

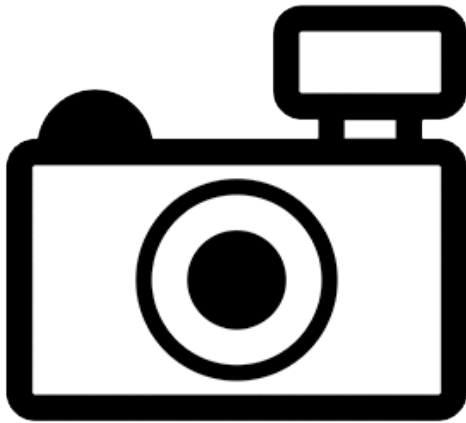
***Rondonacara hoehnei* (a cichlid, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2015

Revised, October 2017

Web Version, 12/20/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“Known only from the Amazon River basin, in the Araguaia River drainage [Brazil] [Kullander 2003]. Found in the upper das Mortes River basin, Araguaia River drainage, central Brazil [Ottoni and Mattos 2015].”

From Ottoni and Mattos (2015):

“Currently, *Rondonacara hoehnei* is known only from a single locality at a tributary of the das Mortes River, Araguaia River basin (Fig. 9 [in source material]). Despite recent field work efforts, this species was collected in this single locality only (Costa pers. comm.).”

Status in the United States

No records of *Rondonacara hoehnei* in the United States were found. No records of trade within the United States were found.

Means of Introductions in the United States

No records of *Rondonacara hoehnei* in the United States were found.

Remarks

The valid scientific name was recently changed to *Rondonacara hoehnei* due to work published in 2015. Most information sources still use the previous name, *Aequidens hoehnei*.

From Froese and Pauly (2019):

“Considering the restricted distribution and the widespread and accelerated destruction of natural habitats, the conservation status of *Rondonacara hoehnei* has to be stated to be a 'critically endangered' [Ottoni and Mattos 2015].”

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Eschmeyer et al. (2017):

“**Current status:** Valid as *Rondonacara hoehnei* (Miranda Ribeiro 1918).”

From ITIS (2014):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii
Infraclass Teleostei
Superorder Acanthopterygii
Order Perciformes
Suborder Labroidei
Family Cichlidae
Genus *Aequidens*
Species *Aequidens hoehnei* (Miranda Ribeiro, 1918)”

A taxonomic hierarchy using the current valid name was not available. The above hierarchy is correct for the valid name through Family level.

Size, Weight, and Age Range

From Froese and Pauly (2019):

“Max length: 7.2 cm SL male/unsexed; [Ottoni and Mattos 2015]”

Environment

From Froese and Pauly (2019):

“Freshwater; benthopelagic; dH range: ? - 20. [...]; 18°C - 30°C [Baensch and Riehl 1997; assumed to be recommended aquarium temperature]”

Climate/Range

From Froese and Pauly (2019):

“Tropical; [...]”

Distribution Outside the United States

Native

From Froese and Pauly (2019):

“Known only from the Amazon River basin, in the Araguaia River drainage [Brazil] [Kullander 2003]. Found in the upper das Mortes River basin, Araguaia River drainage, central Brazil [Ottoni and Mattos 2015].”

From Ottoni and Mattos (2015):

“Currently, *Rondonacara hoehnei* is known only from a single locality at a tributary of the das Mortes River, Araguaia River basin (Fig. 9 [in source material]). Despite recent field work efforts, this species was collected in this single locality only (Costa pers. comm.).”

Introduced

No records of *Rondonacara hoehnei* introductions were found.

Means of Introduction Outside the United States

No records of *Rondonacara hoehnei* introductions were found.

Short Description

From Froese and Pauly (2019):

“Dorsal spines (total): 13 - 14; Dorsal soft rays (total): 9-11; Anal spines: 3; Anal soft rays: 9 - 10. *Rondonacara hoehnei* is distinguished by having only four pores on the dentary (vs. five in other tribes of the Cichlidae, except Heroini) and three anal-fin spines (vs. more in Heroini). It differs from all members of Cichlasomatini by presence of transversal streaks originated at the insertion of spines and softs rays of dorsal fin in live specimens, preserved ones retains just the

proximal portion of the transversal streaks (vs. absence). Furthermore, it can be diagnosed from species of *Acaronia* (Myers, 1940), *Bujurquina*, *Krobia*, *Andinoacara* and *Tahuantinsuyoa* by having the longitudinal stripe of the flank horizontally oriented, ending directed to caudal-fin base (vs. dorsally displaced, ending directed to the end of dorsal-fin base); from '*Aequidens*' *paloemeuensis* Kullander & Nijssen, 1989, '*A. potaroensis*', *Cichlasoma* and *Aequidens* by having the caudal-fin base spot on the middle of the fin (vs. dorsally displaced with major part of spot occurring above lower lateral line); from species of *Cichlasoma* and *Aequidens* by presence of a conspicuous suborbital bar (vs. suborbital bar transformed into a spot located below orbits [cheek spot sensu Kullander (1983)]), and caudal-fin base spot not ocellated (vs. ocellated); from species of *Ivanacara* Römer & Hahn 2007, *Laetacara* Kullander, 1986, *Nannacara* Regan, 1905 and *Cleithracara* Kullander & Nijssen 1989 by the lack of scales on preopercle (vs. with scales); from species of *Cleithracara*, *Ivanacara*, and *Nannacara* by having two supraneuralia (vs. 1), and from members of *Laetacara* by the possession of uniserial predorsal squamation (vs. triserial) [Ottoni and Mattos 2015].”

Biology

From Froese and Pauly (2019):

“Inhabit rivers [Eschmeyer 1997]. Adults exhibit biparental care [Stawikowski and Werner 1998].”

“Both parents guard the eggs and young [Stawikowski and Werner 1998].”

Human Uses

Information on human uses of *Rondonacara hoehnei* was not found.

Diseases

Information on diseases of *Rondonacara hoehnei* was not found. **No records of OIE-reportable diseases (OIE 2019) were found for *R. hoehnei*.**

Threat to Humans

From Froese and Pauly (2019):

“Harmless”

3 Impacts of Introductions

No records of *Rondonacara hoehnei* introductions were found; therefore there is no information on impacts of introduction.

4 Global Distribution



Figure 1. Known global distribution of *Rondonacara hoehnei* reported from Brazil. Map from GBIF Secretariat (2017), species is listed in GBIF as *Aequidens hoehnei*.

5 Distribution Within the United States

No records of *Rondonacara hoehnei* in the wild in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Rondonacara hoehnei* was medium in southwest Florida and low everywhere else in the contiguous United States. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the 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.

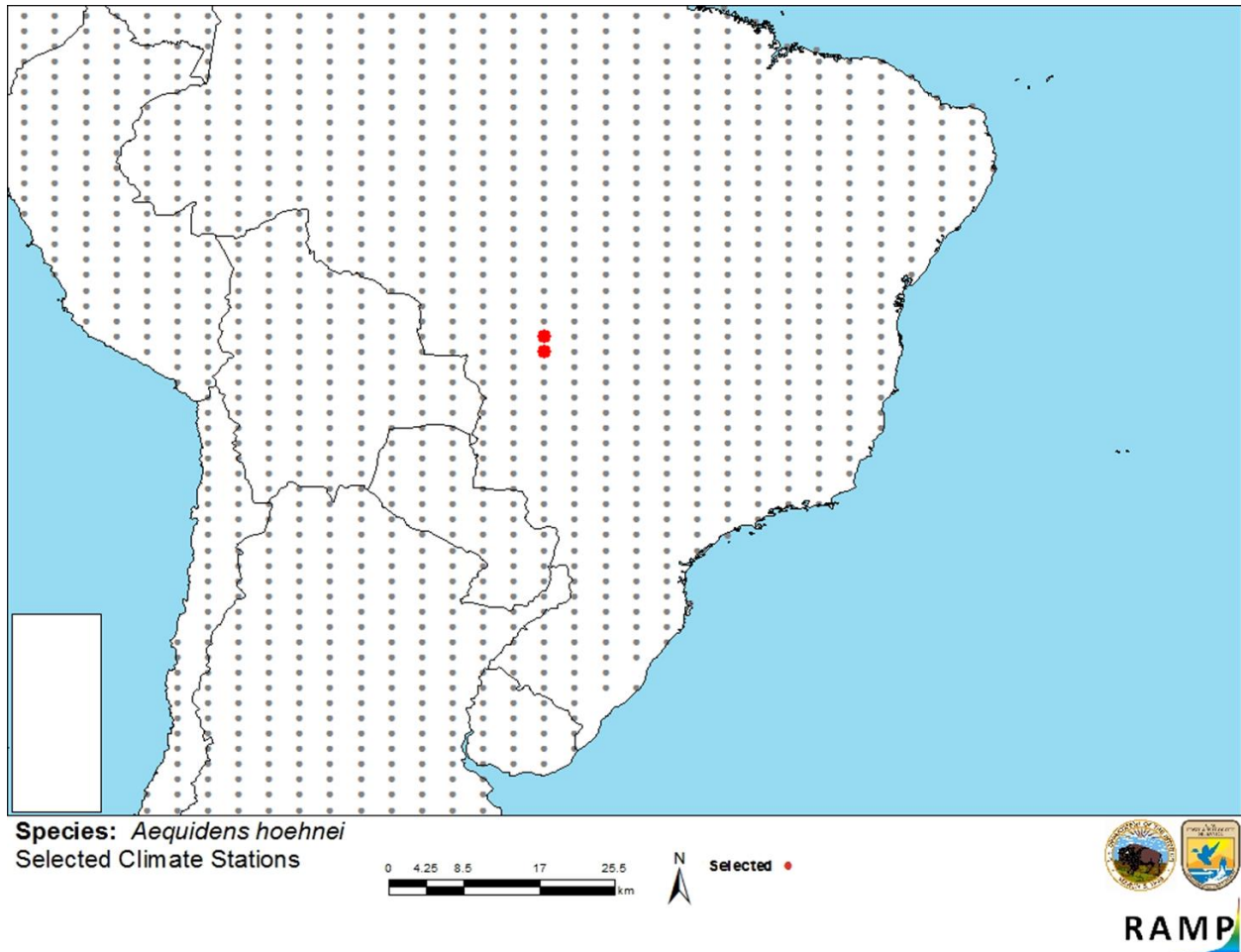


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Brazil) and non-source locations (gray) for *Rondonacara hoehnei* climate matching. Source locations from GBIF Secretariat (2017); species is listed in GBIF as *Aequidens hoehnei*. Selected source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

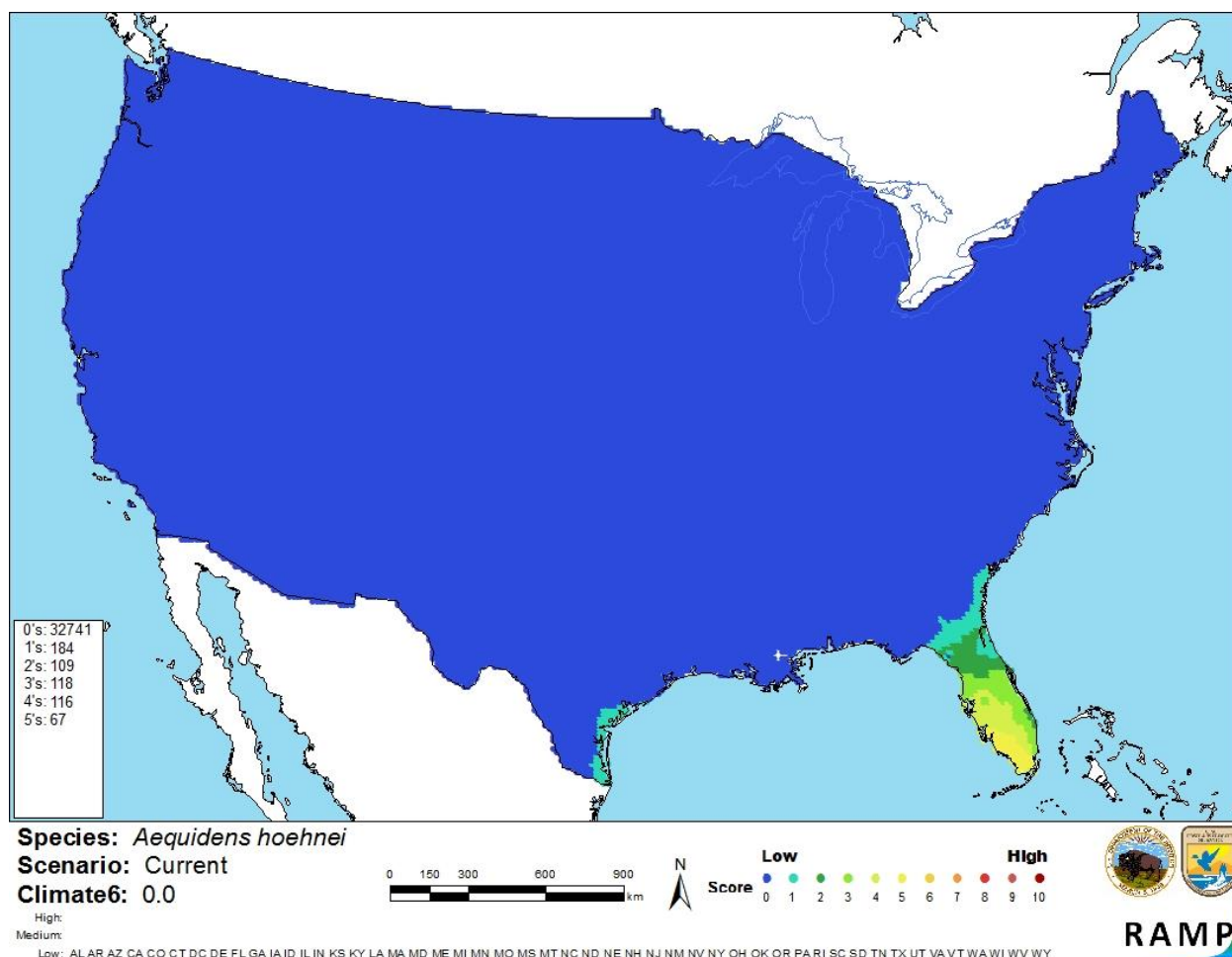


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Rondonacara hoehnei* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0 = Lowest match, 10 = Highest match.

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

7 Certainty of Assessment

The certainty of assessment is low. There was limited information available for *Rondonacara hoehnei*. No records of introduction were found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Rondonacara hoehnei is a cichlid fish found in only one location in the Amazon River Basin in Brazil. Very little information was available about *R. hoehnei*. The history of invasiveness is uncertain. There were no records of introductions for *R. hoehnei*. The climate match to the contiguous United States was low. The only area with a medium match was southwest Florida. The certainty of assessment is low, due to lack of information. 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:** Most information sources still use the previous scientific name, *Aequidens hoehnei*.
- **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.

Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2017. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (July 2017).

Froese, R., and D. Pauly, editors. 2019. *Rondonacara hoehnei* (MirandaRibeiro, 1918). FishBase. Available: <http://fishbase.de/summary/Aequidens-hoehnei.html>. (December 2019).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Aequidens hoehnei* (Miranda Ribeiro, 1918). Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/5208283>. (July 2017).

ITIS (Integrated Taxonomic Information System). 2014. *Aequidens hoehnei* (Miranda Ribeiro, 1918). Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=648237. (October 2014).

OIE (World Organisation for Animal Health). 2019. OIE-listed diseases, infections and infestations in force in 2019. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/>. (December 2019).

Otoni, F. P., and J. L. O. Mattos. 2015. Phylogenetic position and re-description of the endangered cichlid *Nannacara hoehnei*, and description of a new genus from Brazilian Cerrado (Teleostei, Cichlidae, Cichlasomatini). *Vertebrate Zoology* 65(1):65–79.

Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk assessment mapping program: RAMP, version 2.81. 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.

Baensch, H. A., and R. Riehl. 1997. *Aquarien atlas*, band 5. Mergus Verlag, Melle, Germany.

Eschmeyer, W. N. 1997. PISCES. Eschmeyer's PISCES database as published on the Internet. Available: [gopher://gopher.calacademy.org:640/7](http://gopher.calacademy.org:640/7).

Kullander, S. O. 2003. Cichlidae (Cichlids). Pages 605–654 in R. E. Reis, S. O. Kullander, and C. J. Ferraris, Jr., editors. *Checklist of the freshwater fishes of South and Central America*. EDIPUCRS, Porto Alegre, Brazil.

Miranda Ribeiro, A. de. 1918. *Historia natural. Zoologia. Cichlidae*. Comissão de Linhas Telegraficas Estrategicas de Matto-Grosso ao Amazonas, Publication 46(5):1–18.

Stawikowski, R., and U. Werner. 1998. *Die buntbarsche Amerikas*, band 1. Verlag Eugen Ulmer, Stuttgart, Germany.