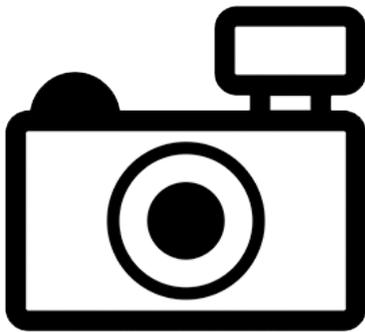


***Malacoglanis gelatinosus* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2017
Revised, February 2017
Web Version, 2/9/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Jimenez-Prado (2016):

“This species is known from the Caquetá River basin, in the Colombian Amazon (Bogotá-Gregory and Maldonado-Ocampo 2006) and in the Zancudo River, Napo River basin of Ecuador (Stewart et al. 2002).”

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. [...] Freshwater Aquatic Species [...] Parasitic catfishes [...] *Malacoglanis gelatinosus*”

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 Sarcoglanidinae
Genus *Malacoglanis*
Species *Malacoglanis gelatinosus* Myers and Weitzman,
1966”

“Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 2.0 cm SL male/unsexed; [de Pínna and Wosiacki 2003]”

Environment

From Froese and Pauly (2016):

“Freshwater; demersal.”

From Jimenez-Prado (2016):

“*M. gelatinosus* is a benthic (living at or near the bottom of the water body) species.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

From Jimenez-Prado (2016):

“This species occurs at elevations between 150 to 400 m.”

Distribution Outside the United States

Native

From Jimenez-Prado (2016):

“This species is known from the Caquetá River basin, in the Colombian Amazon (Bogotá-Gregory and Maldonado-Ocampo 2006) and in the Zancudo River, Napo River basin of Ecuador (Stewart et al. 2002).”

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 Evers and Seidel (2005):

“*Malacoglanis gelatinosus* MYERS & WEITZMAN, 1966 from the Columbian Río Ortegua is more elongated [than *Sarcoglanis simplex* Myers & Weitzman, 1966], its dorsal fin is larger, and the adipose fin also extends from the dorsal fin to the base of the caudal fin, although it is less pronounced. The authors described it as soft and gelatinous with a reddish-brown hue, which is lost under preservation.”

Biology

From Jimenez-Prado (2016):

“[...] lives burrowed in the sand.”

Human Uses

From Jimenez-Prado (2016):

“The species is not utilized.”

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. [...]

Freshwater Aquatic Species [...]

Parasitic catfishes [...]

Malacoglanis gelatinosus”

4 Global Distribution



Figure 1. Known global established locations of *Malacoglanis gelatinosus* in Colombia and Ecuador. 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 match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout the contiguous U.S., reflected in a categorically low Climate 6 proportion of 0.0. The range for Climate 6 proportions indicating a low climate match is 0.000 to 0.005.

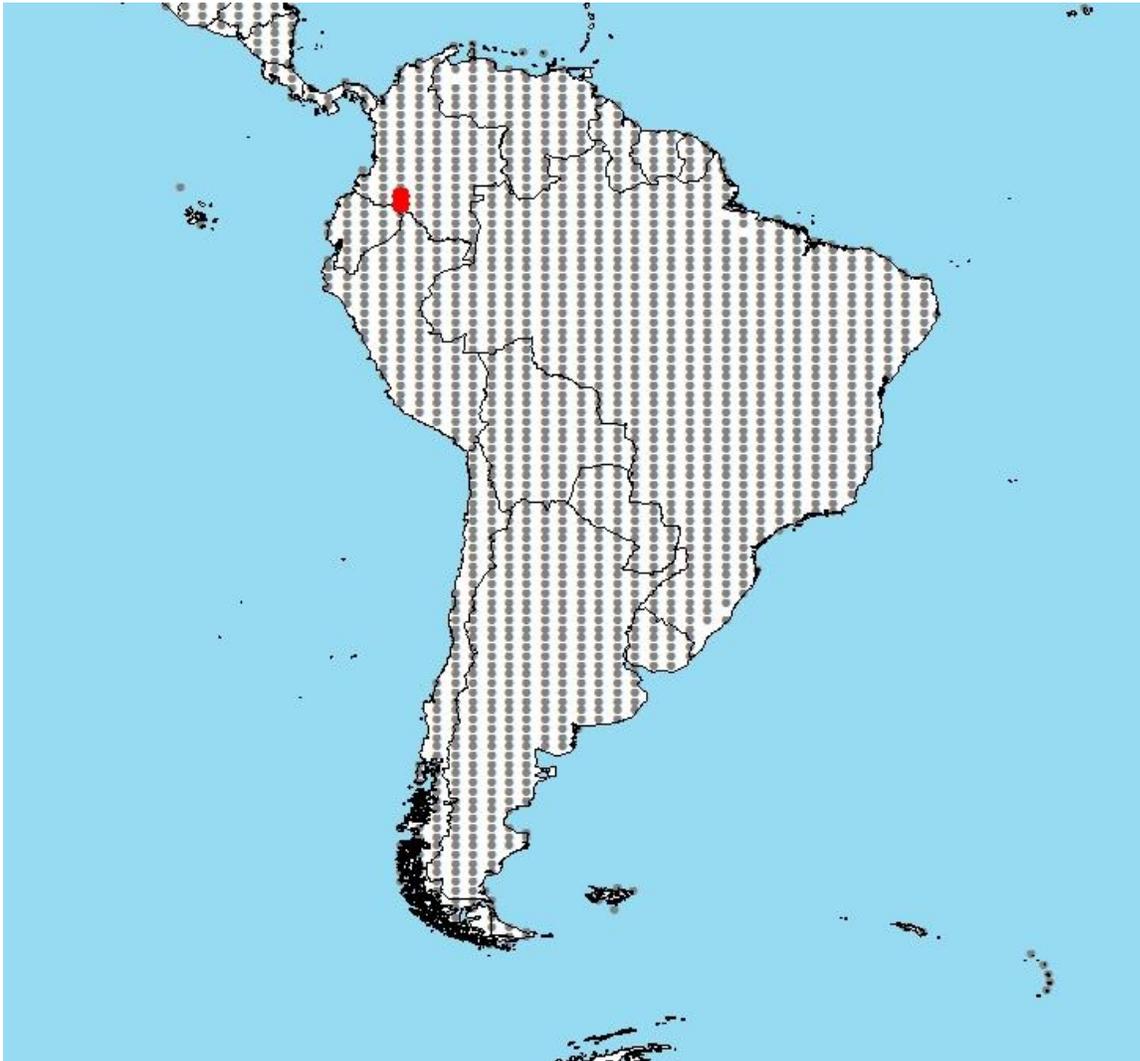


Figure 1. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; in Ecuador and Colombia) and non-source locations (gray) for *Malacoglanis gelatinosus* climate matching. Source locations from GBIF (2016).

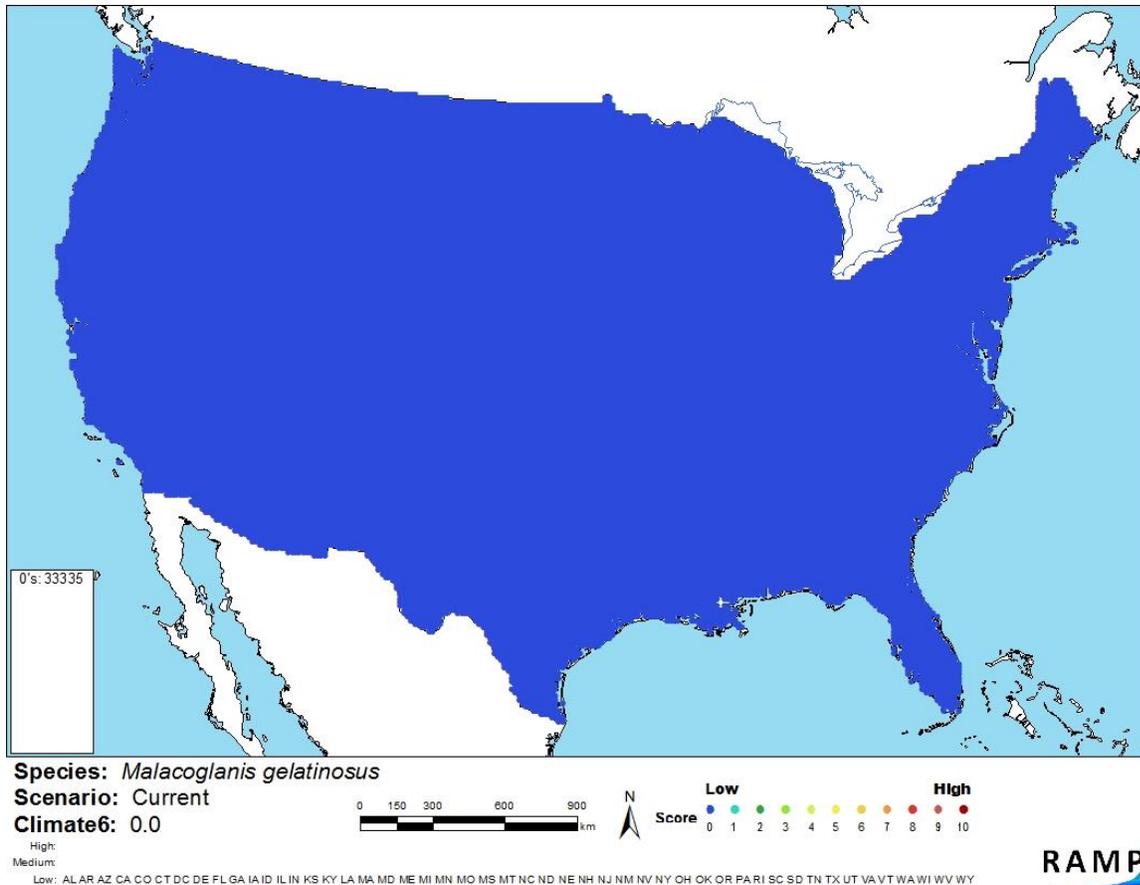


Figure 2. Map of RAMP (Sanders et al. 2014) climate matches for *Malacoglanis gelatinosus* in the contiguous United States based on source locations reported by GBIF (2016). 0= Lowest match, 10=Highest match. Counts of climate matches are tabulated on the left.

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 and distribution of *Malacoglanis gelatinosus*. The potential impacts of an introduction are unknown because the species has not been documented as introduced outside its native range. Due to this lack of information, the certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Malacoglanis gelatinosus is a tiny sand-dwelling catfish species native to Colombia and Ecuador. 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. Along with other trichomycterid catfish, it is listed as a prohibited species in the state of Florida. Climate match to the contiguous U.S. is low. Overall risk posed by *M. gelatinosus* 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.

Evers, H.-G., and I. Seidl. 2005. Catfish atlas volume 1: South American catfishes of the families Loricariidae, Cetopsidae, Nematogenyidae and Trichomycteridae. Mergus Verlag GmbH, Melle, Germany.

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. *Malacoglanis gelatinosus* Myers & Weitzman, 1966. FishBase. Available: <http://www.fishbase.org/summary/Malacoglanis-gelatinosus.html>. (January 2017).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Malacoglanis gelatinosus* Myers & Weitzman, 1966. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2343258>. (January 2017).

ITIS (Integrated Taxonomic Information System). 2017. *Malacoglanis gelatinosus* Myers & Weitzman, 1966. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682135#null. (January 2017).

Jimenez-Prado, P. 2016. *Malacoglanis gelatinosus*. The IUCN Red List of Threatened Species 2016: e.T167740A61473056. Available: <http://www.iucnredlist.org/details/167740/0>. (January 2017).

Sanders, S., C. Castiglione, and M. H. 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.

Bogotá-Gregory, J. D., and J. A. Maldonado-Ocampo. 2006. Peces de la zona hidrogeografica de la Amazonia. *Biota Colombiana*. Colombia 7(I):55-94.

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.

Stewart, D. J., M. Ibarra, and R. Barriga-Salazar. 2002. Comparison of deep-river and adjacent sandy-beach fish assemblages in the Napo River Basin, Eastern Ecuador. *Copeia* 2002(2):333-343.