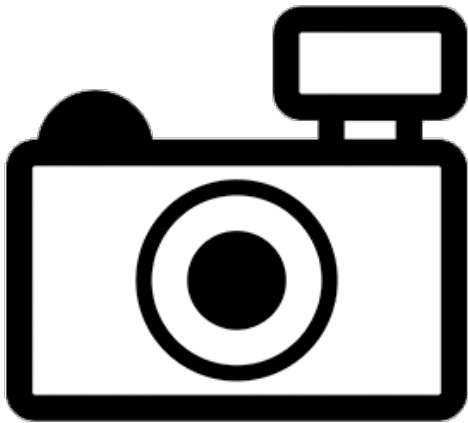


# ***Peckoltia caenosa* (a catfish, no common name)**

## **Ecological Risk Screening Summary**

U.S. Fish & Wildlife Service, April 2012  
Revised, August 2018  
Web Version, 12/17/2020

Organism Type: Fish  
Overall Risk Assessment Category: Uncertain



No Photo Available

## **1 Native Range and Status in the United States**

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### **Native Range**

From Armbruster (2008):

“Range: Found in the llanos of Venezuela in rivers draining into the middle Río Orinoco [...].”

### **Status in the United States**

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

*Peckoltia caenosa* 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 caenosa* in the wild in the United States were found.

## Remarks

No additional remarks.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Peckoltia caenosa* Armbruster 2008 is the current valid name and the original name for this species.

From Bailly (2017):

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

### Size, Weight, and Age Range

From Armbruster (2008):

“Largest specimen examined 156.9 mm SL”

### Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

### Climate

From Froese and Pauly (2018):

“Tropical; 10°N - 6°N, 68°W - 59°W”

### Distribution Outside the United States

Native

From Armbruster (2008):

“Range: Found in the llanos of Venezuela in rivers draining into the middle Río Orinoco [...]”

Introduced

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

## Means of Introduction Outside the United States

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

## Short Description

From Armbruster (2008):

“*Peckoltia caenosa* can be identified from all other species of *Peckoltia* by having dark vermiculations on the abdomen (vs. spots, long, fairly straight, wide lines, or plain); from all except *P. bachi* by having the dorsal and lateral surface of the body mottled (vs. with spots or saddles); and from *P. bachi* by having the spots on the head small (vs. large) and generally forming vermiculations (vs. separate), the pelvic spines narrow (vs. wide), and the eye high on the head (vs. low).”

“Body stout and fairly wide. Head gently sloped to parieto-supraoccipital. Parieto-supraoccipital with tall, rounded crest giving head the appearance of stepping to greater depth. Parieto-supraoccipital crest raised slightly above nuchal region. Nuchal region rises slightly to nuchal plate. Dorsal profile sloped ventrally to dorsal procurrent caudal-fin spines, then rising rapidly to caudal fin. Ventral profile flat to ventral procurrent caudal-fin spines and then sloping ventrally to caudal fin. Supraorbital ridge rounded, contiguous, but slightly offset medially from rounded ridge proceeding from anterior margin of orbit to anterolateral corner of anterior nare. Head contours smooth. Eye relatively small.”

“Keels absent. Mid-ventral plates bent at their midline above pectoral fin to form ridge. Dorsal plates bent dorsally below dorsal fin to form ridges that converge at preadipose plate, dorsal surface flat between ridges. Five rows of plates on caudal peduncle. Abdomen fully covered in small plates except for small naked areas posterior to lower lip and at insertions of paired fins. First anal-fin pterygiophore exposed to form a platelike structure. A pair of lateral plates converging at midline between anus and exposed first anal-fin pterygiophore. 25–27 [...] plates in the median series.”

“Frontal, infraorbitals, nasal, compound pterotic, sphenotic, and parieto-supraoccipital, supporting odontodes; opercle supporting odontodes in juveniles but not in adults, posterodorsal corner of opercle covered by one or two plates in adults. Odontodes on lateral plates not enlarged to form keels. Hypertrophied cheek odontodes 10–58, longest almost reaching first mid-ventral plate in adults. Cheek plates evertible to approximately 90° from head. Odontodes on tip of pectoral-fin spine slightly hypertrophied.”

“Dorsal fin short, not reaching preadipose plate fin when adpressed; dorsal-fin spine same length as proceeding rays making edge straight. Dorsal-fin spinelet V-shaped, dorsal-fin spine lock functional. Dorsal fin II,7. Adipose fin with one preadipose plate and fairly long spine. Caudal fin strongly forked, lower lobe longer than upper, I,14,I with four to five [...] dorsal procurrent caudal-fin rays and four to five [...] ventral procurrent-fin rays. Anal fin short with spine weak and approximately same length of first ray. Anal fin I,4, Pectoral-fin spine almost reaching anus when adpressed ventral to pelvic fin. Pectoral fin I,6 [...]. Pelvic fin reaching to posterior insertion of anal-fin when adpressed. Pelvic fin I,5.”

“Iris operculum present. Flap between anterior and posterior nares short. Lips wide, fairly thin. Upper lip with small, round papillae. Lower lip with small papillae anteriorly and posteriorly, becoming larger medially. Maxillary barbel short, maximally reaching base of evertible cheek plates. Buccal papilla small. Jaws narrow, dentaries forming very acute angle, premaxillaries forming angle of 90° to slightly greater than 90°. Teeth with small, moderately wide cusps, lateral cusp approximately half length of medial cusp, stalk of tooth long; 10–18 dentary teeth [...], 11–21 premaxillary teeth [...].”

“Mottled with light and dark brown. Dark spots all generally combining to form vermiculations on dorsal surface of head. Light spots on fin spines and rays, membranes of caudal fin also with light marking so that spots combine to form bands, light bands about 25% width of dark bands. Four dorsal saddles present, slightly darker than surrounding areas: first below anterior portion of dorsal fin, second below posterior portion of dorsal fin and slightly posterior, third below adipose fin and fourth at base of caudal fin. Nasal flap and parieto-supraoccipital crest slightly darker than rest of head. Ventral surface slightly lighter than sides. Abdomen covered with brown spots that combine to form vermiculations. Ventral surface of caudal peduncle with light, wavy stripes. Juveniles colored as adults, but with fewer, relatively larger spots on abdomen, some of which are not combined to form vermiculations.”

## Biology

From Armbruster (2008):

“Found in slow-flowing muddy streams. Can be found during the day inside of submerged, hollow logs.”

## Human Uses

No information on human uses of *Peckoltia caenosa* was found.

## Diseases

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

## Threat to Humans

From Froese and Pauly (2018):

“Harmless”

## 3 Impacts of Introductions

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

## 4 History of Invasiveness

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No records of introductions of *Peckoltia caenosa* were found, therefore the history of invasiveness is classified as “no known nonnative population.”

## 5 Global Distribution

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**Figure 1.** Known global distribution of *Peckoltia caenosa*. Locations are in Venezuela. Map from GBIF Secretariat (2020).

## 6 Distribution Within the United States

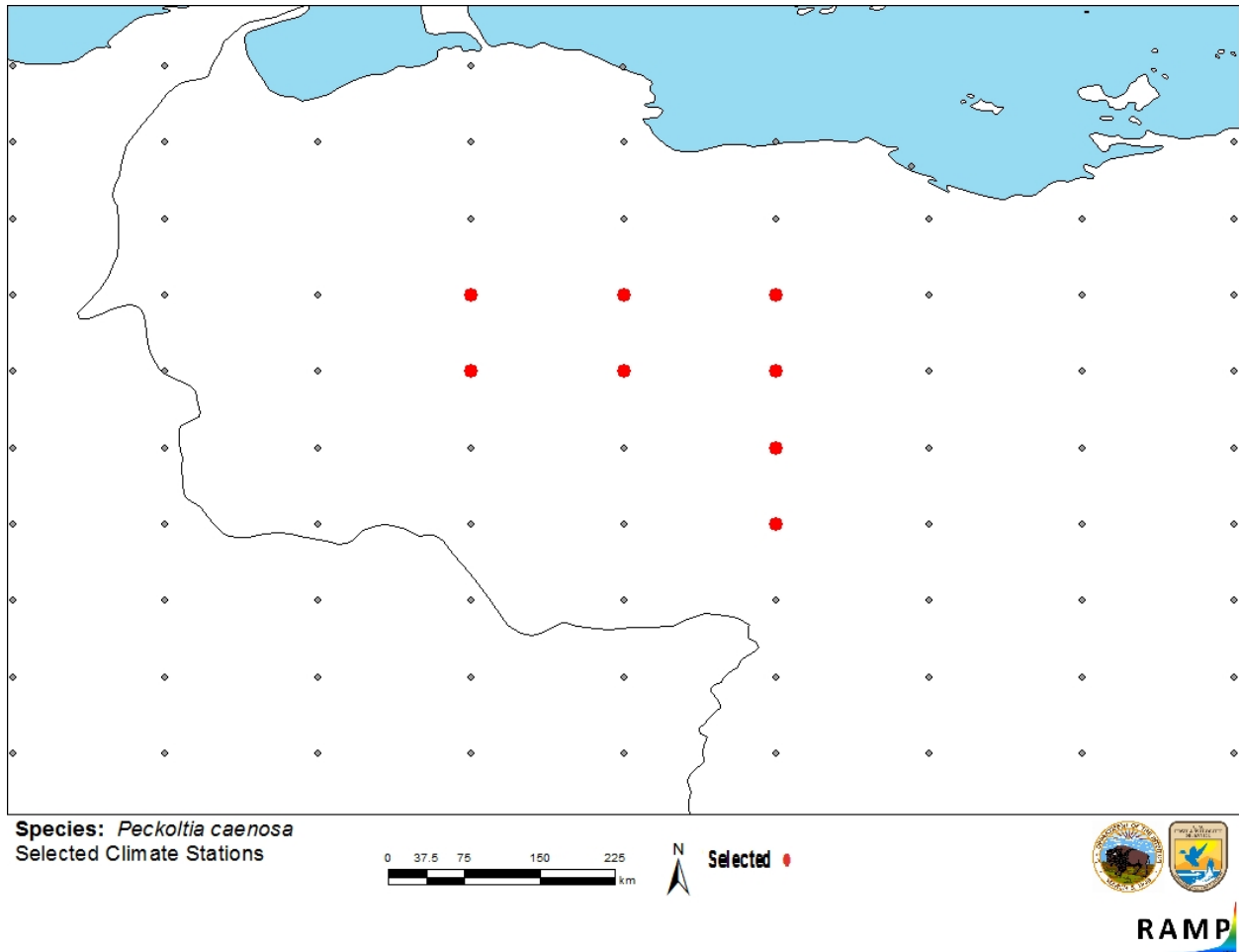
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No records of *Peckoltia caenosa* in the wild in the United States were found.

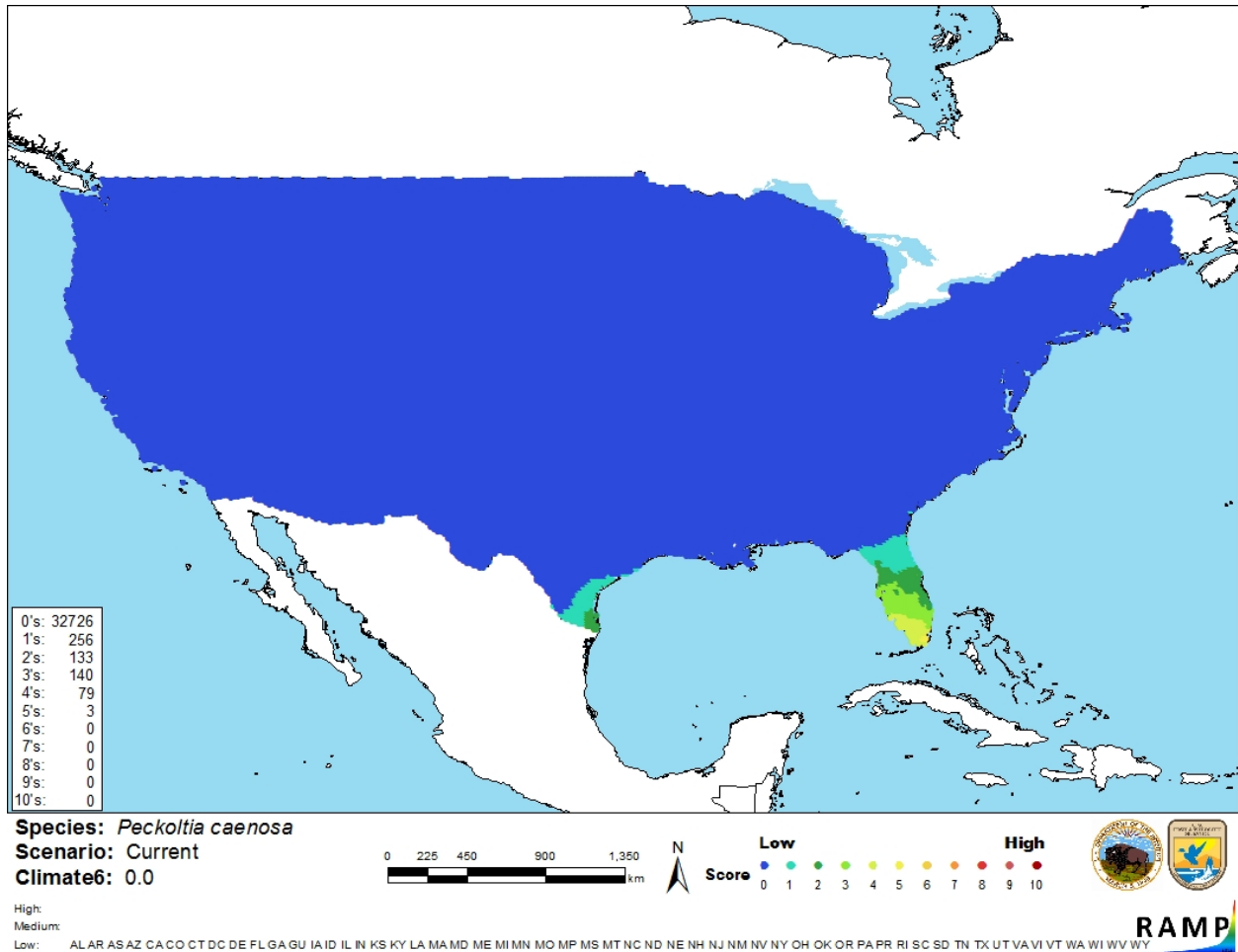
## 7 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Peckoltia caenosa* was low across the majority of the contiguous United States with a small patch of medium match in southern Florida. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All tates had a low individual climate score.



**Figure 2.** RAMP (Sanders et al. 2018) source map showing weather stations in northern South America selected as source locations (red; Venezuela) and non-source locations (gray) for *Peckoltia caenosa* 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 *Peckoltia caenosa* in the contiguous United States based on source locations reported from GBIF Secretariat (2020). 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:<br>(Count of target points with climate scores 6-10)/<br>(Count of all target points) | Overall<br>Climate Match<br>Category |
| $0.000 \leq X \leq 0.005$                                                                        | Low                                  |
| $0.005 < X < 0.103$                                                                              | Medium                               |
| $\geq 0.103$                                                                                     | 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

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### Summary of Risk to the Contiguous United States

*Peckoltia caenosa* is a species of catfish native to Venezuela. Not much is known about this species beyond the original description. The species was found in turbid streams, possibly near structure. The history of invasiveness is classified as “no nonnative population.” There were no records of introductions to the wild found. The climate match was low. There was a small area of medium match in southern Florida. 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): Low**
- **Certainty of Assessment (Sec. 8): Low**
- **Remarks/Important additional information:** No additional information.
- **Overall Risk Assessment Category: Uncertain**

## 10 Literature Cited

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**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 caenosa*. World Register of Marine Species. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1008457> (August 2018).

Eschmeyer WN, Fricke R, 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> (August 2018).

Froese R, Pauly D, editors. 2018. *Peckoltia caenosa* Armbruster, 2008. FishBase. Available: <https://www.fishbase.de/summary/Peckoltia-caenosa.html> (August 2018).

GBIF Secretariat. 2020. GBIF backbone taxonomy: *Peckoltia caenosa* (Armbruster, 2008). Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/5202089> (December 2020).

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](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**

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**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.**

No references in this section.