

Tilapia baloni

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: Luongo system, including the Nsenga (=Insenga) River (Luapula tributary, upper Congo River basin) in Zambia [Trewavas and Stewart 1975; Balon and Stewart 1983; Lamboj 2004].”

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* Smith, 1840
Species *Tilapia baloni* Trewavas and Stewart, 1975”

“Taxonomic Status: valid”

Size, Weight, and Age Range

From Froese and Pauly (2015):

“Max length : 17.5 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):

“Zambia”

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 Trewavas and Stewart (1975):

“Compared to its near relative, *T. sparrmanii*, the new species [*T. baloni*] is more elongate, with higher modal number of vertebrae (28, cf. 27) and a slightly longer caudal peduncle and has relatively shorter pectoral fins, features suggesting adaptation to flowing waters. The new species also appears to exhibit sexual dichromatism in the dorsal fin, an unusual feature in substrate-spawning Tilapia. ... Snout, top of head and dorsum dark blue-green, nearly black in adult male ; flanks more diffuse green with 9 or 10 dark vertical bars and 2 horizontal bands present or absent (present in all preserved fish) ; scales of lower half of flanks and caudal peduncle each with a dark spot either centrally or at base. In the larger male main part of operculum and flanks around, below and behind pectoral crimson ; fainter indications of same colour in other males.”

Biology

No information available.

Human uses

From Moelants (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. baloni*. 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) 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.

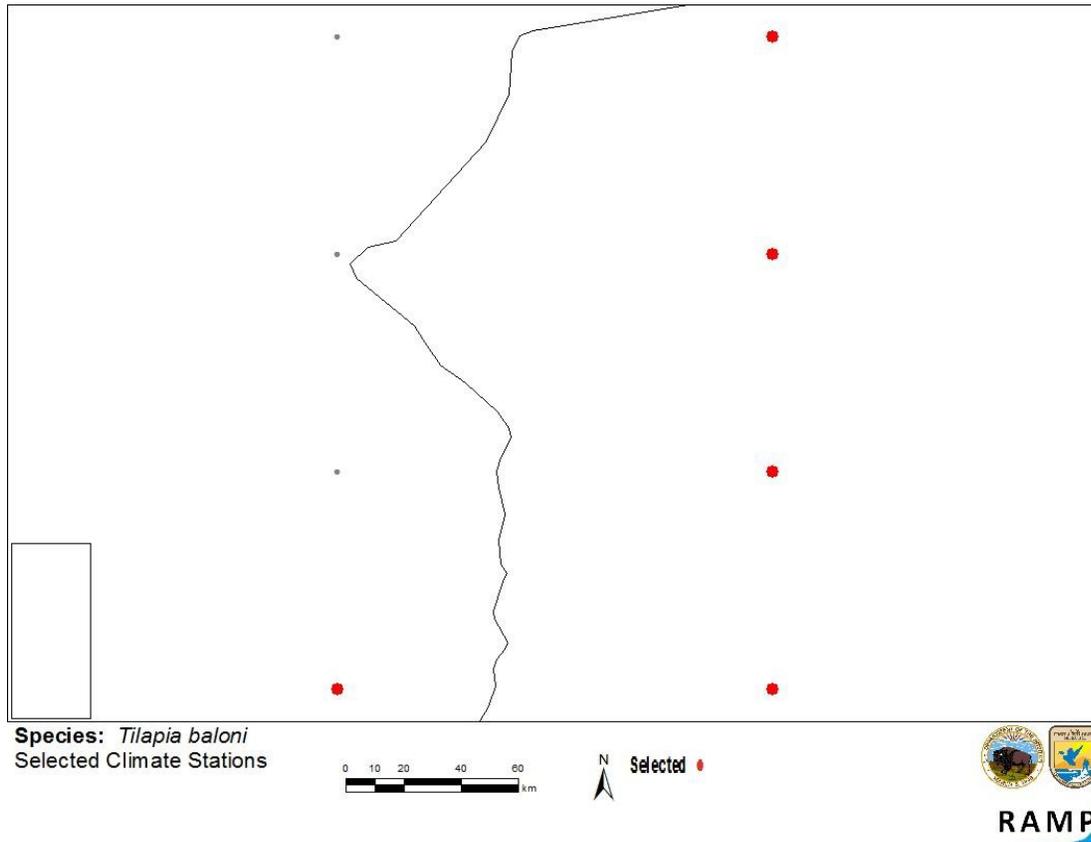


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *T. baloni* climate matching. Source locations from GBIF (2015). Source locations are all in Zambia.

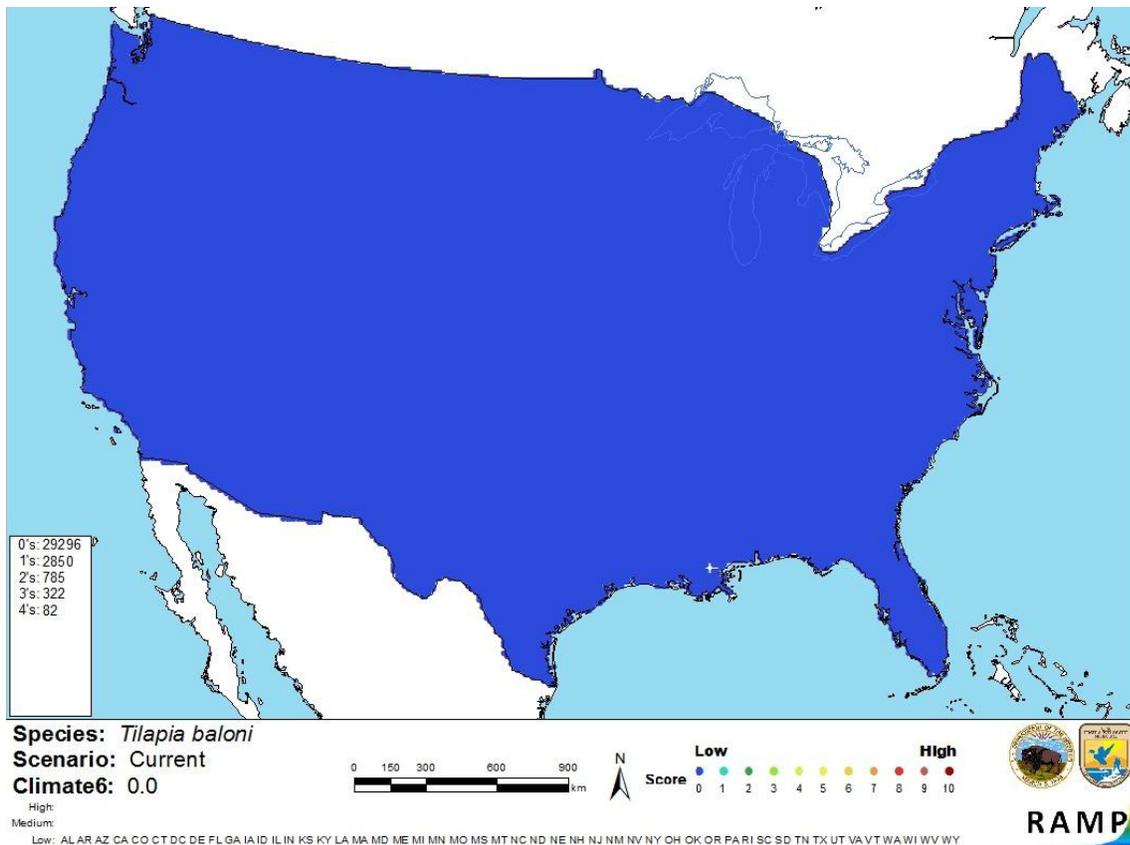


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. baloni* in the continental United States based on source locations reported by GBIF (2015). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

7 Certainty of Assessment

Little information is available on the biology of *T. baloni* 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 baloni is a demersal cichlid known only from Zaire. It has not been reported outside its native range. Because *T. baloni* has no history of invasiveness, it is currently impossible to know what impacts *T. baloni* 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 baloni* Trewavas & Stewart, 1975. FishBase. Available: <http://www.fishbase.org/summary/Tilapia-baloni.html>. (June 2015).

Global Biodiversity Information Facility (GBIF). 2015. *Tilapia baloni* Trewavas & Stewart, 1975. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2370670>. (June 2015).

Integrated Taxonomic Information System (ITIS). 2015. *Tilapia baloni* Trewavas and Stewart, 1975. Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=648951. (June 2015).

Moelants, T. 2010. *Tilapia baloni*. The IUCN Red List of Threatened Species, version 2015.2. Available: <http://www.iucnredlist.org/details/181659/0>. (June 2015).

Trewavas, E., and D. J. Stewart, 1975. A new species of *Tilapia* (Pisces, Cichlidae) in the Zambian Zaire system. *Bulletin of the British Museum of Natural History (Zoology)* 28(5):191-197.

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.

Balon, E. K., and D. J. Stewart, 1983. Fish assemblages in a river with unusual gradient (Luongo, Africa - Zaire system), reflections on river zonation, and description of another new species. *Environmental Biology of Fishes* 9(3/4):225-252.

Lamboj, A. 2004. The cichlid fishes of western Africa. Birgit Schmettkamp Verlag, Bornheim, Germany.

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, Belgium; and ORSTOM, Paris.