

***Labeo barbatus* (a carp, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, May 2012

Revised, May 2018

Web Version, June 2018

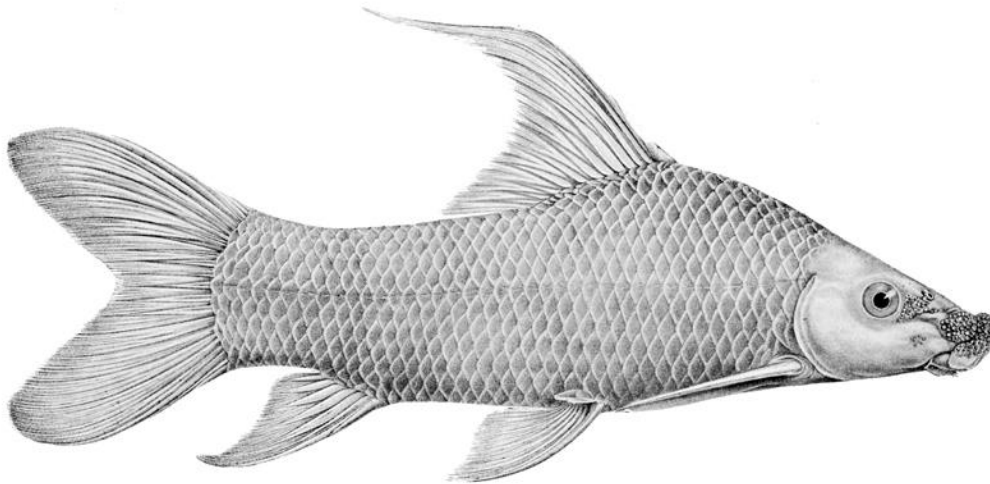


Image: Boulenger. Public domain – old-70. Available:
https://commons.wikimedia.org/wiki/File:Labeo_barbatus.jpg. (May 8, 2018).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“Africa: lower and middle Congo River basin in Democratic Republic of the Congo and Central African Republic [Tshibwabwa 1997].”

Status in the United States

No records were found of *Labeo barbatus* in the United States. No information on trade of *L. barbatus* in the United States was found.

Means of Introductions in the United States

No records were found of *Labeo barbatus* in the United States.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Labeo barbatus* Boulenger 1898 is the current valid name for this species, it is also the original name for this species.

From ITIS (2018):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Cypriniformes
Superfamily Cyprinoidea
Family Cyprinidae
Genus *Labeo*
Species *Labeo barbatus* Boulenger, 1898”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 56.2 cm SL male/unsexed; [Tshibwabwa 1997]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2018):

“Tropical; 5°N - 5°S”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“Africa: lower and middle Congo River basin in Democratic Republic of the Congo and Central African Republic [Tshibwabwa 1997].”

Introduced

No records of introductions of *Labeo barbatus* were found.

Means of Introduction Outside the United States

No records of introductions of *Labeo barbatus* were found.

Short Description

From Froese and Pauly (2018):

“Dorsal soft rays (total): 10-11; Vertebrae: 33. Lips with transverse plicae on inner surface, eyes are superolateral, has two long pairs of barbels [Tshibwabwa and Teugels 1995].”

Biology

From Froese and Pauly (2018):

“Occurs in middle and lower reaches of the Congo basin with rapid water flow [Tshibwabwa 1997].”

Human Uses

From Moelants (2010):

“This species is harvested for human consumption.”

Diseases

No information on parasites or pathogens of *Labeo barbatus* was found.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introductions of *Labeo barbatus* were found.

4 Global Distribution



Figure 1. Known global distribution in Democratic Republic of the Congo and Central African Republic of *Labeo barbatus*. Map from GBIF Secretariat (2018).

5 Distribution Within the United States

No records were found of *Labeo barbatus* in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Labeo barbatus* was medium to high for most of Florida. The Gulf Coast also had areas of medium match. Everywhere else in the contiguous United States had a low climate match. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.004, low. Florida had a high individual climate score.

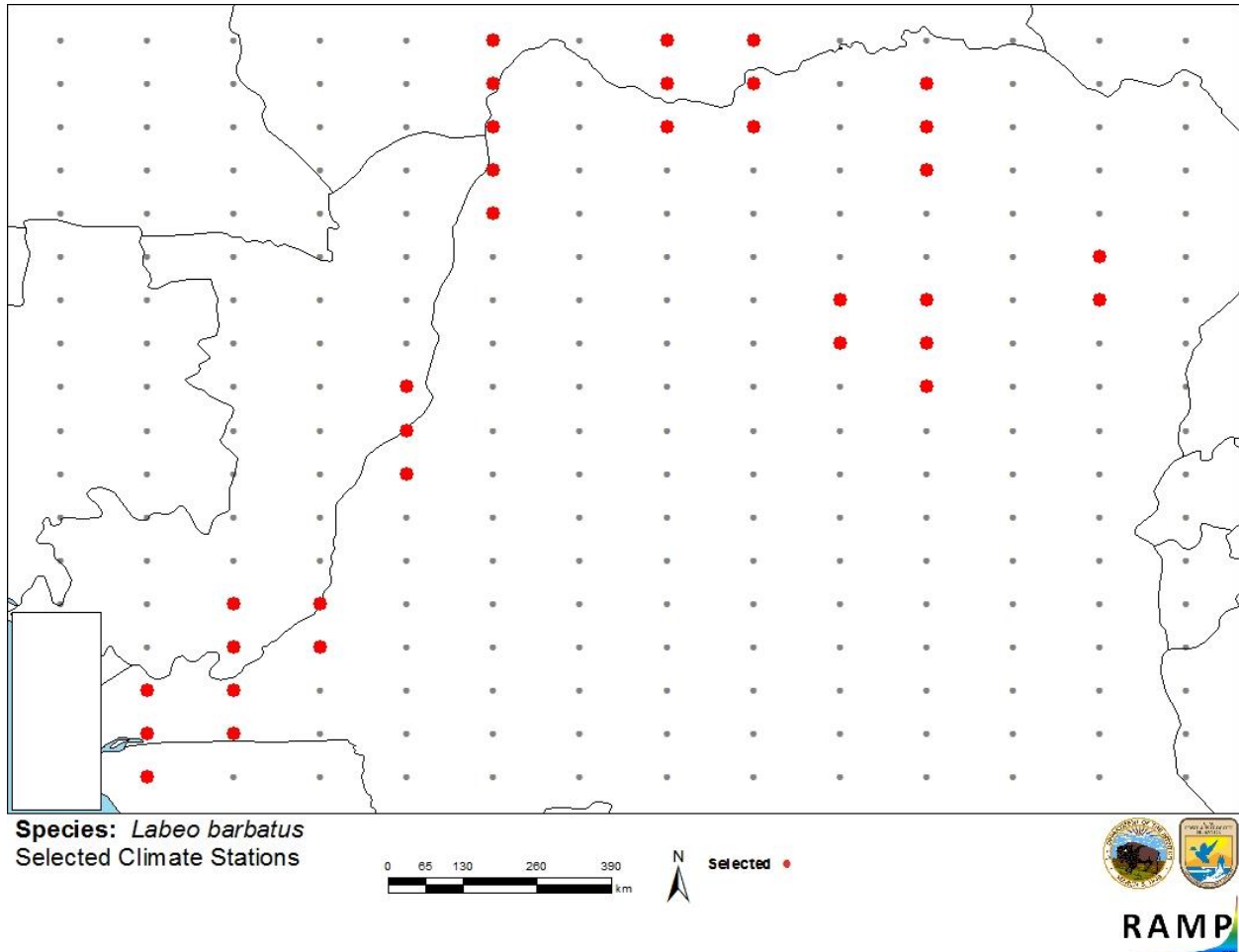


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in western central Africa selected as source locations (red; Central African Republic, Democratic Republic of the Congo; Republic of the Congo, and Angola) and non-source locations (gray) for *Labeo barbatus* climate matching. Source locations from GBIF Secretariat (2018).

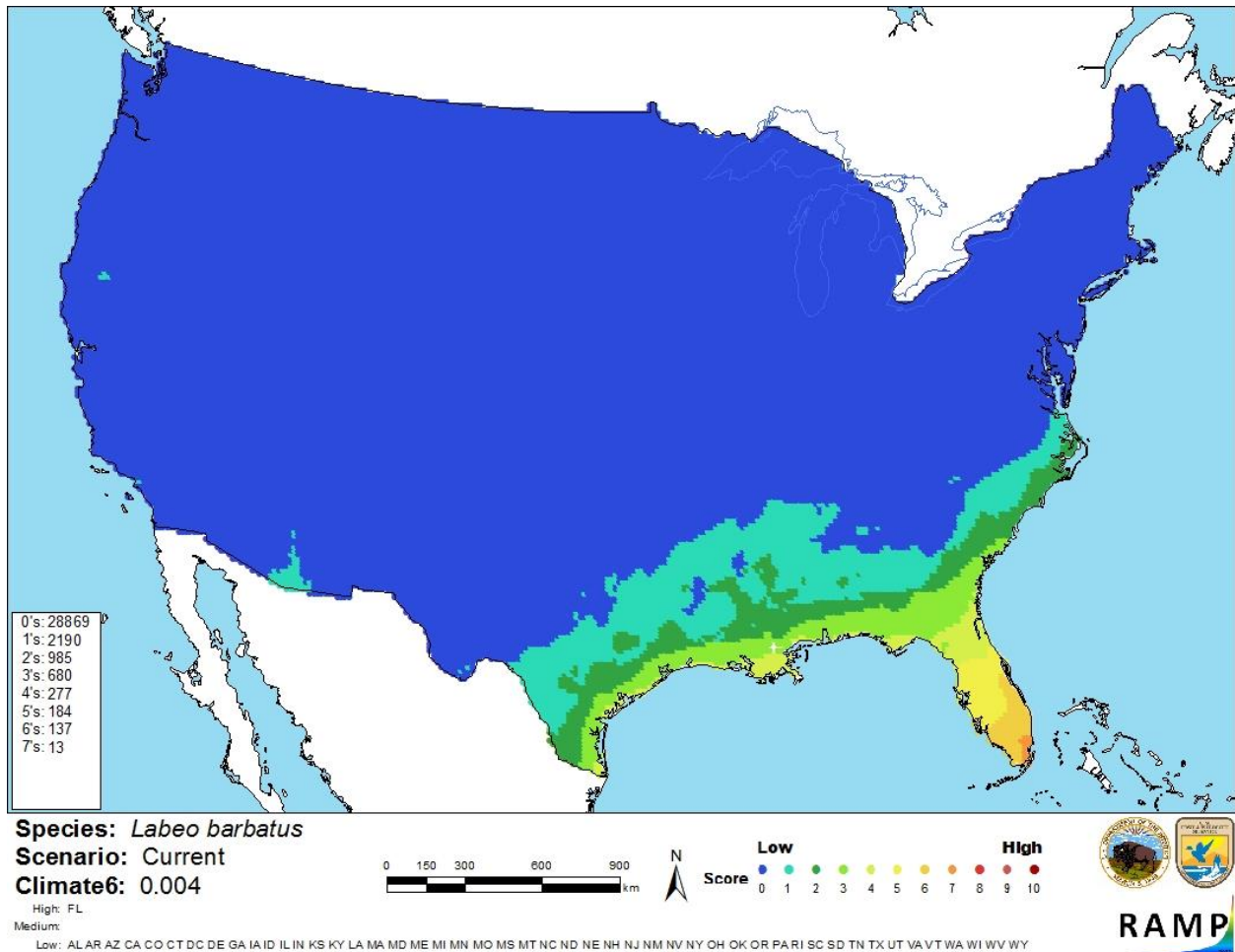


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Labeo barbatus* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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
$0.000 \leq X < 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

The certainty of assessment for *Labeo barbatus* is low. There is minimal information available for this species. No information on introductions of *L. barbatus* was found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo barbatus is a freshwater carp native to west-central Africa. *L. barbatus* is used as a food fish. The history of invasiveness is uncertain. It has not been reported as introduced or established anywhere in the world. The climate match for the contiguous United States was low. However, Florida did have a high individual climate score. The certainty of assessment is low. The overall risk assessment category 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.

Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2018. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (May 2018).

Froese, R., and D. Pauly, editors. 2018. *Labeo barbatus* Boulenger, 1898. FishBase. Available: <http://www.fishbase.se/summary/Labeo-barbatus.html>. (May 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Labeo barbatus* Boulenger, 1898. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5206103>. (May 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Labeo barbatus* Boulenger, 1898. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689268. (May 2018).

Moelants, T. 2010. *Labeo barbatus*. The IUCN Red List of Threatened Species 2010: e.T182008A7785190. Available: <http://www.iucnredlist.org/details/full/182008/0>. (May 2018).

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.

Boulenger, G. A. 1898. Matériaux pour la faune du Congo. Poissons nouveaux du Congo. Deuxième Partie. Elopes, Characins, Cyprins. Annales du Musée du Congo (Ser. Zoology) 1:21–38.

Tshibwabwa, S. M. 1997. Systématique des espèces africaines du genre *Labeo* (Teleostei, Cyprinidae) dans les régions ichthyogéographiques de Basse-Guinée et du Congo II. Doctoral dissertation. Presses Universitaires de Namur, Namur, Belgium.

Tshibwabwa, S. M., and G. G. Teugels. 1995. Contribution to the systematic revision of the African cyprinid fish genus *Labeo*: species from the Lower Zaire river system. Journal of Natural History 29:1543–1579.