

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

### **Ecological Risk Screening Summary**

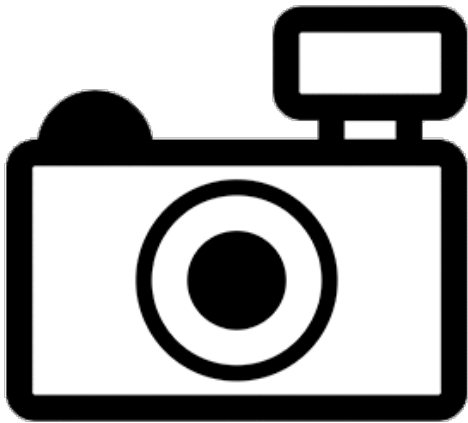
U.S. Fish & Wildlife Service, February 2013

Revised, August 2018

Web Version, 12/18/2020

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: Brazil.”

From De Oliveira et al. (2010):

“The specimens were collected on two localities: in rio Tapajós, near the village of Pimental, downstream from the confluence with rio Jamanxim, and in rio Jamanxim around ilha da Terra Preta [...].”

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

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

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

## Remarks

No additional remarks.

## 2 Biology and Ecology

---

### Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Peckoltia compta* de Oliveira, Zuanon, Rapp Py-Daniel and Rocha 2010 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 compta* (Species)”

### Size, Weight, and Age Range

From De Oliveira et al. (2010):

“Small-sized loricariid, with largest specimen measuring 61.5 mm SL.”

### Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

### Climate

From Froese and Pauly (2018):

“Tropical”

### Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: Brazil.”

From De Oliveira et al. (2010):

“The specimens were collected on two localities: in rio Tapajós, near the village of Pimental, downstream from the confluence with rio Jamanxim, and in rio Jamanxim around ilha da Terra Preta [...].”

### Introduced

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

### Means of Introduction Outside the United States

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

### Short Description

From De Oliveira et al. (2010):

“*Peckoltia compta* can be distinguished from all of its congeners by presenting a clear stripe inside the dark brown bars running from snout tip to anterior margin of eyes (vs. absence of the clear stripe and a mottled appearance in *P. vittata*, and a mix of vermiculations and spots on the head of the other congeners). It can be further distinguished from its congeners (except from *P. bachi*) by the presence of small dark brown spots only on fin rays, rarely reaching the interradiation membranes (vs. dark spots on interradiation membranes or dark stripes covering the whole fin or plain). It can be distinguished from *P. bachi* by the interorbital distance, 31.1–32.9 (vs. 51.5–71.0% HL). *Peckoltia compta* can be distinguished from all its congeners except *P. bachi*, *P. braueri*, *P. brevis*, *P. cavatica*, *P. lineola* and *P. vittata* by its larger cleithral width 32.3–34.6 (vs. 20.8–32.4% SL). It can be distinguished from all its congeners except *P. cavatica*, *P. snethlageae* and *P. sabaji* by its smaller head depth 57.8–62.2 (vs. 63.5–87.7% HL).”

“Body section rounded anteriorly in dorsal view, becoming gradually narrower from dorsal-fin origin to caudal fin. Body short and deep, with deepest point at insertion of dorsal fin. Dorsal profile convex, rising as straight line from snout to orbit, becoming flat from orbit to dorsal-fin insertion and gently declining from this point to end of caudal peduncle. Head short and without ridges or carenae. Head and snout completely covered by strong odontodes. Few (around five) hypertrophied odontodes on cheek plates, such odontodes completely exposed and partly encased in depression above cleithrum. Eye laterodorsal with small but conspicuous iris without diverticulum or flap; orbit round.”

“Parieto-supraoccipital short, bearing small but conspicuous crest. Parieto-supraoccipital limited posteriorly by set of predorsal plates arranged as one disjunct pair, followed by one or two closely attached pairs plus one single plate immediately anterior to dorsal-fin spinelet.”

“Lateral line with 24–25 plates, four to five plates between dorsal and adipose fins, 10–12 plates between anal and caudal fins. Body not crenate or keeled. Plates of midventral series behind pectoral fin slightly bent; plates encircling dorsal-fin base also slightly bent. Caudal peduncle deep and covered by five series of plates. All body plates covered by strong odontodes.”

“Gular area naked, gill-openings small. Abdomen almost completely naked except for some small patches of odontodes between pectoral fins of large specimens; single plate between urogenital opening and anal-fin insertion.”

“All fin rays carrying odontodes, more developed on first (undivided) ray. Dorsal fin short, composed by spinelet, one spine, and seven soft, segmented and branched rays (II+7). Dorsal-fin spine with small odontodes along its anterior margin. Dorsal-fin spinelet triangular and with locking mechanism. Dorsal fin reaching preadipose plate when adpressed; extended membrane between last dorsal-fin ray and dorsum absent. Pectoral fin with spine and six soft, segmented and branched rays (I+6); locking mechanism present. Pectoral fin reaching proximal third of pelvic when adpressed. Pelvic fin with six rays; first thickened and unbranched and five branched (i+5). Pelvic-fin tip reaching posterior end of anal-fin base. Anal fin with 5 rays; first thickened and unbranched and four branched (i+4). Adipose-fin spine with small odontodes on its anterior surface. Caudal fin slightly emarginate. Caudal fin with 16 rays, two external thickened, unbranched and bearing small odontodes plus 14 inner branched rays (i+14+i).”

“Mouth small; lips well developed and densely papillate. Border of lower lip densely fringed with delicate papillae. Buccal papillae small and low. Maxillary barbel nearly equal to horizontal orbit diameter. Premaxillary of similar size of dentary. Dentaries always forming acute angle. Premaxillary teeth 18–27, dentary teeth 17–27. Premaxillary and dentary teeth of similar size, small, strong, and unevenly cuspidate with internal cusp larger than external.”

“Overall striped and spotted color pattern as described above only more conspicuous on living specimens, with yellowish color background and very dark lines and spots, and hyaline interradiial membranes.”

## **Biology**

From De Oliveira et al. (2010):

“The Tapajós and Jamanxim are clear water rivers and the specimens were collected in moderate to fast flowing waters, over a rocky bottom.”

## **Human Uses**

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

## **Diseases**

No information on diseases of *Peckoltia compta* was found. **No records of OIE-reportable diseases (OIE 2020) were found for *P. compta*.**

## **Threat to Humans**

From Froese and Pauly (2018):

“Harmless”

### 3 Impacts of Introductions

---

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

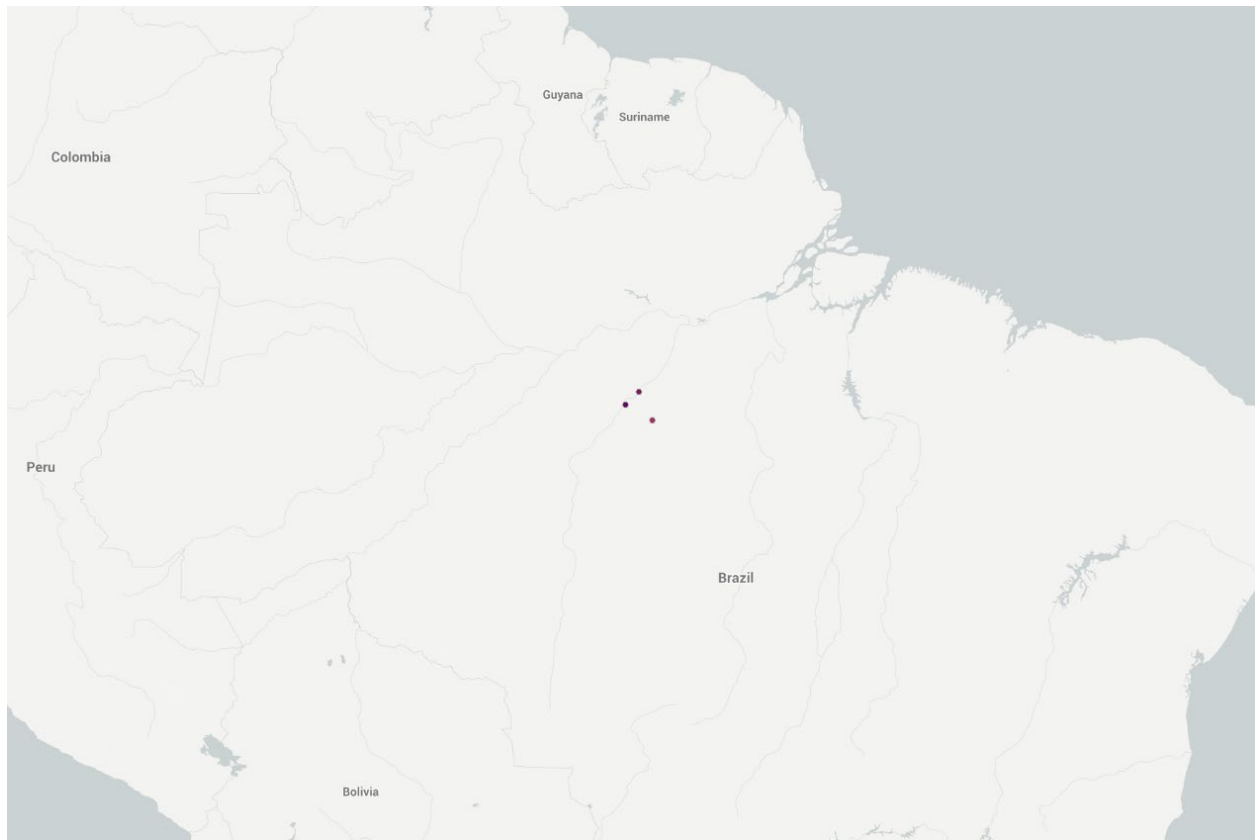
### 4 History of Invasiveness

---

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

### 5 Global Distribution

---



**Figure 1.** Known global distribution of *Peckoltia compta*. Locations are in Brazil. Map from GBIF Secretariat (2018).

### 6 Distribution Within the United States

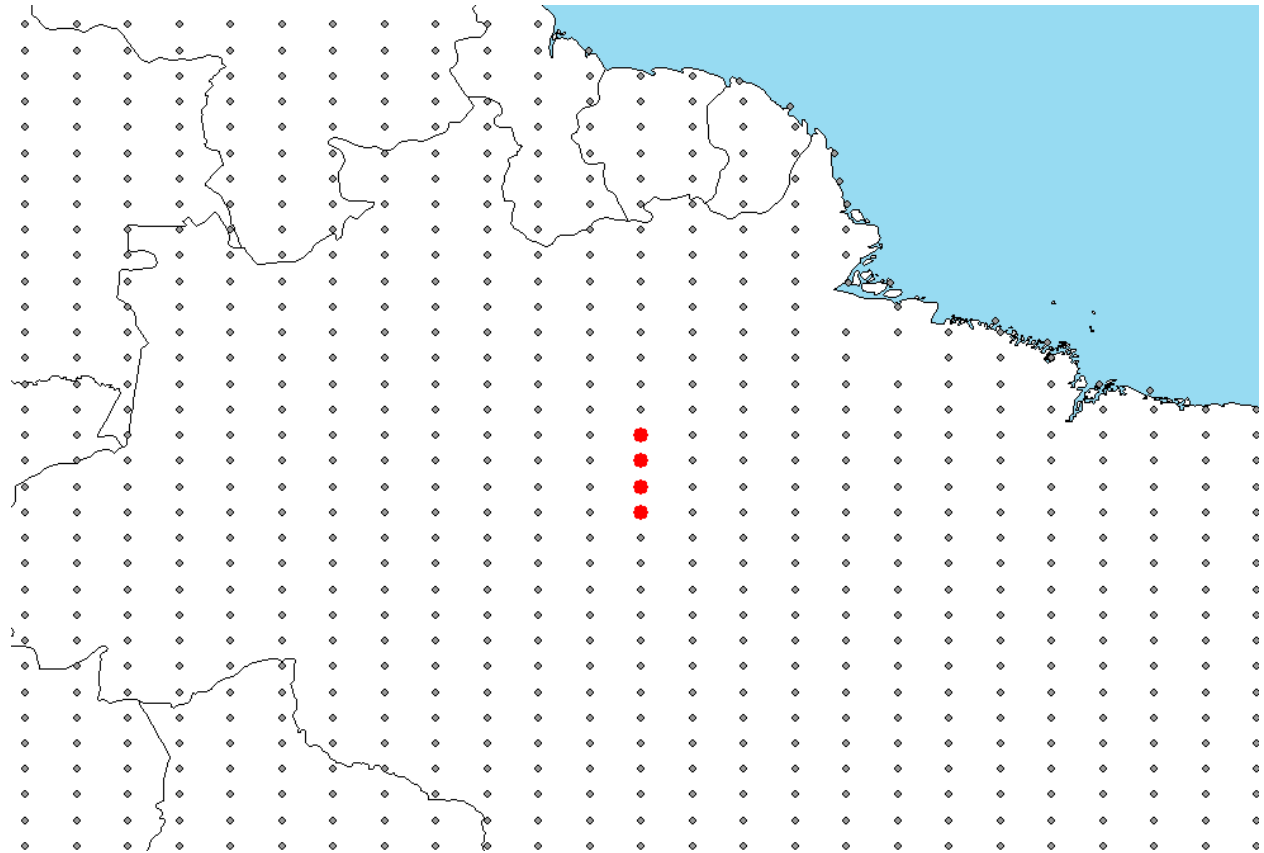
---

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

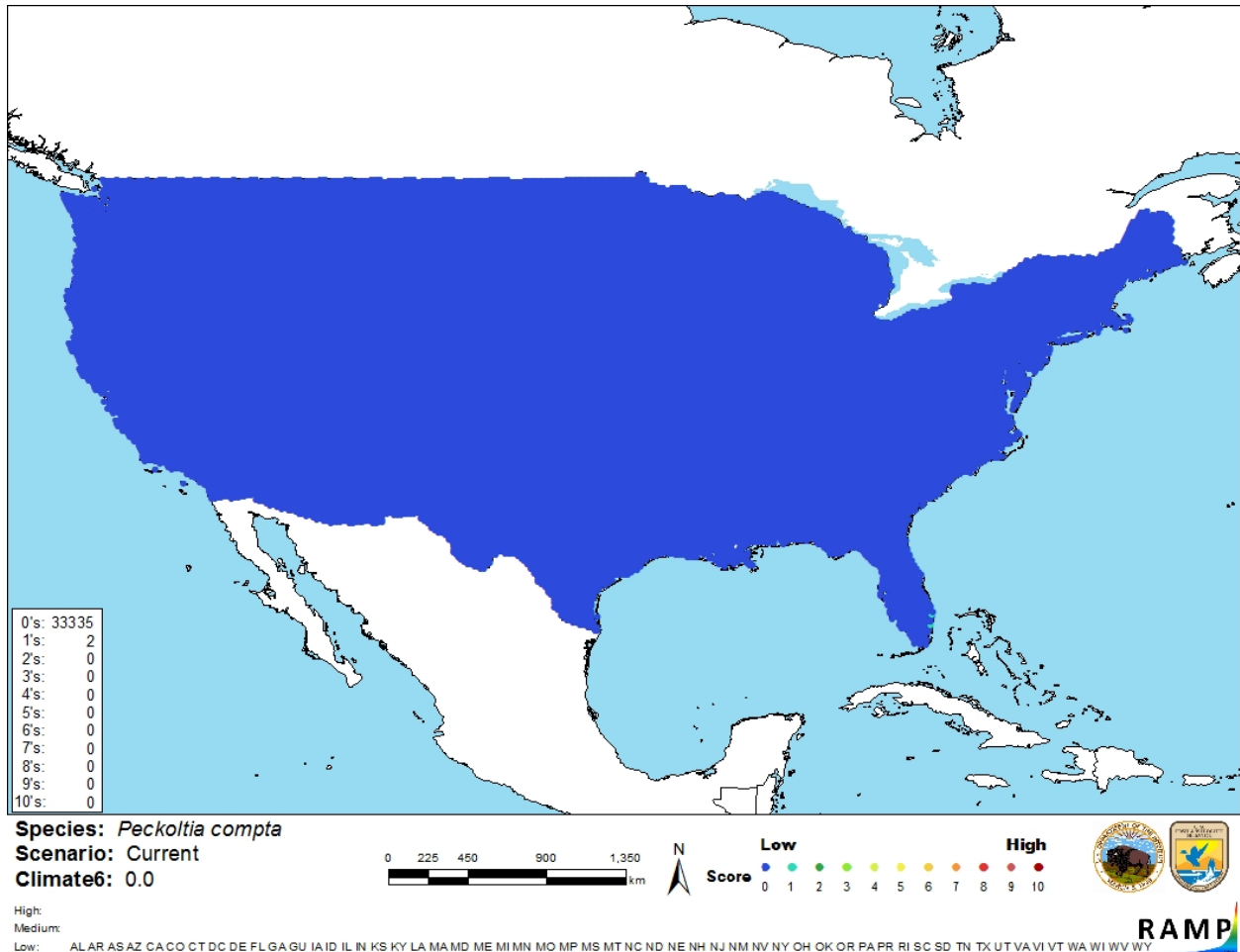
## 7 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Peckoltia compta* was low across the majority of the contiguous United States. There were no areas of medium or high match. 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 States had a low individual Climate 6 score.



**Figure 2.** RAMP (Sanders et al. 2018) source map showing weather stations in Brazil selected as source locations (red) and non-source locations (gray) for *Peckoltia compta* 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 compta* 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
$\geq 0.103$	High

## 8 Certainty of Assessment

The certainty of assessment for *Peckoltia compta* 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 compta* is a species of small armored catfish native to Brazil. This species was collected from a clear water stream with rocky bottom. Not much is known about *P. compta*. The history of invasiveness is classified as “no known nonnative population.” There were no records of introductions to the wild found therefore there is no information on the species’ impacts. The climate match is low. There were no areas of high or medium match in the contiguous United States. 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

---

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

- Bailly N. 2017. *Peckoltia compta*. World Register of Marine Species. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1008026> (August 2018).
- De Oliveira RR, Zuanon J, Rapp Py-Daniel LH, Rocha MS. 2010. *Peckoltia compta*, a new species of catfish from the Brazilian Amazon, rio Tapajós basin (Siluriformes: Loricariidae). *Zootaxa* 2534:48–56.
- 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 compta* De Oliveira, Zuanon, Rapp Py-Daniel & Rocha, 2010. FishBase. Available: <https://www.fishbase.de/summary/Peckoltia-compta.html> (August 2018).
- GBIF Secretariat. 2018. GBIF backbone taxonomy: *Peckoltia compta* (De Oliveira, Zuanon, Rapp Py-Daniel & Rocha, 2010). Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/5961513> (August 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](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.**

No references in this section.