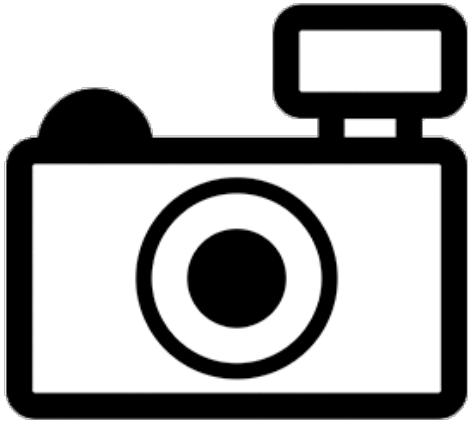


***Pristobrycon aureus* (a piranha, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, May 2012
Revised, November 2018
Web Version, 1/20/2021

Organism Type: Fish
Overall Risk Assessment Category: Uncertain



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: lower portion of tributaries of the lower Amazon River [Brazil]. Also in Guyana rivers.”

Bogotá-Gregory and Maldonado-Ocampo (2006) list *Pristobrycon aureus* as present in the Amazon River basin in Colombia.

Status in the United States

No records of *Pristobrycon aureus* in the wild or in trade in the United States were found.

The Florida Fish and Wildlife Conservation Commission has listed the fish, *Pristobrycon aureus* as a prohibited species. Prohibited nonnative species (FFWCC 2018), "are considered to be

dangerous to the ecology and/or the health and welfare of the people of Florida. These species are not allowed to be personally possessed or used for commercial activities."

Pristobrycon aureus is a prohibited species in Alabama (Alabama DCNR 2019). "No person, firm, corporation, partnership, or association shall possess, sell, offer for sale, import, bring, release, or cause to be brought or imported into the State of Alabama" a prohibited species.

Piranhas are prohibited species in Arkansas (Arkansas GFC 2019). *Pristobrycon aureus* is a species of piranha.

Species of piranha (including *Pristobrycon aureus*) are prohibited as pets in Georgia (Georgia DNR 2020).

Possession of species of piranha (including *Pristobrycon aureus*) is prohibited in Louisiana (Louisiana State Legislature 2019).

Pristobrycon aureus falls within Group IV of New Mexico's Department of Game and Fish Director's Species Importation List (New Mexico Department of Game and Fish 2010). Group IV species "are prohibited for the general public but may be allowed for, scientific study, department approved restoration and recovery plans, zoological display, temporary events/entertainment, use as service animal or by a qualified expert."

Pristobrycon aureus is a prohibited species in Texas (Texas Parks and Wildlife 2020).

From Virginia DWR (2020):

"A special permit is required, and may be issued by the Department, if consistent with the Department's fish and wildlife management program, to import, possess, or sell the following non-native (exotic) amphibians, fish, mollusks, aquatic invertebrates, and reptiles: [...] piranhas,"

Means of Introductions in the United States

No records of *Pristobrycon aureus* 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), *Pristobrycon aureus* is the valid name for this species. It was originally described as *Serrasalmo aureus* and been previously known as *Serrasalmus aureus*.

From ITIS (2018):

Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Characiformes
Family Characidae
Genus *Pristobrycon*
Species *Pristobrycon aureus* (Spix and Agassiz, 1829)

Size, Weight, and Age Range

Information on the size, weight, or age range of *Pristobrycon aureus* was not found.

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: lower portion of tributaries of the lower Amazon River [Brazil]. Also in Guyana rivers.”

Bogotá-Gregory and Maldonado-Ocampo (2006) list *Pristobrycon aureus* as present in the Amazon River basin in Colombia.

Introduced

No records of introduction for *Pristobrycon aureus* were found.

Means of Introduction Outside the United States

No records of introduction for *Pristobrycon aureus* were found.

Short Description

A short description of *Pristobrycon aureus* was not found.

Biology

Horn et al. (2011) list *Pristobrycon aureus* as a species that eats fruits and seeds.

Human Uses

Information on human uses of *Pristobrycon aureus* was not found.

Diseases

No records of OIE-reportable diseases (OIE 2021) were found for *Pristobrycon aureus*.

Christoffersen and de Assis (2013) list *Pristobrycon aureus* as a host for *Leiperia gracilis*, and *Sebekia oxycephalum*.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introduction for *Pristobrycon aureus* were found, therefore, there is no information on impacts of introduction.

4 History of Invasiveness

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

5 Global Distribution



Figure 1. Known global distribution of *Pristobrycon aureus*. Locations are in Colombia, Venezuela, Peru, Guyana, and Brazil. Map from GBIF Secretariat (2018). The locations Colombia and Venezuela that are outside the Amazon River basin were not used as source points for the climate match. The native range of *Pristobrycon aureus* is described as the Amazon River basin and rivers in Guyana.

6 Distribution Within the United States

No records of *Pristobrycon aureus* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Pristobrycon aureus* was low for the majority of the contiguous United States. There was a small area of medium match along the southeastern coast of Florida. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for contiguous United States was 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States had low individual climate 6 scores.

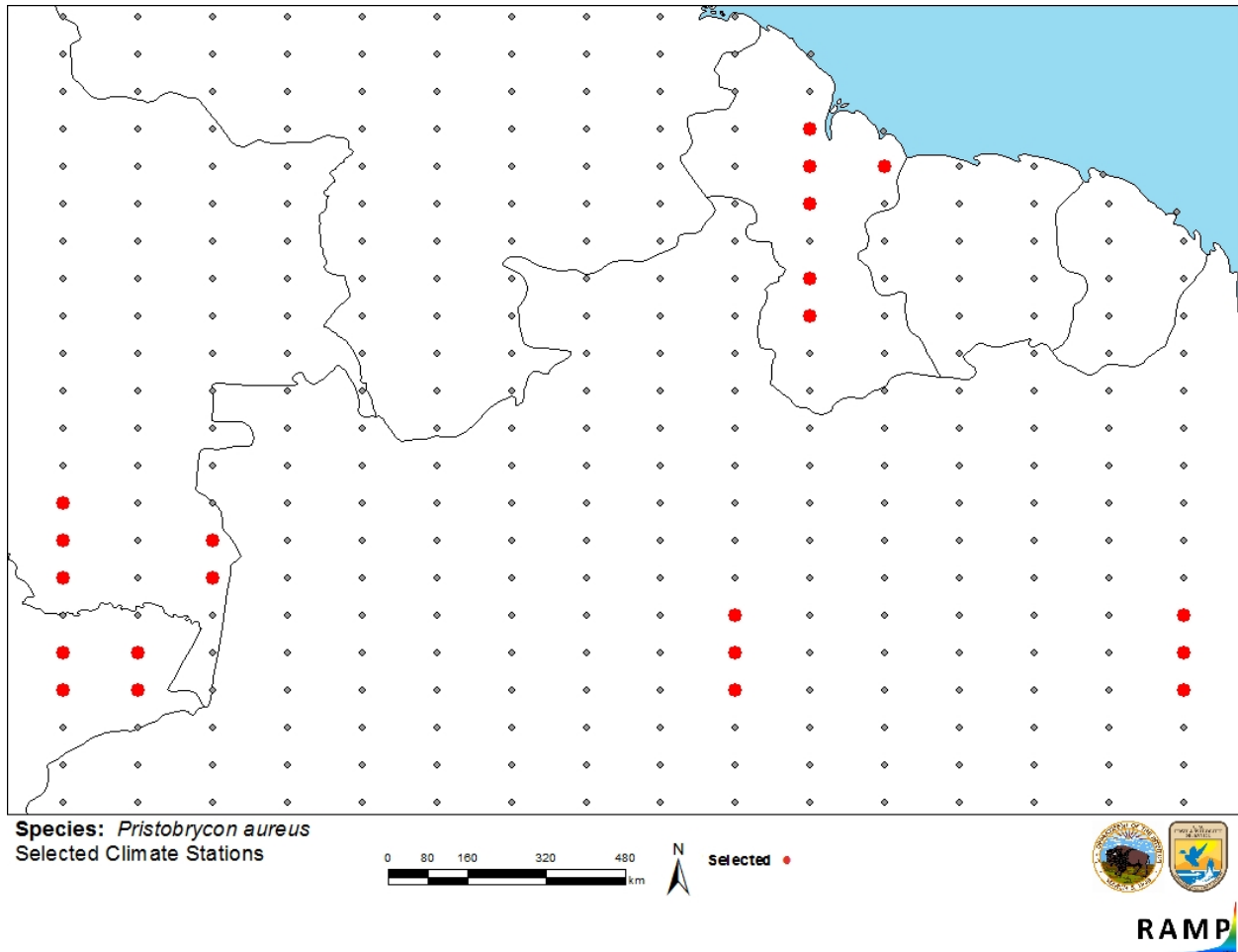


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in northern South America selected as source locations (red; Guyana, Colombia, Peru, Brazil) and non-source locations (gray) for *Pristobrycon aureus* climate matching. Source locations from GBIF Secretariat (2018). Selected source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

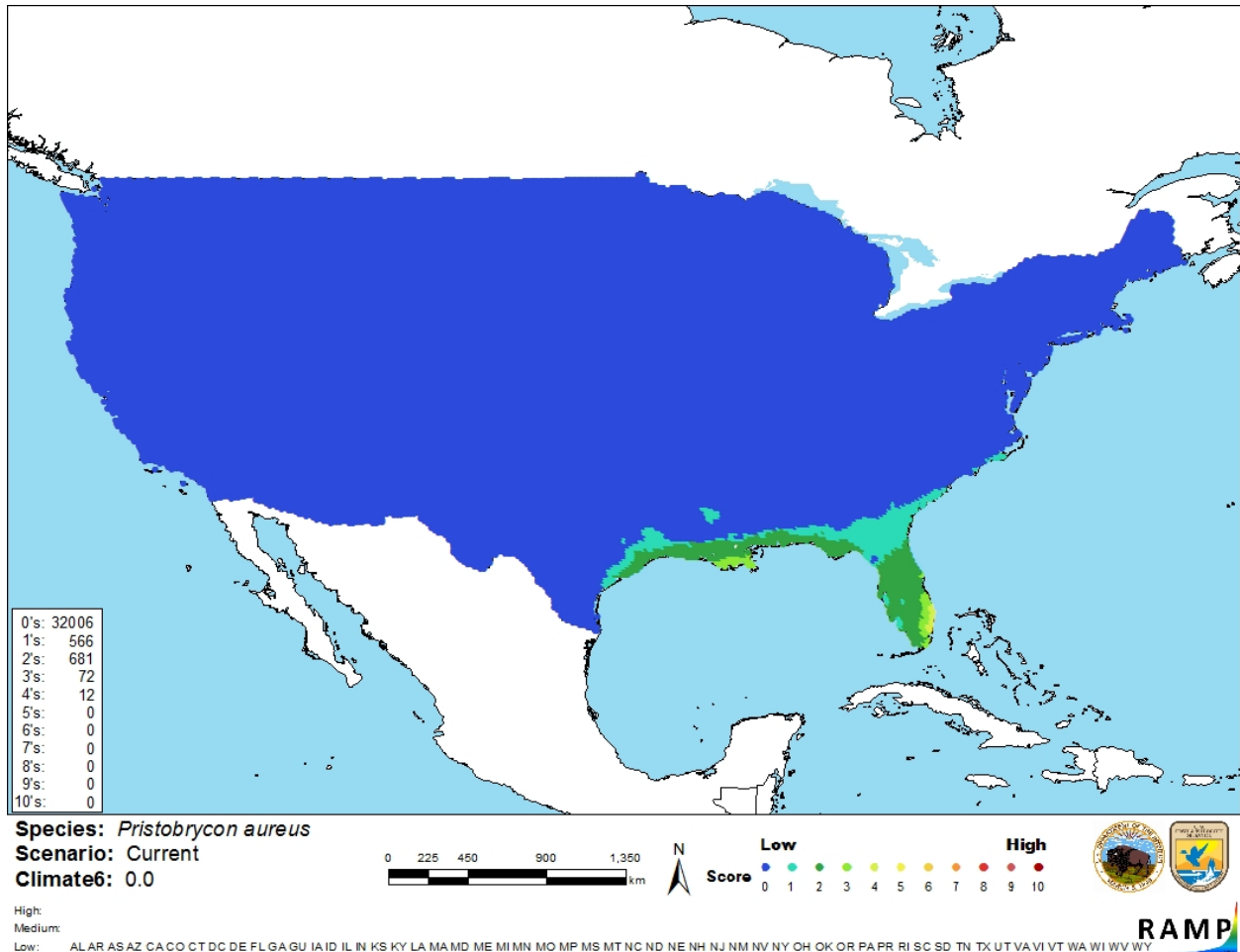


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Pristobrycon aureus* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

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
≥ 0.103	High

8 Certainty of Assessment

The certainty of assessment for *Pristobrycon aureus* is low. There is very little information available for this species. No records of introduction were found so there is no information on impacts to evaluate.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Pristobrycon aureus is a species of fish that is native to the Amazon River basin and rivers in Guyana. *P. aureus* has an herbivorous diet. The history of invasiveness is classified as “no known nonnative population.” There were no records of introduction found for *P. aureus* and therefore no information on impacts of introduction. This species is regulated in multiple States. The climate match for the contiguous United States is low with only one small area of medium match along the coast of Florida. The certainty of assessment is low. The overall risk assessment 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.

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Arkansas [GFC] Game and Fish Commission. 2019. Certain exotic species prohibited. Arkansas Game and Fish Commission Code of Regulations 26.13.

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- Sanders S, Castiglione C, Hoff M. 2018. Risk Assessment Mapping Program: RAMP. Version 3.1. U.S. Fish and Wildlife Service.
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- Virginia [DWR] Department of Wildlife Resources. 2020. Nongame fish, reptile, amphibian and aquatic invertebrate regulations. Henrico, Virginia: Virginia Department of Wildlife

Resources. Available: <https://dwr.virginia.gov/fishing/regulations/nongame/> (November 2020).

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.

No references in this section.