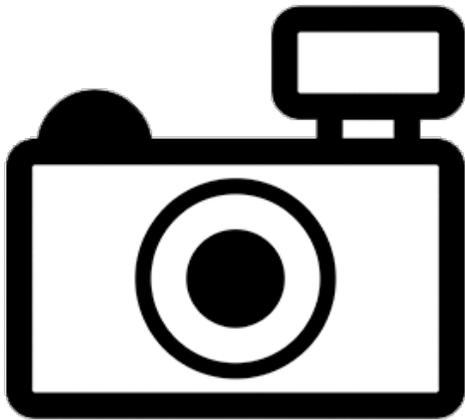


# ***Pterygoplichthys lituratus* (a catfish, no common name)**

## **Ecological Risk Screening Summary**

U.S. Fish & Wildlife Service, April 2012  
Revised, November 2018  
Web Version, 2/4/2021

Organism Type: Fish  
Overall Risk Assessment Category: Uncertain



No Photo Available

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

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### **Native Range**

From Orfinger and Goodding (2018):

“Native Distribution: Madeira River basin, Bolivia and Brazil (Weber 2003).”

Fricke et al. (2018) states that *Pterygoplichthys lituratus* is present in Brazil, Bolivia, and Columbia.

### **Status in the United States**

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

*P. lituratus* falls within Group I of New Mexico’s Department of Game and Fish Director’s Species Importation List (New Mexico Department of Game and Fish 2010). Group I species “are designated semi-domesticated animals and do not require an importation permit.”

## Means of Introductions in the United States

No records of *Pterygoplichthys lituratus* 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

According to Fricke et al. (2018), *Pterygoplichthys lituratus* (Kner 1854) is the current valid name of this species. *Pterygoplichthys lituratus* was originally described as *Ancistrus lituratus* Kner 1854.

From Bailly (2017):

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

### Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 37.0 cm SL male/unsexed; [Weber 2003]”

### Environment

From Froese and Pauly (2018):

“Freshwater; demersal.”

### Climate

From Froese and Pauly (2018):

“Tropical”

### Distribution Outside the United States

Native

From Orfinger and Goodding (2018):

“Native Distribution: Madeira River basin, Bolivia and Brazil (Weber 2003).”

Fricke et al (2018) states that *Pterygoplichthys lituratus* is present in Brazil, Bolivia, and Colombia.

## Introduced

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

## Means of Introduction Outside the United States

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

## Short Description

Information on a short description of *Pterygoplichthys lituratus* was not found.

## Biology

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

## Human Uses

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

## Diseases

No information on diseases of *Pterygoplichthys lituratus* was found. **No records of OIE-reportable diseases (OIE 2021) were found for *P. lituratus*.**

## Threat to Humans

From Froese and Pauly (2018):

“Harmless”

## 3 Impacts of Introductions

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

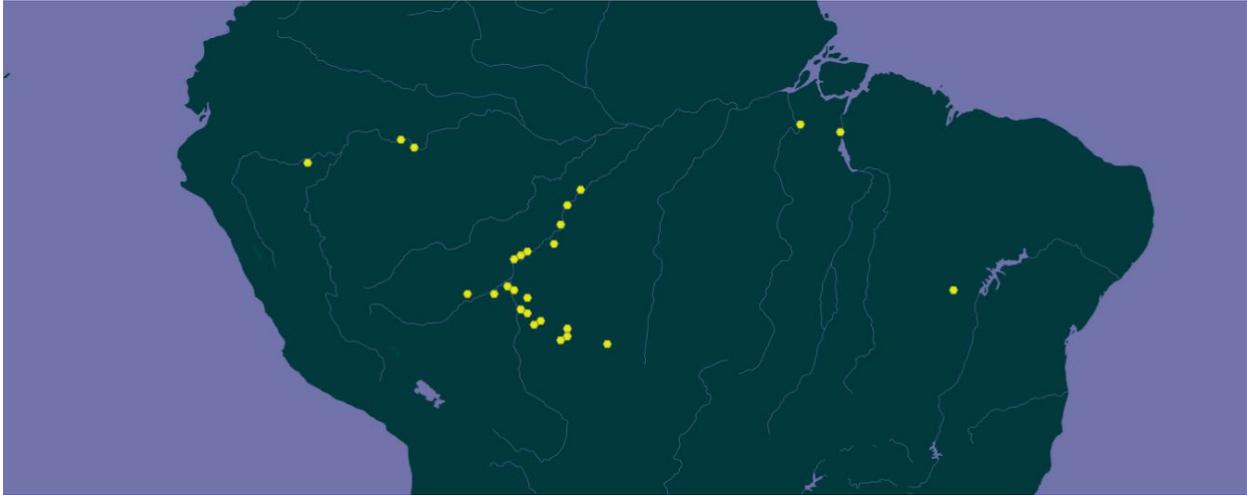
## 4 History of Invasiveness

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No records of introductions of *Pterygoplichthys lituratus* were found, therefore the history of invasiveness is classified as “no known nonnative population.”

## 5 Global Distribution

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**Figure 1.** Map of northern South America showing locations where *Pterygoplichthys lituratus* has been reported. Locations are in Brazil, Bolivia, Colombia, and Peru. Map from GBIF Secretariat (2018). The location in Peru (farthest west point) was not included in the climate match due to no supporting literature of *Pterygoplichthys lituratus* being found in that area.

## 6 Distribution Within the United States

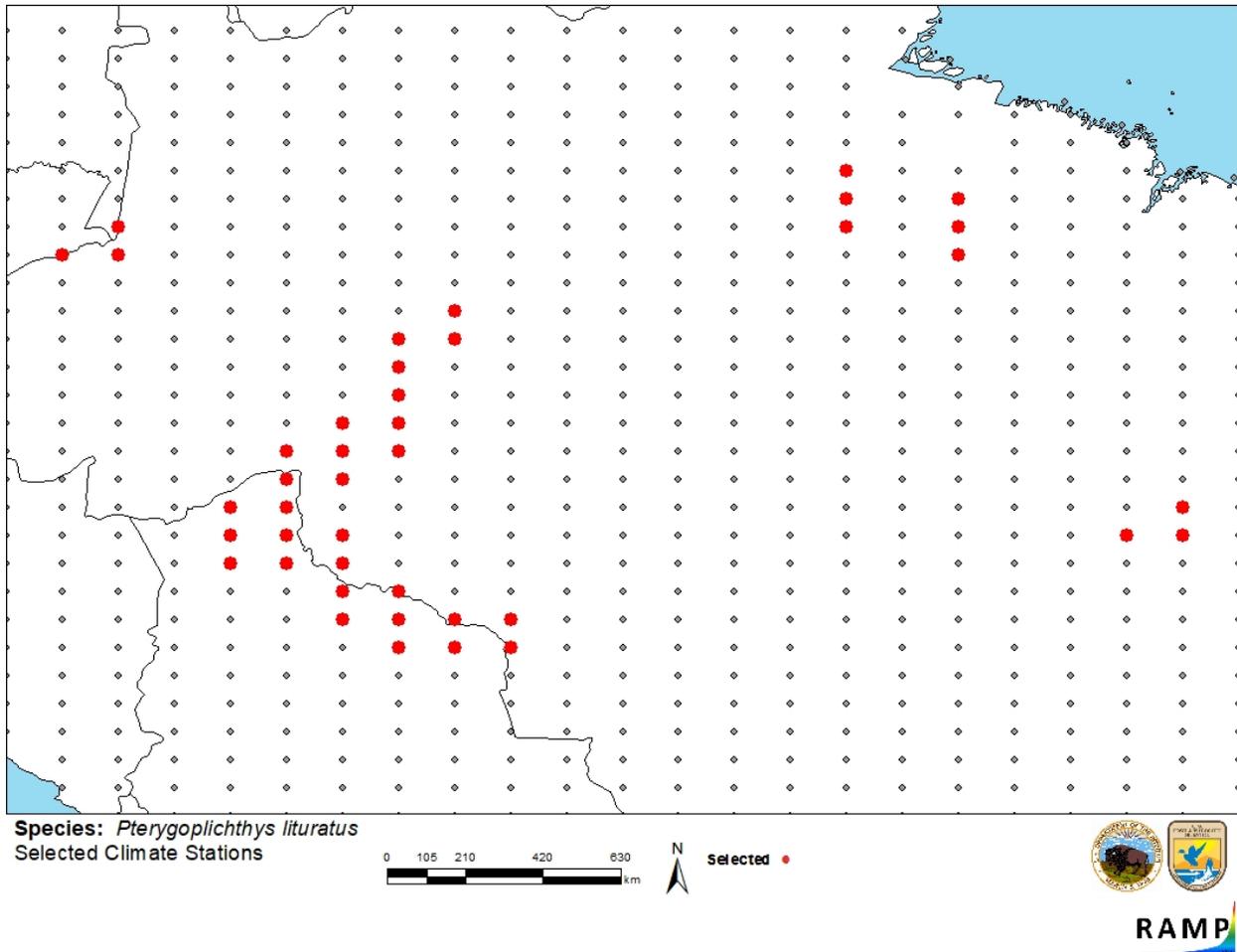
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No records of *Pterygoplichthys lituratus* in the wild in the United States were found.

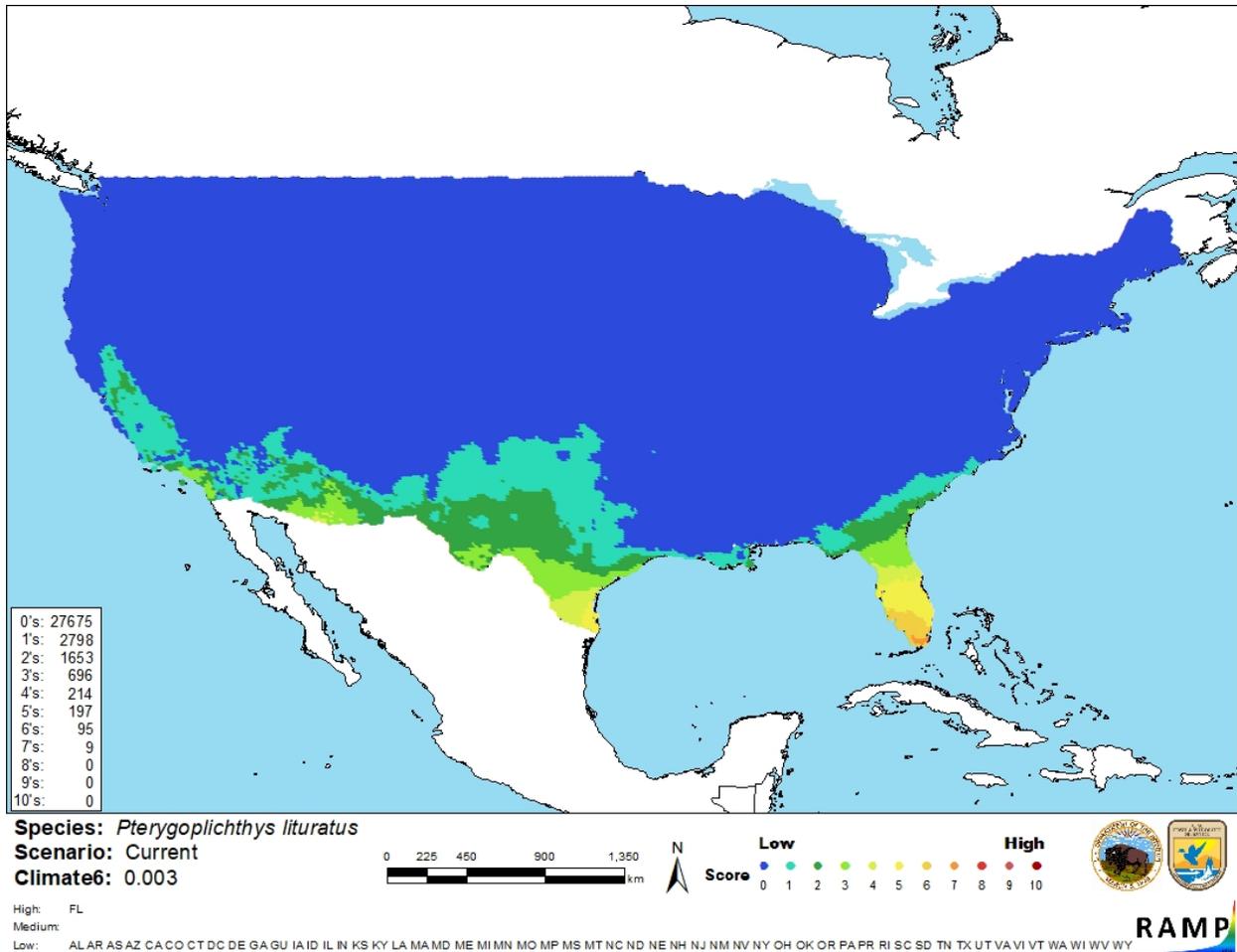
# 7 Climate Matching

## Summary of Climate Matching Analysis

The climate match for *Pterygoplichthys lituratus* was low for the majority of the contiguous United States. Florida was the only state that had scored a high climate match. The southernmost tip of Texas had a medium climate match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.003, low ((scores between 0.000 and 0.005, inclusive, are classified as low). All States had low individual climate 6 scores except for Florida which had a high individual score.



**Figure 2.** RAMP (Sanders et al. 2018) source map showing weather stations in northern South America selected as source locations (red; Brazil, Bolivia, Colombia) and non-source locations (gray) for *Pterygoplichthys lituratus* 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 lituratus* in the contiguous United States based on source locations reported from GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

The High, Medium, and Low Climate match Categories are based on the following table:

Climate 6: (Count of target points with climate scores 6-10)/ (Count of all target points)	Overall Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
$\geq 0.103$	High

## 8 Certainty of Assessment

The certainty of assessment for *Pterygoplichthys lituratus* is low. There is minimal information available for this species. No information on introductions of *Pterygoplichthys lituratus* was found.

## 9 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Pterygoplichthys lituratus* is a South American freshwater armored catfish native to Brazil, Bolivia, and Columbia. The history of invasiveness is classified as “no known nonnative population.” It has not been reported as introduced or established anywhere in the world other than its native range and there is no indication that this species is found in trade. The climate match for the majority of the contiguous United States was low with Florida having an individual high climate match. The certainty of assessment is low. The overall risk assessment category for *Pterygoplichthys lituratus* is uncertain.

### Assessment Elements

- **History of Invasiveness (Sec. 4): No Known Nonnative Population**
- **Overall Climate Match Category (Sec. 7): Low**
- **Certainty of Assessment (Sec. 8): Low**
- **Remarks/Important additional information: No additional information**
- **Overall Risk Assessment Category: Uncertain**

## 10 Literature Cited

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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 11.**

Bailly N. 2017. *Pterygoplichthys lituratus*. In World Register of Marine Species. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1021608> (November 2018).

Fricke R, Eschmeyer WN, van der Laan R, editors. 2018. Catalog of fishes: genera, species, references. California Academy of Science. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (November 2018).

Froese R, Pauly D, editors. 2018. *Pterygoplichthys lituratus* Kner, 1854. FishBase. Available: <http://www.fishbase.se/summary/Pterygoplichthys-lituratus.html> (November 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Pterygoplichthys lituratus* Kner, 1854. Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/132630018> (November 2018).

New Mexico Department of Game and Fish. 2010. Director’s species importation list. Santa Fe, New Mexico: New Mexico Department of Game and Fish. Available: [http://www.wildlife.state.nm.us/download/enforcement/importation/information/Directors-Species-Importation-List-08\\_03\\_2010.pdf](http://www.wildlife.state.nm.us/download/enforcement/importation/information/Directors-Species-Importation-List-08_03_2010.pdf) (November 2020).

Orfinger AB, Goodding DD. 2018. The global invasion of the suckermouth armored catfish genus *Pterygoplichthys* (Siluriformer: Loricariidae): annotated list of species, distributional summary, and assessment of impacts. *Zoological Studies* 57:1–17.

[OIE] World Organisation for Animal Health. 2021. OIE-listed diseases, infections and infestations in force in 2021. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2021/> (February 2021).

Sanders S, Castiglione C, Hoff M. 2018. Risk Assessment Mapping Program: RAMP. Version 3.1. U.S. Fish and Wildlife Service.

## 11 Literature Cited in Quoted Material

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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.**

Kner R. 1854. Die Hypostomiden. Zweite Hauptgruppe der Familie der Panzerfische. (Loricata vel Goniodontes). *Denkschriften der Kaiserlichen Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Classe* 7:251–286.

Weber C. 2003. Loricariidae - Hypostominae (armored catfishes). Pages 351–372 in Reis RE, Kullander SO, Ferraris CJ Jr, editors. *Checklist of the freshwater fishes of South and Central America*. Porto Alegre, Brazil: EDIPUCRS.