Aequidens rondoni

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, web version – 03/30/2018



Photo: Pablo Lehmann. Licensed under Creative Commons Attribution Non-Commercial 3.0 Unported. Available: http://eol.org/data_objects/26103703. (February 13, 2017).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2015):

"South America: Amazon River basin, in the upper Tapajós River basin, Brazil."

Status in the United States

No records of Aeguidens rondoni introductions in the United States were found.

Means of Introductions in the United States

No records of Aequidens rondoni introductions in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2015):

```
"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 rondoni (Miranda Ribeiro, 1918)"
```

From Eschmeyer et al. (2017):

"rondoni, Acaropsis Miranda Ribeiro [A. de] 1918:11 [...], Pl. 4 (top) [Historia Natural. Zoologia. Cichlidae Publ. 46 (Annexo 5)] Rio do Sangue, above Bello falls, Brazil. Holotype: MNRJ 1616. Type catalog: Miranda Ribeiro 1953:397 [...]. •Valid as Aequidens rondoni (Miranda Ribeiro 1918) -- (Kullander in Reis et al. 2003:609 [...]). Current status: Valid as Aequidens rondoni (Miranda Ribeiro 1918). Cichlidae: Cichlinae."

Size, Weight, and Age Range

From Froese and Pauly (2015):

"Max length: 9.7 cm SL male/unsexed; [Kullander 2003]"

Environment

From Froese and Pauly (2015):

"Freshwater; benthopelagic."

From Raghuvanshi et al. (2015):

"It is benthopelagic or swims above river/stream bed at depths of about 1-3 m in black water rivers."

Climate/Range

From Froese and Pauly (2015):

"Tropical"

Distribution Outside the United States

Native

From Froese and Pauly (2015):

"South America: Amazon River basin, in the upper Tapajós River basin, Brazil."

Introduced

No records of introduction were found for Aequidens rondoni.

Means of Introduction Outside the United States

No records of introduction were found for Aequidens rondoni.

Short Description

From Raghuvanshi et al. (2015):

"It is medium fish with standard length (from tip of snout to begriming of tail fin) about 4"."

"A. rondoni has a typical tri serial pre dorsal arrangement of scales of its Aequidens with E1 scales 25 or 26."

Biology

From Raghuvanshi et al. (2015):

"It is a [sic] carnivorous in nature, and eats small fish, detritus."

Human Uses

Raghuvanshi et al. (2015) gives parameters and advice on keeping and breeding *Aequidens* rondoni in aquariums.

Diseases

Information on pathogens and parasites known to be carried by *Aequidens rondoni* was not found.

Threat to Humans

From Froese and Pauly (2015):

"Harmless"

3 Impacts of Introductions

No records of introduction were found for Aequidens rondoni.

4 Global Distribution



Figure 1. Known global distribution of *Aequidens rondoni*. *A. rondoni* is found in Brazil. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

No records of Aequidens rondoni introductions in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Aequidens rondoni* was medium for southern Florida and low everywhere else. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous U.S. was 0.002, low, and no states had individually high climate scores.

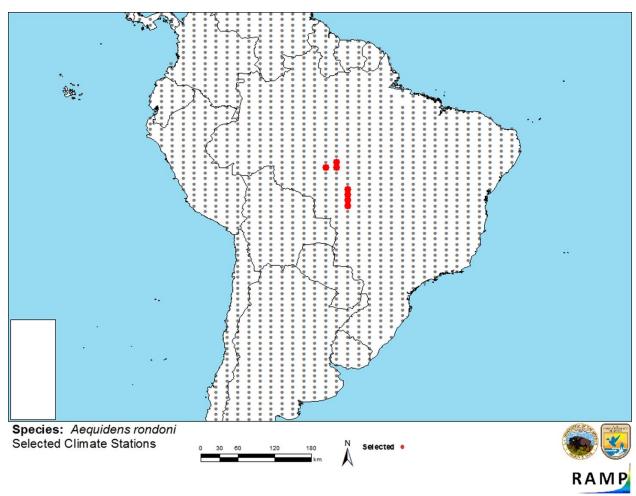


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in Brazil selected as source locations (red) and non-source locations (gray) for *Aequidens rondoni* climate matching. Source locations from GBIF Secretariat (2017).

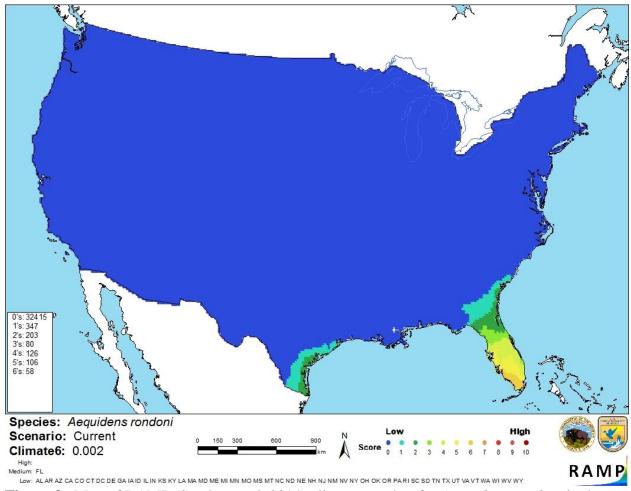


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Aequidens rondoni* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0 = Lowest match, 10 = Highest match.

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

Climate 6: Proportion of	Climate
(Sum of Climate Scores 6-10) / (Sum of total	Match
Climate Scores)	Category
0.000\leqX\leq0.005	Low
0.005 <x<0.103< td=""><td>Medium</td></x<0.103<>	Medium
≥0.103	High

7 Certainty of Assessment

The certainty of this assessment is low. There was limited but information available for *Aequidens rondoni*. No records of introductions were found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

The history of invasiveness is uncertain. There were no records of introductions found for *Aequidens rondoni*. The climate match is low, 0.002. The certainty of assessment is low. There was limited but high quality information available. 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 remarks.
- 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. (August 2017).
- Froese, R., and D. Pauly, editors. 2015. *Aequidens rondoni* (Miranda Ribeiro, 1918). FishBase. Available: http://www.fishbase.org/summary/Aequidens-rondoni.html. (February 2015).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Aequidens rondoni* (Miranda Ribeiro, 1918). Global Biodiversity Information Facility, Copenhagen. Available: https://www.gbif.org/species/5208298. (August 2017).
- ITIS (Integrated Taxonomic Information System). 2015. *Aequidens rondoni* (Miranda Ribeiro, 1918). Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=6482 45. (February 2015).
- Raghuvanshi, S., L. Langley, and D. Wenners. 2015. *Aequidens rondoni*. Aquatic-nation. Available: http://aquaticnation.org/library/Lib_Cich_sp_Aequidens_rondoni.php. (February 2015).
- Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk assessment mapping program: RAMP. 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.

- 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. Commissão de Linhas Telegraphicas Estrategicas de Matto-Grosso ao Amazonas. Publication 46(5):1–18.
- Miranda Ribeiro, P. de. 1953. Tipos das espéces e subespécies do Prof. Alipio de Míranda Ribeiro depositados no Museu Nacional. Arquivos do Museu Nacional de Rio de Janeiro 42:389–417.
- Reis, R. E., S. O. Kullander, and C. J. Ferraris, Jr., editors. 2003. Check list of the freshwater fishes of South and Central America. CLOFFSCA. EDIPUCRS, Porto Alegre, Brazil.