

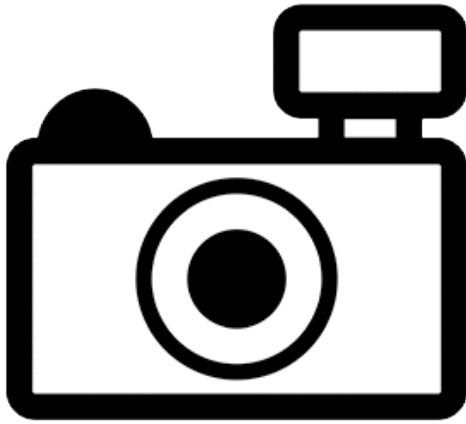
***Cichla melaniae* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, August 2011

Revised, November 2018

Web Version, 1/31/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: Brazil, restricted to the Lower Rio Xingu drainage.”

Status in the United States

No records of *Cichla melaniae* in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of *Cichla melaniae* 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), *Cichla melaniae* (Kullander and Ferreira 2006) is the original and current valid name of this species.

From Froese and Pauly (2018):

“Actinopterygii (ray-finned fishes) > Perciformes (Perch-like) > Cichlidae (Cichlids) > Cichlinae”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 36.0 cm TL male/unsexed; [Giarrizzo et al. 2015]; max. published weight: 710.00 g [Giarrizzo et al. 2015]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic. [...] 30°C - 32°C [Kullander and Ferreira 2006; unknown if recommended aquarium temperature, optimal temperature, etc.]”

“[...] pH 6.5, less than 1 dGH, [...]”

Climate/Range

From Froese and Pauly (2018):

“Tropical; [...]”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: Brazil, restricted to the Lower Rio Xingu drainage.”

Introduced

No records of introductions of *Cichla melaniae* were found.

Means of Introduction Outside the United States

No records of introductions of *Cichla melaniae* were found.

Short Description

From Froese and Pauly (2018):

“Diagnosis: Distinguished by narrow vertical bars 1-3, and numerous minute white spots scattered over flanks, including many ocellated spots. Bars 1a and 2a are commonly present, narrow and distinct. Complete lateral band present in juveniles. Lateral line not continuous. This species is similar to *C. miriana*, but light spots are absent from side of head (vs. present or absent), large midlateral ocelli absent from side (vs. present), and E1 scales 78-85 (vs. 72-80) [Kullander and Ferreira 2006].”

Biology

From Froese and Pauly (2018):

“Specimens collected from Balneário do Pedral were in shallow water, [...] in strong current among lava rocks [Kullander and Ferreira 2006].”

Human Uses

No information on human uses of *Cichla melaniae* was found.

Diseases

No information on diseases of *Cichla melaniae* was found. **No records of OIE-reportable diseases were found for *C. melaniae*.**

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introductions of *Cichla melaniae* were found.

4 Global Distribution

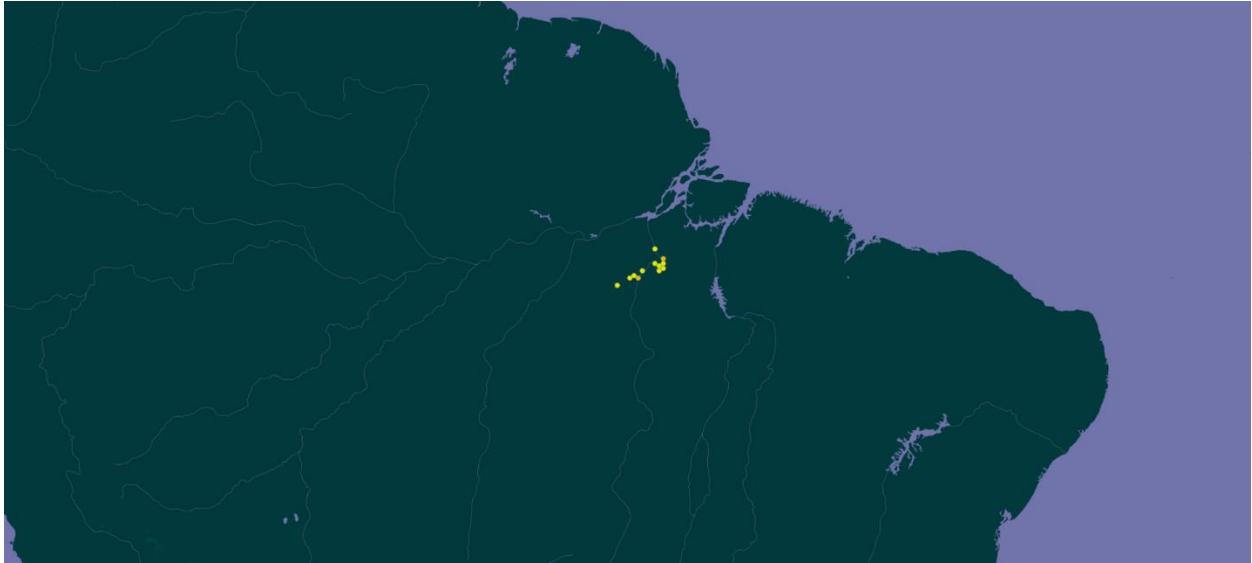


Figure 1. Known global distribution of *Cichla melaniae*. Locations are in Brazil. Map from GBIF Secretariat (2018).

5 Distribution Within the United States

No records of *Cichla melaniae* in the wild in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Cichla melaniae* was low for the entire contiguous United States. The Florida peninsula is the only area with a slightly higher, but still low, climate match. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low. All States had low individual climate scores.

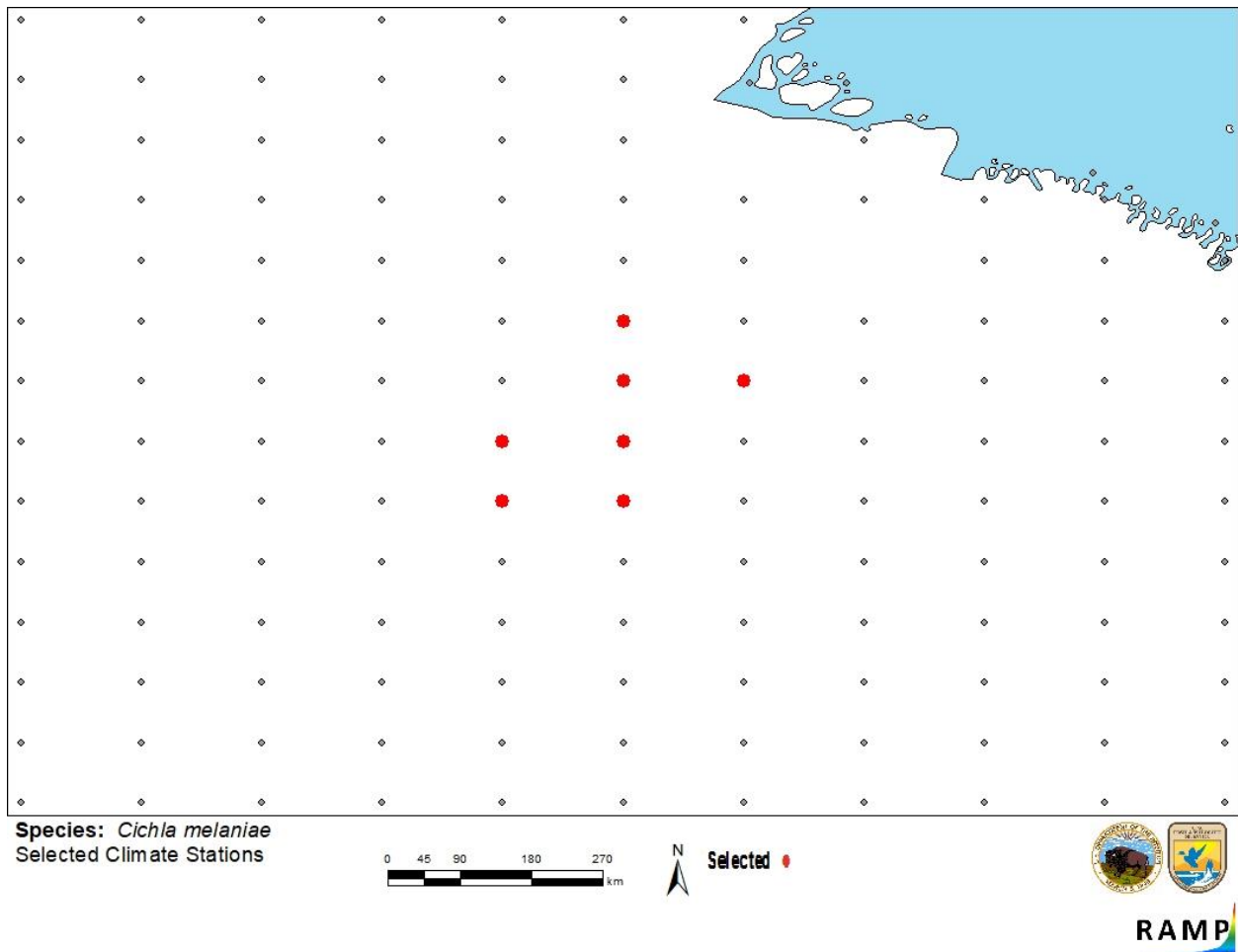


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in South America selected as source locations (red; Brazil) and non-source locations (gray) for *Cichla melaniae* climate matching. Source locations from GBIF Secretariat (2018).

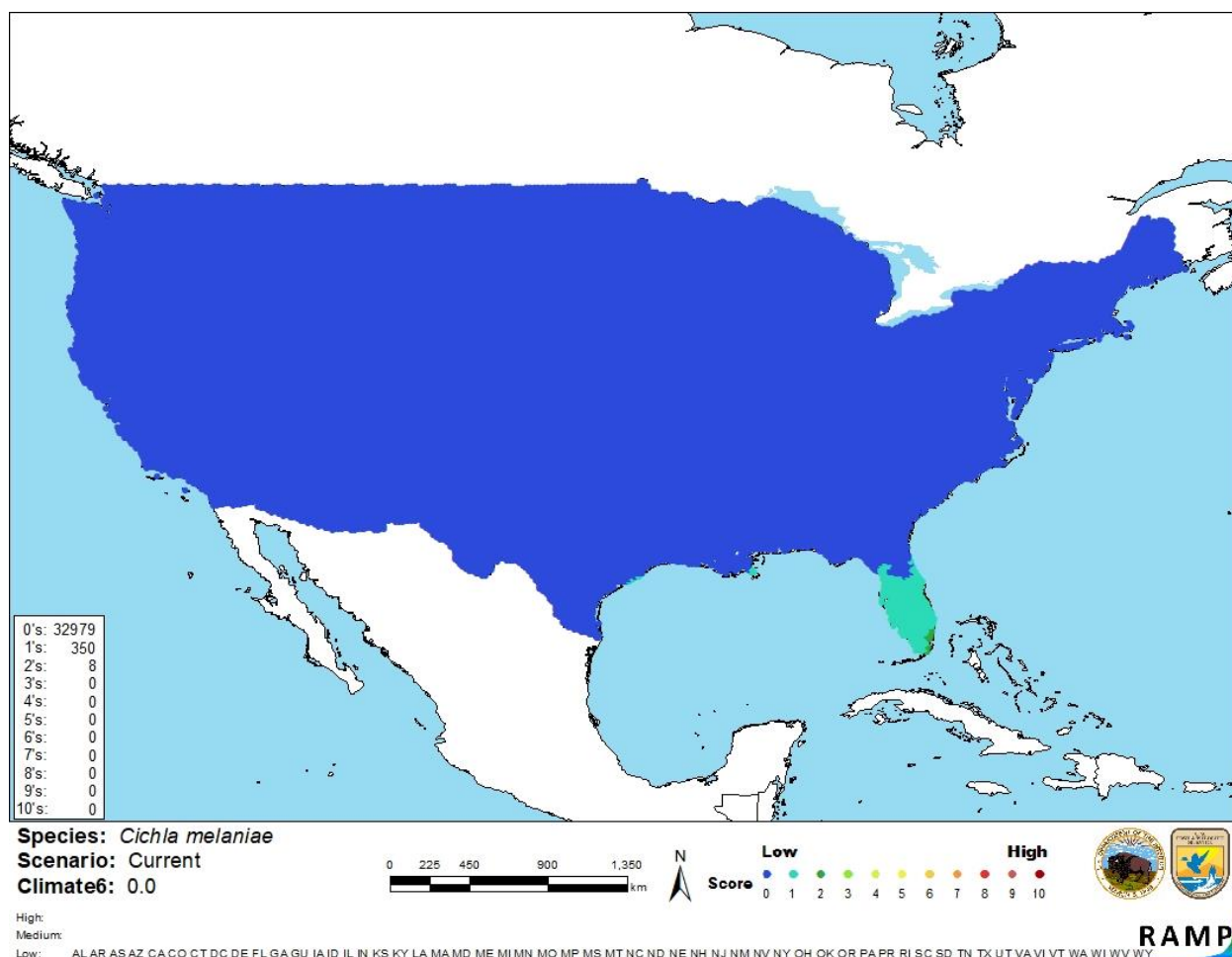


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Cichla melaniae* in the contiguous United States based on source locations reported from GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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

Climate 6: Proportion of (Sum of Climate Scores 6-10) / (Sum of total Climate Scores)	Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

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

8 Risk Assessment

Summary of Risk to the Contiguous United States

Cichla melaniae is a freshwater fish native to Brazil, where it is restricted to the Lower Rio Xingu drainage. The history of invasiveness is uncertain. It has not been reported as introduced or established anywhere in the world other than its native range nor is there any indication that this species is found in trade. The climate match for the contiguous United States was low, with each State scoring low individual climate matches. The certainty of assessment is low. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information:** No additional information.
- **Overall Risk Assessment Category: Uncertain**

9 References

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.

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

Froese, R., and D. Pauly, editors. 2018. *Cichla melaniae* Kullander & Ferreira, 2006. FishBase. Available: <http://www.fishbase.se/summary/Cichla-melaniae.html>. (November 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Cichla melaniae* Kullander & Ferreira, 2006. Global Biodiversity Information Facility, Copenhagen. Available:
<https://www.gbif.org/species/5208161>. (November 2018).

Sanders, S., C. Castiglione, and M. Hoff. 2018. Risk assessment mapping program: RAMP, version 3.1. U.S. Fish and Wildlife Service.

10 References Quoted But Not Accessed

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.

Giarrizzo, T., R. R. de Sena Oliveira, M. C. Andrade, A. P. Gonçalves, T. A. P. Barbosa, A. R. Martins, D. K. Marques, J. L. B. dos Santos, R. de P. da S. Frois, T. P. O. de Albuquerque, L. F. de A. Montag, M. Camargo, and L. M. de Sousa. 2015. Length-weight and length-length relationships for 135 fish species from the Xingu River (Amazon basin, Brazil). *Journal of Applied Ichthyology* 31:514–424.

Kullander, S. O., and E. J. G. Ferreira. 2006. A review of the South American cichlid genus *Cichla*, with descriptions of nine new species (Teleostei: Cichlidae). *Ichthyological Exploration of Freshwaters* 17(4):289–398.

Romero, P. 2002. An etymological dictionary of taxonomy. Madrid. (unpublished).