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

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 Hyphostominae
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:

<table>
<thead>
<tr>
<th>Climate 6: (Count of target points with climate scores 6-10)/ (Count of all target points)</th>
<th>Overall Climate Match Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000≤X≤0.005</td>
<td>Low</td>
</tr>
<tr>
<td>0.005&lt;X&lt;0.103</td>
<td>Medium</td>
</tr>
<tr>
<td>≥0.103</td>
<td>High</td>
</tr>
</tbody>
</table>

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.


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.


