

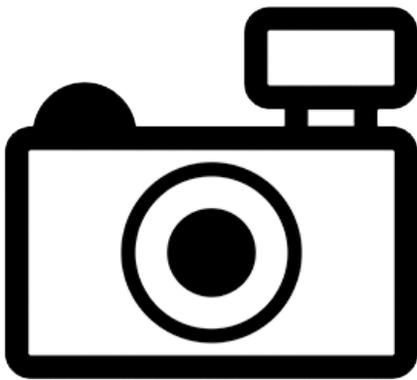
## ***Labeo sanagaensis* (a carp, no common name)**

### **Ecological Risk Screening Summary**

U.S. Fish and Wildlife Service, February 2012

Revised, July 2018

Web Version, 7/13/2018



No Photo Available

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

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### **Native Range**

From Froese and Pauly (2018):

“Africa: Lower Guinea endemic from the northwestern Cameroon [Tshibwabwa 1997; De Weirdt et al. 2007].”

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

This species has not been reported as introduced or established in the United States. There is no indication that this species is in trade in the United States.

### **Means of Introduction into the United States**

This species has not been reported as introduced or established in the United States.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2018):

“Kingdom Animalia – Animal, animaux, animals  
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 sanagaensis* Tshibwabwa, 1997”

“Current Standing: valid”

### Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 18.7 cm SL male/unsexed; [De Weirdt et al. 2007]”

### Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

### Climate/Range

From Froese and Pauly (2018):

“Tropical; 10°N - 3°N”

### Distribution Outside the United States

Native

From Froese and Pauly (2018):

“Africa: Lower Guinea endemic from the northwestern Cameroon [Tshibwabwa 1997; De Weirdt et al. 2007].”

## Introduced

No introductions of this species have been reported.

## Means of Introduction Outside the United States

No introductions of this species have been reported.

## Short Description

From Froese and Pauly (2018):

“Dorsal soft rays (total): 13-14; Vertebrae: 31 - 32. Diagnosis: snout with deep transverse furrow terminating in a fleshy upwards turned transverse appendage; prominent, large and somewhat pointed, 44.6-60.0% of HL, with a deep and wide transverse furrow and ending in a fleshy appendage; scale formula: 36-37 (37 commonly observed); 4.0-4.5 (4.5 commonly observed); 2.5-3.0 (3.0 commonly observed); 12-13 (12 commonly observed); dorsal fin with 4 unbranched and 9-10 (10 commonly observed) branched rays; upper edge of dorsal fin feebly concave; 31-32 (32 commonly observed) vertebrae; ventral fin origin located under the 5th branched dorsal ray; longitudinal band on flanks [De Weirdt et al. 2007].”

## Biology

No information available.

## Human Uses

From Froese and Pauly (2018):

“Fisheries”

## Diseases

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

## Threat to Humans

From Froese and Pauly (2018):

“Harmless”

## 3 Impacts of Introductions

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No information available. No introductions of this species have been reported.

## 4 Global Distribution

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**Figure 1.** Known global distribution of *Labeo sanagaensis* in west-central Africa. Map from GBIF Secretariat (2017). Gabon is not part of the known established range of *L. sanagaensis* (see Distribution Outside the United States), so the occurrence reported in Gabon was excluded from the climate matching analysis.

## 5 Distribution within the United States

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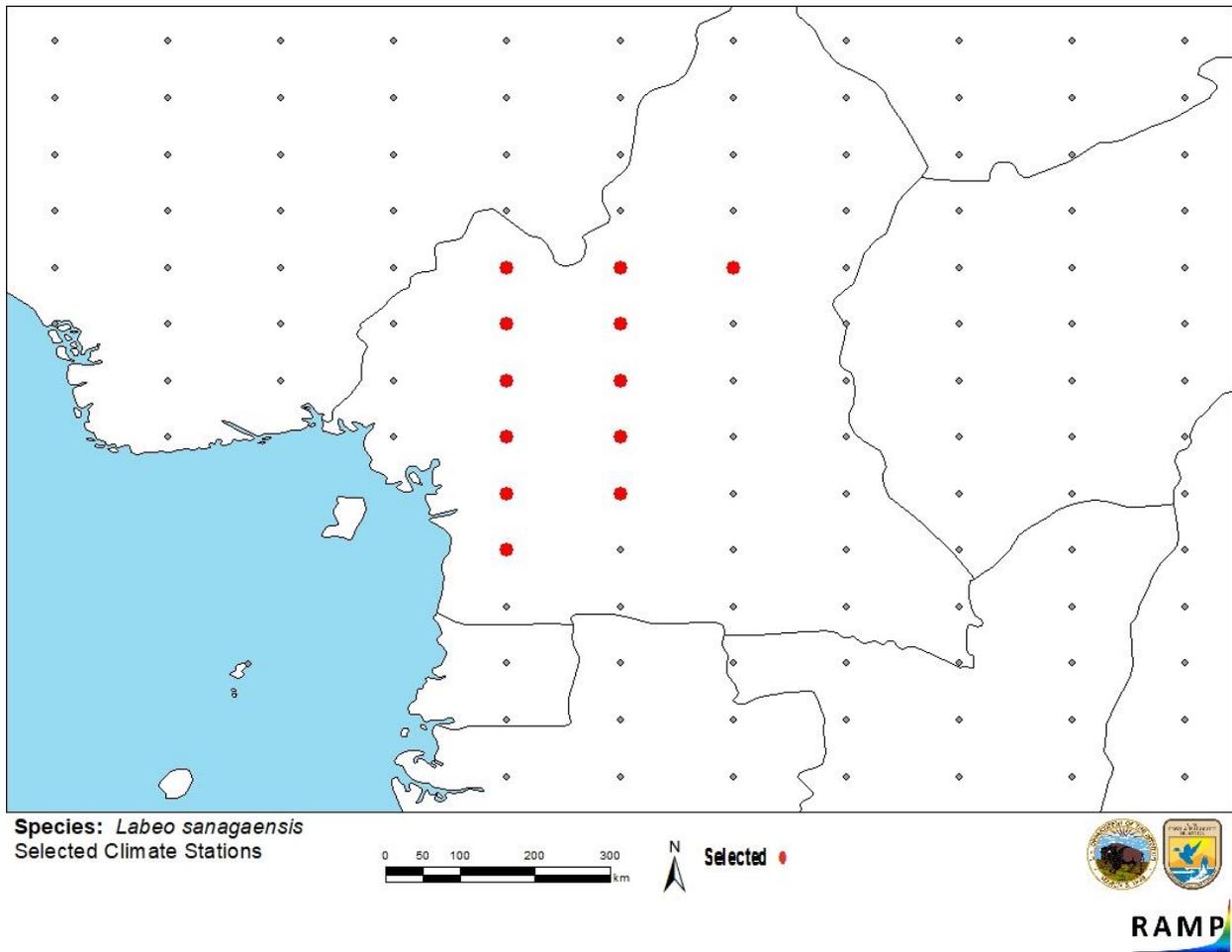
This species has not been reported as introduced or established in the United States.

## 6 Climate Matching

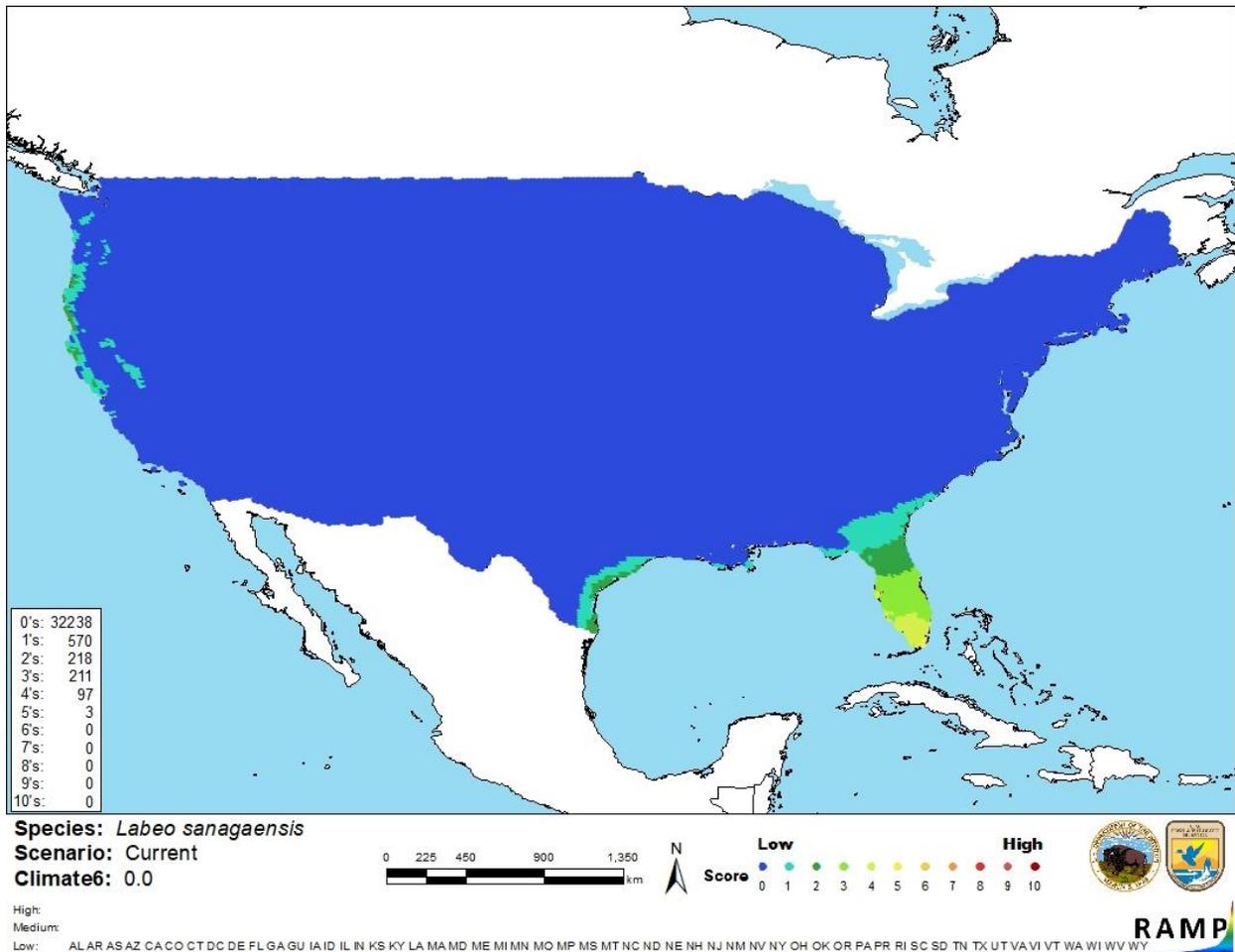
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### Summary of Climate Matching Analysis

The climate match (Sanders et al. 2018; 16 climate variables; Euclidean Distance) for *L. sanagaensis* was low throughout the contiguous United States except for an area of medium match in southern Florida. Climate 6 score indicated that the contiguous United States has a low climate match overall. The range of scores indicating a low climate match is 0.000 to 0.005, inclusive; Climate 6 score for *L. sanagaensis* was 0.000.



**Figure 2.** RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Cameroon) and non-source locations (gray) for *L. sanagaensis* climate matching. Source locations from GBIF Secretariat (2017).



**Figure 3.** Map of RAMP (Sanders et al. 2018) climate matches for *L. sanagaensis* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 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
$\geq 0.103$	High

## 7 Certainty of Assessment

Very little information is available on the biology, ecology, and distribution of *L. sanagaensis*. No information is available on impacts of introduction because no introductions of this species have been reported. Certainty of this assessment is low.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Labeo sanagaensis* is a species of carp endemic to Cameroon. It is used for human consumption. *L. sanagaensis* has not been reported as introduced outside its native range and very little is known about its biology and ecology, leading to a low certainty of assessment. Climate match to the contiguous United States is low, with medium match occurring only in southern Florida. Without a history of introduction on which to base the determination of risk, the overall risk assessment category is uncertain.

### Assessment Elements

- **History of Invasiveness: Uncertain**
- **Climate Match: Low**
- **Certainty of Assessment: 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.**

Froese, R., and D. Pauly, editors. 2018. *Labeo sanagaensis* Tshibwabwa, 1997. FishBase. Available: <https://www.fishbase.de/summary/Labeo-sanagaensis.html>. (July 2018).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Labeo sanagaensis* Tshibwabwa, 1997. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5206029>. (July 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Labeo sanagaensis* Tshibwabwa, 1997. Integrated Taxonomic Information System, Reston, Virginia. Available: [https://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=689340#null](https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689340#null). (July 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.**

De Weirtdt, D., A. Getahun, S. Tshibwabwa, and G. G. Teugels. 2007. Cyprinidae. Pages 466-572 in M. L. J. Stiassny, G. G. Teugels, and C. D. Hopkins, editors. The fresh and brackish water fishes of Lower Guinea, West-Central Africa, volume I. Collection Faune

et Flore tropicales 42. Institut de Recherche pour le Développement, Paris, Muséum National d'Histoire Naturelle, Paris, and Musée Royal de l'Afrique Centrale, Tervuren, Belgium.

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 thesis. Presses Universitaires de Namur, Namur, Belgium.