

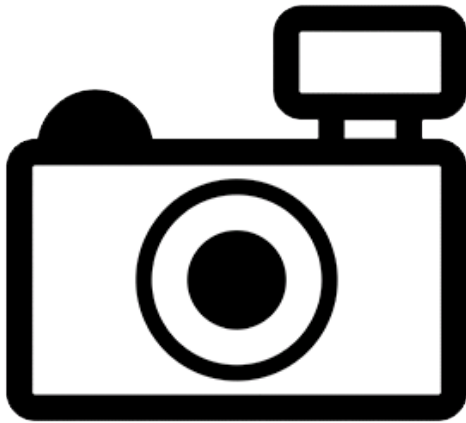
***Barbodes jacobusboehlkei* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2013

Revised, July 2019

Web Version, 11/19/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019a):

“Found in Suoi Nan Ta Khoa, Son La in northern Vietnam [Kottelat 2001a].”

From Froese and Pauly (2019b):

“Occurs in the Mekong basin [in Cambodia] [Kottelat 1998].”

“Occurs in the lower and middle Xe Bangfai of the Mekong basin [in Laos] [Kottelat 1998].”

“Occurs in the Mekong and Chao Phraya basin [in Thailand].”

Status in the United States

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

Means of Introductions in the United States

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

Remarks

Information searches were conducted using the accepted species name, *Barbodes jacobusboehlkei*, and the synonyms *Systemus jacobusboehlkei* and *Puntius takhoaensis* (Fricke et al. 2019).

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2019):

“**Current Status:** Valid as *Barbodes jacobusboehlkei* (Fowler 1958).”

From ITIS (2019):

“Kingdom Animalia
Phylum Chordata
Subphylum Vertebrata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii
Infraclass Teleostei
Superorder Ostariophysi
Order Cypriniformes
Superfamily Cyprinoidea
Family Cyprinidae
Genus *Puntius*
Species *Puntius takhoaensis* Nguyen and Doan 1969”

A hierarchy could not be obtained using the valid name of the species. The above hierarchy, using a synonym, is correct for the valid name to the family level.

Size, Weight, and Age Range

From Froese and Pauly (2019b):

“Max length : 12.0 cm SL male/unsexed; [Kottelat 1998]”

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):

“Found in Suoi Nan Ta Khoa, Son La in northern Vietnam [Kottelat 2001a].”

From Froese and Pauly (2019b):

“Occurs in the Mekong basin [in Cambodia] [Kottelat 1998].”

“Occurs in the lower and middle Xe Bangfai of the Mekong basin [in Laos] [Kottelat 1998].”

“Occurs in the Mekong and Chao Phraya basin [in Thailand].”

Introduced

No records of introductions were found for *Barbodes jacobusboehlkei*.

Means of Introduction Outside the United States

No records of introductions were found for *Barbodes jacobusboehlkei*.

Short Description

From Froese and Pauly (2019b):

“Four barbels; the last simple dorsal ray osseus and serrated posteriorly; a conspicuous black blotch on the caudal peduncle; a small, vertically elongated, black spot below the dorsal fin origin; a narrow dark band from the upper extremity of the gill opening to the base of the pectoral fin [Kottelat 1998]. Caudal fin hyaline, sometime with narrow, faint dark marginal stripe on each lobe; usually longitudinal rows of black spots along scale rows [Kottelat 2001b].”

Biology

From Froese and Pauly (2019b):

“Possibly prefers quiet stretches of streams in hilly areas [Kottelat 1998].”

Human Uses

There is no information available on the human uses of *Barbodes jacobusboehlkei*.

Diseases

No information on diseases of *Barbodes jacobusboehlkei* was found. **No records of OIE-reportable diseases (OIE 2019) were found for *Barbodes jacobusboehlkei*.**

Threat to Humans

From Froese and Pauly (2019a):

“Harmless”

3 Impacts of Introductions

No records of introductions were found for *Barbodes jacobusboehlkei*, therefore there is no information on impacts of introduction.

4 Global Distribution



Figure 1. Known global distribution of *Barbodes jacobusboehlkei*. Observations are reported from Thailand and Laos. Map from GBIF Secretariat (2019). No georeferenced occurrences were available in the portion of the range in Cambodia and Vietnam.

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Barbodes jacobusboehlkei* was low for the vast majority of the contiguous United States. The only area of medium match was in southwestern Florida; there were 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.

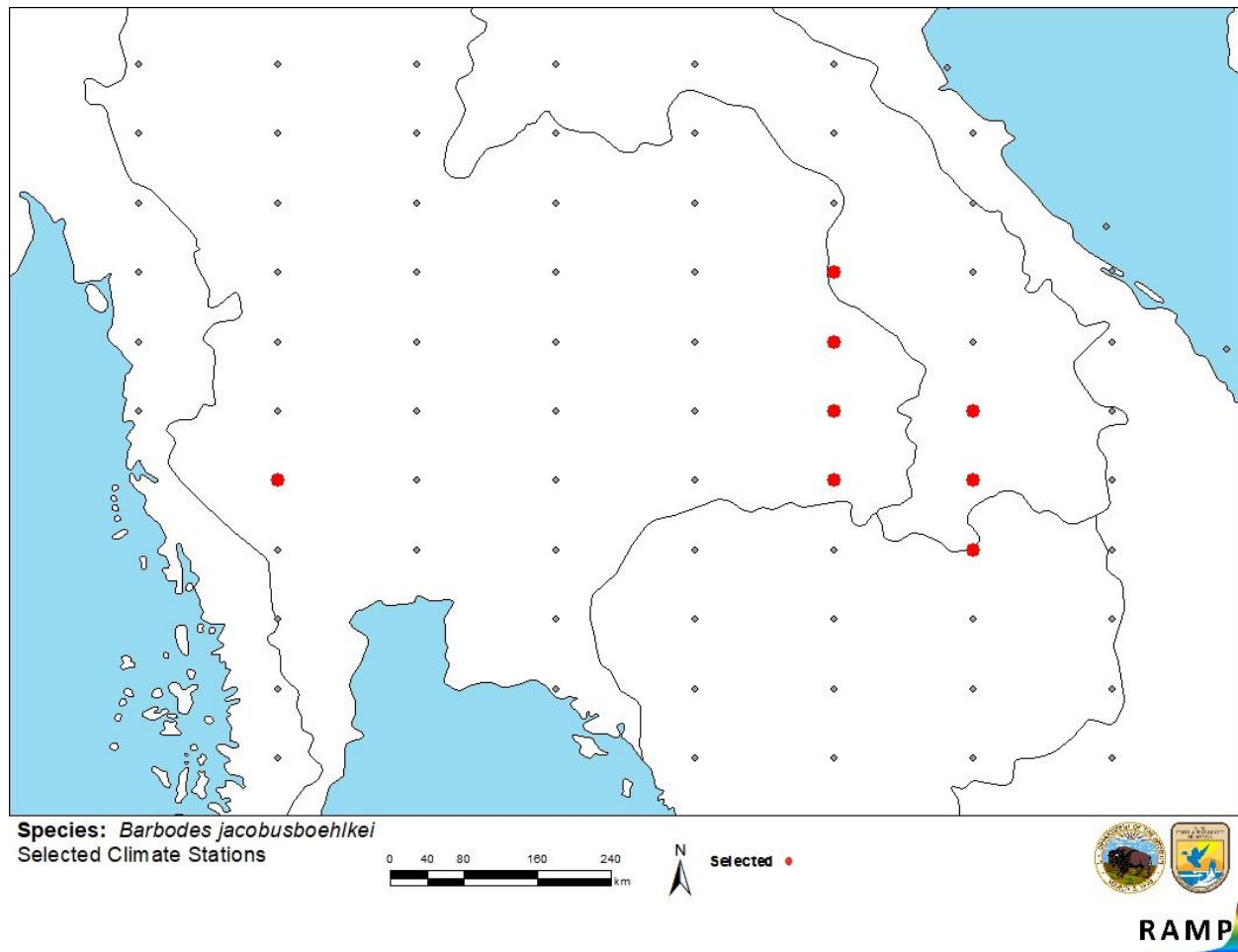


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Southeast Asia selected as source locations (red; Thailand, Laos, Cambodia) and non-source locations (gray) for *Barbodes jacobusboehlkei* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations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

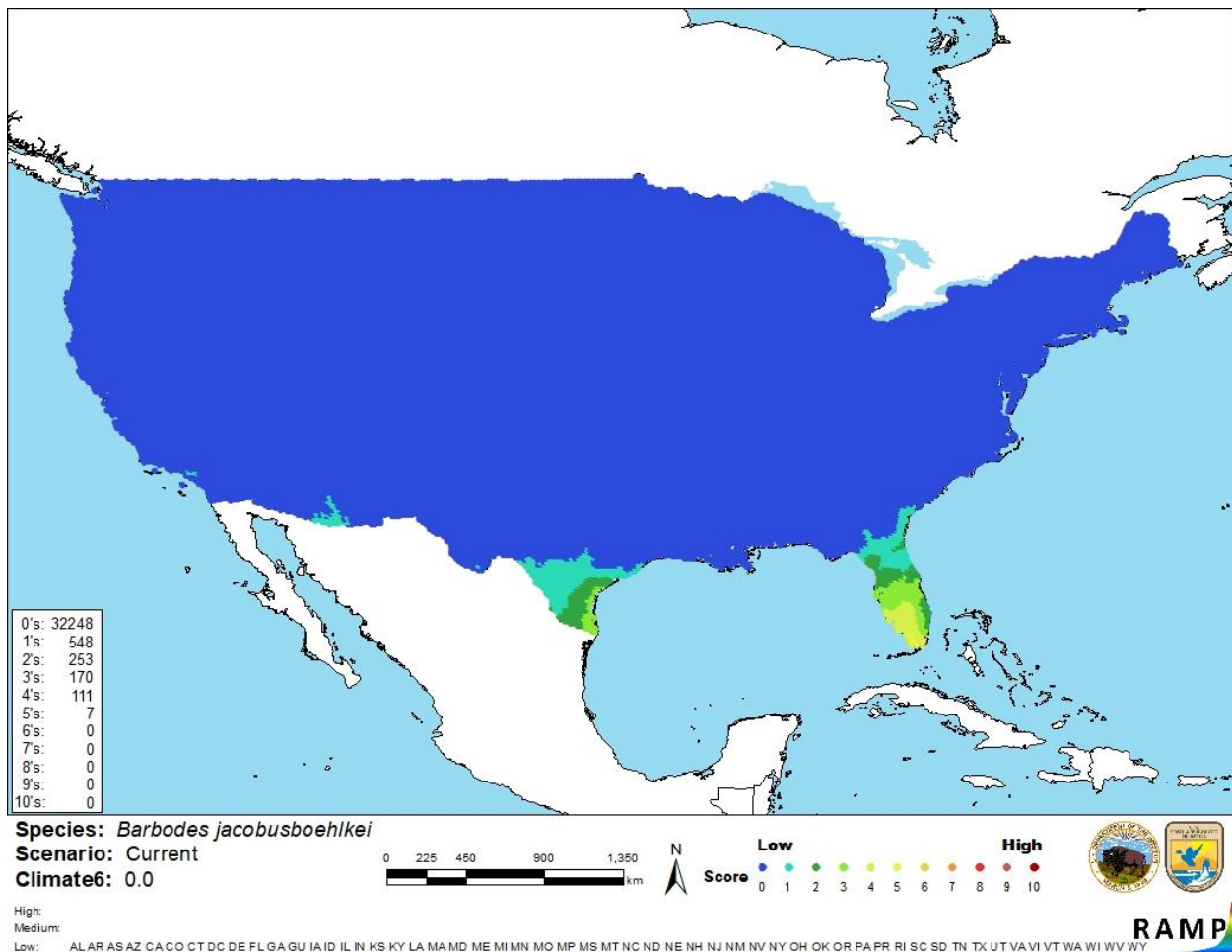


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Barbodes jacobusboehlkei* in the contiguous United States based on source locations reported by GBIF Secretariat (2019). 0 = Lowest match, 10 = Highest match.

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 jacobusboehlkei* and it has not been introduced outside of its native range. The certainty of assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Barbodes jacobusboehlkei is a fish in the minnow family known in the large river basins of Thailand, Laos, Vietnam, and Cambodia. Little information is available for this species. The history of invasiveness is uncertain because no records of introductions were found and this species is not known to be found in trade. The climate match is low for the contiguous United States, with a single area of medium match in southwestern Florida. The certainty of assessment is low due to the lack of information. The overall risk category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **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>. (April 2019).

Froese, R. and D. Pauly, editors. 2019a. *Puntius takhoaensis* Nguyen & Doan, 1969. FishBase. Available: <http://www.fishbase.us/summary/Puntius-takhoaensis.html>. (July 2019).

Froese, R. and D. Pauly, editors. 2019b. *Systemus jacobusboehlkei* (Fowler, 1958). FishBase. Available: <https://www.fishbase.se/summary/Systemus-jacobusboehlkei.html>. (November 2019).

GBIF Secretariat. 2019. GBIF backbone taxonomy: *Systemus jacobusboehlkei* (Fowler, 1958). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/8340405>. (November 2019).

ITIS (Integrated Taxonomic Information System). 2019. *Puntius takhoaensis* (Nguyen and Doan 1969). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689858#null. (July 2019).

Kottelat, M. 2016. The fishes of the Nam Theun and Xe Bangfai drainages, Laos. *Hydroécologie Appliquée* 19:271–320.

Mangostar. 2008. File:Laos Vietnam Locator.png. Wikimedia. Available: https://commons.wikimedia.org/wiki/File:Laos_Vietnam_Locator.png. (August 2019).

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/>. (July 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.

Kottelat, M. 1998. Fishes of the Nam Theun and Xe Bangfai basins, Laos, with diagnoses of twenty-two new species (Teleostei: Cyprinidae, Balitoridae, Cobitidae, Coiidae and Odontobutidae). *Ichthyological Explorations of Freshwaters* 9(1):1–128.

Kottelat, M. 2001a. Freshwater fishes of northern Vietnam. A preliminary check-list of the fishes known or expected to occur in northern Vietnam with comments on systematics and nomenclature. Environment and Social Development Unit, East Asia and Pacific Region. The World Bank.

Kottelat, M. 2001b. Fishes of Laos. WHT Publications, Colombo 5, Sri Lanka.