

Tilapia cabrae

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, March 2012
Revised, June 2015

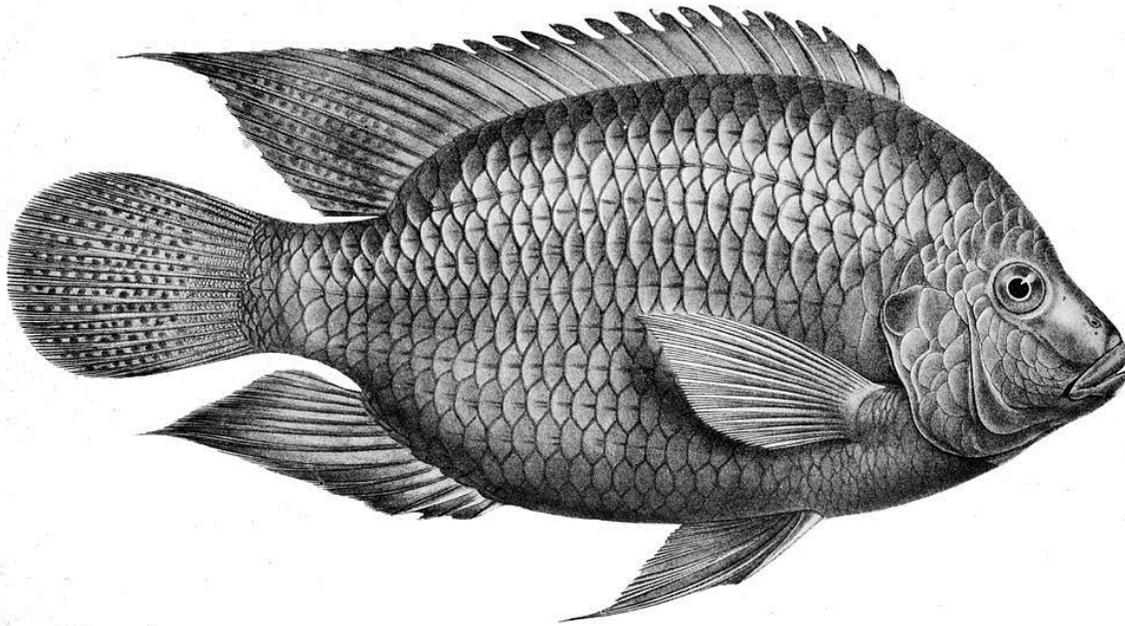


Image: "Tilapia cabrae" by J. Green - Les poissons du bassin du Congo Boulenger, George Albert, 1858-1937. Licensed under Public Domain via Wikimedia Commons - https://commons.wikimedia.org/wiki/File:Tilapia_cabrae.jpg#/media/File:Tilapia_cabrae.jpg

1 Native Range, and Status in the United States

Native Range

From Froese and Pauly (2015):

“Africa: coastal zone around the Ogooué, Kouilou-Niari and Chiloango [Stiassny et al. 2008] up to the mouth of the Congo River [Thys van den Audenaerde 1963; Thys van den Audenaerde 1964], and around the Cuanza delta in Angola [Teugels and Thys van den Audenaerde 1991]. Also reported from southern Equatorial Guinea [Teugels and Thys van den Audenaerde 1991]”

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 cabrae* Boulenger, 1899

Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2015):

“Max length : 37.0 cm TL male/unsexed; [Teugels and Thys van den Audenaerde 1991]”

Environment

From Froese and Pauly (2015):

“Freshwater; demersal”

Climate/Range

From Froese and Pauly (2015):

“Tropical”

Distribution Outside the United States

Native

From da Costa and Moelants (2010):

“Angola (Angola); Cameroon; Congo; Congo, The Democratic Republic of the; Equatorial Guinea; Gabon”

Introduced

No introductions of this species have been reported.

Short description

From Froese and Pauly (2015):

“Dorsal spines (total): 16 - 17; Dorsal soft rays (total): 11-14; Anal spines: 3; Anal soft rays: 9 - 11. Diagnosis: 12 or more rakers on lower limb of first gill arch; outer row jaw teeth gracile and somewhat spatulate; adults with dark, broad vertical stripes on flanks; ventral scales with small irregular red-brown spots; head profile straight; lower pharyngeal jaw with relatively strong teeth not forming a felt-like covering [Stiassny et al. 2008].”

Biology

From Froese and Pauly (2015):

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

Human uses

From da Costa and Moelants (2010):

“This species is harvested for human consumption.”

Diseases

No information available.

Threat to humans

From Froese and Pauly (2015):

“Harmless.”

3 Impacts of Introductions

No introductions of this species have been documented.

4 Global Distribution



Figure 1. Global distribution of *T. cabrae* (GBIF 2015). The location in Mozambique was excluded from climate matching (see Sec. 6) because of the unknown source of the evidence.

5 Distribution within the United States

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

6 CLIMATCH

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) is low throughout much of the United States with only southern Florida exhibiting a medium match. Climate 6 match indicated that the Continental U.S. has a low climate match. The range for a low climate match is 0.000 to 0.005; the Climate 6 score of *T. cabrae* is 0.003.

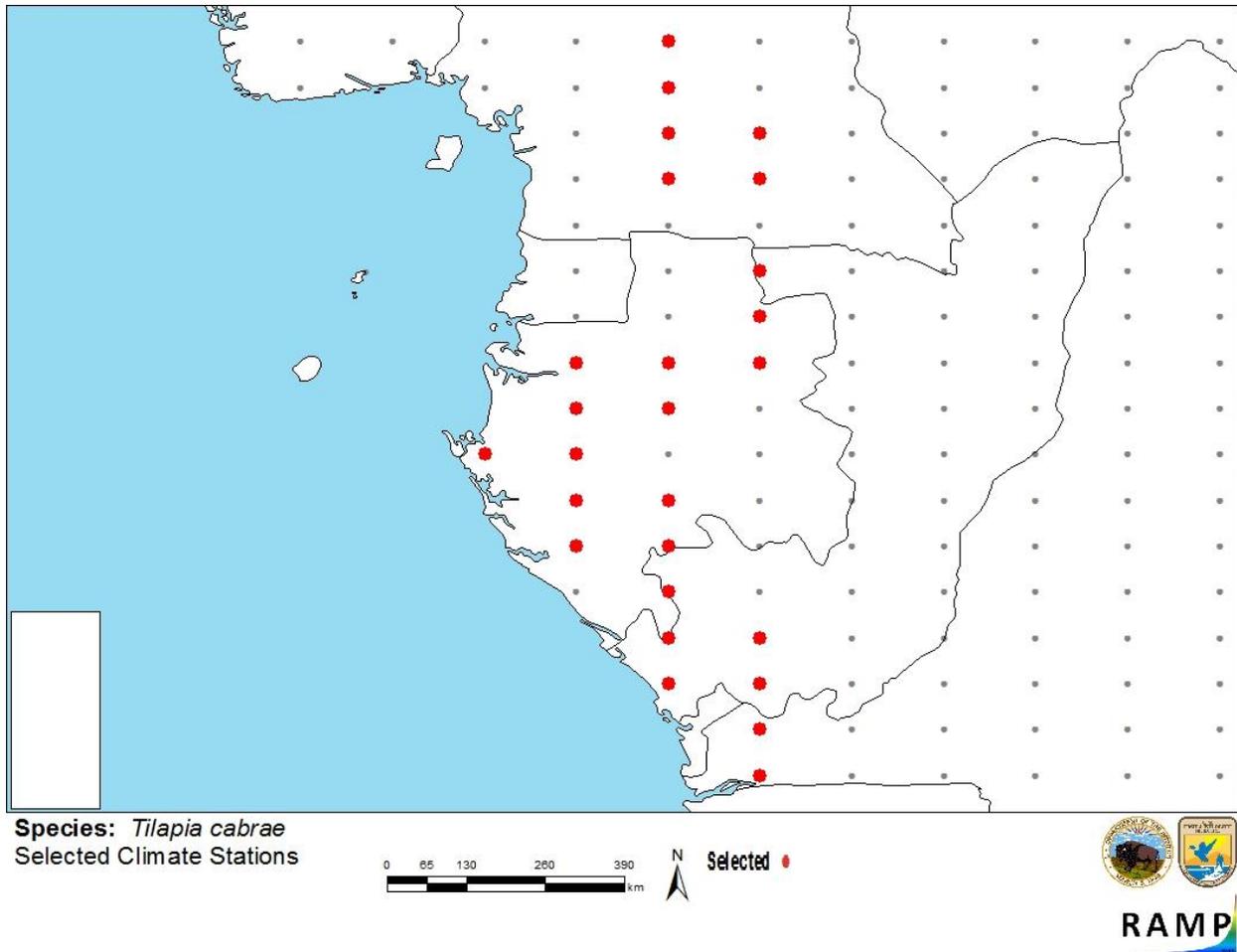


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *T. cabrae* climate matching. Source locations from GBIF (2015).

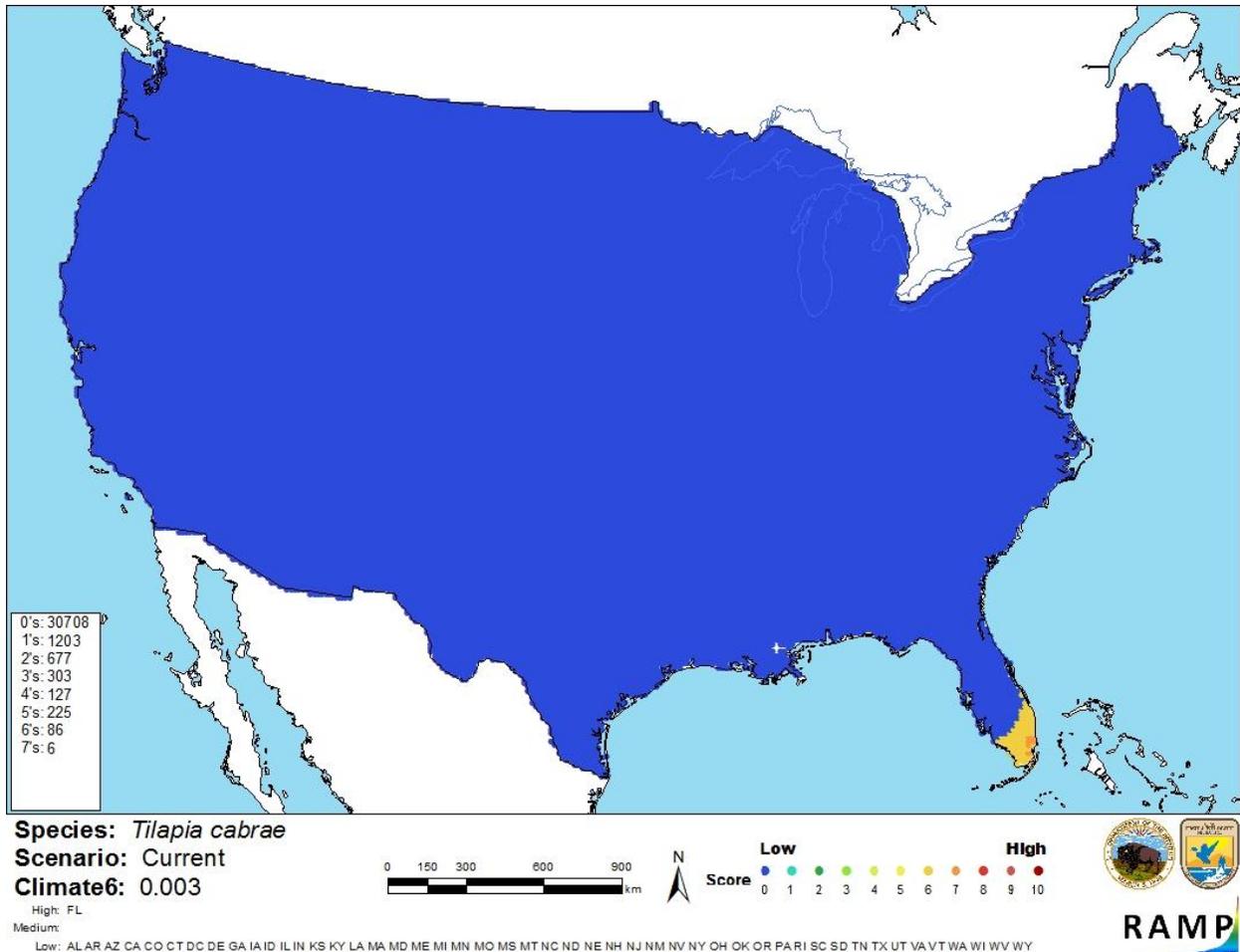


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. cabrae* in the continental United States based on source locations reported in GBIF (2015). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

7 Certainty of Assessment

Little information is available on the biology of *T. cabrae* and it has never been introduced 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

T. cabrae is a demersal cichlid fish native to central Africa. It has not been documented outside its native range. The species has a low climate match in the continental United States. Because *T. cabrae* has no history of invasiveness, it is currently impossible to know what impacts *T. cabrae* might have if introduced to the US. Overall risk of this species is uncertain.

Assessment Elements

- **History of Invasiveness:** Uncertain
- **Climate Match:** Low
- **Certainty of Assessment:** High
- **Overall Risk Assessment Category:** Uncertain

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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.

- da Costa, L., and Moelants, T. 2010. *Tilapia cabrae*. The IUCN Red List of Threatened Species, version 2015.1. Available: <http://www.iucnredlist.org/details/182521/0>. (June 2015).
- Froese, R., and D. Pauly, editors. 2015. *Tilapia cabrae* Boulenger, 1899. FishBase. Available: <http://www.fishbase.org/summary/8909>. (June 2015).
- Global Biodiversity Information Facility (GBIF). 2015. GBIF backbone taxonomy: *Tilapia cabrae* Boulenger, 1899. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2370639>. (June 2015).
- Integrated Taxonomic Information System (ITIS). 2015. *Tilapia cabrae* Boulenger, 1899. Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=648958. (June 2015).
- Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk Assessment Mapping Program: RAMP. US 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.

- Stiassny, M. L. J., A. Lamboj, D. De Weirdt 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, Muséum national d'histoire naturelle, Paris, and Musée royal de l'Afrique Central, Tervuren, Belgium.
- Thys van den Audenaerde, D. F. E. 1963. La distribution géographique des *Tilapia* au Congo. Bulletin des Séances - Academie Royale des Sciences d'Outre-Mer 9(3):570-605.
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- Teugels, G. G., and D. F. E. Thys van den Audenaerde. 1991. *Tilapia*. Pages 482-508 in J. Daget, J.-P. Gosse, G. G. Teugels, and D. F. E. Thys van den Audenaerde, editors. Check-list of

the freshwater fishes of Africa (CLOFFA), volume 4. ISNB, Brussels, MRAC, Tervuren,
and ORSTOM, Paris.

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