Ochmacanthus batrachostoma (a catfish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, December 2016
Revised, January 2017
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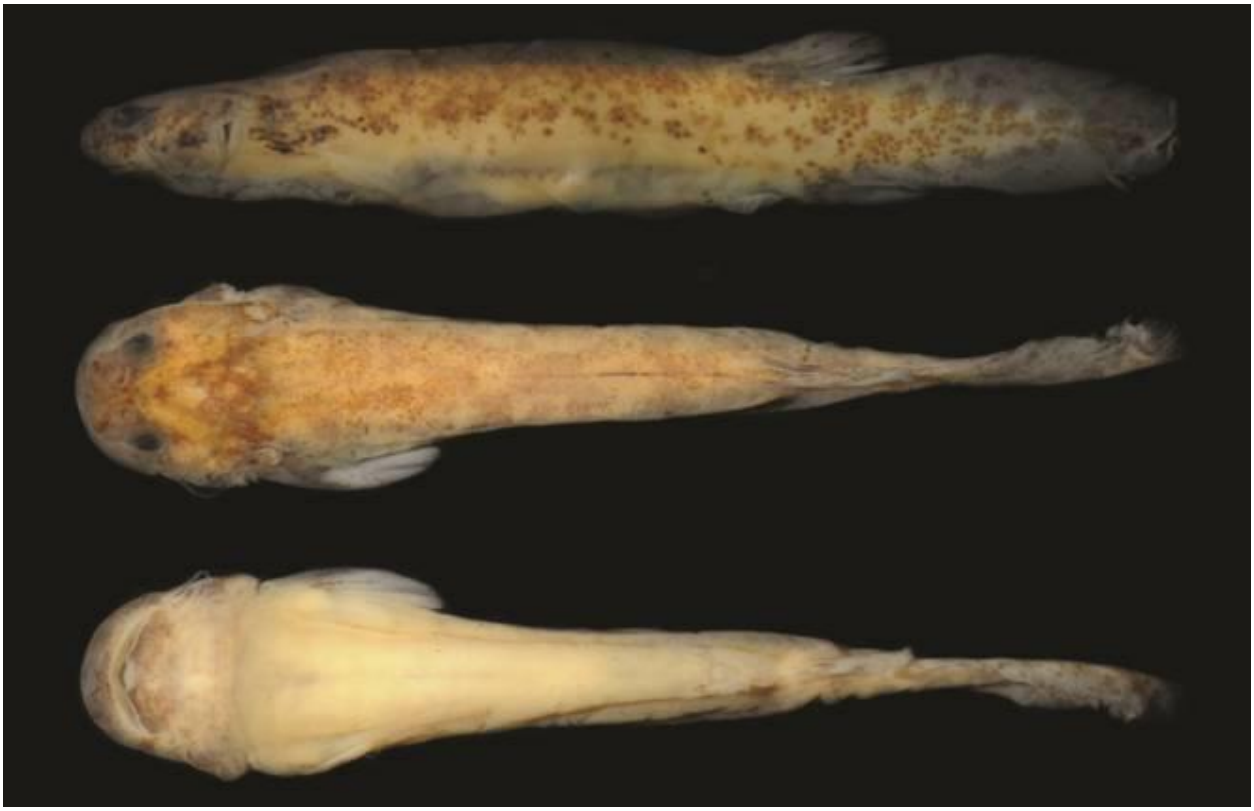

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1 Native Range and Status in the United States

Native Range

From Neto and de Pinna (2016):

"Endemic to, and widely distributed in, the Paraná-Paraguai drainage, in Argentina, Brazil and Paraguay. Absent from the Upper Paraná and from the Prata drainage […]"

Status in the United States

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

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 […]
Ochmacanthus batrachostomus"

Means of Introductions in the United States

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

Remarks

From Neto and de Pinna (2016):

"Eigenmann (1912) described *Ochmacanthus* with only one species, *O. flabelliferus*. Three months later, Miranda-Ribeiro (1912) described the genus *Gyrinurus* along with its single species, *Gyrinurus batrachostoma*. In 1918, Eigenmann synonymized *Gyrinurus* under *Ochmacanthus* (though retaining the former as a subgenus and its sole species as valid) and included *Stegophilus reinhardtii* Steindachner, 1882 therein. Myers (1927) described two additional species of *Ochmacanthus*, *O. alternus* and *O. orinoco* from the Río Orinoco drainage. The most recent study of phylogenetic relationships within Stegophilinae considered *Ochmacanthus* as monophyletic, and as sister-group to *Haemomaster* (DoNascimiento, 2013, 2015)."

"Since Eigenmann (1918), there has been practically no additional information published on *Ochmacanthus batrachostoma*. The species has not been in included in more recent and general papers on trichomycterid systematics because of a lack of study material. Its description from a single specimen was made more than a century ago, and is severely outdated. The morphology of the species remains poorly known, and its mention in the literature is restricted to catalogues, checklists, faunistic lists or range extensions."

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
Subfamily Stegophilinae
Genus Ochmacanthus
Species *Ochmacanthus batrachostomus* Miranda-Ribeiro, 1912"

From Eschmeyer et al. (2017):

"[…] (sometimes seen as *batrachostomus*) […] Valid as *Ochmacanthus batrachostoma* (Miranda Ribeiro 1912)."

Size, Weight, and Age Range

From Froese and Pauly (2016):

"Max length: 3.2 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 Neto and de Pinna (2016):

"Endemic to, and widely distributed in, the Paraná-Paraguai drainage, in Argentina, Brazil and Paraguay. Absent from the Upper Paraná and from the Prata drainage"

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
From Neto and de Pinna (2016):

"*Ochmacanthus batrachostoma* is easily distinguished from remaining species of its genus by any of the following characters: presence of long maxillary and rictal barbels (*vs.* short barbels), the former reaching the base of the pectoral fin and the latter more than half that length (*vs* . maxillary barbel not reaching beyond the interopercular patch of odontodes and rictal barbel not longer than the associated labial fold); the caudal peduncle expanded into a paddle-like shape by numerous large procurrent rays, with markedly convex dorsal and ventral profiles (*vs* . caudal peduncle approximately rectangular in shape, with straight or gently convex dorsal and ventral profiles); the muscular portion of the caudal peduncle tapering markedly posteriorly (*vs.*tapering gently to caudal fin), so that its posterior depth is 20-25% of its anterior depth (*vs.* more than 25%); the caudal fin shorter than 10% of SL (*vs.* longer than 10% of SL)."

Biology
From Baskin et al. (1980):

"[…] Stegophilinae (*Stegophilus*, *Homodiaetus*, and *Ochmacanthus*) are tentatively classified as scale eaters."

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 […]
Freshwater Aquatic Species […]
Parasitic catfishes […]
Ochmacanthus batrachostomus"

4 Global Distribution

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

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was highest in peninsular Florida and southeastern Texas. There is a medium climate match throughout most of Texas and the Gulf coast, as well as the southeastern Atlantic coastline of the United States. Climate 6 proportion indicated that the contiguous U.S. has a medium climate match. The range

for a medium climate match is greater than 0.005 and less than 0.103; the Climate 6 proportion of *Ochmacanthus batrachostoma* is 0.022.

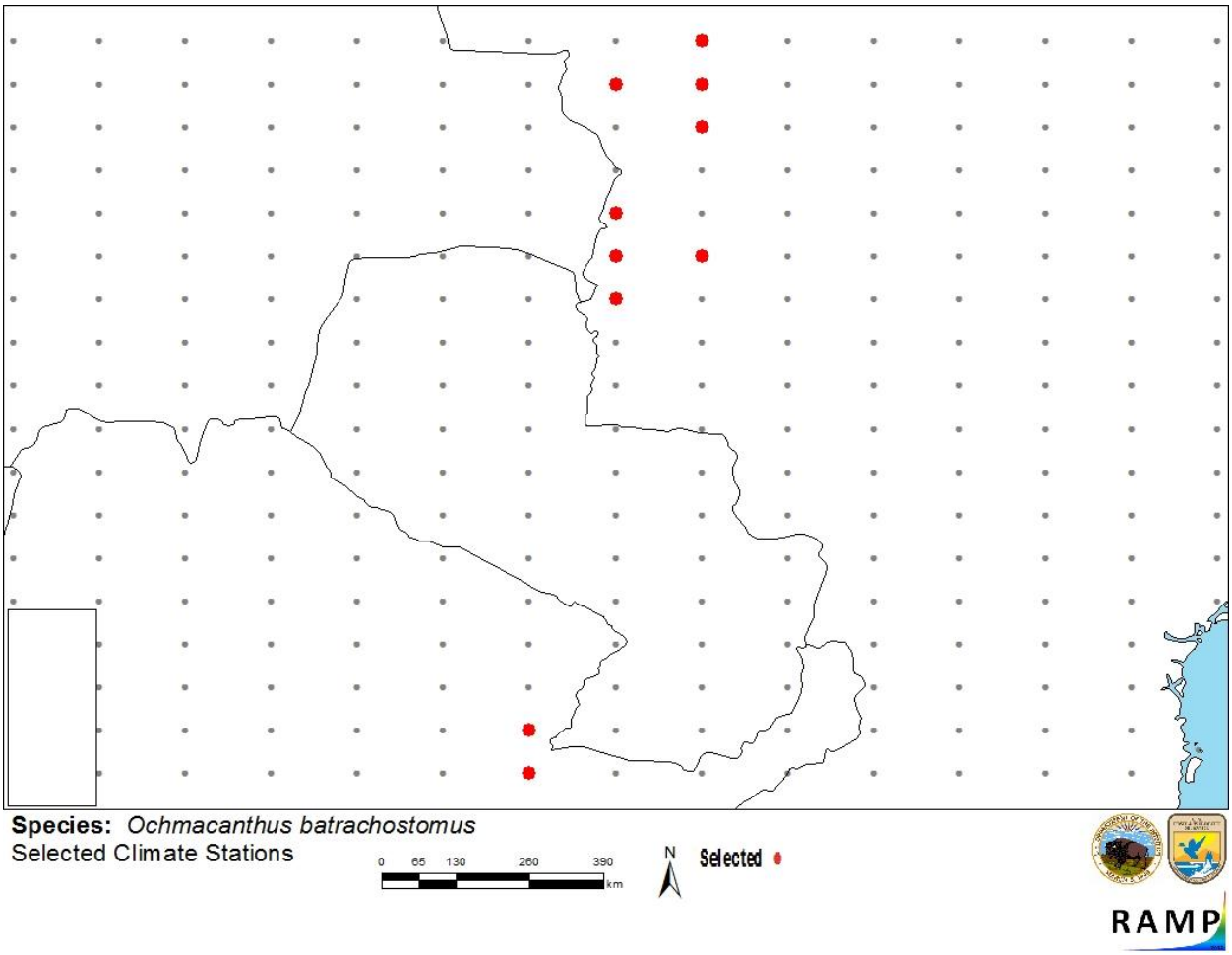

Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; in Brazil and Argentina) and non-source locations (gray) for *Ochmacanthus batrachostoma* climate matching. Source locations from GBIF (2016).

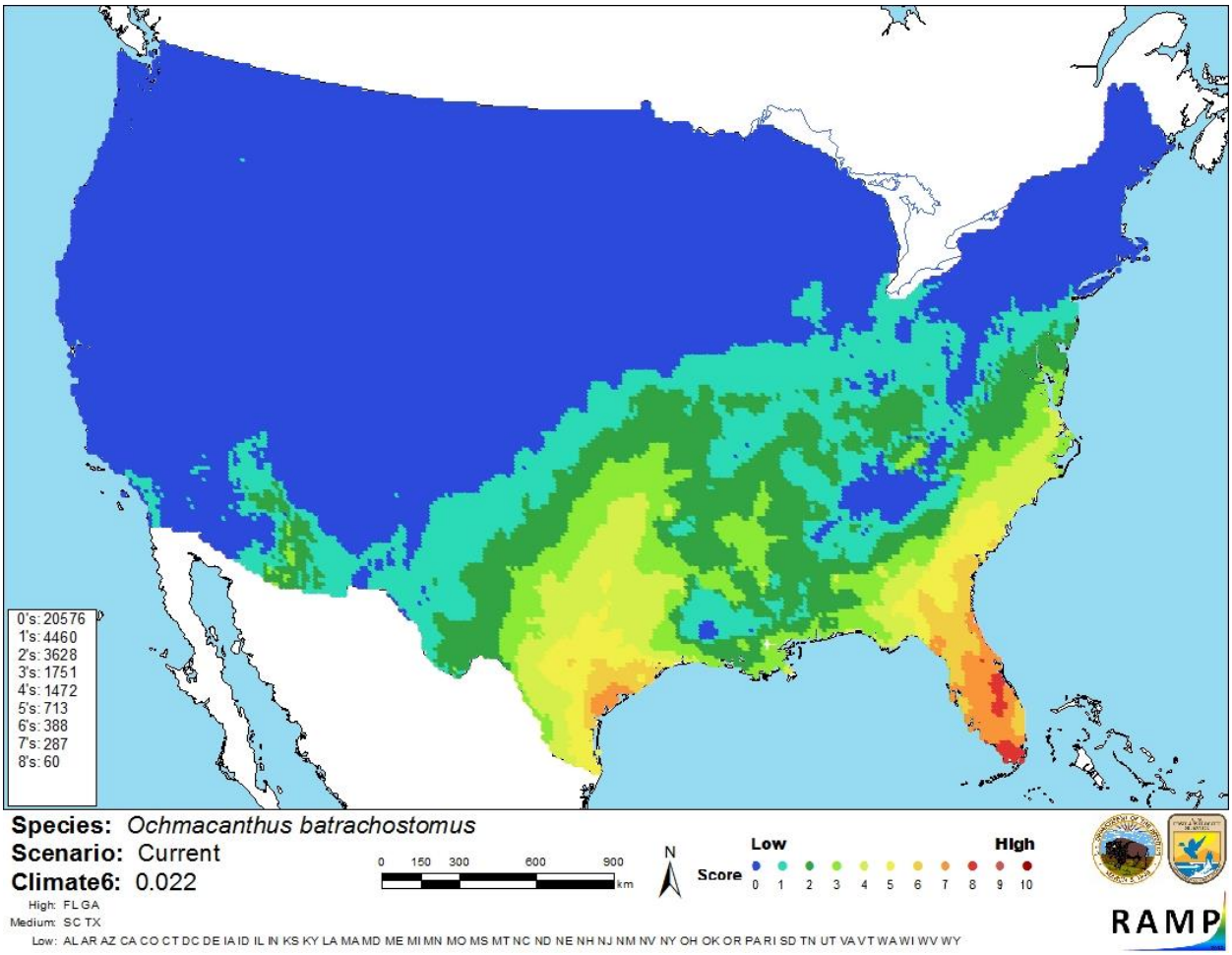

Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Ochmacanthus batrachostoma* in the contiguous United States based on source locations reported by GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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≤X≤0.005	Low
0.005<X<0.103	Medium
≥0.103	High

7 Certainty of Assessment

There is very little information available on the biology and ecology of *Ochmacanthus batrachostoma*. The species has not been reported as introduced outside its native range, so no information is available on impacts of introduction of the species. Further information is needed to conduct a thorough risk assessment. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Ochmacanthus batrachostoma is a catfish native to the Paraná-Paraguai drainage, in Argentina, Brazil and Paraguay. It belongs to the genus *Ochmacanthus*, ectoparasitic catfishes that feed on mucus and scales of host fishes. There has been no documentation of introduction outside of the species' native range. *O. batrachostoma* has a medium climate match with the contiguous United States. Overall risk assessment category for this species is "uncertain."

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Medium**
- **Certainty of Assessment (Sec. 7): High**
- **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.

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GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Ochmacanthus batrachostomus* (Miranda-Ribeiro, 1912). Global Biodiversity Information Facility, Copenhagen. Available: http://www.gbif.org/species/2342882. (December 2016).

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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.

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Miranda-Ribeiro, A. 1912. Loricariidae, callichthyidae, doradidae e trichomycteridae. Comissão de Linhas Telegraphicas Estrategicas de Matto Grosso ao Amazonas 16(5):1-32.

Myers, G. S. 1927. Descriptions of new South American fresh-water fishes collected by Dr. Carl Ternetz. Bulletin of the Museum of Comparative Zoology 68:107-135.