

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

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, March 2012

Revised, July 2018, August 2018

Web Version, 8/21/2018

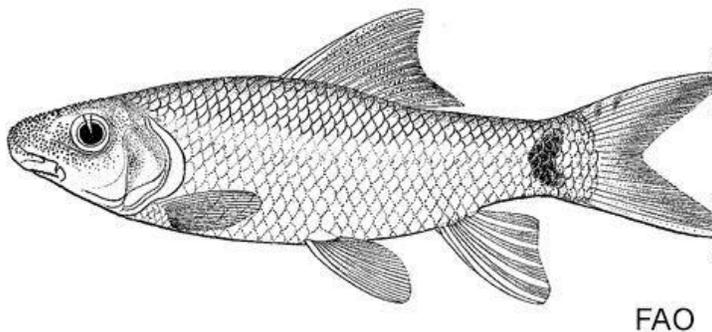


Image: FAO. Licensed under CC BY-NC 3.0. Available: http://eol.org/data_objects/30883321. (August 2018). Labeled as *Labeo yunnanensis*, a synonym of *Labeo pierrei*.

1 Native Range and Status in the United States

Native Range

From Baird (2011):

“This species is known from Sekong, Sesan and Srepok rivers (the 3S rivers) in northeastern Cambodia, in the mainstream Mekong in southern Lao PDR and northeastern Cambodia north of Kratie, in north and northeast Thailand, and the Dong Nai River of Viet Nam.”

Status in the United States

This species has not been reported as introduced or established in the United States. There is no evidence that this species is in trade 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.

Remarks

Labeo pierrei has various synonyms, including *Labeo cheveyi*, *Osteochilus ochrus*, *Lobochilus pierrei*, *Labeo yunnanensis* (Eschmeyer et al. 2018), and *Bagana pierrei* (Baird 2011). All synonyms were used as search terms in locating information for this report.

From Baird (2011):

“This species is not *Hypsibarbus pierrei*, with which the name been confused.”

“Heavy fishing pressure has caused a past decline of approximately 30-50% over the last 21 years. This decline is projected to continue (and may even increase) with the development of dams in its range, which are likely to cause significant and immediate impacts on this fish. It is therefore assessed as Vulnerable. The species would most likely qualify for a higher threat category if its migrations were disrupted and it should be reassessed if mainstream dams are constructed and monitoring data are available.”

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 pierrei* (Sauvage, 1880)”

“Taxonomic Status:

Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 80.0 cm SL male/unsexed; [Kottelat 2001]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Baird (2011):

“This species is known from Sekong, Sesan and Srepok rivers (the 3S rivers) in northeastern Cambodia, in the mainstream Mekong in southern Lao PDR and northeastern Cambodia north of Kratie, in north and northeast Thailand, and the Dong Nai River of Viet Nam.”

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):

“Juveniles with brown body and black blotch at base of caudal; dorsal fin of juveniles small with anterior branched rays shorter than head length, slightly longer in adults [Kottelat 2001].”

Biology

From Baird (2011):

“This species is found in large rivers and streams. The juveniles migrate out of the 3S rivers [Sekong, Sesan, and Srepok rivers] into the mainstream Mekong, turn downstream to the border of Kratie and Stung Treng Province, and then turn upstream to southern Lao PDR and northeastern Thailand for feeding purposes. They graze on algae on rocks (Baird and Flaherty 2004). The species spawns in the middle of the Sekong River in July and August.”

“Generation Length (years): 7”

“Full Migrant”

Human Uses

From Baird (2011):

“This species is an important commercial and subsistence fish.”

“The species is targeted during the spawning season with gillnets.”

Diseases

No information available. No OIE reportable diseases.

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 established locations of *Labeo pierrei*, reported from Southeast Asia. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

No known occurrences.

6 Climate Matching

Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.002, which is a low score. Scores of 0.005 and below are classified as low climate match. Florida (medium match) was the only state to not record a low score. The climate match was medium in southwestern Florida and far southern Texas, and low throughout the remainder of the contiguous United States.

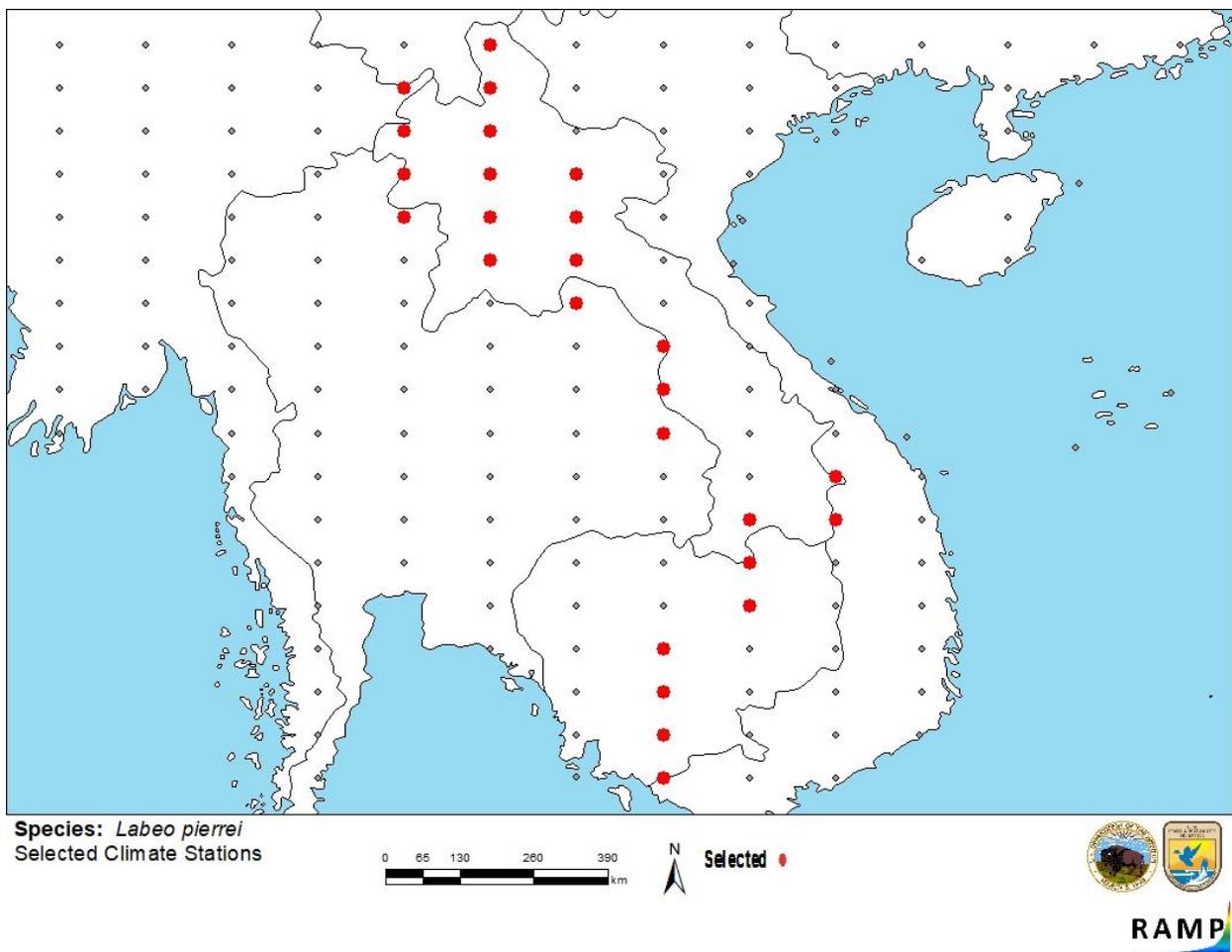


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Southeast Asia selected as source locations (red; Laos, Myanmar, Thailand, Vietnam, Cambodia) and non-source locations (gray) for *Labeo pierrei* climate matching. Source locations from GBIF Secretariat (2017).

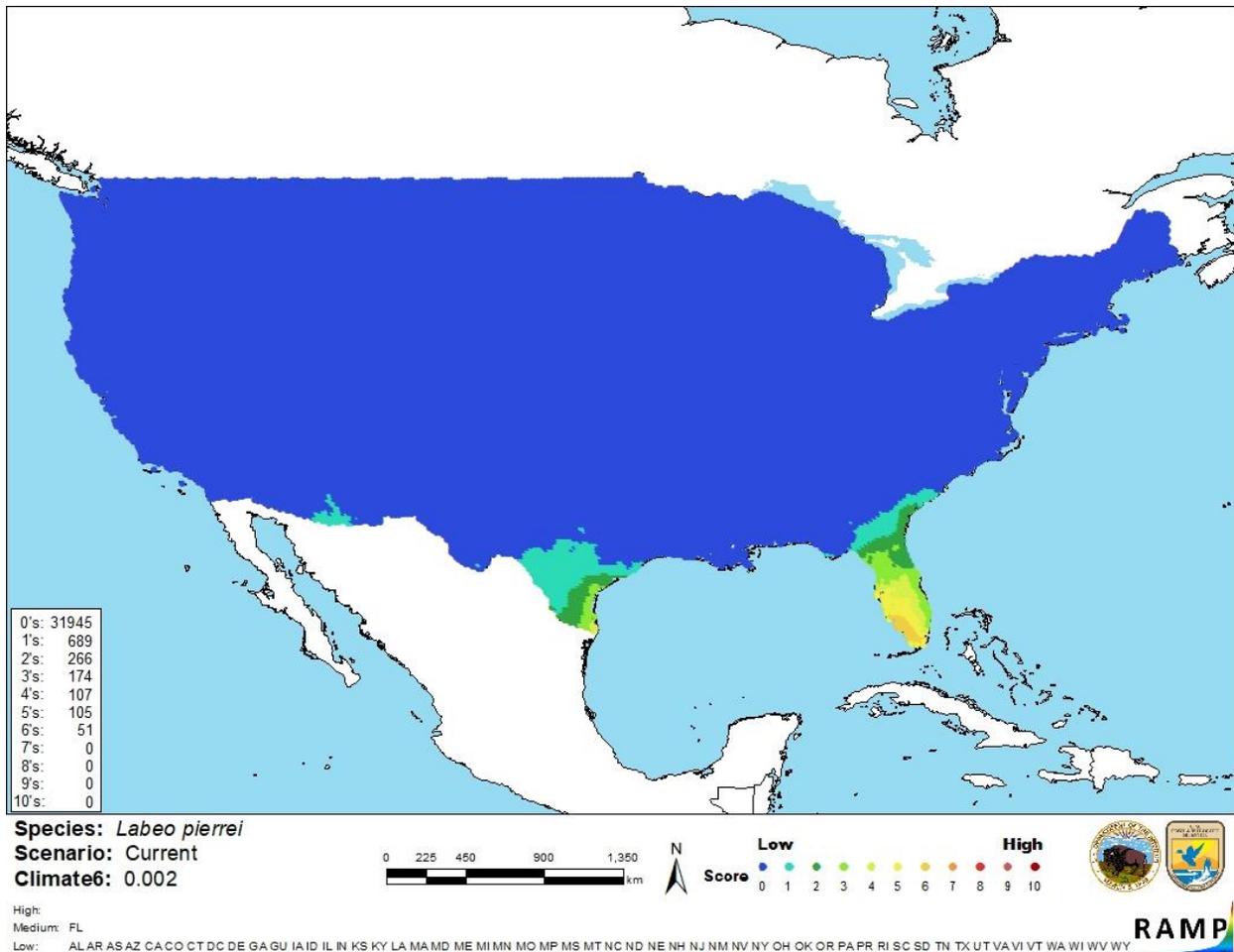


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Labeo pierrei* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match.

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

Little information is known on the biology and ecology of *Labeo pierrei*. There are no records showing introductions of this species outside of its native range, so impacts of introduction are unknown. Due to lack of information, the certainty of assessment is low. More information is needed to increase the assessment certainty.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo pierrei is a species of carp native to Southeast Asia. In its native range, *L. pierrei* is heavily fished for both commercial and subsistence purposes. There are no records of *L. pierrei* being introduced outside of its native range so potential impacts of introduction are unknown. Assessment certainty is low. The climate match with the contiguous United States is low overall, with small areas of medium match in southwestern Florida and extreme southern Texas. Due to lack of information, the risk posed by *L. pierrei* 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.

- Baird, I. 2011. *Labeo pierrei*. The IUCN Red List of Threatened Species 2011: e.T181106A7660009. Available: <http://www.iucnredlist.org/details/full/181106/0>. (August 2018).
- 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>. (August 2018).
- Froese, R., and D. Pauly, editors. 2018. *Labeo pierrei* (Sauvage, 1880). FishBase. Available: <https://www.fishbase.de/summary/Labeo-pierrei.html>. (August 2018).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Labeo pierrei* (Sauvage, 1880). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5206015>. (August 2018).
- ITIS (Integrated Taxonomic Information System). 2018. *Labeo pierrei* (Sauvage, 1880). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689326#null. (August 2018).
- Sanders, S., C. Castiglione, and M. H. 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.

Baird, I. G., and M. S. Flaherty. 2004. Beyond national borders: important Mekong River medium sized migratory carps (Cyprinidae) in the Mekong River. *Asian Fisheries Science* 17(3-4):279-298.

Kottelat, M. 2001. *Fishes of Laos*. WHT Publications Ltd., Colombo, Sri Lanka.