

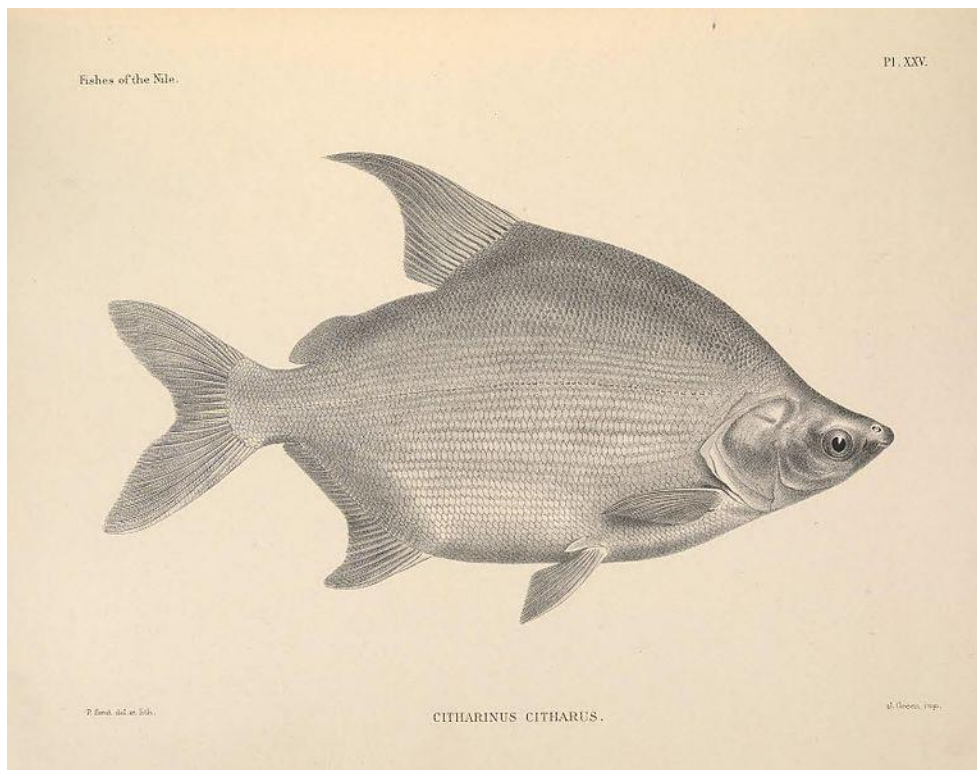
***Citharinus citharus* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, August 2011

Revised, January 2019

Web Version, 10/18/2019



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Available:

[https://commons.wikimedia.org/wiki/File:The_fishes_of_the_Nile_\(Pl._XXV\)_\(6815493820\).jpg](https://commons.wikimedia.org/wiki/File:The_fishes_of_the_Nile_(Pl._XXV)_(6815493820).jpg) (January 2019).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“Africa: Gambia [Senegal], Senegal [Senegal], Niger [Burkina Faso, Guinea, Mali, Niger], Volta [Burkina Faso, Ghana, Togo], Ouémé [Benin] and Chad [Chad, Niger] basins [Daget 1984; Gosse 1990; Gosse and Paugy 2003]. Also known from Lake Turkana [Kenya] [Daget 1984; Gosse 1990] and Lake Albert [Greenwood 1966].”

“Found in Bénoué and Chad basin [in Cameroon] [Gosse 1990; Vivien 1991; Gosse and Paugy 2003].”

“Known from the Baro basin [in Ethiopia] [Getahun 2007].”

“Known from the Géba River [in Guinea-Bissau and Senegal] [Gosse 1990; Paugy et al. 1994; Gosse and Paugy 2003].”

“Widely distributed in Nigeria [Olaosebikan and Raji 1998]. Occurs in Niger Delta, Lower Niger, Bénoué, Cross and Chad basin [Gosse 1990; Gosse and Paugy 2003]. Also present in Ehome Floodplain, Afikpo [Oti 2003]. Commercial in Kainji Lake [Anonymous 1998].”

“Occurs in the Ghazal and Jebel systems, White and Blue Nile, Nile to Lake Nubia [in Sudan] [Bailey 1994].”

“Common in large rivers of the Sudan region [Daget 1984]”

“Known from Lake Albert, Albert Nile and Murchinson Nile [in Uganda] [Greenwood 1966].”

Froese and Pauly (2019) also report *Citharinus citharus* as native to Gambia and Mauritania.

Status in the United States

No records of *Citharinus citharus* in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of *Citharinus citharus* in the wild or in trade in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al. (2019), *Citharinus citharus* (Geoffroy St. Hilaire 1809) is the current valid name for this species. It was originally described as *Serrasalmus citharus* Geoffroy St. Hilaire 1809.

From ITIS (2019):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata

Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Characiformes
Family Citharinidae
Subfamily Citharininae
Genus *Citharinus*
Species *Citharinus citharus* (Geoffroy Saint-Hilaire, 1809)”

Size, Weight, and Age Range

From Froese and Pauly (2019):

“Max length : 58.0 cm SL male/unsexed; [Gosse 1990]; max. published weight: 7.0 kg [Daget 1984]”

Environment

From Froese and Pauly (2019):

“Freshwater; demersal; anadromous [Riede 2004]. [...]; 22°C - 28°C [Baensch and Riehl 1991] [assumed to be recommended aquarium temperature]”

Climate/Range

From Froese and Pauly (2019):

“Tropical; [...]”

Distribution Outside the United States

Native

From Froese and Pauly (2019):

“Africa: Gambia [Senegal], Senegal [Senegal], Niger [Burkina Faso, Guinea, Mali, Niger], Volta [Burkina Faso, Ghana, Togo], Ouémé [Benin] and Chad [Chad, Niger] basins [Daget 1984; Gosse 1990; Gosse and Paugy 2003]. Also known from Lake Turkana [Kenya] [Daget 1984; Gosse 1990] and Lake Albert [Greenwood 1966].”

“Found in Bénéue and Chad basin [in Cameroon] [Gosse 1990; Vivien 1991; Gosse and Paugy 2003].”

“Known from the Baro basin [in Ethiopia] [Getahun 2007].”

“Known from the Géba River [in Guinea-Bissau and Senegal] [Gosse 1990; Paugy et al. 1994; Gosse and Paugy 2003].”

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“Common in large rivers of the Sudan region [Daget 1984]”

“Known from Lake Albert, Albert Nile and Murchinson Nile [in Uganda] [Greenwood 1966].”

Froese and Pauly (2019) also report *Citharinus citharus* as native to Gambia and Mauritania.

Introduced

No records of *Citharinus citharus* having an established population outside of its native range.

Means of Introduction Outside the United States

No records of *Citharinus citharus* having an established population outside of its native range.

Short Description

From Froese and Pauly (2019):

“Dorsal soft rays (total): 17-21; Anal soft rays: 26 - 31. Diagnosis: body depth 1.8-2.7x and head length 3.0-4.1x SL; caudal peduncle 0.7-1.4x long than deep; short snout, slightly prominent; snout 0.7-1.6x eye diameter; eye diameter 3.7-6.1x head length; adipose-fin base shorter than distance separating it from rayed dorsal fin (ratio adipose base/distance to rayed dorsal is 0.5-0.8); pectoral fins 0.5-1.1x head length; cycloid scales; scale formula 22.5-25.5/77-92/22.5-25.5; 77-92 scales in longitudinal line; 17.5-20.5 scales between lateral line and pelvic fin; 17-21 dorsal fin branched rays; 26-30 anal fin branched rays [Gosse 1990; Gosse and Paugy 2003].”

Biology

From Froese and Pauly (2019):

“Total spawner [release of a single batch of eggs per breeding season] [Olele and Obi 2003]”

Poelen et al. (2014) lists debris, detritus, phytoplankton, and haptophyte alga as food sources for *Citharinus citharus*.

Human Uses

From Froese and Pauly (2019):

“Fisheries: commercial; aquarium: commercial”

“Commercial in Kainji Lake [Anonymous 1998].”

Diseases

Poelen et al. (2014) lists *Neoechinorhynchus africanus*, *Nanotrema*, *Cithariniella citharini*, *Brevicaecum*, and *Procamallanus laeviconchus* as parasites of *Citharinus citharus*.

No records of OIE-reportable diseases (OIE 2019) were found for *Citharinus citharus*.

Threat to Humans

From Froese and Pauly (2019):

“Harmless”

3 Impacts of Introductions

No records of introduction were found for *Citharinus citharus*; therefore there is no information on impacts of introduction.

4 Global Distribution

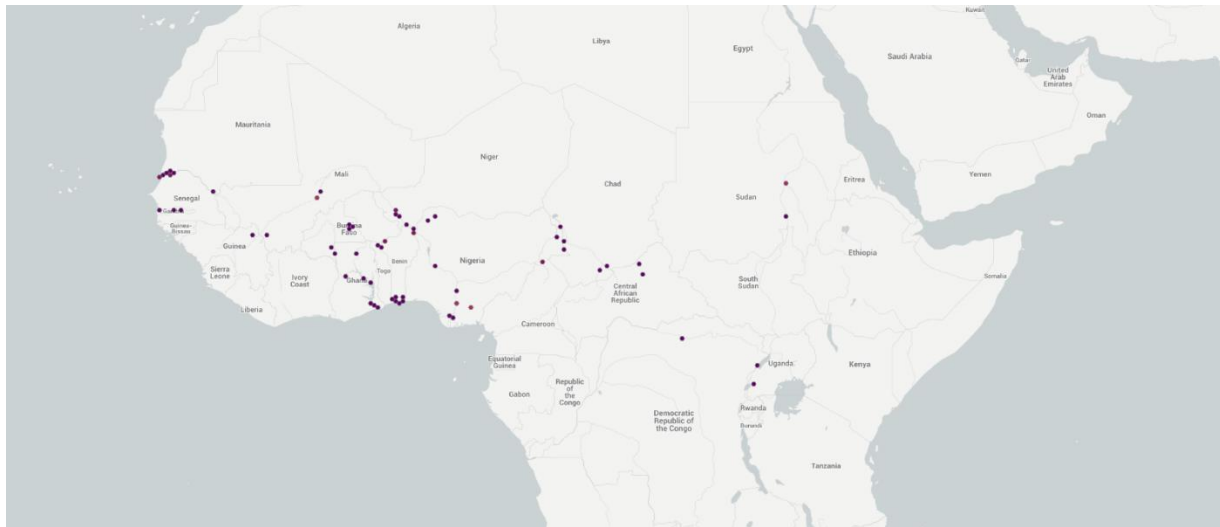


Figure 1. Known global distribution of *Citharinus citharus*. Map from GBIF Secretariat (2019). The location in the northern Democratic Republic of the Congo was not used to select source points for the climate match. It is outside the described range for *C. citharus* and there is nothing in the record information to indicate that there is currently an established population at the location.

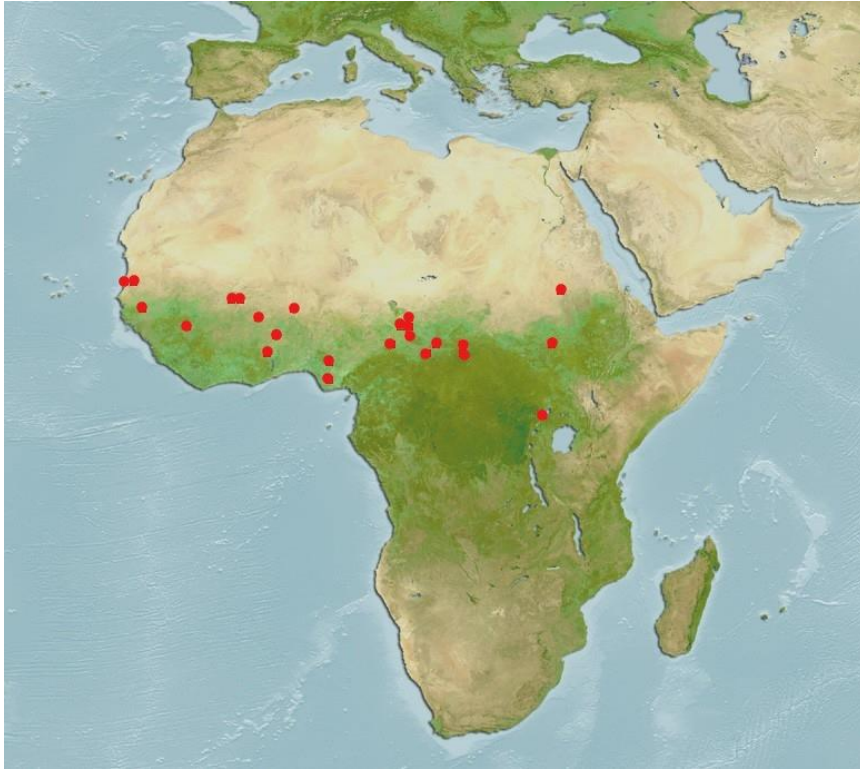


Figure 2. Additional known distribution of *Citharinus citharus*. Map from Froese and Pauly (2019).

5 Distribution Within the United States

No records of *Citharinus citharus* in the wild or in trade in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Citharinus citharus* was low for the most of the contiguous United States. There were some patches of medium match along the Gulf Coast and peninsular Florida. There were no areas of high match. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States had low individual Climate 6 scores.

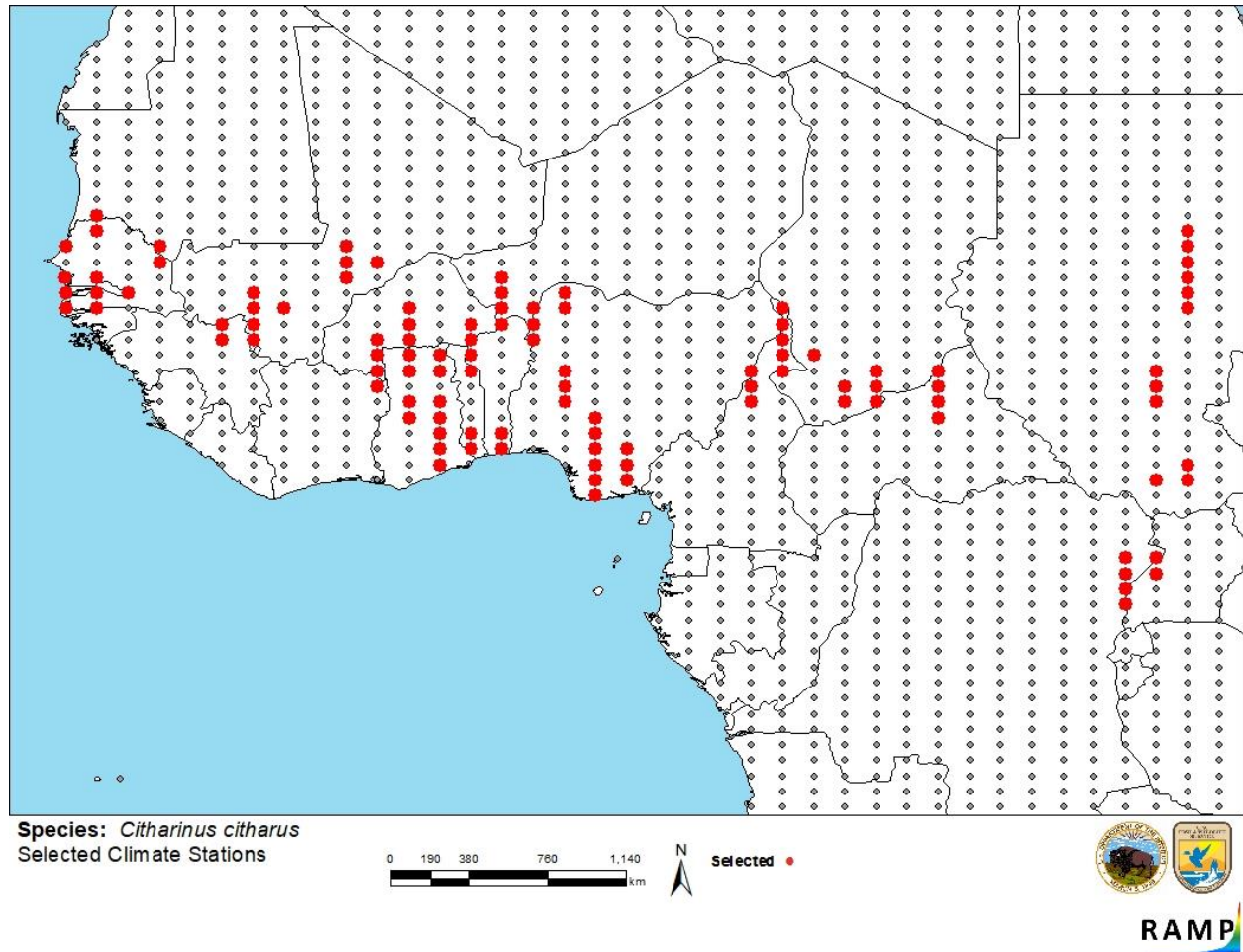


Figure 3. RAMP (Sanders et al. 2018) source map showing weather stations in central and western central Africa selected as source locations (red) and non-source locations (gray) for *Citharinus citharus* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

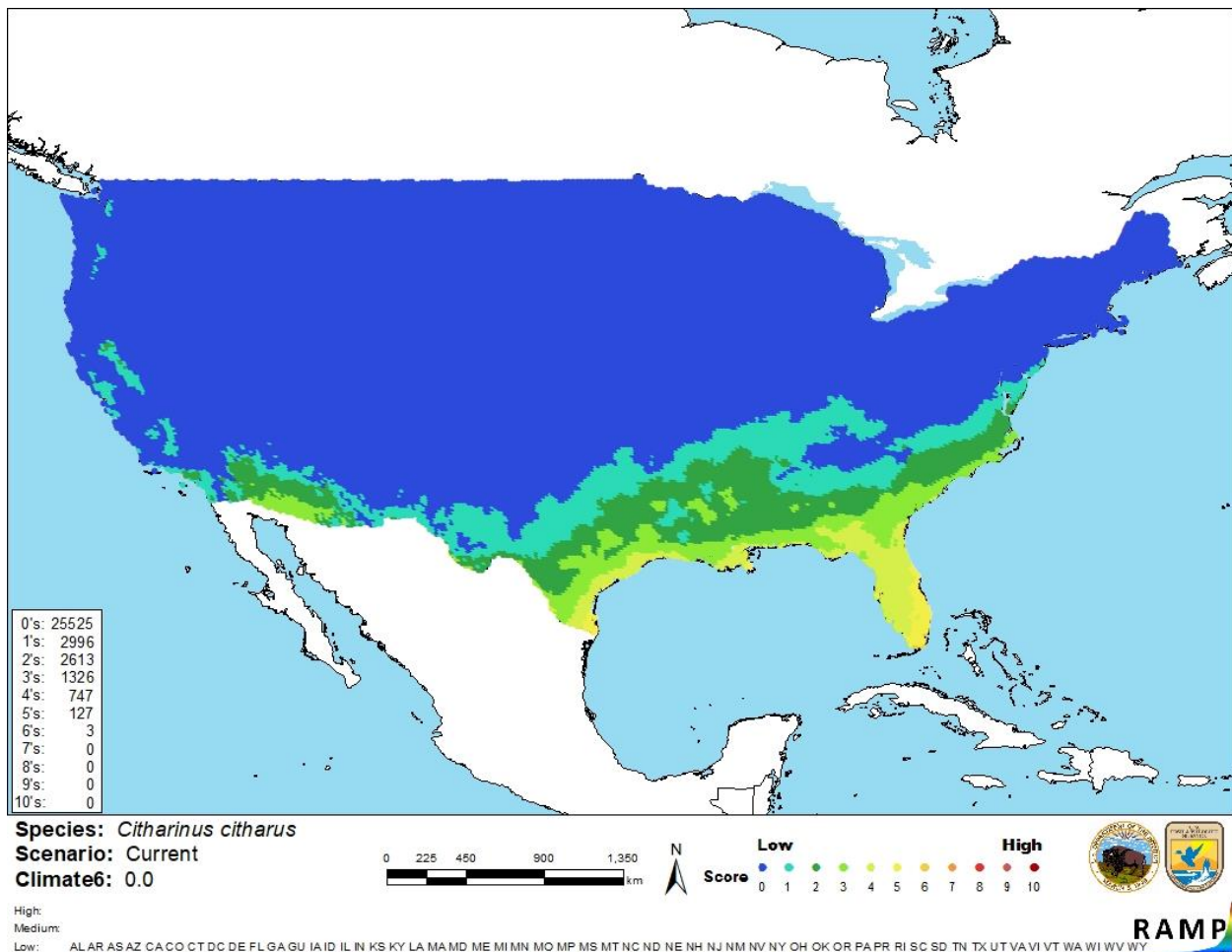


Figure 4. Map of RAMP (Sanders et al. 2018) climate matches for *Citharinus citharus* in the contiguous United States based on source locations reported by GBIF Secretariat (2019). Counts of climate match scores are tabulated on the left. 0 = Lowest match, 10 = Highest match.

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

7 Certainty of Assessment

The certainty of assessment for *Citharinus citharus* is low. There is minimal information available for this species. No information on introductions *Citharinus citharus* was found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Citharinus citharus is an African fish that is native many river basins in central and eastern Africa, including the Gambia, Senegal, Niger, Volta, Ouémé, Chad, and Nile basins. It is used in commercial fishery in some portions of the range. The history of invasiveness is uncertain. It has not been reported as introduced or established anywhere in the world. The overall climate match for the contiguous United States was low with some areas of medium match in coastal areas of the southeast. 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): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information: No additional remarks**
- **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.

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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.

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