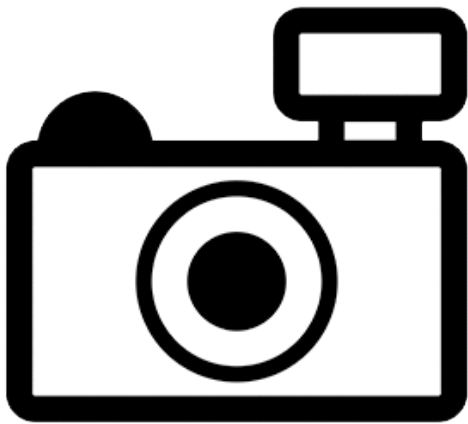


***Aequidens paloemeuensis* (a fish, no English common name)**

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: Paloemeu River, Marowijne drainage in Suriname.”

From Moredjo et al. (2013):

“Seven fish species collected during the RAP survey are endemic to the Marowijne River system, with one of these species, *Aequidens paloemeuensis*, is endemic to the Palumeu River proper (see Chapter 8 this volume).”

Status in the United States

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

Means of Introductions in the United States

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

Remarks

From Froese and Pauly (2015):

“Appears to be rare and limited to its type locality because it has never been caught again since it was described [Keith et al. 2000].”

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 Lbroidei
Family Cichlidae
Genus *Aequidens*
Species *Aequidens paloemeuensis* Kullander and Nijssen, 1989”

From Eschmeyer et al. (2017):

“*paloemeuensis*, *Aequidens* Kullander [S. O.] & Nijssen [H.] 1989:141 [...], Fig. 77-79 [The cichlids of Surinam] Paloemeu River tributary, between Trombaka Noord and Trombaka Zuid, Marowijne River drainage, Marowijne District, Suriname. Holotype: IRSNB 755. Paratypes: ISNB 756 (12), NRM 18008 (2). •Valid as *Aequidens paloemeuensis* Kullander & Nijssen 1989 - (Keith et al. 2000:210 [...], Kullander in Reis et al. 2003:608 [...], Kullander 2012:52 [...]). **Current status:** Valid as *Aequidens paloemeuensis* Kullander & Nijssen 1989. Cichlidae: Cichlinae.”

Size, Weight, and Age Range

From Froese and Pauly (2015):

“Max length: 9.5 cm SL male/unsexed; [Kullander and Nijssen 1989]”

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: Paloemeu River, Marowijne drainage in Suriname.”

From Moredjo et al. (2013):

“Seven fish species collected during the RAP survey are endemic to the Marowijne River system, with one of these species, *Aequidens paloemeuensis*, is endemic to the Palumeu River proper (see Chapter 8 this volume).”

Introduced

No records of *Aequidens paloemeuensis* introductions were found.

Means of Introduction Outside the United States

No records of *Aequidens paloemeuensis* introductions were found.

Short Description

From Steele et al. (2013):

“*Aequidens potaroensis* and ‘A.’ *paloemeuensis* share a number of morphological characters with species of *Krobia*, including three anal fin spines, lower vertebral and E1 scale count (compared to *Aequidens*), cycloid prepelvic scales, facial stripes as well as the retention of the suborbital stripe in adults (Kullander & Nijssen 1989; Kullander 2012). In addition, the predorsal scale pattern is also uniserial in ‘A.’ *paloemeuensis* as seen in *Krobia* species. ‘*Aequidens potaroensis*’ and ‘A.’ *paloemeuensis* differ from *Krobia*, however, in the number of vertical bars, orientation of the lateral band towards the caudal peduncle, and the absence of a groove for the hyoid artery and fin squamation.”

Biology

Information on the biology of *Aequidens paloemeuensis* was not found.

Human Uses

Information on human uses of *Aequidens paloemeuensis* was not found.

Diseases

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

Threat to Humans

From Froese and Pauly (2015):

“Harmless”

3 Impacts of Introductions

No records of *Aequidens paloemeuensis* introductions were found.

4 Global Distribution

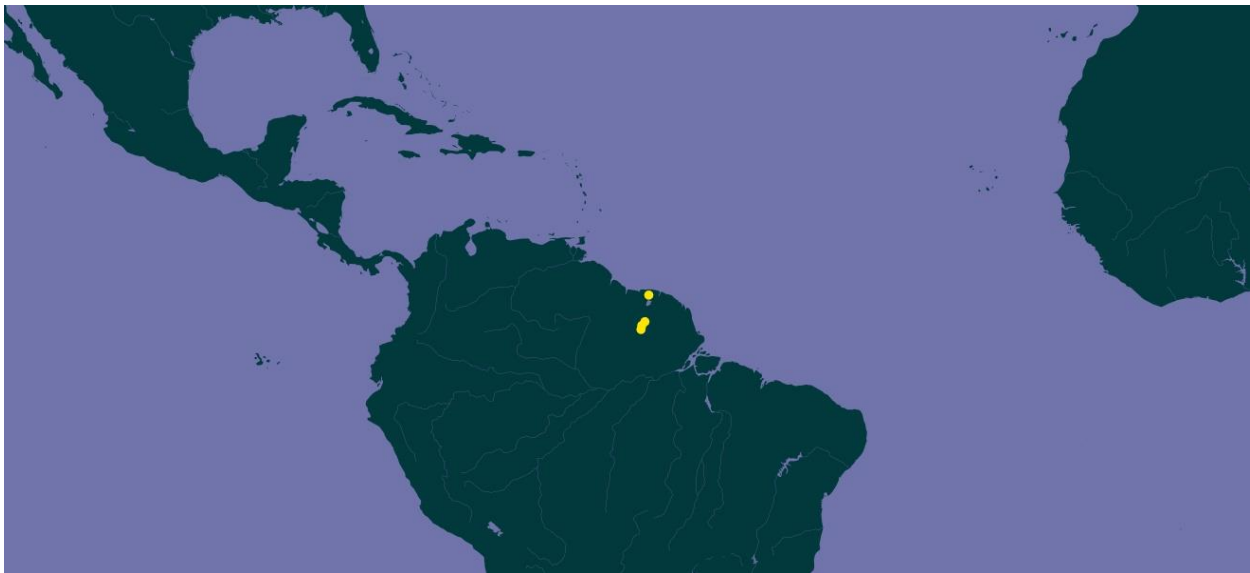


Figure 1. Known global distribution of *Aequidens paloemeuensis*. Locations are in Guyana and Suriname. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Aequidens paloemeuensis* 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.

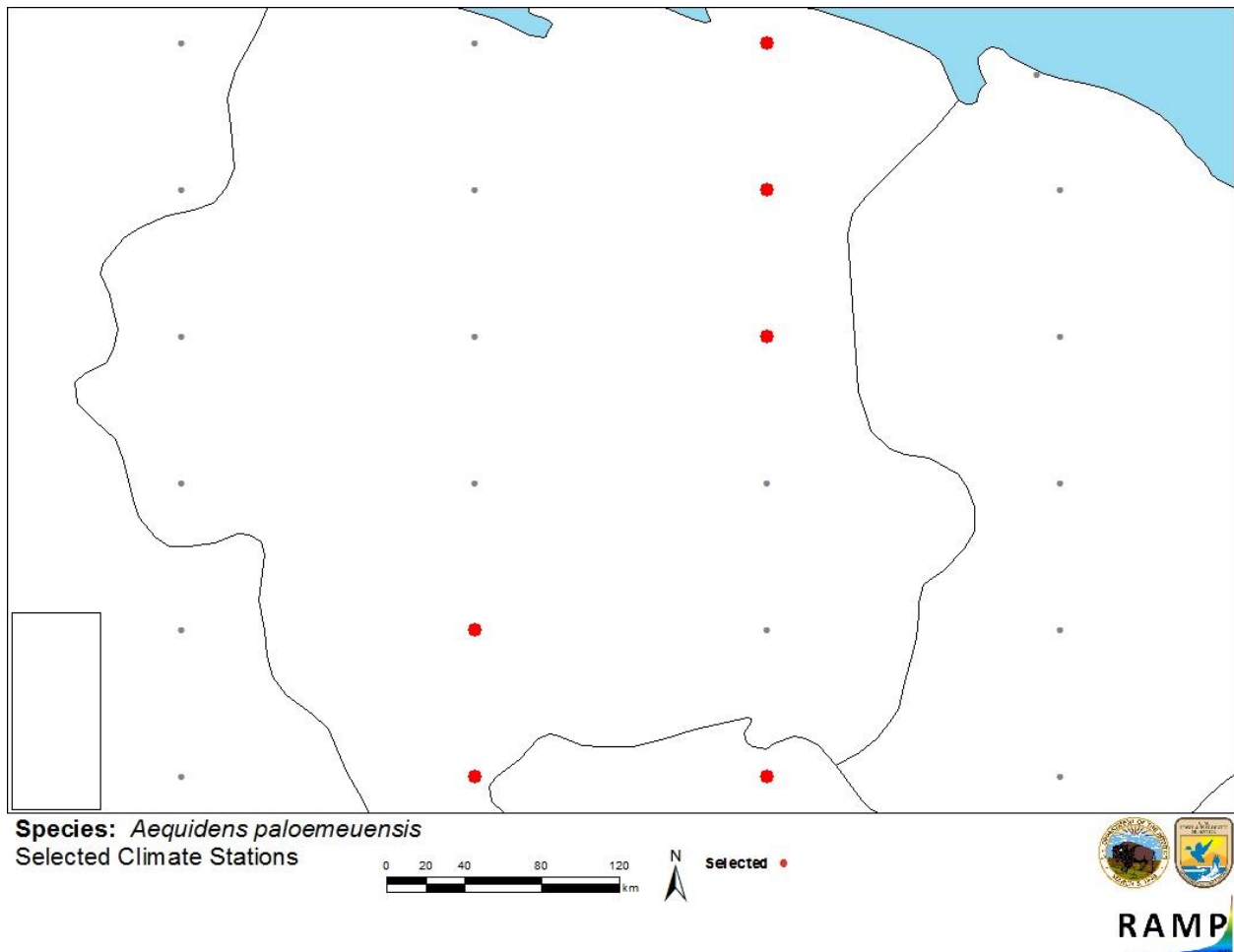


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in Suriname and Brazil selected as source locations (red) and non-source locations (gray) for *Aequidens paloemeuensis* climate matching. Source locations from GBIF Secretariat (2017).

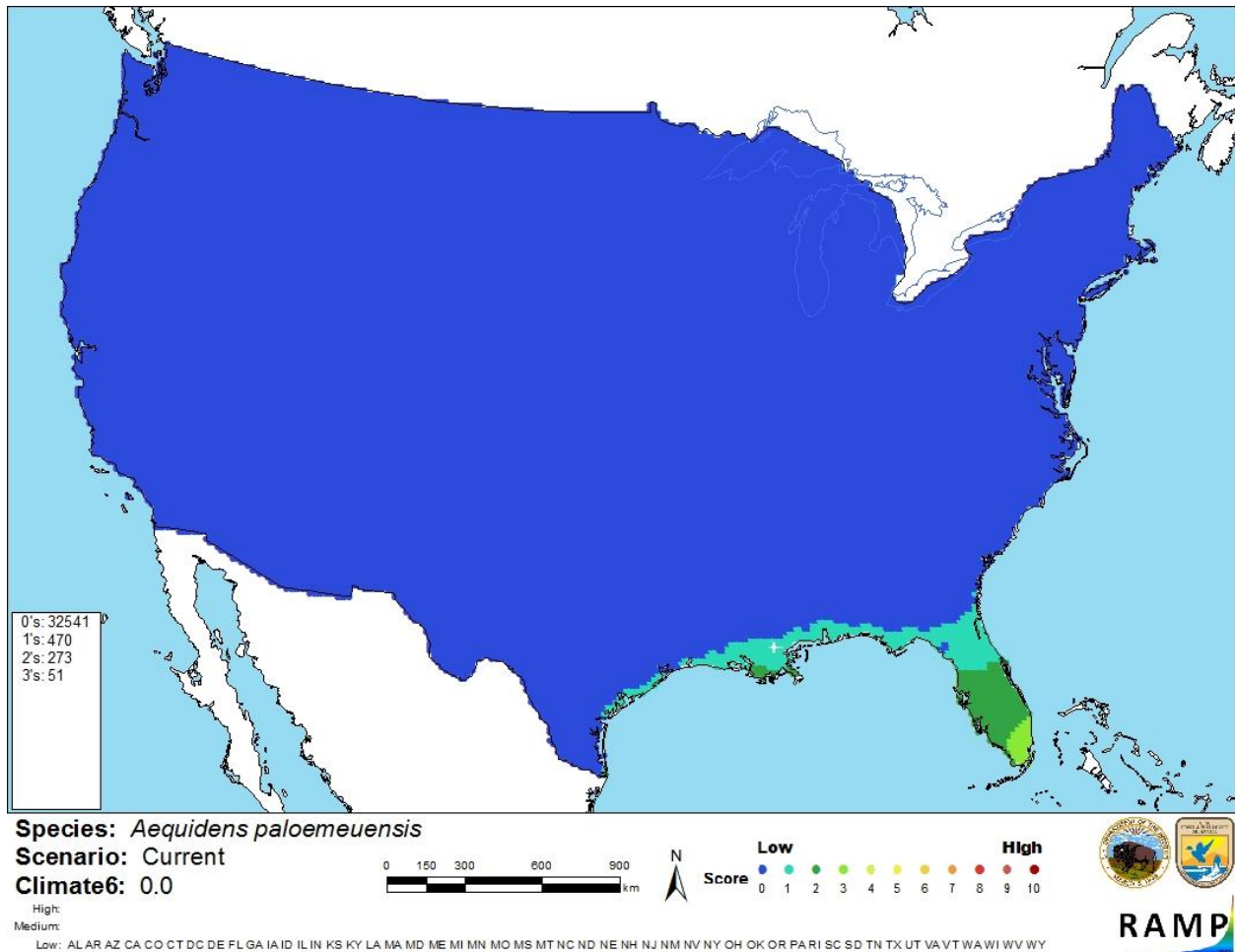


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Aequidens paloemeuensis* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0 = Lowest match, 10 = Highest match. Counts of climate match scores are tabulated on the left.

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
≥ 0.103	High

7 Certainty of Assessment

The certainty of assessment is low. There is limited information available for this species. There are no records of introduction. Froese and Pauly (2015) report that no individuals have been encountered since it was scientifically discovered and described, however, GBIF Secretariat (2017) contains sightings in the correct geographic location that have a date of 2012.

8 Risk Assessment

Summary of Risk to the Contiguous United States

History of invasiveness is uncertain. There are no records of introductions. *Aequidens paloemeuensis* appears to be rare, with distribution restricted to a single river in Suriname. Climate match is low. Certainty of Assessment is low. There was limited information available but the information that was available was of high quality. 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** *Aequidens paloemeuensis* may not been observed since description in 1989. GBIF Secretariat (2017) reports records collected in 2012.
- **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/getref.asp?id=31798> (August 2017).
- Froese, R., and D. Pauly, editors. 2015. *Aequidens paloemeuensis* Kullander & Nijssen, 1989. FishBase. Available: <http://fishbase.de/summary/Aequidens-paloemeuensis.html>. (February 2015).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Aequidens paloemeuensis* Kullander & Nijssen, 1989. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/5208300>. (August 2017).
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- Moredjo, A., L. Famolare, L. E. Alonso, and T. H. Larsen. 2013. Importance of conserving southeastern Suriname. Pages 48–51 in L. E. Alonso, and T. H. Larsen, editors. A rapid biological assessment of the Upper Palumeu River watershed. The University of Chicago Press.

Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk assessment mapping program: RAMP. U.S. Fish and Wildlife Service.

Steele, S. E., E. Liverpool, and H. López-Fernández. 2013. *Krobia petitella*, a new species of cichlid fish from the Berbice River in Guyana (Teleostei: Cichlidae). *Zootaxa* 3693(2):152–162.

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.

Keith, P., P.-Y. Le Bail, and P. Planquette. 2000. Atlas des poissons d'eau douce de Guyane. Tome 2, Fascicule I: Batrachoidiformes, Mugiliformes, Beloniformes, Cyprinodontiformes, Synbranchiformes, Perciformes, Pleuronectiformes, Tetraodontiformes. Collection Patrimoines Naturels 43(I). Publications scientifiques du Muséum national d'Histoire naturelle, Paris. (In French.)

Kullander, S. O. 2012. *Krobia xinguensis*, a new species of cichlid fish from the Xingu River drainage in Brazil (Teleostei: Cichlidae). *Zootaxa* 3197:43–54.

Kullander, S. O., and H. Nijssen. 1989. The cichlids of Surinam. Teleostei: Labroidei. E. J. Brill, Leiden, The Netherlands.

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.