Tilapia brevimanus
Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, June 2015

Photo not available.

1 Native Range, and Status in the United States

Native Range
From Froese and Pauly (2015):

"Africa: Middle and lower courses of coastal rivers from Guinea-Bissau (Geba and Corubal Rivers) to Liberia (Cess River) [Teugels and Thys van den Audenaerde 2003]. Possibly also present in Côte d'Ivoire [Teugels et al. 1988]."

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

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 brevimanus* Boulenger, 1911”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2015):

“Max length : 24.8 cm SL male/unsexed; [Teugels and Thys van den Audenaerde 1992]”

Environment

From Froese and Pauly (2015):

“Freshwater; demersal.”

Climate/Range

From Froese and Pauly (2015):

“Tropical; 24°C - 26°C [Baensch and Riehl 1995]; 14°N - 8°N”

Distribution Outside the United States

Native

From Lalèyè (2010):

“Côte d'Ivoire; Guinea; Guinea-Bissau; Liberia; Sierra Leone”

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): 15 - 17; Dorsal soft rays (total): 11-14; Anal spines: 3; Anal soft rays: 8 - 10. Diagnosis: body oblong (body depth 32.0-46.1% SL); outer teeth on jaws bicuspid and spatulated; micro-gillrakers present; transversal bands on the flanks [Teugels and Thys van den Audenaerde 2003].”

Biology

From Lalèyè (2010):

“This species is known from the middle and lower courses of coastal rivers”

Human uses
From Lalèyè (2010):

"This species is harvested for human consumption."

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

Threat to humans
From Froese and Pauly (2015):

"Harmless"

3 Impacts of Introductions
No introductions of this species have been reported.

4 Global Distribution

Figure 1. Distribution of *T. brevimanus*. Map from GBIF (2015).

6 Climate Matching

Summary of Climate Matching Analysis
The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was low throughout the contiguous U.S., reflected in a Climate 6 proportion of 0.0. The range for a low climate match is 0.000 to 0.005.

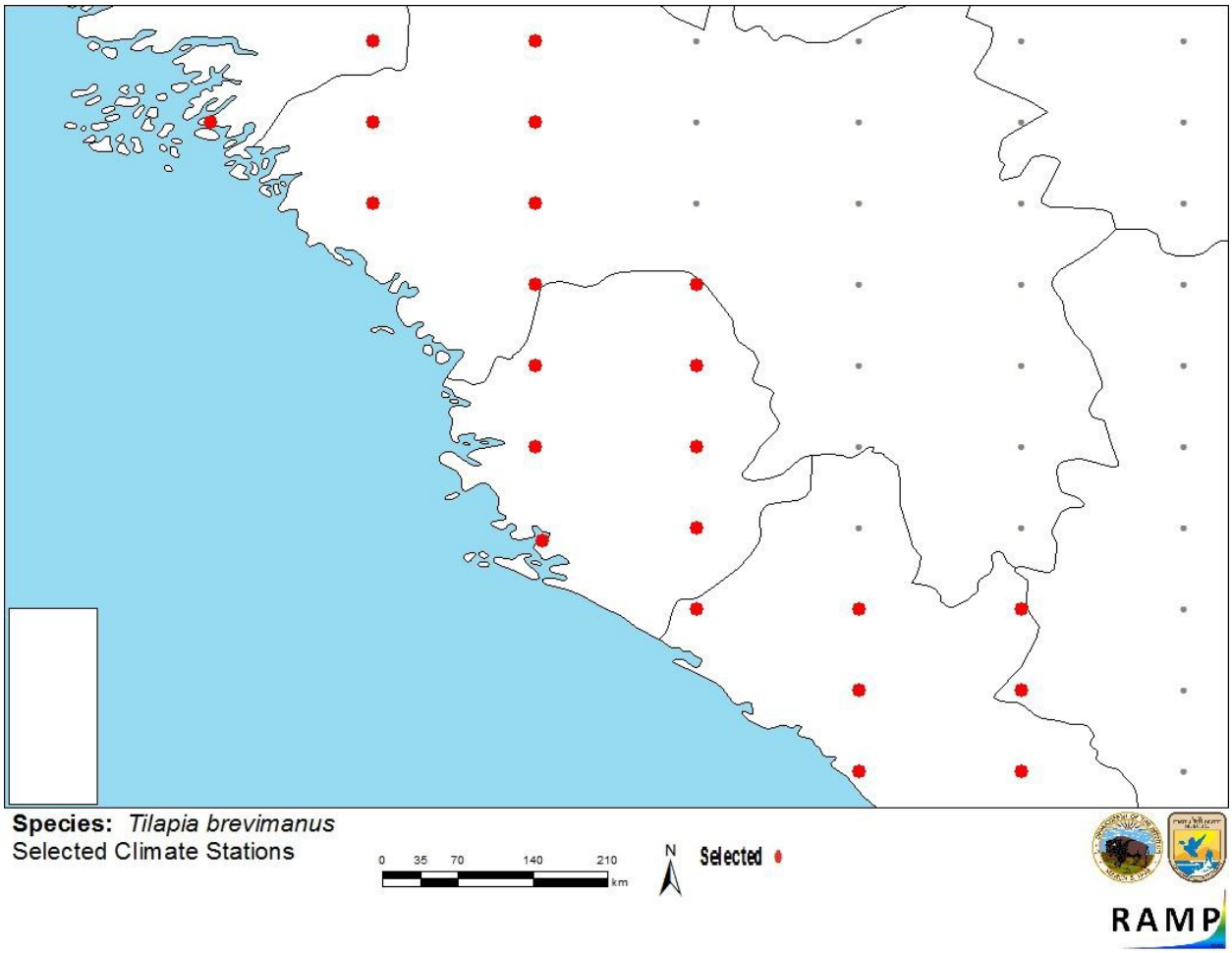

Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *T. brevimanus* climate matching. Source locations from GBIF (2015).

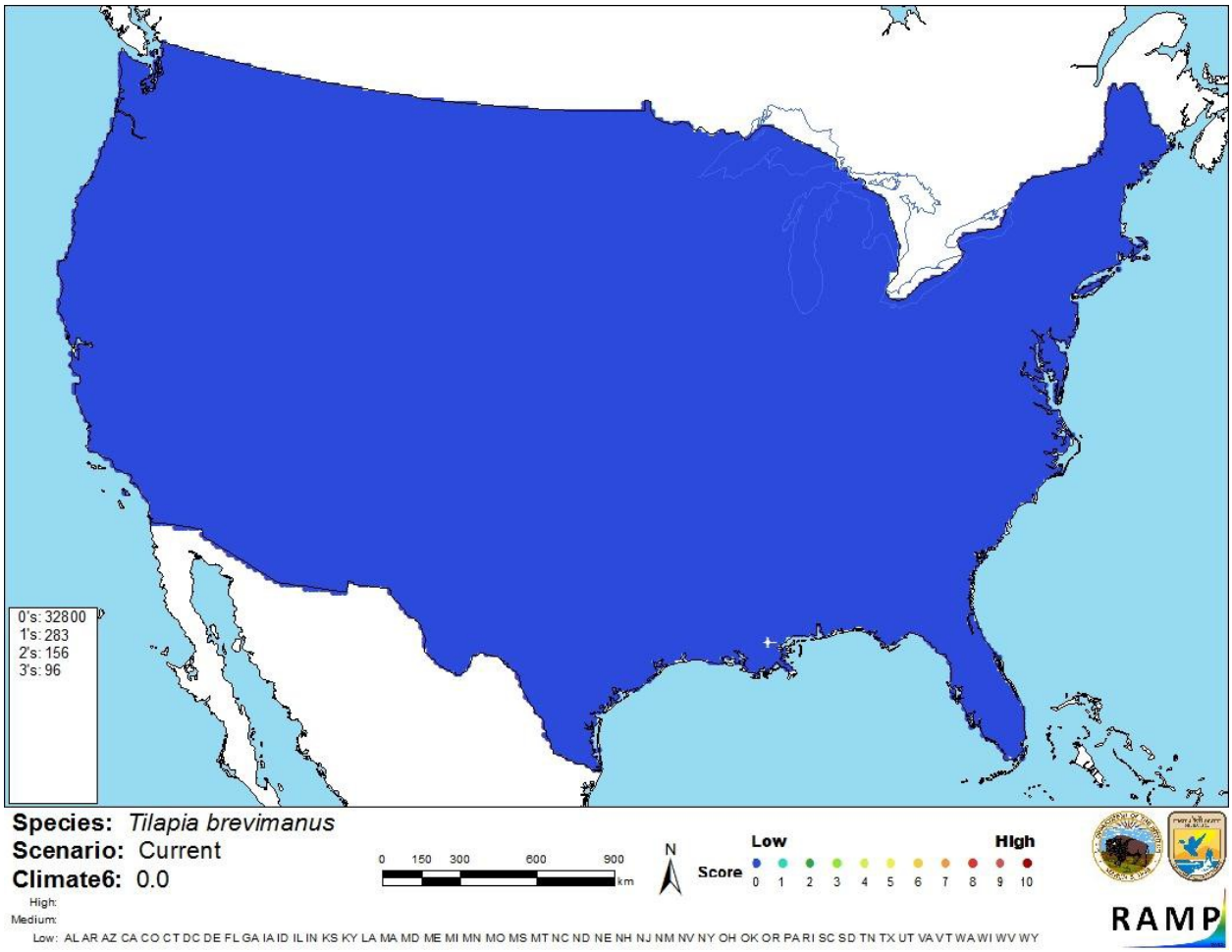

Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. brevimanus* in the continental United States based on source locations reported by GBIF (2015). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

7 Certainty of Assessment

Little information is available on the biology of *T. brevimanus* 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 brevimanus is a demersal cichlid native to coastal rivers in West Africa. It has not been reported outside its native range. Because *T. brevimanus* has no history of invasiveness, it is currently impossible to know what impacts *T. brevimanus* 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**

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.

Froese, R., and D. Pauly, editors. 2015. *Tilapia brevimanus* Boulenger, 1911. FishBase. Available: http://www.fishbase.org/summary/Tilapia-brevimanus.html. (June 2015).

Global Biodiversity Information Facility (GBIF). 2015. *Tilapia brevimanus* Boulenger, 1911. Global Biodiversity Information Facility, Copenhagen. Available: http://www.gbif.org/species/2370687. (June 2015).

Integrated Taxonomic Information System (ITIS). 2015. *Tilapia brevimanus* Boulenger, 1911. Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=648954. (June 2015).

Lalèyè, P. 2010. *Tilapia brevimanus*. The IUCN Red List of Threatened Species, version 2015.2. Available: http://www.iucnredlist.org/details/181812/0. (June 2015).

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

Baensch, H. A., and R. Riehl. 1995. Aquarien atlas, volume 4. Mergus Verlag GmbH, Verlag für Natur-und Heimtierkunde, Melle, Germany.

Teugels, G. G., C. Lévêque, D. Paugy, and K. Traoré. 1988. État des connaissances sur la faune ichtyologique des bassins côtiers de Côte d'Ivoire et de l'ouest du Ghana. Revue d'Hydrobiologie Tropicale 21(3):221-237.

Teugels, G. G., and D. F. E. Thys van den Audenaerde. 1992. Cichlidae. Pages 714-779 *in* C. Levêque, D. Paugy, and G. G. Teugels, editors. Faune des poissons d'eaux douces et saumâtres d'Afrique de l'Ouest, volume 2. Coll. Faune Tropicale n° 28. Musée Royal de l'Afrique Centrale, Tervuren, Belgium, and O.R.S.T.O.M., Paris.

Teugels, G. G., and D. F. E. Thys van den Audenaerde. 2003. Cichlidae. Pages 521-600 *in* D. Paugy, C. Lévêque and G. G. Teugels, editors. The fresh and brackish water fishes of West Africa, volume 2. Coll. faune et flore tropicales 40. Institut de recherche de

développement, Paris, France, Muséum national d'histoire naturelle, Paris, France and Musée royal de l'Afrique Central, Tervuren, Belgium.