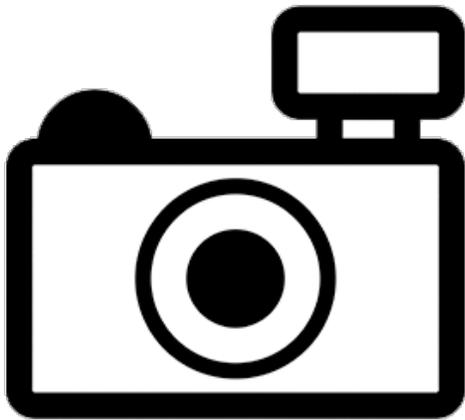


Bristlemouth Catfish (*Peckoltia multispinis*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2013
Revised, September 2018
Web Version, 12/21/2020

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 (2018):

“South America: probably lower Amazon River basin [Brazil].”

Status in the United States

No records of *Peckoltia multispinis* in the wild or in trade in the United States were found.

Peckoltia multispinis falls within Group I of New Mexico’s Department of Game and Fish Director’s Species Importation List (New Mexico Department of Game and Fish 2010). Group I species “are designated semi-domesticated animals and do not require an importation permit.”

Means of Introductions in the United States

No records of *Peckoltia multispinis* in the wild in the United States were found.

Remarks

From Armbruster (2008):

“The type of *Ancistrus multispinis* had been lost for a long time until Mark Sabaj rediscovered it in 2007. The species had been considered a *Lasiancistrus* since Isbrücker (1980). Armbruster (2005) recognized that the original description was not entirely consistent with a *Lasiancistrus*, but placed the species into the synonymy of *L. schomburgkii* anyway. The label was clearly misread by Holly as it does say ÔMercado BelémÓ [...]. The species is most certainly a species of *Peckoltia*, but I have only examined photos provided by Mark Sabaj and Kyle Luckenbill.”

“The species may be valid or a synonym of *P. vittata*. I tentatively recognize it as valid, but with the color gone from the type specimen and little pertinent information in the original description, it is impossible to compare the species with other *Peckoltia*, and it is not included in diagnoses or the key.”

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Peckoltia multispinis* (Holly 1929) is the current valid name of this species. *Peckoltia multispinis* was originally described as *Ancistrus multispinis* Holly 1929.

From Bailly (2017):

“Biota > Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > [...] Actinopterygii (Class) > Siluriformes (Order) > Loricariidae (Family) > Hypostominae (Subfamily) > *Peckoltia* (Genus) > *Peckoltia multispinis* (Species)”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 14.8 cm TL male/unsexed; [Fisch-Muller 2003]”

Environment

From Froese and Pauly (2018):

“Freshwater; demersal.”

Climate

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: probably lower Amazon River basin [Brazil].”

Introduced

No records of introductions of *Peckoltia multispinis* were found.

Means of Introduction Outside the United States

No records of introductions of *Peckoltia multispinis* were found.

Short Description

From Armbruster (2008):

“The species is relatively unique in that it has the lower lip consisting of short, multibranched fimbriae; however, some *P. vittata* approach the condition in *P. multispinis*. The only color remaining is some faint, irregular banding in the caudal fin that is consistent with most species of *Peckoltia*, including *P. vittata*, which is known from around Belém.”

Biology

No information on the biology of *Peckoltia multispinis* was found.

Human Uses

From Froese and Pauly (2018):

“Fisheries: of no interest; aquarium: commercial”

Diseases

No records of diseases of *Peckoltia multispinis* were found. **No records of OIE-reportable diseases (OIE 2020) were found for *P. multispinis*.**

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introductions of *Peckoltia multispinis* were found, therefore there is no information on impacts of introductions.

4 History of Invasiveness

No records of introductions of *Peckoltia multispinis* were found, therefore the history of invasiveness is classified as “no known nonnative population.” This species is present in the aquarium trade but detailed information regarding duration and volume of trade was unavailable to evaluate to determine the species’ history of trade.

5 Global Distribution

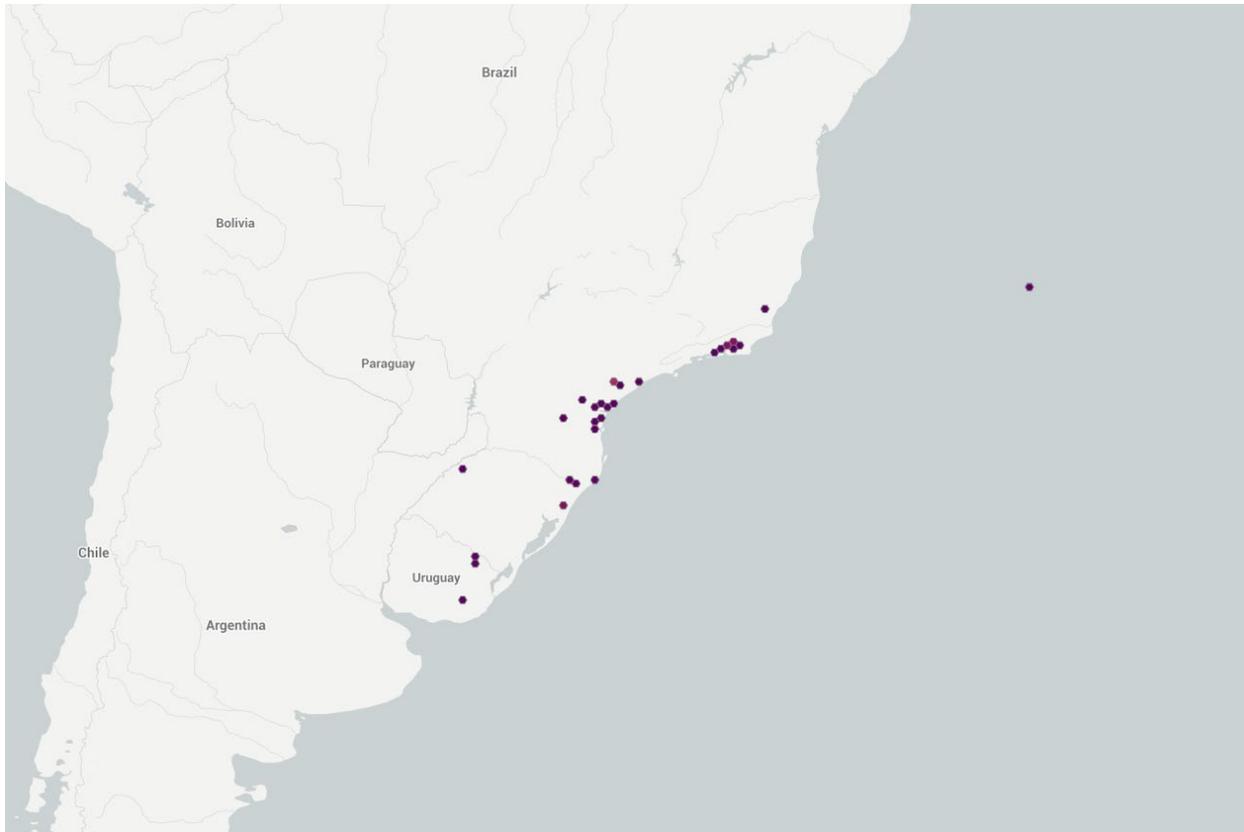


Figure 1. Map of southern South America showing locations where *Peckoltia multispinis* has been reported. Locations are in Brazil and Uruguay. Map from GBIF Secretariat (2018). The point located in the middle of the Atlantic Ocean was not used to select source points in the climate match because it is in the middle of the ocean and is not considered an established population.

6 Distribution Within the United States

No records of *Peckoltia multispinis* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Peckoltia multispinis* was low across the northern and western United States. There was a medium match across the majority of the southeastern United States from eastern Texas to northern Virginia. The western and southern coasts of Florida had small areas of high match, as well as a few small areas in eastern Texas. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.108, high (scores 0.103 and greater are classified as high). Most States had low individual Climate 6 scores. Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Texas had high individual scores. Kentucky, Maryland, and Virginia had medium individual scores.

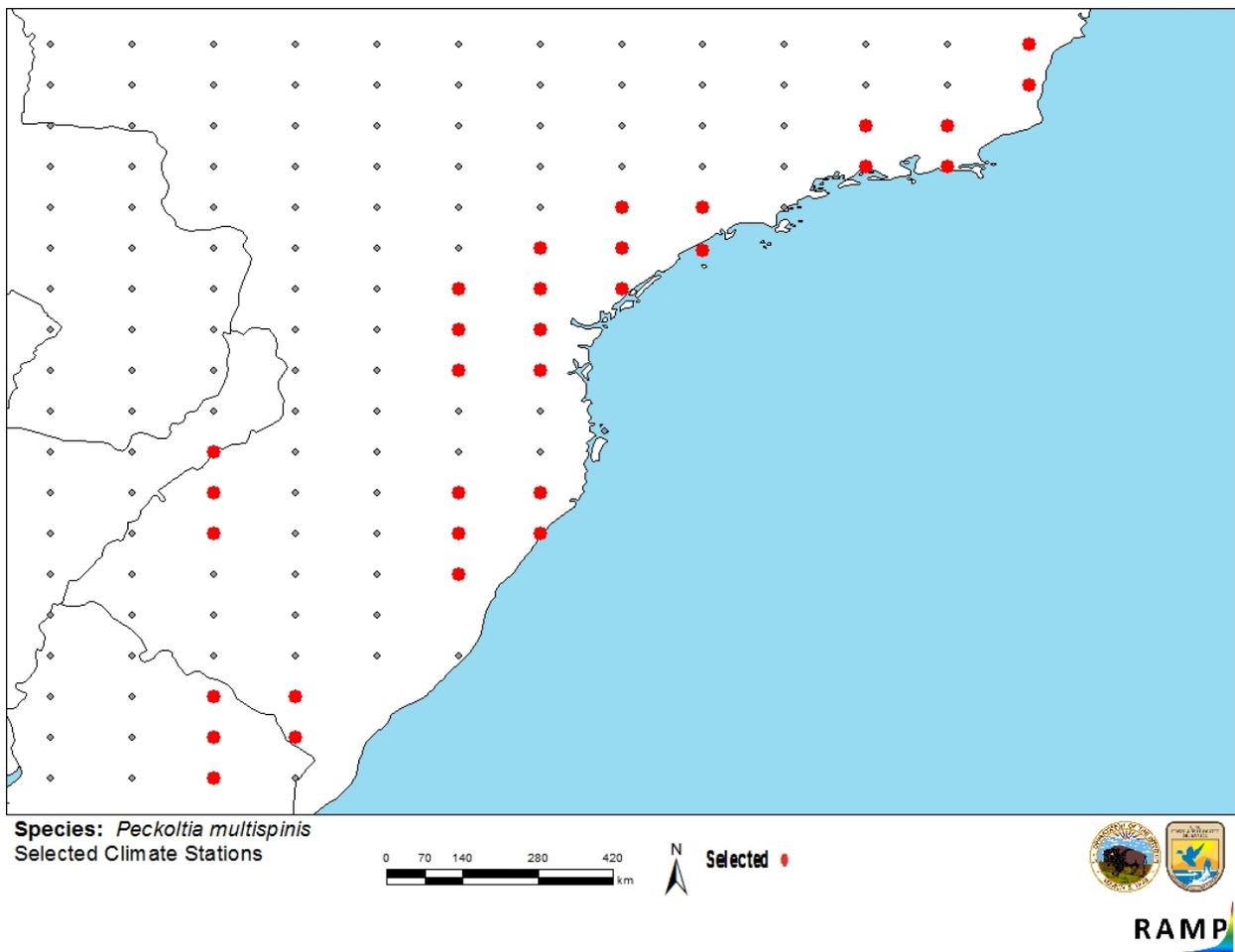


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in southeastern South America selected as source locations (red; Brazil, Argentina, Uruguay) and non-source locations (gray) for *Peckoltia multispinis* climate matching. Source locations from GBIF Secretariat (2018). Selected source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

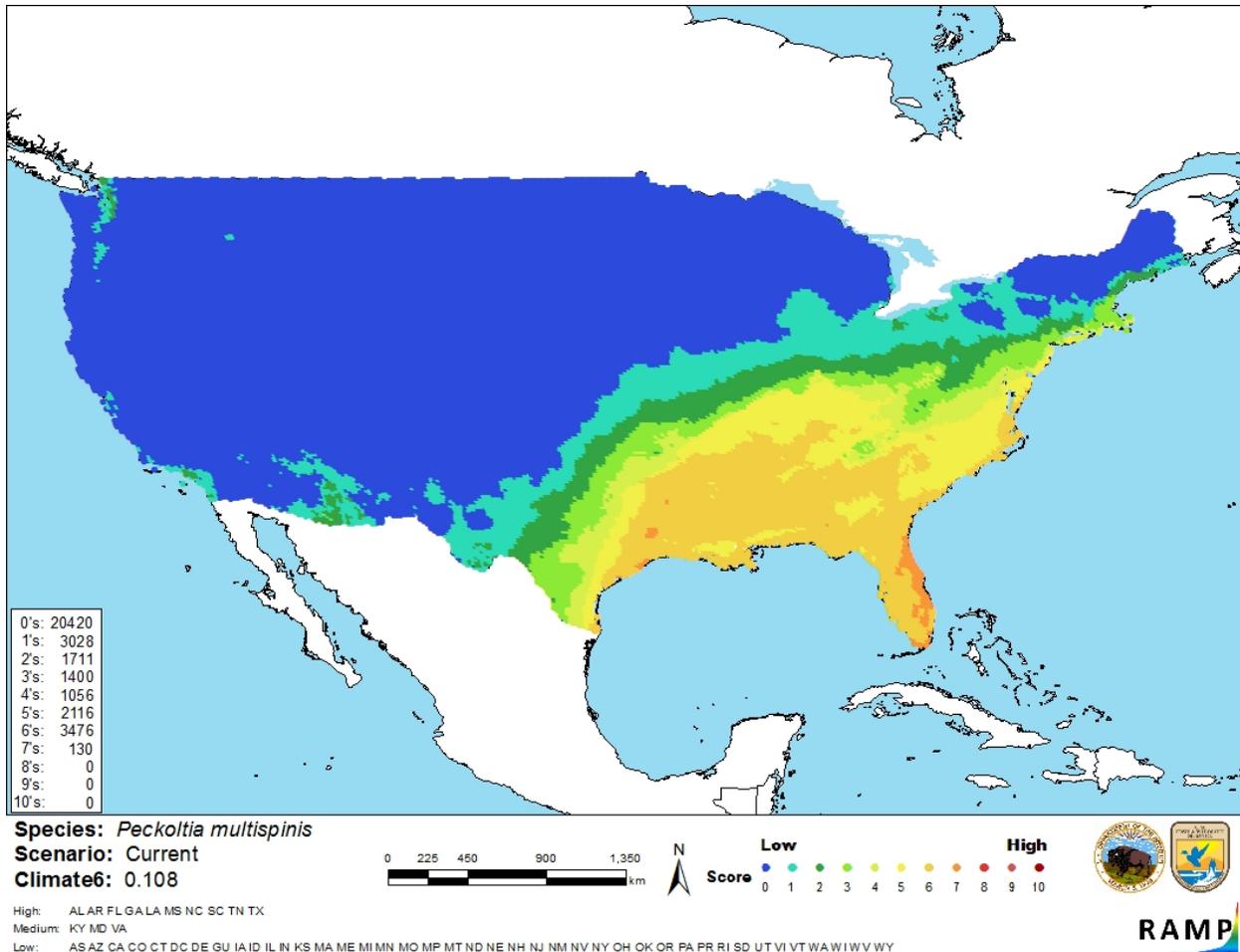


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Peckoltia multispinis* in the contiguous United States based on source locations reported from GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

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 is low. There was some general information about the species available from peer-reviewed sources. There were no records of introductions found and therefore there is no information on impacts available to evaluate.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Peckoltia multispinis is a species of catfish native to northeastern South America. This species is present in the aquarium trade. The history of invasiveness is classified as “no known nonnative population.” There were no records of introductions to the wild found, and therefore no information on impacts of introduction. The climate match was high with all of the southeastern United States having a medium match with small areas of high match. Everywhere else had a low match. The certainty of assessment is low. The overall risk assessment is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 4): No Known Nonnative Population**
- **Overall Climate Match Category (Sec. 7): High**
- **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.

Armbruster JW. 2008. The genus *Peckoltia* with the description of two new species and a reanalysis of the phylogeny of the genera of the Hypostominae (Siluriformes: Loricariidae). *Zootaxa* 1822:1–76.

Bailly N. 2017. *Peckoltia multispinis*. World Register of Marine Species. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1016007> (September 2018).

Fricke R, Eschmeyer WN, van der Laan R, editors. 2018. Catalog of fishes: genera, species, references. California Academy of Science. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (September 2018).

Froese R, Pauly D, editors. 2018. *Peckoltia multispinis* (Holly, 1929). FishBase. Available: <https://www.fishbase.de/summary/Peckoltia-multispinis.html> (September 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Peckoltia multispinis* (Holly, 1929). Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/5961512> (September 2018).

New Mexico Department of Game and Fish. 2010. Director’s species importation list. Santa Fe, New Mexico: New Mexico Department of Game and Fish. Available: http://www.wildlife.state.nm.us/download/enforcement/importation/information/Directors-Species-Importation-List-08_03_2010.pdf (November 2020).

[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).

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.

Armbruster JW. 2005. The loricariid catfish genus *Lasiancistrus* (Siluriformes) with description of two new species. *Neotropical Ichthyology* 3:549–569.

Fisch-Muller S. 2003. Loricariidae-Ancistrinae (armored catfishes). Pages 373–400 in Reis RE, Kullander SO, Ferraris CJ Jr, editors. Checklist of the freshwater fishes of South and Central America. Porto Alegre, Brazil: EDIPUCRS.

Isbrücker IJH. 1980. Classification and catalogue of the mailed Loricariidae (Pisces, Siluriformes). *Verslagen en Technische Gegevens, Universiteit van Amsterdam* 22:1–181.