

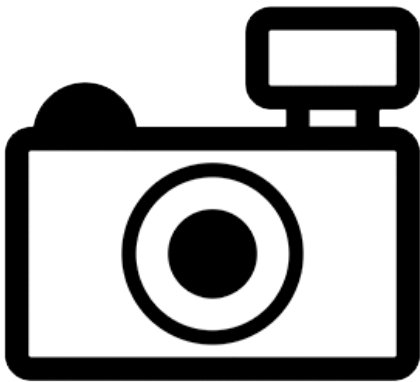
***Labeo kawrus* (a carp, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, April 2012

Revised, April 2018

Web Version, 5/16/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“Asia: Western Ghats up to the Deccan in India.”

From Dahanukar (2011):

“*Labeo kawrus* is endemic to the Western Ghats of India (Dahanukar et al. 2004). It is found only in the Krishna river system and in west flowing rivers of northern Western Ghats (Yadav 2003). It is currently known from Maharashtra and Karnataka state. In Maharashtra it is recorded from Mutha river (Tonapi and Mulherkar 1963, Neelesh Dahanukar, pers. obs.), Pashan lake (Tonapi and Mulherkar 1963), Ujni wetland (Yazdani and Singh 1990) and Bhima river (Sykes 1841, Suter 1944). In Karnataka it is known from Linganamakki Reservoir on Sharavati River (Shreekantha and Ramachandra 2005), Aghanashini river (Bhat 2004) and Bhadra river (David 1956). It is suspected to be found in other tributaries of Krishna river as well but no such reports are currently available.”

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 kawrus* (Sykes, 1839)”

From Eschmeyer et al. (2018):

“Current status: Valid as *Labeo kawrus* (Sykes 1839). Cyprinidae: Labeoninae.”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 60.0 cm TL male/unsexed; [Menon 1999]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic; potamodromous [Riede 2004].”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“Asia: Western Ghats up to the Deccan in India.”

From Dahanukar (2011):

“*Labeo kawrus* is endemic to the Western Ghats of India (Dahanukar et al. 2004). It is found only in the Krishna river system and in west flowing rivers of northern Western Ghats (Yadav 2003). It is currently known from Maharashtra and Karnataka state. In Maharashtra it is recorded from Mutha river (Tonapi and Mulherkar 1963, Neelesh Dahanukar, pers. obs.), Pashan lake (Tonapi and Mulherkar 1963), Ujni wetland (Yazdani and Singh 1990) and Bhima river (Sykes 1841, Suter 1944). In Karnataka it is known from Linganamakki Reservoir on Sharavati River (Shreekantha and Ramachandra 2005), Aghanashini river (Bhat 2004) and Bhadra river (David 1956). It is suspected to be found in other tributaries of Krishna river as well but no such reports are currently available.”

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 Day (1878):

“Length of head $5\frac{1}{2}$ to 6, of caudal $4\frac{1}{2}$ to $4\frac{2}{3}$, height of body $5\frac{1}{4}$ to $5\frac{1}{2}$ in the total length. *Eyes*—diameter $3\frac{1}{2}$ to $3\frac{3}{4}$ in the length of the head, 1 diameter from the end of the snout, and $1\frac{1}{2}$ apart. Dorsal and abdominal profiles about equally convex. Width of the head equals its length behind the middle of the eyes. Snout very obtuse and not overhanging the jaws. The cleft of the mouth commences below the level of the lower edge of the eye. Lips continuous at the angle of the mouth, the lower one very thin and reflected off the mandible, which is rounded and has a thin cartilaginous covering: edges of lips smooth. No tubercles on the snout. *Barbels*—a minute maxillary pair. *Teeth*—pharyngeal, plough-shaped, 5, 4, 3/3, 4, 5. *Fins*—dorsal commences midway between the end of the snout and the posterior extremity of the base of the anal fin, it is rather higher than the head is long, its upper edge is concave. Pectoral nearly as long as the head. Caudal deeply forked. *Lateral-line*—rather indistinct in some specimens: $4\frac{1}{2}$ rows of scales between it and the base of the ventral fin. *Colours*—silvery, dorsal and caudal fins externally

stained with gray: sometimes a dark blotch on the scales near the commencement of the lateral-line.”

Biology

From Dahanukar (2011):

“*Labeo kawrus* is found in upper reaches of the rivers (Menon 1999) and in lakes (Tonapi and Mulherkar 1963) and reservoirs (Yazdani and Singh 1990, Shreekantha and Ramachandra 2005). [...] The species breeds during the onset of south-west monsoon (Talwar and Jhingran 1991).”

Human Uses

From Froese and Pauly (2018):

“Fisheries: commercial; aquaculture: likely future use”

From Dahanukar (2011):

“*Labeo kawrus* is a preferred food fish and is sold in local fish markets. Talwar and Jhingran (1991) have suggested that it is a prolific breeder and is suitable for culture and even withstand transportation.”

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 kawrus*, reported from western India. Map from GBIF Secretariat (2018).

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 0.0, which is a low climate match. The climate match across much of the contiguous U.S. was very low. The Southwestern U.S., from Texas to California, had a medium-low to medium climate match.

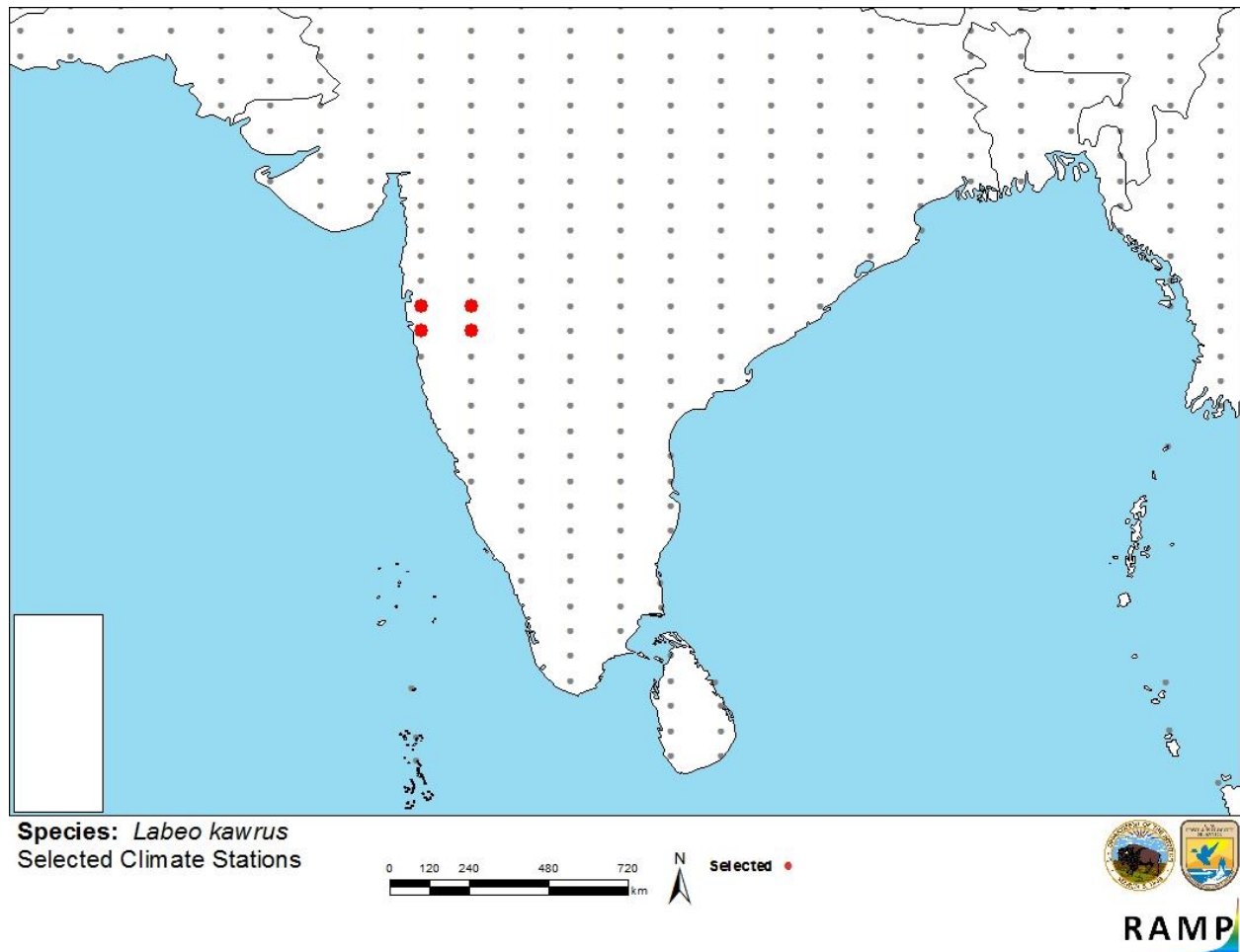


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in India selected as source locations (red) and non-source locations (gray) for *Labeo kawrus* climate matching. Source location from GBIF Secretariat (2018).

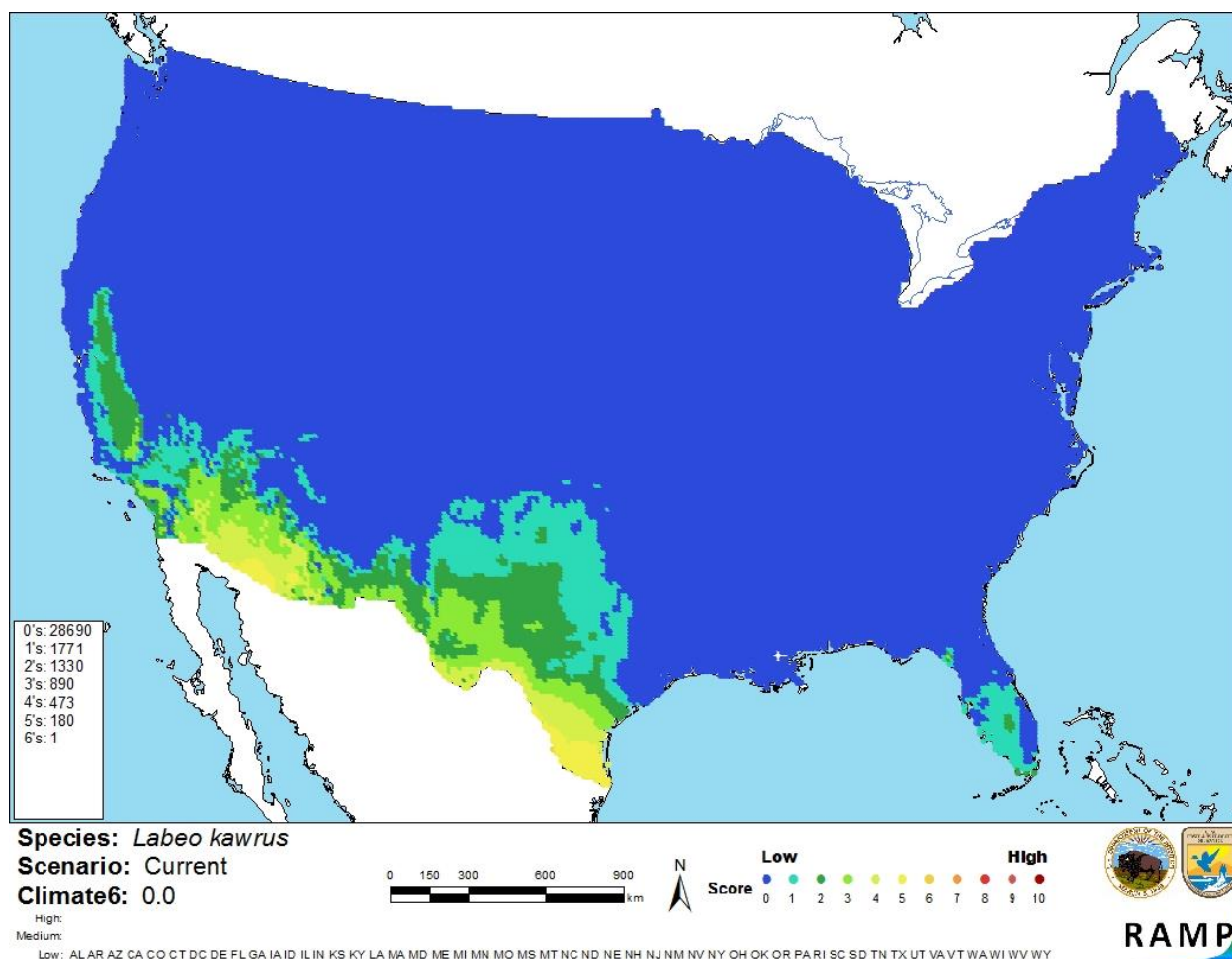


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Labeo kawrus* in the contiguous United States based on source location reported by GBIF Secretariat (2018). 0=Lowest match, 10=Highest match.

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

7 Certainty of Assessment

There is little information available about *Labeo kawrus*. There have been no documented introductions of this species outside of its native range. Because no introductions of this species have been documented, there is no information from which to base a risk assessment, so the certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo kawrus is a freshwater cyprinid fish native to India. This species is used as a food fish, however, it has never been documented as introduced or established outside of its native range. *L. kawrus* has a low climate match with the contiguous U.S., with the area of highest matched located in the Southwest. Further information is needed to adequately assess the risk this species poses, so the 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.

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- Day, F. 1878. The fishes of India; being a natural history of the fishes known to inhabit the seas and fresh waters of India, Burma, and Ceylon. Bernard Quaritch, London.
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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.

Bhat, A. 2004. Patterns in the distribution of freshwater fishes in rivers of Central Western Ghats, India and their associations with environmental gradients. *Hydrobiologia* 529:83-97.

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Talwar, P. K., and A. G. Jhingran. 1991. Inland fishes of India and adjacent countries volume 1. A. A. Balkema, Rotterdam, the Netherlands.

Tonapi, G. T., and L. Mulherkar. 1963. Notes on the freshwater fauna of Poona, part1: fishes. *Proceedings of the Indian Academy of Sciences* 58:187-197.

Yadav, B. E. 2003. Ichthyofauna of northern part of Western Ghats. *Zoological Survey of India, Occasional Paper* 215.

Yazdani, G. M., and D. F. Singh. 1990. On the fish resources of Ujani wetland, Pune, (Mah.). *Journal of Bombay Natural History Society* 87:157-160.