

# *Tilapia cameronensis*

## Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, June 2015

Photo not available.

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

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#### Native Range

From Froese and Pauly (2015):

“Africa: Sanaga and affluents, Cameroon [Stiassny et al. 2008].”

#### Status in the United States

This species has not been reported in the U.S.

#### Means of Introductions in the United States

This species has not been reported in the U.S.

### 2 Biology and Ecology

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#### Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2015):

“Kingdom Animalia  
Subkingdom Bilateria  
Infrakingdom Deuterostomia  
Phylum Chordata  
Subphylum Vertebrata  
Infraphylum Gnathostomata  
Superclass Osteichthyes  
Class Actinopterygii  
Subclass Neopterygii  
Infraclass Teleostei  
Superorder Acanthopterygii  
Order Perciformes  
Suborder Labroidei  
Family Cichlidae  
Genus *Tilapia*  
Species *Tilapia cameronensis* Holly, 1927”

“Taxonomic Status: valid”

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

From Froese and Pauly (2015):

“Max length : 32.1 cm SL male/unsexed; [Stiassny et al. 2008]”

## **Environment**

From Froese and Pauly (2015):

“Freshwater; demersal.”

## **Climate/Range**

From Froese and Pauly (2015):

“Tropical”

## **Distribution Outside the United States**

Native

From Froese and Pauly (2015):

“Africa: Sanaga and affluents, Cameroon [Stiassny et al. 2008].”

Introduced

No introductions of this species have been reported.

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

No introductions of this species have been reported.

## **Short description**

From Froese and Pauly (2015):

“Dorsal spines (total): 14 - 16; Dorsal soft rays (total): 12-15; Anal spines: 3; Anal soft rays: 8 - 10. Diagnosis: 9 or fewer rakers on lower limb of first arch; soft dorsal, anal and caudal fins dominantly red-brown, scattered with light spots; head profile very bulging; mouth subterminal or inferior; chest scales very small; 8-12 gill rakers; dorsal fin usually with 28-30 total rays; external teeth very large, robust; length of caudal peduncle 8.2-10.4% of standard length [Stiassny et al. 2008].”

## **Biology**

From Froese and Pauly (2015):

“Substrate brooder [Stiassny et al. 2008].”

## Human uses

From Nguenga et al. (1997):

“The potential for development of this species as a fish culture candidate in Africa is ... rather limited.”

## Diseases

No OIE-notifiable diseases have been reported for this species.

## Threat to humans

From Froese and Pauly (2015):

“Harmless”

## 3 Impacts of Introductions

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No introductions of this species have been reported.

## 4 Global Distribution

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**Figure 1.** Global distribution of *T. camerounensis*. Map from GBIF (2015).

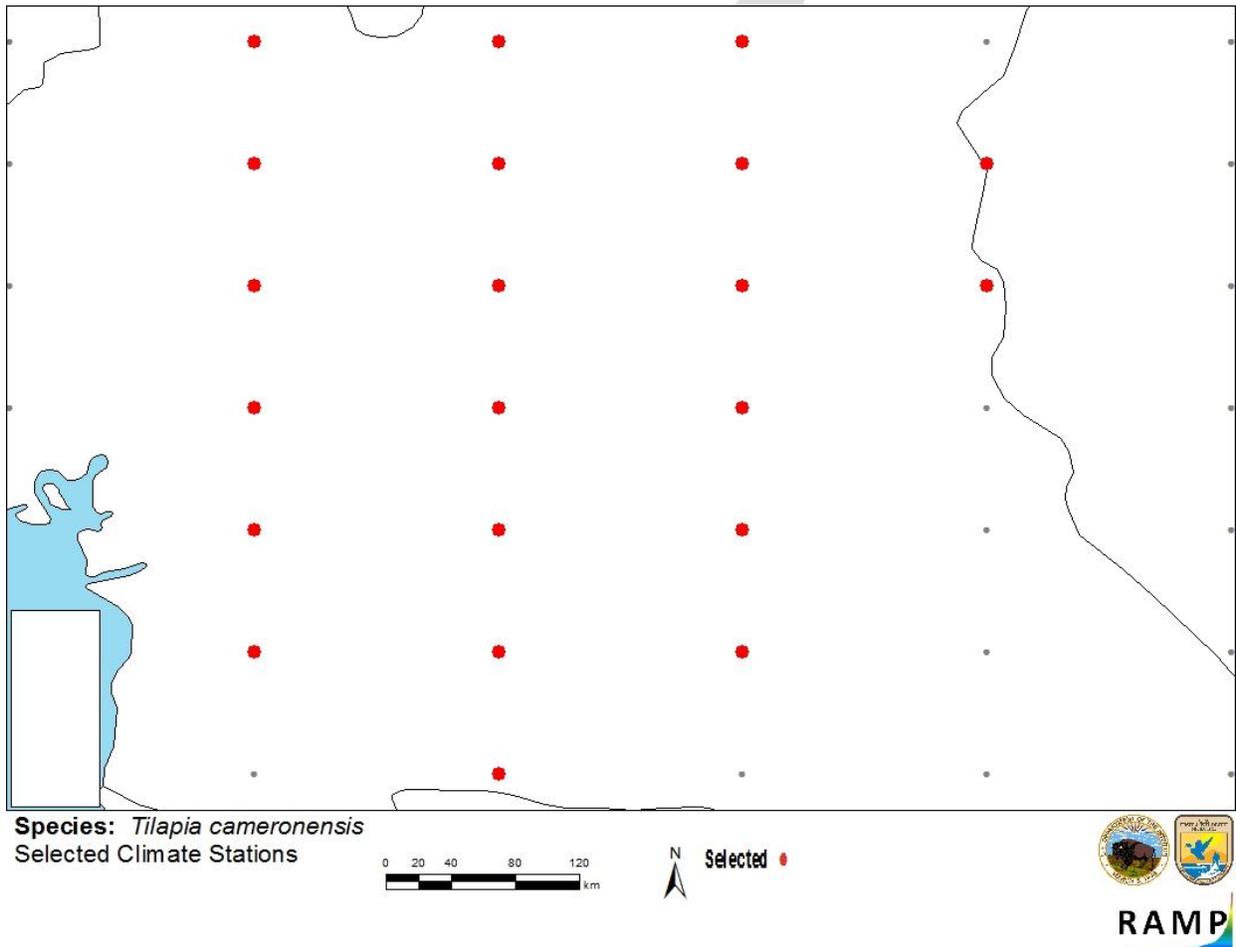
## 5 Distribution within the United States

This species has not been reported in the U.S.

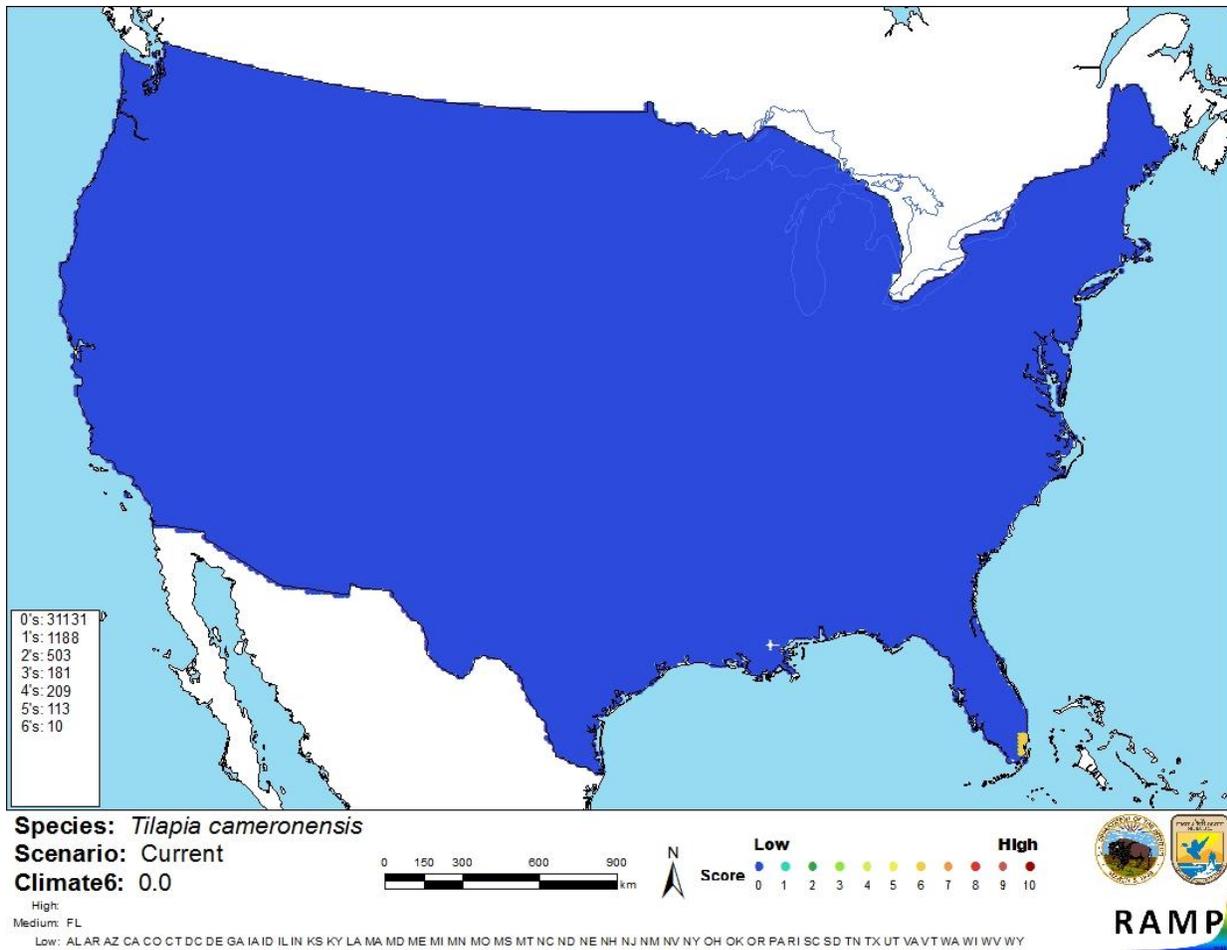
## 6 Climate Matching

### Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) is medium in southern Florida in the vicinity of Miami, but otherwise low across the contiguous U.S. Climate 6 proportion indicated that the contiguous U.S. has a low climate match overall. The range for a low climate match is 0.000 to 0.005; the climate match of *T. cameronensis* is 0.0.



**Figure 2.** RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *T. cameronensis* climate matching. Source locations from GBIF (2015).



**Figure 3.** Map of RAMP (Sanders et al. 2014) climate matches for *T. camerounensis* in the continental United States based on source locations reported by GBIF (2015). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

## 7 Certainty of Assessment

Little information is available on the biology of *T. camerounensis* and it has not become established outside its native range. The certainty of this assessment is high because the lack of information about this species precludes any assessment other than “uncertain” risk.

## 8 Risk Assessment

### Summary of Risk to the Continental United States

*Tilapia camerounensis* is a demersal cichlid known only from Cameroon. It has not been reported outside its native range. Because *T. camerounensis* has no history of invasiveness, it is currently impossible to know what impacts *T. camerounensis* might have if introduced to the U.S. Climate match to the contiguous U.S. is low. Overall risk is uncertain.

## **Assessment Elements**

- **History of Invasiveness (Sec. 3):** Uncertain
- **Climate Match (Sec.6):** Low
- **Certainty of Assessment (Sec. 7):** High
- **Overall Risk Assessment Category: Uncertain**

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## 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.**

Froese, R., and D. Pauly, editors. 2015. *Tilapia cameronensis* Holly, 1927. FishBase. Available: <http://www.fishbase.org/summary/8910>. (June 2015).

Global Biodiversity Information System (GBIF). 2015. GBIF backbone taxonomy: *Tilapia cameronensis* Holly, 1927. Global Biodiversity Information System, Copenhagen. Available: <http://www.gbif.org/species/2370718>. (June 2015).

Integrated Taxonomic Information System (ITIS). 2015. *Tilapia cameronensis* Holly, 1927. Integrated Taxonomic Information System, Reston, Virginia. Available: [http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=648959](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=648959). (June 2015).

Nguenga, D., J. J. Breine, S. Sulem Yong, G. G. Teugels, and F. Ollevier. 1997. Effect of animal manure and chemical fertilizer on the growth and survival of *Tilapia cameronensis* Holly in Cameroon. *Aquaculture Research* 28:231-234.

Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk Assessment Mapping Program: RAMP. US Fish and Wildlife Service.

## 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.**

Stiassny, M. L. J., A. Lamboj, D. De Weirtd, and G. G. Teugels. 2008. Cichlidae. Pages 269-403 in M. L. J. Stiassny, G. G. Teugels, and C. D. Hopkins, editors. *The fresh and brackish water fishes of Lower Guinea, West-Central Africa, volume 2. Coll. faune et flore tropicales 42*. Institut de recherche de développement, Paris, France, Muséum national d'histoire naturelle, Paris, France and Musée royal de l'Afrique Central, Tervuren, Belgium.