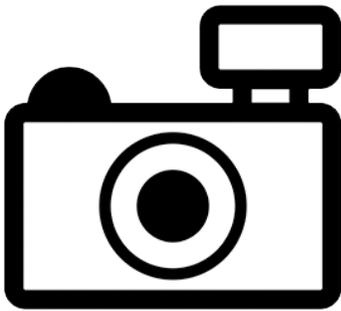


Pygidianops eigenmanni (a catfish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2017
Revised, February 2017
Web Version, 4/5/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: Negro River basin [Brazil].”

Status in the United States

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

From FFWCC (2016):

“Prohibited nonnative species are considered to be dangerous to the ecology and/or the health and welfare of the people of Florida. These species are not allowed to be personally possessed or used for commercial activities. [...]

[The list of prohibited nonnative species includes] *Pygidianops eigenmanni*”

Means of Introductions in the United States

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

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2017):

“Kingdom	Animalia
Subkingdom	Bilateria
Infrakingdom	Deuterostomia
Phylum	Chordata
Subphylum	Vertebrata
Infraphylum	Gnathostomata
Superclass	Osteichthyes
Class	Actinopterygii
Subclass	Neopterygii
Infraclass	Teleostei
Superorder	Ostariophysi
Order	Siluriformes
Family	Trichomycteridae Bleeker, 1858
Subfamily	Glanapteryginae Myers, 1944
Genus	<i>Pygidianops</i> Myers, 1944
Species	<i>Pygidianops eigenmanni</i> Myers, 1944”

“Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 2.3 cm SL male/unsexed; [de Pínna and Wosiacki 2003]”

Environment

From Froese and Pauly (2016):

“Freshwater; demersal.”

From Schaefer et al. (2005):

“*Pygidianops eigenmanni* and *T. ternetzi* occur in black water [...]”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: Negro River basin [Brazil].”

Introduced

No introductions of this species have been reported.

Means of Introduction Outside the United States

No introductions of this species have been reported.

Short Description

From Schaefer et al. (2005):

“Eyes absent; no triangular skin flap at mouth corner; maxillary and rictal barbels posteriorly not reaching vertical through base of pectoral fin; nasal barbel reaching posteriorly to base of pectoral fin or shorter”

Biology

From Schaefer et al. (2005):

“A psammophilic habit for *Glanapteryx*, *Pygidianops*, and *Typhlobelus* has been presumed on the basis of anecdotal locality information and the extremely reduced morphologies of these species. However, until now, the exact microhabitats of the species of these genera have rarely been observed directly. [...] The degree of psammophilic adaptation in species of *Pygidianops* and *Typhlobelus* is remarkable, without parallel in siluriforms and perhaps in any other freshwater fishes. Specialization for life in sand is evident in several morphological traits, such as the loss or reduction of fins, pigment, and eyes. [...] species of *Pygidianops* and *Typhlobelus* are entirely disassociated from leaf litter, and occupy exclusively clear loose sand.”

Human Uses

No information available.

Diseases

No information available.

Threat to Humans

From Froese and Pauly (2016):

“Harmless”

3 Impacts of Introductions

No introductions of this species have been reported.

From FFWCC (2016):

“Prohibited nonnative species are considered to be dangerous to the ecology and/or the health and welfare of the people of Florida. These species are not allowed to be personally possessed or used for commercial activities. [...]

[The list of prohibited nonnative species includes] *Pygidianops eigenmanni*”

4 Global Distribution

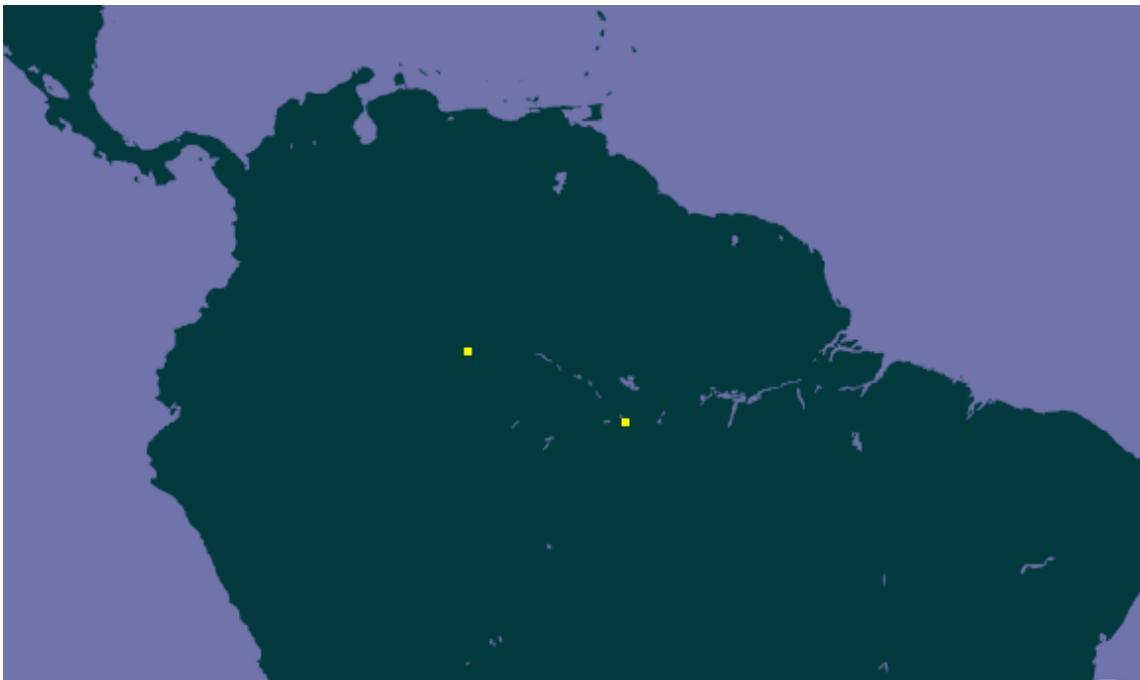


Figure 1. Known global established locations of *Pygidianops eigenmanni*, located in Brazil. Map from GBIF (2016).

5 Distribution Within the United States

This species has not been reported in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout the contiguous U.S., reflected in a Climate 6 proportion of 0.0. The range for Climate 6 proportions indicating a low climate match is 0.000 to 0.005.

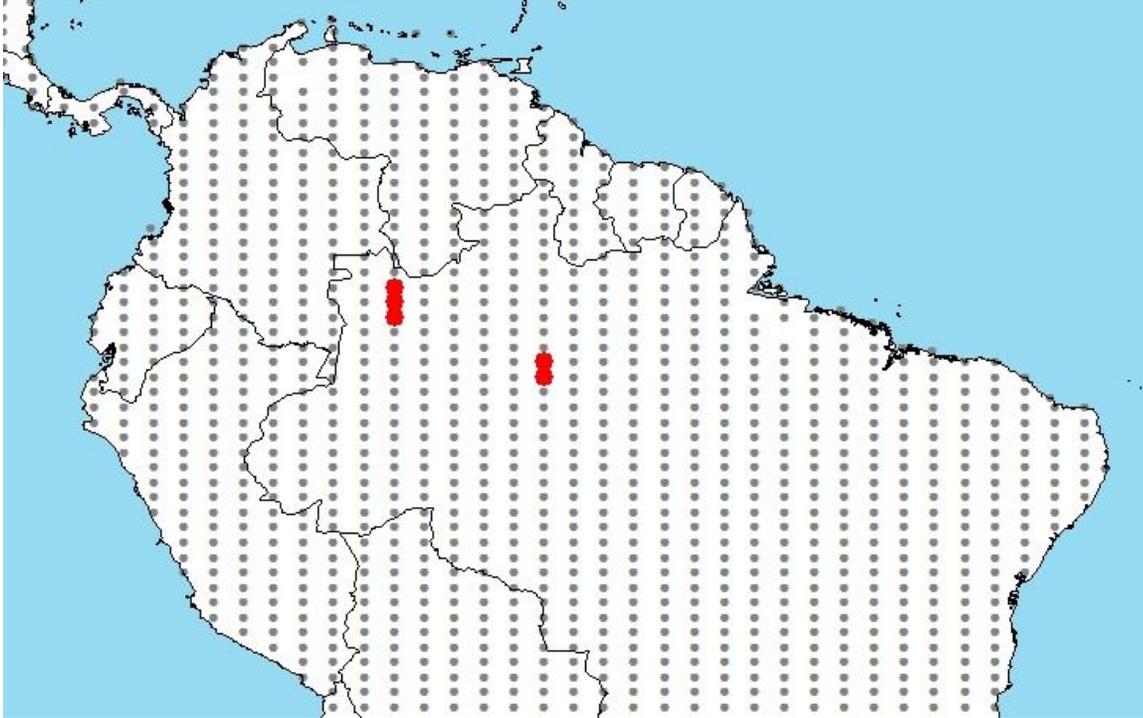


Figure 1. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Brazil) and non-source locations (gray) for *Pygidianops eigenmanni* climate matching. Source locations from GBIF (2016).

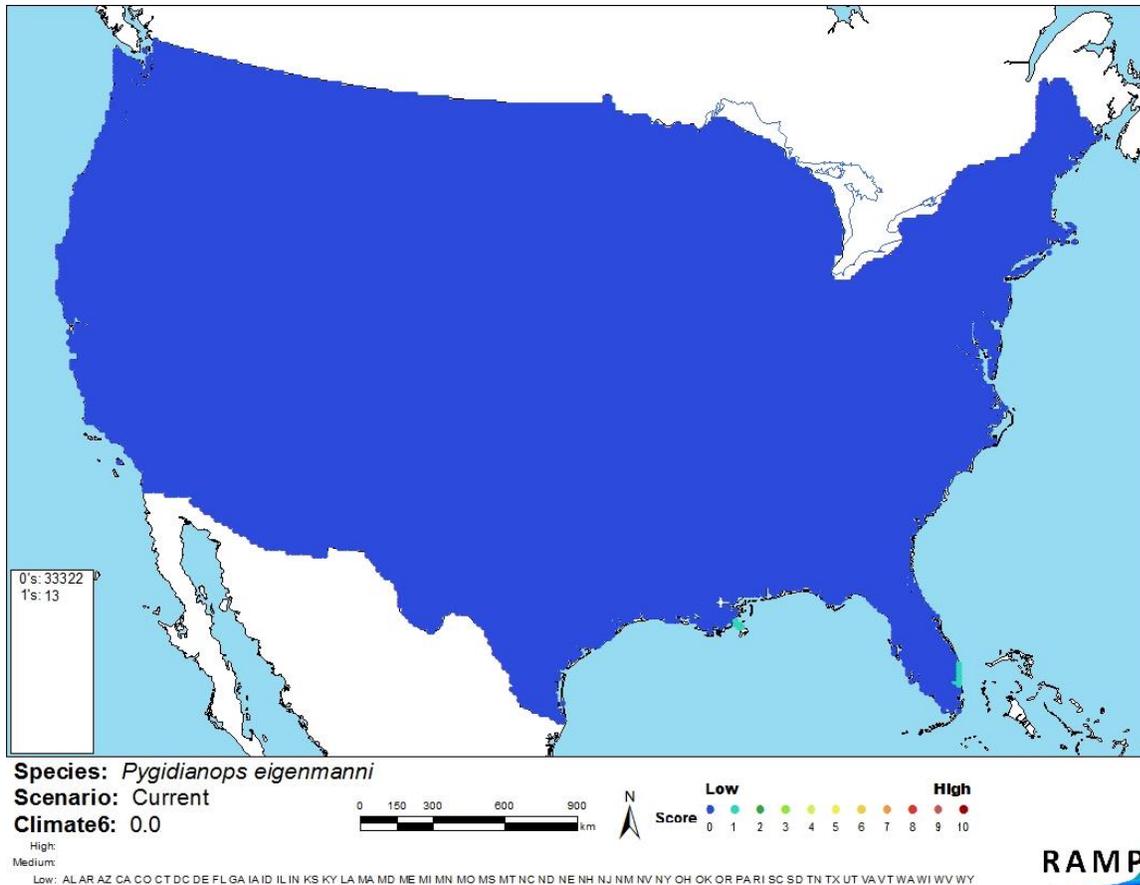


Figure 2. Map of RAMP (Sanders et al. 2014) climate matches for *Pygidianops eigenmanni* in the contiguous United States based on source locations reported by GBIF (2016). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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

7 Certainty of Assessment

There is very limited information available on the biology, ecology, and distribution of *P. eigenmanni*. The potential impacts of an introduction are unknown because the species has yet to be observed interacting with a novel environment. Due to this lack of information, the certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Pygidianops eigenmanni is a sandy substrate-dwelling catfish native to northern Brazil. Very little is known about its biology, and it has not been reported as introduced outside its native range, so impacts of introduction are unknown. Like other trichomycterid catfish, *P. eigenmanni* is classified as a prohibited species by the state of Florida. Climate match to the contiguous U.S. is low. Overall risk posed by *P. eigenmanni* 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.

FFWCC (Florida Fish and Wildlife Conservation Commission). 2016. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/#nogo>. (December 2016).

Froese, R., and D. Pauly, editors. 2016. *Pygidianops eigenmanni* Myers, 1944. FishBase. Available: <http://www.fishbase.se/summary/Pygidianops-eigenmanni.html>. (January 2017).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Pygidianops eigenmanni* Myers, 1944. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2342893>. (January 2017).

ITIS (Integrated Taxonomic Information System). 2017. *Pygidianops eigenmanni* Myers, 1944. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682156#null. (January 2017).

Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. U.S. Fish and Wildlife Service.

Schaefer, S. A., F. Provenzano, M. de Pinna, and J. N. Baskin. 2005. New and noteworthy Venezuelan glanapterygine catfishes (Siluriformes, Trichomycteridae) with discussion of their biogeography and psammophily. *American Museum Novitates* 3496.

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.

de Pínna, M. C. C., and W. Wosiacki. 2003. Trichomycteridae (pencil or parasitic catfishes). Pages 270-290 *in* R. E. Reis, S. O. Kullander, and C. J. Ferraris, Jr., editors. Checklist of the freshwater fishes of South and Central America. EDIPUCRS, Porto Alegre, Brazil.