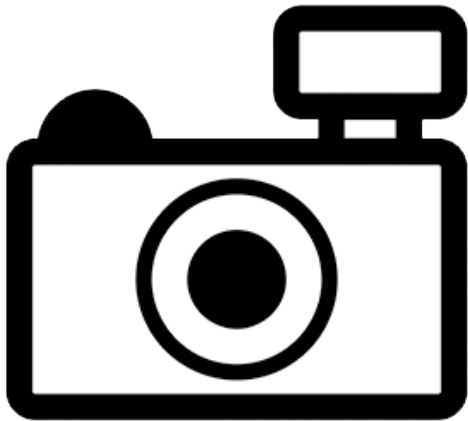


***Cichla thyrorus* (a cichlid, no common name)**

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

From Kullander and Ferreira (2006):

“*Cichla thyrorus*, new species, occurs in the Rio Trombetas in Brazil, upstream from the Cachoeira Porteira.”

Status in the United States

There are no reports of *Cichla thyrorus* found in the wild in the United States. A search of numerous online aquarium retailers failed to identify any retailers currently selling *C. thyrorus*.

Means of Introductions in the United States

No known introductions.

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 thyrorus* (Species)”

“Status accepted”

Size, Weight, and Age Range

From Froese and Pauly (2011):

“Max length: 43.0 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

From Kullander and Ferreira (2006):

“*Cichla thyrorus*, new species, occurs in the Rio Trombetas in Brazil, upstream from the Cachoeira Porteira.”

Introduced

No known introductions.

Means of Introduction Outside the United States

No known introductions.

Short Description

From Froese and Pauly (2011):

“Most similar to its congeners *jariina*, *pinima*, *temensis*, and *vazzoleri*, in having rows of distinct light spots along the side, and presence of large ocellated blotches replacing vertical bars in adults. Scales in E1 row 77-90 (vs. 95-114 in *vazzoleri*, 100-108 in *jariina*, 98-128 in *temensis*, and 96-108 *intermedia*). The lateral line is usually continuous (vs. discontinuous in *melaniae* and *mirianae*, usually discontinuous in *pinima*, *piquiti*, and *vazzoleri*). Vertical bars 1-3 complete in subadults and expressed as vertical row of ocellated blotches in adults (three in bars 1 and 2, two in bar 3, latter including small blotch close to dorsal fin base (vs. typically vertical bars represented by ocellated blotch close to dorsal fin, and vertical ocellated marking extending ventrally from middle of side in *C. vazzoleri*, and dorsal blotches in bars 1 and 2 typically absent from *C. pinima*). The dark blotch on anterodorsal process of subopercle is usually present in large adults, shared with *C. jariina* and *C. vazzoleri* (vs. absent from *C. pinima* and *C. temensis*) [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 in this species.

Threat to Humans

From Froese and Pauly (2011):

“Harmless”

3 Impacts of Introductions

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

Moore et al. (2010) assessed *C. thyrurus* 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 thyrorus*, reported from 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 entire 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).

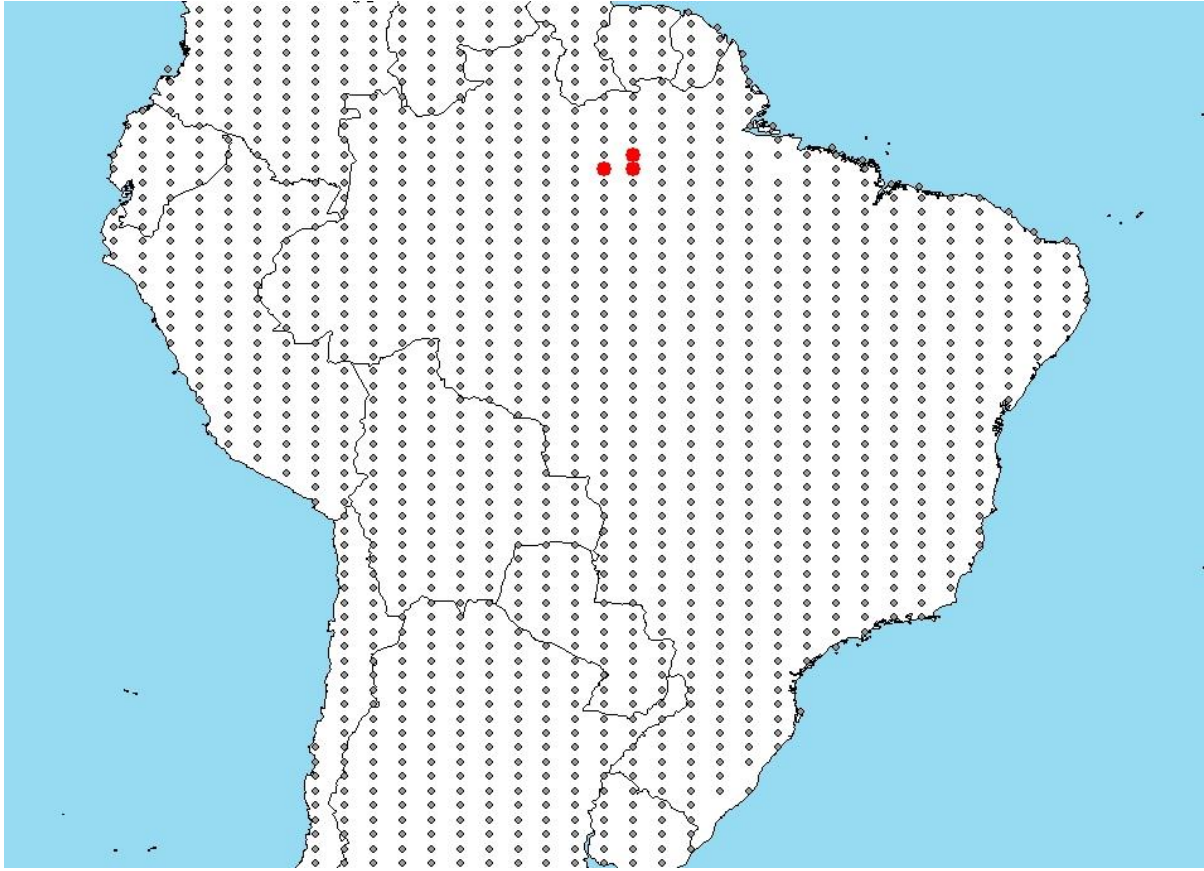


Figure 2. RAMP (Sanders et al. 2018) source map of Brazil and surrounding countries showing weather stations selected as source locations (red; Brazil) and non-source locations (gray) for *Cichla thyrorus* climate matching. Source locations from GBIF Secretariat (2017).

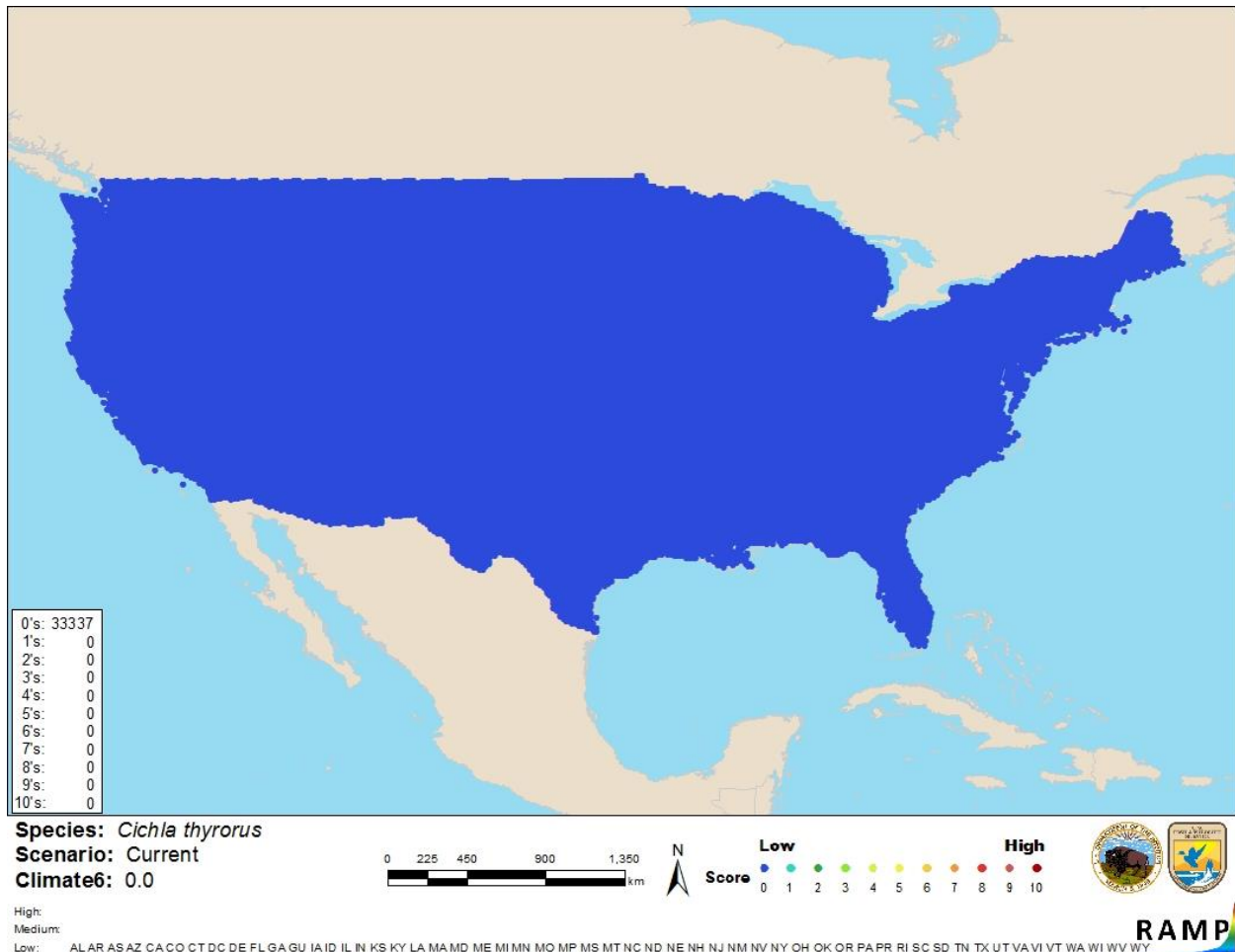


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Cichla thyrorus* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match.”

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 thyrorus* are poorly known. There are no records of introduction of this species outside of its native range. Little information is available to determine what kind of effect it could have if it were introduced. The only information available is an Australian government report identifying *C. thyrorus* 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 assessment is low. More information is needed to increase certainty.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Cichla thyrorus is a fish native to northern Brazil. Species in this genus are important food and game species. Very little information exists on this relatively newly discovered species. History of invasiveness is uncertain because *C. thyrorus* has not been introduced outside of its native range. Certainty of assessment is low. The climate match with the entire contiguous United States is low. Overall risk for this species 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 thyrorus* Kullander & Ferreira, 2006. FishBase. Available: <http://www.fishbase.us/summary/Cichla-thyrorus.html>. (October 2012).

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GBIF (Global Biodiversity Information Facility). 2017. GBIF backbone taxonomy: *Cichla thyrorus* Kullander & Ferreira, 2006. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5208158>. (June 2018).

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.