Tilapia ejagham
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: endemic to Lake Ejagham, Cross River basin, Cameroon [Dunz and Schliewen 2010]."

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 GBIF (2015):

"KINGDOM Animalia
PHYLUM Chordata
CLASS Actinopterygii
ORDER Perciformes
FAMILY Cichlidae
GENUS Tilapia
SPECIES Tilapia ejagham"

"TAXONOMIC STATUS Accepted species"

Size, Weight, and Age Range
From Froese and Pauly (2015):

"Max length : 20.0 cm SL male/unsexed; [Dunz and Schliewen 2010]"

Environment
From Froese and Pauly (2015):

"Freshwater; benthopelagic."

Climate/Range
From Froese and Pauly (2015):

"Tropical"

Distribution Outside the United States
Native
From Froese and Pauly (2015):

"Africa: endemic to Lake Ejagham, Cross River basin, Cameroon [Dunz and Schliewen 2010]."

Introduced
No introductions have been reported for this species.

Means of Introduction Outside the United States
No introductions have been reported for this species.

Short description
From Dunz and Schliewen (2010):

"*T. ejagham* spec. nov. is a large *Tilapia* (maximum observed size 199.5 mm SL) with a laterally compressed body. Dorsal head profile moderately concave from insertion of first dorsal spine to upper margin of eye henceforward the head profile changes to slightly convex. Large and compact head. Snout outline obtuse. Eye small and interorbital width always larger than eye length. Greatest body depth at level of first dorsal spine. Dorsal line slightly posteroventrally curved. Caudal peduncle as long as deep."

Biology
From Dunz and Schliewen (2010):

"Only known from Lake Ejagham (Cameroon), where non-breeding individuals are observed both inshore and in the benthic deepwater region. *T. ejagham* spec. nov. pairs breed exclusively in the shallow inshore region above 2 m. Pairs excavate large nest-pits under large branches or logs. In life, non-breeding *T. ejagham* spec. nov. are moving solitarily and are and appear to permanently scan their environment for prey while swimming permanently without a hast, and rarely being motionless. Rare observations suggest that this species are predators of small fish, mostly juvenile cichlids. During underwater observations it is readily identifiable for the trained observer by their typical snout facies in combination with their "scan/swim" behavior."

Human uses
No information available.

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. Global distribution of *T. ejagham*. 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.

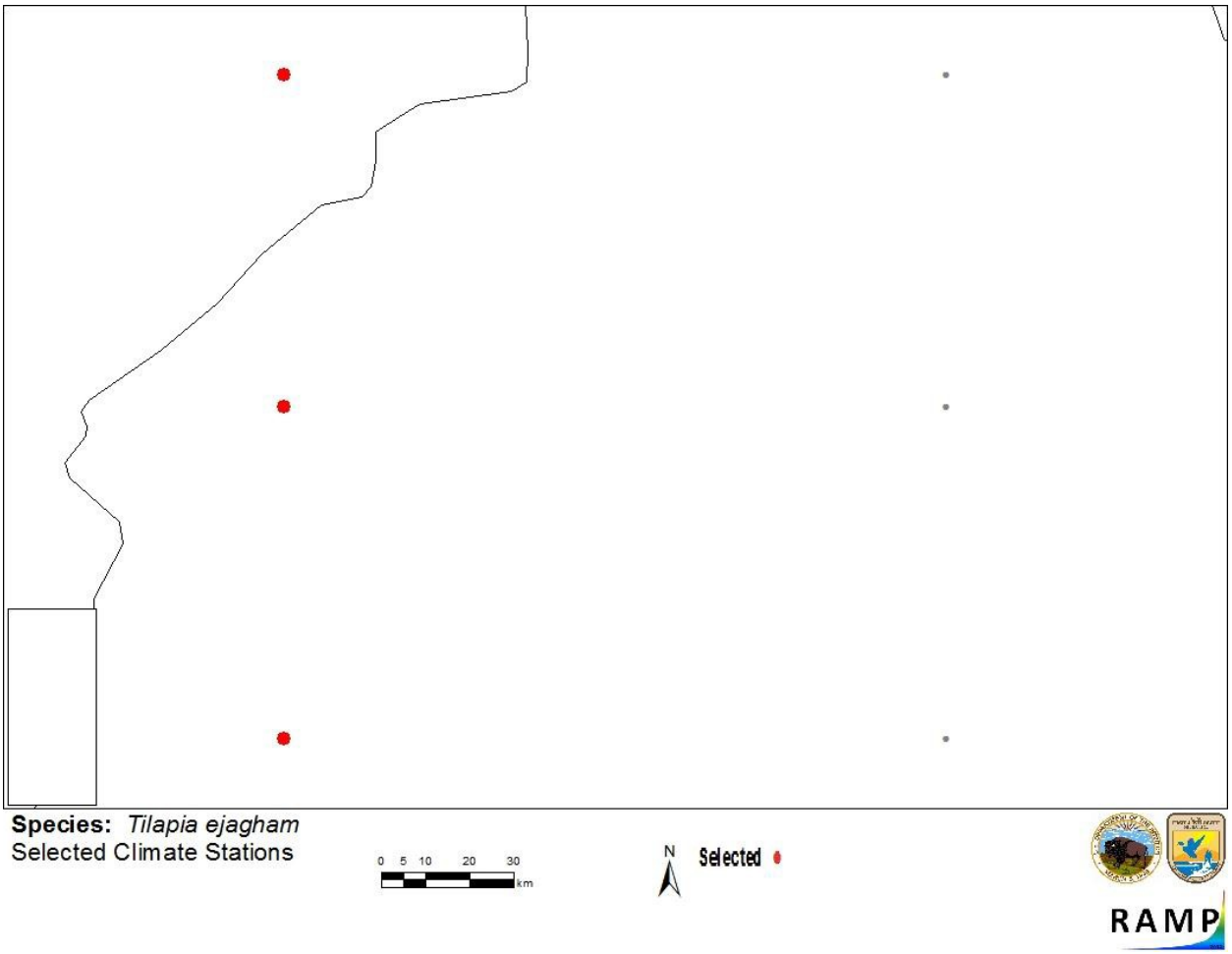

Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red) and non-source locations (gray) for *T. ejagham* climate matching. Source locations from GBIF (2015). All source locations were in Cameroon.

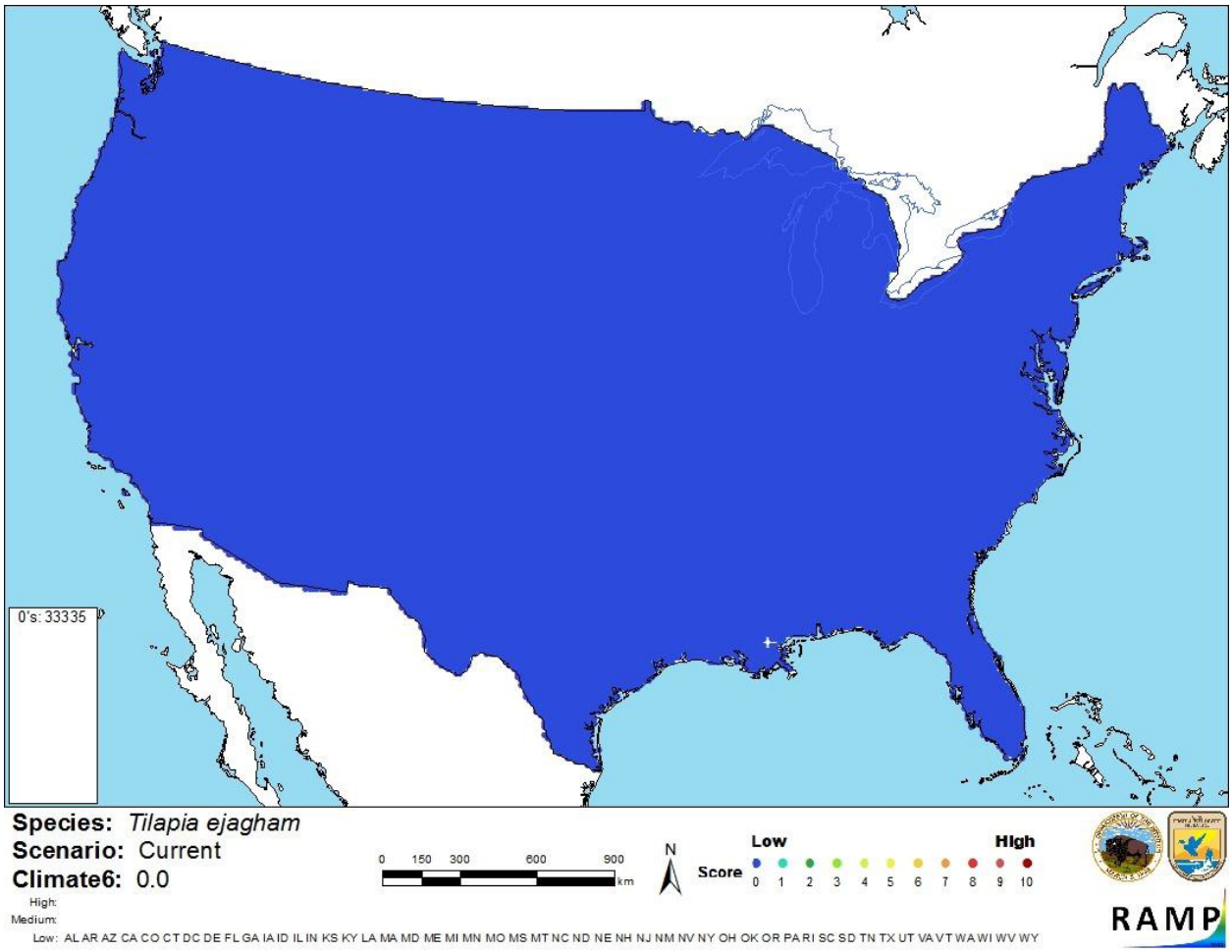

Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *T. ejagham* in the continental United States based on source locations reported by GBIF (2015). 0= Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

7 Certainty of Assessment

Little information is available on the biology of *T. ejagham* 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 ejagham is a benthopelagic cichlid endemic to Lake Ejagham in Cameroon. The species has not been reported as introduced outside of this location. Because *T. ejagham* has no history of invasion, it is currently impossible to know what impacts *T. ejagham* might have if introduced to the US. Climate match to the contiguous U.S. is low, but this may be an underestimate because environmental factors other than climate tolerance may be responsible for the restriction of the species to a single lake. Tropical and sub-tropical areas of the U.S. may be suitable habitat for this tropical species. Overall risk of this species 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

Dunz, A. R., and U. K. Schliewen. 2010. Description of a *Tilapia* (*Coptodon*) species flock of Lake Ejagham (Cameroon), including a redescription of *Tilapia deckerti* Thys van den Audenaerde, 1967 (Perciformes, Cichlidae). Spixiana 33(2):251-280.

Froese, R., and D. Pauly, editors. 2015. *Tilapia ejagham* Dunz & Schliewen, 2010. FishBase. Available: http://www.fishbase.org/summary/65867. (June 2015).

Global Biodiversity Information Facility (GBIF). 2015. GBIF backbone taxonomy: *Tilapia ejagham* Dunz & Schliewen, 2010. Global Biodiversity Information Facility, Copenhagen. Available: http://www.gbif.org/species/5961887. (June 2015).

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