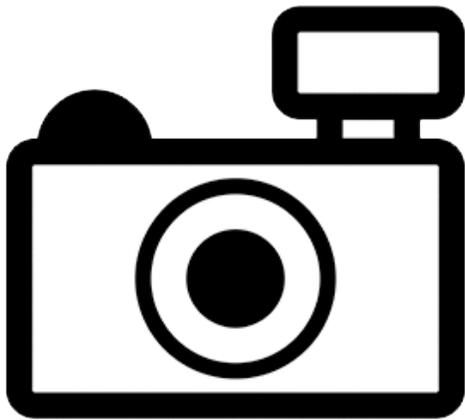


Neoplecostomus granosus (a fish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2012
Revised, January 2019
Web Version, 11/12/2020

Organism Type: Fish
Overall Risk Assessment Category: Uncertain



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“South America [Brazil].”

From Roxo et al. (2014):

“Presently, the genus includes 13 species (Eschmeyer 2014): [...], and *N. granosus* (Cuvier & Valenciennes, 1840) from the rio Paraíba do Sul basin; [...].”

Status in the United States

No records of *Neoplecostomus granosus* in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of *Neoplecostomus granosus* in the wild in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al. (2019), *Neoplecostomus granosus* (Valenciennes in Cuvier and Valenciennes, 1840) is the current valid name of this species. *Neoplecostomus granosus* was originally described as *Hypostomus granosus* Valenciennes in Cuvier and Valenciennes, 1840.

From ITIS (2019):

Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Siluriformes
Family Loricariidae
Subfamily Neoplecostominae
Genus *Neoplecostomus*
Species *Neoplecostomus granosus* (Valenciennes in Cuvier and Valenciennes, 1840)

Size, Weight, and Age Range

From Froese and Pauly (2019):

“Max length : 8.6 cm SL male/unsexed; [Ferraris 2003]”

Environment

From Froese and Pauly (2019):

“Freshwater; demersal.”

Climate

From Froese and Pauly (2019):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2019):

“South America [Brazil].”

From Roxo et al. (2014):

“Presently, the genus includes 13 species (Eschmeyer 2014): [...], and *N. granosus* (Cuvier & Valenciennes, 1840) from the rio Paraíba do Sul basin; [...].

Introduced

No records of introductions of *Neoplecostomus granosus* were found.

Means of Introduction Outside the United States

No records of introductions of *Neoplecostomus granosus* were found.

Short Description

No information on the short description of *Neoplecostomus granosus* was found.

Biology

No information on the biology of *Neoplecostomus granosus* was found.

Human Uses

No information on the human uses of *Neoplecostomus granosus* was found.

Diseases

No information on diseases of *Neoplecostomus granosus* was found. **No records of OIE-reportable diseases (OIE 2020) were found for *N. granosus*.**

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introductions of *Neoplecostomus granosus* were found.

4 History of Invasiveness

Very little information is available for *Neoplecostomus granosus*, save the local range. For this reason the history of invasiveness is classified as “No Known Nonnative Populations.”

5 Global Distribution

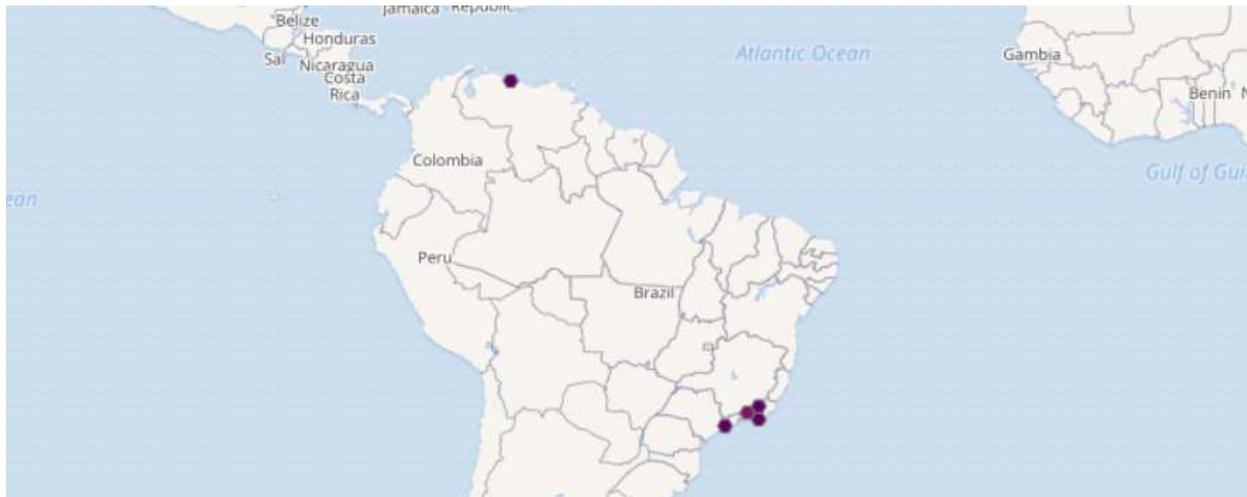


Figure 1. Known global distribution of *Neoplecostomus granosus*. Locations are in Brazil. Map from GBIF Secretariat (2020). The location in northern Venezuela was not used to select source points for the climate match as it is far outside the native range of this species and there are no records of an introduced population in Venezuela.

6 Distribution Within the United States

No records of *Neoplecostomus granosus* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Neoplecostomus granosus* was low for the majority of the contiguous United States. Southeast Texas and Georgia had patches of medium match and Florida had high climate match throughout the State. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.007, medium (scores between 0.005 and 0.103, exclusive, are classified as medium). All States had a low individual climate score except for Florida which had a high individual climate score.

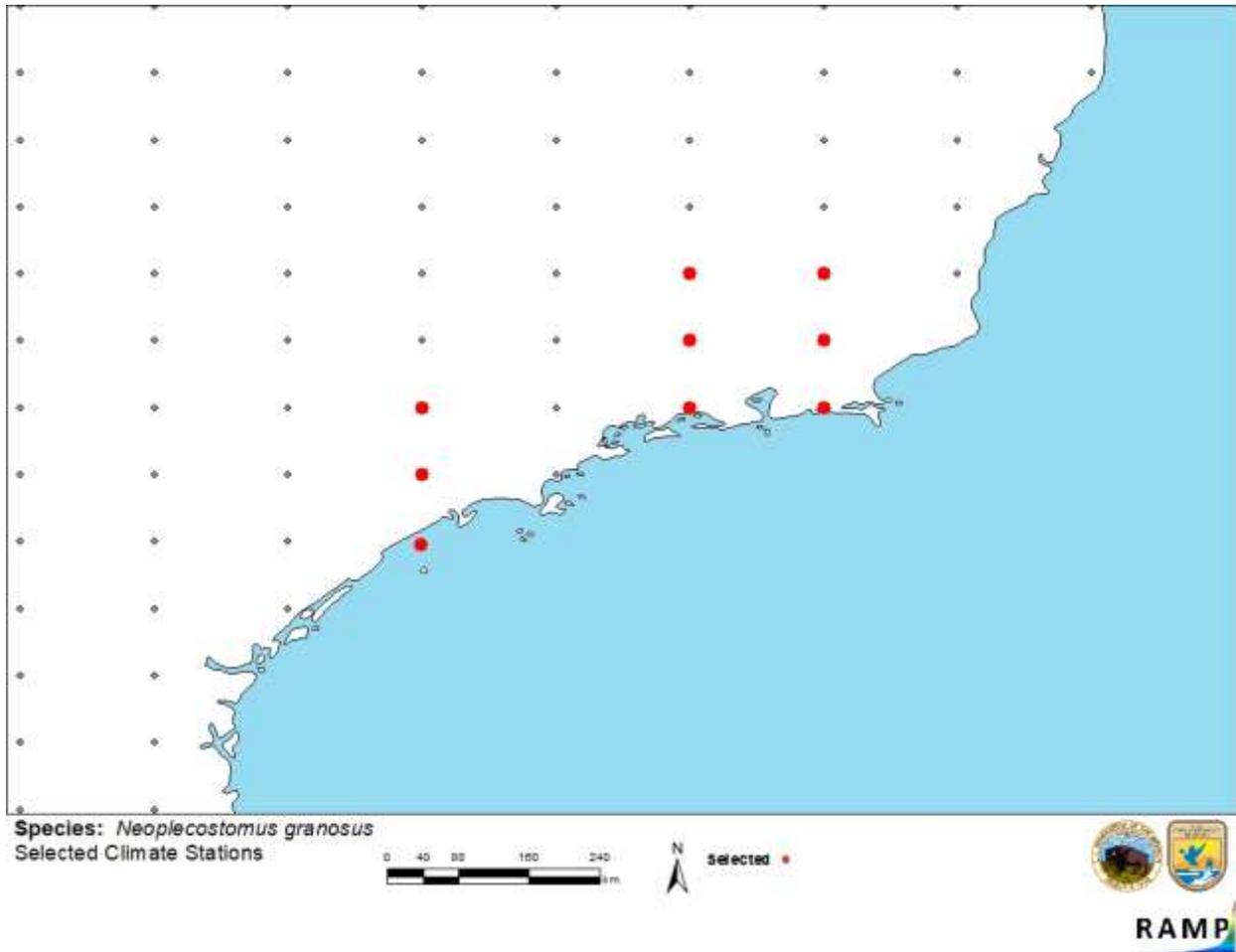


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in southeastern Brazil selected as source locations (red) and non-source locations (gray) for *Neoplecostomus granosus* climate matching. Source locations from GBIF Secretariat (2020). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.”

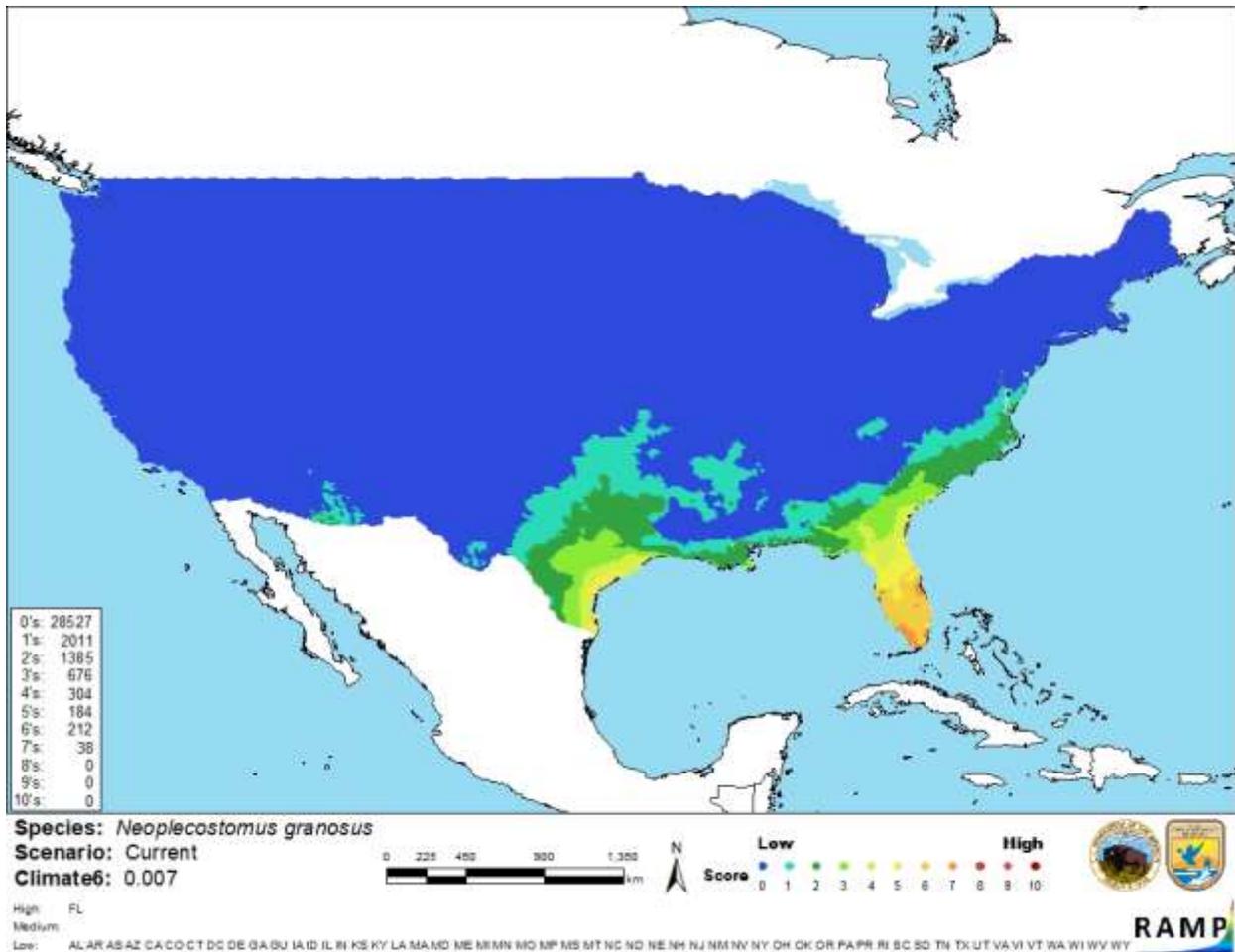


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Neoplecostomus granosus* in the contiguous United States based on source locations reported from GBIF Secretariat (2020). Counts of climate match are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

The High, Medium, and Low Climate match Categories are based on the following table:

Climate 6: (Count of target points with climate scores 6-10)/ (Count of all target points)	Overall Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

8 Certainty of Assessment

The certainty of assessment for *Neoplecostomus granosus* is low. There is minimal information available for this species. No information on introductions of *Neoplecostomus granosus* was found.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Neoplecostomus granosus is a South American armored catfish native to Brazil. The history of invasiveness is classified as “No Known Nonnative Populations.” It has not been reported as introduced or established anywhere in the world outside of the native range. The climate match for the contiguous United States was medium with all states having an individually low climate match except for Florida who had an individually high climate match. The certainty of assessment is low. The overall risk assessment category for *Neoplecostomus granosus* is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 4): No Known Nonnative Populations**
- **Overall Climate Match Category (Sec. 7): Medium**
- **Certainty of Assessment (Sec. 8): Low**
- **Remarks/Important additional information:** No additional information.
- **Overall Risk Assessment Category: Uncertain**

10 Literature Cited

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 11.

Fricke R, Eschmeyer WN, van der Laan R, editors. 2019. Catalog of fishes: genera, species, references. California Academy of Science. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (January 2019).

Froese R, Pauly D, editors. 2019. *Neoplecostomus granosus* Valenciennes, 1840. FishBase. Available: <https://www.fishbase.de/summary/Neoplecostomus-granosus.html> (January 2019).

GBIF Secretariat. 2020. GBIF backbone taxonomy: *Neoplecostomus granosus* (Valenciennes, 1840). Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/2339403> (November 2020).

[ITIS] Integrated Taxonomic Information System. 2019. *Neoplecostomus granosus* (Valenciennes in Cuvier and Valenciennes, 1840). Reston, Virginia: Integrated Taxonomic Information System. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680590#null (January 2019).

[OIE] World Organisation for Animal Health. 2020. OIE-listed diseases, infections and infestations in force in 2020. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2020/> (November 2020).

Roxo FF, Gabriel GSC, Zawadzki CH, Oliveira C. 2014. *Neoplecostomus doceensis*: a new loricariid species (Teleostei, Siluriformes) from the rio Doce basin and comments about its putative origin. *ZooKeys* 440:115–127.

Sanders S, Castiglione C, Hoff M. 2018. Risk Assessment Mapping Program: RAMP. Version 3.1. U.S. Fish and Wildlife Service.

11 Literature Cited in Quoted Material

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.

Cuvier G, Valenciennes A. 1840. Histoire naturelle des poissons. Tome quinzième. Suite du livre dix-septième. Siluroïdes 15:1–540.

Eschmeyer WN, Fricke R, van der Laan R, editors. 2014. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (June 2014).

Ferraris CJ Jr. 2003. Subfamily Neoplecostominae (Armored catfishes). Pages 319–320 in Reis RE, Kullander SO, Ferraris CJ Jr, editors. Checklist of the freshwater fishes of South and Central America. Porto Alegre, Brazil: EDIPUCRS.