

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

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, May 2012

Revised, May 2018, June 2018

Web Version, 6/14/2018



Photo: Jonathan Armbruster. Licensed under Creative Commons BY-NC-SA. Available: http://eol.org/data_objects/32120845. (May 15, 2018).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“Asia: Mekong basin [Cambodia and Laos]; also from the Indonesian islands of Java and Sumatra [Kottelat and Whitten 1996].”

Froese and Pauly (2018) list *Labeo erythropterus* as native in Cambodia, Indonesia, and Laos.

Orsi (1974) lists *L. erythropterus* as native in Vietnam.

Status in the United States

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

No information on trade of *L. erythropterus* in the United States was found.

Means of Introductions in the United States

No records of *Labeo erythropterus* occurrences 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 erythropterus* (Valenciennes 1842) is the valid name for this species; it is also the original name.

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 erythropterus* (Valenciennes in Cuvier and Valenciennes, 1842)”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 70.0 cm SL male/unsexed; [Baird et al. 1999]”

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):

“Asia: Mekong basin [Cambodia and Laos]; also from the Indonesian islands of Java and Sumatra [Kottelat and Whitten 1996].”

Froese and Pauly (2018) list *Labeo erythropterus* as native in Cambodia, Indonesia, and Laos.

Orsi (1974) lists *L. erythropterus* as native in Vietnam.

Introduced

No records of *Labeo erythropterus* introductions were found.

Means of Introduction Outside the United States

No records of *Labeo erythropterus* introductions were found.

Short Description

From Froese and Pauly (2018):

“Has 11-12 branched dorsal-fin rays; 38-42 gill rakers on lower arm of first arch; lower lip papillae along anterior edge in juveniles with papillae disappearing in adults [Rainboth 1996].”

Froese and Pauly (2018) also list *Labeo erythropterus* as having 42-43 scales on lateral line and 22 scales around the caudal peduncle.

Biology

From Froese and Pauly (2018):

“Occurs in bottom depths of large rivers in lower Mekong, including the upper edge of the freshwater tidal zone. Typically found in fairly fast currents, although it is encountered in the seasonally sluggish Tonlé Sap in Cambodia. Enters flooded forests, preferring areas with at least some current. Herbivorous, feeding on bottom algae, phytoplankton, periphyton and detritus. [...] Known to proliferate in impoundments [Rainboth 1996].”

Human Uses

From Froese and Pauly (2018):

“Large fish are marketed fresh, smaller ones are made into prahoc.”

Diseases

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

Threat to Humans

No information on threats to humans from *Labeo erythropterus* was found.

3 Impacts of Introductions

No records of *Labeo erythropterus* introductions were found.

4 Global Distribution



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

Although the geographic distribution is described as including areas of Cambodia, Indonesia, Vietnam, and Laos the only georeferenced observation is in Thailand. The climate match was completed using this observation as the sole source point. There was no indication in the record information that this point should be excluded from the climate match (GBIF Secretariat 2018).

5 Distribution Within the United States

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

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Labeo erythropterus* was low for most of the contiguous United States with a small patch of medium match in very southern Florida. 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. All states in the contiguous United States had low individual climate scores. The climate match may be an underestimate because only one georeferenced point was available.

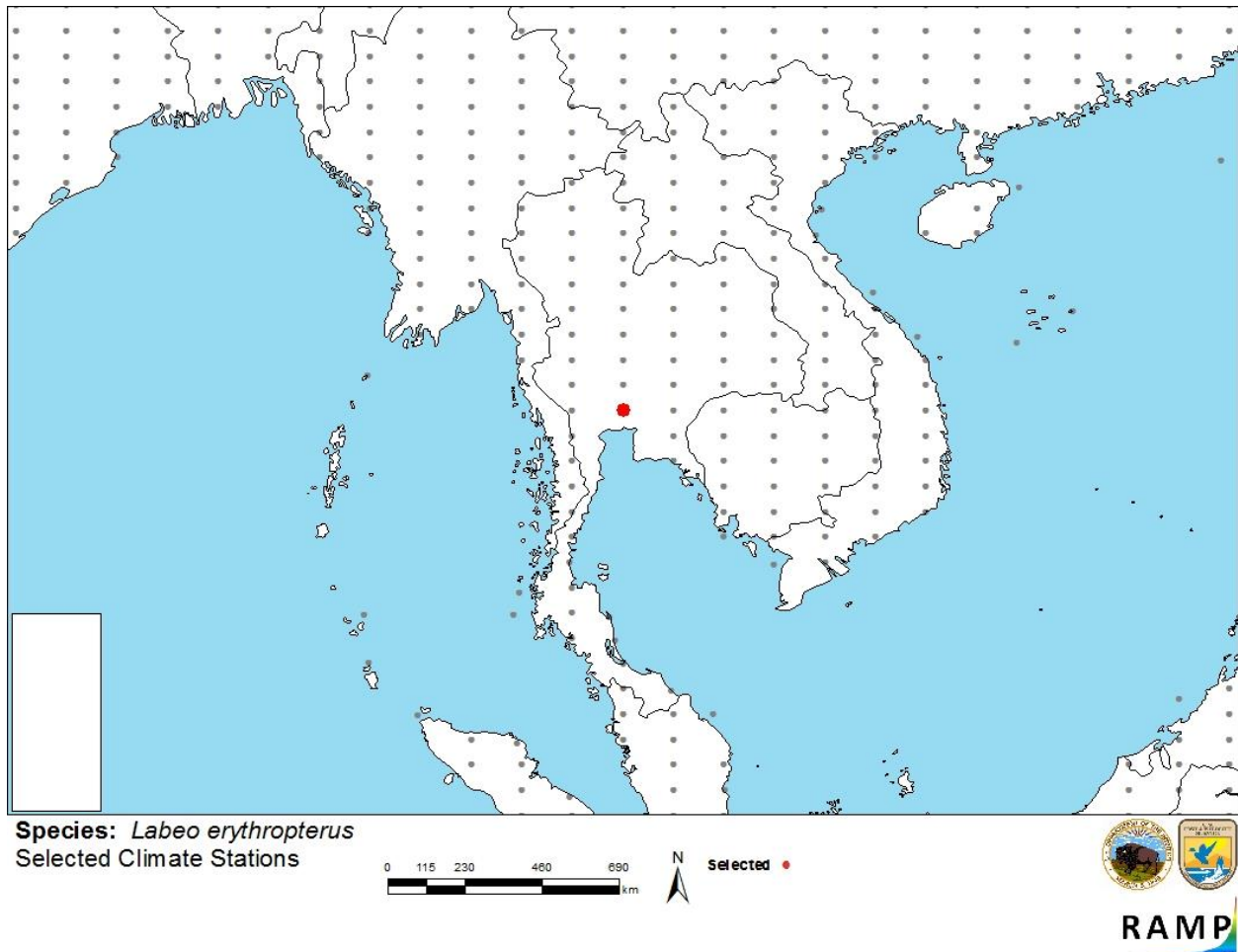


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in Thailand selected as source location (red) and non-source locations (gray) for *Labeo erythropterus* climate matching. Source location from GBIF Secretariat (2018).

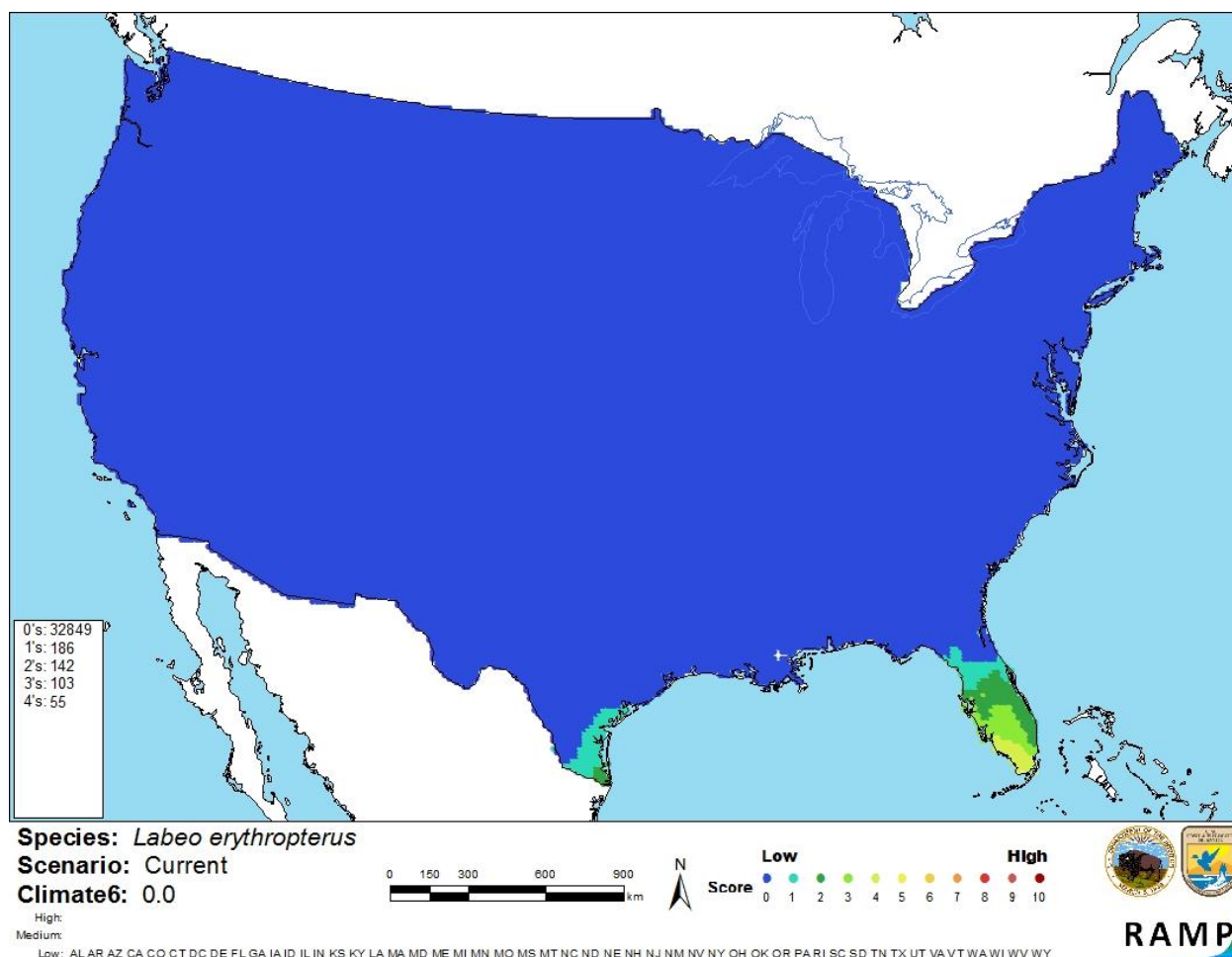


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Labeo erythropterus* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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

7 Certainty of Assessment

The certainty of assessment is low. There is little information available for *L. erythropterus*. There are no records of introductions of *L. erythropterus*, therefore the impacts of introduction are unknown. The climate match was conducted using a single source point, located in a country adjacent to, but not within the reported range.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo erythropterus is a freshwater fish native to Southeast Asia. There is very little information available for this species. The history of invasiveness is uncertain. No introductions of *L. erythropterus* have been reported. The climate match analysis resulted in low match for the contiguous United States. The climate match may be an underestimate because only a single georeferenced location was available to use for the climate match. The reported species distribution did not include the mapped location, but nothing in the occurrence record indicated that it was not valid. Further, the georeferenced location is in a country adjacent to countries within the reported species range. 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).
- Froese, R., and D. Pauly, editors. 2018. *Labeo erythropterus* Valenciennes, 1842. FishBase. Available: <https://www.fishbase.de/summary/Labeo-erythropterus.html>. (May 2018).
- GBIF Secretariat. 2018. GBIF backbone taxonomy *Labeo erythropterus* Valenciennes ex Kuhl & van Hasselt, 1842. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5206016>. (May 2018).
- ITIS (Integrated Taxonomic Information System). 2018. *Labeo erythropterus* Valenciennes in Cuvier and Valenciennes, 1842. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689290. (May 2018).
- Orsi, J. J. 1974. A check list of the marine and freshwater fishes of Vietnam. Publications of the Seto Marine Biological Laboratory 21:153–177.

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.

Baird, I. G., V. Inthaphaisy, P. Kisouvannalath, B. Phylavanh, and B. Mounsouphom. 1999. The fishes of southern Lao. Lao Community Fisheries and Dolphin Protection Project. Ministry of Agriculture and Forestry, Lao.

Kottelat, M., and A. J. Whitten. 1996. Freshwater fishes of Western Indonesia and Sulawesi: additions and corrections. Periplus Editions, Hong Kong.