

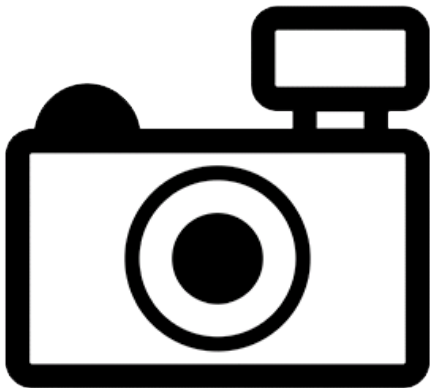
## ***Labeo chariensis* (a carp, no common name)**

### **Ecological Risk Screening Summary**

U.S. Fish and Wildlife Service, May 2012

Revised, March 2018

Web Version, 6/6/2018



No Photo Available

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

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### **Native Range**

From Froese and Pauly (2017):

“Africa: widespread in the Congo River basin, from the lower Congo up to the upper Lualaba and Luapula, in Cameroon, Central African Republic, Democratic Republic of the Congo, Angola and Zambia [Tshibwabwa 1997]. Also in the Chari River (Lake Chad basin) in Central African Republic [Tshibwabwa 1997] and Cameroon [Poll 1967] and the Shiloango River in Cabinda Province of Angola [Tshibwabwa 1997].”

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

This species has not been reported as introduced or established in the U.S.

### **Means of Introductions in the United States**

This species has not been reported as introduced or established in the U.S.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

From GBIF Secretariat (2018):

“Kingdom Animalia  
Phylum Chordata  
Class Actinopterygii  
Order Cypriniformes  
Family Cyprinidae  
Genus *Labeo* Cuvier, 1816  
Species *Labeo chariensis* Pellegrin, 1904”

From Eschmeyer et al. (2018):

“Current status: Valid as *Labeo chariensis* Pellegrin 1904. Cyprinidae: Labeoninae.”

### Size, Weight, and Age Range

From Froese and Pauly (2017):

“Max length : 22.1 cm SL male/unsexed; [Tshibwabwa 1997]”

### Environment

From Froese and Pauly (2017):

“Freshwater; benthopelagic.”

### Climate/Range

From Froese and Pauly (2017):

“Tropical”

### Distribution Outside the United States

Native

From Froese and Pauly (2017):

“Africa: widespread in the Congo River basin, from the lower Congo up to the upper Lualaba and Luapula, in Cameroon, Central African Republic, Democratic Republic of the Congo, Angola and Zambia [Tshibwabwa 1997]. Also in the Chari River (Lake Chad basin) in Central African Republic [Tshibwabwa 1997] and Cameroon [Poll 1967] and the Shiloango River in Cabinda Province of Angola [Tshibwabwa 1997].”

Introduced

This species has not been reported as introduced or established outside of its native range.

## Means of Introduction Outside the United States

This species has not been reported as introduced or established outside of its native range.

## Short Description

From Nichols and Griscom (1917):

“In color the back was dark grayish green, nearly black, with bluish reflections; sides of head grayish blue; sides dull silvery gray with bluish edges on the scales; iris dark brown with a narrow silvery ring about the pupil; dorsal fin gray; caudal fin brownish with a tinge of red; pectorals and ventrals grayish green.”

From Boulenger (1909):

“Depth of body equal to length of head, 4 times in total length. Head once and  $\frac{1}{3}$  as long as broad; snout very prominent, with numerous tubercles; eye supero-lateral, in second half of head, 6 times in length of head,  $2\frac{3}{4}$  or 3 times in interorbital width; inner surface of lips with numerous transverse plicae; a minute barbel, hidden in the folds at side of mouth. Dorsal II 10, falciform, deeply notched, anterior rays extremely prolonged,  $1\frac{2}{3}$  or  $1\frac{3}{4}$  times length of head. Anal II 5. Pectoral a little shorter than head, not reaching ventral. Caudal forked, with pointed lobes.

Caudal peduncle a little longer than deep. Scales  $34\frac{4\frac{1}{2}}{6\frac{2}{2}}$ , 3 between lateral line and root of ventral, 12 round caudal peduncle. Olive-brown, lighter beneath.”

## Biology

From Moelants (2010):

“*Labeo chariensis* is a benthopelagic and potamodromous species. It is found in stony river beds and in mountain pools formed by small brooks (Bianco 1981).”

From Allen (1917):

“Nine specimens, about 5 inches to a foot long from Avakubi, Faradje and Stanleyville. One of these about 10 inches long, from the Dungu River at Faradje, when placed alive in a basin of water kept close to the bottom with the ventral and pectoral fins spread. The species was said by natives to feed on grass on the submerged rocks.”

## Human Uses

No information available.

## Diseases

No information available. No OIE-reportable diseases have been documented for this species.

## Threat to Humans

From Froese and Pauly (2017):

“Harmless”

## 3 Impacts of Introductions

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This species has not been reported as introduced or established outside of its native range.

## 4 Global Distribution

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**Figure 1.** Known global distribution of *Labeo chariensis*. Map from GBIF Secretariat (2018).

## 5 Distribution Within the United States

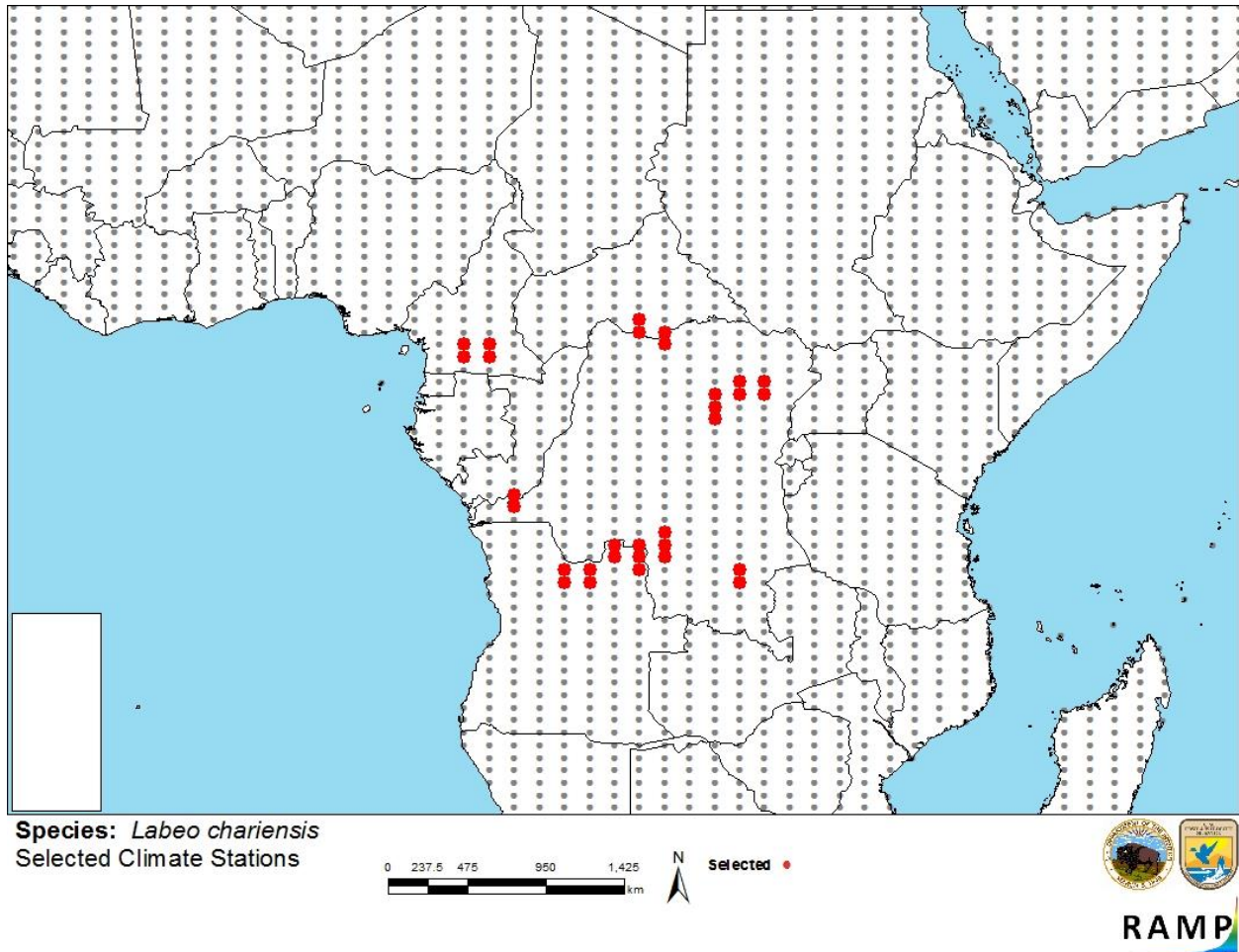
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This species has not been reported as introduced or established in the U.S.

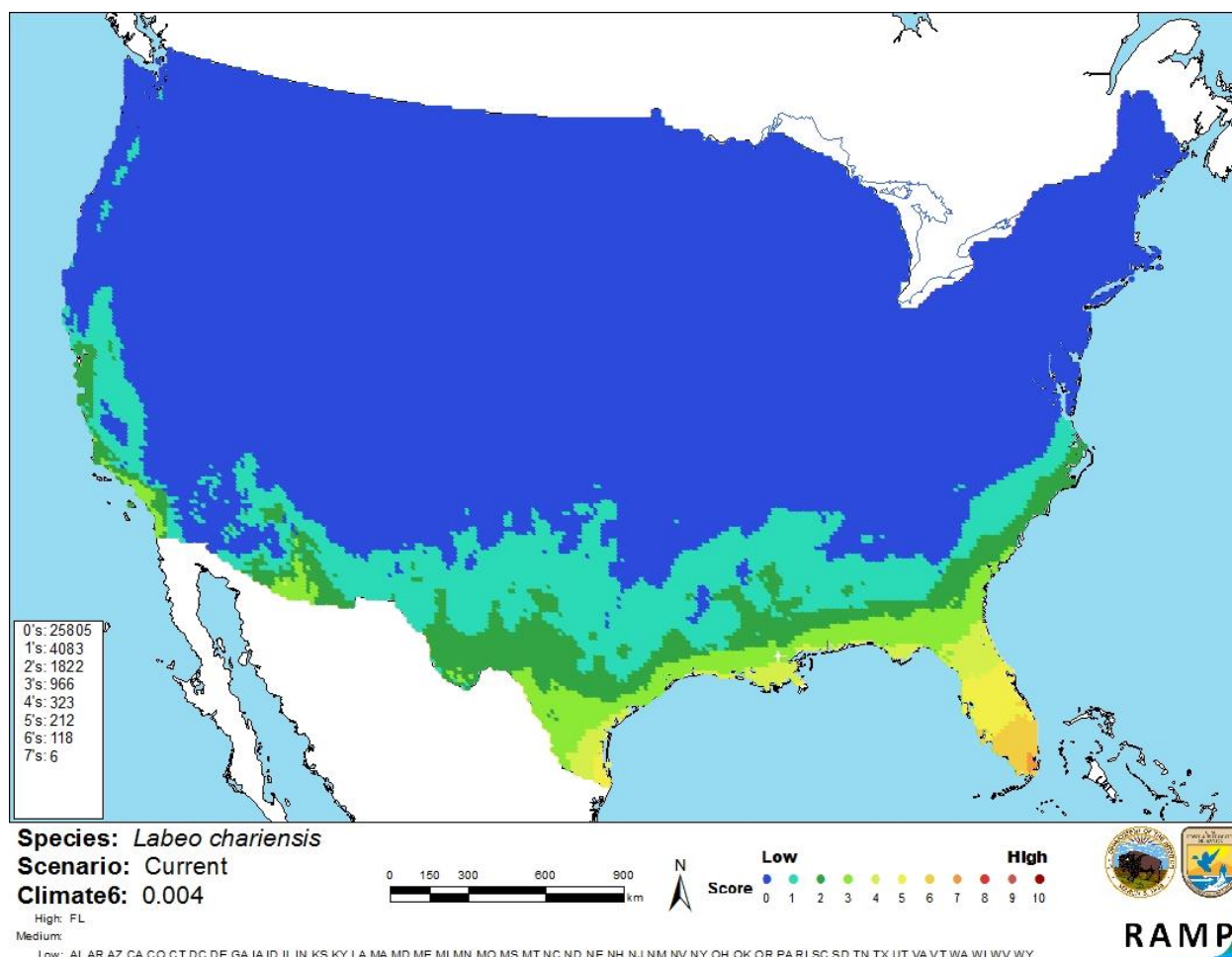
## 6 Climate Matching

### Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the Continental U.S. was 0.004, which is a low climate match. The only State with a high climate match was Florida; all other States had a low climate match. Most of the rest of the contiguous U.S. had a low climate match, but areas of coastal California, the Southwest, and along the Gulf Coast had a slightly higher climate match.



**Figure 2.** RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *Labeo chariensis* climate matching. Source locations from GBIF Secretariat (2018).



**Figure 3.** Map of RAMP (Sanders et al. 2014) climate matches for *Labeo chariensis* 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
$0.000 < X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
$\geq 0.103$	High

## 7 Certainty of Assessment

There is little information available about *Labeo chariensis*. No introductions of this species outside of its native range have been documented. Because of this, no impacts of introductions have been documented, so certainty of this assessment is low.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Labeo chariensis* is a carp native to central Africa. This species has never been reported as introduced outside of its native range. *L. chariensis* has a low climate match with the contiguous United States; the only state with a high climate match was Florida. Because of a lack of information from which to base an assessment of invasive potential, 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**
- **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.**

Boulenger, G. A. 1909. Catalogue of the fresh-water fishes of Africa in the British Museum (Natural History). London.

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>. (March 2018).

Froese, R., and D. Pauly, editors. 2017. *Labeo chariensis* (Pellegrin, 1904). FishBase. Available: <http://www.fishbase.org/summary/Labeo-chariensis.html>. (March 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Labeo chariensis*, Pellegrin, 1904. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5206096>. (March 2018).

Moelants, T. 2010. *Labeo chariensis*. The IUCN Red List of Threatened Species 2010: e.T181610A7689222. Available: <http://www.iucnredlist.org/details/181610/0>. (March 2018).

Nichols, J. T., and L. Griscom. 1917. Fresh-water fishes of the Congo basin obtained by the American Museum Congo expedition, 1909-1915. Bulletin of the American Museum of Natural History 37:653-756.

Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. US 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.**

Bianco. 1981. [Source material did not give full citation for this reference.]

Poll, M. 1967. Contribution à la faune ichthyologique de l'Angola. Diamang Publicações Culturais 75.

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