

Labeo longipinnis (a carp, no common name)

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, April 2012

Revised, April 2018

Web Version, 5/16/2018



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1 Native Range and Status in the United States

Native Range

From Moelants (2010):

“This species is known from Central Africa Republic to Angola, and Tanzania.”

“Central Africa: *Labeo longipinnis* is known from throughout the Congo River Basin.”

“Eastern Africa: One record has been made from Lake Tanganyika (Reid 1985).”

“Native: Angola (Angola); Central African Republic; Congo, The Democratic Republic of the; Tanzania, United Republic of”

From Froese and Pauly (2018):

“Africa: widespread in the Congo River basin, Luapula-Mweru excluded [Tshibwabwa 1997]. Single record from Lake Tanganyika [Reid 1985] unconfirmed [Tshibwabwa 1997] and doubtful.”

Status in the United States

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

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 longipinnis* Boulenger, 1898”

From Eschmeyer et al. (2018):

“Current status: Valid as *Labeo longipinnis* Boulenger 1898. Cyprinidae: Labeoninae.”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 26.0 cm SL male/unsexed; [Eccles 1992]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2018):

“Tropical; 5°N - 7°S”

Distribution Outside the United States

Native

From Moelants (2010):

“This species is known from Central Africa Republic to Angola, and Tanzania.”

“Central Africa: *Labeo longipinnis* is known from throughout the Congo River Basin.

“Eastern Africa: One record has been made from Lake Tanganyika (Reid 1985).”

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“Africa: widespread in the Congo River basin, Luapula-Mweru excluded [Tshibwabwa 1997]. Single record from Lake Tanganyika [Reid 1985] unconfirmed [Tshibwabwa 1997] and doubtful.”

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 Boulenger (1909):

“Body strongly compressed, its depth $2\frac{1}{2}$ to nearly 3 times in total length. Head 4 times in total length, $\frac{3}{4}$ as broad as long; snout broad, rounded ; eye perfectly lateral, in middle of head, $4\frac{1}{2}$ to 5 times in length of head, $3\frac{1}{3}$ to 4 times in interorbital width ; width of mouth, with lips, nearly twice in length of head ; lips with plicae on inner surface, upper entire, lower bordered by a series of conical papillae ; edge of rostral flap denticulate ; a small barbel hidden under folds of skin ; snout with numerous tubercles. Dorsal III 12-13, equally distant from occiput and from caudal, convex, longest rays much longer than head. Anal II 5, extending much beyond root of caudal. Pectoral as long as head, reaching ventral, the first ray of which falls under 3rd or 4th branched ray of dorsal. Caudal notched, crescentic. Caudal peduncle deeper than long. Scales 37

$\frac{5\frac{1}{2}}{6\frac{1}{2}}$, 4 between lateral line and root of ventral, 16 round caudal peduncle. Dark purple, scales edged with dark green.”

From Froese and Pauly (2018):

“Dorsal soft rays (total): 12-14. The first branched dorsal fin ray is largest; flanks are without longitudinal dark bands [Tshibwabwa and Teugels 1995].”

Biology

From Moelants (2010):

“It inhabits large rivers (Eccles 1992).”

Human Uses

From Moelants (2010):

“This species is harvested for human consumption.”

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

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

4 Global Distribution



Figure 1. Known global distribution of *Labeo longipinnis*, reported from Central Africa. Map from GBIF Secretariat (2018). No georeferenced occurrences were reported from Angola, where *L. longipinnis* is native (Moelants 2010), or Tanzania, where the establishment of *L. longipinnis* is doubtful (Froese and Pauly 2018). Occurrences reported in Nigeria were excluded from the climate matching analysis because the species has not been reported as established in the country (see Distribution Outside the United States, above).

5 Distribution Within the United States

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 contiguous 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 score. There was a very low climate match across most of the contiguous U.S. The far southern U.S. had a slightly higher climate match. The climate match along the Gulf Coast and peninsular Florida was low to medium, with the exception of southern Florida, which was medium to high.

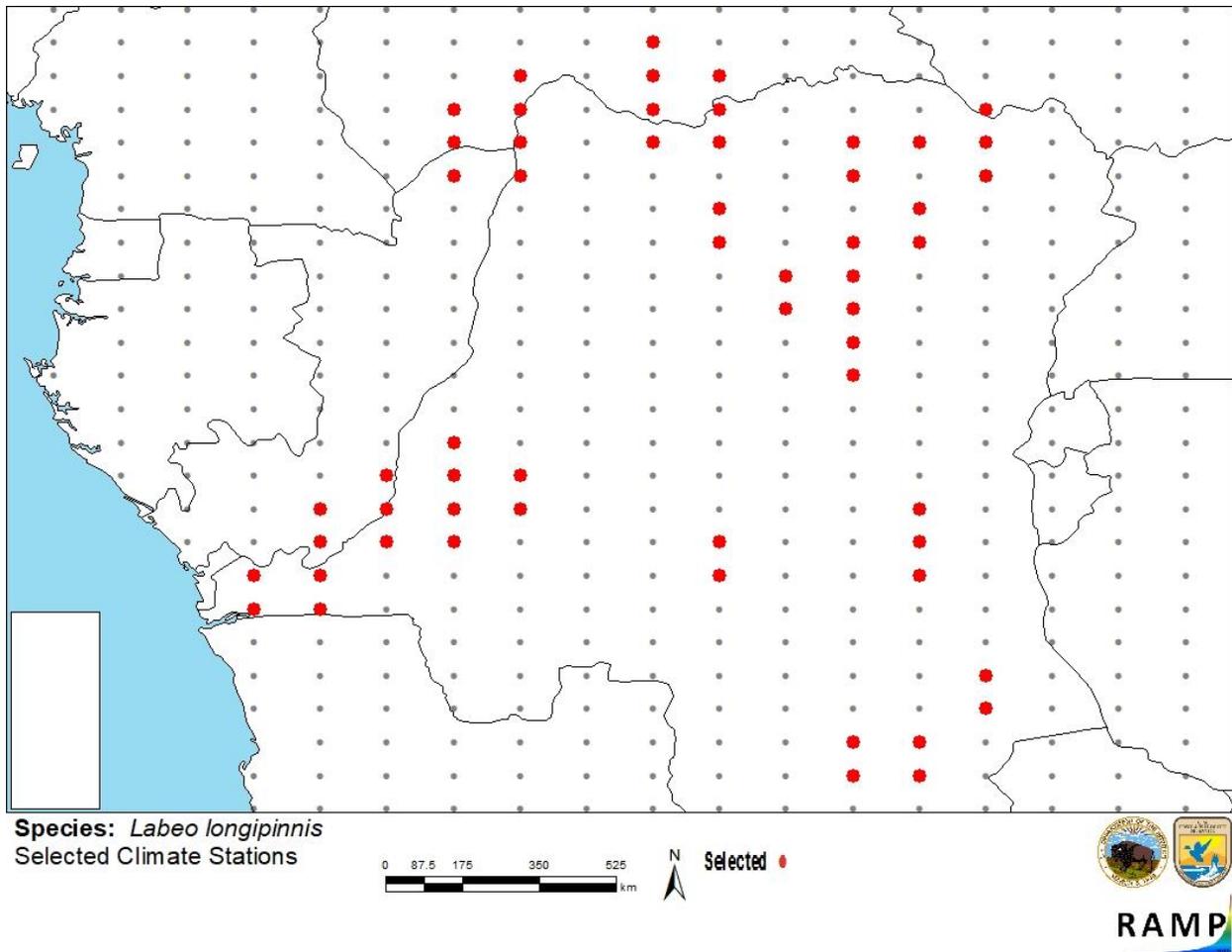


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in west-central Africa selected as source locations (red; Central African Republic, Republic of the Congo, Democratic Republic of the Congo) and non-source locations (gray) for *Labeo longipinnis* climate matching. Source locations from GBIF Secretariat (2018).

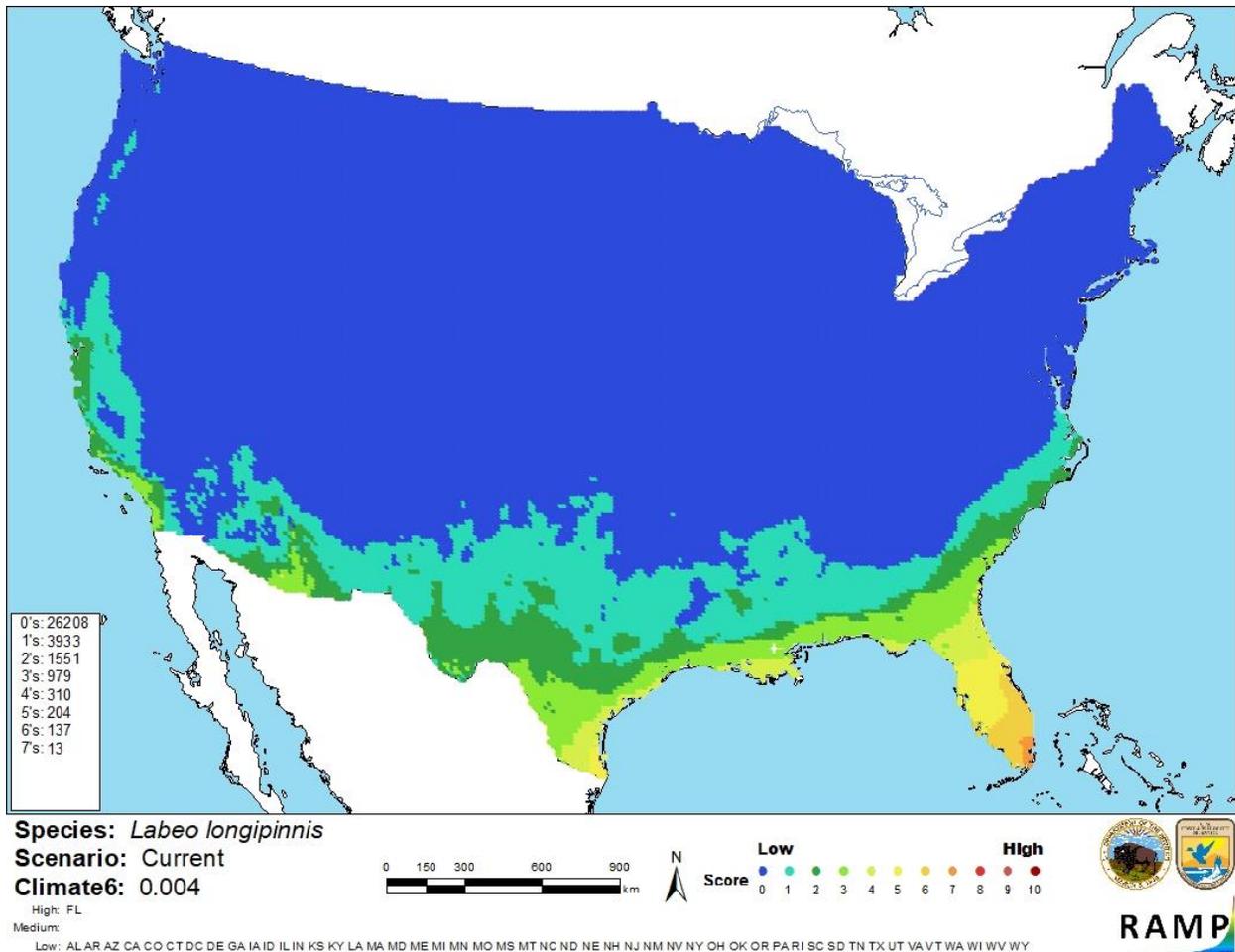


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Labeo longipinnis* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0=Lowest match, 10=Highest match.

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

7 Certainty of Assessment

There is little information available about *Labeo lonigpinnis*. 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

Summary of Risk to the Contiguous United States

Labeo longipinnis is a cyprinid fish native to central Africa. It is used as a food source. This species has never been reported as introduced outside of its native range. *L. longipinnis* has a low climate match with the contiguous United States. 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

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). Taylor and Francis, 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>. (April 2018).

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Sanders, S., C. Castiglione, and M. H. 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.

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

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.

Tshibwabwa, S. M., and G. G. Teugels. 1995. Contribution to the systematic revision of the African cyprinid fish genus *Labeo*: species from the Lower Zaire river system. Journal of Natural History 29:1543-1579.