

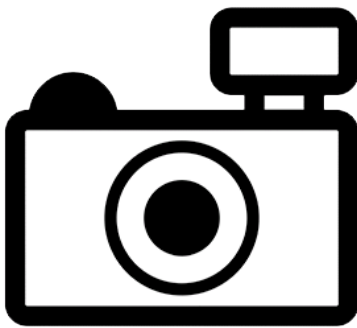
***Plectrochilus diabolicus* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, November 2016

Revised, February 2017

Web Version, 4/2/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: Amazon River basin [Brazil, Peru].”

Status in the United States

This species has not been reported as introduced or established in the U.S.

From FFWCC (2017):

“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. Very limited exceptions may be made by permit from the Executive Director for research or for public exhibition by facilities that meet biosecurity criteria [...] [The list of prohibited nonnative species includes] *Plectrochilus diabolicus*”

Means of Introductions in the United States

This species has not been reported as introduced or established in the U.S.

Remarks

From GBIF (2016):

“BASIONYM

Urinophilus diabolicus (Myers, 1927)”

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2016):

“Kingdom Animalia

Subkingdom Bilateria

Infrakingdom Deuterostomia

Phylum Chordata

Subphylum Vertebrata

Infraphylum Gnathostomata

Superclass Osteichthyes

Class Actinopterygii

Subclass Neopterygii

Infraclass Teleostei

Superorder Ostariophysii

Order Siluriformes

Family Trichomycteridae

Subfamily Vandelliinae

Genus *Plectrochilus*

Species *Plectrochilus diabolicus* (Myers, 1927)”

“Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 6.3 cm SL male/unsexed; [de Pínna and Wosiacki 2003]”

Environment

From Froese and Pauly (2016):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: Amazon River basin [Brazil, Peru].”

Introduced

This species has not been reported as introduced or established outside of its native range.

Means of Introduction Outside the United States

This species has not been reported as introduced or established outside of its native range.

Short Description

No information available.

Biology

No information available.

Human Uses

No information available.

Diseases

No information available. No OIE-reportable diseases have been documented for this species.

Threat to Humans

From Froese and Pauly (2016):

“Harmless”

3 Impacts of Introductions

This species has not been reported as introduced or established outside of its native range.

From FFWCC (2017):

“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. Very limited exceptions may be made by permit from the Executive Director for research or for public exhibition by facilities that meet biosecurity criteria [...] [The list of prohibited nonnative species includes] *Plectrochilus diabolicus*”*Plectrochilus diabolicus*”

4 Global Distribution



Figure 1. Known global established location of *Plectrochilus diabolicus* in northern South America. Map from GBIF (2016).

5 Distribution Within the United States

This species has not been reported as introduced or established in the U.S.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low across the contiguous U.S., reflected in a Climate 6 proportion of 0.000. Climate 6 proportions between 0.000 and 0.005, inclusive, indicate a low climate match.

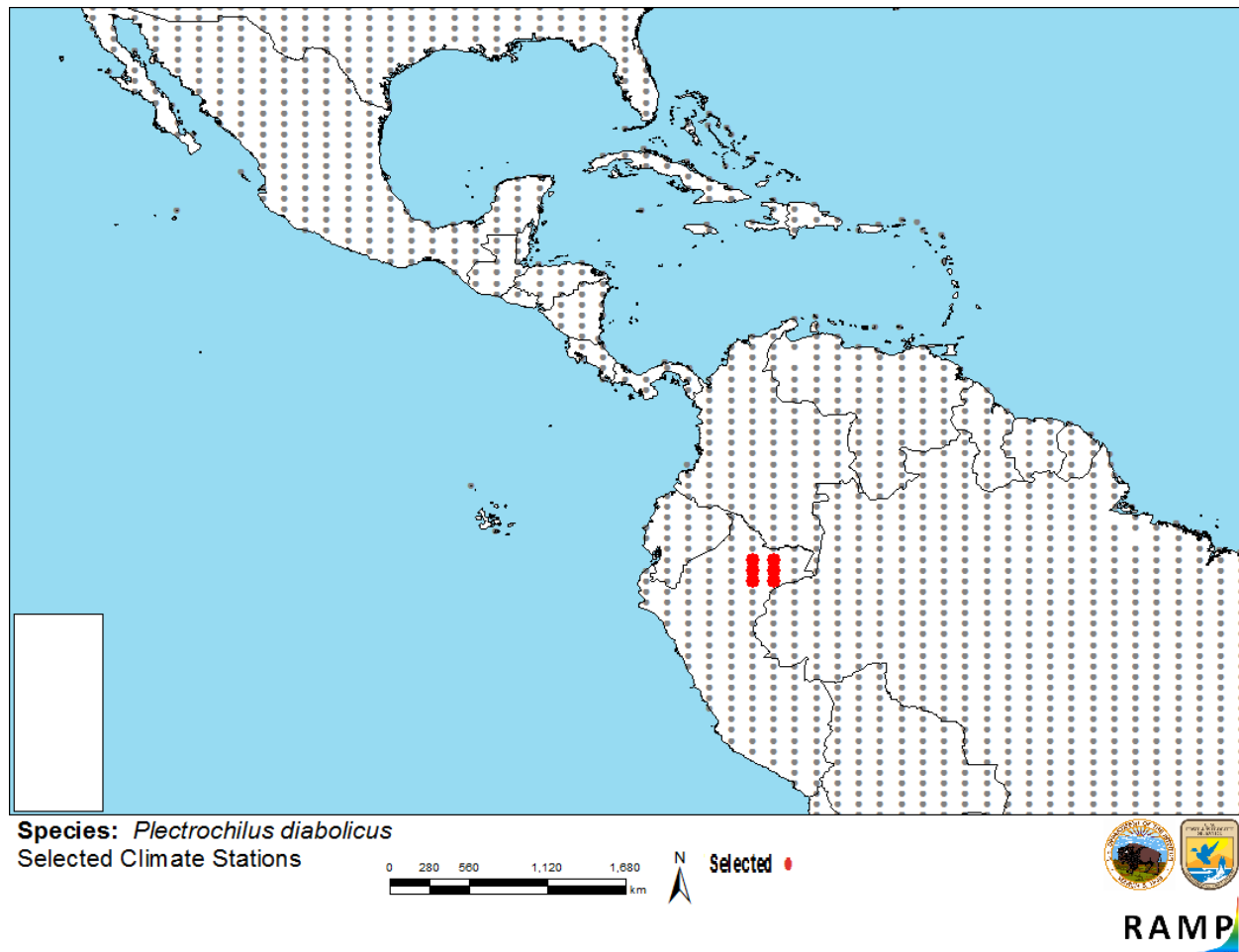


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Peru) and non-source locations (gray) for *Plectrochilus diabolicus* climate matching. Source locations from GBIF (2016).

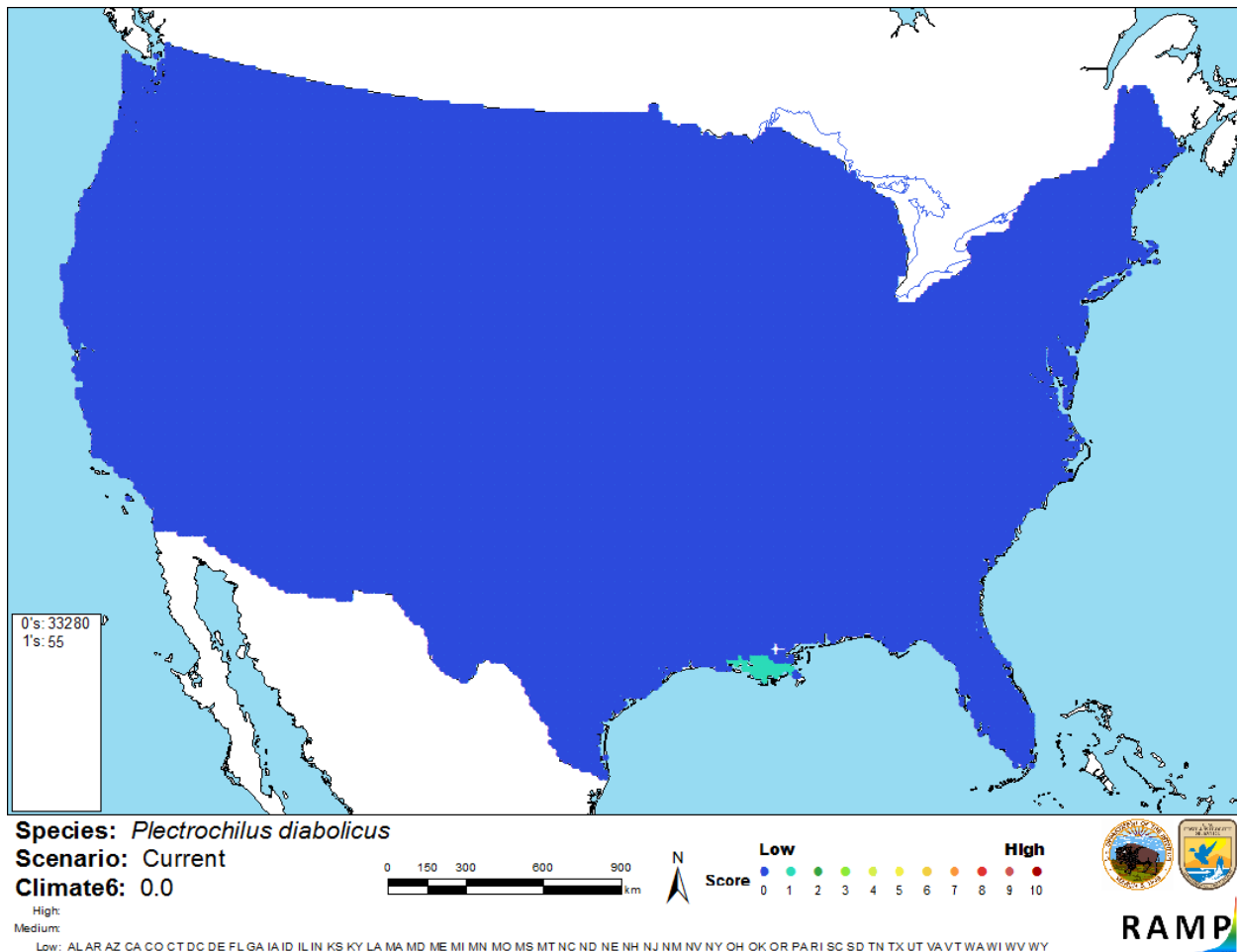


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Plectrochilus diabolicus* in the contiguous United States based on source locations reported by GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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 almost no information available on the biology and ecology of *Plectrochilus diabolicus*. Further information is needed to evaluate the risk and potential negative impacts of this species. The certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Plectrochilus diabolicus is a parasitic catfish native to the Amazon River basin. There is very little information available on this species. *P. diabolicus* has a low climate match with the contiguous United States and no documented history of introduction outside its native range. Possession of the species is prohibited in Florida, as with other trichomycterids. Overall risk assessment category 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.

FFWCC (Florida Fish and Wildlife Conservation Commission). 2017. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/#nogo>. (January 2017).

Froese, R., and D. Pauly, editors. 2016. *Plectrochilus diabolicus* (Myers, 1927). FishBase. Available: <http://www.fishbase.org/summary/Plectrochilus-diabolicus.html>. (November 2016).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Plectrochilus diabolicus*, Myers, 1927. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2343296>. (November 2016).

Integrated Taxonomic Information System (ITIS). 2016. *Plectrochilus diabolicus* (Myers, 1927). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682151#null. (November 2016).

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

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.