Tilapia congica
Ecological Risk Screening Summary

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

No photo available.

1 Native Range, and Status in the United States

Native Range
From Froese and Pauly (2015):

"Africa: middle Congo River basin, including Pool Malebo (=Stanley Pool) and the rivers Kasai, Lulua (Kasai drainage), Sangha, Ruki, Tshuapa, Maringa and Itimbiri, and Lake Tumba [Thys van den Audenaerde 1964]."

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 congica* Poll and Thys van den Audenaerde, 1960"

"Taxonomic status: valid"

Size, Weight, and Age Range

From Froese and Pauly (2015):

"Max length : 25.0 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 Moelants (2010):

"Congo; Congo, The Democratic Republic of the"

Introduced

This species has not been documented outside its native range.

Short description

No information available.

Biology

From Thys van den Audenaerde (1988):

"Another substrate spawner is *T. congica*, an equatorial rainforest species that prefers acidic waters"

From Mputu (2013):

"The breeding substrates for *T. congica* are sandy and under hippo grass (*Vossia cuspidata*) (48%) or water lilies (*Nymphaea stellata*) (39%). *Tilapia congica* shared 42% of its nesting sites with other fish species"

Human uses
From Moelants (2010):

"This species is harvested for human consumption."

Diseases
No information available.

Threat to humans
From Froese and Pauly (2012):

"Harmless."

3 Impacts of Introductions
No impacts of introductions were found.

4 Global Distribution

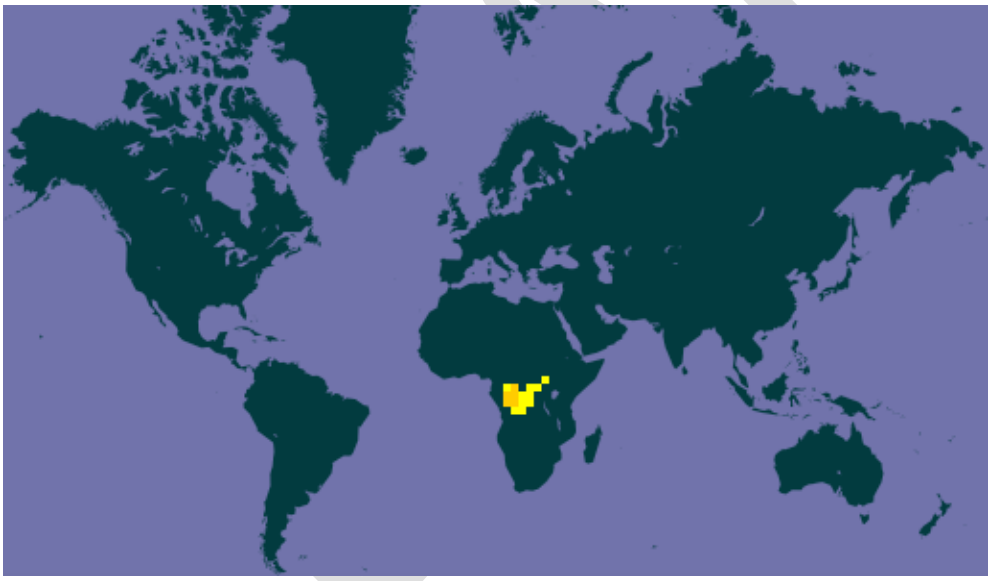

Figure 1. Global distribution of *T. congica* (GBIF 2015).

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) was low throughout much of the United States with only southern Florida exhibiting a medium match.

Climate 6 score indicated that the continental US is a low climate match. The range for a low climate match is 0.000 to 0.005. The Climate 6 score of *T. congica* is 0.003.

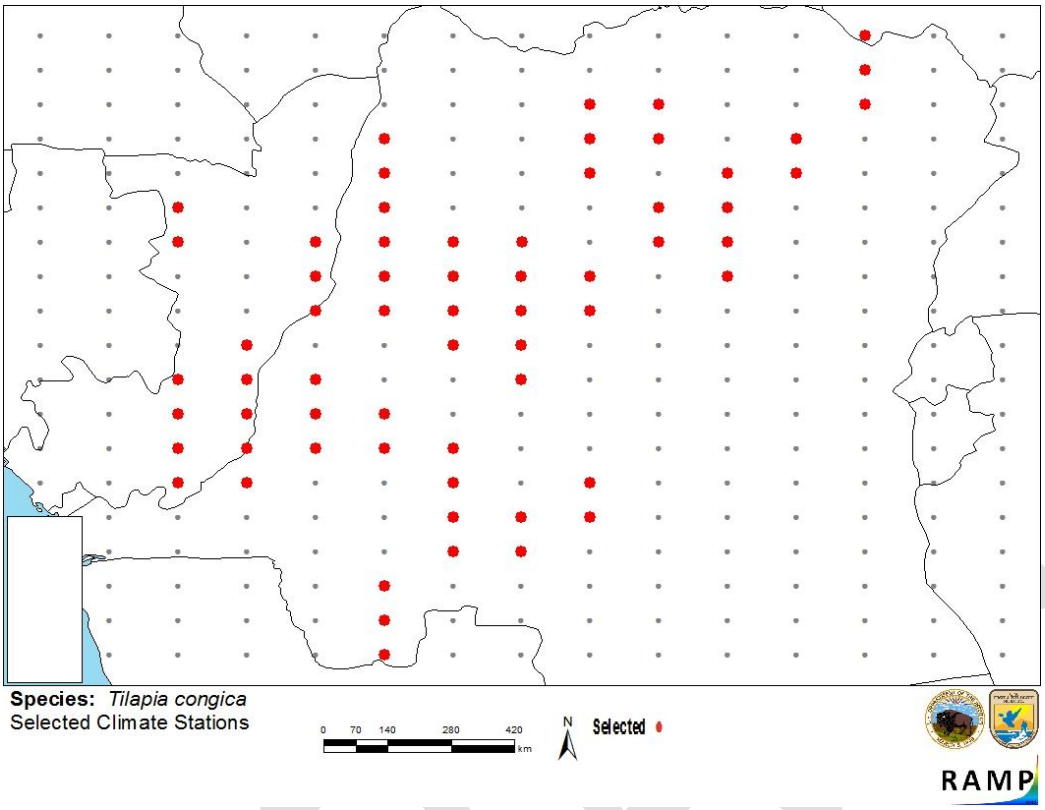

Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *T. congica* climate matching. Source locations from GBIF (2015).

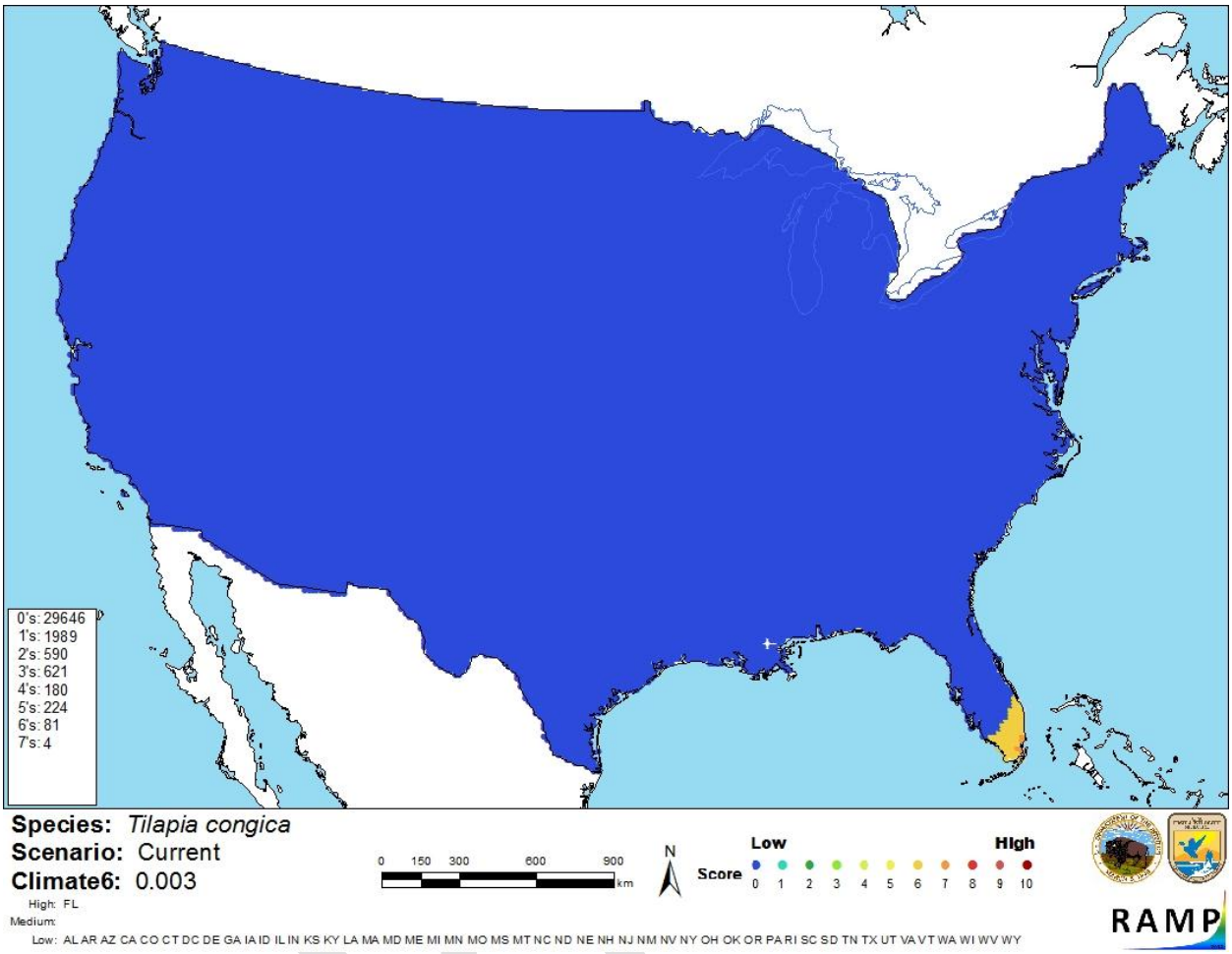

Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. congica* in the continental United States based on source locations from GBIF (2015). 0= Lowest match, 10=Highest match.

7 Certainty of Assessment

Little information is available on the biology of *T. congica* 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. congica 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. congica* has no history of invasiveness, it is currently impossible to know what impacts *T. congica* 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**

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 congica* Poll & Thys van den Audenaerde, 1960. FishBase. Available: http://www.fishbase.org/summary/8913. (June 2015).

Global Biodiversity Information Facility (GBIF). 2015. GBIF backbone taxonomy: *Tilapia congica* Poll & Thys van den Audenaerde, 1960. Global Biodiversity Information Facility, Copenhagen. Available: http://www.gbif.org/species/2370658. (June 2015).

Integrated Taxonomic Information System (ITIS). 2015. *Tilapia congica* Poll and Thys van den Audenaerde, 1960. Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=648963. (June 2015).

Moelants, T. 2010. *Tilapia congica*. The IUCN Red List of Threatened Species, version 2015.1. Available: http://www.iucnredlist.org/details/182695/0. (June 2015).

Mputu, A. 2013. Aquatic assessment in the Lake Tumba landscape, DRCongo. Licentiate thesis. Swedish University of Agricultural Sciences, Uppsala.

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

Thys van den Audenaerde, D. F. E. 1988. Natural distribution of tilapias and its consequences for the possible protection of genetic resources. Pages 1-12 *in* R. S. V. Pullin, editor. Tilapia genetic resources for aquaculture. ICLARM conference proceedings 16. International Center for Living Aquatic Resources Management, Manila, Philippines.

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.

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). ISNB, Brussels, MRAC, Tervuren, and ORSTOM, Paris.

Thys van den Audenaerde, D. F. E. 1964. Révision systématique des espèces congolaises du genre *Tilapia* (Pisces, Cichlidae). Annales Musée Royal de l'Afrique Central sér. in-8°. Sciences Zoologiques 124.