

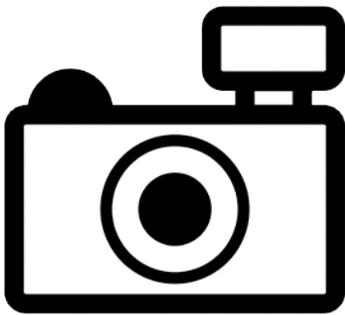
***Plectrochilus wieneri* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, December 2016

Revised, February 2017

Web Version, 4/3/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Arguello and Jimenez-Prado (2016):

“This species occurs in the Napo River basin, on the eastern slope of the Andes and the lowlands of northeastern Ecuador. It is only known from the holotype which was collected in the upper part of the basin.”

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 [...]

Freshwater Aquatic Species [...]

Parasitic catfishes [...]

Plectrochilus wieneri”

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

Vandellia wieneri Pellegrin, 1909”

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 wieneri* (Pellegrin, 1909)”

“Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 7.9 cm NG male/unsexed; [de Pínna and Wosiacki 2003]”

Environment

From Froese and Pauly (2016):

“Freshwater; benthopelagic.”

From Arguello and Jimenez-Prado (2016):

“Lives in large rivers which are clear with white water.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Arguello and Jimenez-Prado (2016):

“This species occurs in the Napo River basin, on the eastern slope of the Andes and the lowlands of northeastern Ecuador. It is only known from the holotype which was collected in the upper part of the basin.”

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

From Arguello and Jimenez-Prado (2016):

“This species is not used or traded.”

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 [...]

Freshwater Aquatic Species [...]

Parasitic catfishes [...]

Plectrochilus wieneri”

4 Global Distribution



Figure 1. Map of Amazon River basin, with Napo River highlighted in purple. The species is only known from the Napo River basin (see Native Range, above). Map by Kmusser, adapted by Kojaman. Licensed under CC BY-SA 3.0. Available: <https://commons.wikimedia.org/w/index.php?curid=8269089>. (February 2017).

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 throughout the United States. Climate 6 proportion indicated that the contiguous U.S. has a low climate match. Proportions of 0.000-0.005, inclusive, indicate a low climate match; the Climate 6 proportion of *Plectrochilus wieneri* was 0.0.

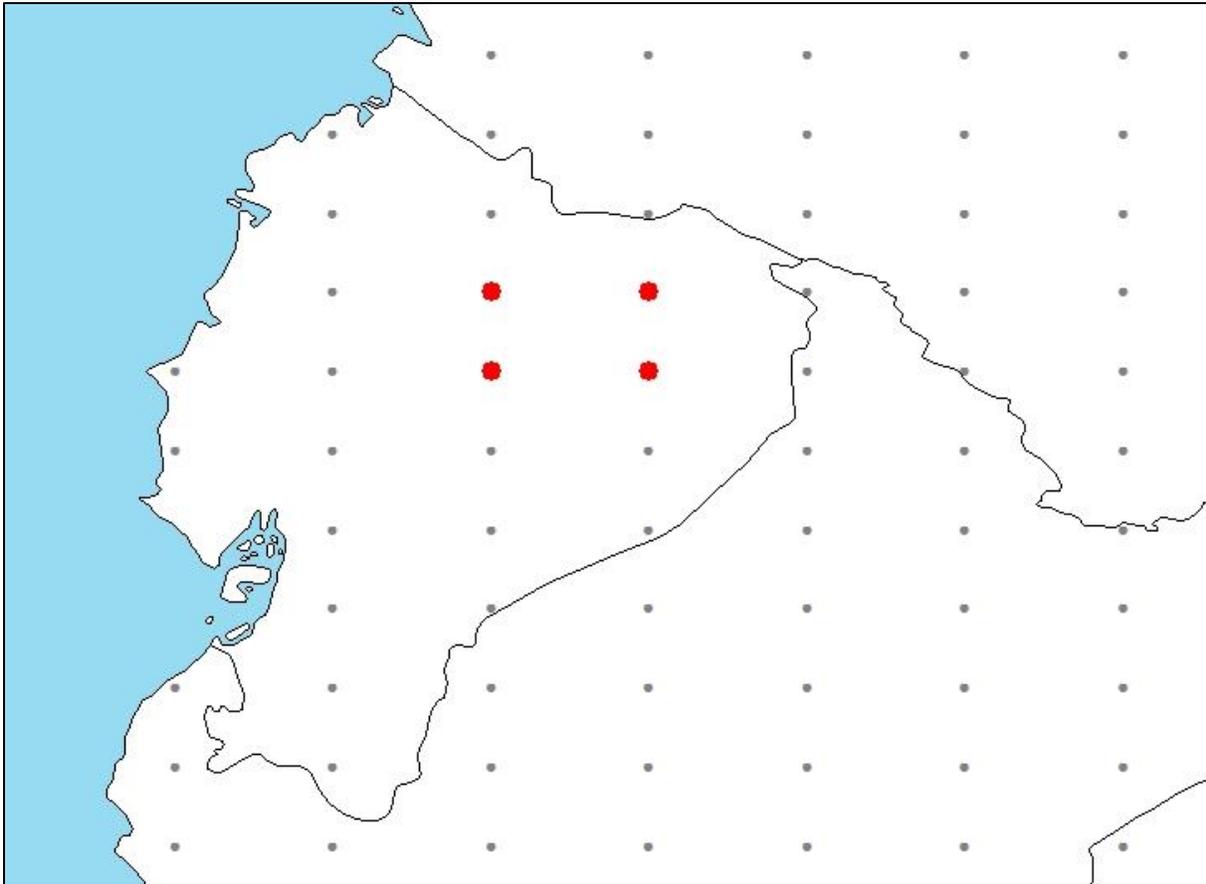


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Ecuador) and non-source locations (gray) for *Plectrochilus wieneri* climate matching. Source locations represent the Napo River in Ecuador, the known range of *P. wieneri* (see Distribution Outside the United States, above).

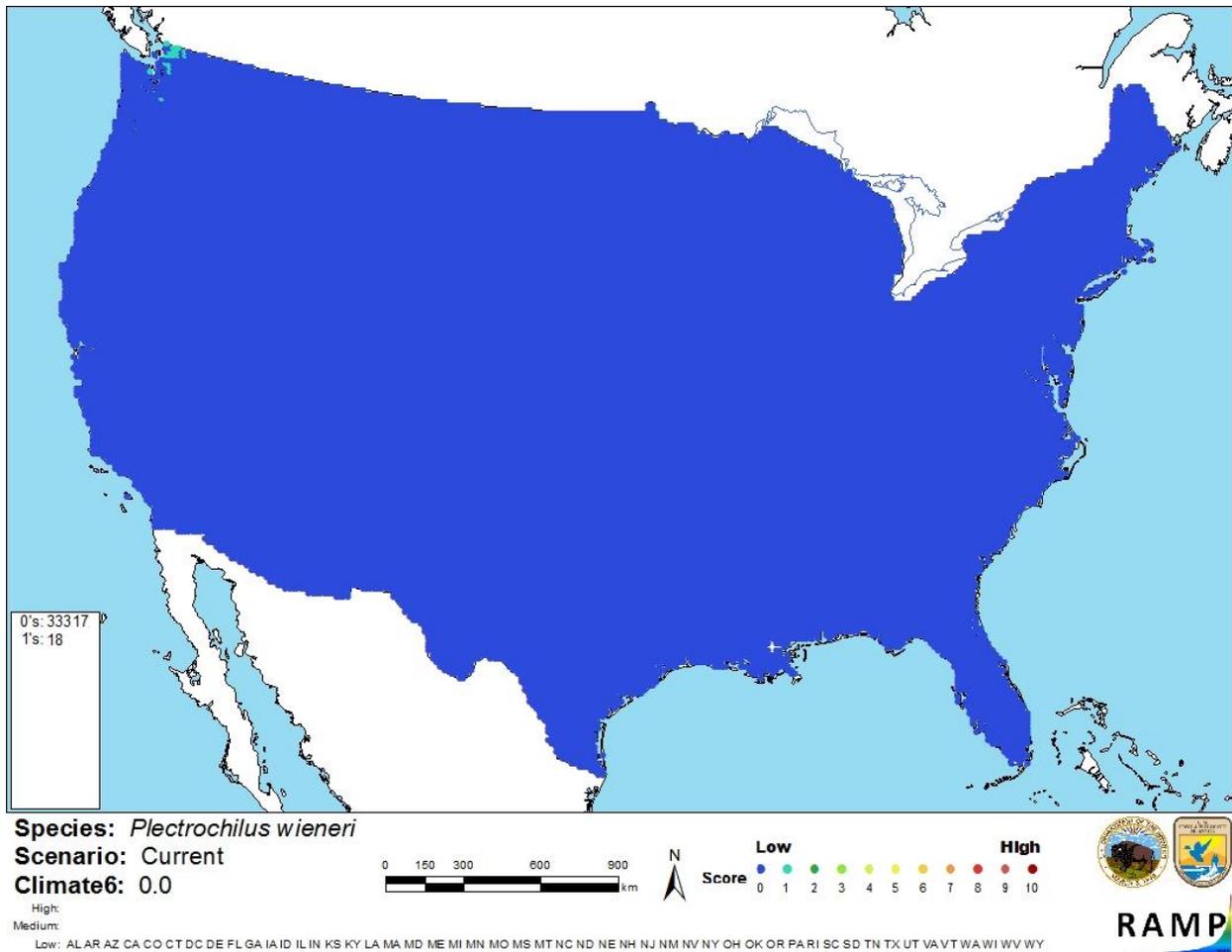


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Plectrochilus wieneri* in the contiguous United States based on source locations that cover the Napo River basin in Ecuador (Arguello and Jimenez-Prado 2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated 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, ecology, or distribution of *Plectrochilus wieneri*. The certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Plectrochilus wieneri is a small catfish native to the Napo River basin in Ecuador. There is very little information available on this species. *P. wieneri* has a low climate match with the United States and no documented history of introduction outside its native range. Like other trichomycterids, *P. wieneri* is listed as a prohibited species in the state of Florida. Overall risk posed by 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.

- Arguello, P., and P. Jimenez-Prado. 2016. *Plectrochilus wieneri*. The IUCN Red List of Threatened Species 2016: e.T167655A53828798. Available: <http://www.iucnredlist.org/details/167655/0>. (December 2016).
- 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 wieneri* (Pellegrin, 1909). FishBase. Available: <http://www.fishbase.org/summary/Plectrochilus-wieneri.html>. (December 2016).
- GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Plectrochilus wieneri* (Pellegrin, 1909). Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2343298>. (December 2016).
- ITIS (Integrated Taxonomic Information System). 2016. *Plectrochilus wieneri* (Pellegrin, 1909). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682153#null. (December 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.