Cyprinus acutidorsalis (a carp, no common name)
Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, October 2012
Revised, November 2018
Web Version, 7/29/2019

Photo: Chinese Academy of Fishery Sciences. Licensed under Creative Commons BY-NC 3.0 Unported. Available: http://www.fishbase.se/photos/PicturesSummary.php?ID=14470&what=species. (2012).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

"Asia: China"

"[In China:] Known from Qinjiang River of Guangxi Autonomous Region and the Hainan Island [Hwang et al. 1988]."

Status in the United States

No records of *Cyprinus acutidorsalis* in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of *Cyprinus acutidorsalis* in the wild in the United States were found.

Remarks

This ERSS is an update for an ERSS previously published in 2012, using the common name Chinese Carp.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2018):

"**Current status:** Valid as *Cyprinus acutidorsalis* Chen & Huang 1977."

From ITIS (2018):

"Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinoptergii
Class Teleostei
Superorder Ostariophysi
Order Cypriniformes
Superfamily Cyprinoidea
Family Cyprinidae
Genus *Cyprinus*
Species *Cyprinus acutidorsalis* Wang, 1979"

Size, Weight, and Age Range

From Froese and Pauly (2018):

"Max length : 27.0 cm SL male/unsexed; [Luo and Yue 2000]; max. published weight: 500 g [Hwang et al.1988]"

Environment

From Froese and Pauly (2018):

"Freshwater; brackish; benthopelagic"

Climate/Range
From Froese and Pauly (2018):

"Subtropical"

Distribution Outside the United States
Native
From Froese and Pauly (2018):

"Asia: China"

"[In China:] Known from Qinjiang River of Guangxi Autonomous Region and the Hainan Island [Hwang et al. 1988]."

Introduced
No records of *Cyprinus acutidorsalis* introductions were found.

Means of Introduction Outside the United States
No records of *Cyprinus acutidorsalis* introductions were found.

Short Description
A short description of *Cyprinus acutidorsalis* was not found.

Biology
From Froese and Pauly (2018):

"Occurs in river mouth [Hwang et al. 1988]."

Human Uses
From Froese and Pauly (2018):

"Fisheries: commercial"

Diseases
No records of OIE-reportable diseases were found for *Cyprinus acutidorsalis* (OIE 2019).

From Gao et al. (2017):

"*Streptococcus agalactiae* can cause septicemia and meningoencephalitis, which occurs in *Oreochromis* spp, *Salmo gairdneri*, *Cyprinus acutidorsalis*, […]"

Threat to Humans

From Froese and Pauly (2018):

"Harmless"

3 Impacts of Introductions

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

4 Global Distribution

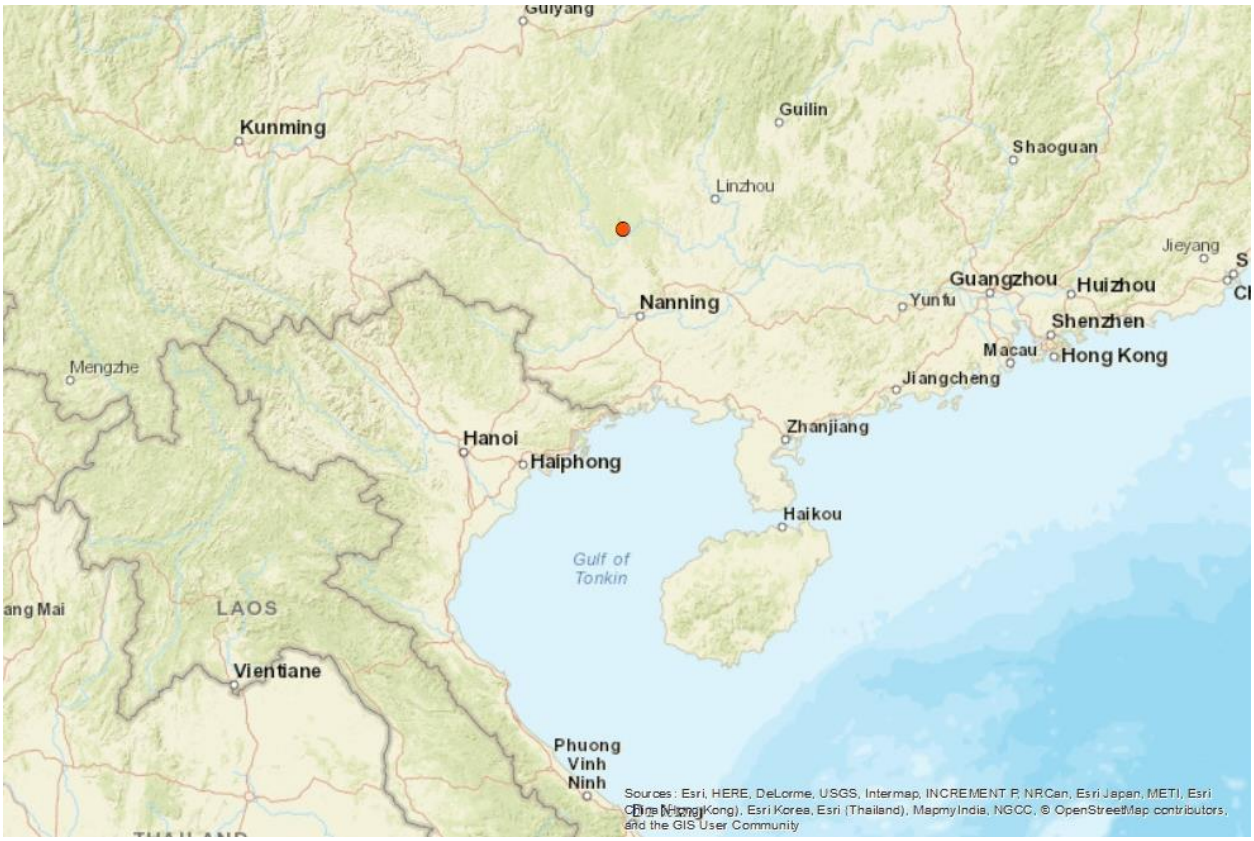

Figure 1. Known global distribution of *Cyprinus acutidorsalis*. Location is in southern China. Map created by U.S. Fish and Wildlife Service using location data from Froese and Pauly (2018) and ArcGIS® by ESRI.

5 Distribution Within the United States

No records of *Cyprinus acutidorsalis* in the wild in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Cyprinus acutidorsalis* was low for most of the contiguous United States. There was a small area of medium match along the Gulf Coast of Texas. There were also areas of medium match in Florida and the eastern coast of Georgia. Southwestern Florida had an area of high match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.009, medium (scores greater than 0.005, but less than 0.103 are classified as medium). All States had low individual Climate 6 scores except for Florida which had a high individual Climate 6 score.

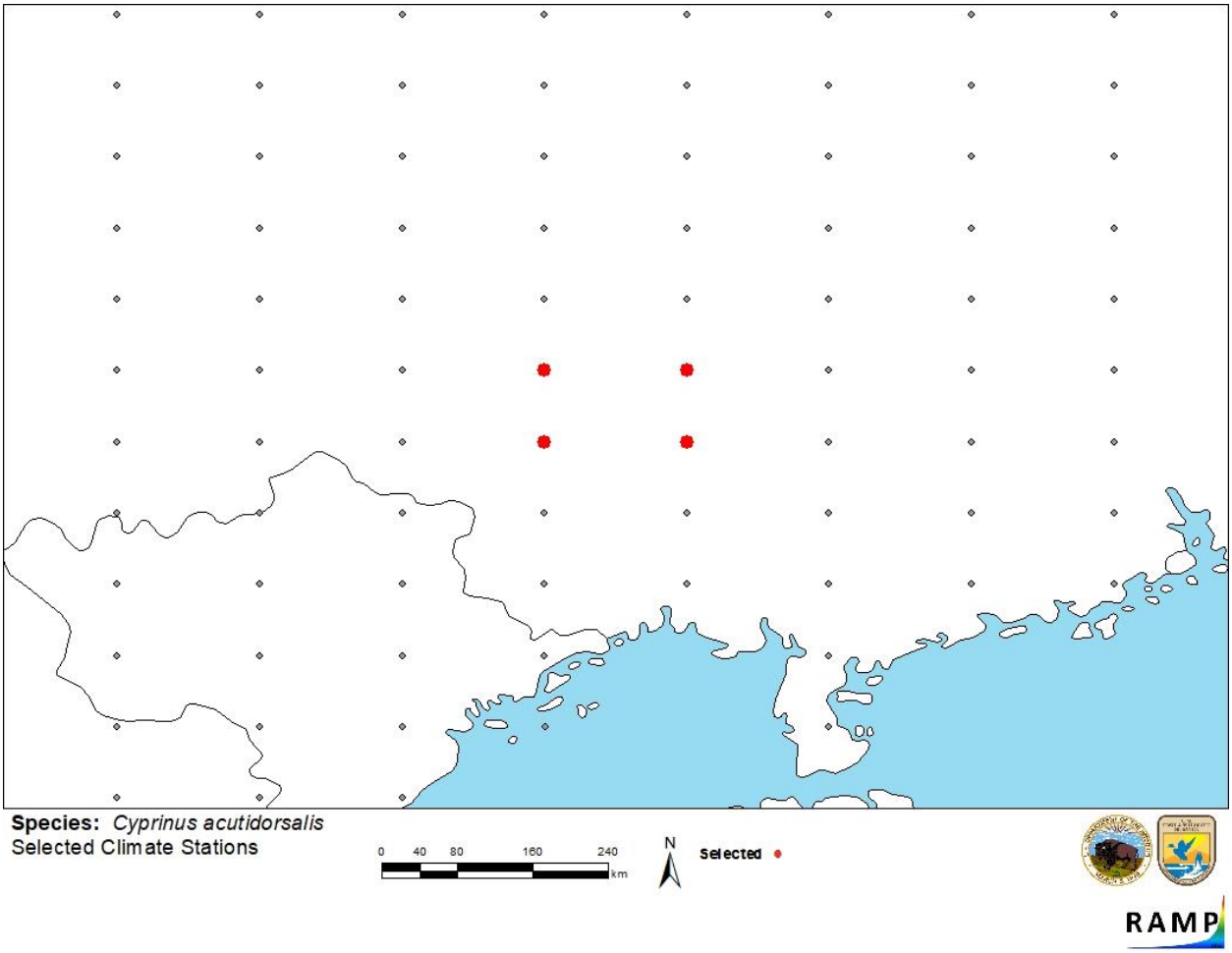

Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in southern China selected as source locations (red) and non-source locations (gray) for *Cyprinus acutidorsalis* climate matching. Source locations from Froese and Pauly (2018). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

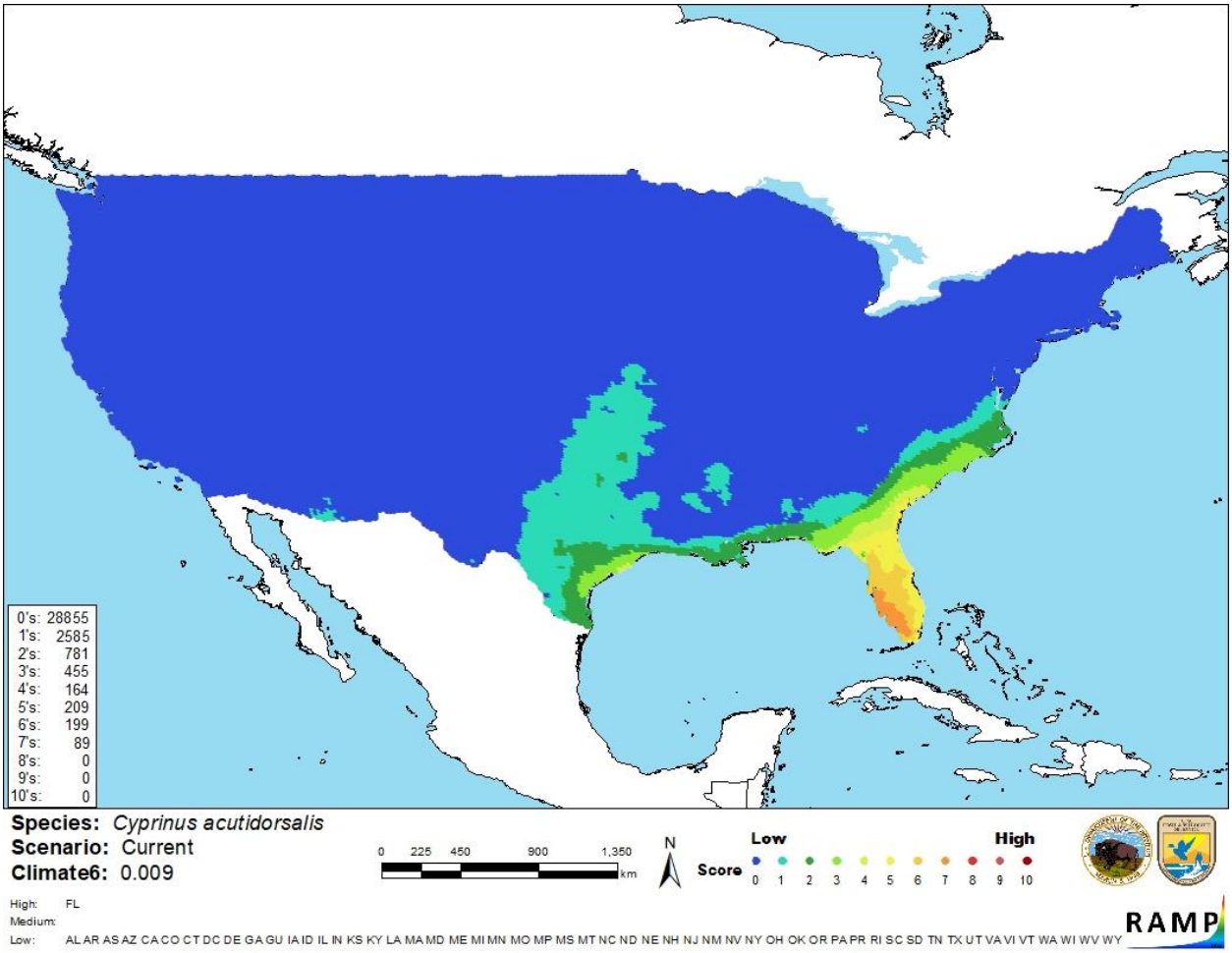

Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Cyprinus acutidorsalis* in the contiguous United States based on source locations reported by Froese and Pauly (2018). Counts of climate match scores are tabulated on the left. 0 = Lowest match, 10 = Highest match.

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

Peer-reviewed literature on the biology, ecology, and distribution associated with *Cyprinus acutidorsalis* as well as information on its potential invasiveness is limited. One literature search showed some results but the articles were not available to review. No records of introductions were found. The certainty of assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Cyprinus acutidorsalis is a species of carp native to southeastern China. The species is used commercially. The history of invasiveness is unknown. No records of introduction were found. The climate match is medium. Most of the contiguous United States had a low match; however, southern Florida had an area of high climate match. 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.

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 acutidorsalis* Wang, 1979. FishBase. Available: http://www.fishbase.se/summary/Cyprinus-acutidorsalis.html. (November 2018).

Gao, W., K. Ai, K. Luo, T. Huang, M. Yao, W. Hu, L. Fang, Z. Qi, and Q. Xu. 2017. Establishment of a multiplex PCR assay to detect five major freshwater bacteria. Israeli Journal of Aquaculture 69:1395.

ITIS (Integrated Taxonomic Information System). 2018. *Cyprinus acutidorsalis* Wang, 1979. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=688947#null. (November 2018).

OIE (World Organisation for Animal Health). 2019. OIE-listed diseases, infections and infestations in force in 2019. Available: http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/. (July 2019).

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.

Hwang, H. C., I. Y. Chen, and P. C. Yueh. 1988. The freshwater fishes of China in colored illustrations. Shanghai Sciences and Technology Press, Shanghai, China.

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