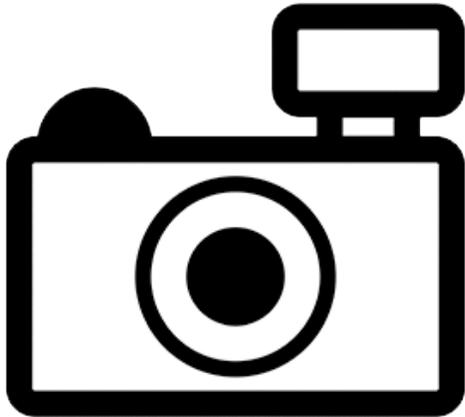


***Barbonymus mahakkamensis* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, April 2015
Revised, October 2017
Web Version, 8/29/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2015):

“Asia: Borneo, Indonesia”

Status in the United States

No records of *Barbonymus mahakkamensis* in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of *Barbonymus mahakkamensis* in the United States were found.

Remarks

Eschmeyer et al. (2017) lists the valid name of this species as *Barbonymus mahakkamensis*. Most other databases have not incorporated this name change yet; therefore to be as thorough as

possible, information searches were conducted using both *Barbonymus mahakkamensis* and *Barbodes mahakkamensis*.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2017), *Barbonymus mahakkamensis* (Ahl 1922) is the valid name for this species. It was originally described as *Barbus mahakkamensis* and has also been previously known as *Barbodes mahakkamensis*.

From ITIS (2015):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii
Infraclass Teleostei
Superorder Ostariophysi
Order Cypriniformes
Superfamily Cyprinoidea
Family Cyprinidae
Genus *Barbodes*
Species *Barbodes mahakkamensis* (Ahl, 1922)”

Size, Weight, and Age Range

Information on the size, weight, and age ranges of *Barbonymus mahakkamensis* was not found.

Environment

From Froese and Pauly (2015):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2015):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2015):

“Asia: Borneo, Indonesia”

Introduced

No records of *Barbonymus mahakkamensis* introductions were found.

Means of Introduction Outside the United States

No records of *Barbonymus mahakkamensis* introductions were found.

Short Description

A description of *Barbonymus mahakkamensis* was not found.

Biology

Information on the biology of *Barbonymus mahakkamensis* was not found.

Human Uses

Information on human uses of *Barbonymus mahakkamensis* was not found.

Diseases

Information on pathogens of *Barbonymus mahakkamensis* was not found.

Threat to Humans

From Froese and Pauly (2015):

“Harmless”

3 Impacts of Introductions

No records of *Barbonymus mahakkamensis* introductions were found.

4 Global Distribution



Figure 1. Island of Borneo, *Barbonymus mahakkamensis* is reported from the Indonesian areas of the island. Map from Google Inc. (2011).

5 Distribution Within the United States

No records of *Barbonymus mahakkamensis* in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Barbonymus mahakkamensis* was low for most of the contiguous United States with one small pocket of medium match along the southeast coast of Florida. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low, and no states had an individually high climate score.

RAMP is integrated with GBIF and that database has yet to update the taxonomic change for this species, therefore Figures 2 and 3 are labeled with the name *Barbodes mahakkamensis*.

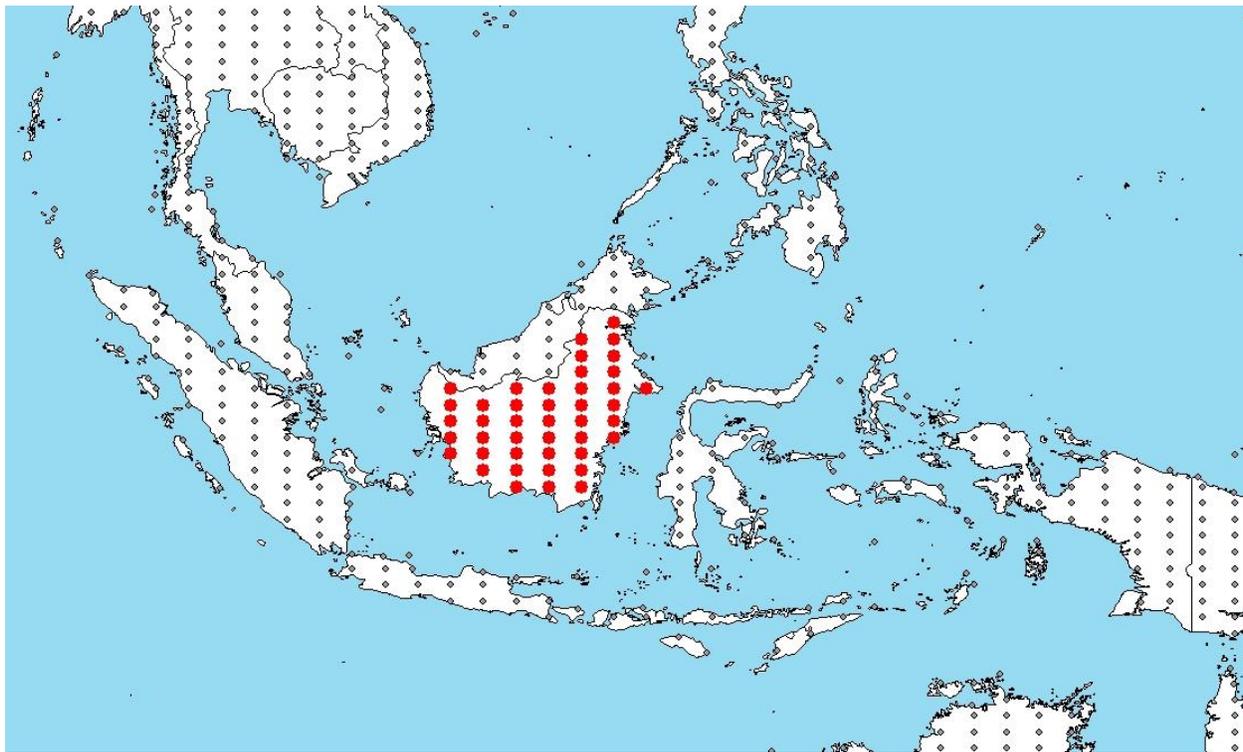


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations on the island of Borneo selected as source locations (red; Indonesia) and non-source locations (gray) for *Barbonymus mahakkamensis* climate matching. Source locations from Froese and Pauly (2015).

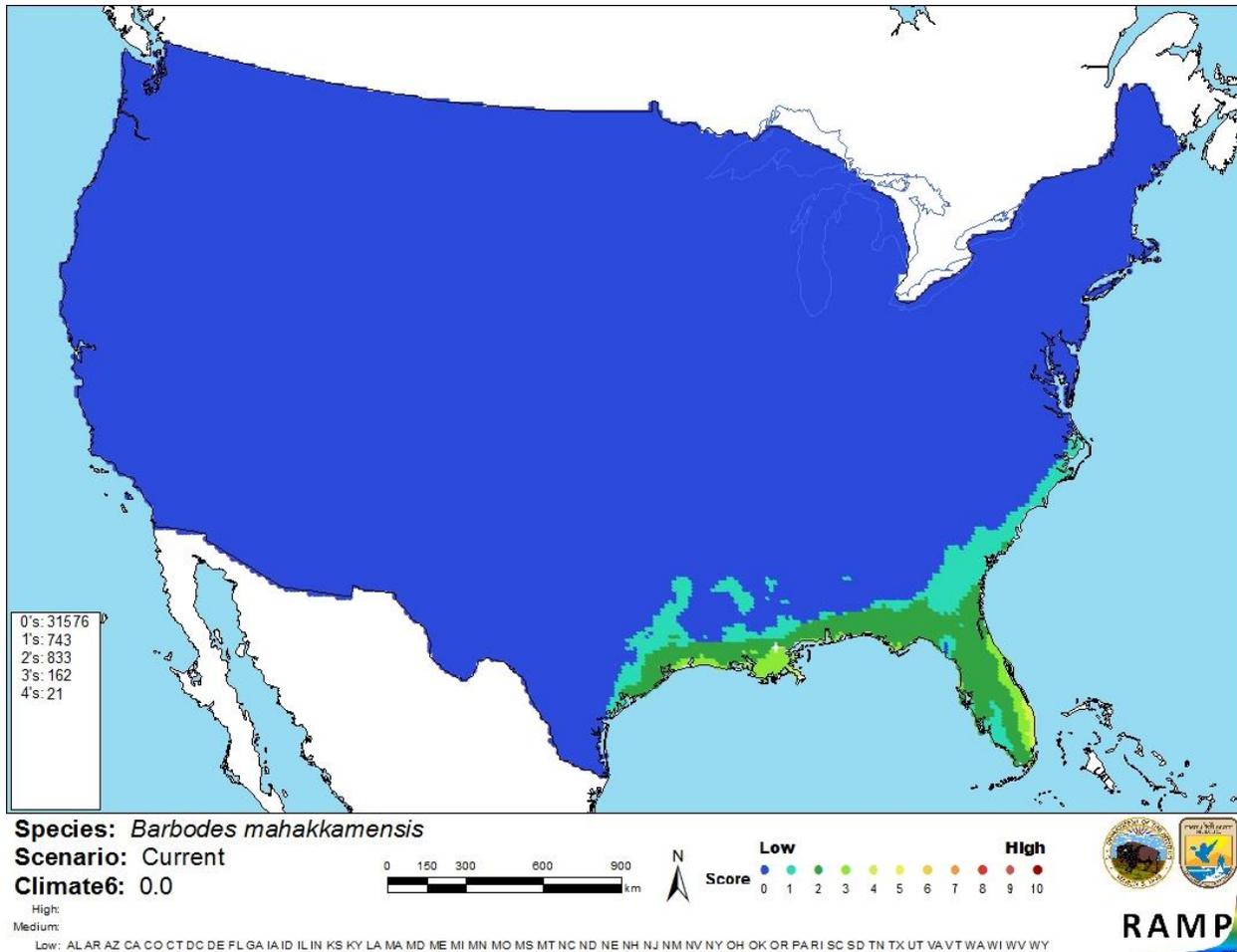


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Barbonymus mahakkamensis* in the contiguous United States based on source locations reported by Froese and Pauly (2015). 0 = Lowest match, 10 = Highest match. Counts of climate match scores are tabulated on the left.

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

The certainty of assessment is low. There was virtually no information available for *Barbonymus mahakkamensis*. Climate match was conducted using only a text based approximation of the species distribution. No records of introductions were found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Barbonymus mahakkamensis is a species of cyprinid native to the island of Borneo. The history of invasiveness for *B. mahakkamensis* is uncertain. There were no records of introductions found. The climate match is low. The results of the climate match should be viewed as only a rough approximation; the climate match was conducted using a species distribution based on text descriptions and not actual population locations. The certainty of assessment is low. There was minimal information available. The overall risk assessment 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:** There was virtually no information available for *Barbonymus mahakkamensis*.
- **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.

Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2017. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (October 2017).

Froese, R., and D. Pauly, editors. 2015. *Barbodes mahakkamensis* (Ahl, 1922). FishBase. Available: <http://www.fishbase.se/summary/Barbodes-mahakkamensis.html>. (April 2015).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Barbodes mahakkamensis* (Ahl, 1922). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2365873>. (October 2017).

Google Inc. 2011. Google Earth (Version 7.0.3.8542) [Software]. Available: <http://www.google.com/intl/en/earth/index.html>. (June 2014).

ITIS (Integrated Taxonomic Information System). 2015. *Barbodes mahakkamensis* (Ahl, 1922). Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=688438. (April 2015).

Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk assessment mapping program: RAMP.
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.

Ahl, E. 1922. Einige neue Süßwasserfische des Indo-Malayischen Archipels. Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin 1-2:30–36.