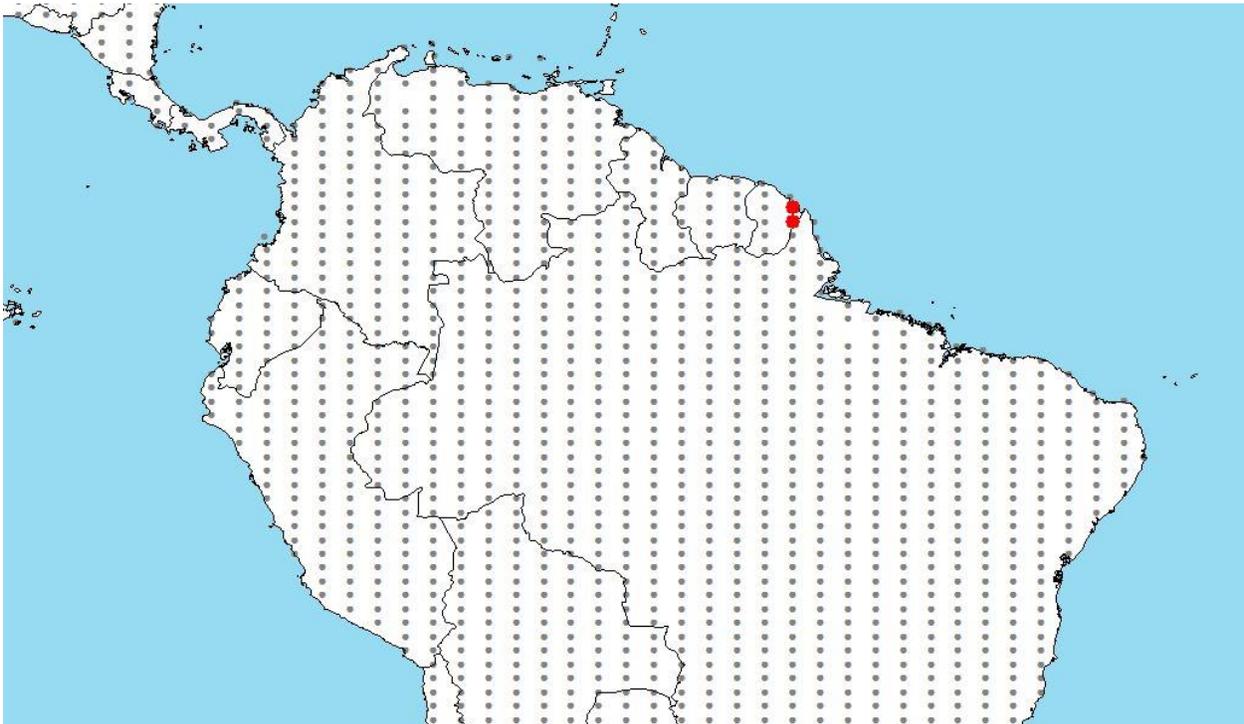


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (blue) for *Ituglanis nebulosus* climate matching. Source locations from GBIF (2016).

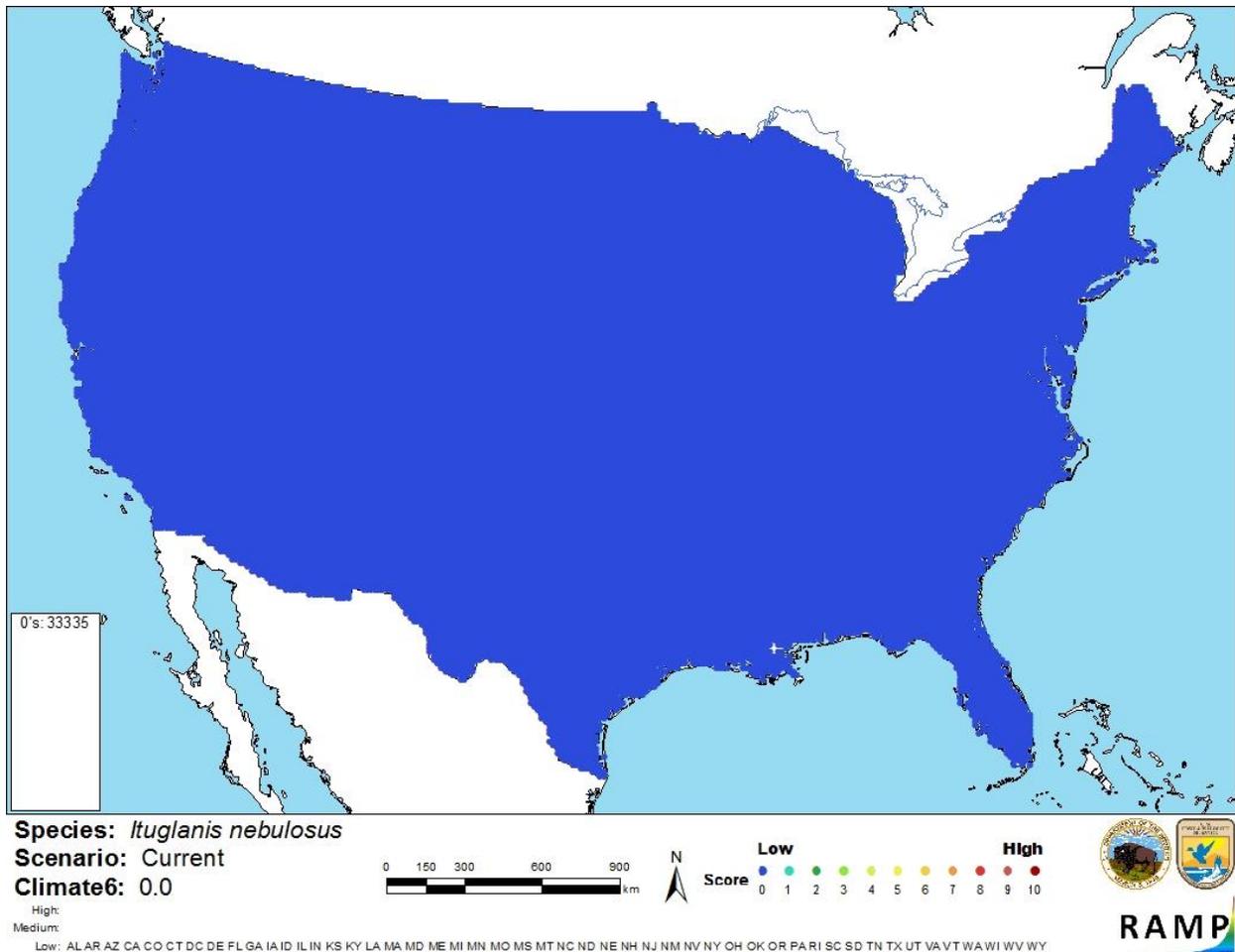


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Ituglanis nebulosus* in the contiguous United States based on source locations reported by GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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 nebulosus*. 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 nebulosus is a trichomycterid catfish native to French Guiana. There have been no reports of this species outside of its native range. Like other trichomycterids, *I. nebulosus* is classified as a prohibited species in the state of Florida, where it cannot be possessed or transported without a permit. Due to a low climate match and absence of introduction history, the overall risk posed by *I. nebulosus* to the contiguous U.S. 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

De Pinna, M., and P. Keith. 2003. A new species of the catfish genus *Ituglanis* from French Guyana (Osteichthyes: Siluriformes: Trichomycteridae). *Proceedings of the Biological Society of Washington* 116(4):873-882.

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 nebulosus* de Pinna & Keith, 2003. FishBase. Available: <http://www.fishbase.org/summary/Ituglanis-nebulosus.html>. (December 2016).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Ituglanis nebulosus* de Pinna & Keith, 2003. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2342898>. (December 2016).

ITIS (Integrated Taxonomic Information System). 2016. *Ituglanis nebulosus* de Pinna and Keith, 2003. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682125#null. (December 2016).

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