

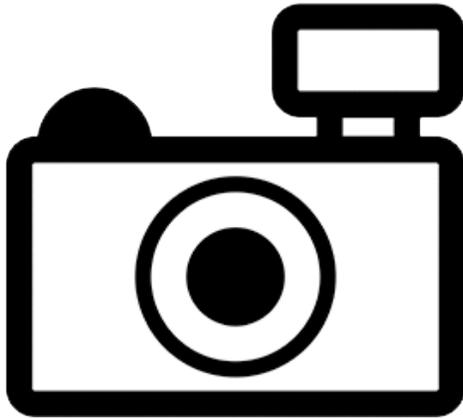
## ***Barbodes microps* (a fish, no common name)**

### **Ecological Risk Screening Summary**

U.S. Fish & Wildlife Service, August 2013

Revised, January 2019

Web Version, 8/19/2019



No Photo Available

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

---

### **Native Range**

From Froese and Pauly (2019a):

“Asia: Indonesia.”

“*Barbodes microps* : Occurrence Records [...] DJOMBANG, SUBTERRANEAN RIVER IN GOEWA”

From Haryono (2012):

“[...] has unique habitat especially at cave in Java, [Indonesia] [...].”

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

No records of *Barbodes microps* in the wild or in trade in the United States were found.

## Means of Introductions in the United States

No records of *Barbodes microps* in the United States were found.

## Remarks

The following species name and synonyms were used to conduct this assessment: *Barbodes microps*, *Barbus microps*, and *Puntius microps*.

From Haryono (2012):

“Wader goa (*Puntius microps*) is an endemic fish species and has unique habitat especially at cave in Java, also was protected by Indonesian Government [...].”

## 2 Biology and Ecology

---

### Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2019):

“**Current status:** Valid as *Barbodes microps* (Günther 1868).”

From Froese and Pauly (2019b):

“Biota > Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > [...] Actinopterygii (Class) > Cypriniformes (Order) > Cyprinidae (Family) > Barbinae (Subfamily) > *Barbodes* (Genus) > *Barbodes microps* (Species)”

### Size, Weight, and Age Range

From Froese and Pauly (2019a):

“Max length : 12.5 cm TL male/unsexed; [Kottelat et al. 1993]”

### Environment

From Froese and Pauly (2019a):

“Freshwater; benthopelagic.”

### Climate/Range

From Froese and Pauly (2019a):

“Tropical”

## Distribution Outside the United States

### Native

From Froese and Pauly (2019a):

“Asia: Indonesia.”

“*Barbodes microps* : Occurrence Records [...] DJOMBANG, SUBTERRANEAN RIVER IN GOEWA”

From Haryono (2012):

“[...] has unique habitat especially at cave in Java, [Indonesia] [...]”

### Introduced

*Barbodes microps* has not been reported as introduced or established outside of their native range.

## Means of Introduction Outside the United States

*Barbodes microps* has not been reported as introduced or established outside of their native range.

## Short Description

A description for *Barbodes microps* could not be found but a description for the genus *Barbodes* was.

From Kottelat (2013):

“*Barbodes* is distinguished from the other genera formerly placed in *Puntius* s.l. in Southeast Asia by its colour pattern and ontogeny: small juveniles have 3-5 dots along midlateral scale row, including one at middle of caudal-fin base, and an additional one at dorsal-fin origin; with increasing size, the spots on midlateral row may become more numerous and may fuse to form a stripe or broad band, and the spot at dorsal-fin origin may become a large blotch or a broad bar (see examples of *B. binotatus*, *B. lateristriga* and *B. everetti* in Kottelat et al., 1993: pl. 15). The combination of the following characters, although none unique to the genus, also allows identification: last simple dorsal-fin ray serrated posteriorly; rostral barbels present (except in *B. aurotaeniatus*); maxillary barbels present; lips smooth and thin, postlabial groove interrupted medially; lateral line complete or not, with 22–32 scales on lateral line row on body;  $\frac{1}{2}$ 4/1/4 $\frac{1}{2}$  scale rows between dorsal-fin origin and ventral midline in front of pelvic-fin base; 12 circumpeduncular scale rows; 12–15 gill rakers on first gill arch.”

## Biology

No information on biology for *Barbodes microps* was found.

## Human Uses

No information on human use was found.

## Diseases

No information on diseases was found. **No OIE-reportable diseases (OIE 2019) were found to be associated with *Barbodes microps*.**

## Threat to Humans

From Froese and Pauly (2019a):

“Harmless”

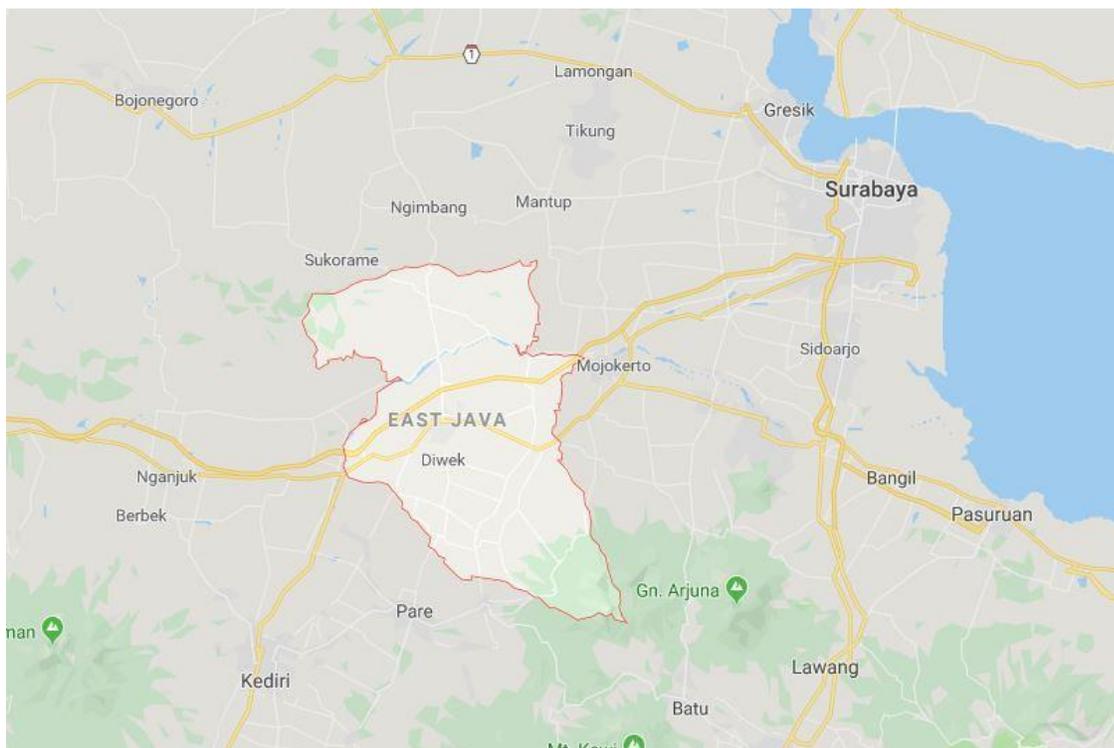
## 3 Impacts of Introductions

---

No introductions have been reported for *Barbodes microps*; therefore there is no information on impacts of introductions.

## 4 Global Distribution

---



**Figure 1.** Map of Djombang, Indonesia. According to Froese and Pauly (2019a), *Barbodes microps* is found in Djombang. Map from Google Maps (2019).

No georeferenced observations were available to use as source locations for the climate match. Source points for the climate match were chosen to represent Djombang, Indonesia.

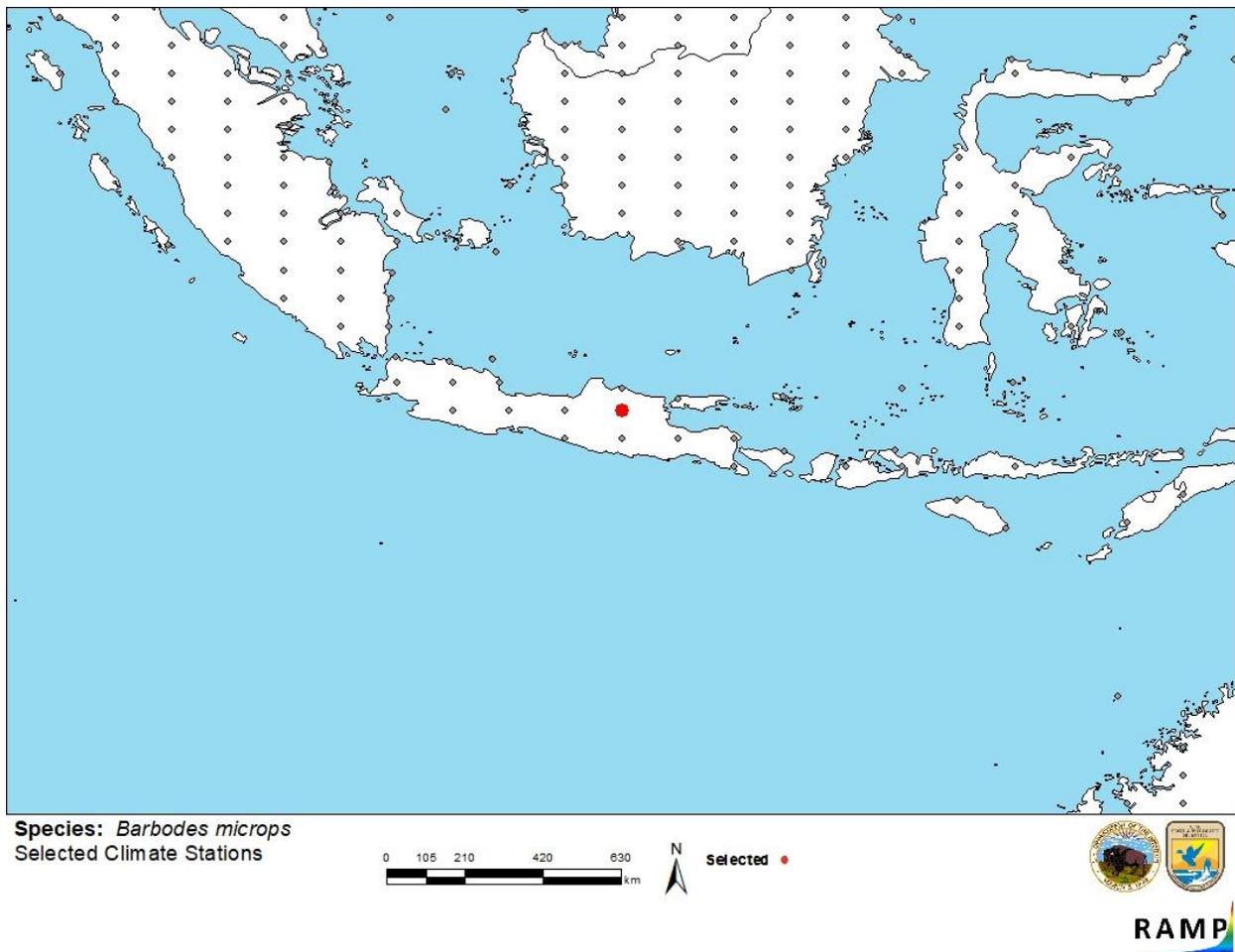
## 5 Distribution Within the United States

*Barbodes microps* has not been reported within the United States.

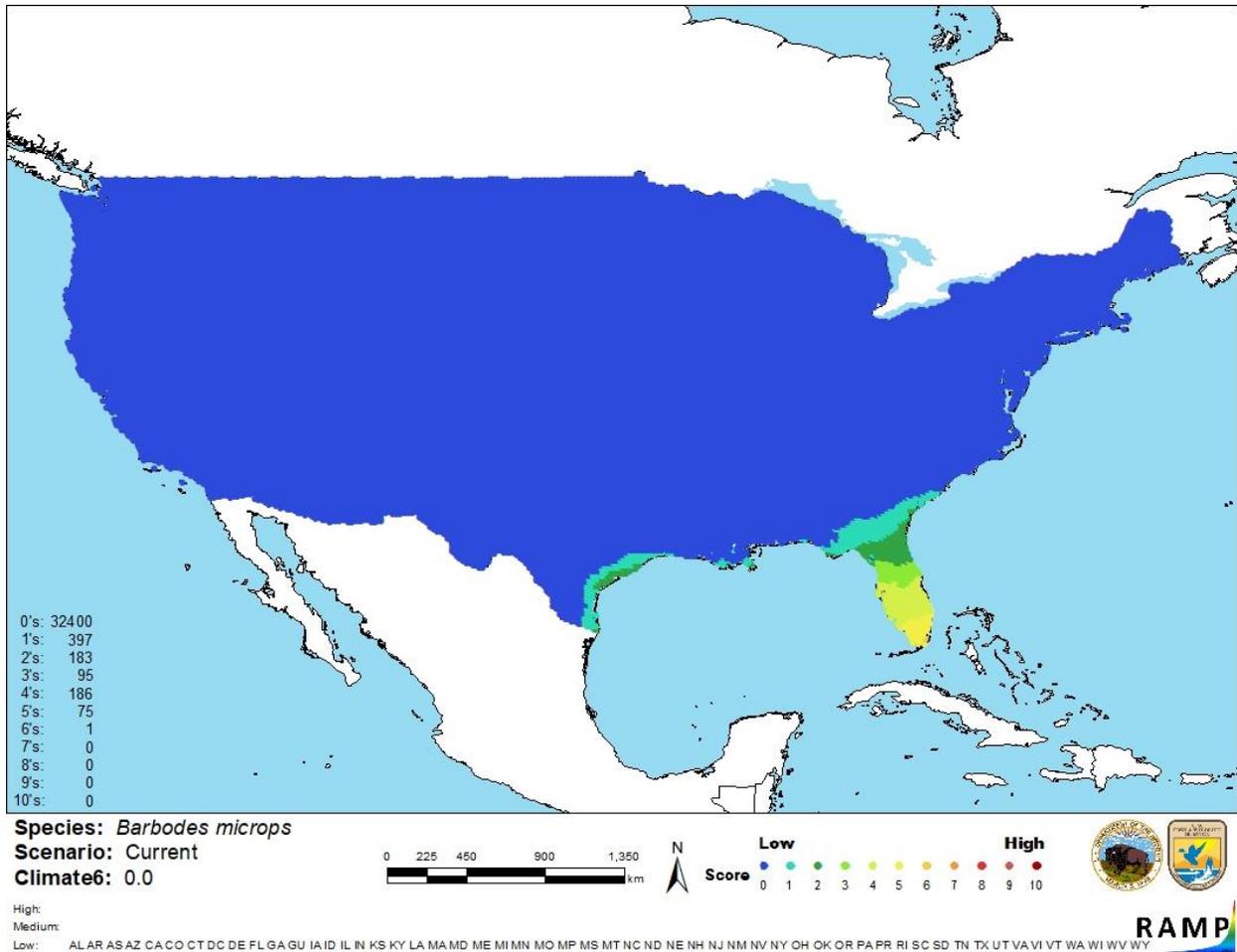
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match for the contiguous United States is mostly low. The southern tip of Florida has an area of medium climate match. There are no areas of 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 low individual Climate 6 scores.



**Figure 2.** RAMP (Sanders et al. 2018) source map showing weather stations in Indonesia selected as source locations (red) and non-source locations (gray) for *Barbodes microps* climate matching. Source location was chosen to represent Djombang, Indonesia; the range of the species according to Froese and Pauly (2019a).



**Figure 3.** Map of RAMP (Sanders et al. 2018) climate matches for *Barbodes microps* in the contiguous United States based on source locations reported by Froese and Pauly (2019a). 0 = Lowest match, 10 = Highest match.

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

Climate 6: Proportion of (Sum of Climate Scores 6-10) / (Sum of total Climate Scores)	Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
$\geq 0.103$	High

## 7 Certainty of Assessment

Certainty of assessment is low. Little information is available on *Barbodes microps*. No introductions have been reported outside of their native range.

## 8 Risk Assessment

---

### Summary of Risk to the Contiguous United States

*Barbodes microps* is a freshwater cyprinid found only in Djombang, Indonesia. *B. microps* are endemic to a river system found within a cave in the East Java region of Indonesia. This species is protected by the Indonesia government. No introductions outside of the native range have been reported, causing an uncertain history of invasiveness. The overall climate match for the contiguous United States is low. There was only one area of medium match which was located in southern Florida. The certainty of assessment is low due to a lack of information. The overall risk assessment category for *Barbodes microps* is uncertain.

### Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information: No additional remarks.**
- **Overall Risk Assessment Category: Uncertain**

## 9 References

---

**Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.**

Fricke, R., W. N. Eschmeyer, and R. van der Laan, editors. 2019. Eschmeyer's catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (January 2019).

Froese, R., and D. Pauly, editors. 2019a. *Barbodes microps* (Gunther, 1868). FishBase. Available: <http://www.fishbase.org/summary/Barbodes-microps.html>. (January 2019).

Froese, R., and D. Pauly, editors. 2019b. *Barbodes microps*. In World Register of Marine Species. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1020749>. (February 2019).

GBIF Secretariat. 2019. GBIF backbone taxonomy: *Barbodes microps* (Gunther, 1868). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/7872108>. (January 2019).

Google Maps. 2019. Map of Djombang, Indonesia. Available: <https://www.google.com/maps/search/goewa,+DJOMBANG,+indonesia/@-7.3322536,111.1753002,7z>. (January 2019).

Haryono, H. 2012. Studi morfometri ikan wader goa (*Puntius microps* Gunther, 1868) yang unik dan dilindungi undang-undang. Journal of Biological Researches 12(1):51-55.

Kottelat, M. 2013. The Fishes of the inland waters of Southeast Asia: A catalogue and core bibliography of the fishes known to occur in freshwaters, mangroves and estuaries. *The Raffles Bulletin of Zoology* 27:1–663.

OIE (World Organisation for Animal Health). 2019. OIE-listed diseases, infections and infestations in force in 2019. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/>. (January 2019).

Sanders, S., C. Castiglione, and M. Hoff. 2018. Risk assessment mapping program: RAMP, version 3.1. U.S. Fish and Wildlife Service.

## **10 References Quoted But Not Accessed**

---

**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.**

Günther, A. 1868. Catalogue of the fishes in the British Museum. Catalogue of the Physostomi, containing the families Heteropygii, Cyprinidae, Gonorhynchidae, Hyodontidae, Osteoglossidae, Clupeidae,... [thru]... Halosauridae, in the collection of the British Museum 7:1-512.

Kottelat, M., A. J. Whitten, S. N. Kartikasari and S. Wirjoatmodjo. 1993. Freshwater fishes of Western Indonesia and Sulawesi. Periplus Editions, Hong Kong.