Labeo cyclopinnis (a carp, no common name)

Ecological Risk Screening Summary

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

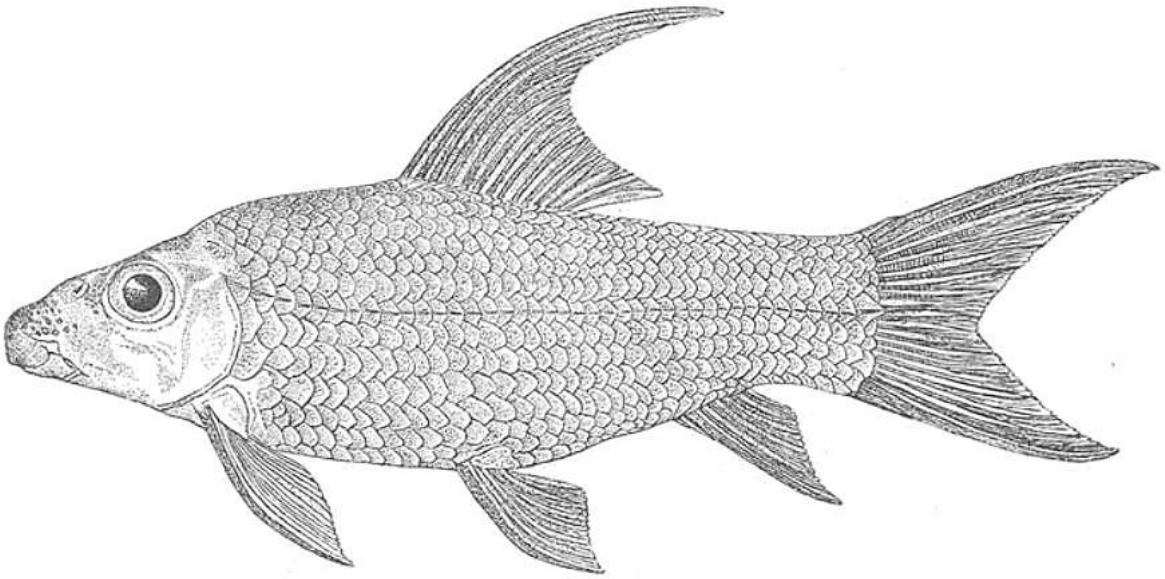

Fig. 8. *Labeo cyclopinnis*, type.

Photo: G. H Thayer, in Nichols and Griscom (1917). Public domain. Available: http://digitallibrary.amnh.org/handle/2246/1069. (March 2018).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2017):

"Africa: middle Congo River, Ubangi, Ruki, Itimbiri, Wagenia Falls and Lualaba in Democratic Republic of the Congo and Central African Republic [Tshibwabwa 1997, Ankei 1989, Moelants 2015, Decru 2015]."

Status in the United States

This species has not been reported as introduced or established 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 cyclopinnis* Nichols and Griscom, 1917"

From Eschmeyer et al. (2018):

"Current status: Valid as *Labeo cyclopinnis* Nichols & Griscom 1917. Cyprinidae: Labeoninae."

Size, Weight, and Age Range

From Froese and Pauly (2017):

"Max length : 10.8 cm SL male/unsexed; [Tshibwabwa 1997]"

Environment

From Froese and Pauly (2017):

"Freshwater; benthopelagic."

Climate/Range

From Froese and Pauly (2017):

"Tropical; 5°N - 10°S"

Distribution Outside the United States

Native

From Froese and Pauly (2017):

"Africa: middle Congo River, Ubangi, Ruki, Itimbiri, Wagenia Falls and Lualaba in Democratic Republic of the Congo and Central African Republic [Tshibwabwa 1997, Ankei 1989, Moelants 2015, Decru 2015]."

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 Nichols and Griscom (1917):

"A small barbel on each side; inner surface of lips with transverse plicae; eyes perfectly lateral; dorsal with concave upper edge; depth of body 3 $\frac{1}{6}$ times in length to base of caudal; dorsal strongly falcate, the longest ray 1 $\frac{3}{4}$ to 2 times length of head, anterior margin strongly curved; 20 scales around caudal peduncle which is much deeper than long."

"The type, No. 6296, American Museum of Natural History, from Stanleyville, February 1915, is 119 mm. in total length; depth 3 $\frac{1}{6}$ times in this measure, head 3 $\frac{3}{5}$ times, 1 $\frac{2}{5}$ times as long as broad; snout rounded, its length $\frac{1}{2}$ that of head; eye perfectly lateral, 3 $\frac{3}{4}$ times in length of head; interorbital width 2 $\frac{1}{6}$ times in length of head; width of mouth with lips 2 $\frac{3}{4}$ times in length of head; lips with transverse plicae; lower lip with a fringe of conical papillae; rostral flap large, with denticulate edge; a small barbel in the corner of the mouth. Dorsal III 11, nearer caudal than end of snout, falcate, longest ray 1 $\frac{3}{4}$ times length of head. Anal III 5, extending beyond root of caudal. Pectoral $\frac{4}{5}$ length of head, not reaching ventral, the first ray of which falls below 5th branched ray of dorsal. Caudal deeply emarginate, crescentic when fully spread out. Caudal peduncle much deeper than long. Scales 40, 5 $\frac{1}{2}$ between lateral line and root of ventral, 7 $\frac{1}{2}$ between lateral line and dorsal origin, 20 around caudal peduncle. Olive above, lighter below; fins grayish; and indistinct darker area on the peduncle."

Biology

From Froese and Pauly (2017):

"Associated to [*sic*] rapids [Tshibwabwa 1997]."

Human Uses
From Moelants (2010):

"This species is harvested for human consumption."

Diseases
No information available. No OIE-reportable diseases have been documented for this species.

Threat to Humans
From Froese and Pauly (2017):

"Harmless"

3 Impacts of Introductions
This species has not been reported as introduced or established outside of its native range.

4 Global Distribution

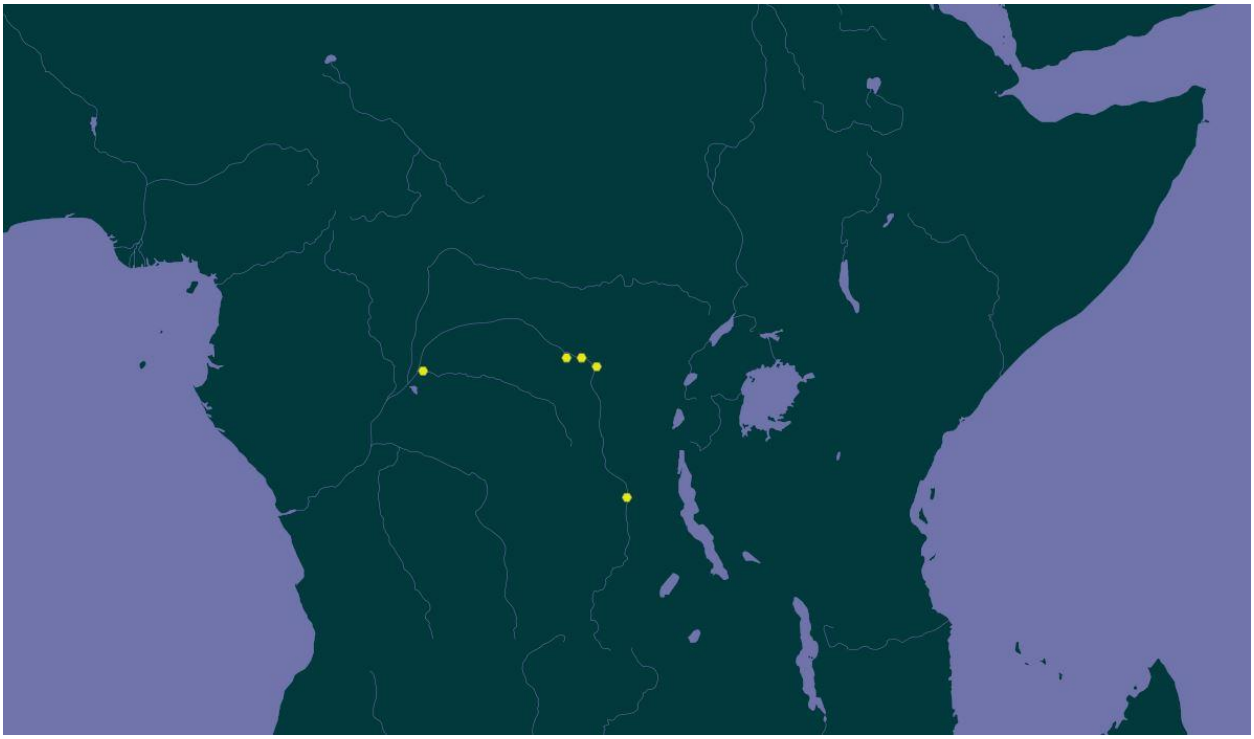

Figure 1. Known global distribution of *Labeo cyclopinnis* in the Democratic Republic of The Congo where the species has been reported. Map from GBIF Secretariat (2018).

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 was low across most of the U.S., but there was a small area of slightly higher match in Southern Florida and along the Gulf Coast.

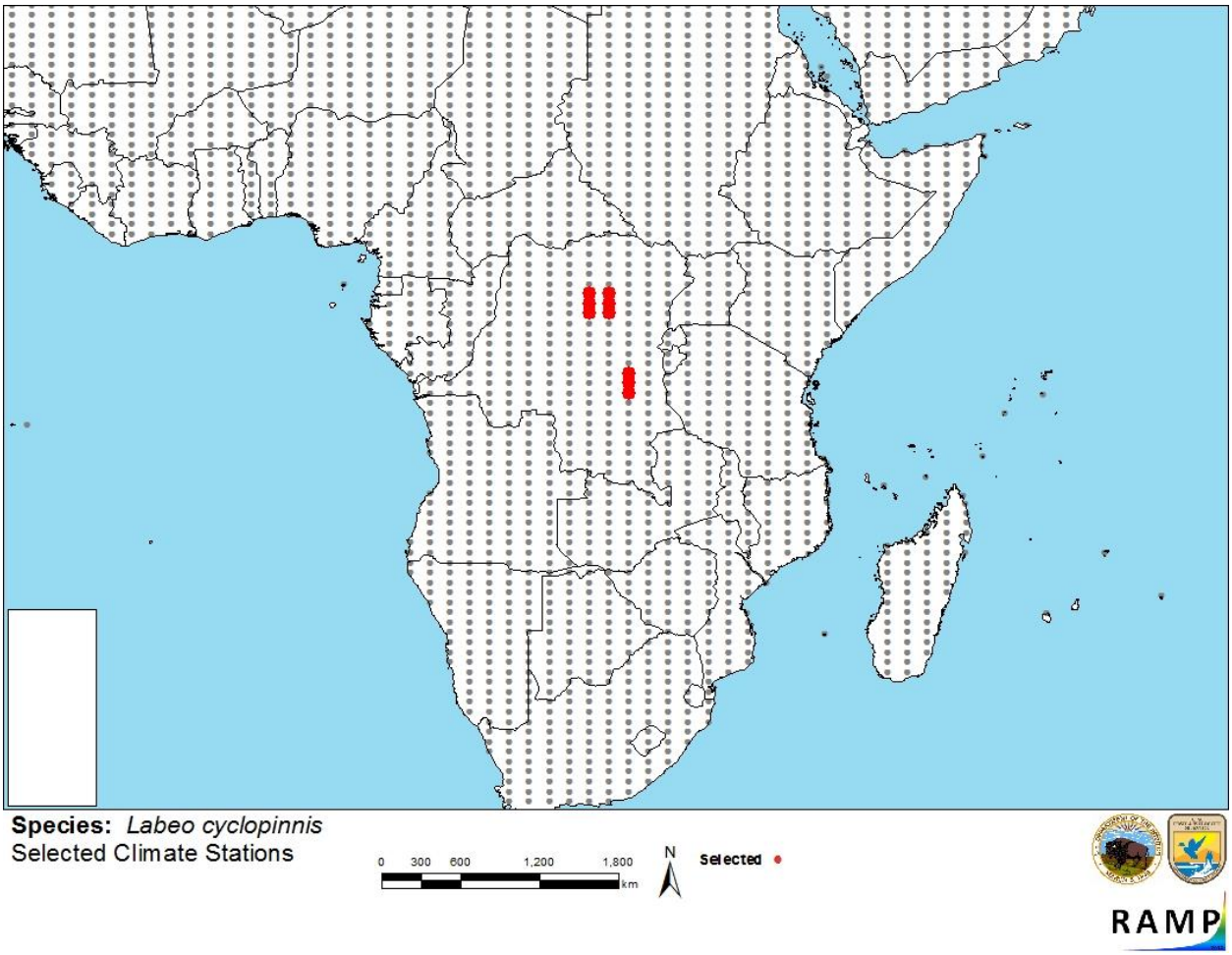

Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; the Democratic Republic of The Congo) and non-source locations (gray) for *Labeo cyclopinnis* climate matching. Source locations from GBIF Secretariat (2018).

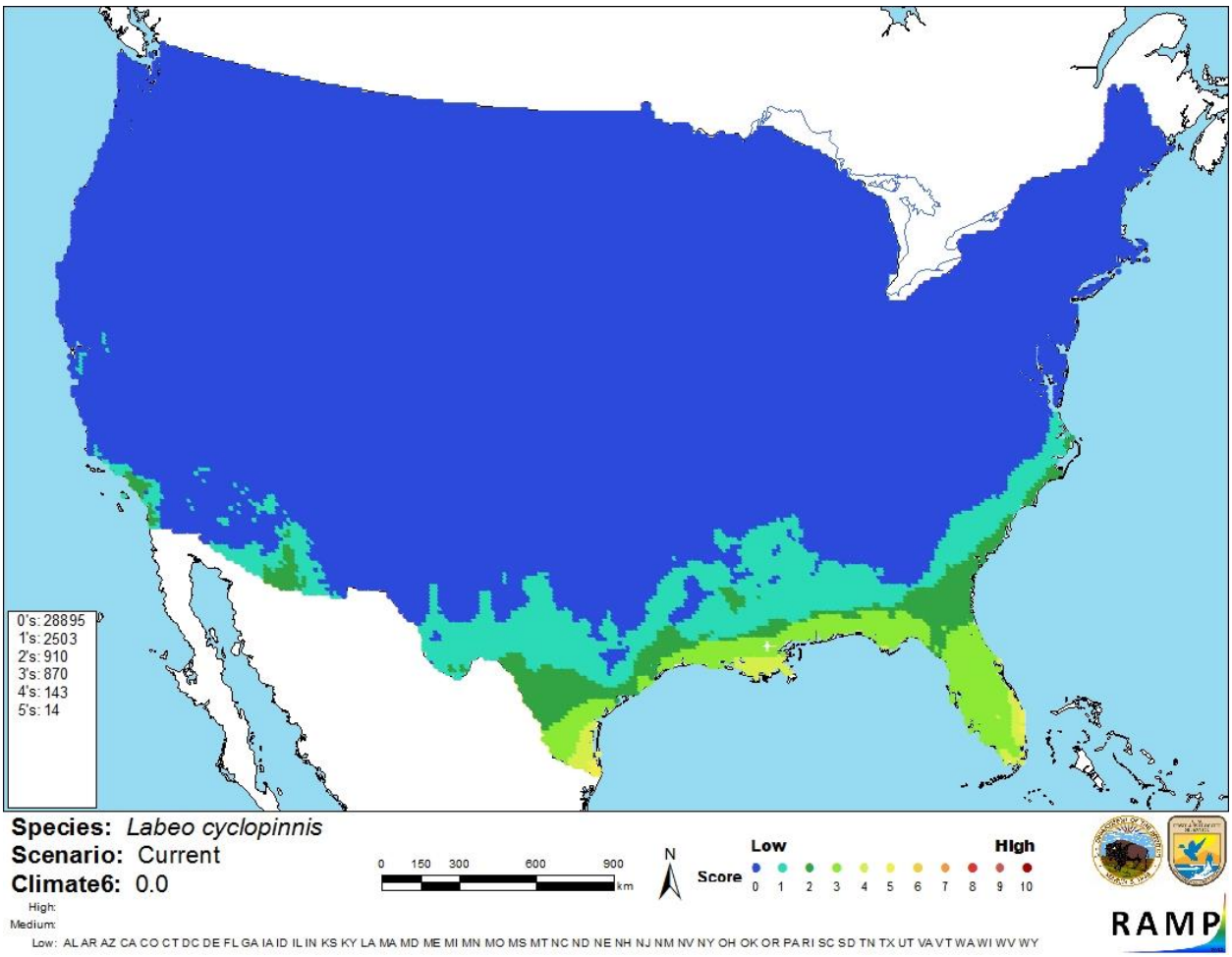

Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Labeo cyclopinnis* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0= Lowest match, 10=Highest match.

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

There is little information available about *Labeo cyclopinnis*. No introductions of this species outside of its native range have been documented. Because of this, no impacts of introductions have been documented, so the certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo cyclopinnis is a carp native to the Congo River in Africa. This species has never been reported as introduced outside of its native range. *L. cyclopinnis* has a low climate match with the contiguous United States. Because of a lack of information from which to base an assessment of invasive potential, 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.

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. (March 2018).

Froese, R., and D. Pauly, editors. 2017. *Labeo cyclopinnis* (Nichols & Griscom, 1917). FishBase. Available: http://www.fishbase.org/summary/50759. (March 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Labeo cyclopinnis*, Nichols & Griscom, 1917. Global Biodiversity Information Facility, Copenhagen. Available: https://www.gbif.org/species/5206033. (March 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Labeo cyclopinnis* (Nichols & Griscom, 1917). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689280#null. (March 2018).

Moelants, T. 2010. *Labeo cyclopinnis*. The IUCN Red List of Threatened Species 2010: e.T182562A7913909. Available: http://www.iucnredlist.org/details/182562/0. (March 2018).

Nichols, J. T., and L. Griscom. 1917. Fresh-water fishes of the Congo basin obtained by the American Museum Congo expedition, 1909-1915. Bulletin of the American Museum of Natural History 37:653-756.

Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. US 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.

Ankei, Y. 1989. Folk knowledge of fish among the Songala and the Bwari: comparative ethnoichthology of the Lualaba River and Lake Tanganyika fishermen. African Studies Monograph 9(Suppl.):1-88.

Decru, E. 2015. The ichthyofauna in the Central Congo basin: diversity and distribution in the north-eastern tributaries. KULeuven, Faculty of Science, Leuven, Belgium.

Moelants, T. 2015. Diversity and ecology of the ichthyofauna of the Middle and Upper Congo basin: a case-study in the region of the Wagenia falls (Democratic Republic of the Congo). KULeuven, Faculty of Science, Leuven, Belgium.

Tshibwabwa, S. M. 1997. Systématique des espèces africaines du genre *Labeo* (Teleostei, Cyprinidae) dans les régions ichtyogéographiques de Basse-Guinée et du Congo. II. Presses Universitaires de Namur, Namur, Belgium.