

Golden Acara (*Aequidens viridis*)

Ecological Risk Screening Summary

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

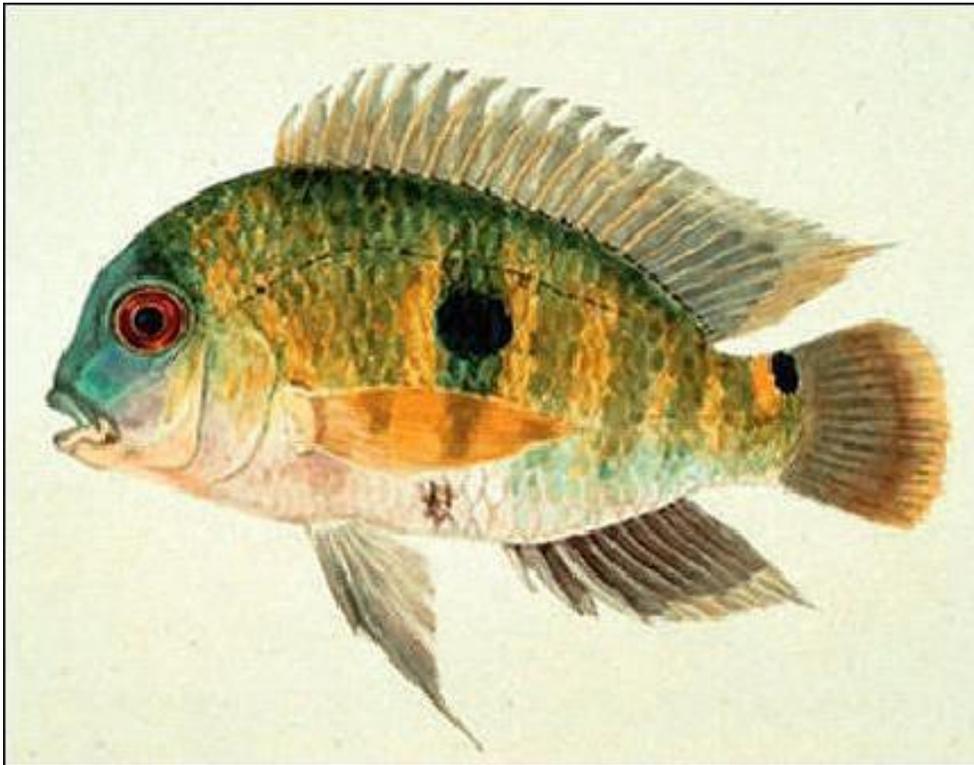


Photo: Johann Natterer. Image is in the Public Domain (PD-1923). Available: https://commons.wikimedia.org/wiki/File:Aequidens_viridis.jpg. (October 30, 2014).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2015):

“South America: Guaporé River basin, Amazon River basin.”

From Hablützel (2012):

“*Aequidens viridis* (Heckel, 1840), *Aphyocharax rathbuni* Eigenmann, 1907, *Catoprion mento* (Cuvier, 1819) and *Cyphocharax plumbeus* (Eigenmann & Eigenmann, 1889) are reported for

the first or second time respectively from río Mamoré sub-drainage. These four species have been found to be abundant in the río Iténez drainage (Vari 1992a, b, Lasso et al. 1999, Sarmiento 1999, Fuentes Rojas & Rumiz 2008; personal observations). The first three species have, like *H. elachys*, been reported earlier from the Lago Largo (río Yata drainage) in the aquarium hobbyist literature (Staeck 2010a, b).”

Status in the United States

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

Means of Introductions in the United States

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

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2013):

“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 Larboidei
Family Cichlidae
Genus *Aequidens*
Species *Aequidens viridis* (Heckel, 1840)”

From Eschmeyer et al. (2017):

“*viridis*, *Acara* Heckel [J. J.] 1840:343 [Annalen des Wiener Museums der Naturgeschichte v. 2 [...]] Mato Grosso State, Brazil. Syntypes: NMW 16247 (1, dry), 33833 (1), ?91433 (1, dry); SMF 2925 [ex NMW in 1844] (1, dry). •Valid as *Aequidens viridis* (Heckel 1840) -- (Kullander in Reis et al. 2003:609 [...], Sarmiento et al. 2014:122, 188 [...]). **Current status:** Valid as *Aequidens viridis* (Heckel 1840). Cichlidae: Cichlinae.”

Size, Weight, and Age Range

From Froese and Pauly (2015):

“Max length: 16.5 cm SL male/unsexed; [Kullander 2003]”

Environment

From Froese and Pauly (2015):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2015):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2015):

“South America: Guaporé River basin, Amazon River basin.”

Introduced

No records of *Aequidens viridis* introductions were found.

Means of Introduction Outside the United States

No records of *Aequidens viridis* introductions were found.

Short Description

A physical description of *Aequidens viridis* was not found.

Biology

From Froese and Pauly (2015):

“In flood plains; [...]”

Human Uses

From Chapman et al. (1994):

Aequidens viridis was reported as imported to the United States in the ornamental trade in 1992.

From Froese and Pauly (2015):

“[...] used as food [Stawikowski and Werner 1998].”

From Hablützel (2012):

“The first three species [including *Aequidens viridis*] have, like *H. elachys*, been reported earlier from the Lago Largo (río Yata drainage) in the aquarium hobbyist literature (Staeck 2010a, b)”

Diseases

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

Threat to Humans

From Froese and Pauly (2015):

“Harmless”

3 Impacts of Introductions

No records of *Aequidens viridis* introductions were found.

4 Global Distribution



Figure 1. Known global distribution of *Aequidens viridis*. Locations are in Brazil and Bolivia. Map from GBIF Secretariat (2017).

The northernmost point is located at the same location as the holding collection of the specimen. Due to the difference between this location and all other descriptions of the species' range found, it cannot be ruled out that the coordinates attached to the specimen are for the repository and not where it was collected. This location was not used as a source location.

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Aequidens viridis* was medium for southern Florida and the very southern tip of Texas. The climate match was low everywhere else. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous U.S. was 0.00, low, and no states had an individually high climate match.

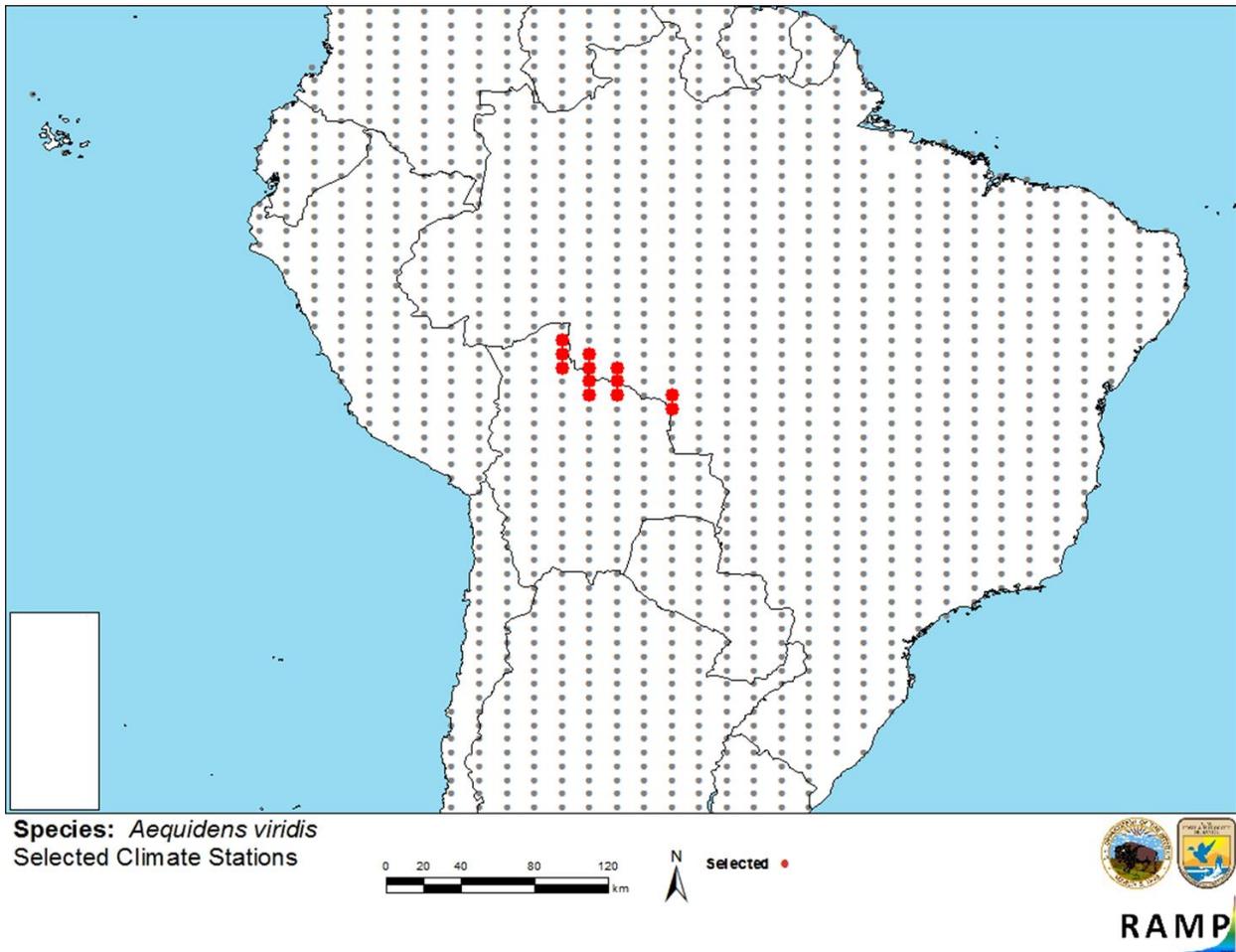


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in Bolivia and Brazil selected as source locations (red) and non-source locations (gray) for *Aequidens viridis* climate matching. Source locations from GBIF Secretariat (2017).

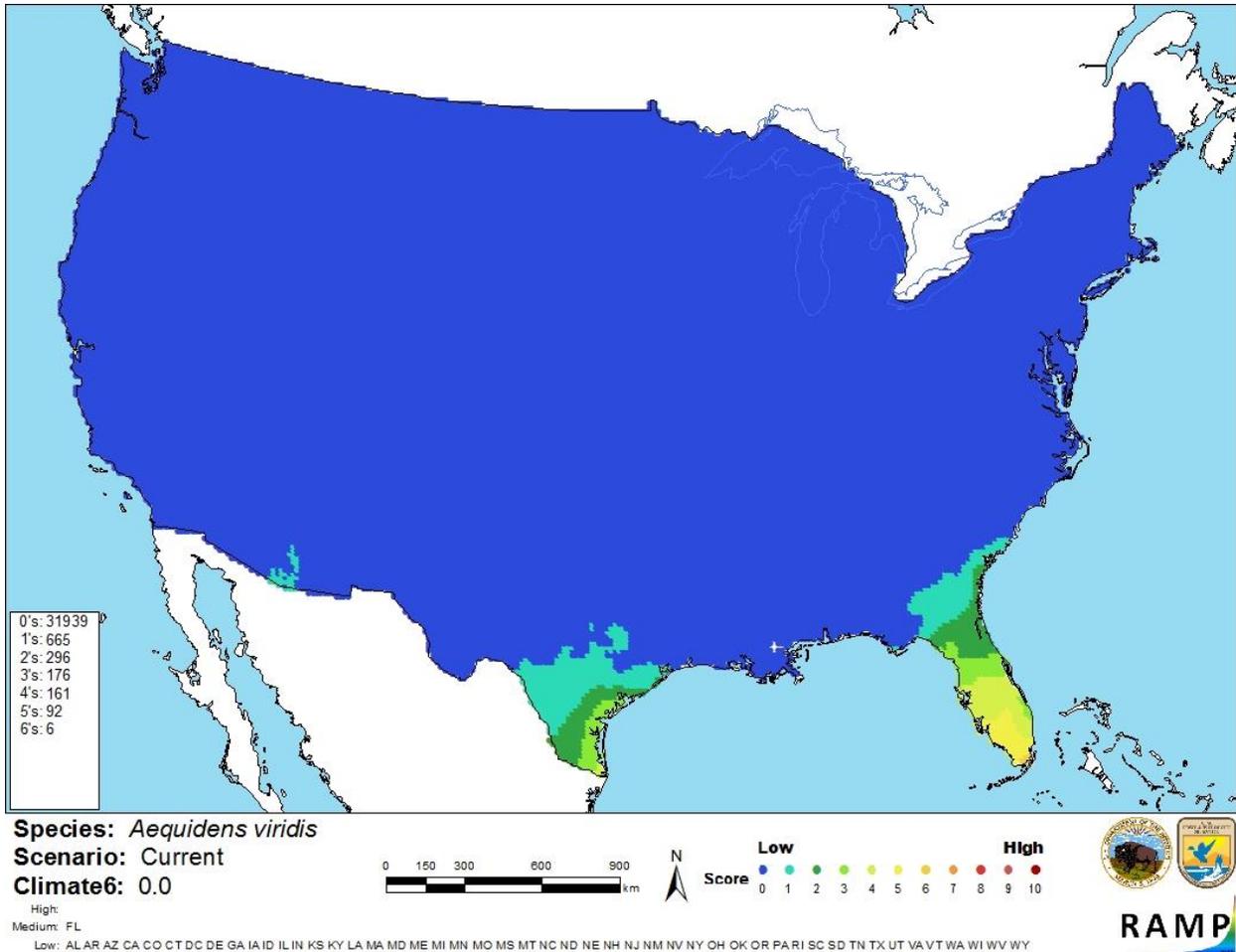


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Aequidens viridis* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0 = Lowest match, 10 = Highest match.

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

The certainty of assessment is medium. There was very little information available but the information that was available was of high quality. There were no records of introduction found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

The history of invasiveness is uncertain. No records of introductions were found. The climate match was low. Most of the country had a very low climate match, parts of southern Florida and Texas had a medium match. The certainty of assessment is medium. 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): Medium**
- **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.

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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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