

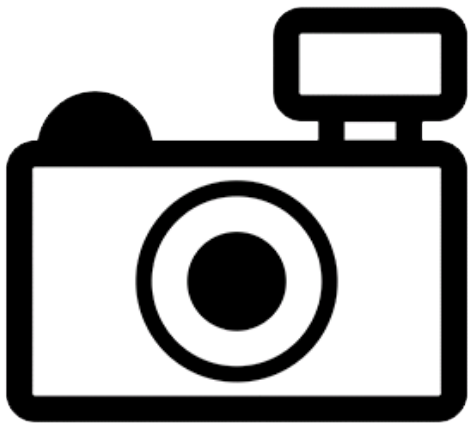
## ***Labeo fulakariensis* (a carp, no common name)**

### **Ecological Risk Screening Summary**

U.S. Fish & Wildlife Service, March 2012

Revised, May 2018, June 2018

Web Version, 7/12/2018



No Photo Available

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

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### **Native Range**

From Froese and Pauly (2018a):

“Africa: lower Congo River rapids in Democratic Republic of the Congo and Republic of Congo [Tshibwabwa et al. 2006].”

From Moelants (2010):

“*Labeo fulakariensis* is known from the lower and central Congo basin [Democratic Republic of the Congo, Republic of Congo]. It has recently been found in the Lulua, tributary of the Kasai River [Angola and previously listed countries] (Stiassny, M., pers. comm.).”

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

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

No information on trade of *L. fulakariensis* in the United States was found.

## Means of Introductions in the United States

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

## Remarks

No additional remarks.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Labeo fulakariensis* (Tshibwabwa, Stiassny, and Schelly, 2006) is the valid name for this species; it is also the original name.

From Froese and Pauly (2018b):

“Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > Pisces (Superclass) > Actinopterygii (Class) > Cypriniformes (Order) > Cyprinidae (Family) > Labeoninae (Subfamily) > *Labeo* (Genus) > *Labeo fulakariensis* (Species)”

### Size, Weight, and Age Range

From Froese and Pauly (2018a):

“Max length : 13.0 cm SL male/unsexed; [Tshibwabwa et al. 2006]”

### Environment

From Froese and Pauly (2018a):

“Freshwater; benthopelagic. [...]”

### Climate/Range

From Froese and Pauly (2018a):

“Tropical”

### Distribution Outside the United States

Native

From Froese and Pauly (2018a):

“Africa: lower Congo River rapids in Democratic Republic of the Congo and Republic of Congo [Tshibwabwa et al. 2006].”

From Moelants (2010):

“*Labeo fulakariensis* is known from the lower and central Congo basin [Democratic Republic of the Congo, Republic of Congo]. It has recently been found in the Lulua, tributary of the Kasai River [Angola and previously listed countries] (Stiassny, M., pers. comm.).”

### Introduced

No records of *Labeo fulakariensis* introductions were found.

### Means of Introduction Outside the United States

No records of *Labeo fulakariensis* introductions were found.

### Short Description

From Froese and Pauly (2018a):

“Vertebrae: 31 - 32. Body robust, more-or-less laterally compressed, flanks with longitudinal striping, and a large black spot situated at the base of the caudal peduncle [Tshibwabwa et al. 2006]. Maxillary barbels well-developed, hidden at the corners of the mouth; rostral barbels small and hidden beneath rostral lobe [Tshibwabwa et al. 2006]. Dorsal fin concave with 4 unbranched and 10 branched rays [Tshibwabwa et al. 2006]. Genital opening situated near the anal fin origin [Tshibwabwa et al. 2006].”

### Biology

No information on the biology of *Labeo fulakariensis* was found.

### Human Uses

From Moelants (2010):

“This species is harvested for human consumption.”

### Diseases

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

### Threat to Humans

From Froese and Pauly (2018a):

“Harmless”

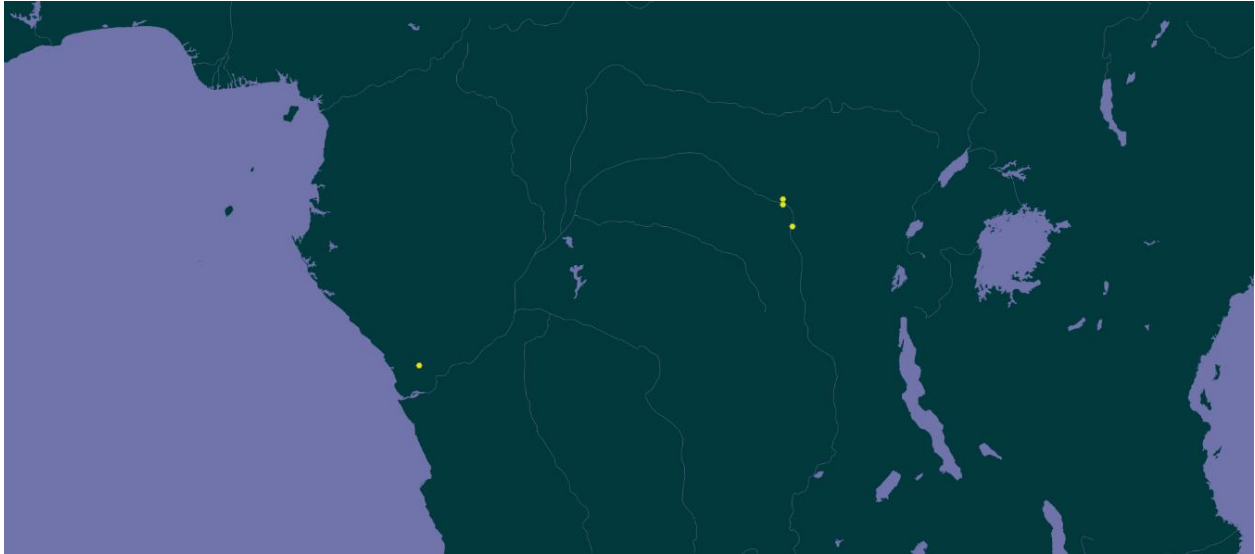
## 3 Impacts of Introductions

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No records of *Labeo fulakariensis* introductions were found.

## 4 Global Distribution

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**Figure 1.** Known global distribution of *Labeo fulakariensis*. Locations are in the Democratic Republic of the Congo. Map from GBIF Secretariat (2018).

*Labeo fulakariensis* has also been reported from Republic of the Congo and Angola, but georeferenced locations in these countries are unavailable.

## 5 Distribution Within the United States

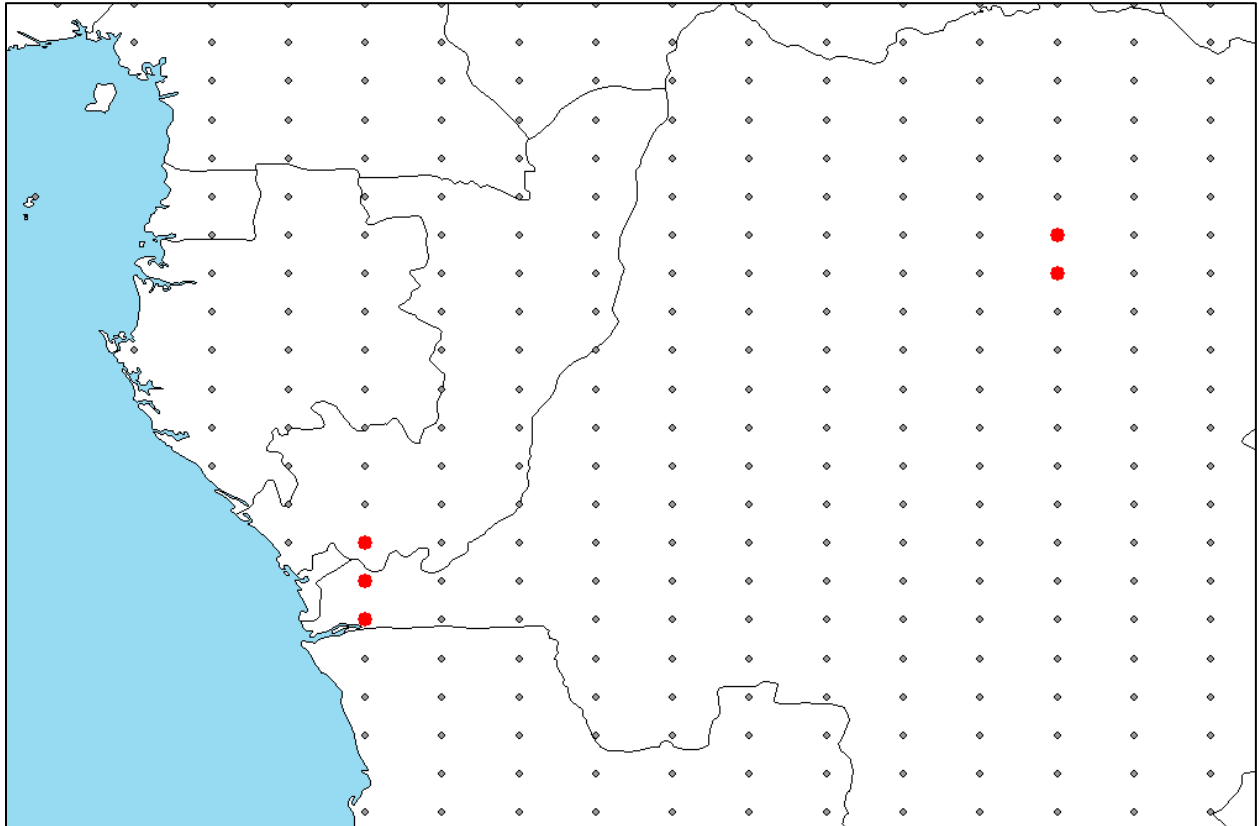
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No records of *Labeo fulakariensis* occurrences in the United States were found.

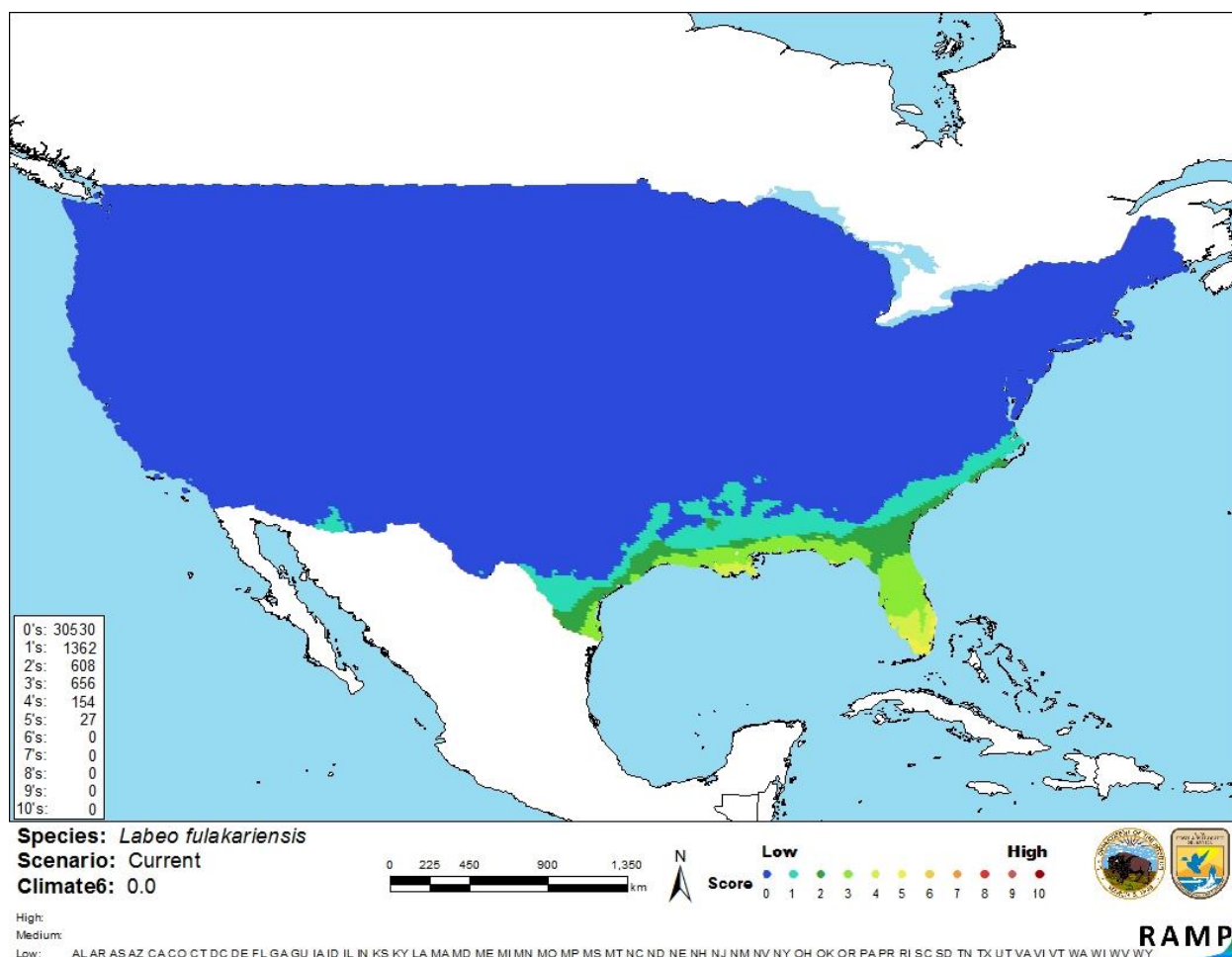
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Labeo fulakariensis* was low for most of the contiguous United States with a small patch of medium match in southern Florida and southern Louisiana. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low. The range for a low climate match is from 0.0 to 0.005, inclusive. All states had a low individual climate match score.



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



**Figure 3.** Map of RAMP (Sanders et al. 2018) climate matches for *Labeo fulakariensis* 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<br>(Sum of Climate Scores 6-10) / (Sum of total Climate Scores) | Climate Match<br>Category |
|------------------------------------------------------------------------------------------|---------------------------|
| $0.000 \leq X \leq 0.005$                                                                | Low                       |
| $0.005 < X < 0.103$                                                                      | Medium                    |
| $\geq 0.103$                                                                             | High                      |

## 7 Certainty of Assessment

The certainty of this assessment is low. There is minimal information for *Labeo fulakariensis* and a lack of peer-reviewed literature. No introductions of this species have been reported, so impacts of introduction are unknown.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Labeo fulakariensis* is a freshwater fish native to Africa. *L. fulakariensis* is harvested for human consumption. There is little information available for this species. The history of invasiveness is uncertain. It has not been reported as introduced or established outside of its native range. The climate match analysis resulted in a low match for the contiguous United States. The certainty of this 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 remarks.
- **Overall Risk Assessment Category: Uncertain**

## 9 References

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**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. 2018a. *Labeo fulakariensis* Tshibwabwa, Stiassny & Schelly, 2006. FishBase. Available: <https://www.fishbase.de/summary/Labeo-fulakariensis.html>. (May 2018).
- Froese, R., and D. Pauly, editors. 2018b. *Labeo fulakariensis* Tshibwabwa, Stiassny & Schelly, 2006. In World Register of Marine Species. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1009001>. (May 2018).
- GBIF Secretariat. 2018. GBIF backbone taxonomy: *Labeo fulakariensis* Tshibwabwa, Stiassny & Schelly, 2006. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5206183>. (May 2018).
- Moelants, T. 2010. *Labeo fulakariensis*. The IUCN Red List of Threatened Species 2010: e.T182945A8008622. Available: <http://www.iucnredlist.org/details/full/182945/0>. (May 2018).
- 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

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**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.

Tshibwabwa, S. M., M. L. J. Stiassny, and R. C. Schelly. 2006. Description of a new species of *Labeo* (Teleostei: Cyprinidae) from the lower Congo River. *Zootaxa* 1224:33–44.