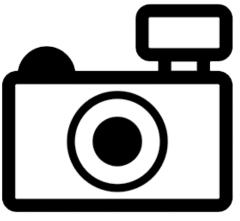
## **Aequidens gerciliae** (a fish, no English common name) Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, web version – 03/29/2018



No Photo Available

# **1** Native Range and Status in the United States

#### **Native Range**

From Froese and Pauly (2015):

"South America: Amazon River basin, known only from the upper Aripuanã River, near Cachoeira de Dardanelos and in a headwater stream on the Juína-Vilhena road, Brazil."

#### **Status in the United States**

No records of Aequidens graciliae in the United States were found.

### Means of Introductions in the United States

No records of Aequidens graciliae in the United States were found.

#### Remarks

No additional remarks.

## 2 Biology and Ecology

#### **Taxonomic Hierarchy and Taxonomic Standing**

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 gerciliae Kullander, 1995"

From Eschmeyer et al. (2017):

"*gerciliae, Aequidens* Kullander [S. O.] 1995:150 [...], Fig. 1 [Ichthyological Exploration of Freshwaters v. 6 (no. 2)] Nucleo Aripuana, Igarapé do Aeroporto, above the cachoeira, about 10°10'S, 59°25'W, Mato Grosso State, Brazil. Holotype: INPA 974. Paratypes: INPA 1384 (4), 2197 (20), 3476 (2); NRM 27959-60 (1, 7); plus non-type material. •Valid as *Aequidens gerciliae* Kullander 1995 -- (Kullander in Reis et al. 2003:608 [...]). **Current status:** Valid as *Aequidens gerciliae* Kullander 1995. Cichlidae: Cichlinae."

#### Size, Weight, and Age Range

From Froese and Pauly (2015):

"Max length: 12.8 cm SL male/unsexed; [Kullander 1995]; 9.7 cm SL (female)"

#### Environment

From Froese and Pauly (2015):

"Freshwater; benthopelagic."

"A clear-water species [Kullander 1995]."

### Climate/Range

From Froese and Pauly (2015):

"Subtropical"

#### **Distribution Outside the United States**

Native From Froese and Pauly (2015):

"South America: Amazon River basin, known only from the upper Aripuanã River, near Cachoeira de Dardanelos and in a headwater stream on the Juína-Vilhena road, Brazil."

Introduced No records of *Aequidens graciliae* introductions were found.

### Means of Introduction Outside the United States

No records of Aequidens graciliae introductions were found.

## **Short Description**

From Kullander (1995):

"A moderately large (to ca 130 mm SL), relatively elongate (depth 42-50% of SL) *Aequidens* species with triserial predorsal scale arrangement and E1 row scales 25, rarely 24 or 26. It is similar to *A. diadema*, *A. epae*, *A. metae* and *A. michaeli*, with which it shares presence of buccal stripes and black-margined dorsal scales, but is distinguished from most of them by the higher scale count (24, rarely 25 in the others). The most similar species may be *A. epae* from which it is readily distinguished by having the dorsal extension of the midlateral spot, if any, running straight vertically to the dorsal fin base instead of running slightly, but distinctly caudad inclined, and in having the major portion of the caudal fin uniformly dark and only the dorsal and distal portions spotted with light instead of having the the [sic] entire caudal fin distinctly spotted. The buccal stripe pattern is also more extensive, but in both *A. epae* and *A. gerciliae* the pattern may be completely absent. *Aequidens metae* has the cheek spot extended along the entire margin of the preopercle. *Aequidens diadema* has a vermiculate pattern of buccal stripes extending onto the snout, instead of only a few lines on the lachrymal and cheek. *Aequidens michaeli* frequently has 25 E1 row scales, but has distinct vertical bars, lateral band distinct only anteriorly on the side, and a rich buccal stripe pattern. (From Kullander, 1995.)"

#### **Biology**

From Kullander (1995):

"Soares's (1980) specimens of *Aequidens tetramerus* from Igarapé do Porto are identified as *A. gerciliae*. Soares found mostly insects and insect larvae in stomachs and intestines."

#### **Human Uses**

Information on human uses of Aequidens gerciliae was not found.

#### Diseases

Information on diseases of Aequidens gerciliae was not found.

### Threat to Humans

From Froese and Pauly (2015):

"Harmless"

# **3** Impacts of Introductions

No records of Aequidens graciliae introductions were found

# **4** Global Distribution



**Figure 1**. Known global distribution of *Aequidens gerciliae* in South America. Map from GBIF Secretariat (2017).

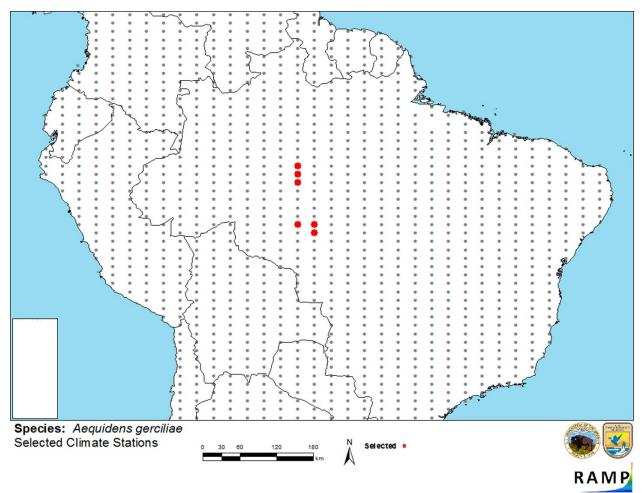
# **5** Distribution Within the United States

No records of Aequidens graciliae in the United States were found.

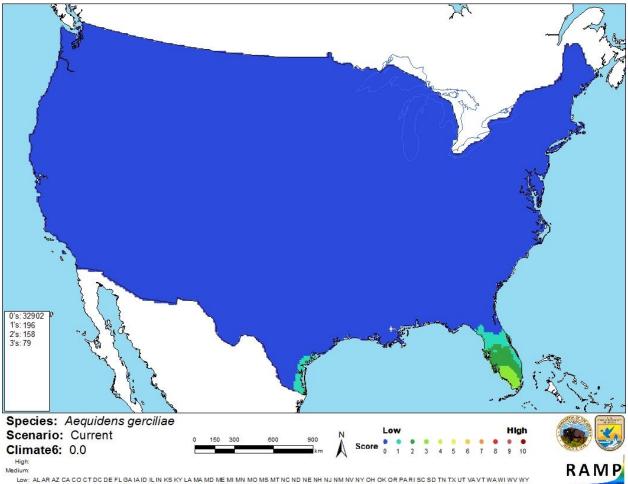
# 6 Climate Matching

#### **Summary of Climate Matching Analysis**

The climate match for *Aequidens gerciliae* was very low across the whole contiguous United States. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous U.S. was 0.000, low, and no states had an individually high climate score.



**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 gerciliae* climate matching. Source locations from GBIF Secretariat (2017).



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

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 <x<0.005< td=""><td>Low</td></x<0.005<>	Low
0.005 <x<0.103< td=""><td>Medium</td></x<0.103<>	Medium
<u>≥</u> 0.103	High

## 7 Certainty of Assessment

The certainty of this assessment is low. There was minimal information available. The information that was available was extracted from the paper that first scientifically described the species in 1995.

## 8 Risk Assessment

## Summary of Risk to the Contiguous United States

The history of invasiveness is uncertain. There are no records of introductions for *Aequidens graciliae*. The climate match is low. Certainty of assessment is low. There was minimal information available for this species. Overall risk assessment 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. (July 2017).

- Froese, R., and D. Pauly, editors. 2015. *Aequidens gerciliae* Kullander, 1995. FishBase. Available: http://fishbase.de/summary/Aequidens-gerciliae.html. (January 2015).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Aequidens gerciliae* Kullander, 1995. Global Biodiversity Information Facility, Copenhagen. Available: http://www.gbif.org/species/5208307. (July 2017).
- ITIS (Integrated Taxonomic Information System). 2014. *Aequidens gerciliae* Kullander, 1995. Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\_topic=TSN&search\_value=6482 36. (October 2014).
- Kullander, S. O. 1995. Excerpt from Three new cichlid species from southern Amazonia: *Aequidens gerciliae*, *A. epae* and *A. michaeli*. Ichthyological Explorations of Freshwaters 6(2):149–170. Available: http://www2.nrm.se/ve/pisces/acara/ae\_gerci.shtml.
- 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. 1995. Three new cichlid species from southern Amazonia: *Aequidens gerciliae*, *A. epae* and *A. michaeli*. Ichthyological Explorations of Freshwaters 6(2):149–170.
- 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.
- Soares, M. G. M. 1980. Aspectos ecológicos (alimentação e reprodução) dos peixes do igarapé do Porto, Aripuanã, MT. Acta Amazônica 9:325–352.