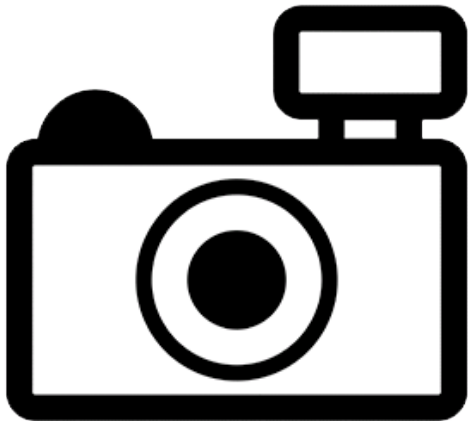


Cyprinus longzhouensis (a carp, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, September 2011
Revised, November 2018
Web Version, 1/30/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“Asia: China.”

“[In China:] Present in Pearl River [Shiming et al. 2011].”

From Chen (2011):

“Restricted to the upper parts of Zuo Jiang (river), Guanxi province, China, and possibly present in linked drainages in Viet Nam, though not recorded from the Red River drainages or Viet Nam (M. Kottelat pers. comm. 2011).”

Status in the United States

There were no records of *Cyprinus longzhouensis* in the wild or in trade in the United States.

Means of Introductions in the United States

There were no records of *Cyprinus longzhouensis* in the wild in the United States.

Remarks

From Chen (2011):

“The species has declined since the 1980s, and there are no recent records (X.-Y. Chen pers. comm. 2011).”

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al. (2018), *Cyprinus longzhouensis* is the valid and original name for this species.

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 *Cyprinus*
Species *Cyprinus longzhouensis* Yang and Hwang in Chen and Huang,
(1977)”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 17.7 cm SL male/unsexed; [Luo and Yue 2000].”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic”

From Chen (2011):

“[...] can not tolerate a poor environment, dying quickly in turbid water.”

Climate/Range

From Froese and Pauly (2018):

“Subtropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“Asia: China.”

“[In China:] Present in Pearl River [Shiming et al. 2011].”

From Chen (2011):

“Restricted to the upper parts of Zuo Jiang (river), Guanxi province, China, and possibly present in linked drainages in Viet Nam, though not recorded from the Red River drainages or Viet Nam (M. Kottelat pers. comm. 2011).”

Introduced

No records of *Cyprinus longzhouensis* introductions were found.

Means of Introduction Outside the United States

No records of *Cyprinus longzhouensis* introductions were found.

Short Description

A description of *Cyprinus longzhouensis* was not found.

Biology

From Chen (2011):

“It is a fish of the upper and middle layers of water bodies and dwells mainly in the deep parts of rivers of clear water. It swims fast and can not tolerate a poor environment, dying quickly in turbid water. It feeds on plankton and alga. Its spawning period is from April to September, but mainly in May and June. It spawns in batches on aquatic plants.”

Human Uses

From Froese and Pauly (2018):

“Utilized for food [Zhang 1998].”

Diseases

No information on diseases of *Cyprinus longzhouensis* was found.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of *Cyprinus longzhouensis* introductions were found; therefore, there is no information on impacts of introductions.

4 Global Distribution



Figure 1. Map of the Pearl River basin in China. *Cyprinus longzhouensis* is present in the Pearl River, China (Froese and Pauly 2018). Map created by Karl Musser. Licensed under Creative Commons BY-SA 3.0 Unported. Available: <https://commons.wikimedia.org/wiki/File:Zhujiangrivermap.png>. (November 14, 2018).

5 Distribution Within the United States

There were no records of *Cyprinus longzhouensis* in the wild in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Cyprinus longzhouensis* was low in the Northeast, upper Midwest and the West. There was an area of high match in Florida and southeastern Georgia. Everywhere else had a medium climate match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for contiguous United States was 0.044, medium. The range for a medium climate score is between 0.005 and 0.103. Florida, Georgia, North Carolina, Oklahoma, and South Carolina had high individual climate scores; Kansas, Missouri, and Texas had medium individual climate scores; and all other states had low individual climate scores.

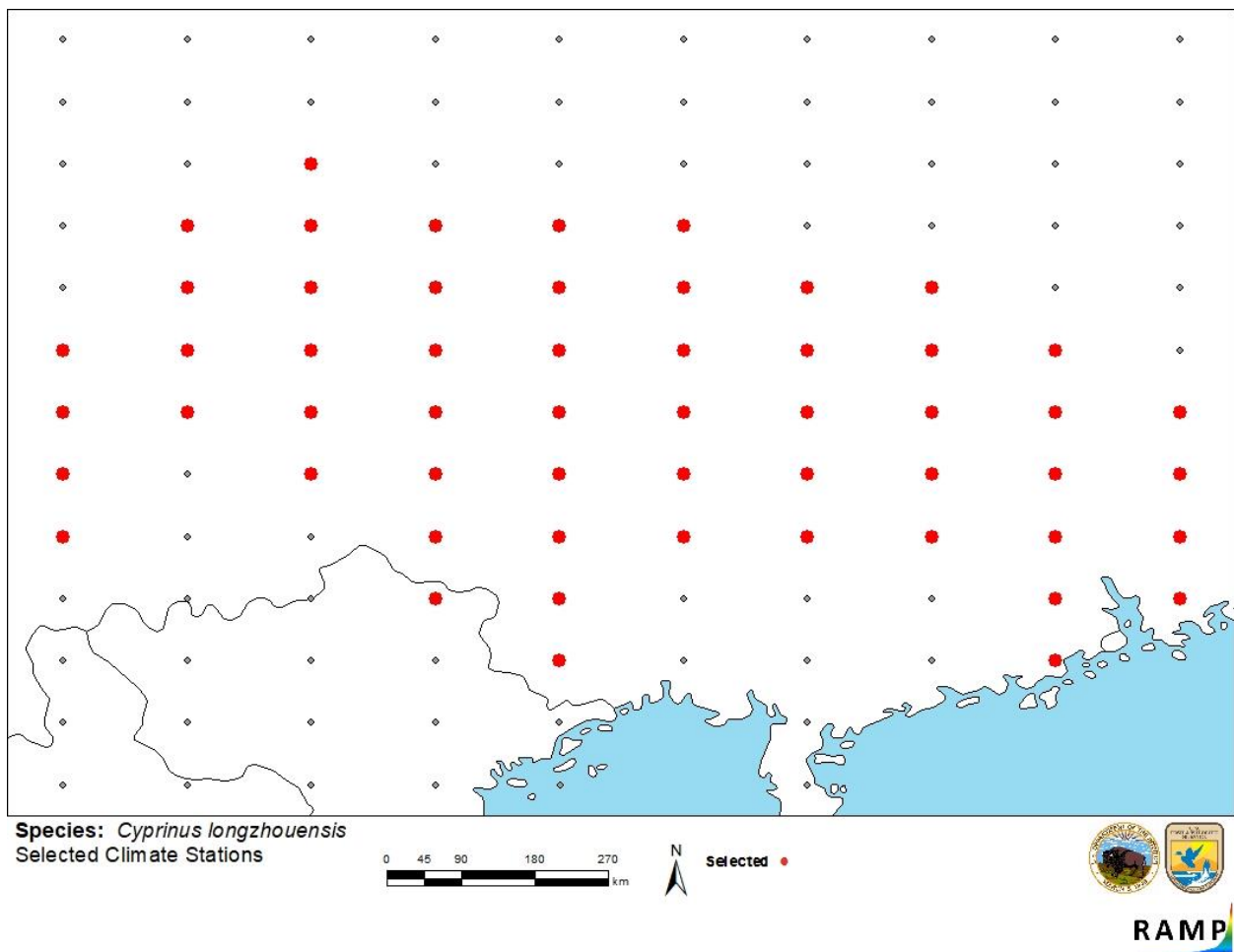


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in southern China and northern Vietnam selected as source locations (red) and non-source locations (gray) for *Cyprinus longzhouensis* climate matching. Source locations from Chen (2011) and Froese and Pauly (2018).

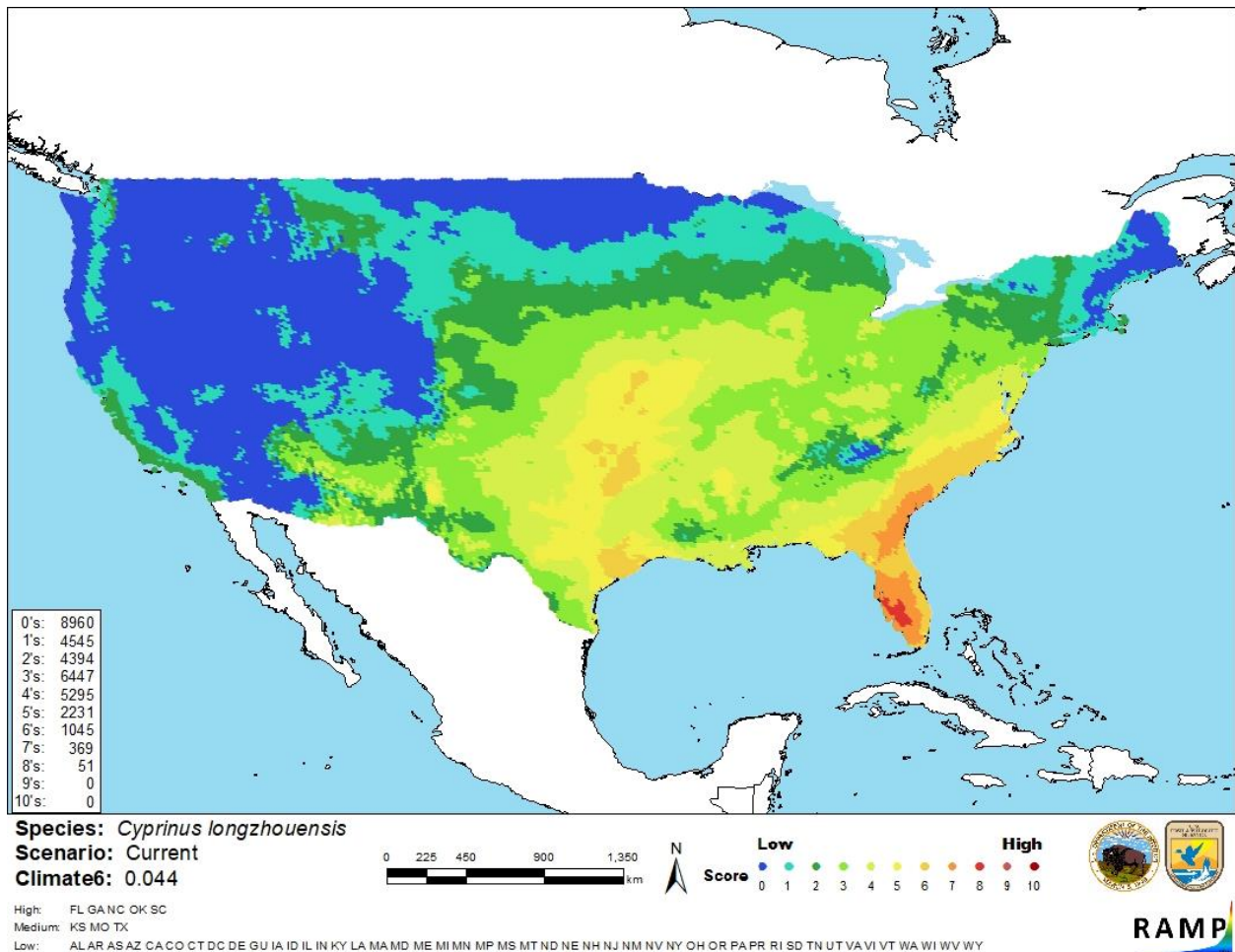


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Cyprinus longzhouensis* in the contiguous United States based on source locations reported by Chen (2011) and Froese and Pauly (2018). 0 = Lowest match, 10 = Highest match.

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 for *Cyprinus longzhouensis* is low. There is minimal information about this species and no recent records. The climate match is based on a generalized text description of the species' range and not actual georeferenced observations, increasing the uncertainty of the climate match results.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Cyprinus longzhouensis is a species of carp native to the Pearl River drainage in China and possibly Vietnam. It is reported that the species is used as a food source, however the species has declined since the 1980's and there are no recent records. The history of invasiveness is uncertain. No records of introductions were found, and no records of this species in trade were found. The climate match for the contiguous United States is medium. Some states in the East had high individual climate scores. The climate match is based on a general description of the species' range since georeferenced locations were not available. 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): Medium**
- **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.

Chen, X.-Y. 2011. *Cyprinus longzhouensis*. The IUCN Red List of Threatened Species 2011: e.T166067A6181326. Available: <https://www.iucnredlist.org/species/166067/6181326>. (November 2018).

Fricke, R., W. N. Eschmeyer, and R. van der Laan, editors. 2018. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (November 2018).

Froese, R., and D. Pauly, editors. 2018. *Cyprinus longzhouensis* Yang and Hwang, 1977. FishBase. Available: <http://www.fishbase.org/summary/Cyprinus-longzhouensis.html>. (November 2018).

ITIS (Integrated Taxonomic Information System). 2018. *Cyprinus longzhouensis* Yang and Hwang in Chen and Huang, 1977. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=688960#null. (November 2018).

Sanders, S., C. Castiglione, and M. 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.

Luo, Y., and P. Yue. 2000. Cyprinidae: Cyprininae. Pages 391–433 *in* P. Yue, et al., editors. Fauna Sinica. Osteichthyes. Cypriniformes III. Science Press, Beijing. [Source material did not give full citation for this reference.]

Shiming, L., C. Kunzheng, Z. Huihong, C. Ke, G. Lian, F. Jinghua, Z. Xueying, T. Xiaoli, Z. Jia'en, Y. Yanqong, L. Huashou, and H. Hongzhi. 2011. Freshwater ecosystem services and biodiversity values of the Beijiang River, China. Pages 4–122 *in* Report on highland aquatic ecosystem services and biodiversity values, including livelihoods, trade, policy and conservation oriented inputs to two global online databases. Highland Aquatic Resources Conservation and Sustainable Development Project. Deliverable 3.1, Project 213015, European Community's Seventh Framework Programme. Work Package 3 report. South China Agricultural University.

Zhang, W. 1998. China's biodiversity: a country study. China Environmental Science Press, Beijing.