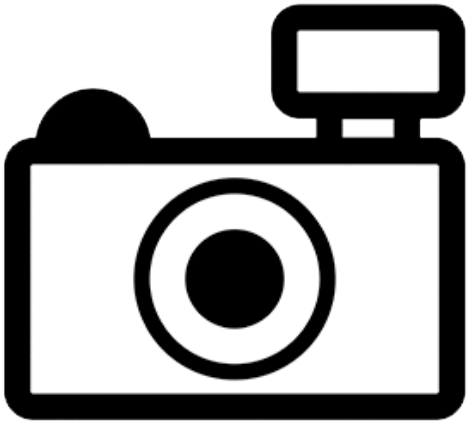
Alcolapia ndalalani (a fish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, March 2015
Revised, September 2017, October 2017
Web Version, 8/21/2018



1 Native Range and Status in the United States

Native Range

From Hanssens and Snoeks (2006):

"Only known from the Southern Lagoon of Lake Natron [Tanzania], where it inhabits the springs and effluent stream at Olomotony and some spring-fed creeks entering this lagoon from the southeast and east (Seegers and Tichy 1999)."

Status in the United States

No records of *Alcolapia ndalalani* in the wild or in trade United States were found.

The Florida Fish and Wildlife Conservation Commission has listed the tilapia *Alcolapia ndalalani* as a prohibited species. Prohibited nonnative species (FFWCC 2018), "are considered to be dangerous to the ecology and/or the health and welfare of the people of Florida. These species are not allowed to be personally possessed or used for commercial activities."

Means of Introductions in the United States
No records of *Alcolapia ndalalani* in the United States were found.

Remarks
Information searches were performed under *Alcolapia ndalalani* and the synonym *Oreochromis ndalalani.*

From Hanssens and Snoeks (2006):

"Red List Category & Criteria: Vulnerable D2 ver 3.1"

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing
According to Eschmeyer et al. (2017), *Alcolapia ndalalani* (Seegers & Tichy, 1999) is the valid name for this species. It was originally described as *Oreochromis ndalalani*.

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 *Oreochromis*
Species *Oreochromis ndalalani* Seegers and Tichy, 1999"

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

"Max length: 5.0 cm SL male/unsexed; [Seegers and Tichy 1999]"

Environment
From Hanssens and Snoeks (2006):

"The water of these springs is usually clean, but the creeks near the main lake carry turbid water and many of the inhabited creeks are also polluted by cattle or game (Seegers and Tichy 1999)."

From Froese and Pauly (2015):

"Freshwater; benthopelagic."

Climate/Range
From Froese and Pauly (2015):

"Tropical"

Distribution Outside the United States
Native
From Hanssens and Snoeks (2006):

"Only known from the Southern Lagoon of Lake Natron [Tanzania], where it inhabits the springs and effluent stream at Olomotony and some spring-fed creeks entering this lagoon from the southeast and east (Seegers and Tichy 1999)."

Introduced
No records of *Alcolapia ndalalani* introductions were found.

Means of Introduction Outside the United States
No records of *Alcolapia ndalalani* introductions were found.

Short Description
From Froese and Pauly (2015):

"Dorsal spines (total): 13 - 14; Dorsal soft rays (total): 10-13; Anal spines: 3; Anal soft rays: 9 – 11"

Biology
From Hanssens and Snoeks (2006):

"They graze stones and gravel, probably taking mainly algae for food but are clearly omnivorous taking insects from the water surface as well (Seegers and Tichy 1999). They are maternal mouthbrooders (Seegers and Tichy 1999)."

"Springs and creeks near the southern and southeastern shores of Lake Natron."

From Froese and Pauly (2015):

“It co-occurs with *O. alcalicus* and *O. latilabris*.”

“Females carry eggs and larvae in their mouths [Seegers and Tichy 1999].”

Human Uses

Information on human uses of *Alcolapia ndalalani* was not found.

The Florida Fish and Wildlife Conservation Commission has listed the tilapia *Alcolapia ndalalani* as a prohibited species. Prohibited nonnative species (FFWCC 2018), “are considered to be dangerous to the ecology and/or the health and welfare of the people of Florida. These species are not allowed to be personally possessed or used for commercial activities.”

Diseases

Information on parasites or pathogens of *Alcolapia ndalalani* was not found.

Threat to Humans

From Froese and Pauly (2015):

“Harmless”

3 Impacts of Introductions

No records of *Alcolapia ndalalani* introductions were found.

4 Global Distribution

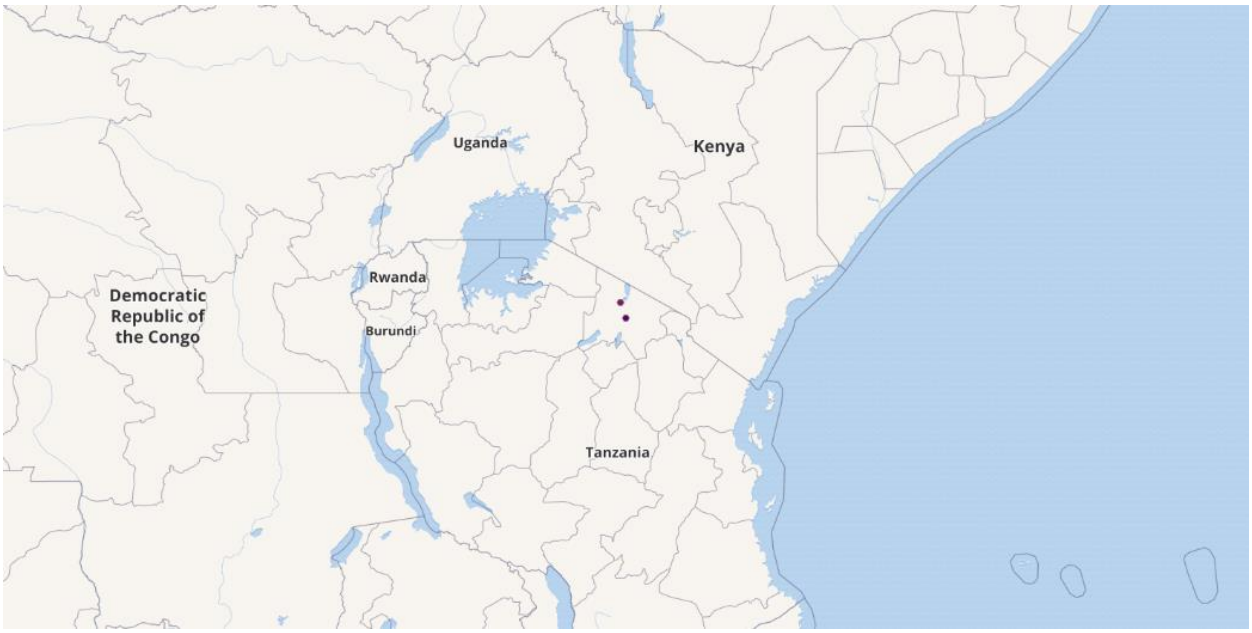


Figure 1. Known global distribution of *Alcolapia ndalalani* in northern Tanzania. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

No records of *Alcolapia ndalalani* in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Alcolapia ndalalani* was medium for coastal California, extreme southern Arizona, and the southern tip of Texas, it was low everywhere else. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low, and no States had an individually medium or high climate match.

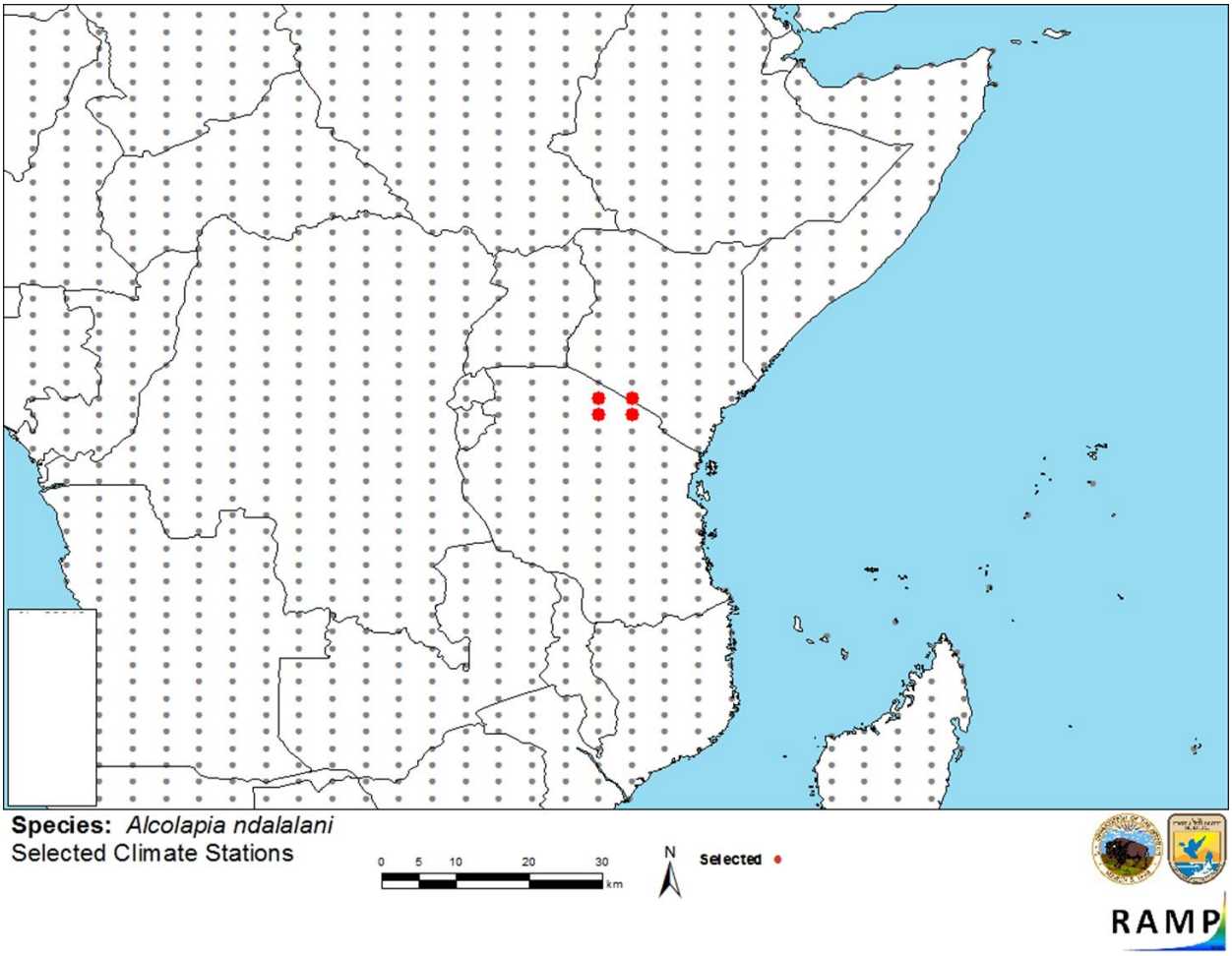


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Tanzania, Kenya) and non-source locations (grey) for *Alcolapia ndalalani* climate matching. Source locations from GBIF Secretariat (2017).

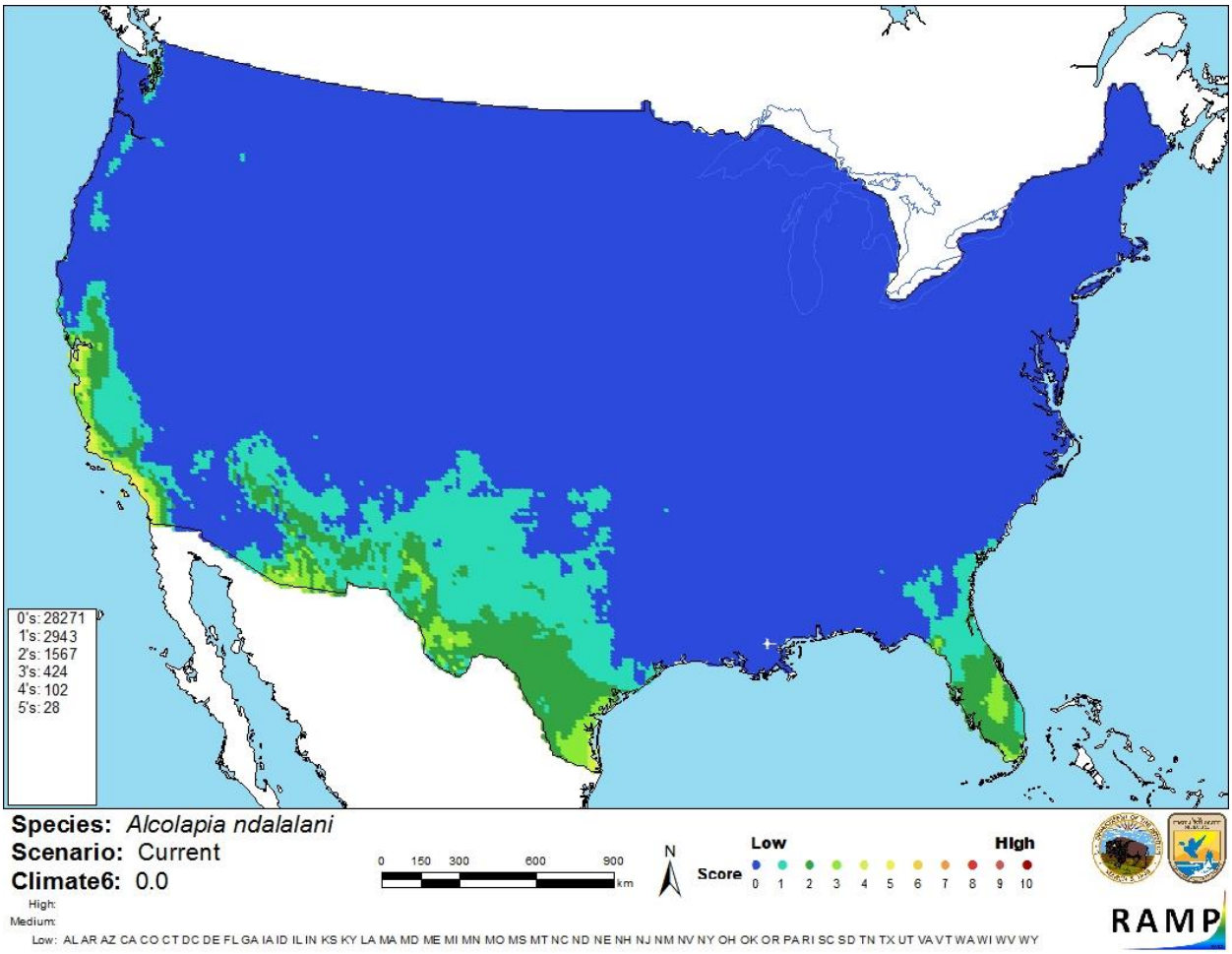


Figure 3. Map from RAMP (Sanders et al. 2014) of a current climate match for *Alcolapia ndalalani* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0 = Lowest match, 10 = Highest match. Counts of climate match scores are tabulated on the left.

The High, Medium, and Low Climate match Categories are based on the following table:

Climate 6: Proportion of (Sum of Climate Scores 6-10) / (Sum of total Climate Scores)	Climate Match Category
0.000≤X≤0.005	Low
0.005<X<0.103	Medium
≥0.103	High

7 Certainty of Assessment

The certainty of this assessment is low. Some information was available for *Alcolapia ndalalani*. There were no records of introduction found and therefore no information on impacts of introductions to evaluate.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Alcolapia ndalalani is a species of tilapia native to southern Lake Natron in Tanzania. The history of invasiveness is uncertain. There were no records of introductions found. The Florida Fish and Wildlife Conservation Commission has listed the tilapia *Alcolapia ndalalani* as a prohibited species (FFWCC 2018). The climate match is low. The certainty of assessment is low. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information** No additional information.
- **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.

Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2017. Catalog of fishes: genera, species, references. Available: http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp. (September 2017).

FFWCC (Florida Fish and Wildlife Conservation Commission). 2018. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/. (August 2018).

Froese, R., and D. Pauly, editors. 2015. *Alcolapia ndalalani* (Seegers & Tichy, 1999). FishBase. Available: http://fishbase.us/summary/Alcolapia-ndalalani.html. (March 2015).

GBIF Secretariat. 2017. GBIF backbone taxonomy: *Alcolapia ndalalani* (Seegers & Tichy, 1999). Global Biodiversity Information Facility, Copenhagen. Available: https://www.gbif.org/species/2369995. (September 2017).

Hanssens, M., and J. Snoeks. 2006. *Oreochromis ndalalani*. The IUCN Red List of Threatened Species 2006: e.T61291A12450109. Available: http://www.iucnredlist.org/details/full/61291/0. (March 2015).

ITIS (Integrated Taxonomic Information System). 2015. *Oreochromis ndalalani* Seegers and Tichy, 1999. Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=648850. (March 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.

Seegers, L., and H. Tichy. 1999. The *Oreochromis alcalicus* flock (Teleostei: Cichlidae) from Lake Natron and Magadi, Tanzania and Kenya, with descriptions of two new species. Ichthyological Exploration of Freshwaters 10(2):97–146.