

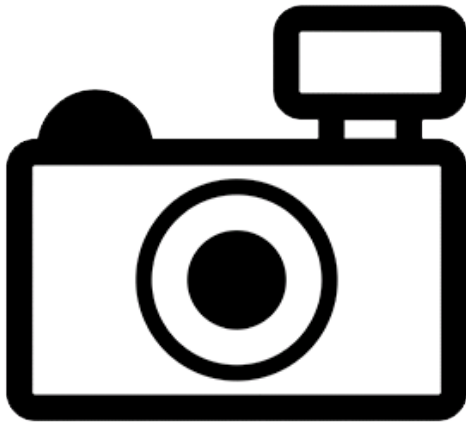
Gregori's Labeo (*Labeo gregorii*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2012

Revised, May 2018, June 2018

Web Version, 6/14/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Seegers et al. (2003):

“Athi and Tana River systems (lower reaches) [Kenya]”

From Froese and Pauly (2018):

“Africa: within the drainage basin of the Tana and Galana rivers to which it is possibly confined [Kenya and Tanzania]. The record of *Labeo gregorii* from the Rovuma river [sic] is based upon a misidentification.”

From Getahun and Vreven (2010):

“It is found in Juba (Wabishebelle-Benadir), Somalia”

Status in the United States

No records of *Labeo gregorii* in the United States were found. No information on trade of *L. gregorii* in the United States was found.

Means of Introductions in the United States

No records of *Labeo gregorii* in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Labeo gregorii* (Günther 1894) is the current valid name for this species; it is also the original name for this species.

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 gregorii* (Günther 1894)”

Size, Weight, and Age Range

From Seegers et al. (2003):

“23.1 cm TL”

From Whitehead (1960):

“[...], *Labeo gregorii*, the adults of which may attain $\frac{3}{4}$ lb. in weight.”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Seegers et al. (2003):

“Athi and Tana River systems (lower reaches) [Kenya]”

From Froese and Pauly (2018):

“Africa: within the drainage basin of the Tana and Galana rivers to which it is possibly confined [Kenya and Tanzania]. The record of *Labeo gregorii* from the Rovuma river [sic] is based upon a misidentification.”

From Getahun and Vreven (2010):

“It is found in Juba (Wabishebele-Benadir), Somalia”

Introduced

No records of introductions of *Labeo gregorii* were found.

Means of Introduction Outside the United States

No records of introductions of *Labeo gregorii* were found.

Short Description

From Fowler (1930):

“Depth $3\frac{1}{4}$; head $4\frac{1}{3}$, width $1\frac{3}{4}$; snout $2\frac{1}{2}$; eye $4\frac{2}{5}$, $1\frac{2}{3}$ in snout, $2\frac{1}{5}$ in inter-orbital; mouth width $3\frac{2}{3}$ in head; small barbel $3\frac{1}{3}$ in eye; interorbital 2 in head, broadly convex; suborbitals narrow. Lower gill rakers 50? short slender points, $3\frac{1}{2}$ in gill filaments, which $1\frac{1}{6}$ in eye. Teeth 2, 4, 5-?, grinding surfaces moderate. Scales 35 + 3 in lateral line; 6 above, 5 below, 10 predorsal; small scales on chest; 12 basal radiating striae, 59 apical, circuli fine. D. III, 11, I, simple rays flexible, first branched ray 1 in head; A. III, 5, I, first branched ray $1\frac{1}{3}$; caudal peduncle depth $1\frac{4}{5}$; pectoral $1\frac{1}{5}$; ventral $1\frac{1}{5}$; caudal (damaged) $3\frac{2}{5}$ in combined head and body to caudal base, forked. Back deep

brown, paler below and on fins, though dorsal and caudal with dusky [sic]. On back pale streak down each series of scales medianly and longitudinally.”

Biology

From Whitehead (1960):

“*Labeo gregorii* and the two species of *Barbus* and *Synodontis* also ascend such streams, but spawn in the *ziwas* themselves, or in lakes.”

Human Uses

From Mireri et al. (2008):

“Lakes Shakababo and Kongolola have relatively clear waters and among the fish species that made up the 82 tonnes caught in 1991, were ‘Barabara’ (*Oreochromis mossambicus*), ‘Chokole’ (*Synodontis zambesiensis*), ‘Pawa’ (*Mormyrus* sp.), ‘Pumi’ (*Clarias mossambicus*), ‘Borode’ (*Labeo gregorii*), ‘Kamongo’ (*Protopterus amphibius*) and Mkunga’ (*Anguilla mossambicus*).”

Diseases

No information on parasites or pathogens of *Labeo gregorii* was found.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introductions of *Labeo gregorii* were found.

4 Global Distribution

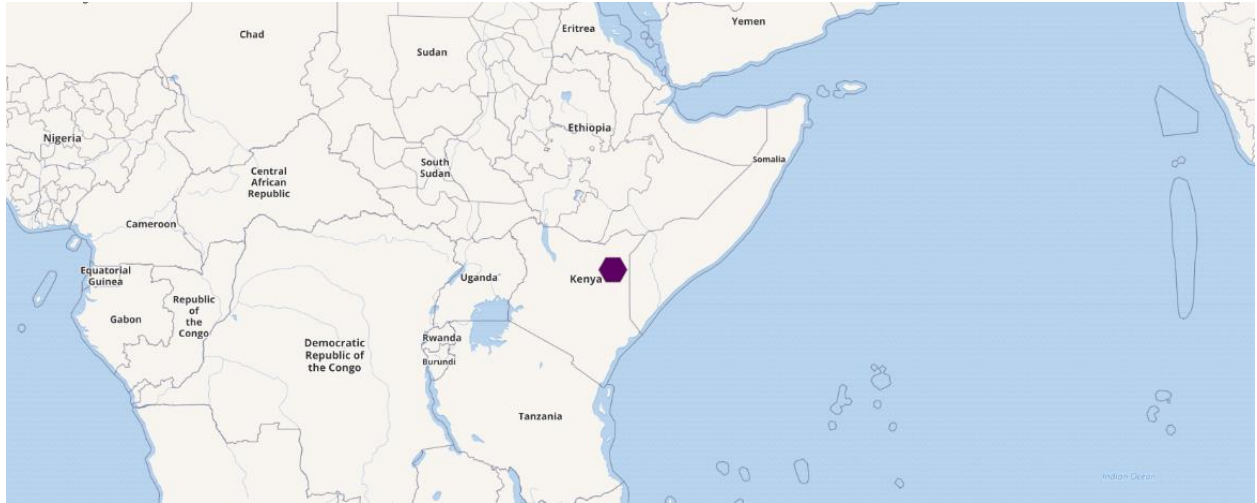


Figure 1. Known global distribution of *Labeo gregorii*. Location is in Kenya. Map from GBIF Secretariat (2018).



Figure 2. Known global distribution of *Labeo gregorii*. Locations are in Kenya. Map from Froese and Pauly (2018).

The species is also reported from Somalia and Tanzania, but no georeferenced locations are available.

5 Distribution Within the United States

No records of *Labeo gregorii* in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Labeo gregorii* was generally low. There were small areas of medium match in southern Texas, along the southern Pacific Coast, and in eastern Washington. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low. The range for a low climate match is from 0.000 to 0.005, inclusive. None of the states in the contiguous United States had a high or medium individual climate score.

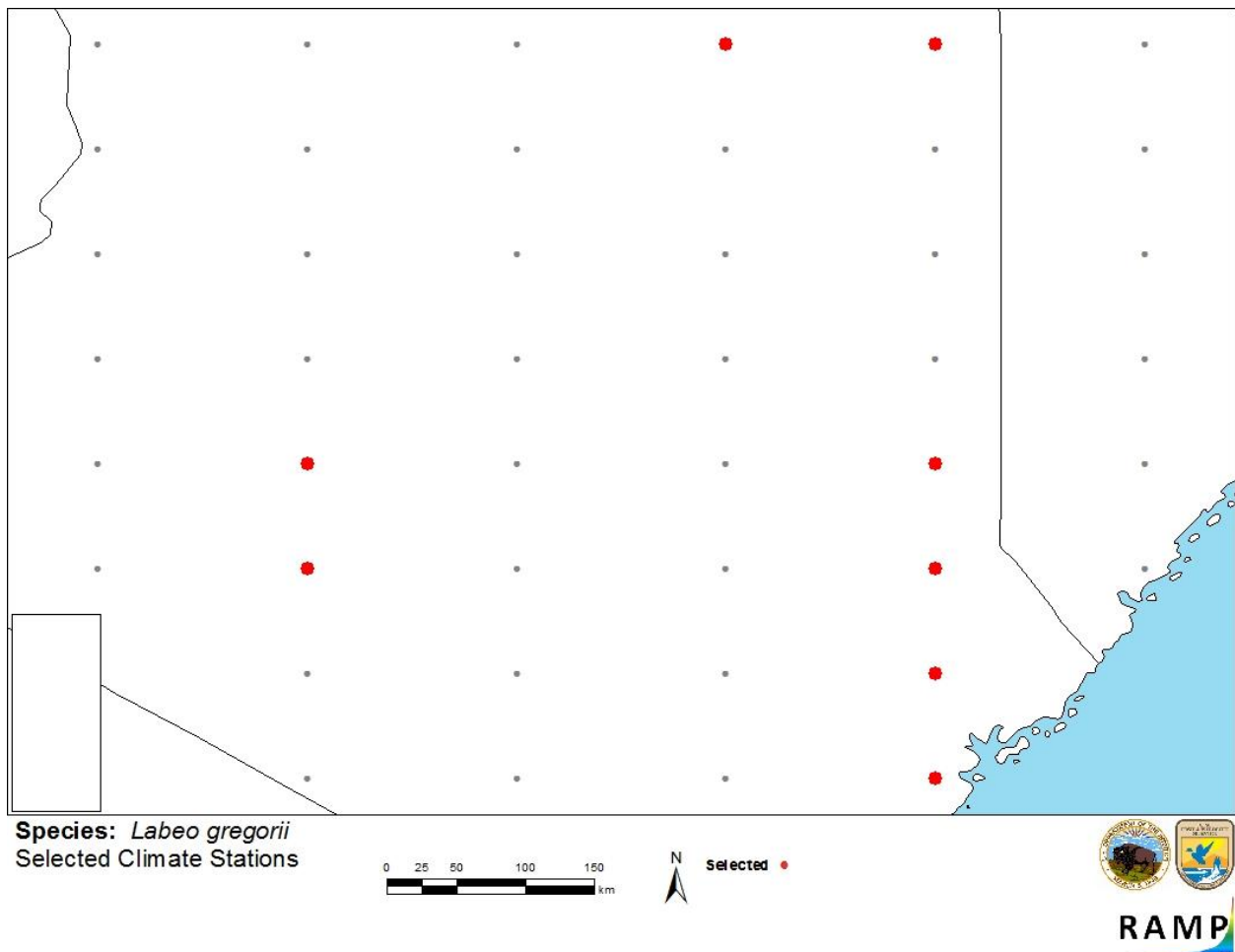


Figure 3. RAMP (Sanders et al. 2014) source map showing weather stations in Kenya selected as source locations (red) and non-source locations (gray) for *Labeo gregorii* climate matching. Source locations from Froese and Pauly (2018), and GBIF Secretariat (2018).

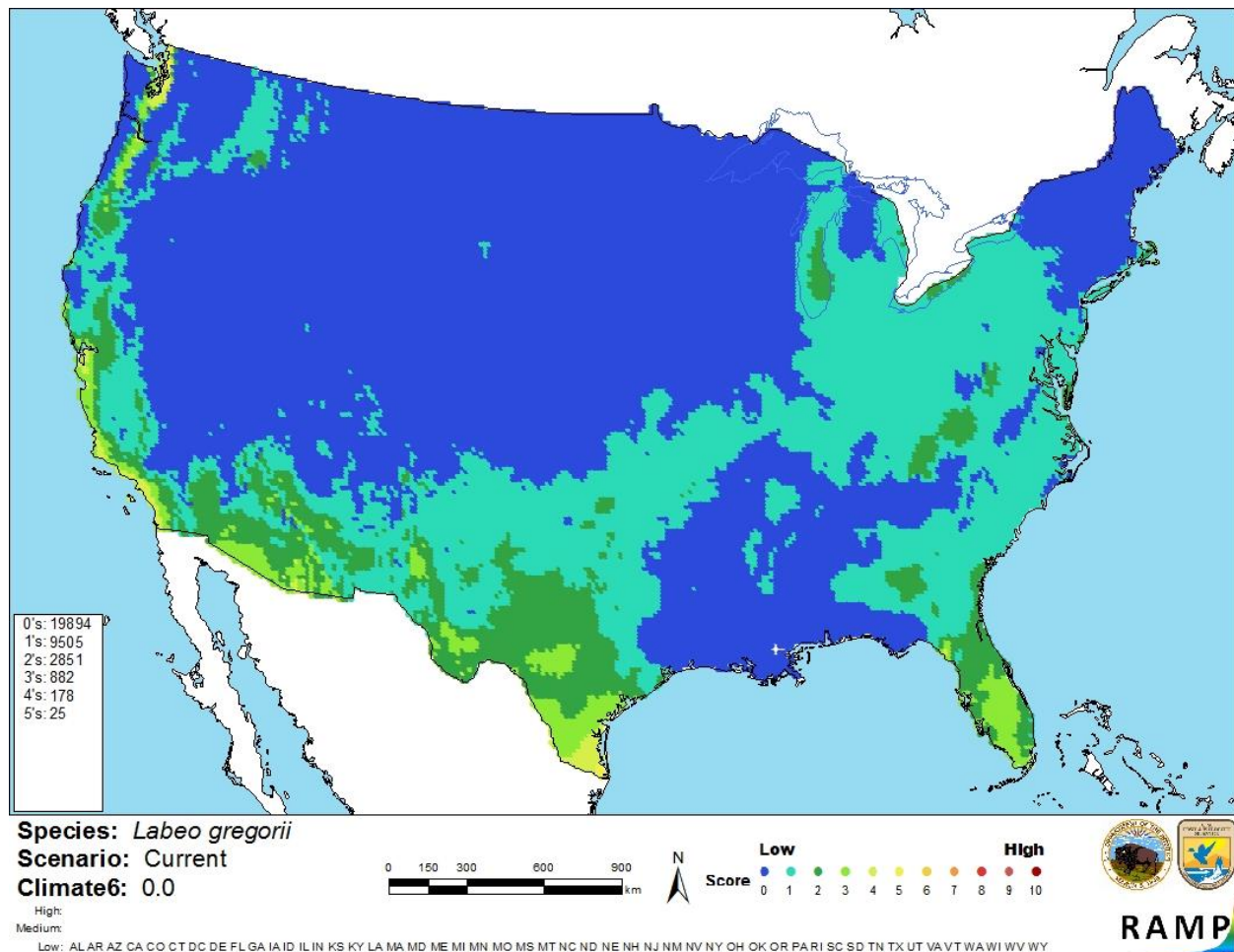


Figure 4. Map of RAMP (Sanders et al. 2014) climate matches for *Labeo gregorii* in the contiguous United States based on source locations reported by Froese and Pauly (2018), and GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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

7 Certainty of Assessment

The certainty of assessment for *Labeo gregorii* is low. There is minimal information available for this species. No records of introductions were found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Gregori's Labeo (*Labeo gregorii*) is a freshwater fish native to eastern Africa. It is part of the commercial fishery in its native range. The history of invasiveness is uncertain. No records of introductions were found. The climate match is low. Most of the contiguous United States had a low match but there were a few small areas of medium match. The certainty of 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**
- **Remarks/Important additional information: No additional information.**
- **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.

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>. (May 2018).

Fowler, H. W. 1930. The fresh-water fishes obtained by the Gray African expedition: 1929. With notes on other species in the academy collection. Proceedings of the Academy of Natural Sciences of Philadelphia 82:27–83.

Froese, R., and D. Pauly, editors. 2018. *Labeo gregorii* Günther, 1894. FishBase. Available: <https://www.fishbase.de/summary/Labeo-gregorii.html>. (May 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Labeo gregorii* Günther, 1894. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5206040>. (May 2018).

Getahun, A., and E. Vreven. 2010. *Labeo gregorii*. The IUCN Red List of Threatened Species 2010: e.T182397A7877253. Available: <http://www.iucnredlist.org/details/full/182397/0>. (May 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Labeo gregorii* Günther, 1894. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689298. (May 2018).

Mireri, C., J. Onjala, and N. Oguge. 2008. The economic valuation of the proposed Tana Integrated Sugar Project. Nature Kenya.

Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk assessment mapping program: RAMP. U.S. Fish and Wildlife Service.

Seegers, L., L. De Vos, and D. O. Okeyo. 2003. Annotated checklist of the freshwater fishes of Kenya (excluding the lacustrine haplochromines from Lake Victoria). *Journal of East African Natural History* 92:11–47.

Whitehead, P. J. P. 1960. The river fisheries of Kenya. Part II – the lower Athi (Sabaki) River. *The East African Agricultural Journal* 25:259–265.

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.

Günther, A. 1894. Report on the collection of reptiles and fishes made by Dr. J. W. Gregory, during his expedition to Mount Kenia. *Proceedings of the Zoological Society of London* 1:84–91.