

Flat-whiskered Catfish (*Pinirampus pirinampu*)

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, February 2022
Revised, March 2022
Web Version, 4/11/2023

Organism Type: Fish

Overall Risk Assessment Category: Uncertain



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1 Native Range and Status in the United States

Native Range

From Fricke et al. (2022):

“Distribution: South America: Amazon, Essequibo, Orinoco and Paraná River basins (Bolivia, Brazil, Uruguay, Colombia, Ecuador, Guyana, Paraguay, Peru and Venezuela).”

Pinirampus pirinampu is also known from the Paraná River in Argentina (Sánchez et al. 2010).

Status in the United States

No records of *Pinirampus pirinampu* in the wild in the United States were found. This species is in trade in the United States.

From Aqua Imports (2022):

“Flat Whiskered Catfish (*Pinirampus pirinampu*)

\$49.99 – \$69.99”

Means of Introductions in the United States

No records of *Pinirampus pirinampu* in the wild in the United States were found.

Remarks

The species valid name, *Pinirampus pirinampu*, was used to search for information for this screening.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al (2022), *Pinirampus pirinampu* (Spix & Agassiz 1829) is the current valid name for this species. It was originally described as *Pimelodus pirinampu* Spix & Agassiz 1829.

From ITIS (2022):

Kingdom Animalia

Subkingdom Bilateria

Infrakingdom Deuterostomia

Phylum Chordata

Subphylum Vertebrata

Infraphylum Gnathostomata

Superclass Actinopterygii

Class Teleostei

Superorder Ostariophysi

Order Siluriformes

Family Pimelodidae

Genus *Pinirampus*

Species *Pinirampus pirinampu* (Spix and Agassiz, 1829)

Size, Weight, and Age Range

From Froese and Pauly (2022):

“Max length : 120 cm TL male/unsexed; [Lundberg and Littmann 2003]; max. published weight: 7.7 kg [IGFA 2001]”

Environment

From Froese and Pauly (2022):

“Freshwater; demersal; pH range: 6.0 - 8.0; dH range: ? - 25; [...] [Riede 2004]; 22°C - 28°C [Baensch and Riehl 1991; assumed to be aquarium temperature range]”

“Known from a [sic] temperatures ranging from 24-29 °C, pH range of 5-9, and an alkalinity range of 42-142 [Flores et al. 1990].”

Climate

From Sant’anna et al. (2020):

“The *P. pirinampu* [...] is distributed throughout the tropical region of South America (Barthem and Goulding, 2007).”

Distribution Outside the United States

Native

From Fricke et al. (2022):

“Distribution: South America: Amazon, Essequibo, Orinoco and Paraná River basins (Bolivia, Brazil, Uruguay, Colombia, Ecuador, Guyana, Paraguay, Peru and Venezuela).”

Pinirampus pirinampu is also known from the Paraná River in Argentina (Sánchez et al. 2010).

Introduced

No records of introductions were found for *Pinirampus pirinampu*.

Means of Introduction Outside the United States

No records of introductions were found for *Pinirampus pirinampu*.

Short Description

From Eigenmann (1912):

“Head depressed, snout parabolic, body subterete, slightly compressed above; caudal peduncle subterete. First dorsal ray prolonged, longer than the head. Pectoral spine equal to the head in length, not prolonged; adipose dorsal beginning near middle of last dorsal ray; maxillary barbel extending to end of ventrals.”

“Steel blue above, white below.”

Biology

From Froese and Pauly (2022):

“Occurs in schools. Feeds on benthic animals [Goulding 1981].”

“potamodromous [Riede 2004];”

From Barbarino Duque and Winemiller (2003):

“Relative abundance, population size structure and diet composition and similarity were examined over 5 years for the nine most abundant catfish (Siluriformes) species captured in the Apure-Arauca River fishery centred [sic] around San Fernando de Apure, Venezuela, the largest freshwater fishery in the Orinoco River Basin. Based on size classes obtained by the fishery, all nine catfishes were almost entirely piscivorous. [...] five species (*Ageniosus brevifilis*, *Phractocephalus hemiliopterus*, *Pirinampus pirinampu*, *Pseudoplatystoma fasciatum* and *Pseudoplatystoma tigrinum*) occurred in a range of channel and off-channel habitats and were observed to feed on a variety of characiform, siluriform and gymnotiform prey.”

“[...] *P. pirinampu* is an active swimmer on the bottom, [...]”

“Three of these unrestricted catfishes consumed more benthic prey than pelagic prey: [...] *P. pirinampu* (65% benthic prey).”

“The only terrestrial food resources encountered in any of the nine catfishes examined from the Apure-Arauca system were four rats (Muridae) consumed by three *P. pirinampu* [...]”

Human Uses

From Froese and Pauly (2022):

“Fisheries: commercial; gamefish: yes; aquarium: public aquariums”

From Sant’anna et al. (2020):

“This species is important in the Madeira basin [Brazil], where it represented 2.1% of total landings between 1990 and 2014 and is considered one of the key species (Lima, 2017; Lima et al., 2020).”

“A 133.5 tonnes production of *P. pirinampu* catfish (8.8% of the total production) was recorded in the period prior to damming of the Madeira River (herein after referred to as pre-damming). This species was among the top five productions. In the post-dam period (herein after referred to as post-damming), production reached 1.98 tonnes (0.5%).”

“In the predamming period, *P. pirinampu* fisheries presented a total gross revenue of R\$ 350,367.36 (US\$ 197,947,66). However, in the post-damming period, the fisheries’ gross revenue was R\$ 173,210.57 (US\$ 85,325,40). [...] The average price during the pre-damming

for *P. pirinampu* was R\$ 3.26 (US\$ 1.80) [...], but in the post-damming period, prices were R\$ 4.27 (US \$ 2.07) [...].”

“The construction of dams in the region of the middle Madeira River caused drastic changes in the production and fishing of *P. pirinampu* and *B. platynemum*, and production after construction corresponds to around 10% of what it was before.”

This species is in trade in the United States.

From Aqua Imports (2022):

“Flat Whiskered Catfish (*Pirinampus pirinampu*)

\$49.99 – \$69.99”

Diseases

No records of OIE-reportable diseases (OIE 2022) were found for *P. pirinampu*.

Poelen et al. (2014) list the following as parasites of *Pirinampus pirinampu*: *Nomimoscolex admonticellia*, *Myzophorus admonticellia*, *Proteocephalus vladimirae*, *Myzophorus* sp., *Monticellia ventrei*, *Rudolphiella* sp., *Goezeella siluri*, *Urocleidoides recurvatus*, *Demidospermus luckyi*, *Demidospermus pinirampi*, *Alinema amazonicum*, and *Eustrongylides ignotus*.

Threat to Humans

From Froese and Pauly (2022):

“Harmless”

3 Impacts of Introductions

No records of *Pirinampus pirinampu* introductions were found; therefore, there is no information on impacts of introduction to evaluate.

4 History of Invasiveness

Pirinampus pirinampu has not been reported as introduced outside of its native range. It appears to be a locally important fisheries species. It is in the aquarium trade outside the native range but no information on trade volume or duration was found. The History of Invasiveness category is therefore classified as No Known Nonnative Population.

5 Global Distribution



Figure 1. Known global distribution of *Pinirampus pirinampu*. Observations are reported from the Amazon, Essequibo, Orinoco, and Paraná basins in northern and central South America (Argentina, Bolivia, Brazil, Colombia, Ecuador, Guyana, Paraguay, Peru, and Venezuela). Map from GBIF Secretariat (2022).

Pinirampus pirinampu was reported as native to Uruguay but no records of georeferenced observations were found to use in selecting source points for the climate match.

6 Distribution Within the United States

No records of *Pinirampus pirinampu* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

Areas of high climate match for *Pinirampus pirinampu* with the contiguous United States were found in peninsular Florida and southern Louisiana. Areas of medium-high match occurred along the East Coast south of Virginia, along the Gulf Coast, and an area in the south-central United

States from Missouri to Texas. The climate match in the rest of the Eastern United States was generally medium to medium-low. The climate match in the Western United States was generally low with patches of medium match in the Desert Southwest. The overall Climate 6 score (Sanders et al. 2021; 16 climate variables; Euclidean distance) for the contiguous United States was 0.214, High (scores greater than 0.103, inclusive, are classified as High). The following States had High individual Climate 6 scores: Alabama, Florida, Georgia, Illinois, Kansas, Kentucky, Louisiana, Missouri, Mississippi, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee, Texas, and West Virginia. Arkansas, Arizona, Indiana, Massachusetts, Maryland, Michigan, Virginia, and Wisconsin had Medium individual scores. All other States had Low individual scores.

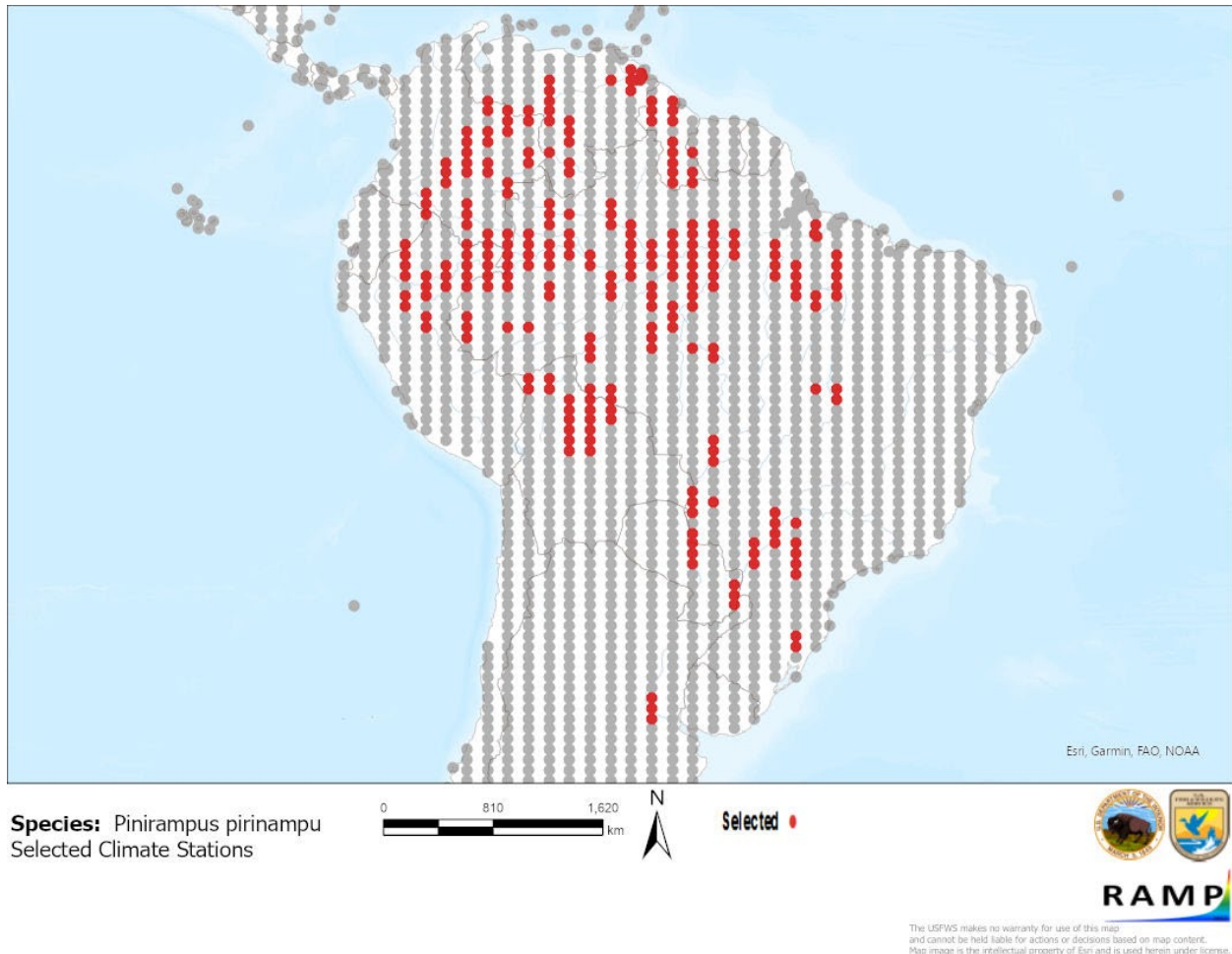


Figure 2. RAMP (Sanders et al. 2021) source map showing weather stations in South America selected as source locations (red; Columbia, Brazil, Bolivia, Peru, Guyana, Venezuela, Ecuador, Argentina, Paraguay) and non-source locations (gray) for *Pinirampus pirinampu* climate matching. Source locations from GBIF Secretariat (2022). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

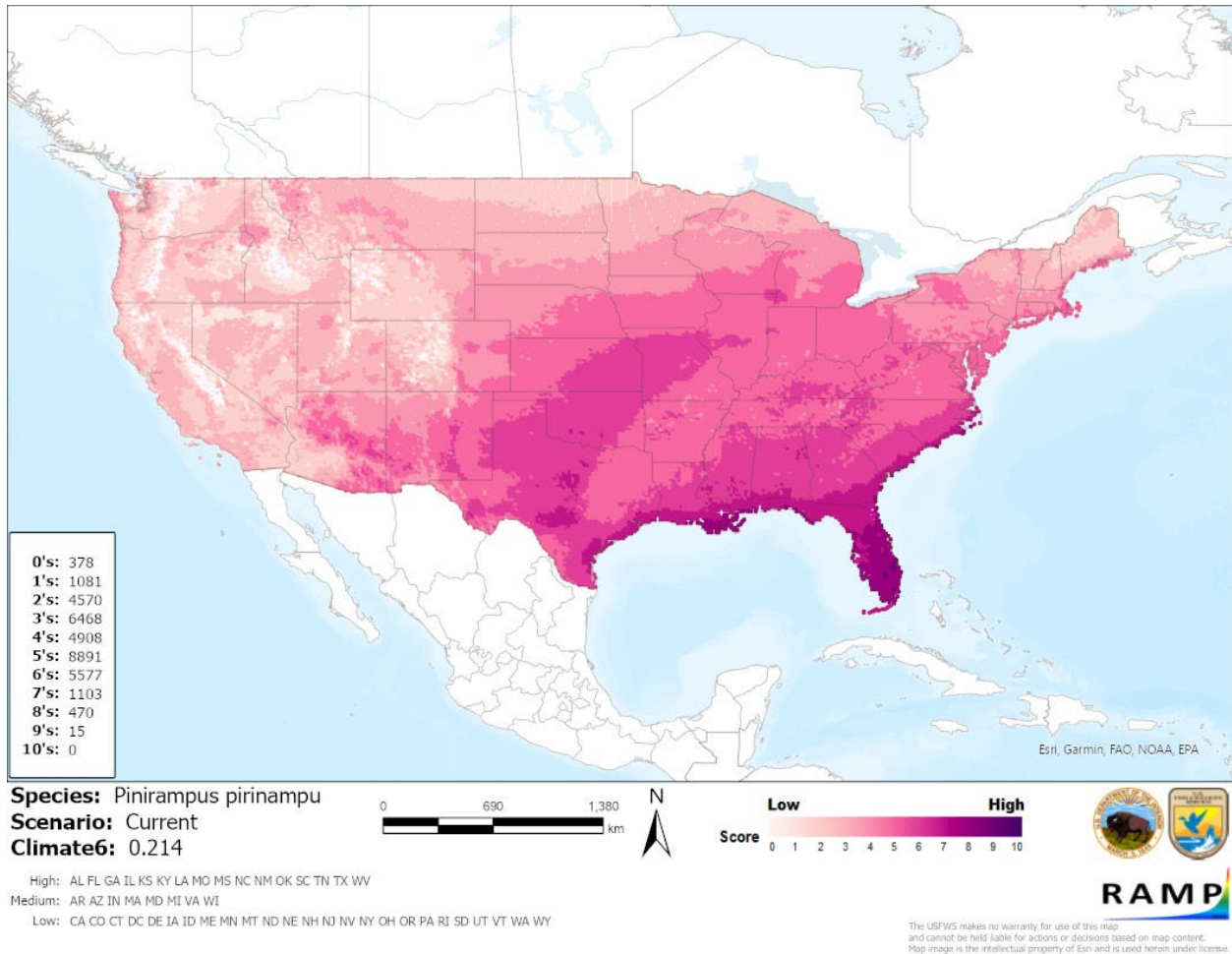


Figure 3. Map of RAMP (Sanders et al. 2021) climate matches for *Pinirampus pirinampu* in the contiguous United States based on source locations reported by GBIF Secretariat (2022). Counts of climate match scores are tabulated on the left. 0/Pale Pink = Lowest match, 10/Dark Purple = Highest match.

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
≥ 0.103	High

8 Certainty of Assessment

There is some limited information available about the biology and ecology of *Pinirampus pirinampu*. This species has a wide distribution with many georeferenced occurrences available from which to base a climate match. However, because this species has never been reported

outside of its native range, there is no information from which to assess the species' history of invasiveness. Certainty of this assessment is therefore Low.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Pinirampus pirinampu, the Flat-whiskered Catfish, is a large freshwater catfish species native to much of northern and central South America. This species is important in local commercial fisheries and is available as an aquarium fish in the United States. It has never been documented as introduced or established outside of its native range; therefore, its History of Invasiveness is classified as No Known Nonnative Population. *P. pirinampu* has an overall High climate match with the contiguous United States. Areas of high match were in the Southeast, especially in southern Florida and Louisiana. Certainty of this assessment is Low due to a lack of information pertaining to the history of invasiveness. The Overall Risk Assessment Category is Uncertain.

Assessment Elements

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

- Aqua Imports. 2022. Flat whiskered catfish (*Pinirampus pirinampu*). Available: <https://www.aqua-imports.com/product/flat-whiskered-catfish-pinirampus-pirinampu/> (February 2022).
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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.

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