

# ***Pterygoplichthys joselimaianus* (a catfish, no common name)**

## **Ecological Risk Screening Summary**

U.S. Fish & Wildlife Service, April 2012

Revised, October 2018

Web Version, 12/23/2019



Photo: Mark Burton. Licensed under CC BY-3.0. Available: [https://commons.wikimedia.org/wiki/Category:Pterygoplichthys\\_joselimaianus#/media/File:Pterygoplichthys\\_joselimaianus.jpg](https://commons.wikimedia.org/wiki/Category:Pterygoplichthys_joselimaianus#/media/File:Pterygoplichthys_joselimaianus.jpg). (October 2018).

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

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### **Native Range**

From Froese and Pauly (2018):

“South America: Tocantins River basin [Brazil].”

## Status in the United States

No records of *Pterygoplichthys joselimaianus* in the wild or in trade in the United States were found.

## Means of Introductions in the United States

No records of *Pterygoplichthys joselimaianus* in the wild in the United States were found.

## Remarks

No additional remarks.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2018):

“**Current status:** valid as *Pterygoplichthys joselimaianus* (Weber 1991).”

From Bailly (2017):

“Biota > Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > [...] Actinopterygii (Class) > Siluriformes (Order) > Loricariidae (Family) > Hypostominae (Subfamily) > *Pterygoplichthys* (Genus) > *Pterygoplichthys joselimaianus* (Species)”

### Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 39.5 cm SL male/unsexed; [Garcia-Ayala et al. 2014]”

### Environment

From Froese and Pauly (2018):

“Freshwater; demersal. [...] 24°C - 29°C [assumed to be recommended aquarium temperature range] [Baensch and Riehl 1995]”

### Climate/Range

From Froese and Pauly (2018):

“Tropical”

## **Distribution Outside the United States**

### **Native**

From Froese and Pauly (2018):

“South America: Tocantins River basin [Brazil].”

### **Introduced**

No records of introductions of *Pterygoplichthys joselimaianus* were found.

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

No records of introductions of *Pterygoplichthys joselimaianus* were found.

## **Short Description**

A short description of *Pterygoplichthys joselimaianus* was not found.

## **Biology**

Information on the biology of *Pterygoplichthys joselimaianus* was not found.

## **Human Uses**

Information on human uses of *Pterygoplichthys joselimaianus* was not found.

## **Diseases**

No information on diseases of *Pterygoplichthys joselimaianus* was found. **No records of OIE-reportable diseases (OIE 2019) were found for *P. joselimaianus*.**

## **Threat to Humans**

From Froese and Pauly (2018):

“Harmless”

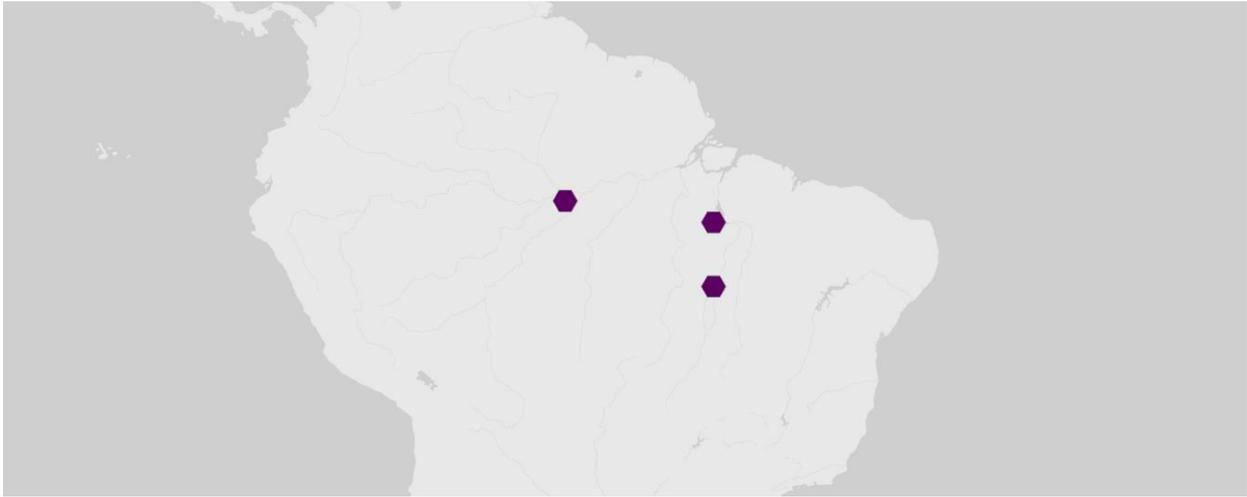
## **3 Impacts of Introductions**

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No records of introductions of *Pterygoplichthys joselimaianus* were found. Therefore, there was no information on impacts of introduction available.

## 4 Global Distribution

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**Figure 1.** Map of northern South America showing locations in Brazil where *Pterygoplichthys joselimaianus* has been reported. Map from GBIF Secretariat (2018).

## 5 Distribution Within the United States

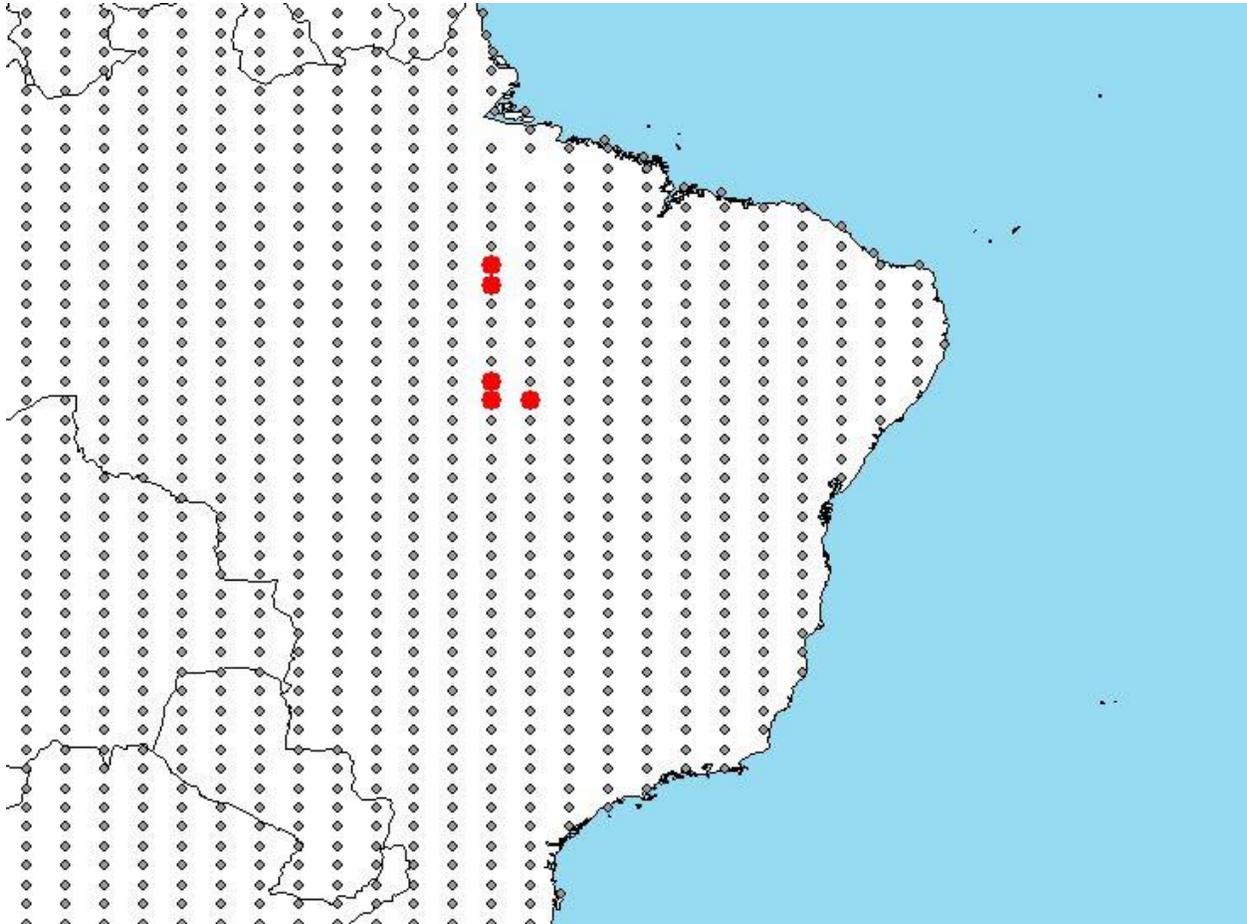
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No records of *Pterygoplichthys joselimaianus* in the wild in the United States were found.

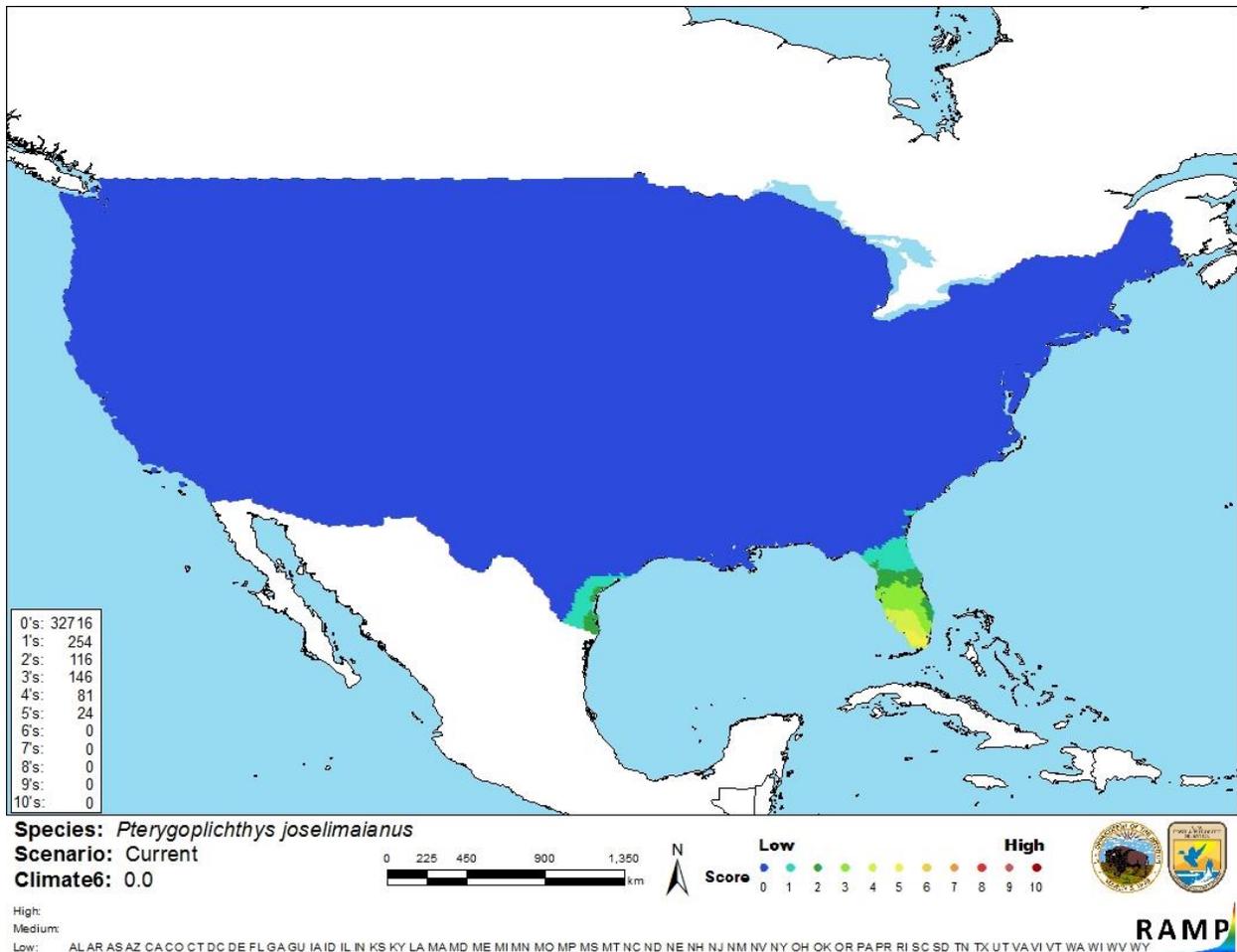
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Pterygoplichthys joselimaianus* was medium for the southwestern tip of Florida. Everywhere else in the contiguous United States had a low climate match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low. (Scores between 0.000 and 0.005, inclusive, are classified as low.) All States had a low individual Climate 6 score.



**Figure 2.** RAMP (Sanders et al. 2018) source map showing weather stations in northern South America selected as source locations (red; Brazil) and non-source locations (gray) for *Pterygoplichthys joselimaianus* climate matching. Source locations from GBIF Secretariat (2018). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.



**Figure 3.** Map of RAMP (Sanders et al. 2018) climate matches for *Pterygoplichthys joselimaianus* in the contiguous United States based on source locations reported from GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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
$\geq 0.103$	High

## 7 Certainty of Assessment

The certainty of assessment for *Pterygoplichthys joselimaianus* is low. There is minimal information available for this species. There are no records of introductions.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Pterygoplichthys joselimaianus* is a South American freshwater armored catfish native to Brazil. Very little information was found about this fish. The history of invasiveness is uncertain. *P. joselimaianus* has not been reported as introduced or established outside its native range. The climate match for the contiguous United States was low. The only area with a medium match was the southwestern tip of Florida. All states had low individual climate scores. The certainty of assessment is low due to lack of information. The overall risk assessment category is uncertain.

### Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information:** No additional information.
- **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.**

Bailey, N. 2017. *Pterygoplichthys joselimaianus*. In World Register of Marine Species. Available <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1011322>. (October 2018).

Fricke, R., W. N. Eschmeyer, and R. van der Laan, editors. 2018. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (October 2018).

Froese, R., and D. Pauly, editors. 2018. *Pterygoplichthys joselimaianus* (Weber, 1991). FishBase. Available <http://www.fishbase.org/summary/Pterygoplichthys-joselimaianus.html>. (October 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Pterygoplichthys joselimaianus* (Weber, 1991). Global Biodiversity Information Facility, Copenhagen. <https://www.gbif.org/species/2339955>. (October 2018).

OIE (World Organisation for Animal Health). 2019. OIE-listed diseases, infections and infestations in force in 2019. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/>. (December 2019).

Sanders, S., C. Castiglione, and M. Hoff. 2018. Risk assessment mapping program: RAMP, version 3.1. U.S. Fish and Wildlife Service.

## 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.**

Baensch, H. A., and R. Riehl. 1995. Aquarien atlas, band 4. Mergus Verlag GmbH, Verlag für Natur-und Heimtierkunde, Melle, Germany.

Garcia-Ayala, J. R., E. M. Brambilla, F. A. Travassos, E. D. Carvalho, and G. S. David. 2014. Length-weight relationships of 29 fish species from the Tucuruí Reservoir (Tocantins/Araguaia Basin, Brazil). *Journal of Applied Ichthyology* 30:1092–1095.

Weber, C. 1991. Nouveaux taxa dans *Pterygoplichthys* sensu lato (Pisces, Siluriformes, Loricariidae). *Revue Suisse de Zoologie* 98(3):637–643.