

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

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, April 2012

Revised, May 2018

Web Version, 6/15/2018

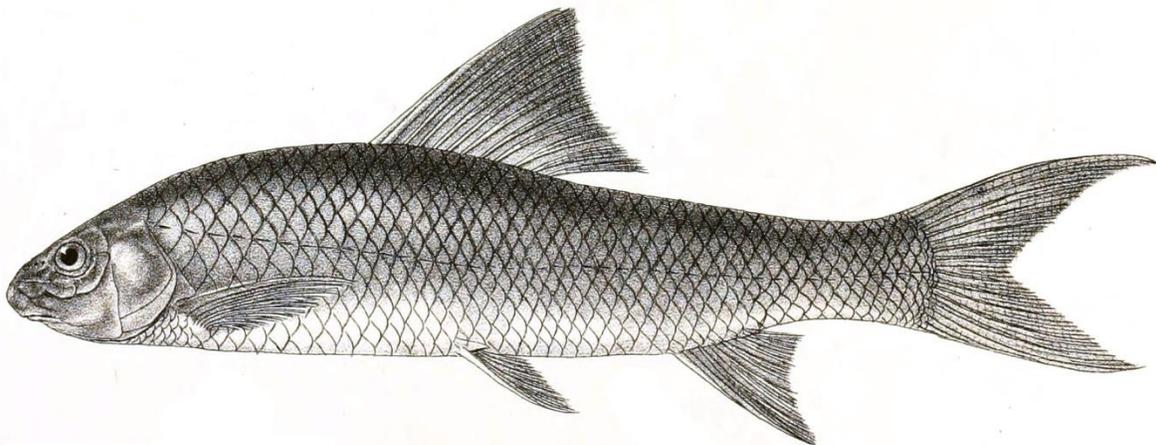


Image: R. Mintern. Public domain. Available:
https://commons.wikimedia.org/wiki/File:Labeo_microphthalmus_Mintern_132.jpg. (May 2018).

1 Native Range and Status in the United States

Native Range

From Dahanukar (2010):

“It occurs in India (Western Himalaya) and Pakistan (Talwar and Jhingran 1991, Mirza and Alam 2002).”

From Day (1889):

“Himalayas, from the Punjab, Murree, and Kangra, also Kashmir.”

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 United States.

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 GBIF Secretariat (2018):

“Kingdom Animalia
Phylum Chordata
Class Actinopterygii
Order Cypriniformes
Family Cyprinidae
Genus *Labeo* Cuvier, 1816
Species *Labeo microphthalmus* Day, 1877”

From Eschmeyer et al. (2018):

“Current status: Valid as *Labeo microphthalmus* Day 1877. Cyprinidae: Labeoninae.”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 25.0 cm TL male/unsexed; [Talwar and Jhingran 1991]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2018):

“Subtropical”

Distribution Outside the United States

Native

From Dahanukar (2010):

“It occurs in India (Western Himalaya) and Pakistan (Talwar and Jhingran 1991, Mirza and Alam 2002).”

From Day (1889):

“Himalayas, from the Punjab, Murree, and Kangra, also Kashmir.”

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 (1889):

“Length of head 6 in the total length. *Eyes*— diameter $5\frac{1}{2}$ in length of head, 2 diameters from end of snout, and $2\frac{1}{4}$ apart. Dorsal profile more convex than that of the abdomen. Snout overhanging the mouth, but not swollen, having a very indistinct lateral lobe ; some specimens have a few small pores on the snout. Lips continuous ; the groove across the lower jaw interrupted ; mouth transverse, inferior ; a cartilaginous or horny covering to inside of the lower jaw. The suborbital ring of bones comparatively wide, being two thirds the width of the orbit. *Barbels*— a short maxillary pair. *Teeth*— pharyngeal, plough-shaped, 5, 4, $2\frac{1}{2}$, 4, 5. *Fins*— the height of the dorsal equals or exceeds the length of the head, its upper edge is very concave, it arises midway between the end of the snout and the posterior extremity of the base of the anal fin. The pectoral does not reach the ventral. *Scales*— $6\frac{1}{2}$ rows between lateral line and base of ventral fin. The scales covering the thorax are very small. *Colour*— silvery, darkest in the upper half of the body; sometimes the scales are marked with red.”

Biology

No information available.

Human Uses

From Dahanukar (2010):

“[...] has minor fishery value (Talwar and Jhingran 1991).”

From Froese and Pauly (2018):

“Fisheries: minor commercial”

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

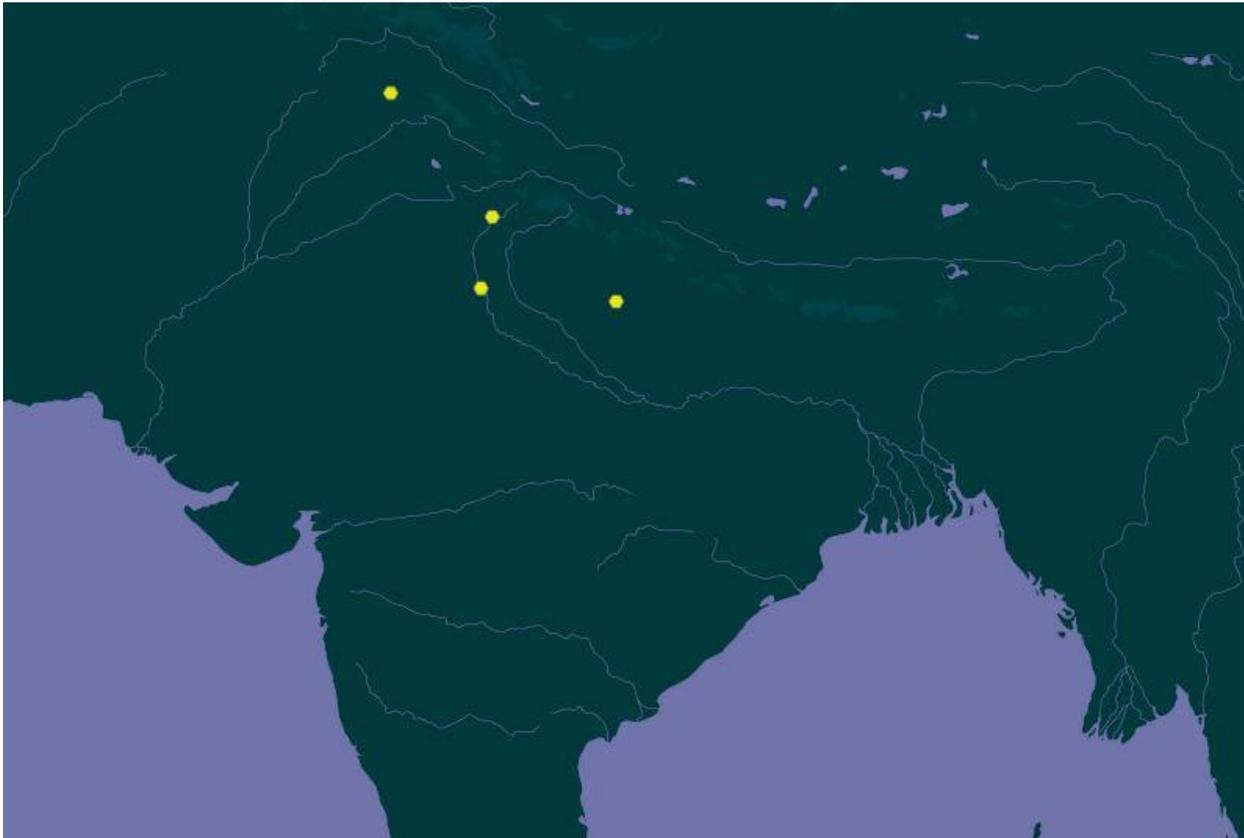


Figure 1. Known global distribution of *Labeo microphthalmus*, reported from India. Map from GBIF Secretariat (2018). There are no georeferenced occurrences available for the species range within Pakistan.

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 United States was 0.003, which is a low climate match. The range for a low climate match is from 0.0 to 0.005, inclusive. The states with a medium climate match were Arizona, Idaho, Michigan, and New York. All other states had a low climate match. In general, the Southeast, coastal Northeast, Plains states, Texas, and coastal Pacific had a low climate match. The area surrounding the Great Lakes southwest to Arkansas and scattered locations in the west had a medium match.

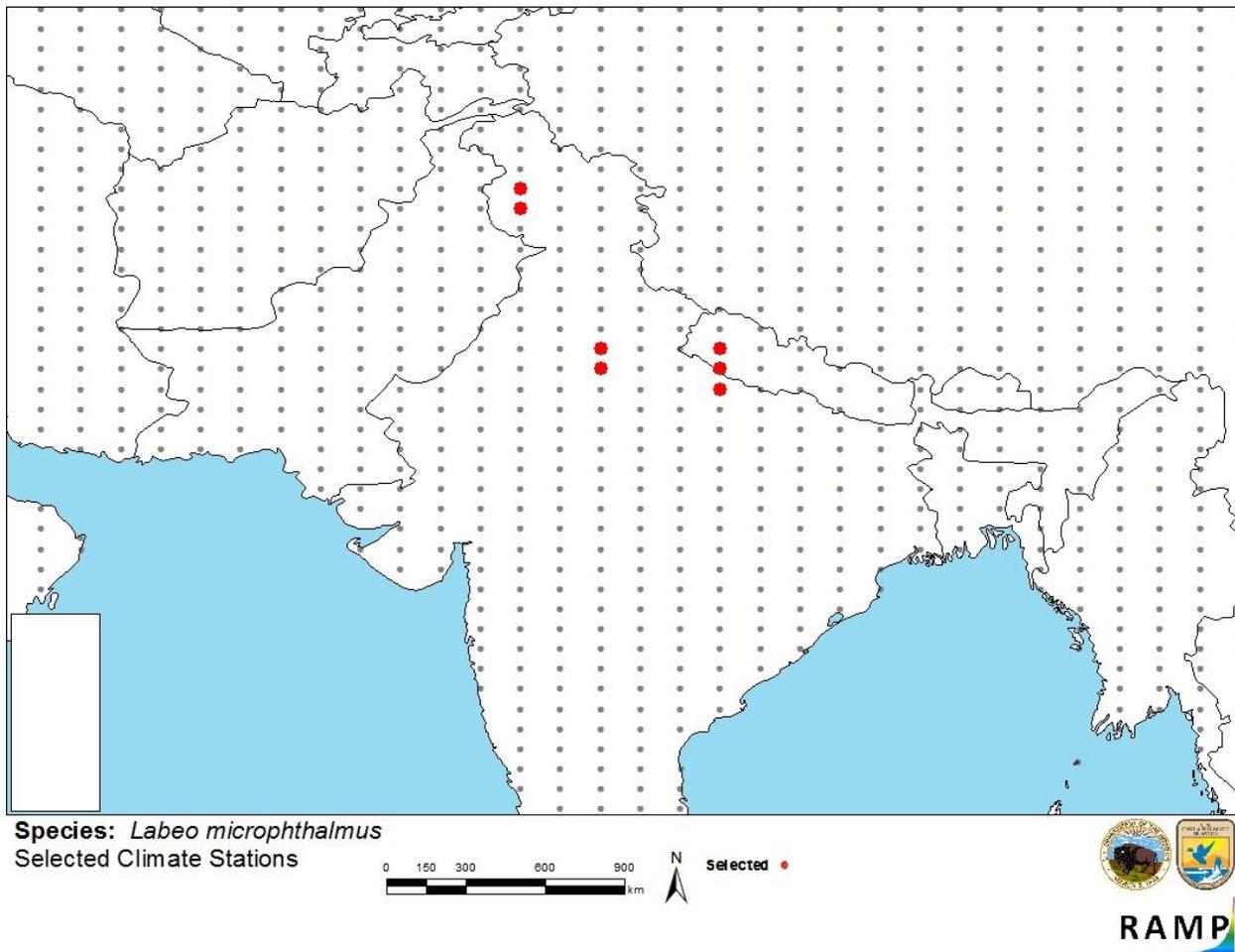


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; India, Nepal) and non-source locations (gray) for *Labeo microphthalmus* climate matching. Source locations from GBIF Secretariat (2018). Source locations selected are within 100 km of a reported occurrence and do not represent the exact location of an occurrence.

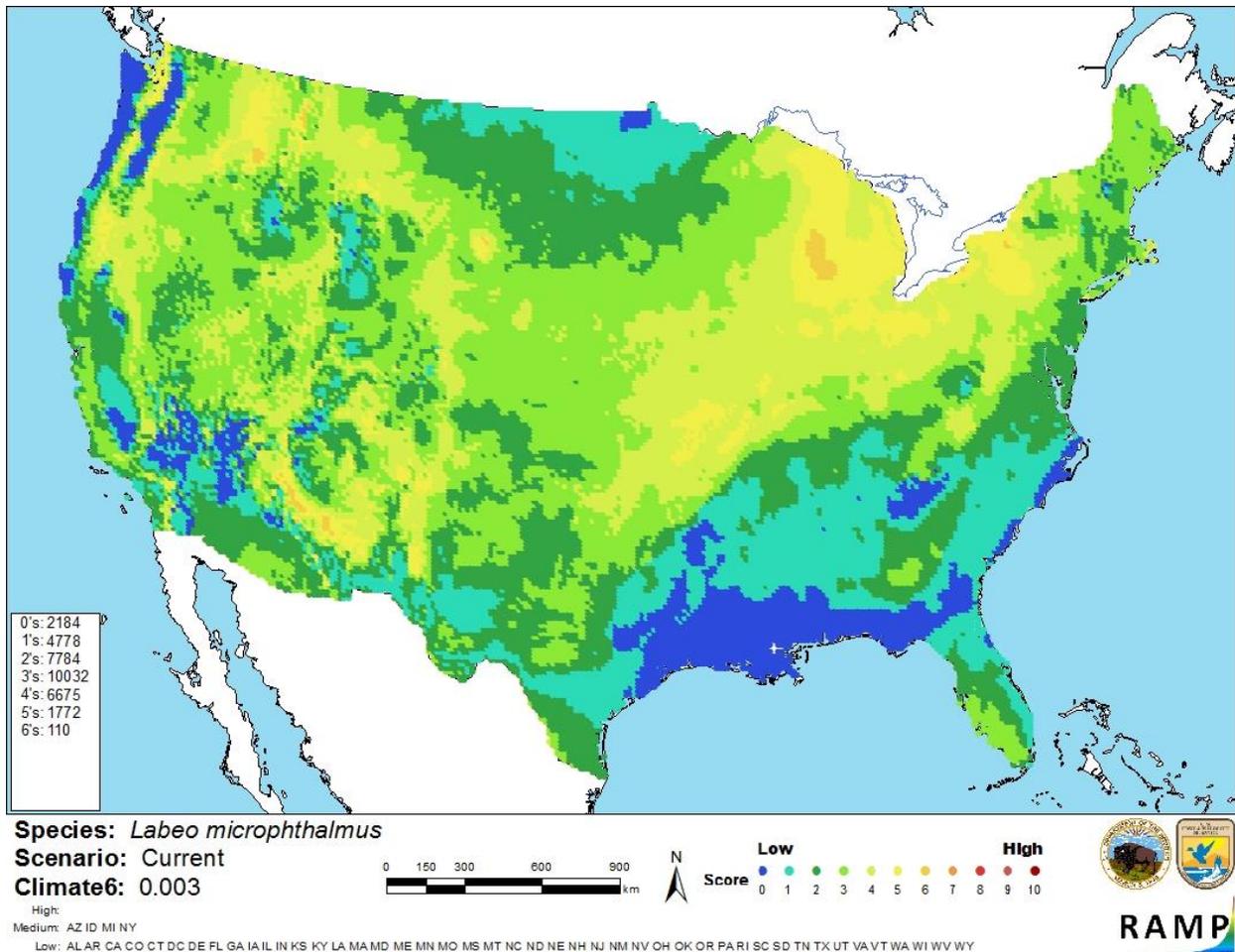


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Labeo microphthalmus* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0=Lowest match, 10=Highest match.

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

7 Certainty of Assessment

There is very little information available about *Labeo microphthalmus*. This species has never been reported as introduced outside of its native range, so there is no information available on impacts of its introduction. Further information is needed to adequately assess the risk this species poses. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo microphthalmus is a cyprinid fish native to India and Pakistan. It has minor commercial value as a food fish. No introductions of *Labeo microphthalmus* have been reported, so impacts of introduction are unknown. History of invasiveness of this species is uncertain. *L. microphthalmus* has a low climate match with the contiguous United States. Because of a lack of information on which to base a risk assessment, 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.

Dahanukar, N. 2010. *Labeo microphthalmus*. The IUCN Red List of Threatened Species 2010: e.T168354A6481613. Available: <http://www.iucnredlist.org/details/168354/0>. (May 2018).

Day, F. 1889. Volume I—Fishes. In W. T. Blanford, editor. The Fauna of British India, including Ceylon and Burma. Taylor and Francis, London.

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 microphthalmus* (Day, 1877). FishBase. Available: <https://www.fishbase.de/summary/Labeo-microphthalmus.html>. (May 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Labeo microphthalmus*, Day, 1877. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5205957>. (May 2018).

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.

Mirza, M. R., and M. K. Alam. 2002. A checklist of the fishes of the Punjab, Pakistan. Records of the Zoological Survey of Pakistan 14:31-35.

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