

***Acnodon oligacanthus* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, August 2012

Revised, August 2018

Web Version, 1/29/2019

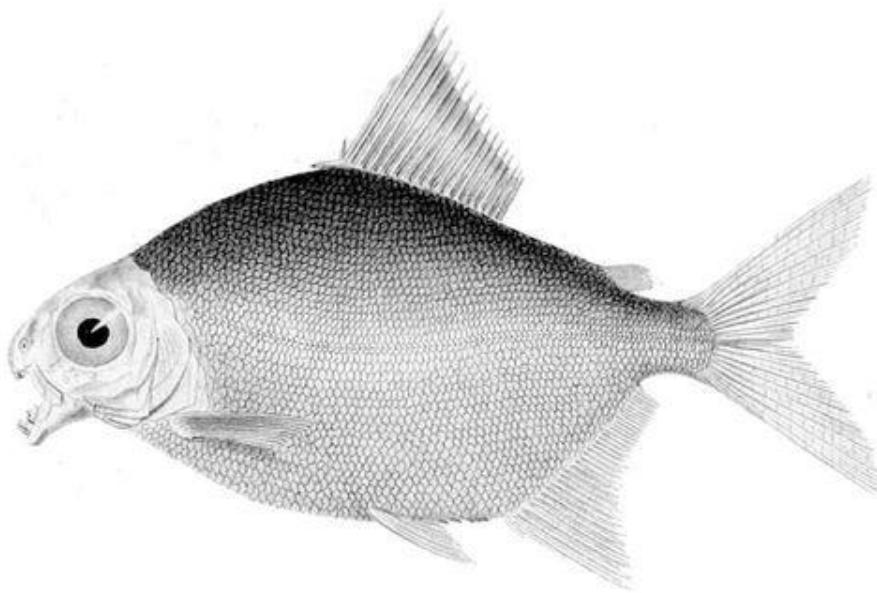


Image: C. Haas. Public domain. Available:

https://commons.wikimedia.org/wiki/File:Acnodon_oligacanthus.jpg. (January 2019).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“South America: North Guiana Shield rivers [French Guiana, Guyana, Suriname].”

Status in the United States

This species has not been reported as introduced or established in the United States. A search of major U.S.-based online aquarium retailers found no *A. oligacanthus* for purchase.

Means of Introductions in the United States

This species has not been reported as introduced or established in the United States.

Remarks

According to Eschmeyer et al. (2018), *A. oligacanthus* was originally described as *Myleus oligacanthus*. Both scientific names were used in searching for information on this species.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2018):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Characiformes
Family Characidae
Genus *Acnodon*
Species *Acnodon oligacanthus* Müller & Troschel, 1844”

From Eschmeyer et al. (2018):

“**Current status:** Valid as *Acnodon oligacanthus* (Müller & Troschel 1844). Serrasalminidae.”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 20.0 cm TL male/unsexed; [Planquette et al. 1996]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic; potamodromous [Riede 2004].”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: North Guiana Shield rivers [French Guiana, Guyana, Suriname].”

Introduced

No known introductions.

Means of Introduction Outside the United States

No known introductions.

Short Description

From Seriously Fish (2019):

“There are currently three species in the genus *Acnodon*, among which *A. oligacanthus* is easily-distinguished since it lacks vertical bars on the body, has a more-or-less terminal (vs. subterminal in congeners) mouth, and is not an Amazonian species.”

Biology

From Froese and Pauly (2018):

“The diameter of the eyes suggests a crepuscular activity for this species. The inferior position of the mouth facilitates easy access to benthic plants like Podostemaceae and other fruits, seeds and flowers that fall into the water. The juveniles live in small creeks with sandy substrate. Between 5-10 cm, they migrate to large rivers where they form shoals along the river banks and sandy beaches of shallow waters. Thereafter, they appear to lead a more solitary existence in the central beds of rivers [Planquette et al. 1996].”

Human Uses

No information available.

Diseases

No known diseases. No OIE reportable diseases have been documented in this species.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No information available.

4 Global Distribution



Figure 1. Known global distribution of *Acnodon oligacanthus*, reported from French Guiana and Suriname. Map from GBIF Secretariat (2017). No occurrence information was available for the species distribution in Guyana.

5 Distribution Within the United States

No known occurrences.

6 Climate Matching

Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.00, which is a low score. The range for a low climate match is from 0 to 0.005, inclusive. Every state had a low individual score. The entire contiguous United States was a low match.

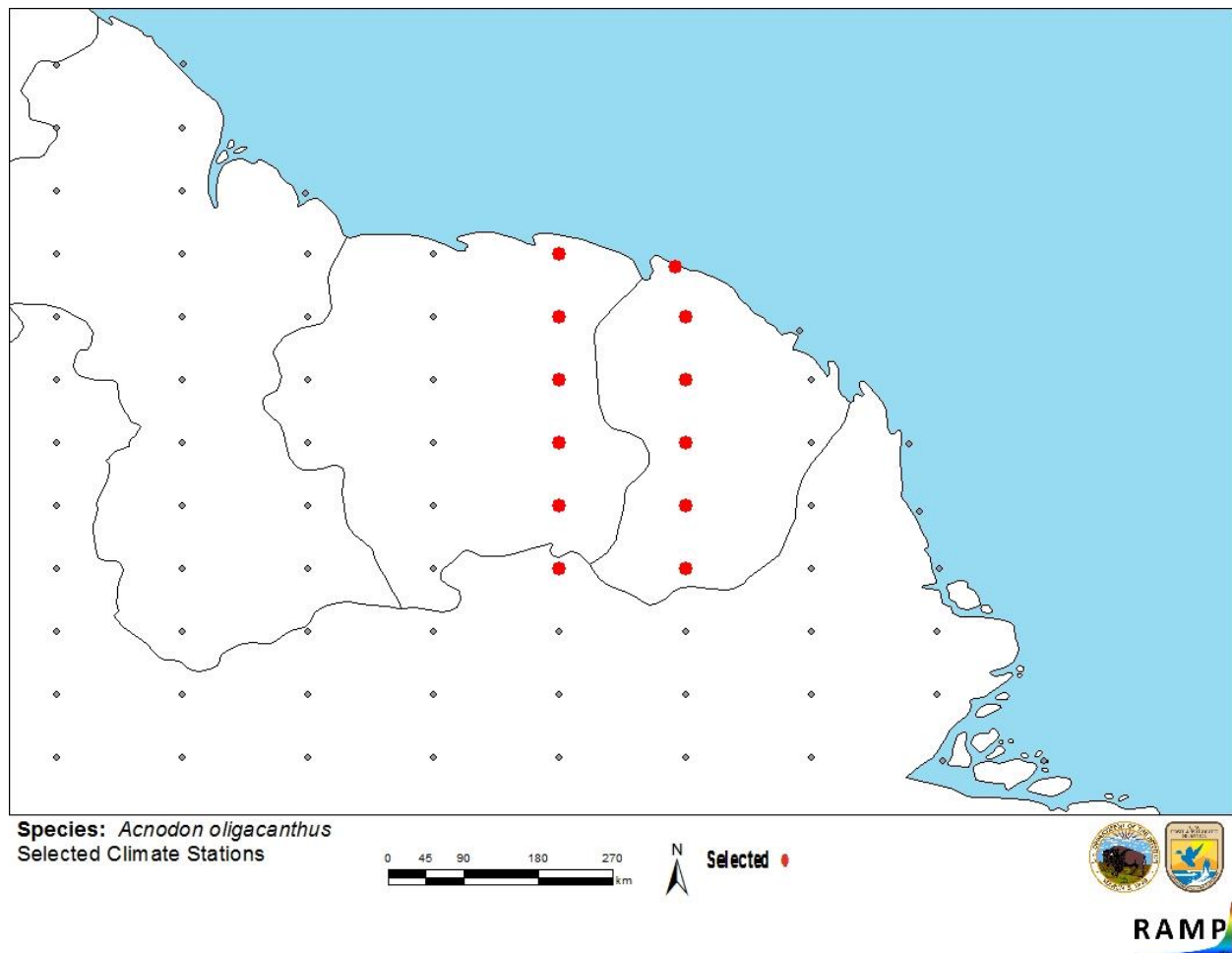


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in northeastern South America selected as source locations (red; French Guiana, Suriname and Brazil) and non-source locations (gray) for *Acnodon oligacanthus* climate matching. Source locations from GBIF Secretariat (2017).

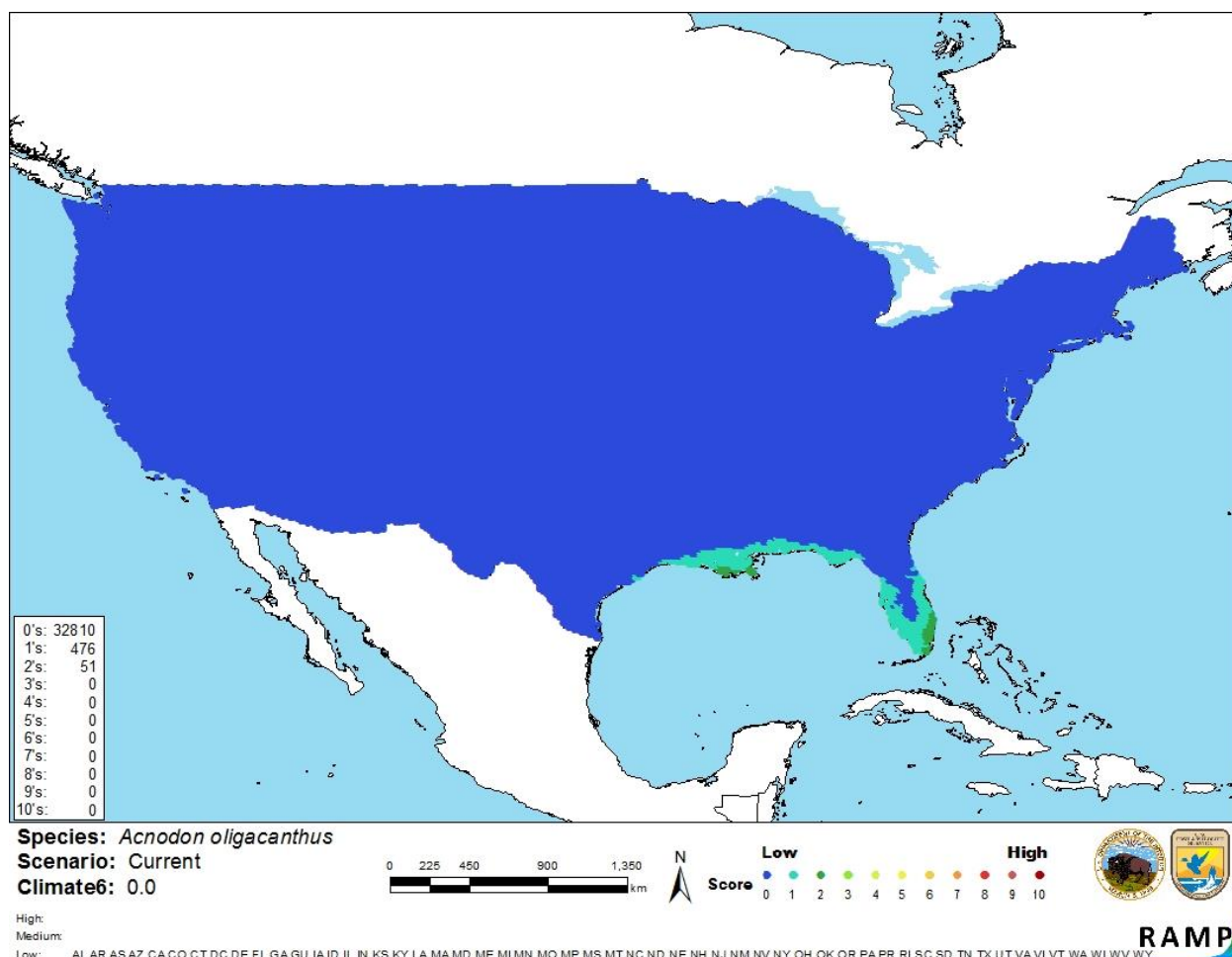


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Acnodon oligacanthus* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0= Lowest match, 10= Highest match.

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
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

Little information is known about the biology and ecology of *Acnodon oligacanthus*. This fish has not been reported as introduced and no information is available on potential impacts if this species is introduced. Due to lack of information, the certainty of assessment is low. More information is needed to increase certainty.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Acnodon oligacanthus is a fish that is native to the North Guiana Shield rivers of French Guiana, Suriname, and Guyana. It has not been reported as introduced outside of its native range. Therefore, history of invasiveness is uncertain. The climate match with the entire contiguous United States is low. Due to lack of information, certainty of assessment is low. The overall risk for this species is Uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **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. 2018. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatget.asp?spid=4264>. (August 2018).
- Froese, R., and D. Pauly, editors. 2018. *Acnodon oligacanthus* (Müller & Troschel, 1844). FishBase. Available: <https://www.fishbase.de/summary/Acnodon-oligacanthus.html>. (September 2018)
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Acnodon oligacanthus* (Müller & Troschel, 1844). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2353605>. (September 2018)
- ITIS (Integrated Taxonomic Information System). 2018. *Acnodon oligacanthus* (Müller & Troschel, 1844). Integrated Taxonomic Information System, Reston, Virginia. Available: https://itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=640372#null. (September 2018).
- Sanders, S., C. Castiglione, and M. H. Hoff. 2018. Risk Assessment Mapping Program: RAMP, version 3.1. U.S. Fish and Wildlife Service.
- Seriously Fish. 2019. *Acnodon normani* – Sheep Pacu. Available: <http://www.seriouslyfish.com/species/acnodon-normani/>. (January 2019).

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.

Planquette, P., P. Keith, and P.-Y. Le Bail. 1996. Atlas des poissons d'eau douce de Guyane, volume 1. Collection du Patrimoine Naturel volume 22. MNHN, Paris, and INRA, Paris.

Riede, K. 2004. Global register of migratory species - from global to regional scales. Final report of the R&D-Projekt 808 05 081. Federal Agency for Nature Conservation, Bonn, Germany.