Parancistrus aurantiacus (a fish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, November 2011
Revised, January 2019
Web Version, 2/16/2021

Organism Type: Fish
Overall Risk Assessment Category: Uncertain

Photo: Max Chumachenko. Licensed under Creative Commons Attribution 3.0 Unported. Available: https://commons.wikimedia.org/wiki/File:Parancistrus_aurantiacus.JPG. (December 2018).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

"South America: Ucayali, Tocantins and Xingu rivers [Brazil and Peru]."

From Rapp Py-Daniel and Zuanon (2005):

"*Parancistrus aurantiacus* has been recorded from the rio Ucayali and rio Araguaia, from the Amazon (without a precise locality) (Castelnau, 1855) and from the rio Tocantins (Rapp Py-Daniel, 1989). Recent collections also yielded more specimens of *P. aurantiacus* from the rio Araguaia."

Status in the United States

No records of *Parancistrus aurantiacus* in the wild or in trade in the United States were found.

Parancistrus aurantiacus 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."

Parancistrus aurantiacus is on the Conditional Animal List in Hawaii (Hawaii Department of Agriculture 2019).

Means of Introductions in the United States

No records of *Parancistrus aurantiacus* in the wild in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al. (2018), *Parancistrus aurantiacus* (Castelnau 1855) is the current valid name of this species. *Parancistrus aurantiacus* was originally described as *Hypostomus aurantiacus* (Castelnau 1855).

From ITIS (2018):

Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Siluriformes

Family Loricariidae
Subfamily Hypostominae
Genus *Parancistrus*
Species *Parancistrus aurantiacus* (Castelnau, 1855)

Size, Weight, and Age Range

From Froese and Pauly (2018):

"Max length : 19.3 cm SL male/unsexed; [Fisch-Muller 2003]"

Environment

From Froese and Pauly (2018):

"Freshwater; demersal. […] 22°C - 27°C [assumed to be recommended aquarium temperature] [Baensch and Riehl 1991]"

Climate

From Froese and Pauly (2018):

"Tropical; […]"

Distribution Outside the United States

Native

From Froese and Pauly (2018):

"South America: Ucayali, Tocantins and Xingu rivers [Brazil and Peru]."

From Rapp Py-Daniel and Zuanon (2005):

"*Parancistrus aurantiacus* has been recorded from the rio Ucayali and rio Araguaia, from the Amazon (without a precise locality) (Castelnau, 1855) and from the rio Tocantins (Rapp Py-Daniel, 1989). Recent collections also yielded more specimens of *P. aurantiacus* from the rio Araguaia."

Introduced

No records of introductions of *Parancistrus aurantiacus* were found.

Means of Introduction Outside the United States

No records of introductions of *Parancistrus aurantiacus* were found.

Short Description
From Rapp Py-Daniel and Zuanon (2005):

"*Parancistrus aurantiacus* can be uniformly darkly colored or covered by large pale blotches or even marbled."

Biology
No information on the biology of *Parancistrus aurantiacus* was found.

Human Uses
No information on the human uses of *Parancistrus aurantiacus* was found.

Diseases
No information on diseases of *Parancistrus aurantiacus* was found. **No records of OIE-reportable diseases (OIE 2021) were found for *P. aurantiacus.***

Threat to Humans
From Froese and Pauly (2018):

"Harmless"

3 Impacts of Introductions
No records of introductions of *Parancistrus aurantiacus* were found.

4 History of Invasiveness
No records of introductions of *Parancistrus aurantiacus* were found, so the history of introduction is no known nonnative population.

5 Global Distribution

Figure 1. Known global distribution of *Parancistrus aurantiacus.* Map from GBIF Secretariat (2018).

6 Distribution Within the United States

No records of *Parancistrus aurantiacus* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Parancistrus aurantiacus* was low for the majority of the contiguous United States. There was a small patch of medium match in southern Florida. There were no areas of high 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) with all States having low individual climate scores.

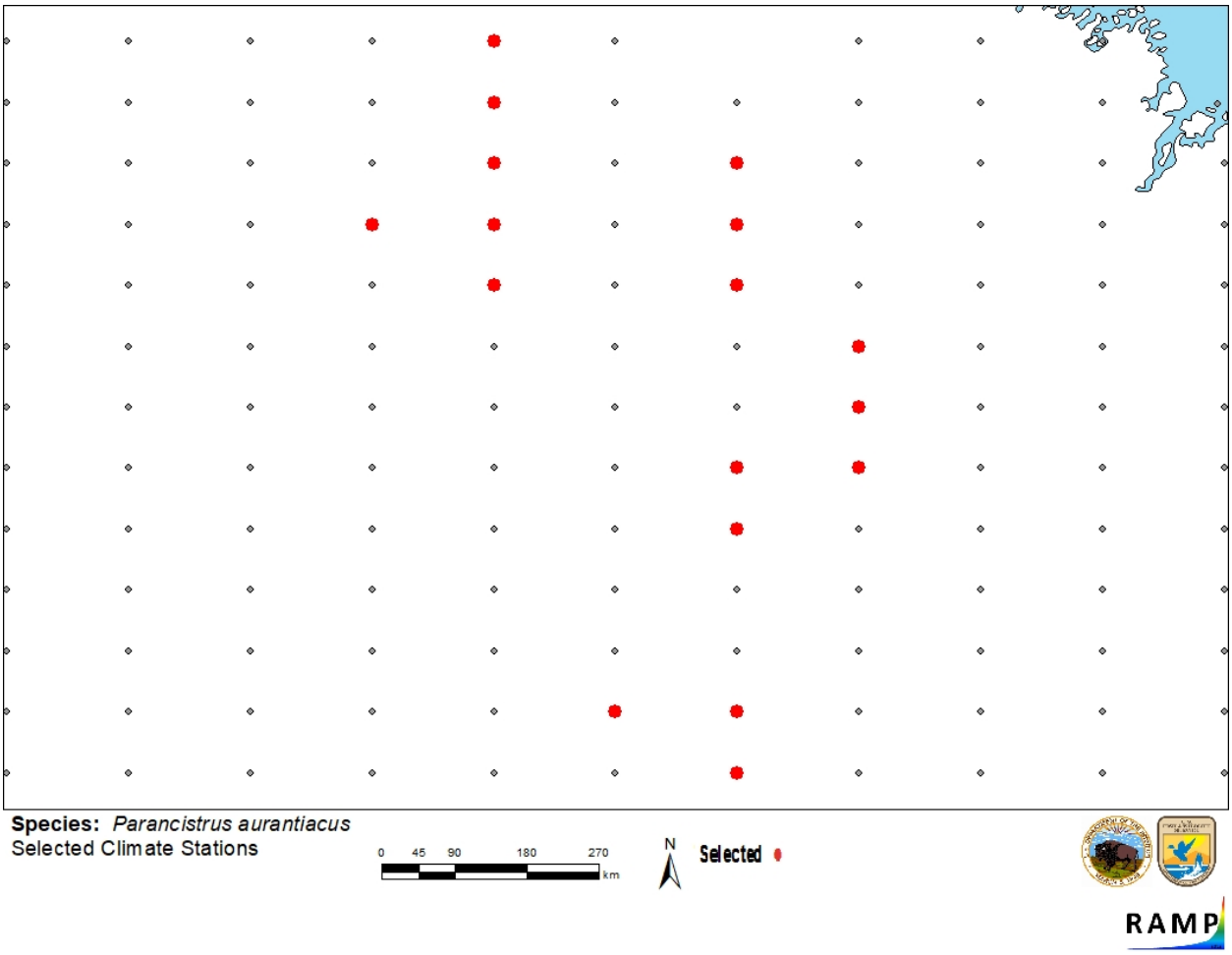

Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in South America selected as source locations (red; Brazil) and non-source locations (gray) for *Parancistrus aurantiacus* climate matching. Source locations from GBIF Secretariat (2018). Selected source locations are within 100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

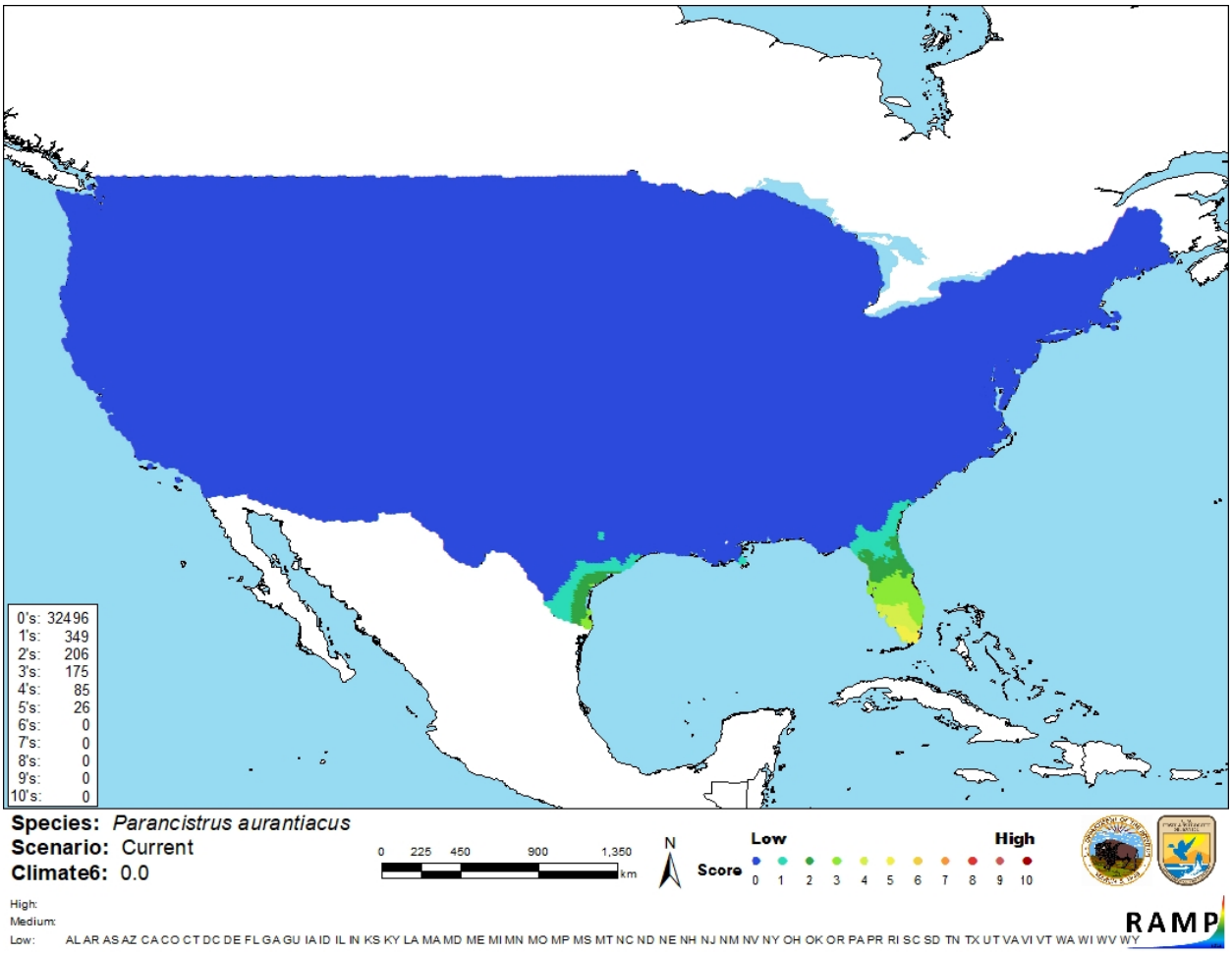

Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Parancistrus aurantiacus* in the contiguous United States based on source locations reported from GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

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≤X≤0.005	Low
0.005<X<0.103	Medium
≥0.103	High

8 Certainty of Assessment

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

9 Risk Assessment

Summary of Risk to the Contiguous United States

Parancistrus aurantiacus is a South American fish native to Peru and Brazil. The history of invasiveness is no known nonnative population. It has not been reported as introduced or established anywhere in the world. The overall climate match for the contiguous United States was low. There was only one area of medium match in southern Florida and no areas of high match. The certainty of assessment is low. The overall risk assessment category 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

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 11.

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 (December 2018).

Froese R, Pauly D, editors. 2018. *Parancistrus aurantiacus* Castelnau, 1855. FishBase. Available: http://www.fishbase.org/summary/Parancistrus-aurantiacus.html (December 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Parancistrus aurantiacus* (Castelnau, 1855). Copenhagen: Global Biodiversity Information Facility. Available: https://www.gbif.org/species/2340132 (December 2018).

Hawaii Department of Agriculture. 2019. Amendment and compilation of chapter 4-71, Hawaii Administrative Rules. Honolulu, Hawaii: Hawaii Department of Agriculture, Plant Industry Division. Available: http://hdoa.hawaii.gov/pi/pq/import-program/pq-non-domestic-animal-and-microorganism-lists/ (February 2021).

[ITIS] Integrated Taxonomic Information System. 2018. *Parancistrus aurantiacus* (Castelnau, 1855). Reston, Virginia: Integrated Taxonomic Information System. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680308#null (December 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 (November 2020).

[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).

Rapp Py-Daniel LH, Zuanon J. 2005. Description of a new species of *Parancistrus* (Silurformes: Loricariidae) from the rio Xingu, Brazil. Neotropical Ichthyology 3:571–577.

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

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 HA, Riehl R. 1991. Aquarien atlas. Bd. 3. Germany, Melle: Mergus, Verlag für Natur- und Heimtierkunde.

Castelnau FL. 1855. Poissons. *In* Animaux nouveaux or rares recueillis pendant l'expédition dans les parties centrales de l'Amérique du Sud, de Rio de Janeiro a Lima, et de Lima au Para; exécutée par ordre du gouvernement Français pendant les années 1843 a 1847; Part 7, Zoologie. Paris (P. Bertrand) 2:1–50.

Fisch-Muller S. 2003. Loricariidae-Ancistrinae (armored catfishes). Pages 373–400 in Reis RE, Kullander SO, Ferraris CJ Jr, editors. Checklist of the freshwater fishes of South and Central America. Porto Alegre, Brazil.

Rapp Py-Daniel LH. 1989. Redescription of *Parancistrus aurantiacus* (Castelnau, 1855) and preliminary establishment of two new genera: *Baryancistrus* and *Oligancistrus* (Siluriformes, Loricariidae). Cybium 13:235–246.