

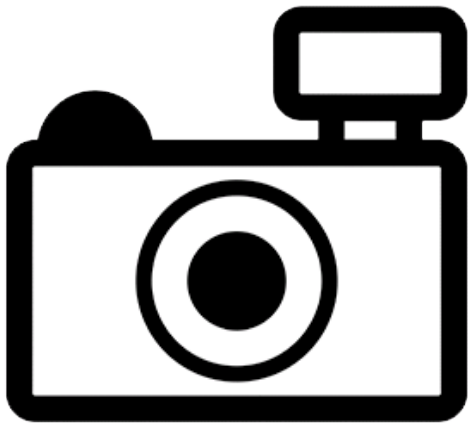
***Barbodes tumba* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2013

Revised, March 2019

Web Version, 8/26/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“Asia: generally distributed over the Lanao Plateau, Mindanao, Philippines.”

Status in the United States

Barbodes tumba has not been reported in the wild or in trade in the United States.

Means of Introductions in the United States

Barbodes tumba has not been reported in the wild in the United States.

Remarks

The valid name, *Barbodes tumba*, and the synonym, *Puntius tumba* (World Conservation Monitoring Centre 1996), were used to collect research for this species.

According to World Conservation Monitoring Centre (1996), *Barbodes tumba* is listed as vulnerable.

From Ismail et al. (2014):

“It is a concern that *Puntius tumba* may have become extinct in Lake Lanao itself.”

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

Fricke et al. (2019):

“**Current status:** Valid as *Barbodes tumba* Herre 1924.”

From World Conservation Monitoring Centre (1996):

“Kingdom Animalia
Phylum Chordata
Class Teleostei
Order Cypriniformes
Family Cyprinidae
Genus *Barbodes*
Species *Barbodes tumba* Herre, 1924”

Size, Weight, and Age Range

From Froese and Pauly (2019):

“Max length : 12.8 cm SL male/unsexed; [Herre, 1924]”

From Ismail and Escudero (2011):

“Maximum size 115 mm SL 30 g.”

Environment

From Froese and Pauly (2019):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2019):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2019):

“Asia: generally distributed over the Lanao Plateau, Mindanao, Philippines.”

Introduced

Barbodes tumba has not been reported as introduced anywhere outside of their native range.

Means of Introduction Outside the United States

Barbodes tumba has not been reported as introduced anywhere outside of their native range.

Short Description

From Froese and Pauly (2019):

“Dorsal spines (total): 4; Dorsal soft rays (total): 8; Anal spines: 3; Anal soft rays: 5. Color in life dark greenish or olive dorsally, paler on sides, whitish below; silvery luster over all; nape with a black spot; fins more or less dusky. The species may vary in color, scale counts and proportions. Circular gelatinous lid of eye high up, with posterior margin midway between tip of snout and posterior margin of operculum. 8 scales from nape to dorsal; 2-2.5 scales between origin of ventral and lateral line. Short, round axillary ventral scale much less than eye in length. Longitudinal branching lines on scales. Snout round.”

From Ismail and Escudero (2011):

“*Identification*: D 10; A 9; P 17; V 10. [...] Body elongate; silver coloration with yellow tinge along the lateral line and gill cover, dorsal and pectoral fins pale orange, ventral and anal fins orange, caudal fin yellow orange. Four barbels, two on maxillary and two on mandible. Specimens may have one to three black lateral dots, the one closest to the caudal peduncle most visible. Scales cycloid.”

Biology

From Froese and Pauly (2019):

“Occurs in rivers and lakes.”

Human Uses

From Froese and Pauly (2019):

“Fisheries: of no interest”

From Ismail et al. (2014):

“[...] *Puntius tumba* were found in the market.

Diseases

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

Threat to Humans

From Froese and Pauly (2019):

“Harmless”

3 Impacts of Introductions

Barbodes tumba has not been reported as introduced anywhere outside of their native range.

4 Global Distribution

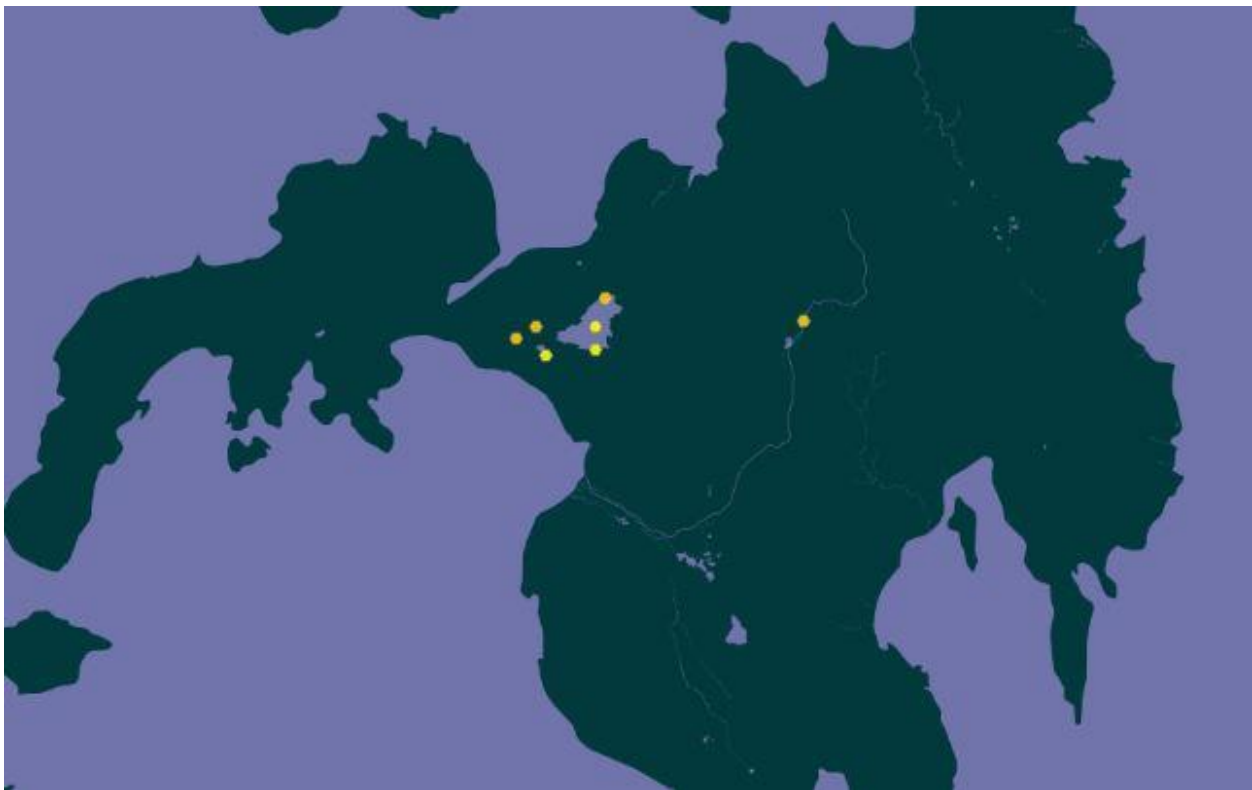


Figure 1. Known global distribution of *Barbodes tumba*. Locations in Mindanao, Philippines. Map from GBIF Secretariat (2019).

5 Distribution Within the United States

Barbodes tumba has not been reported anywhere within the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for the contiguous United States was consistently low across all States. There were no areas of medium or high match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for contiguous United States was 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States received low individual Climate 6 scores.

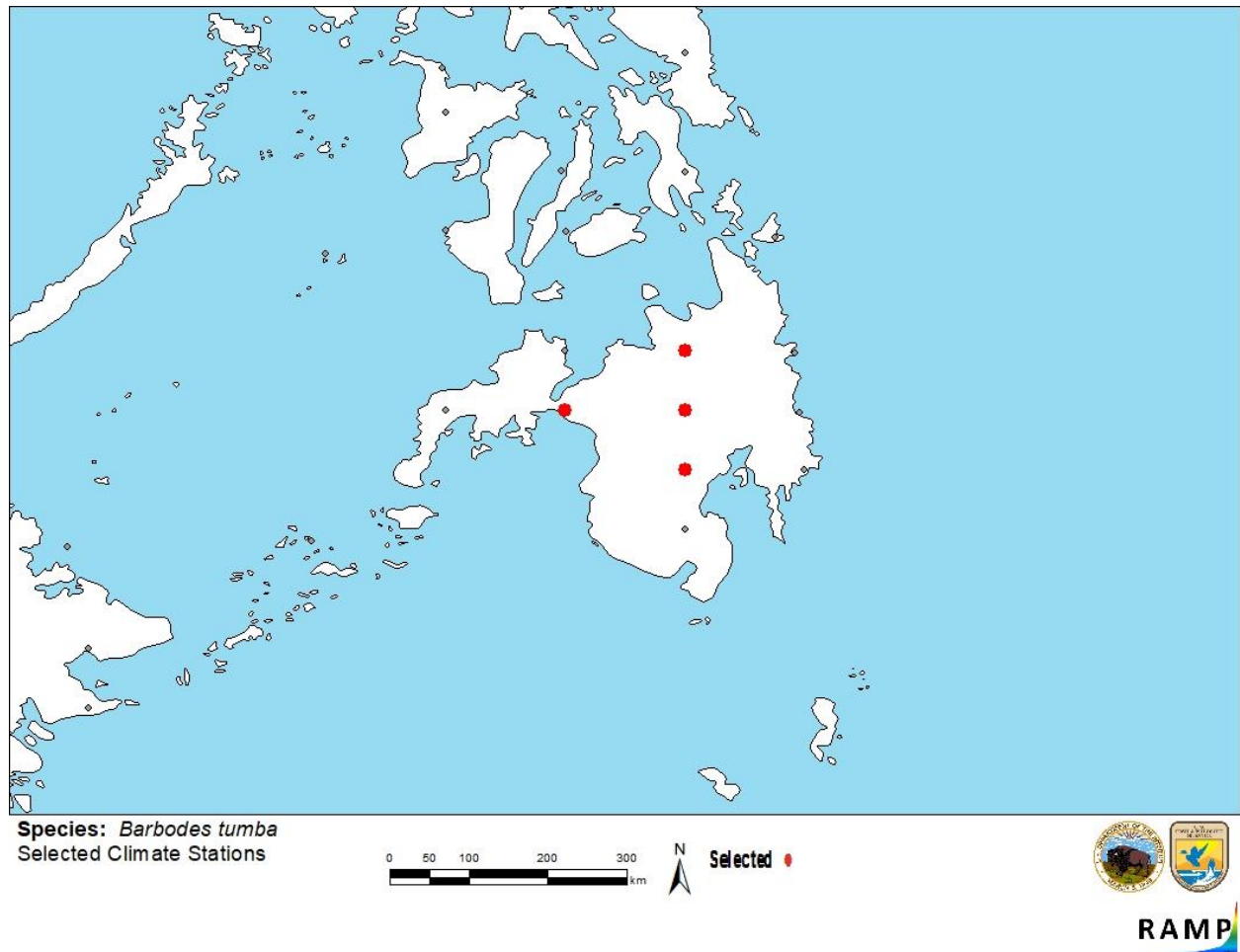


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Mindanao, Philippines selected as source locations (red) and non-source locations (gray) *Barbodes tumba* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

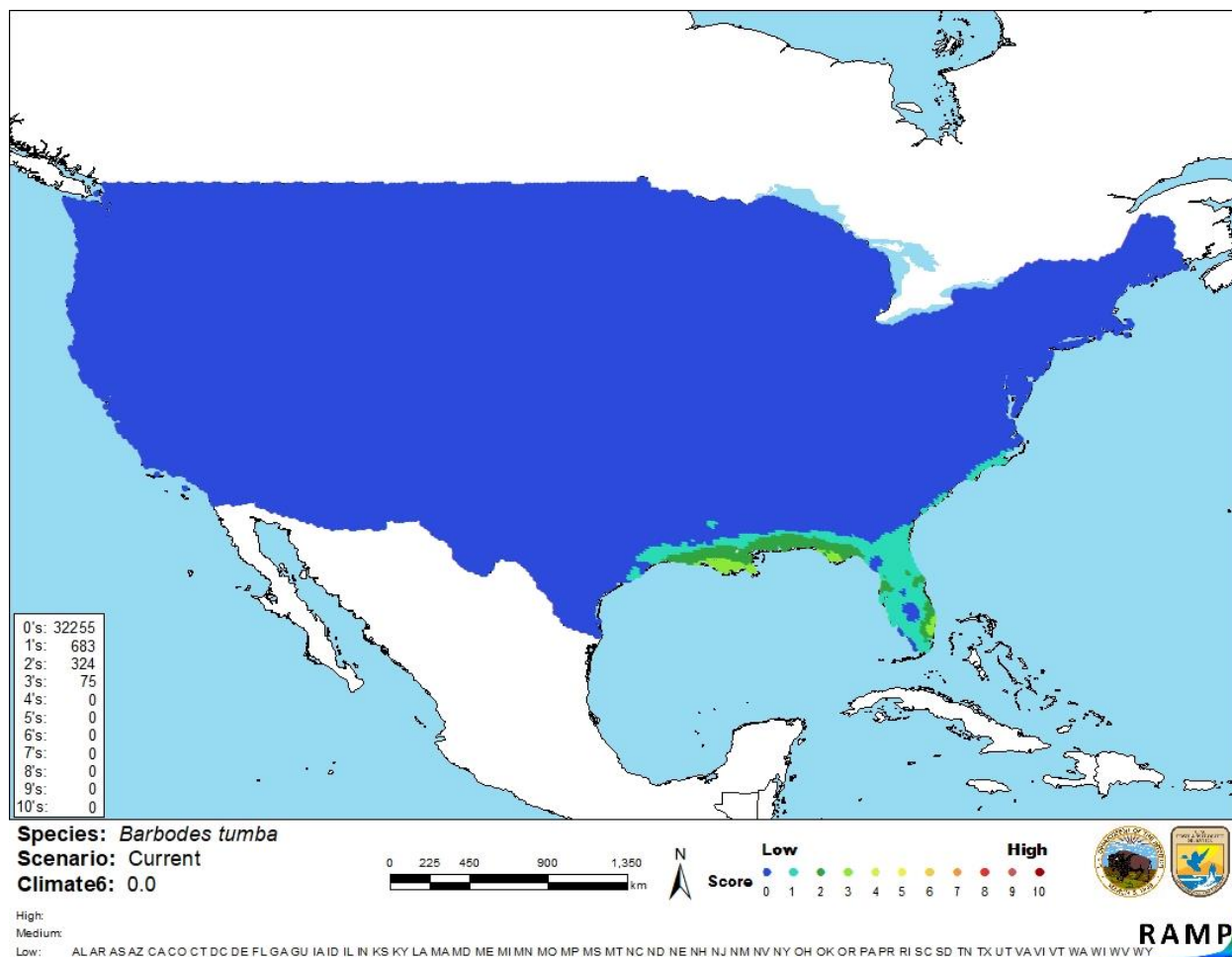


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Barbodes tumba* in the contiguous United States based on source locations reported by GBIF Secretariat (2019). 0 = Lowest match, 10 = Highest match.

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
≥ 0.103	High

7 Certainty of Assessment

Limited information is available for *Barbodes tumba* and it has not been introduced anywhere outside of its native range. The certainty of assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Barbodes tumba is a fish endemic to the Lanao Plateau in Mindanao, Philippines. This species is listed as vulnerable under the IUCN Red List of Threatened Species. *B. tumba* has not been introduced anywhere outside of its native range. This species is sometimes found in fish markets. The history of invasiveness is uncertain. The climate match for the contiguous United States is low, with no areas of medium or high match and all States receiving low individual climate scores. The certainty of assessment is low. The overall risk assessment category for *Barbodes tumba* 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 information.**
- **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>. (February 2019).

Froese, R., and D. Pauly, editors. 2019. *Barbodes tumba* Herre, 1924. FishBase. Available: <https://www.fishbase.de/summary/Barbodes-tumba.html>. (March 2019).

GBIF Secretariat. 2019. GBIF backbone taxonomy: *Barbodes tumba* Herre, 1924. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2364030>. (March 2019).

Ismail, G. B., D. B. Sampson, and D. L. G. Noakes. 2014. The status of Lake Lanao endemic cyprinids (*Puntius* species) and their conservation. *Environmental Biology of Fishes* 97(4):425–434.

Ismail, G. B., and P. T. Escudero. 2011. Threatened fishes of the world: *Puntius tumba* Herre, 1924 (Cyprinidae). *Environmental Biology of Fishes* 91(1):119–120.

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/>. (March 2019).

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

World Conservation Monitoring Centre. 1996. *Barbodes tumba*. The IUCN Red List of Threatened Species 2015: e.T18902A8677864. Available: <https://www.iucnredlist.org/species/18902/8677864>. (March 2019).

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.

Herre, A. W. C. T. 1924. Distribution of the true freshwater fishes in the Philippines. I. The Philippine Cyprinidae. Philippine Journal of Science 24(3):249–307.