

Red Port Acara (*Cichlasoma portalegreense*)

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, August 2011
Revised, August 2018
Web Version, 2/1/2019



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Available: <https://www.gbif.org/occurrence/1056946730>. (August 2018).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: Laguna dos Patos basin and Tramandaí River basin in Rio Grande do Sul, Brazil.”

Abrahão et al. (2015) report *Cichlasoma portalegreense* from rivers and streams of coastal hydrographic regions of Santa Catarina state, Brazil.

From Miquelarena et al. (1990):

“*Cichlasoma portalegreense* is a new report from the Sali river basin and from «Tucuman» (without precision). This species, recently reported from the Salado and Dulce rivers in Santiago del Estero (Casciotta et al., 1989), is widely distributed in northern and central Argentina, including the Parana river basin in Misiones, Corrientes, Chaco, Entre Rios; the Paraguay river in Formosa, and tributaries of the Bermejo river in Salta.”

Status in the United States

This species has not been reported as introduced or established in the United States. There is no indication that this species is in trade in the United States.

Means of Introductions in the United States

This species has not been reported as introduced or established in the United States.

Remarks

According to Nico et al. (2018), *C. portalegreense* was incorrectly reported as introduced to Florida, but the specimens were later identified as the related species *Cichlasoma bimaculatum*.

From Nico et al. (2018):

“The first Florida specimens of *C. bimaculatum* were reported and identified as *Aequidens portalegreensis* (= *Cichlasoma portalegreense*) by Rivas (1965), Bailey et al. (1970), Kushlan et al. (1972).”

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From GBIF Secretariat (2017):

“Kingdom Animalia
Phylum Chordata
Class Actinopterygii
Order Perciformes
Family Cichlidae
Genus *Cichlasoma* Swainson, 1839
Species *Cichlasoma portalegreense* (Hensel, 1870)”

From Eschmeyer et al. (2018):

“Current status: Valid as *Cichlasoma portalegreense* (Hensel 1870). Cichlidae: Cichlinae.”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 12.9 cm TL male/unsexed; [Quintela et al. 2017]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic; pH range: 6.5 - 7.0; dH range: 3 - 10. [...] 16°C - 24°C [Riehl and Baensch 1996; assumed to be recommended aquarium temperature range]”

Climate/Range

From Froese and Pauly (2018):

“Tropical;”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: Laguna dos Patos basin and Tramandaí River basin in Rio Grande do Sul, Brazil.”

Abrahão et al. (2015) report *Cichlasoma portalegrense* from rivers and streams of coastal hydrographic regions of Santa Catarina state, Brazil.

From Miquelarena et al. (1990):

“*Cichlasoma portalegrense* is a new report from the Sali river basin and from «Tucuman» (without precision). This species, recently reported from the Salado and Dulce rivers in Santiago del Estero (Casciotta et al., 1989), is widely distributed in northern and central Argentina, including the Parana river basin in Misiones, Corrientes, Chaco, Entre Rios; the Paraguay river in Formosa, and tributaries of the Bermejo river in Salta.”

Introduced

This species has not been reported as introduced or established outside of its native range.

Means of Introduction Outside the United States

This species has not been reported as introduced or established outside of its native range.

Short Description

No information available.

Biology

Bozetti and Schulz (2004) report that the trophic level classification of *Cichlasoma portalegreense* is “omnivorous”, and the tolerance classification is “tolerant” (Konrad 1992, Nelson 1994, Burgess 1997, Hahn et al. 1997, and Hartz 1997).

From Froese and Pauly (2018):

“Produces up to 500 eggs [Riehl and Baensch 1991]. Some times [*sic*] females that have already reproduced develop into functional males [Stawikowski and Werner 1998].”

Human Uses

From Froese and Pauly (2018):

“Aquarium: potential”

Diseases

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

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

This species has not been reported as introduced or established outside of its native range.

4 Global Distribution

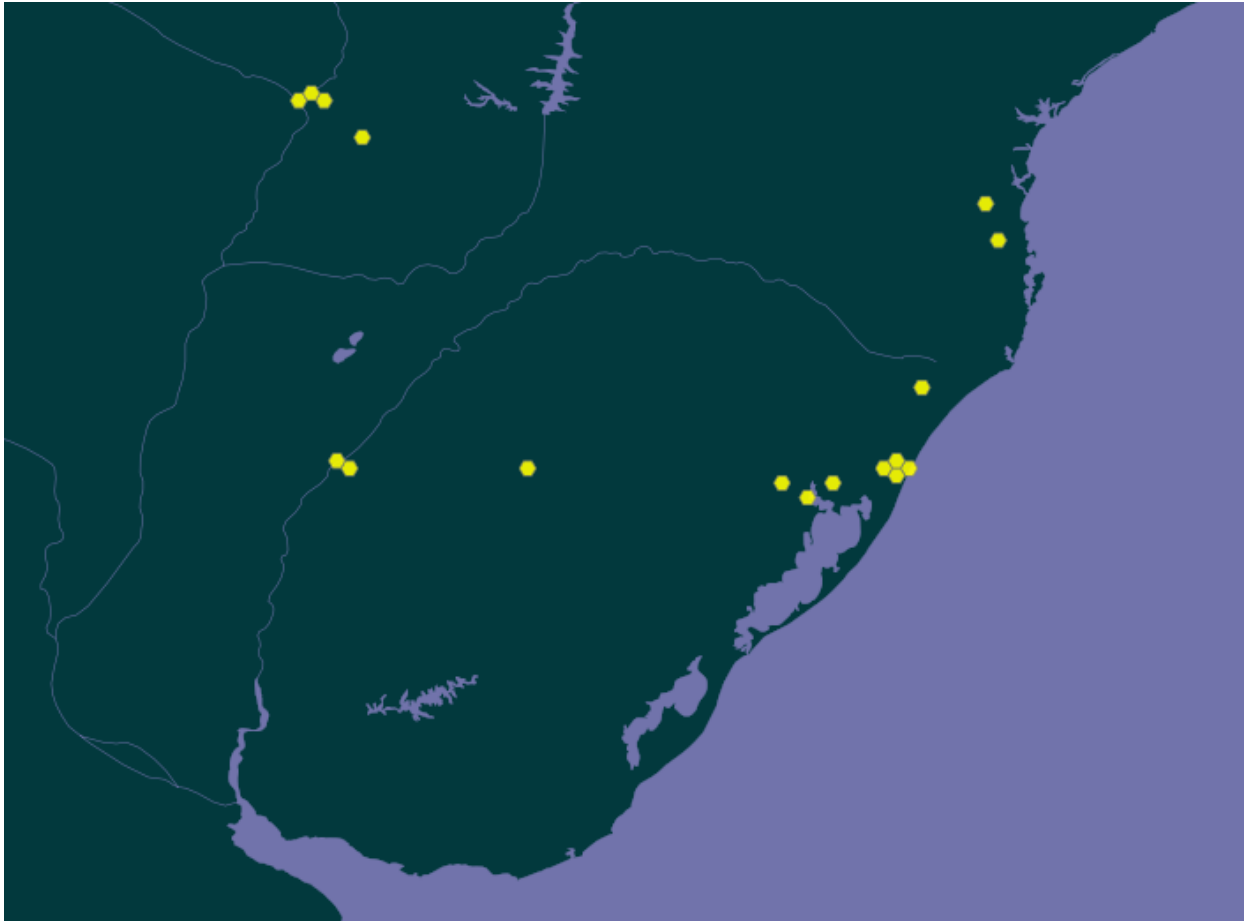


Figure 1. Known global distribution of *Cichlasoma portalegreense* in Paraguay and southeast Brazil. Map from GBIF Secretariat (2017). No distribution information was available for this species in Argentina. Points in Suriname, Bolivia, Colombia, and central Brazil were excluded from the extent of this map and from climate matching because they fall far outside the documented range of this species. A point in southern Florida was also excluded because according to Nico et al. (2018), it may actually refer to *Cichlasoma bimaculatum*.

5 Distribution Within the United States

According to Nico et al. (2018), records from Florida actually refer to *Cichlasoma bimaculatum*. This species has not been reported as introduced or established in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.064, which is a medium climate match. The range for a medium climate score is between 0.005 and 0.103. There was a medium match in the Mid-Atlantic, Southeast, Mississippi Valley and southeastern Plains states, except along the coast from southern Virginia to the mid-Gulf Coast of Texas (including peninsular Florida), where the match was high. The remainder of the contiguous United States had a low match. The climate match was highest in the southeastern United States; Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Texas had a high climate score. Virginia had a medium climate score, and all other states in the contiguous United States had a low climate score.

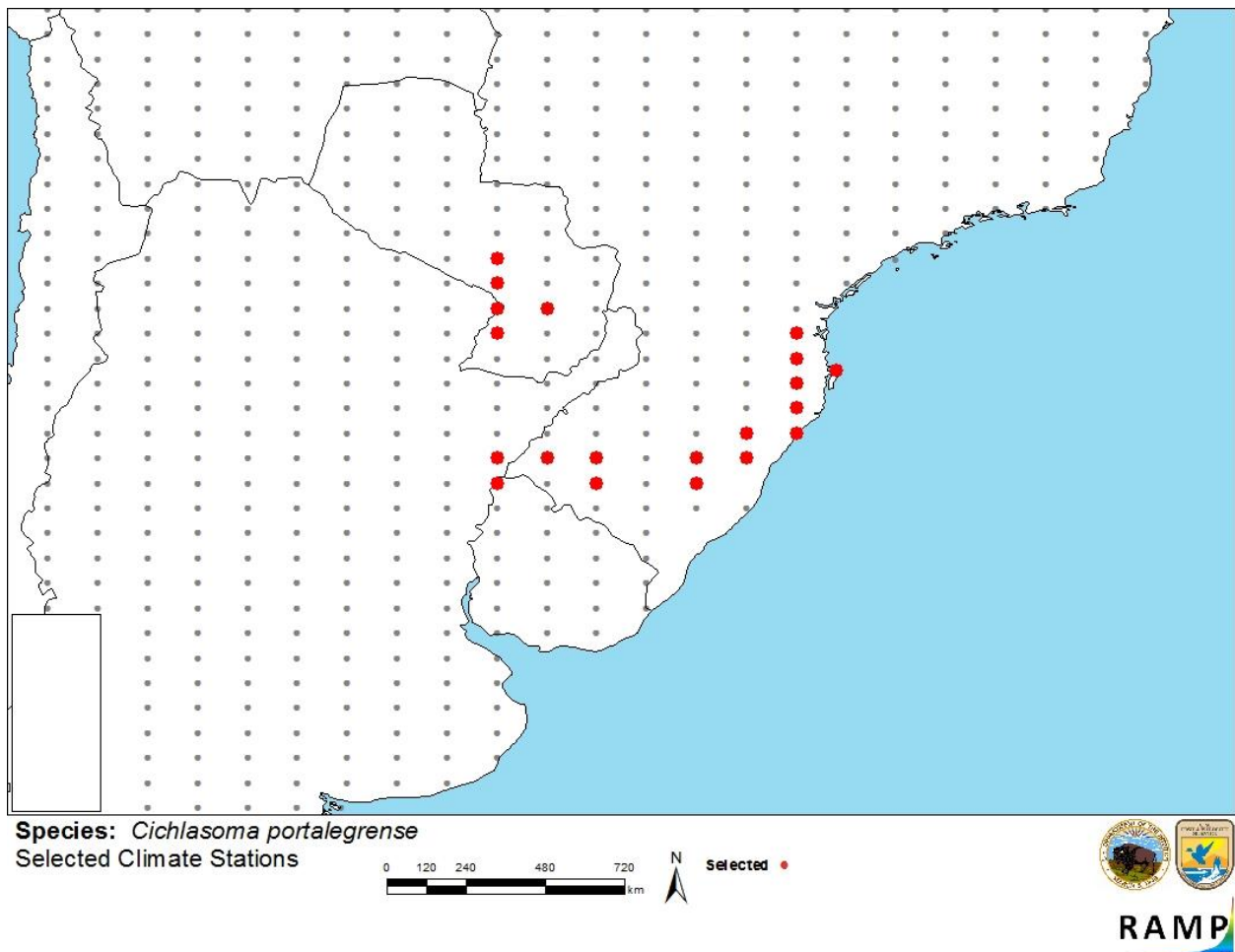


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Paraguay, Brazil, Argentina and Uruguay) and non-source locations (gray) for *Cichlasoma portalegreense* climate matching. Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves. Source locations from GBIF Secretariat (2017).

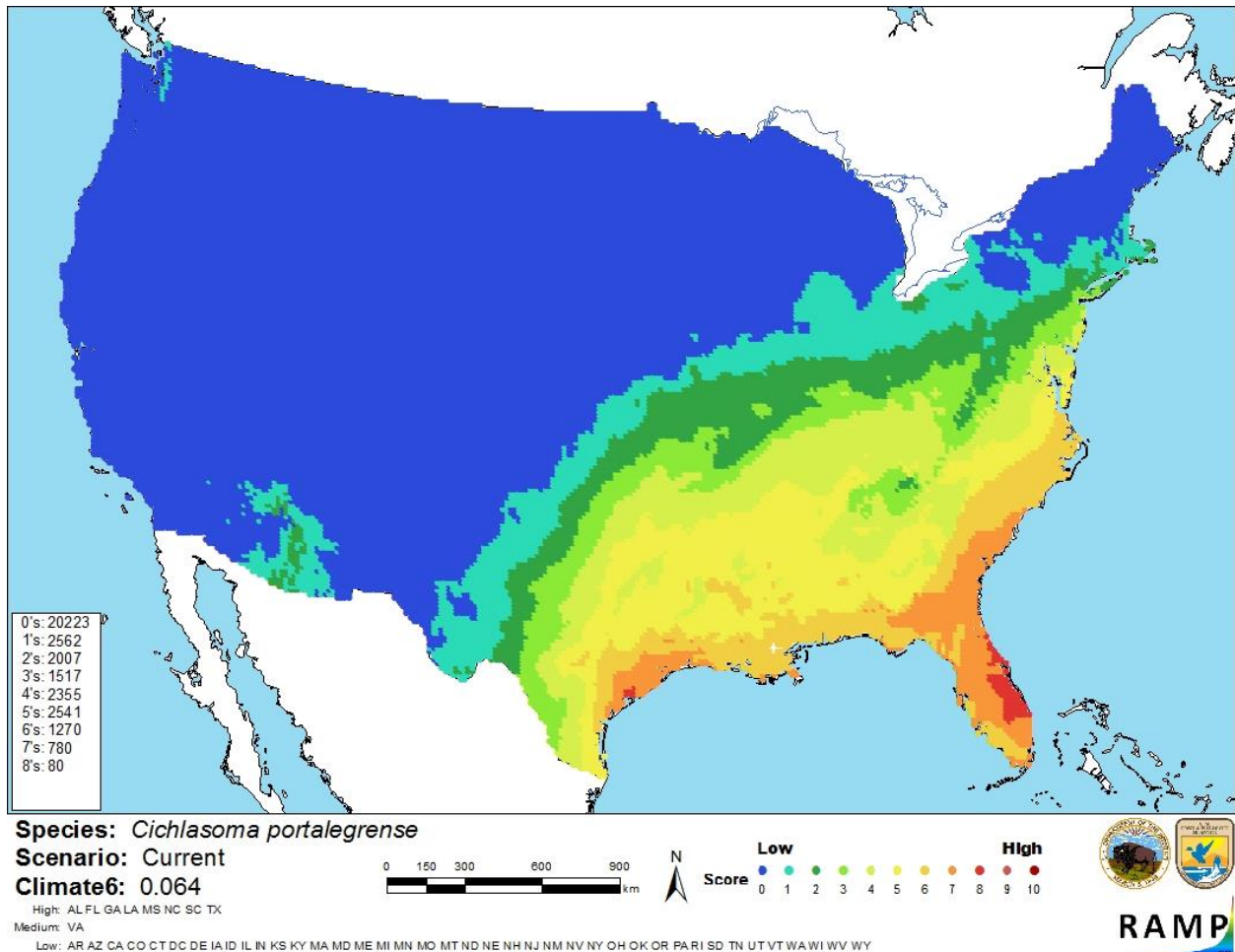


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Cichlasoma portalegreense* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match.

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

There is limited information available about the biology and ecology of *Cichlasoma portalegreense*. Multiple records of this species occur outside of its reported native range (GBIF Secretariat 2017), but it is not clear if these are nonindigenous occurrences, native occurrences, or misidentified specimens. Additionally, there were no georeferenced occurrences representing the species range in Argentina. Confusion regarding the exact range of the species increases the uncertainty of the climate matching. This species has never been reported as introduced or

established outside of its native range, except in Florida, which is believed to be a misidentification of *C. bimaculatum*. Further information is needed to adequately assess the risk this species poses to the contiguous United States. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Cichlasoma portalegreense, the Red Port Acara, is a cichlid species native to South America. There is some uncertainty regarding the exact range of the species within South America with many georeferenced occurrences reported outside the documented range of the species. This species has no credible documented introductions outside of its native range. Therefore, history of invasiveness is uncertain. *C. portalegreense* may be used in the aquarium trade, but no indication of trade in the United States was found. This species has a medium climate match with the contiguous United States. The area of highest match is located in the southeastern United States. Because there is little information available about *C. portalegreense*, confusion about its range, and its history of invasiveness is uncertain, the certainty of this assessment is low. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Medium**
- **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.

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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.

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