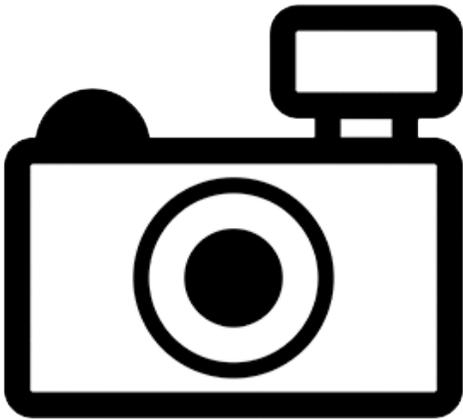


# ***Aequidens epae* (a fish, no English common name)**

## **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**

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### **Native Range**

From Froese and Pauly (2015):

“South America: Rio Amazonas basin, in the lower Rio Tapajós drainage near Jacareacanga and São Luis, Pará, Brazil.”

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

No records of *Aequidens epae* in the United States were found.

### **Means of Introductions in the United States**

No records of *Aequidens epae* in the United States were found.

### **Remarks**

*Aequidens* spp. are popular in the aquarium trade.

## 2 Biology and Ecology

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### 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 epae* Eigenmann and Bray, 1894”

From Eschmeyer et al. (2017):

“*epae*, *Aequidens* Kullander [S. O.] 1995:158 [...], Fig. 10 [Ichthyological Exploration of Freshwaters v. 6 (no. 2)] Río Tapajós drainage, Igarapé in Barreirinha, Pará State, Brazil. Holotype: MZUSP 21979. Paratypes: MZUSP 22015 (3), 25359 (2), 25381 (6), 32683 (76), 39083 (30); NRM 18455-58 (2, 4, 2, 1), 18510 (1), 18512 (4), 18537 (4), 18560 (11), 28370-71 (5, 5). •Valid as *Aequidens epae* Kullander 1995 -- (Kullander in Reis et al. 2003:608 [...]).  
**Current status:** Valid as *Aequidens epae* Kullander 1995. Cichlidae: Cichlinae.”

### Size, Weight, and Age Range

From Froese and Pauly (2015):

“Max length: 11.3 cm SL male/unsexed; [Kullander 1995]”

### Environment

From Froese and Pauly (2015):

“Freshwater; benthopelagic. [...]; 24°C - 30°C [assumed to be recommended aquarium temperature range] [Stawikowski and Werner 1998]”

## **Climate/Range**

From Froese and Pauly (2015):

“Subtropical; [...]”

## **Distribution Outside the United States**

Native

From Froese and Pauly (2015):

“South America: Rio Amazonas basin, in the lower Rio Tapajós drainage near Jacareacanga and São Luis, Pará, Brazil.”

Introduced

No records of *Aequidens epae* introductions were found.

## **Means of Introduction Outside the United States**

No records of *Aequidens epae* introductions were found.

## **Short Description**

From Kullander (1995):

“A moderately large (to ca 110 mm SL), relatively slender (depth 42-48% of SL) *Aequidens* species with triserial predorsal scale arrangement and E1 scales 24 (usually) or 25. It is similar to *A. diadema*, *A. gerciliae*, *A. metae* and *A. michaeli*, with which it shares presence of buccal stripes and black-margined dorsal scales, but it is readily distinguished from all those species by having the dark pigment band forming a dorsal extension of the midlateral spot extended in a distinctly caudad inclination, instead of running straight vertical. From the most similar species, *A. gerciliae*, it can also be distinguished by having nearly the entire caudal fin covered with hyaline spots, instead of only the posterodorsal portion, in having a narrower lateral band, and by differences in counts (24 E1 scales common, instead of almost exclusively 25; dorsal fin count usually XV.10 instead of nearly always XIV.12).”

## **Biology**

From Froese and Pauly (2015):

“Inhabit clear-water streams with muddy, sandy or rocky bottoms [Kullander 1995].”

## **Human Uses**

Information on human uses of *Aequidens epae* was not available. However, anecdotal evidence for popularity in the aquarium trade exists.

## **Diseases**

Information on diseases of *Aequidens epae* was not found.

## Threat to Humans

From Froese and Pauly (2015):

“Harmless”

## 3 Impacts of Introductions

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No records of *Aequidens epae* introductions were found.

## 4 Global Distribution

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

## 5 Distribution Within the United States

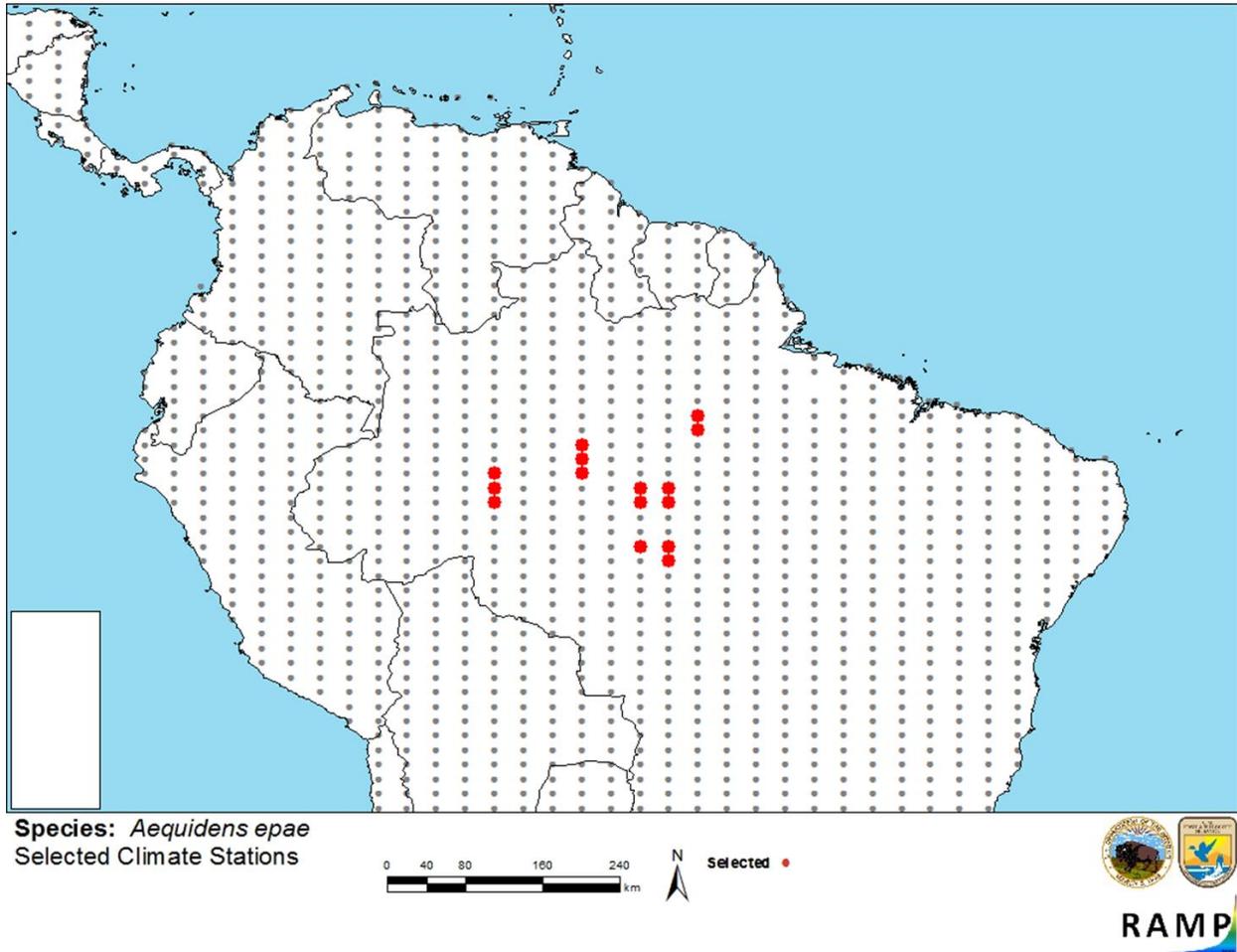
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No records of *Aequidens epae* in the United States were found.

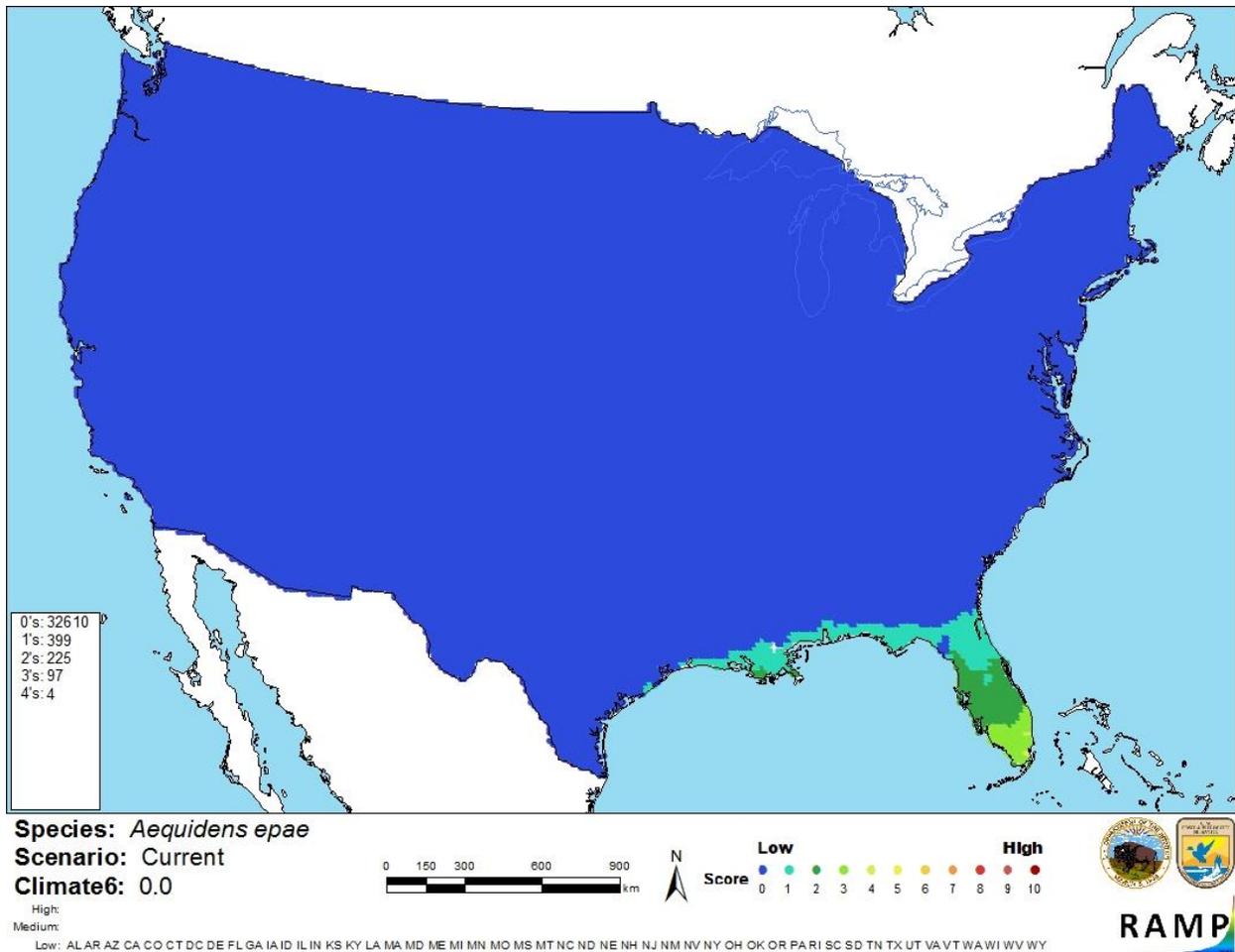
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Aequidens epae* was low across the 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 match.



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



**Figure 3.** Map of RAMP (Sanders et al. 2014) climate matches for *Aequidens epae* 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 (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
$\geq 0.103$	High

## 7 Certainty of Assessment

Certainty of assessment is low. There is very little information about the species available. No records of introductions were found.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

The history of invasiveness is uncertain. The climate match was low across the contiguous United States. The certainty of assessment is low due to a general lack of information. The overall risk 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

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**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 epae* Kullander, 1995. FishBase. Available: <http://fishbase.de/summary/Aequidens-epae.html>. (January 2015).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Aequidens epae* Kullander, 1995. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/5208294>. (July 2017).

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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\\_epae.shtml](http://www2.nrm.se/ve/pisces/acara/ae_epae.shtml). (July 2017).

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

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**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.

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

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.