

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

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, February 2012

Revised, June 2018

Web Version, 8/30/2018



Photo: S. Grosjean and M. Silvain. Licensed under Creative Commons BY-NC-ND. Available: <https://www.gbif.org/occurrence/583624753>. (June 2018).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“Africa: only known from the Kakrima River in the Konkouré basin in Guinea [Lévêque 1990; Calderon-Aguilera 1991; Lévêque 2003].”

Status in the United States

This species has not been reported as introduced or established in the United States. No evidence was found of trade in this species in the United States.

Means of Introductions in the United States

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

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 rouaneti* Daget, 1962”

“Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 36.0 cm SL male/unsexed; [Lévêque and Daget 1984]”

“Maximum TL was recorded at 49 cm [Lévêque and Daget 1984].”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“Africa: only known from the Kakrima River in the Konkouré basin in Guinea [Lévêque 1990; Calderon-Aguilera 1991; Lévêque 2003].”

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): 14-15; Anal soft rays: 8. Diagnosis: dorsal profile steeply arched between snout and dorsal fin; body depth 2.4-2.9x SL; depth of caudal peduncle 0.7-1.1x its length; distal margin of dorsal fin concave; 30-46 (50-150mm) and 49-56 (150-250mm) gill rakers; scale formula 5.5-6.5/38-39/6.5-7.5; 4.5 scales between lateral line and pelvic-fin base; 16 scales around caudal peduncle; 11-12 dorsal fin branched rays; [Lévêque 1990; Lévêque 2003].”

Biology

From Froese and Pauly (2018):

“Affinities: *L. coubie* (upper edge of dorsal fin straight or slightly convex, very slightly concave chin). It is found in rocky, rapid-water habitats [Reid 1985].”

Human Uses

No information available.

Diseases

From Guegan and Lambert (1991):

“Dactylogyrids from [...] *L. rouaneti*, Daget, 1962, were studied in Atlantic coastal basins in West Africa. Nine species (6 new) of Dactylogyridae were found [among three *Labeo* species]: [...] *Dactylogyrus sematus* sp. n., *D. jucundus* sp. n., *D. omega* sp. n., and *Dogielius rosumplicatus* sp. n. from *L. rouaneti* in the Konkoure system in Guinea.”

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 rouaneti*, reported from western Africa. Map from GBIF Secretariat (2017). The point on the border of Senegal and Mali was not included in the climate matching analysis because it is outside the established range of *L. rouaneti* in the Konkouré basin in Guinea.

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. 2018; 16 climate variables; Euclidean Distance) of *L. rouaneti* was low across the entire contiguous United States, reflected in a Climate 6 score of 0.000. The range of Climate 6 scores indicating a low climate match is 0.000-0.005.

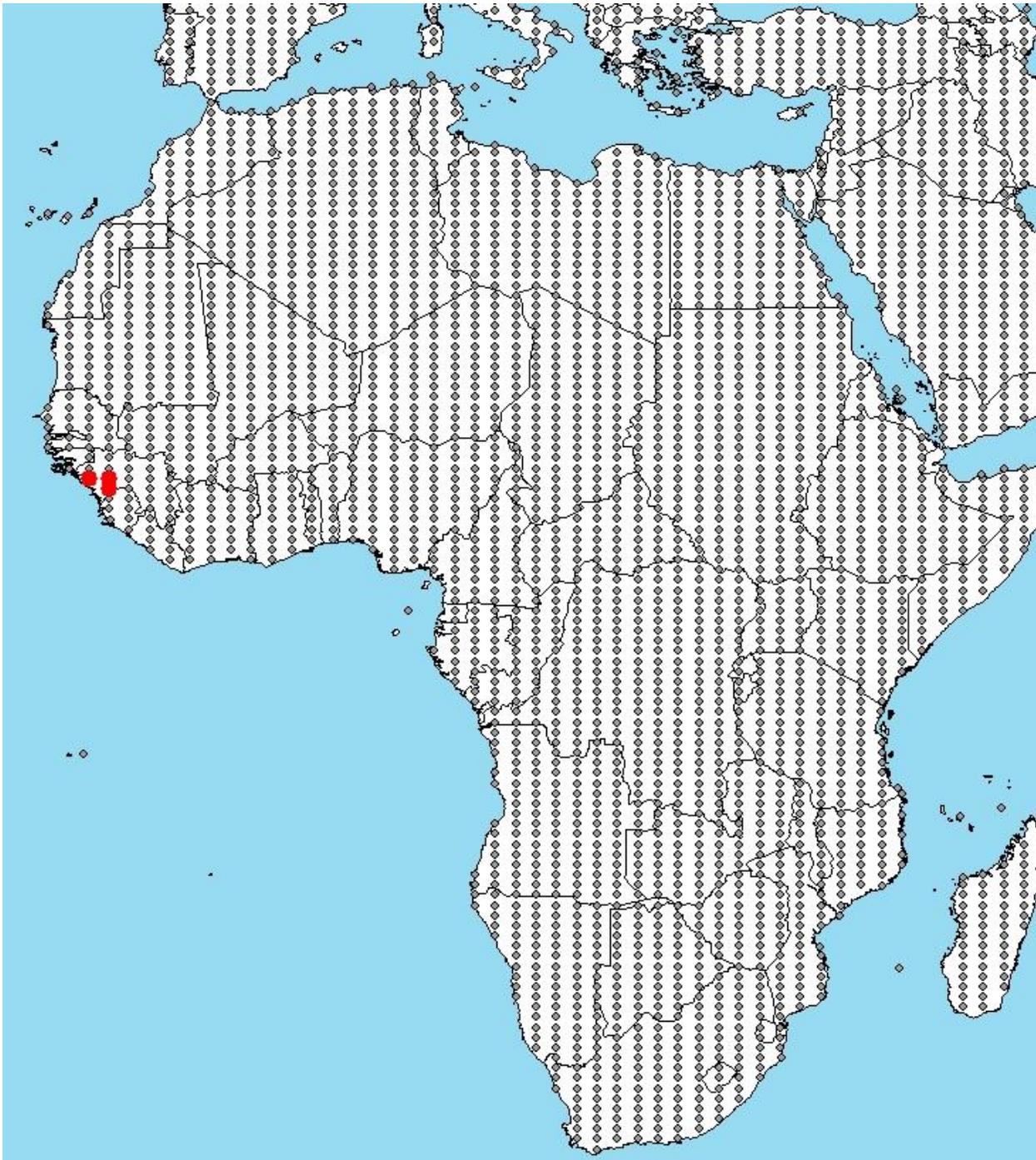


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in West Africa selected as source locations (red; Guinea) and non-source locations (gray) for *L. rouaneti* climate matching. Source locations from GBIF Secretariat (2017).

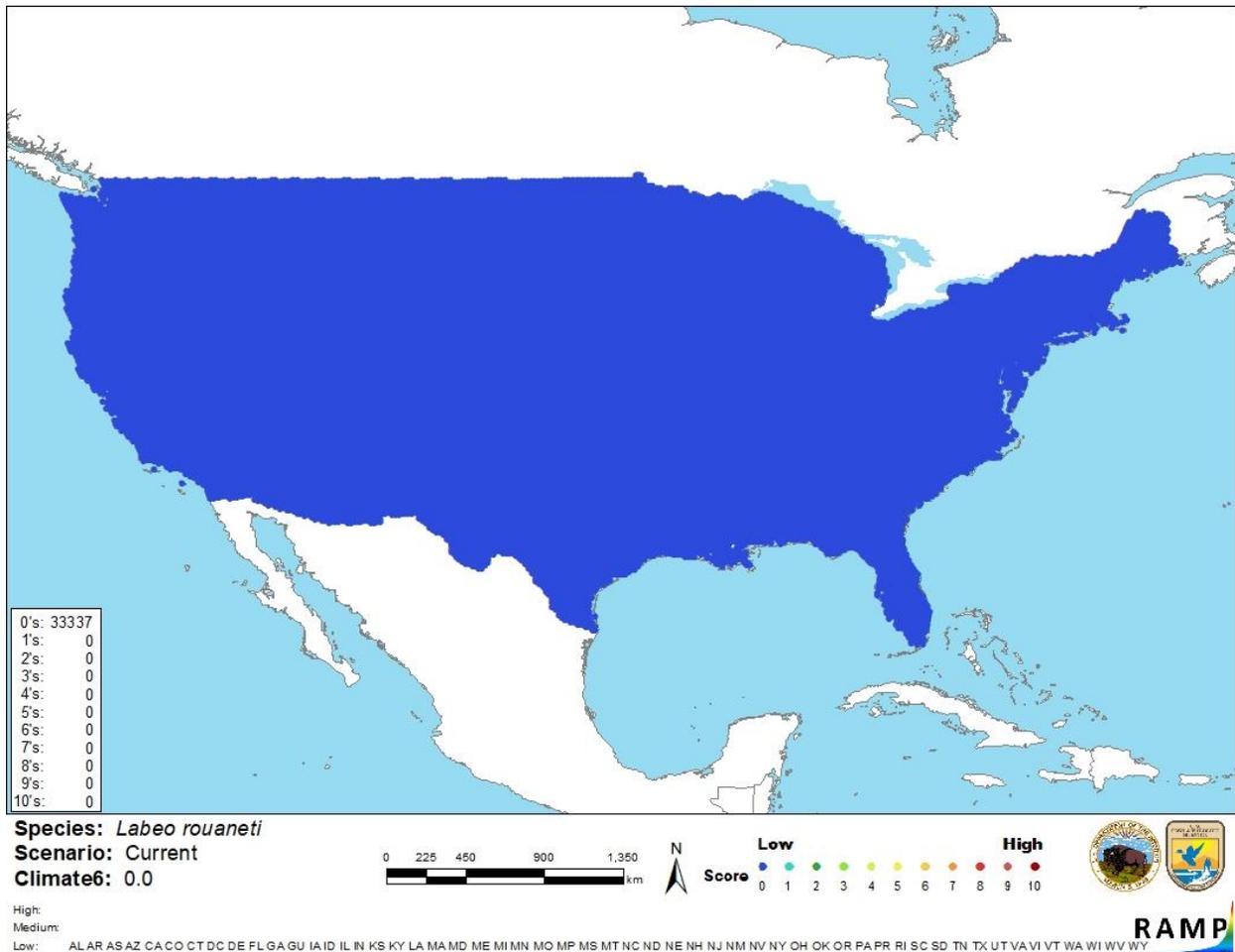


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *L. rouaneti* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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

7 Certainty of Assessment

Very limited information is available on the biology and ecology of *Labeo rouaneti*. No introductions of this species have been reported, so any impacts of introduction remain unknown. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo rouaneti is a species of carp endemic to a single river basin in West Africa. The species has a low climate match to the whole of the contiguous United States. Very little information is available on *L. rouaneti*, including impacts of introduction because no introductions have been documented.

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 rouaneti* Daget, 1962. FishBase. Available: <https://www.fishbase.de/summary/Labeo-rouaneti.html>. (June 2018).

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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

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.

Calderon-Aguilera, L. E. 1991. An autoregressive model of the temperature-growth relationship for the Western Mediterranean blue whiting *Micromesistius poutassou*. *Ecological Modelling* 56:47-61.

Lévêque, C., and J. Daget. 1984. Cyprinidae. Pages 217-342 in J. Daget, J.-P. Gosse, and D. F. E. Thys van den Audenaerde, editors. Check-list of the freshwater fishes of Africa (CLOFFA), volume 1. ORSTOM, Paris and MRAC, Tervuren, Belgium.

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Reid, G. M. 1985 A revision of African species of *Labeo* (Pisces: Cyprinidae) and a re-definition of the genus. Verlag von J. Cramer, Braunschweig, Germany.