

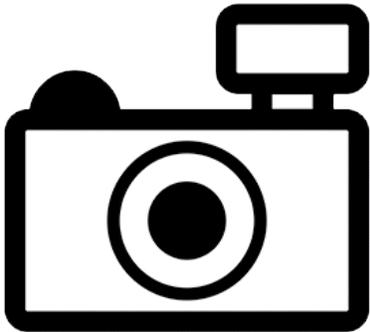
***Ochmacanthus flabelliferus* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, December 2016

Revised, January 2017

Web Version, 3/21/2018



No Photo Available

1 Native Range, and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: river drainages in Guyana and Venezuela.”

Status in the United States

This species has not been reported in the United States.

From FFWCC (2016):

“Prohibited Nonnative Wildlife - 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 [...] Parasitic catfishes [...] 57. *Ochmacanthus flabelliferus*.”

Means of Introductions in the United States

This species has not been reported in the United States.

Remarks

From DoNascimento (2015):

"Unlike many stegophiline genera, recognition of *Ochmacanthus* has been stable and non-controversial since its description by Eigenmann (1912). *Ochmacanthus* was defined by uniquely derived characters related to the particular shape of the caudal region (i.e., high number of procurrent caudal-fin rays and caudal peduncle strongly attenuated posteriorly), herein confirmed as diagnostic, along with characters from different anatomical regions (e.g., neurocranium and pectoral girdle). At the same time, monophyly of the genus is confirmed from a broad sampling of species [...]"

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 Ostariophysi
Order Siluriformes
Family Trichomycteridae Bleeker, 1858
Subfamily Stegophilinae
Genus *Ochmacanthus* Eigenmann, 1912
Species *Ochmacanthus flabelliferus* Eigenmann, 1912”

“Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 3.5 cm TL male/unsexed; [Burgess, 1989]”

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: river drainages in Guyana and Venezuela.”

Introduced

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

Means of Introduction Outside the United States

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

Short Description

From Eigenmann (1912):

“Width of head equal to its length; snout semicircular in outline, the head depressed; mouth very wide, its width equal to the length of the head less half the snout; upper jaw with three series of teeth; teeth of the two outer series conical, those of the inner series broad, removed from the others, forming a solid palisade; no labial teeth; lower jaw with an outer series of long, curved, claw-like teeth in the lip, and four series in the jaw, of which the first is short, near the middle, the second extends farther to the sides, the third is longest, extending from the middle to the side of the jaw, the fourth is shorter again and confined to the sides, not reaching the median line of the jaw. Preopercle with nine claw-like erectile spines; opercle somewhat prolonged, carrying a bunch of nine spines similar to those of the preopercle above and behind the gill-opening. Gill-opening small, entirely above the level of the middle of the pectoral; outer maxillary barbel about as long as the eye, the inner one minute.”

“Pectorals partly adnate; ventrals small, free, reaching anal; dorsal about equal to the anal and but slightly farther forward.”

“Light, with numerous chromatophores more or less aggregated in places; a black spot on base of caudal.”

Biology

From DoNascimento and Provenzano (2006):

“Stegophilines are considered parasites or semi-parasites, because of their peculiar habit of feeding on scales, mucus, or skin of other fishes (Baskin et al., 1980; Winemiller and Yan, 1989; de Pinna and Britski, 1991).”

Human Uses

No information available.

Diseases

No information available.

Threat to Humans

From Froese and Pauly (2016):

“Harmless”

3 Impacts of Introductions

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

From FFWCC (2016):

“Prohibited Nonnative Wildlife - 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 [...] Parasitic catfishes [...] 57. *Ochmacanthus flabelliferus*.”

4 Global Distribution



Figure 1. Known global established locations of *Ochmacanthus flabelliferus* in northern South America. Map from GBIF (2016).

5 Distribution Within the United States

Ochmacanthus flabelliferus has not been reported in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) for the contiguous U.S. was 0.000, a categorically low climate match. Climate 6 scores indicating a low climate match range from 0.000 to 0.005, inclusive. The climate match was low throughout the contiguous U.S.

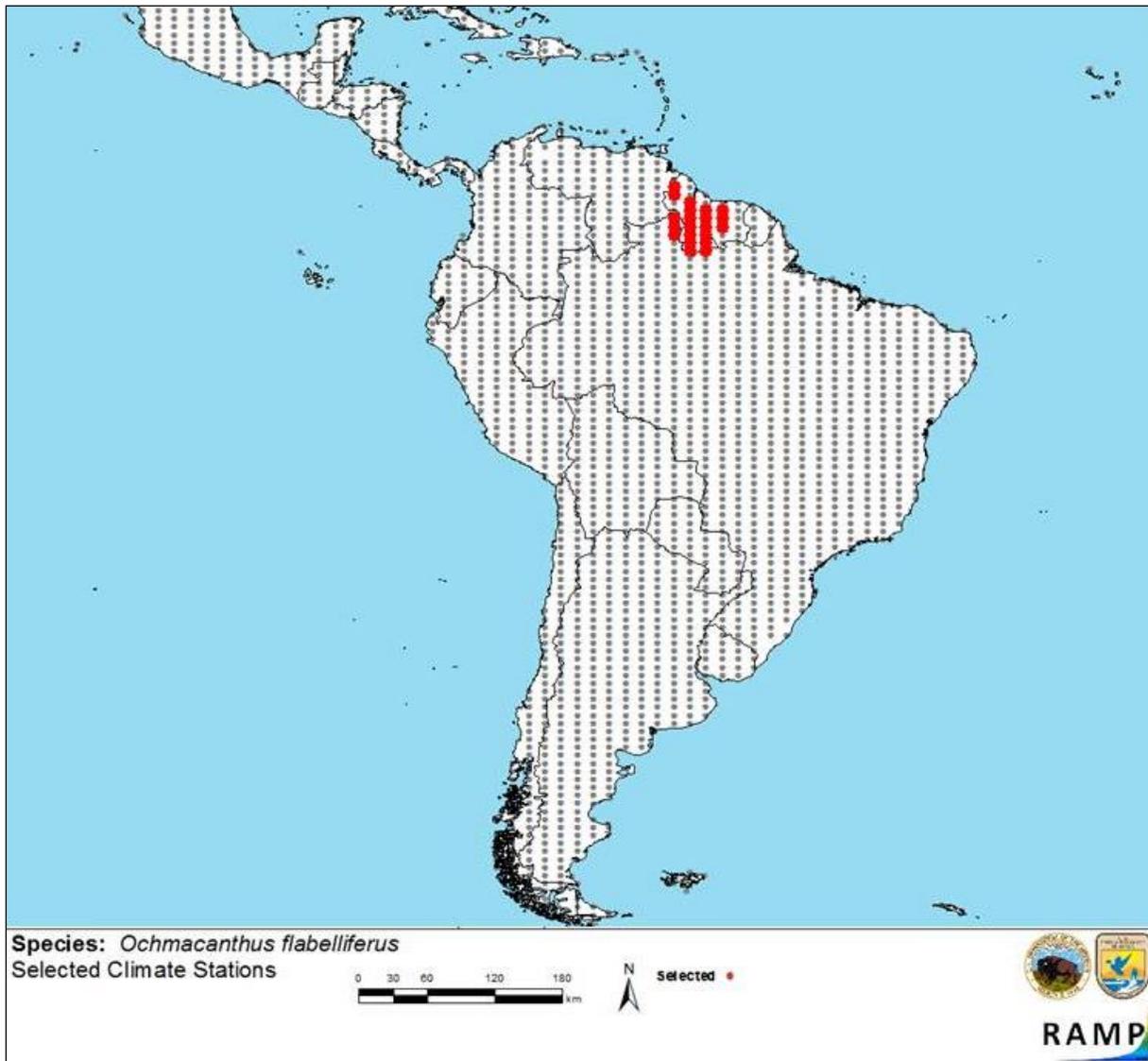


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *Ochmacanthus flabelliferus* climate matching. Source locations from GBIF (2016).

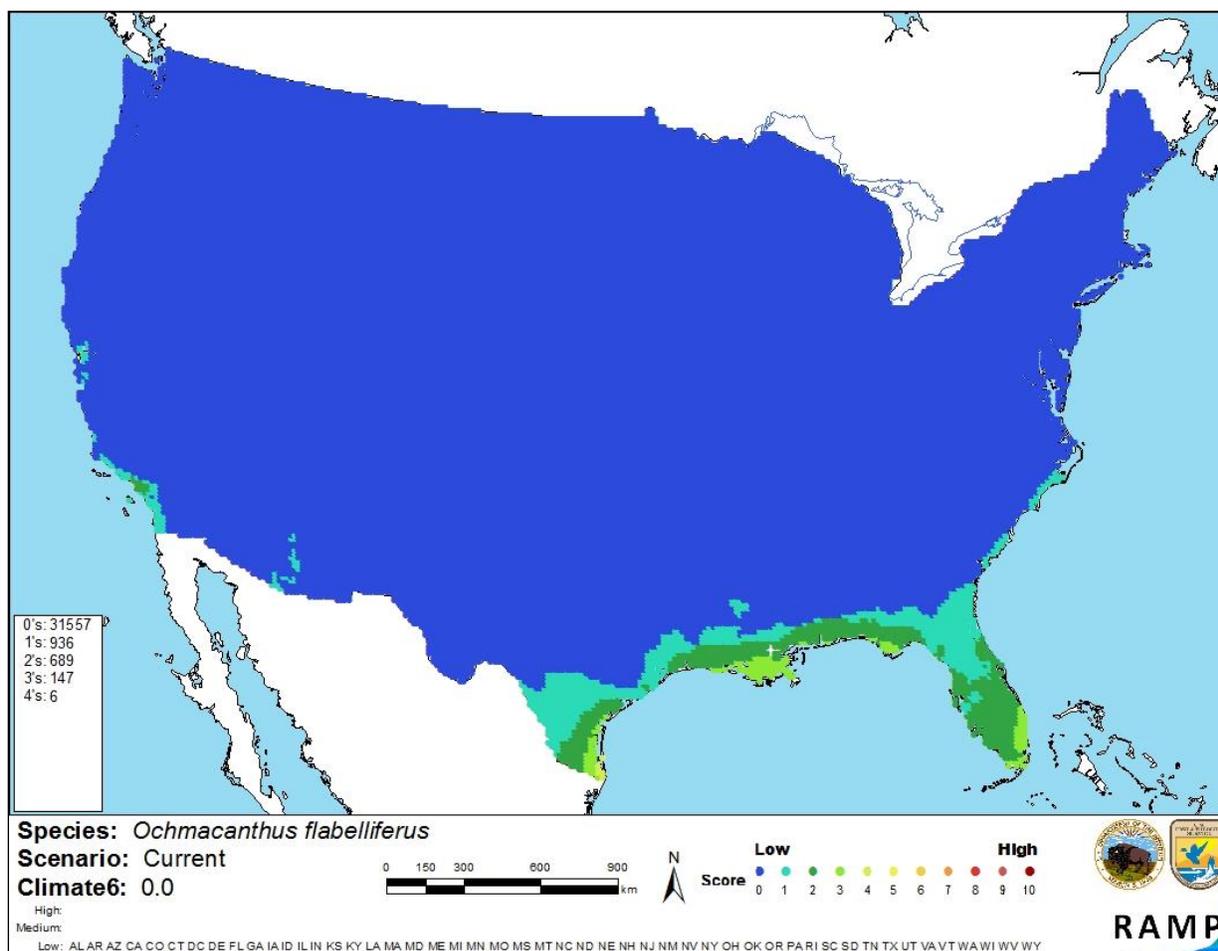


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Ochmacanthus flabelliferus* in the contiguous United States based on source locations reported by GBIF (2016). Counts of climate match scores are tabulated on the left. 0=Lowest match, 10=Highest match.

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

7 Certainty of Assessment

Ochmacanthus flabelliferus is a member of a Neotropical subfamily of parasitic catfishes (Stegophilinae) known to feed on the scales, mucus, or skin of other fishes. Little else has been reported for this freshwater species beside its native range (river drainages in Guyana and Venezuela) and its morphological characteristics. There is no evidence of this species having ever been transported outside its native range, so it has had no apparent opportunity to become

established and exhibit any negative impacts of introduction. Therefore the certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Ochmacanthus flabelliferus is a tropical species of parasitic catfish native to river drainages of Guyana and Venezuela; there is no record of introductions elsewhere. Little is currently known about this species, its potential role as a vector for disease pathogens, or the potential risk(s) it may pose to the contiguous U.S. State authorities currently consider *O. flabelliferus* dangerous to the ecology or the health and welfare of the people of Florida, where personal possession or commercial use of this species is prohibited by law. Climate match of *O. flabelliferus* to the contiguous U.S. is low. 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.

- DoNascimento, C. 2015. Morphological evidence for the monophyly of the subfamily of parasitic catfishes Stegophilinae (Siluriformes, Trichomycteridae) and phylogenetic diagnoses of its genera. *Copeia* 103(4):933-960.
- DoNascimento, C., and F. Provenzano. 2006. The Genus *Henonemus* (Siluriformes: Trichomycteridae) with a description of a new species from Venezuela. *Copeia* 2006(2):198-205.
- Eigenmann, C. H. 1912. The freshwater fishes of British Guiana, including a study of the ecological grouping of species, and the relation of the fauna of the plateau to that of the lowlands. *Memoirs of the Carnegie Museum* 5(1):i-xxii+1-578.
- Froese, R., and D. Pauly, editors. 2016. *Ochmacanthus flabelliferus* Eigenmann, 1912. FishBase. Available: <http://www.fishbase.org/summary/48117/>. (December 2016).
- 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/>. (December 2016).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Ochmacanthus flabelliferus* Eigenmann, 1912. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2342881/>. (December 2016).

ITIS (Integrated Taxonomic Information System). 2016. *Ochmacanthus flabelliferus* Eigenmann, 1912. Integrated Taxonomic Information System, Reston, Virginia. Available: <https://www.itis.gov/>. (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.

Baskin, J. N., T. M. Zaret, and F. Mago-Leccia. 1980. Feeding of reportedly parasitic catfishes (Trichomycteridae and Cetopsidae) in the Río Portuguesa basin, Venezuela. *Biotropica* 12:182-186.

Burgess, W. E. 1989. An atlas of freshwater and marine catfishes. A preliminary survey of the Siluriformes. T.F.H. Publications, Inc., Neptune City, New Jersey.

de Pinna, M. C. C., and H. A. Britski. 1991. *Megalocentor*, a new genus of parasitic catfish from the Amazon basin: the sister group of *Apomatoceros* (Trichomycteridae: Stegophilinae). *Ichthyological Exploration of Freshwaters* 2:113-128.

Winemiller, K. O., and H. Y. Yan. 1989. Obligate mucus-feeding in a South American trichomycterid catfish (Pisces: Ostariophysi). *Copeia* 1989:511–514.