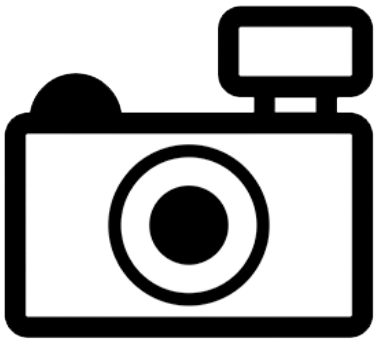
Labeo nunensis (a carp, no common name)

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, May 2012
Revised, May 2018
Web Version, 6/15/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

"Africa: Lower Guinea endemic, found in north-western Cameroon in following rivers: Noun, Djerem, Sanaga, Kelle, Mape, Assamba, Mbam, Mekay, Meng, Nchi, Nkoup, Mvi, Mevobo , tributary of Kim and northern Mifi [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.

Remarks

From Froese and Pauly (2018):

"Records of *Labeo chariensis* from Cameroon may in fact refer to *Labeo nunensis*."

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

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 nunensis* Pellegrin, 1929"

"Current Standing: valid"

Size, Weight, and Age Range

From Froese and Pauly (2018):

"Max length : 29.1 cm SL male/unsexed; [Tshibwabwa 1997]"

Environment

From Froese and Pauly (2018):

"Freshwater; benthopelagic."

Climate/Range

From Froese and Pauly (2018):

"Tropical; 10°N - 15°S"

Distribution Outside the United States

Native

From Froese and Pauly (2018):

"Africa: Lower Guinea endemic, found in north-western Cameroon in following rivers: Noun, Djerem, Sanaga, Kelle, Mape, Assamba, Mbam, Mekay, Meng, Nchi, Nkoup, Mvi, Mevobo , tributary of Kim and northern Mifi [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): 11-12; Anal soft rays: 8; Vertebrae: 32 - 34. Diagnosis: snout very prominent and with a more or less deep transverse furrow and numerous tubercles; some specimens additionally have numerous small, wart-like tubercles dorsally on head; small fleshy appendage at anterior end of snout; interocular profile flattened; scale formula: 38-40 (39 commonly observed); 4.5-6.5 (5.5 commonly observed, exceptionally 4.5); 3.0-4.5 (4.0 commonly observed); 16-19 (16 commonly observed); dorsal fin with 11-12 (11 commonly observed) branched rays; upper edge of dorsal fin falciform (or deeply concave); 33-34 (33 commonly observed) vertebrae; ventral fin origin located under the 4th branched dorsal ray; genital orifice situated distant from anal fin origin; sometimes a dark brown longitudinal band is present [De Weirdt et al. 2007]."

Biology

No information available.

Human Uses

No information available.

Diseases

From Froese and Pauly (2018):

"Bacterial Infections (general), Bacterial diseases"

No OIE-reportable diseases have been documented for *L. nunensis*.

Threat to Humans
From Froese and Pauly (2018):

"Harmless"

3 Impacts of Introductions
No information available. No introductions of this species have been reported.

4 Global Distribution

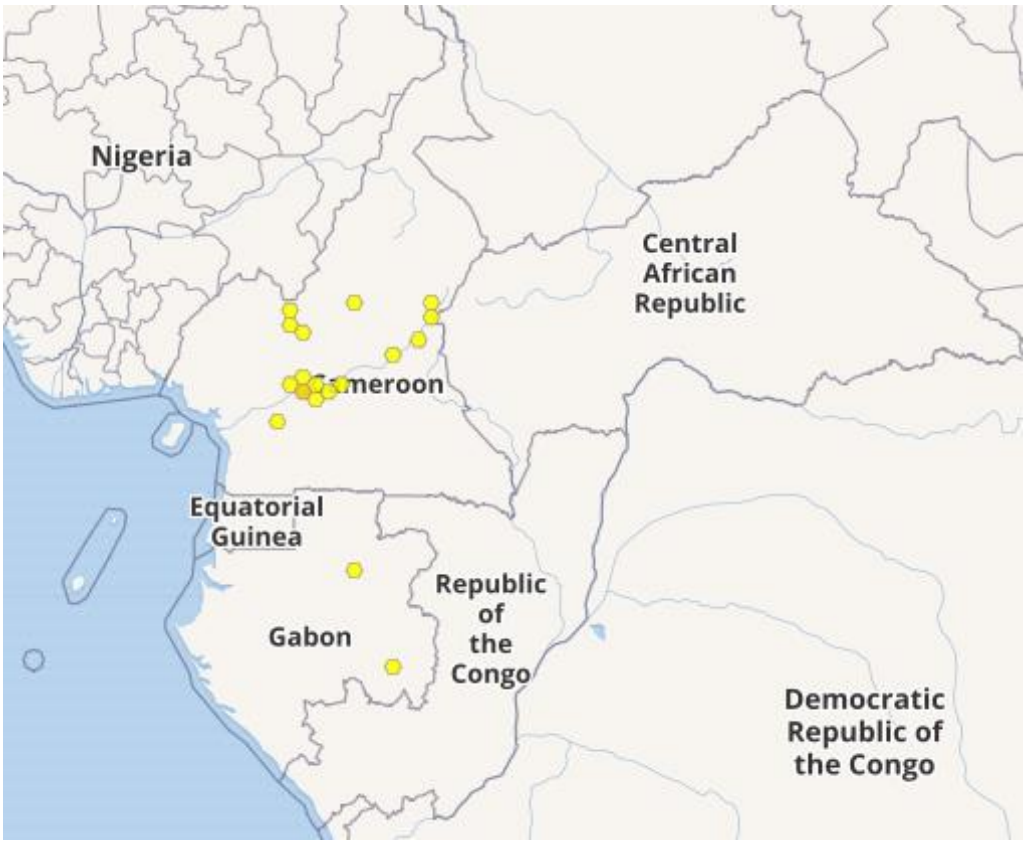


Figure 1. Known global distribution of *Labeo nunensis*, reported from west-central Africa. Map from GBIF Secretariat (2017). The occurrences reported in Gabon were not included in the climate matching analysis because *L. nunensis* is not known to be established there. Furthermore, GBIF Secretariat (2017) notes that most specimens from one of the collection points in Gabon have already been reclassified as a related species.

5 Distribution within the United States
This species has not been reported in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables, Euclidean Distance) was medium in southern Florida and low elsewhere in the contiguous United States. Climate 6 score indicated that the contiguous United States has a low climate match overall. Scores of 0.005 and below are classified as low match; Climate 6 score for *L. nunensis* was 0.000.

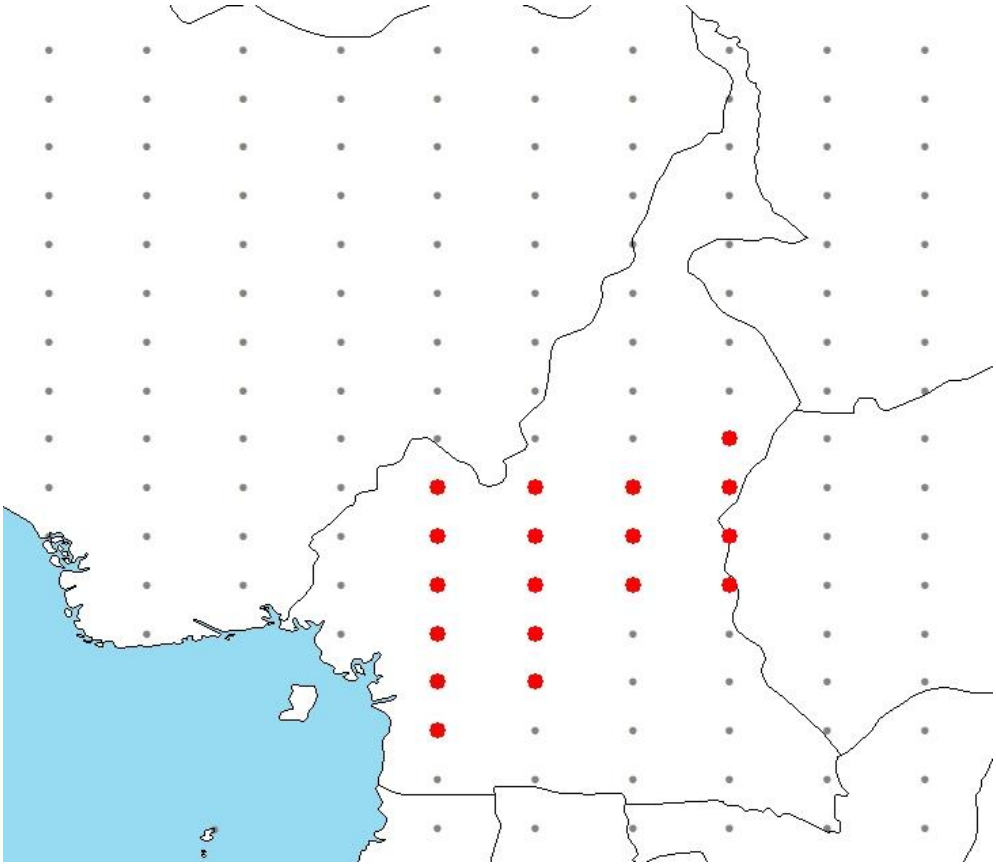


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in Cameroon and surrounding countries selected as source locations (red) and non-source locations (gray) for *L. nunensis* climate matching. Source locations from GBIF Secretariat (2017).

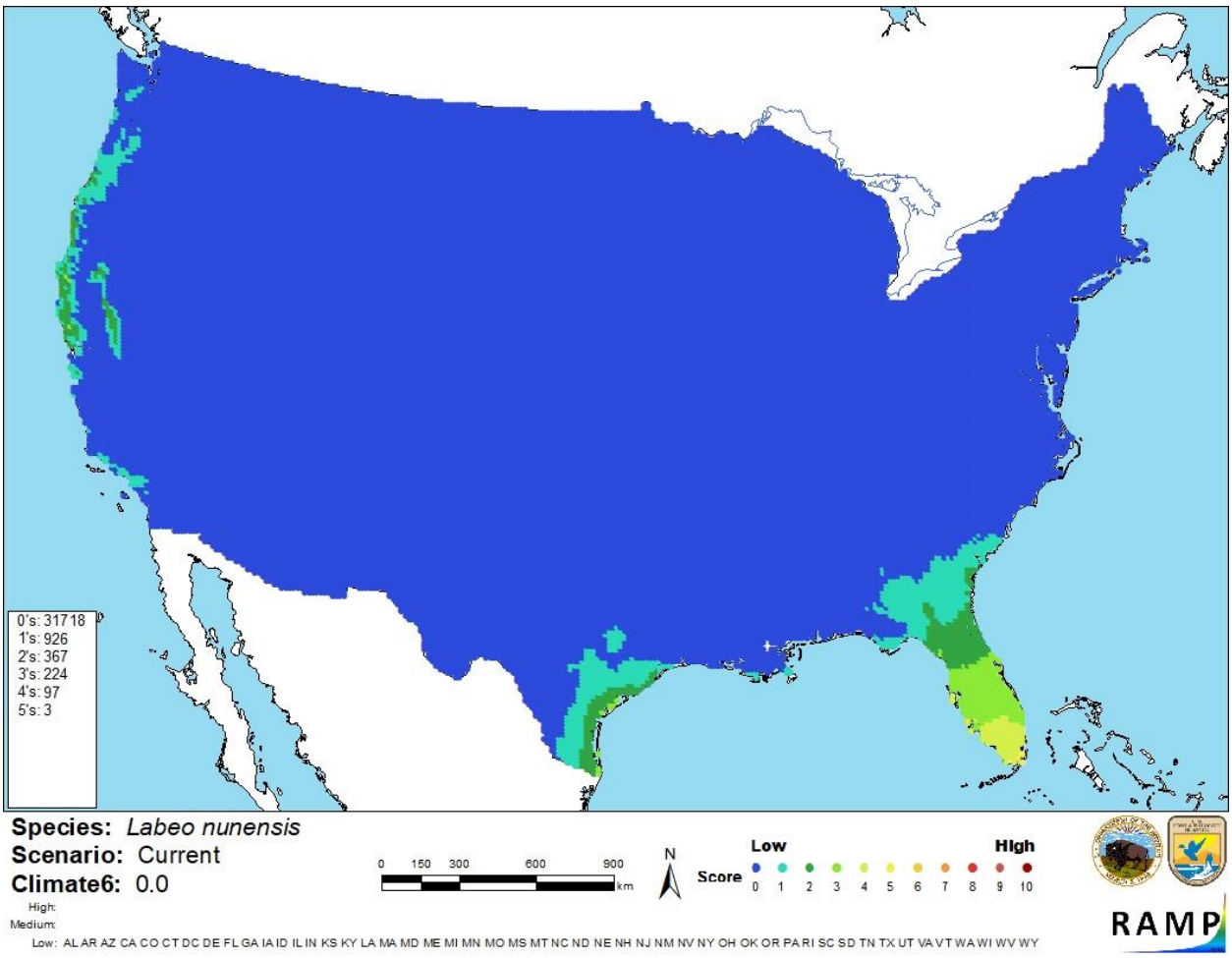


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *L. nunensis* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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≤X≤0.005	Low
0.005<X<0.103	Medium
≥0.103	High

7 Certainty of Assessment

Very limited information is available on the biology, ecology, and distribution of *Labeo nunensis*. No introductions of the species have been reported so impacts of introduction remain unknown. Given the paucity of information, certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo nunensis is a cyprinid fish native to Cameroon, in west-central Africa. It has not been reported as introduced or established anywhere outside its native range, including the United States. The climate match for most of the contiguous United States was low, with the exception of the southern Florida. Due to the lack of documented introduction history, certainty of assessment is low and overall risk posed by *L. nunensis* to the contiguous United States is uncertain.

Assessment Elements

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

Froese, R., and D. Pauly, editors. 2018. *Labeo nunensis* Pellegrin, 1929. FishBase. Available: https://www.fishbase.de/summary/Labeo-nunensis.html. (May 2018).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Labeo nunensis* Pellegrin, 1929. Global Biodiversity Information Facility, Copenhagen. Available: https://www.gbif.org/species/5206042. (May 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Labeo nunensis* Pellegrin, 1929. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689321#null. (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.

De Weirdt, 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 icthyogéographiques de Basse-Guinée et du Congo I. Doctoral thesis. Presses Universitaires de Namur, Namur, Belgium.