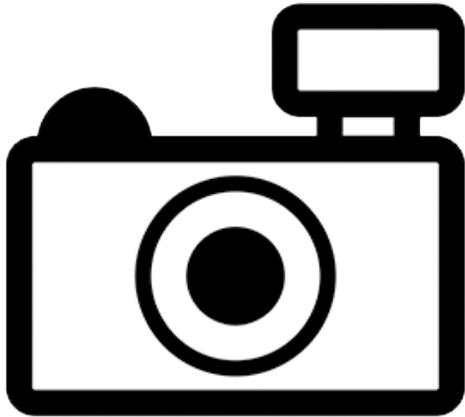


***Cichla vazzoleri* (a cichlid, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, August 2011
Revised, October 2012 and June 2018
Web Version, 7/27/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

Kullander and Ferreira (2006):

“*Cichla vazzoleri*, new species, occurs in the Uatumã and lower Trombetas rivers in Brazil.”

Status in the United States

There were no records found of *Cichla vazzoleri* in the wild in the United States. This species does not appear to be in trade in the United States.

Means of Introductions in the United States

No introductions recorded.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Froese and Pauly (2018):

“Biota > Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > Pisces (Superclass) > Actinopterygii (Class) > Perciformes (Order) > Labroidei (Suborder) > Cichlidae (Family) > Cichlinae (Subfamily) > *Cichla* (Genus) > *Cichla vazzoleri* (Species)”

“Status accepted”

Size, Weight, and Age Range

From Froese and Pauly (2011):

“Max length: 41.0 cm SL male/unsexed; [Kullander and Ferreira 2006].”

Environment

From Froese and Pauly (2011):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2011):

“Tropical”

Distribution Outside the United States

Native

Kullander and Ferreira (2006):

“*Cichla vazzoleri*, new species, occurs in the Uatumã and lower Trombetas rivers in Brazil.”

Introduced

No known introductions.

Means of Introduction Outside the United States

No known introductions.

Short Description

From Froese and Pauly (2011):

“Similar to *C. jariina*, *C. pinima*, *C. temensis*, and *C. thyrorus* in having 4 horizontal rows of light spots along the side in subadults and large females, and prominent black, light margined vertical bars or blotches in adults. The scales in E1 row ca 100-110, exceptionally 95-114 (vs. 77-90 in *C. thyrorus*[]). The lateral line is nearly always discontinuous (vs. usually continuous in *C. temensis* and *C. thyrorus* []). Vertical bars of breeding specimens are ocellated and modified, typically with small blotch close to dorsal fin base, below that ocellated vertical bars, or bar 1 with two separate or contiguous blotches, one on midaxis and one under pectoral fin, posterior bars rarely modified into blotches (vs. typically three vertical rows of 3, 3, and 2 blotches in *C. jariina* and *C. thyrorus*). A dark blotch at anterodorsal process of preopercle is nearly always present in adults over 20 cm SL (vs. usually absent in *C. pinima*). This species differs from *C. pinima* also by having smaller scales (95-114 vs. 86-105), but ranges overlap, and consistent presence of row of light spots along abdominal side (vs. commonly absent in *C. pinima*). Breeding *C. pinima* possess three ocellated bars which continuous above upper lateral line when extending above it, and usually no isolated blotches on dorsum; subadult and adult specimens possess an ocellated blotch dorsally in bar 3, which never occurs single in *C. vazzoleri* but only in breeding pattern together with other ocellated blotches. *Cichla temensis* usually possesses more E1 scales, 98-128, usually more than 110, and vertical bars of adults entire, extending from dorsum to abdominal side [Kullander and Ferreira 2006].”

Biology

No information available.

Human Uses

From Kullander and Ferreira (2006):

“Species of the genus *Cichla* are among the major food and game fishes in South America.”

Diseases

No information available. No OIE-reportable diseases have been documented for this species.

Threat to Humans

From Froese and Pauly (2011):

“Harmless”

3 Impacts of Introductions

There are no reported introductions of *Cichla vazzoleri* outside its native range.

Moore et al. (2010) assessed *C. vazzoleri* as a species “known to modify or disturb habitat”; “known to impact other species through competition, aggression, predation”; and “likely to pose a significant genetic risk through hybridisation/introgression with exotic species” if introduced to Australia. No details are given on the sources used to make these assessments.

4 Global Distribution

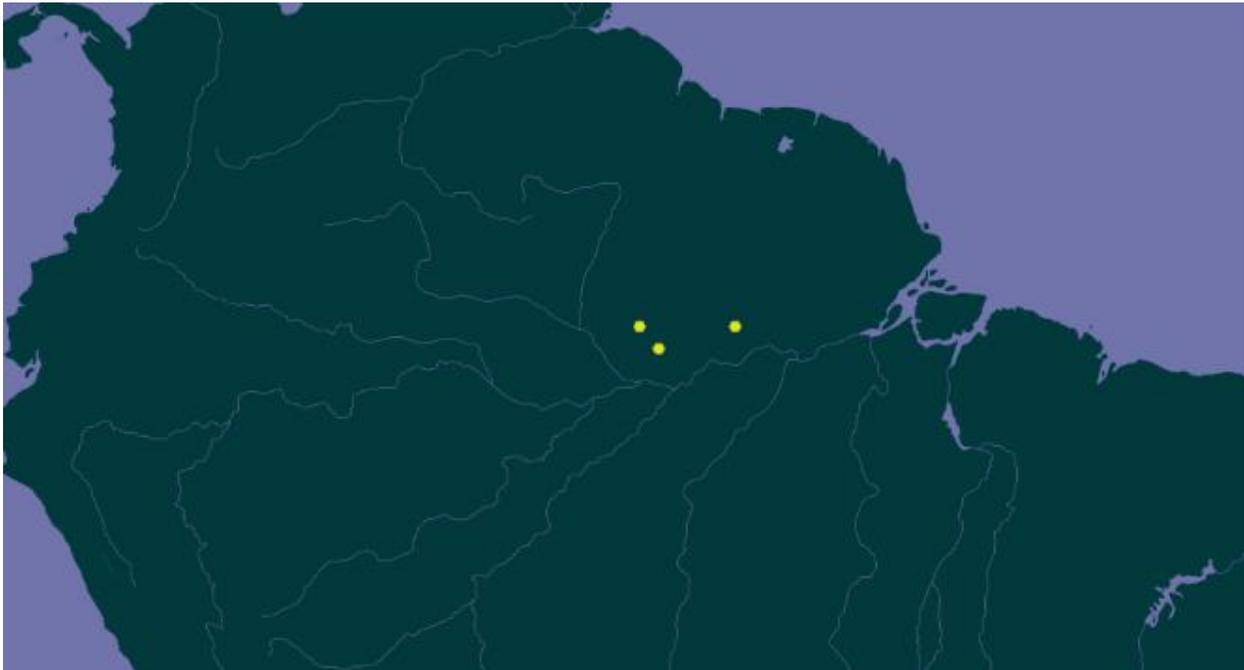


Figure 1. Known global distribution of *Cichla vazzoleri* in northeastern Brazil. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

No known occurrences.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2018; 16 climate variables; Euclidean Distance) was low throughout the contiguous United States, reflected in a Climate 6 proportion of 0.000. The range for Climate 6 proportions indicating a low climate match is 0.000 to 0.005, inclusive. All climate stations in the contiguous United States showed the lowest possible match score (0 out of 10).

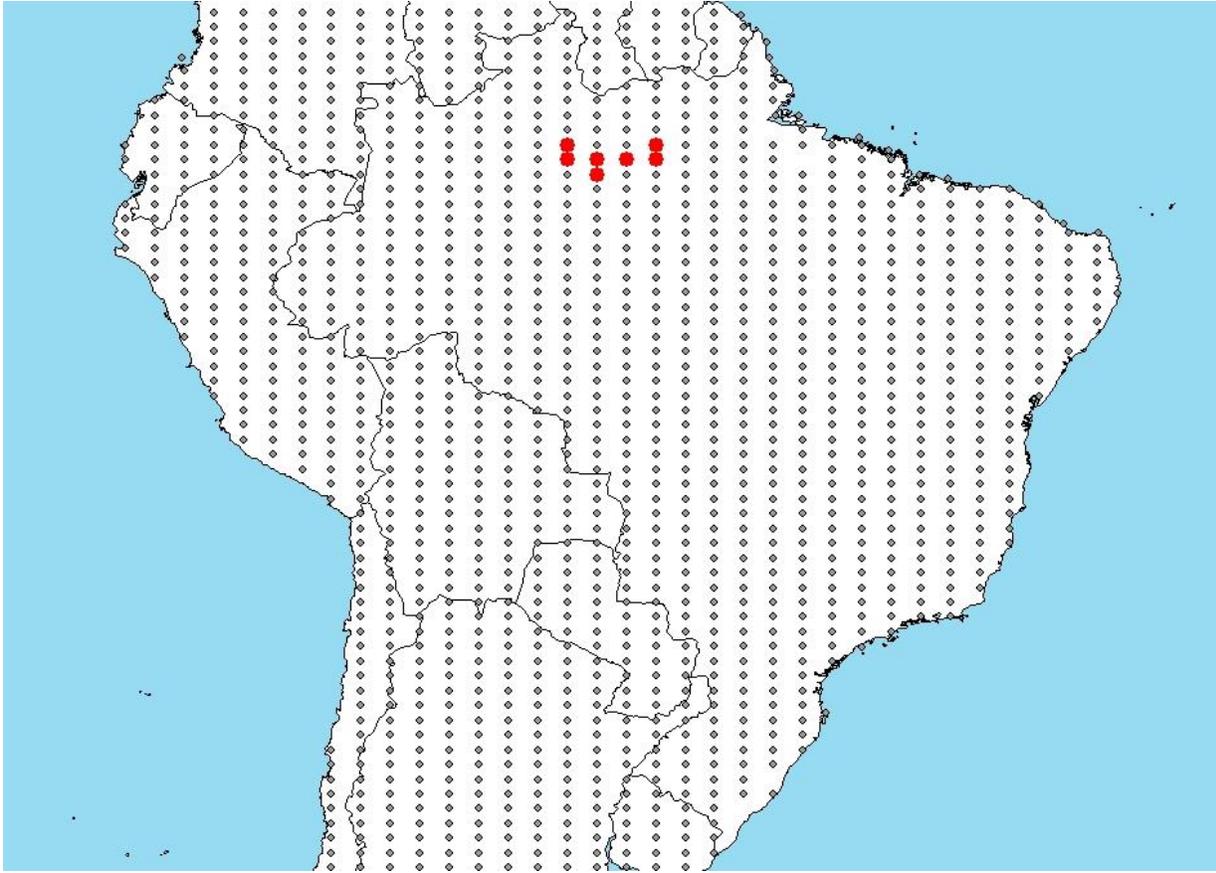


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Brazil) and non-source locations (gray) for *Cichla vazzoleri* climate matching. Source locations from GBIF Secretariat (2017).

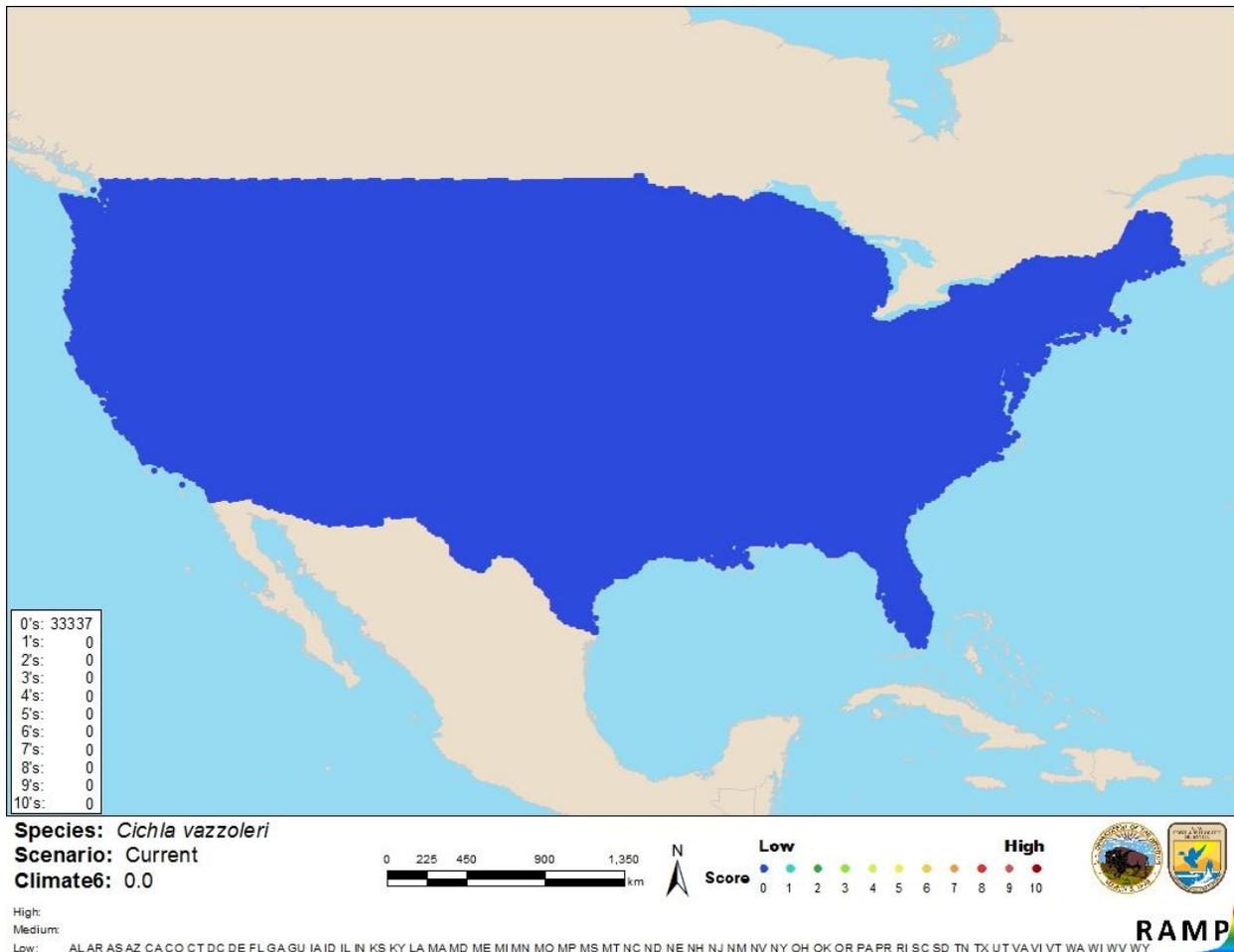


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Cichla vazzoleri* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match.

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
$0.000 \leq X < 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

The biology and ecology of *Cichla vazzoleri* are poorly known. There are no records showing introductions of this species outside of its native range. Little information is known to determine the effect it would have if it were introduced. The only information available is an Australian government report identifying *C. pleiozona* as a species that has traits that may make it invasive if released (Moore et al. 2010). Due to lack of information, the certainty of this assessment is low. More information is needed to increase the assessment certainty.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Cichla vazzoleri is a fish native to northeast Brazil. Very little information exists on this relatively newly discovered species. Species in this genus are important food and game species. The history of invasiveness of *C. vazzoleri* is uncertain because it has not been reported outside of its native range. The certainty of assessment is low. The climate match is low, with no match over 0 out of 10 in the contiguous United States. Overall risk for *C. vazzoleri* is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **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.

- Froese, R., and D. Pauly, editors. 2011. *Cichla vazzoleri* Kullander & Ferreira, 2006. FishBase. *Cichla vazzoleri*. Available: <http://www.fishbase.org/summary/Cichla-vazzoleri.html>. (October 2012).
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- Kullander, S. O., and E. J. G. Ferreira. 2006. A review of the South American cichlid genus *Cichla*, with descriptions of nine new species. *Ichthyological Exploration of Freshwaters* 17:289-398.
- Moore, A., N. Marton, and A. McNee. 2010. A strategic approach to the management of ornamental fish in Australia Communication strategy and grey list review – a report to OFMIG. Bureau of Rural Sciences, Canberra, Australia.
- Sanders, S., C. Castiglione, and M. H. Hoff. 2018. Risk Assessment Mapping Program: RAMP, version 3.1. U.S. Fish and Wildlife Service.