

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

## **Ecological Risk Screening Summary**

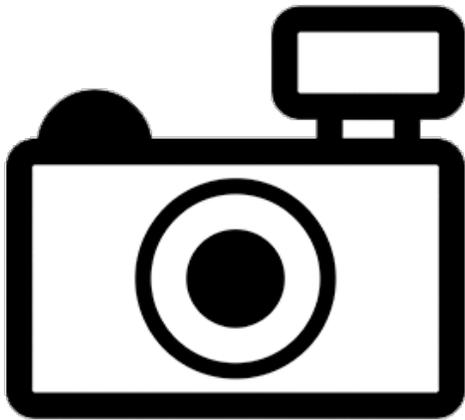
U.S. Fish & Wildlife Service, February 2013

Revised, August 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**

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### **Native Range**

From Froese and Pauly (2018):

“South America: Lower Amazon River basin, Brazil.”

From Armbruster (2008):

“Range. Known from the Rios Tocantins and Capim drainages of eastern Brazil [...]”

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

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

*P. oligospila* is in trade in the United States (e.g. Arizona Aquatic Gardens 2020).

*Peckoltia oligospila* 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 oligospila* 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 oligospila* (Günther 1864) is the current valid name of this species. *Peckoltia oligospila* was originally described as *Chaetostomus oligospila* Günther 1864.

From ITIS (2018):

Kingdom Animalia  
Subkingdom Bilateria  
Infrakingdom Deuterostomia  
Phylum Chordata  
Subphylum Vertebrata  
Infraphylum Gnathostomata  
Superclass Actinopterygii  
Class Teleostei  
Superorder Ostariophysii  
Order Siluriformes  
Family Loricariidae  
Subfamily Hypostominae  
Genus *Peckoltia*  
Species *Peckoltia oligospila* (Günther, 1864)

### Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 10.5 cm SL male/unsexed; [Fisch-Muller 2003]”

From Armbruster (2008):

“Largest specimen examined 148.6 mm SL.”

## Environment

From Froese and Pauly (2018):

“Freshwater; demersal; pH range: 6.5 - 7.2; dH range: ? - 15. [...]; 23°C - 27°C [assumed to be recommended aquarium temperature] [Baensch and Riehl 1997]”

## Climate

From Froese and Pauly (2018):

“Tropical; [...]”

## Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: Lower Amazon River basin, Brazil.”

From Armbruster (2008):

“Range. Known from the Rios Tocantins and Capim drainages of eastern Brazil [...]”

Introduced

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

## Means of Introduction Outside the United States

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

## Short Description

From Armbruster (2008):

“*Peckoltia oligospila* can be identified from all other *Peckoltia* except *P. bachi* and some *P. furcata* by having spots on the body and the saddles faint; from *P. bachi* by having narrow pelvic-fin spines (vs. wide), the eye high on the head (vs. low), and by having the spots distinctly round (vs. appearing more as a mottling); and from *P. furcata* by having spots on the abdomen of larger juveniles and adults (vs. spots on abdomen always absent) and by having the spots separate in the caudal fin (vs. combining to form bands). *Peckoltia lineola* also has spots on the head. *Peckoltia oligospila* can be further separated from *P. lineola* by having spots in all fins (vs. bands in all fins) and by having none of the spots on the head combining to form vermiculations.”

“Body stout and fairly wide. Head gently sloped to parieto-supraoccipital. Parieto-supraoccipital with tall crest. Parieto-supraoccipital crest raised well above nuchal region. Nuchal region rises slightly to nuchal plate. Dorsal profile sloped ventrally to dorsal procurent caudal-fin spines, then rising rapidly to caudal fin. Ventral profile flat to ventral procurent 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 nares. Head contours smooth except parieto-supraoccipital crest. Eye medium-sized.”

“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 largely naked with a column of plates below pectoral girdle, rows of plates laterally, a patch of plates in front of the anus, and occasionally a small patch of plates medially just posterior to pectoral girdle. 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. 24–26 [...] 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 13–50 [...], 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 forked, lower lobe longer than upper, I,14,I with three to five [...] dorsal procurrent caudal-fin rays and two to four [...] ventral procurrent-fin rays. Anal fin short with unbranched ray weak and about same length of first branched ray. Anal fin I,4, Pectoral-fin spine reaching just beyond pelvic fin 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 gentle arc less than 135°. Teeth with small, moderately wide cusps, lateral cusp approximately half length of medial cusp, stalk of tooth long; eight to 25 dentary teeth [...], 16–30 premaxillary teeth [...].”

“Base tan with brown markings. Head with small to medium faint spots slowly becoming larger posteriorly, none of the spots intense. Body with four faint dorsal saddles, the first below the middle rays of the dorsal fin, the second below the posterior rays of the dorsal fin and slightly posterior, the third below the adipose fin and slightly anterior, and the fourth at the end of the caudal peduncle. The first two saddles combine midbody or may fuse completely. Dorsal fin with very large, round spots not arranged in distinct rows. Spots in other fins arranged roughly into rows, but usually not fusing to form bands. In all fins, the light inter spaces are as wide or wider than the spots. Abdomen usually with medium spots. Ventral surface of caudal peduncle

with a single, medial row of spots. Juveniles with much larger spots that contrast much better with lighter areas, no spots on abdomen.”

## **Biology**

From Armbruster (2008):

“Sexual Dimorphism: None observed, but even on the specimens available, the odontodes on pectoral-fin spine noticeably larger.”

## **Human Uses**

*Peckoltia oligospila* is in trade in the United States (e.g. Arizona Aquatic Gardens 2020).

## **Diseases**

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

## **Threat to Humans**

From Froese and Pauly (2018):

“Harmless”

## **3 Impacts of Introductions**

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No records of introductions of *Peckoltia oligospila* 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 oligospila* were found, therefore the history of invasiveness is classified as “no known nonnative population.” *P. oligospila* is present in the aquarium trade. Detailed information about the duration and volume of trade was not available, therefore a history of trade could not be evaluated for this species.

## 5 Global Distribution

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**Figure 1.** Known global distribution of *Peckoltia oligospila*. Locations are all in Brazil. Map from GBIF Secretariat (2020).

## 6 Distribution Within the United States

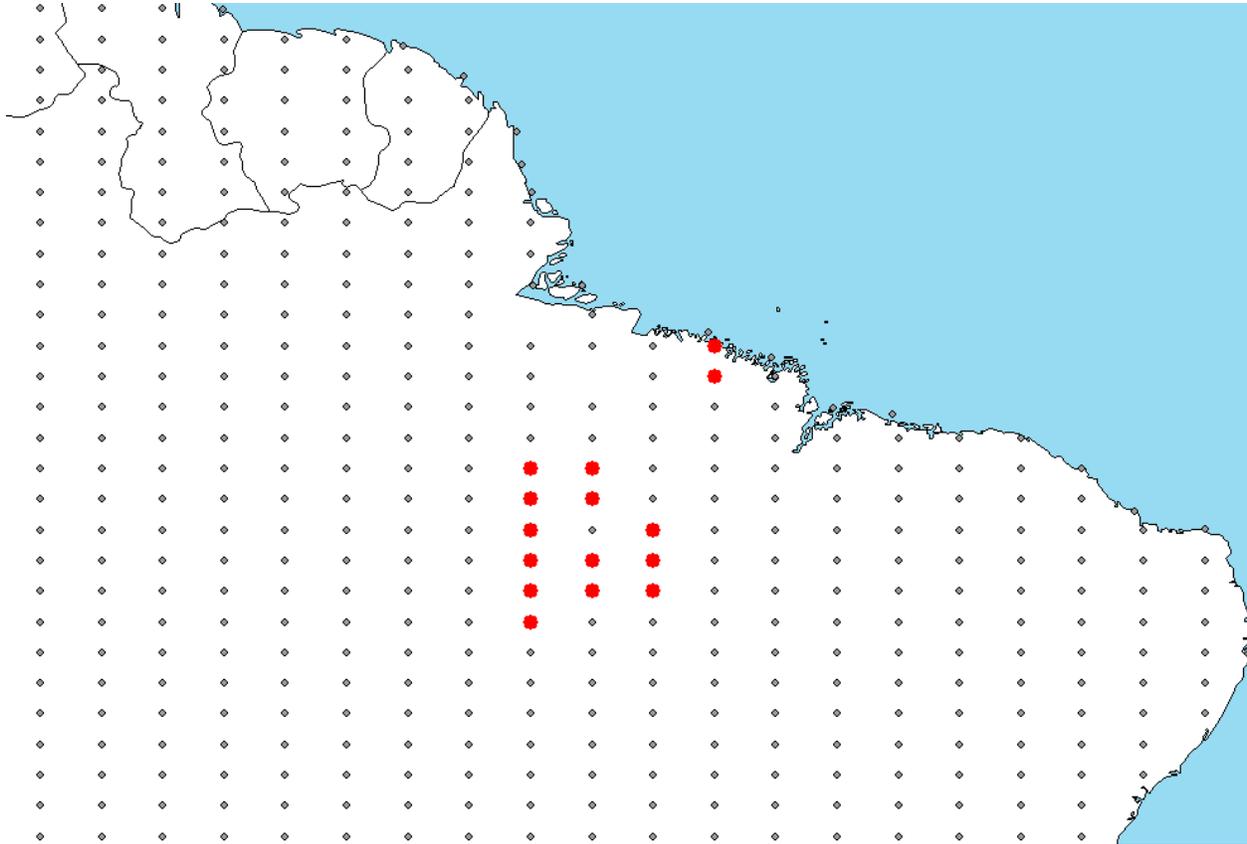
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No records of *Peckoltia oligospila* in the wild in the United States were found.

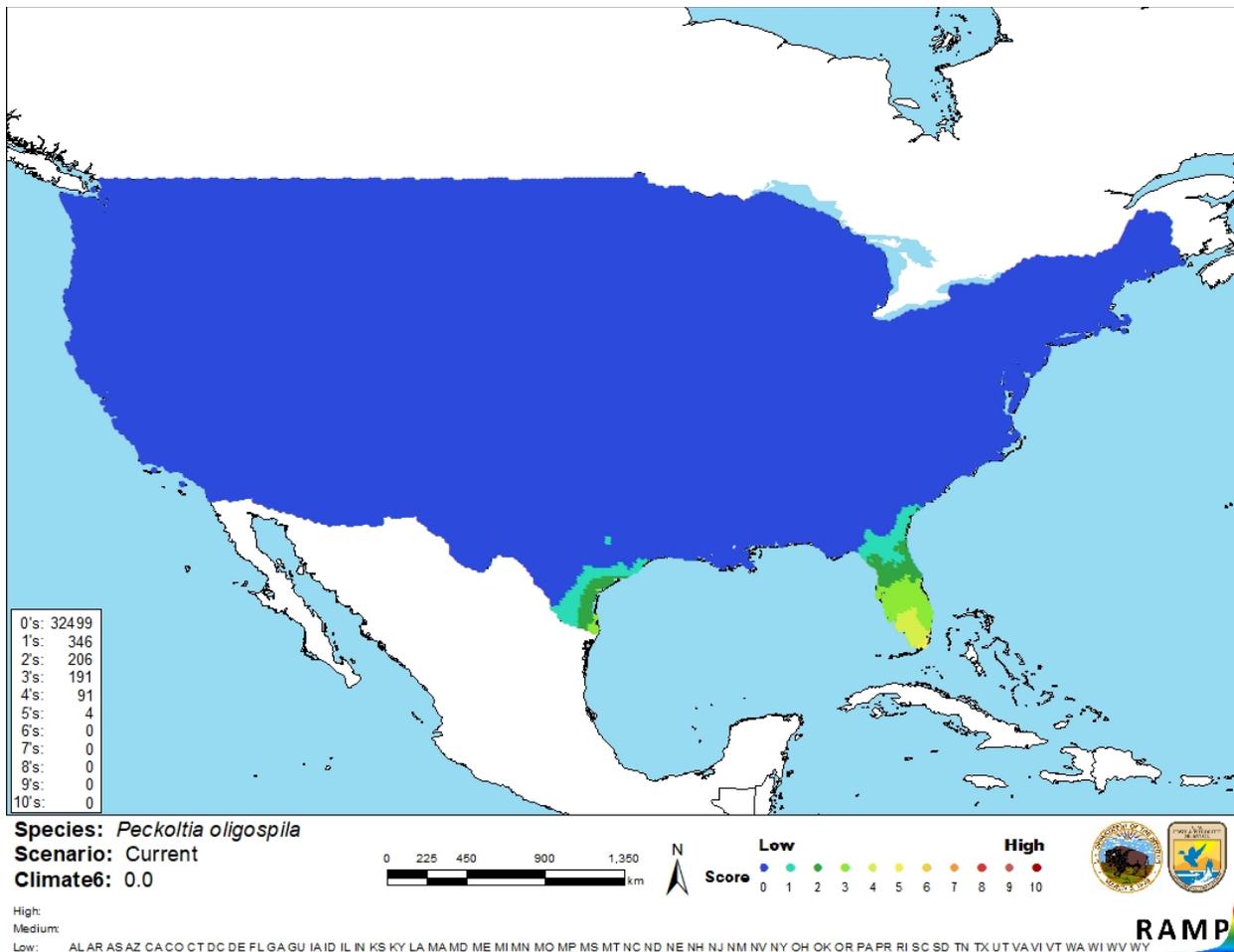
## 7 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Peckoltia oligospila* 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 States had a low individual climate 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 oligospila* 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 oligospila* 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: (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 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 oligospila* is a species of catfish native to the lower Amazon River basin in Brazil. *P. oligospila* 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 introductions. The climate match was low. There was a small area of medium match on the very southern tip of 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.**

- Arizona Aquatic Gardens. 2020. Pleco – leopard pleco L006. Available: <https://azgardens.com/product/leopard-pleco-l006/> (December 2020).
- 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.
- 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 oligospila* (Günther, 1864). FishBase. Available: <https://www.fishbase.de/summary/Peckoltia-oligospila.html> (August 2018).
- GBIF Secretariat. 2020. GBIF backbone taxonomy: *Peckoltia oligospila* (Günther, 1864). Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/5202100> (December 2020).
- [ITIS] Integrated Taxonomic Information System. 2018. *Peckoltia oligospila* (Günther, 1864). Reston, Virginia: Integrated Taxonomic Information System. Available: [https://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=680317#null](https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680317#null) (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

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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.**

Baensch HA, Riehl R. 1997. Aquarien atlas. Band 5. Melle, Germany: Mergus Verlag.

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.

Günther A. 1864. Catalogue of the fishes in the British Museum. Catalogue of the Physostomi, containing the families Siluridae, Characinidae, Haplochitonidae, Sternoptychidae, Scopelidae, Stomiidae in the collection of the British Museum. 5:1–455.