

Fischer's Victoria Squeaker (*Synodontis afrofisheri*) Ecological Risk Screening Summary

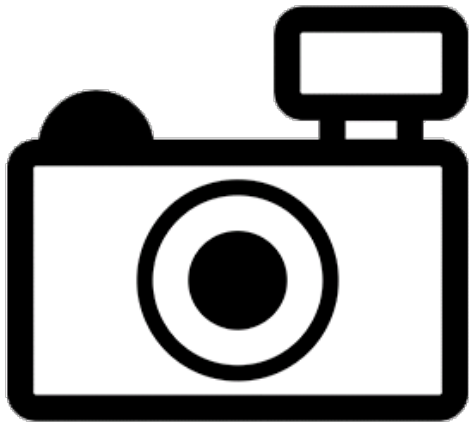
U.S. Fish & Wildlife Service, December 2012

Revised, April 2019

Web Version, 9/17/2021

Organism Type: Fish

Overall Risk Assessment Category: Uncertain



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“Africa: Lakes Victoria, Nabugabo and Kyoga, affluent rivers of Lake Victoria, Victoria Nile [Greenwood 1966]. Also found in the Lake Rukwa drainage [Seegers 1996], the Malagarazi River [De Vos et al. 2001; Banyankimbona et al. 2012] and the Middle Akagera system [Kiss 1977; De Vos et al. 2001].”

Status in the United States

There are no records of *Synodontis afrofisheri* in the wild or in trade in the United States.

Synodontis afrofisheri is listed on Hawaii's Conditional Animal List (Hawaii Department of Agriculture 2019).

Means of Introductions in the United States

There are no records of any wild populations of *Synodontis afrofisheri* in the United States.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2019):

“**Current status:** Valid as *Synodontis afrofisheri* Hilgendorf 1888.”

From ITIS (2019):

Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Siluriformes
Family Mochokidae
Genus *Synodontis*
Species *Synodontis afrofisheri* Hilgendorf, 1888

Size, Weight, and Age Range

From Froese and Pauly (2019):

“Maturity: L_m 9.6, range 10 - 12 cm
Max length : 17.7 cm SL male/unsexed; [Van Oijen 1995]”

“Rarely grows to lengths greater than 15 cm SL [van Oijen 1995].”

Environment

From Froese and Pauly (2019):

“Freshwater; benthopelagic; pH range: 6.0 - 8.0; dH range: 5 - 25; depth range 0 - 70 m [Witte and de Winter 1995], usually 0 - 30 m [Witte and de Winter 1995]. [...] 22°C - 26°C [Baensch and Riehl 1985; assumed to be recommended aquarium temperature];”

Climate

From Froese and Pauly (2019):

“Tropical; [...] 3°N - 5°S”

Distribution Outside the United States

Native

From Froese and Pauly (2019):

“Africa: Lakes Victoria, Nabugabo and Kyoga, affluent rivers of Lake Victoria, Victoria Nile [Greenwood 1966]. Also found in the Lake Rukwa drainage [Seegers 1996], the Malagarazi River [De Vos et al. 2001; Banyankimbona et al. 2012] and the Middle Akagera system [Kiss 1977; De Vos et al. 2001].”

Introduced

There are no records of any wild populations of *Synodontis afrofisheri* outside of its native range.

Means of Introduction Outside the United States

There are no records of any wild populations of *Synodontis afrofisheri* outside of its native range.

Short Description

From Froese and Pauly (2019):

“Dorsal spines (total): 1; Dorsal soft rays (total): 7. 32-54 mandibular teeth. Maxillary barbels reaching almost to the origin of the pelvic fin in some specimens and to the tip of the humeral process in others. Outer mandibular barbels with slender branches, inner pair with shorter, but slender branches. Marbled yellowish-brown (marbling is extremely variable, some individuals uniformly brown) [Van Oijen 1995].”

Biology

From Froese and Pauly (2019):

“Lives in streams and rivers and in lakes, where it prefers shore regions [Seegers 2008]. More common in rivers than in lakes [Corbet 1961]. Common in marginal vegetation of Kagera River [Greenwood 1966]. Replaces *S. victoriae* in shallow waters of Lake Victoria [Greenwood 1966], prefers areas less than 20 m deep [van Oijen 1995]. Feeds on insects (*Povilla* and chironomid larvae) and molluscs [Corbet 1961]. Oviparous [Breder and Rosen 1966].”

“Distinct pairing during breeding [Breder and Rosen 1966].”

From FishBase team RMCA and Geelhand (2016):

“*Synodontis afrofisheri* is a benthic dweller [...]; it occurs down to 70 m but is most common at depths of less than 30 m (Witte and de Winter 1995). *Synodontis afrofisheri* feeds on insects (mainly *Povilla* and chironomid larvae) and molluscs (Corbet 1961). At any one time an estimated 65% of the stock in Lake Victoria is ready to spawn (Rinne and Wanjala 1983). In the Sondu-Miriu River system *S. afrofisheri* has an irregular pattern of spawning peaks, it starts breeding prior to the rainy season and continues breeding after it (Ochumba and Manyala 1992).”

From Ochumba and Manyala (1992):

“*Synodontis afrofisheri* [...] breeds between January and April and July and September.”

Human Uses

FishBase team RMCA and Geelhand (2016):

“Caught incidentally and eaten.”

Diseases

No records of OIE-reportable diseases (OIE 2021) were found for *Synodontis afrofisheri*.

According to Froese and Pauly (2019) *Synodontis afrofisheri* can have the following diseases: *Aeromonosis* infection, bend of spinal cord, *Procamallanus* infection, and *Proteocephalus* infection.

Threat to Humans

From Froese and Pauly (2019):

“Harmless”

3 Impacts of Introductions

There are no records of any wild populations of *Synodontis afrofisheri* outside of its native range; therefore, there is no information on impacts of introduction.

S. afrofisheri is regulated in Hawaii.

4 History of Invasiveness

There are no records of any wild populations of *Synodontis afrofisheri* outside of its native range; therefore, the history of invasiveness is classified as No Known Nonnative Population.

5 Global Distribution

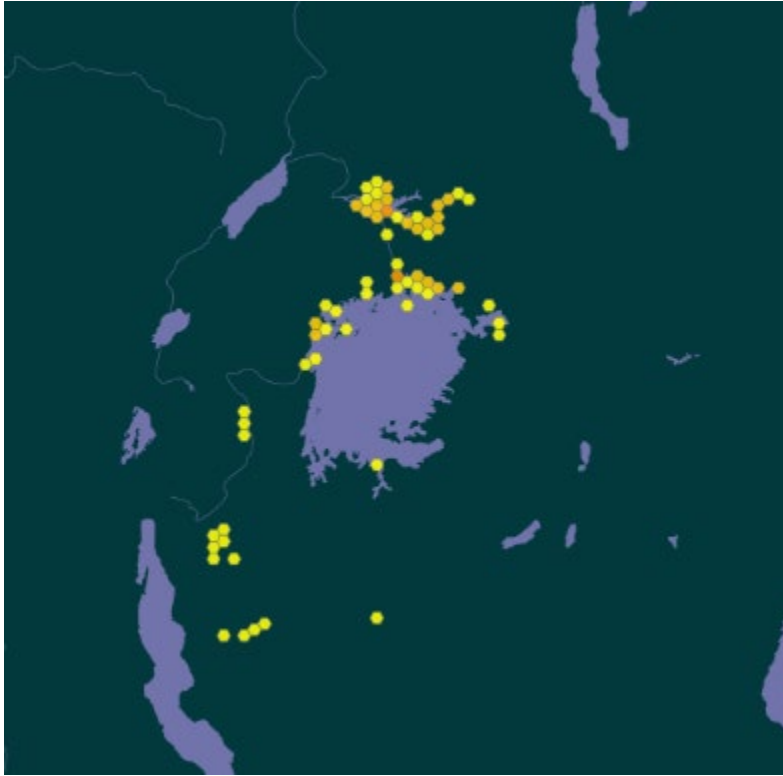


Figure 1. Known global distribution of *Synodontis afrofisheri*. Locations in Burundi, Kenya, Rwanda, Tanzania, and Uganda. Map from GBIF Secretariat (2019).

6 Distribution Within the United States

There are no records of any wild populations of *Synodontis afrofisheri* in the United States.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Synodontis afrofisheri* was low for the majority of contiguous United States with some patches of medium match from southern Florida to eastern Texas and in small pockets along the West Coast. The overall Climate 6 score (Sanders et al. 2018; 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 a low individual Climate 6 score except for Florida, which had a medium individual score.

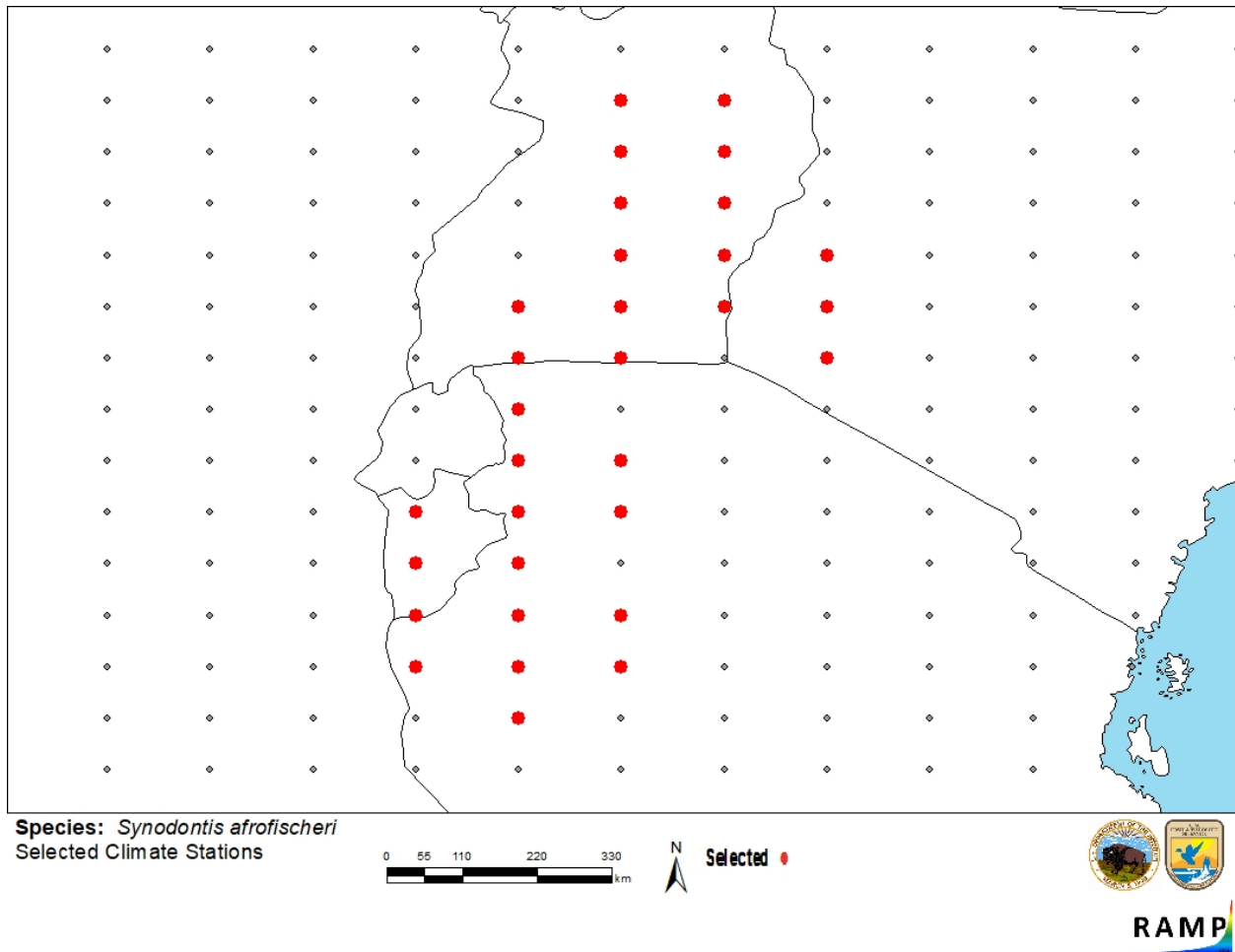


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in eastern Africa selected as source locations (red; Burundi, Kenya, Tanzania, and Uganda) and non-source locations (gray) for *Synodontis afrofisheri* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

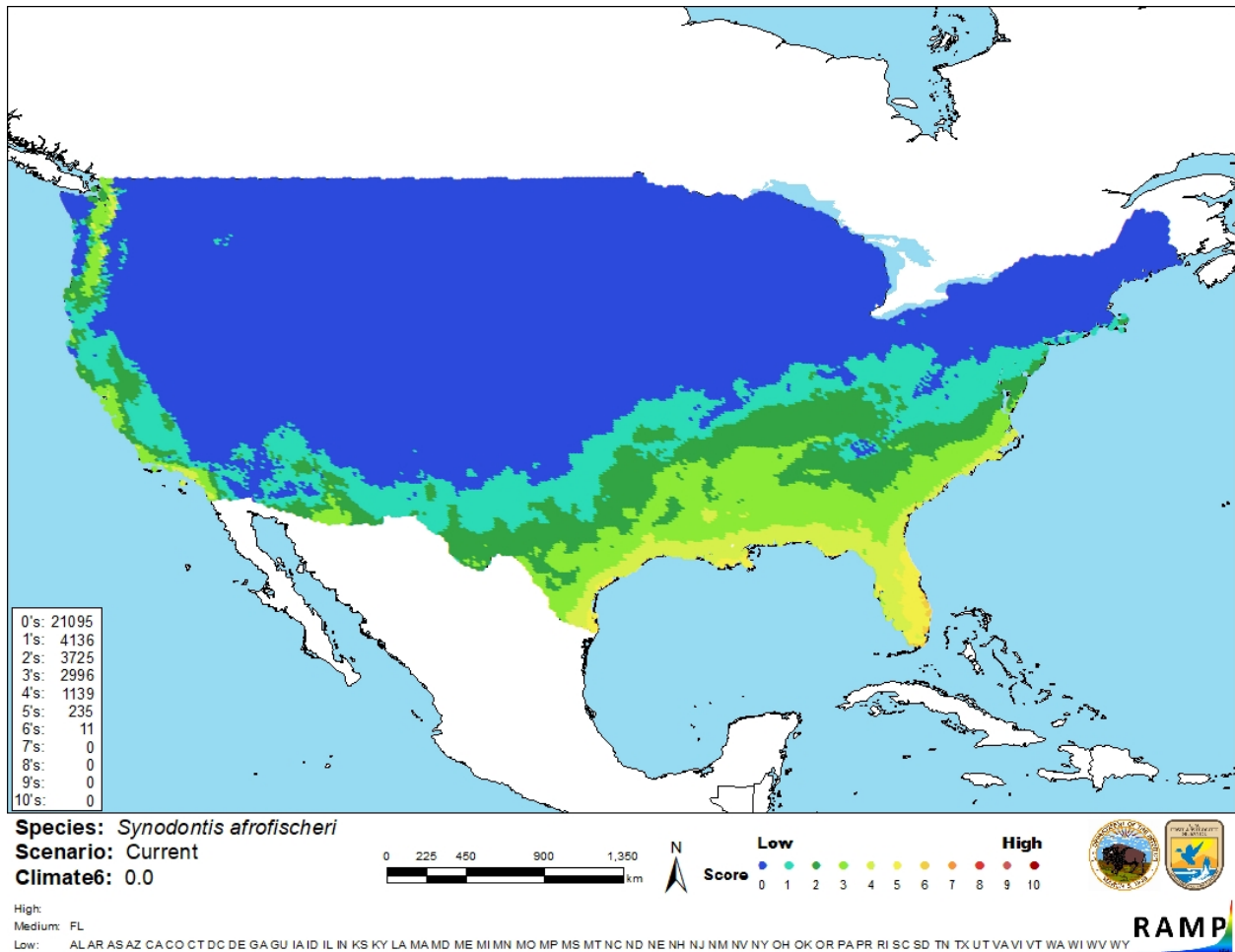


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Synodontis afrofisheri* in the contiguous United States based on source locations reported by GBIF Secretariat (2019). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

The High, Medium, and Low Climate match Categories are based on the following table:

Climate 6: (Count of target points with climate scores 6-10)/ (Count of all target points)	Overall Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

8 Certainty of Assessment

The certainty of assessment for *Synodontis afrofisheri* is low. There is minimal information available for this species. *Synodontis afrofisheri* has not been introduced outside of its native range.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Fischer's Victoria Squeaker (*Synodontis afrofisheri*) is a catfish endemic to Eastern Africa, found only in Burundi, Kenya, Rwanda, Tanzania, and Uganda. *Synodontis afrofisheri* is a benthic dweller living in streams, rivers, and lakes. Their diet consists of insects and molluscs. The history of invasiveness is classified as No Known Nonnative Population. *Synodontis afrofisheri* has not been introduced outside of its native range. Therefore, there is no information on impacts of introduction. *S. afrofisheri* is regulated in Hawaii. The overall climate match for the contiguous United States is low. All States had a low individual climate score except Florida, which had a medium climate score. The certainty of assessment is low. The overall risk assessment category for *Synodontis afrofisheri* is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): No Known Nonnative Population**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information:** No additional remarks
- **Overall Risk Assessment Category: Uncertain**

10 Literature Cited

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 11.

FishBase team RMCA, Geelhand D. 2016. *Synodontis afrofisheri*. The IUCN Red List of Threatened Species 2016: e.T60806A47216190. Available: <https://www.iucnredlist.org/species/60806/47216190> (April 2019).

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11 Literature Cited in Quoted Material

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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De Vos L, Seegers L, Taverne L, Thys van den Audenaerde DFE. 2001. L'ichtyofaune du bassin de la Malagarasi (système du lac Tanganyika): une synthèse de la connaissance actuelle. *Annales du Musée Royal de l'Afrique Centrale: Sciences Zoologiques* 285:117–135.

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