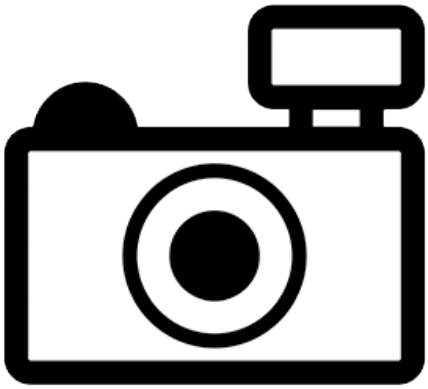
# Ewaso Nyiro Labeo (*Labeo percivali*)

## Ecological Risk Screening Summary

**U.S. Fish and Wildlife Service, March 2012**
**Revised, May 2018**
**Web Version, 6/29/2018**



No Photo Available

# 1 Native Range and Status in the United States

## Native Range

From Froese and Pauly (2018):

"Africa: northern Ewaso Nyiro drainage in Kenya [Seegers et al. 2003]."

## 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 Seegers et al. (2003):

"[…] originally described from the Northern Ewaso Nyiro under the name *Labeo percivali*, which, according to Reid (1985), is a slender inland form of *L. bottegi* Vinciguerra, 1897 from

the Juba system in Somalia; this is a doubtfull [*sic*] synonymy which we prefer not to follow here […]"

# 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 percivali* Boulenger, 1912"

"Current Standing: valid"

## Size, Weight, and Age Range

From Seegers et al. (2003):

"[…] 19 cm TL"

## 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: northern Ewaso Nyiro drainage in Kenya [Seegers et al. 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

No information available.

## Biology

No information available.

## Human Uses

No information available.

## 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

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

# 4 Global Distribution

No georeferenced occurrences are available for this species (GBIF Secretariat 2017).

**Figure 1.** Map of the country of Kenya showing the location (red dot) of the town of Nyahururu. *Labeo percivali* has been reported from below Thompson's falls, near Nyahururu (GBIF Secretariat 2017). Image: no author. Licensed under Creative Commons BY-SA 3.0. Available: https://commons.wikimedia.org/w/index.php?curid=1372202. (May 2018).

# 5 Distribution within the United States

This species has not been reported from the United States.

# 6 Climate Matching

## Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout much of the United States. Medium matches occurred only in northwestern Washington (inland of the Olympic Peninsula), southern Texas, and near Los Angeles, California, and there were no areas of high match. 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. percivali* was 0.000. No georeferenced locations were available for this species. Climate match was based on verbal descriptions in Froese and Pauly (2018) and GBIF Secretariat (2017).

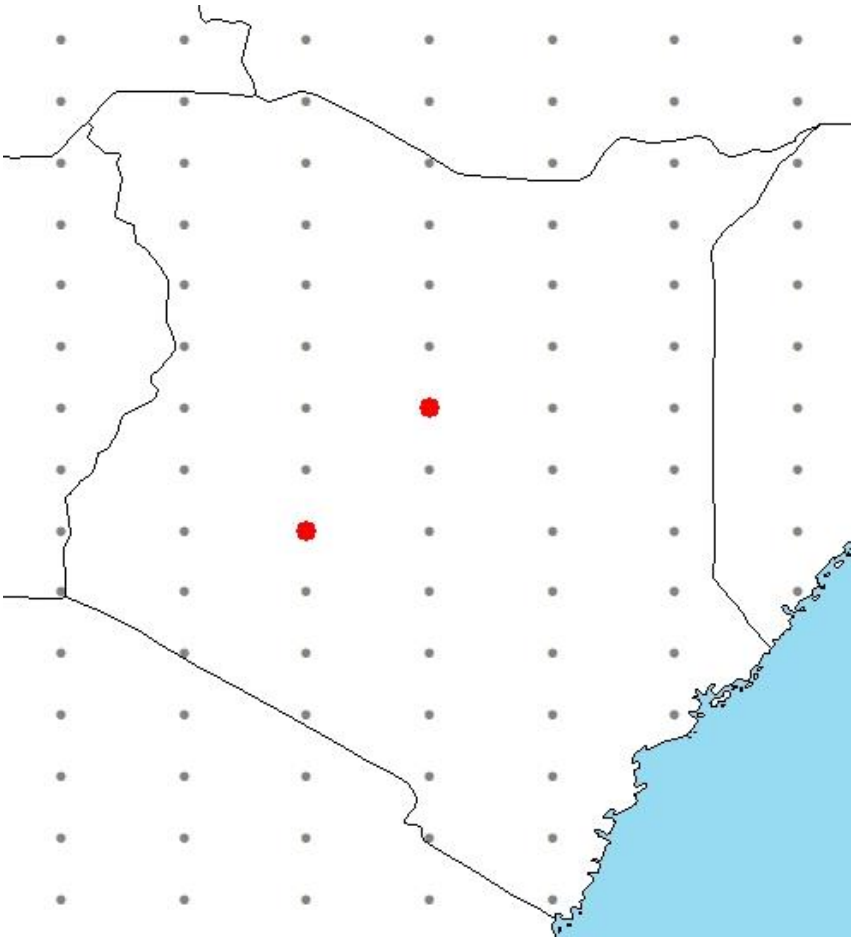


**Figure 2.** RAMP (Sanders et al. 2014) source map showing weather stations in Kenya selected as source locations (red) and non-source locations (blue) for *L. percivali* climate matching. Source locations based on verbal descriptions in Froese and Pauly (2018) and GBIF Secretariat (2017).

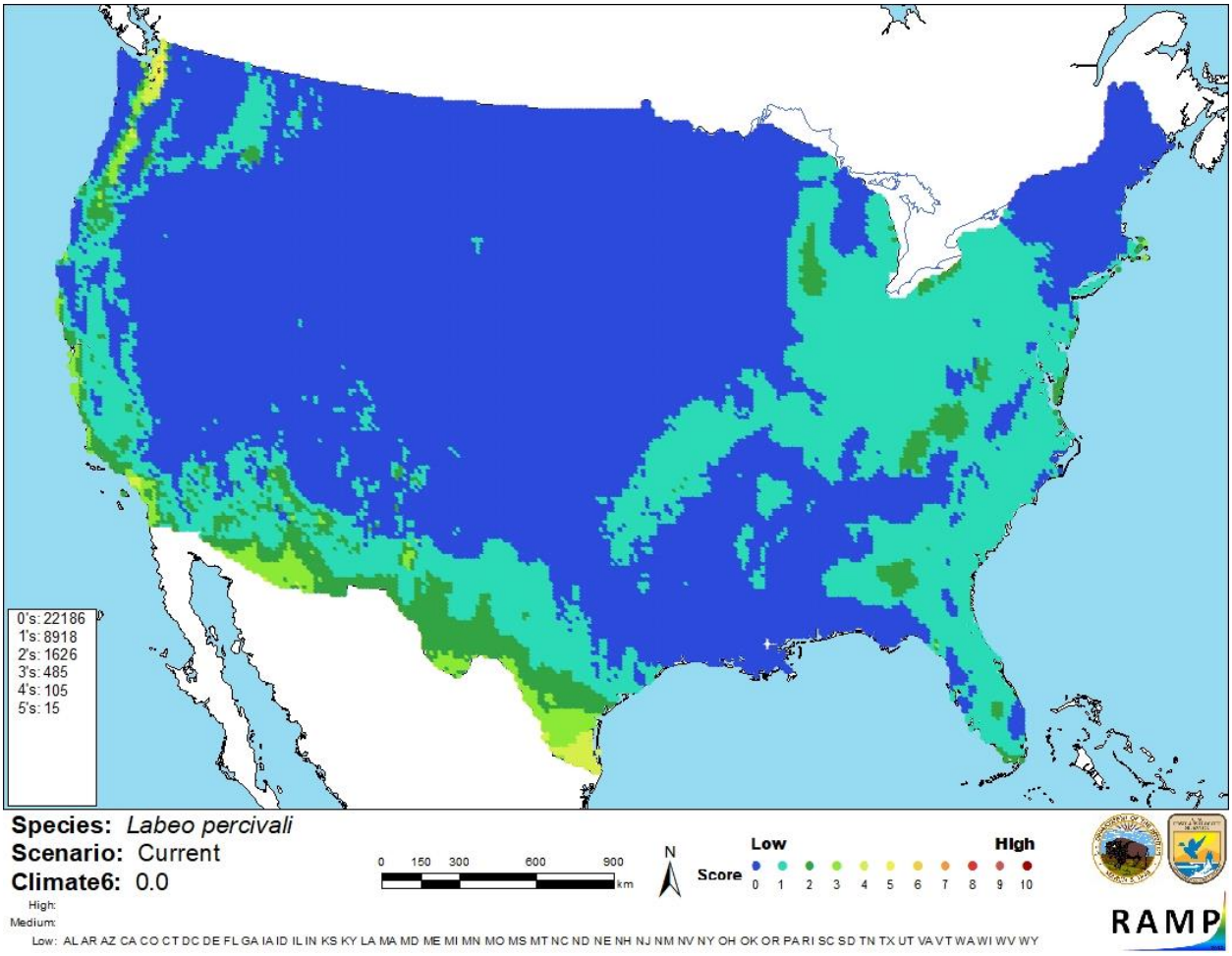



**Figure 4.** Map of RAMP (Sanders et al. 2014) climate matches for *Labeo percivali* in the contiguous United States based on source locations reported by Froese and Pauly (2018) and GBIF Secretariat (2017). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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 percivali*. Precise occurrence locations to inform the climate match were rare, whether georeferenced or verbally described. No introductions 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

Ewaso Nyiro Labeo (*Labeo percivali*) is a carp species endemic to a single river system in Kenya. It has not been reported as introduced or established anywhere else in the world. Climate match to the contiguous United States was low overall, with small areas of medium match near Seattle, Washington; Los Angeles, California; and Brownsville, Texas. Certainty of assessment is low. With no history of introduction, overall risk posed by *L. percivali* 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 percivali* Boulenger, 1912. FishBase. Available: https://www.fishbase.de/summary/Labeo-percivali.html. (May 2018).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Labeo percivali* Boulenger, 1912. Global Biodiversity Information Facility, Copenhagen. Available: https://www.gbif.org/species/5206055. (May 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Labeo percivali* Boulenger, 1912. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689325#null. (May 2018).

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.

# 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.**

Reid, G. M. 1985. A revision of African species of *Labeo* (Pisces: Cyprinidae) and a redefinition of the genus. Theses Zoologicae 6:1-322.