

# ***Cyprinus multitaeniatus* (a carp, no common name)**

## **Ecological Risk Screening Summary**

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



Photo: Chinese Academy of Fishery Sciences. Licensed under Creative Commons BY-NC 3.0 Unported. Available: <http://www.fishbase.se/photos/PicturesSummary.php?StartRow=0&ID=14468&what=species&TotRec=2>. (2011).

## **1 Native Range and Status in the United States**

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### **Native Range**

From Froese and Pauly (2018a):

“Asia: China and Viet Nam.”

“[In China:] Recorded from the West River.

Known from Guangxi Province: (Guixian, Guiping, Yangsu, Longzhou, Chongzuo, Rongan, Yishan, Duan [Luo and Yue 2000]. Present in Pearl River [Hwang et al. 1988; Shiming et al. 2011].”

“[In Vietnam:] Found in Ba Be Lake [Sung 1998]. Present in Da River [Bui et al. 2009; Nguyen et al. 2011].”

From Zhao (2011):

“In Viet Nam, the species has been assessed as Extinct in the Wild in it's [sic] Red Data Book (2007).”

## **Status in the United States**

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

## **Means of Introductions in the United States**

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

## **Remarks**

*Cyprinus multitaeniatus* is the correct spelling of the valid name of this species (Fricke et al. 2018). Some sources use the misspelling *Cyprinus multitaeniata*. Information searches were conducted using both spellings.

# **2 Biology and Ecology**

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## **Taxonomic Hierarchy and Taxonomic Standing**

According to Fricke et al. (2018), *Cyprinus multitaeniatus* Pellegrin & Chevey 1936 is the valid name for this species. It was originally described as *Cyprinus carpio* var. *multitaeniata*.

From Froese and Pauly (2018b):

“Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > [...] Actinopterygii (Class) > Cypriniformes (Order) > Cyprinidae (Family) > Cyprininae (Subfamily) > *Cyprinus* (Genus) > *Cyprinus multitaeniatus* (Species)”

## **Size, Weight, and Age Range**

From Froese and Pauly (2018a):

“Max length : 42.0 cm TL male/unsexed; [Que et al. 2015]; max. published weight: 1.1 kg [Que et al. 2015]”

## **Environment**

From Froese and Pauly (2018a):

“Freshwater; benthopelagic.”

## **Climate/Range**

From Froese and Pauly (2018a):

“Subtropical”

## **Distribution Outside the United States**

Native

From Froese and Pauly (2018a):

“Asia: China and Viet Nam.”

“[In China:] Recorded from the West River.

Known from Guangxi Province: (Guixian, Guiping, Yangsu, Longzhou, Chongzuo, Rongan, Yishan, Duan [Luo and Yue 2000]. Present in Pearl River [Hwang et al. 1988; Shiming et al. 2011].”

“[In Vietnam:] Found in Ba Be Lake [Sung 1998]. Present in Da River [Bui et al. 2009; Nguyen et al. 2011].”

From Zhao (2011):

“In Viet Nam, the species has been assessed as Extinct in the Wild in it's [sic] Red Data Book (2007).”

## **Introduced**

No records of *Cyprinus multitaeniatus* introductions were found.

## **Means of Introduction Outside the United States**

No records of *Cyprinus multitaeniatus* introductions were found.

## **Short Description**

According to Yang et al. (2010), *Cyprinus multitaeniatus* has 17–20 branched dorsal fin rays.

## **Biology**

From Zhao (2011):

“Found in rivers and lakes in the middle and lower layers. A mainly omnivorous benthic fish. Its spawning period is from April to September, but mainly in May and June. It spawns in batches on aquatic plants.”

## **Human Uses**

From Zhao (2011):

“The species has been cultured and bred artificially.”

“Local commercial fishes, and in aquaculture in China.”

## **Diseases**

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

## **Threat to Humans**

From Froese and Pauly (2018a):

“Harmless”

## **3 Impacts of Introductions**

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

## 4 Global Distribution

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**Figure 1.** Map of Pearl River basin in China. According to Froese and Pauly (2018) the range of *Cyprinus multitaeniatus* is contained within this basin. Map by Karl Musser. Licensed under Creative Commons BY-SA 3.0 Unported. Available: <https://commons.wikimedia.org/wiki/File:Zhujiangrivermap.png>.

## 5 Distribution Within the United States

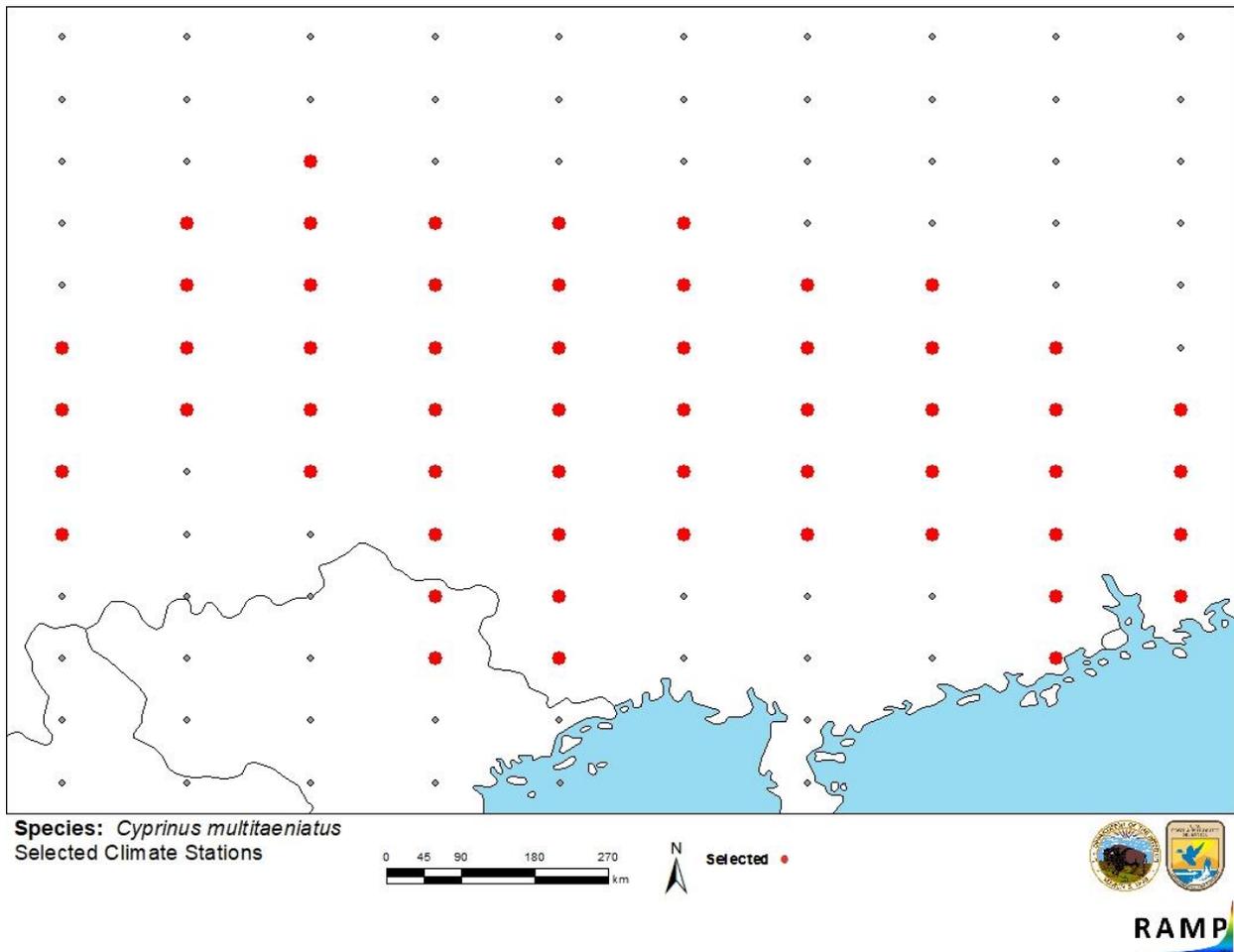
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No records of *Cyprinus multitaeniatus* in the wild in the United States were found.

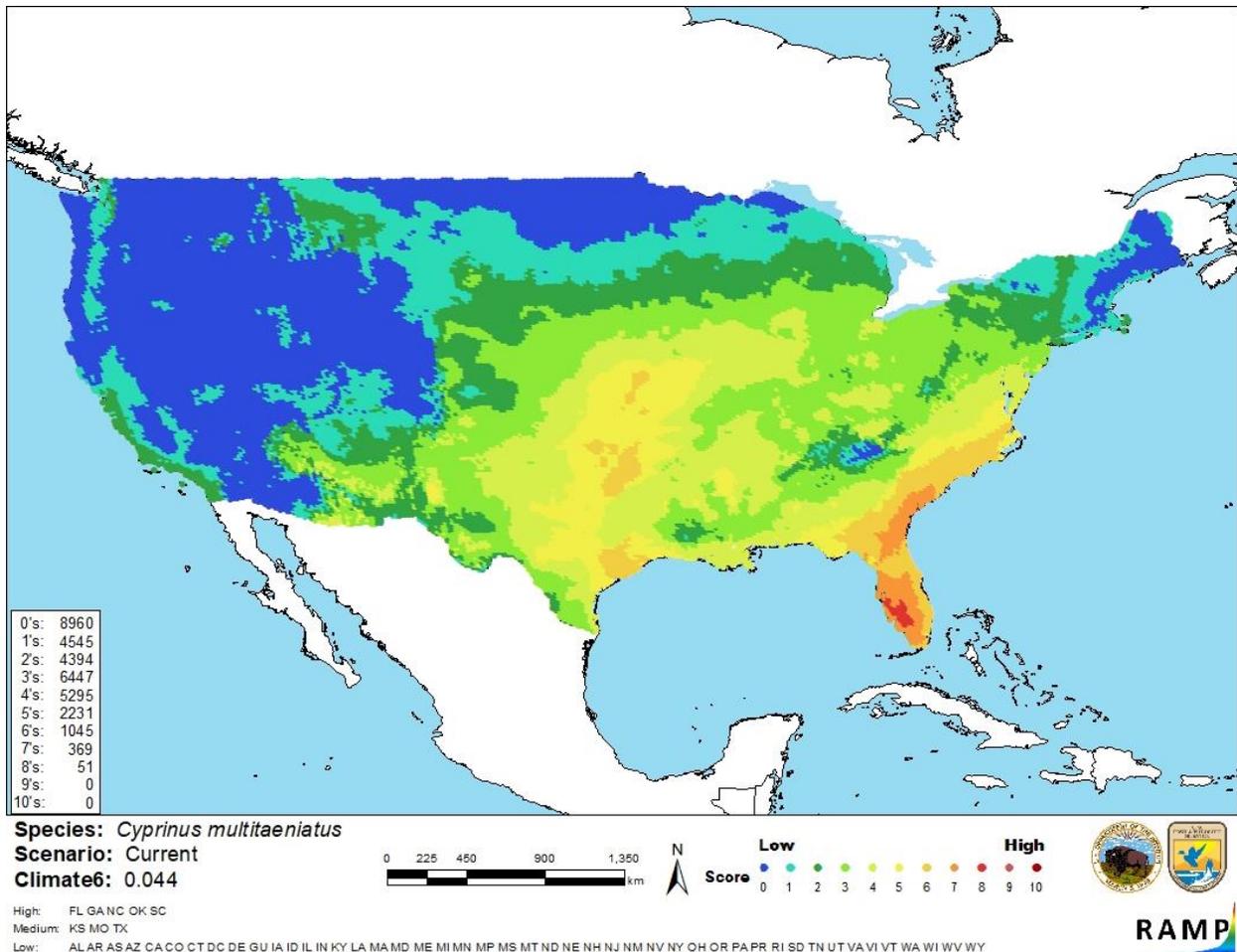
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match for *Cyprinus multitaeniatus* was low in the west, upper Midwest, and Northeast. There was an area of high match in Florida, eastern Georgia, and southeastern South Carolina. Everywhere else had a medium climate match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the 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. 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 multitaeniatus* climate matching. Source locations from Froese and Pauly (2018). Selected source locations were chosen to represent the Pearl River basin, the range of the species described in the literature. No known observations were available to use in selecting the source locations for the climate match.



**Figure 3.** Map of RAMP (Sanders et al. 2018) climate matches for *Cyprinus multitaeniatus* in the contiguous United States based on source locations reported by 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
$\geq 0.103$	High

## 7 Certainty of Assessment

The certainty of assessment for *Cyprinus multitaeniatus* is low. There is some biological information available for the species. The climate match is based on a general description of the range of the species. No georeferenced observations were available to use when selecting source locations for the climate match. No records of introductions were found so impacts of introduction are unknown.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Cyprinus multitaeniatus* is a species of carp native to river basins in southern China and northern Vietnam, although it has been reported as extinct in Vietnam. It has been used for human consumption. *C. multitaneniatus* is a local commercial species and bred in aquaculture. The history of invasiveness is uncertain. No records of introduction were found. The climate match was medium. Florida, Georgia and South Carolina had areas of high climate match. The climate match is based on a general description of the species' range and not actual georeferenced observations, which reduces the confidence in the results of the climate match. The certainty of assessment is low. The overall risk assessment 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

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**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).
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Zhao, H. H. 2011. *Cyprinus multitaeniata*. The IUCN Red List of Threatened Species 2011: e.T166066A6180995. Available: <https://www.iucnredlist.org/species/166066/6180995>. (November 2018).

## 10 References Quoted But Not Accessed

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**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.**

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Hwang, H. C., I. Y. Chen, and P. C. Yueh. 1988. The freshwater fishes of China in colored illustrations, volume 2. Shanghai Sciences and Technology Press, Shanghai, China.

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Sung, C. V. 1998. The system of protected areas in Vietnam. Pages 57–128 in C. V. Sung, editor. Environment and bioresources of Vietnam: present situation and solutions. Second Impression. The Gioi Publishers, Hanoi, Vietnam.