

***Congolapia bilineata* (a tilapia, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, March 2012

Revised, February 2019

Web Version, 10/10/2019

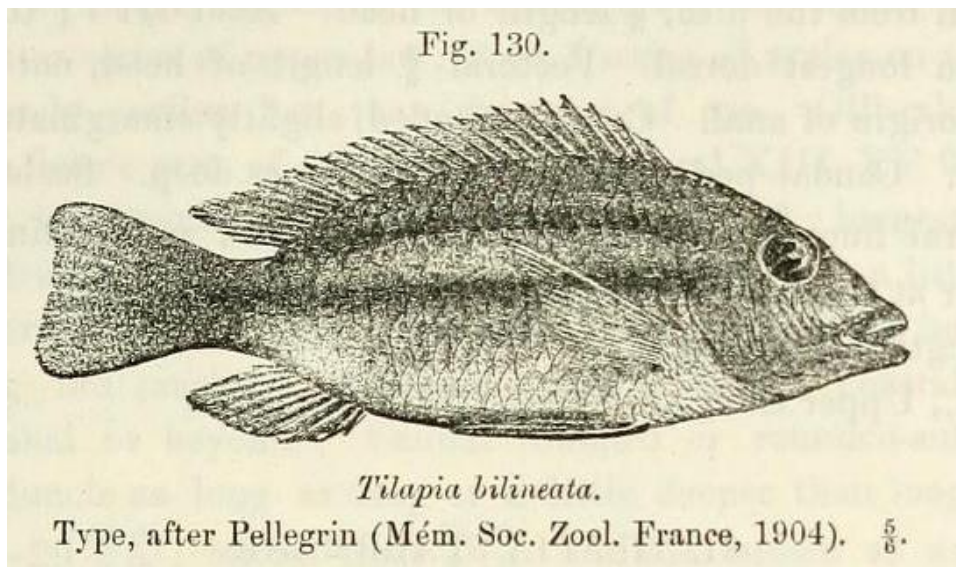


Image: George Albert Boulenger. Public Domain, originally published in 1915. Available: https://commons.wikimedia.org/wiki/File:Congolapia_bilineata.jpg. (February 2019).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019a):

“Africa: central Congo River basin in the western Cuvette Centrale and central Cuvette Centrale, including the rivers Alima, Lefini, lower Sangha, Ruki and Maringa [Thys van den Audenaerde 1963, 1964; Dunz et al. 2012], in Democratic Republic of the Congo and Republic of Congo.”

Status in the United States

No records of *Congolapia bilineata* in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of *Congolapia bilineata* in the wild in the United States were found.

Remarks

Literature searches were conducted under *Congolapia bilineata* and the synonym *Tilapia bilineata* (Fricke et al. 2019).

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2019):

“**Current status:** Valid as *Congolapia bilineata* (Pellegrin 1900).”

From Froese and Pauly (2019b):

“Anilamia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > [...] Actinopterygii (Class) > Perciformes (Order) > Labroidei (Suborder) > Cichlidae (Family) > Cichlinae (Subfamily) > *Congolapia* (Genus) > *Congolapia bilineata* (Species)”

Size, Weight, and Age Range

From Froese and Pauly (2019a):

“Max length : 17.5 cm SL male/unsexed; [Dunz et al. 2012]”

Environment

From Froese and Pauly (2019a):

“Freshwater; demersal.”

Climate/Range

From Froese and Pauly (2019a):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2019a):

“Africa: central Congo River basin in the western Cuvette Centrale and central Cuvette Centrale, including the rivers Alima, Lefini, lower Sangha, Ruki and Maringa [Thys van den Audenaerde 1963, 1964; Dunz et al. 2012], in Democratic Republic of the Congo and Republic of Congo.”

Introduced

No records of introductions of *Congolapia bilineata* were found.

Means of Introduction Outside the United States

No records of introductions of *Congolapia bilineata* were found.

Short Description

From Dunz et al. (2012):

“*Congolapia bilineata* differs from *C. crassa* and *C. louna* in the number of scale rows separating the upper lateral line from the last dorsal spine, i. e. by one complete scale row and one scale row with smaller dorso-ventrally compressed scales vs. two complete scale rows. *Congolapia louna* differs from *C. crassa* and *C. bilineata* by a higher number of gill rakers on the first ceratobranchial (13 vs. 8-11 in *C. crassa* and 8-10 in *C. bilineata*).”

Biology

From Froese and Pauly (2019a):

“Found in swampy forested zones [Dunz et al. 2012] in grass-bank as well as forest-bank habitats, during the dry as well as the wet season [Dunz et al. 2012]. Pair-bonding, open substratum spawner with both parents guarding their fry [Lamboj 2004].”

Human Uses

From Froese and Pauly (2019a):

“Fisheries.”

From Moelants (2010):

“This species is harvested for human consumption.”

Diseases

No information on diseases of *Congolapia bilineata* was found. **No records of OIE-reportable diseases (OIE 2019) were found for *C. bilineata*.**

Threat to Humans

From Froese and Pauly (2019a):

“Harmless”

3 Impacts of Introductions

No records of introductions of *Congolapia bilineata* were found.

4 Global Distribution

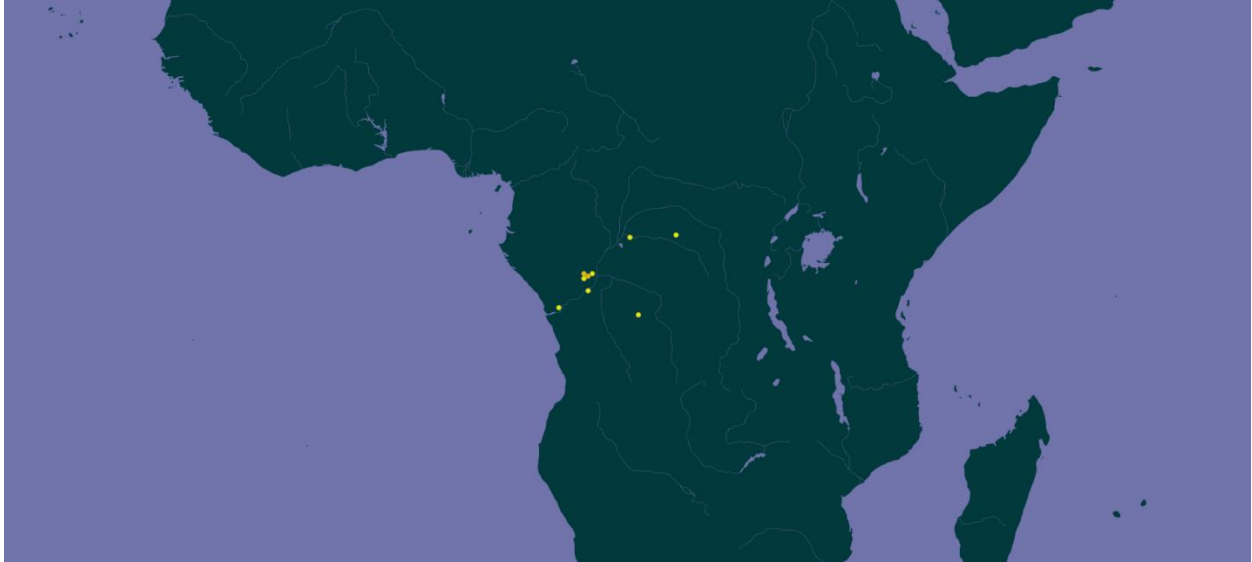


Figure 1. Map of Africa showing locations where *Congolapia bilineata* has been reported. Locations are in Democratic Republic of the Congo and Republic of the Congo. Map from GBIF Secretariat (2019).

5 Distribution Within the United States

No records of *Congolapia bilineata* in the wild in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Congolapia bilineata* was low for the majority of the contiguous United States. Only southern Florida and Louisiana had patches of medium match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.001, low. (Scores between 0.000 and 0.005, inclusive, are classified as low.) All States had a low individual climate scores except for Florida, which had a medium climate score.

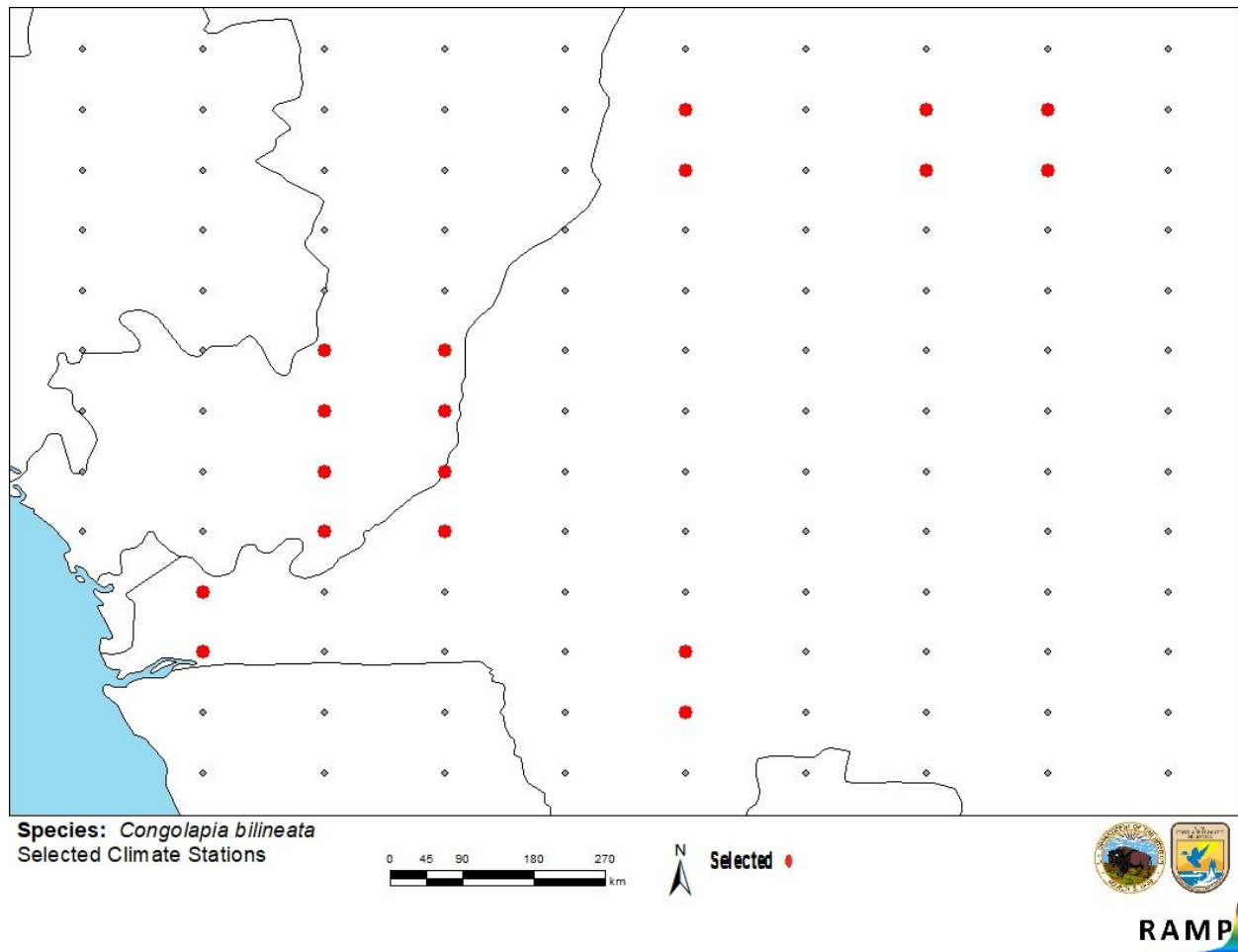


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Africa selected as source locations (red; Democratic Republic of the Congo and Republic of the Congo) and non-source locations (gray) for *Congolapia bilineata* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

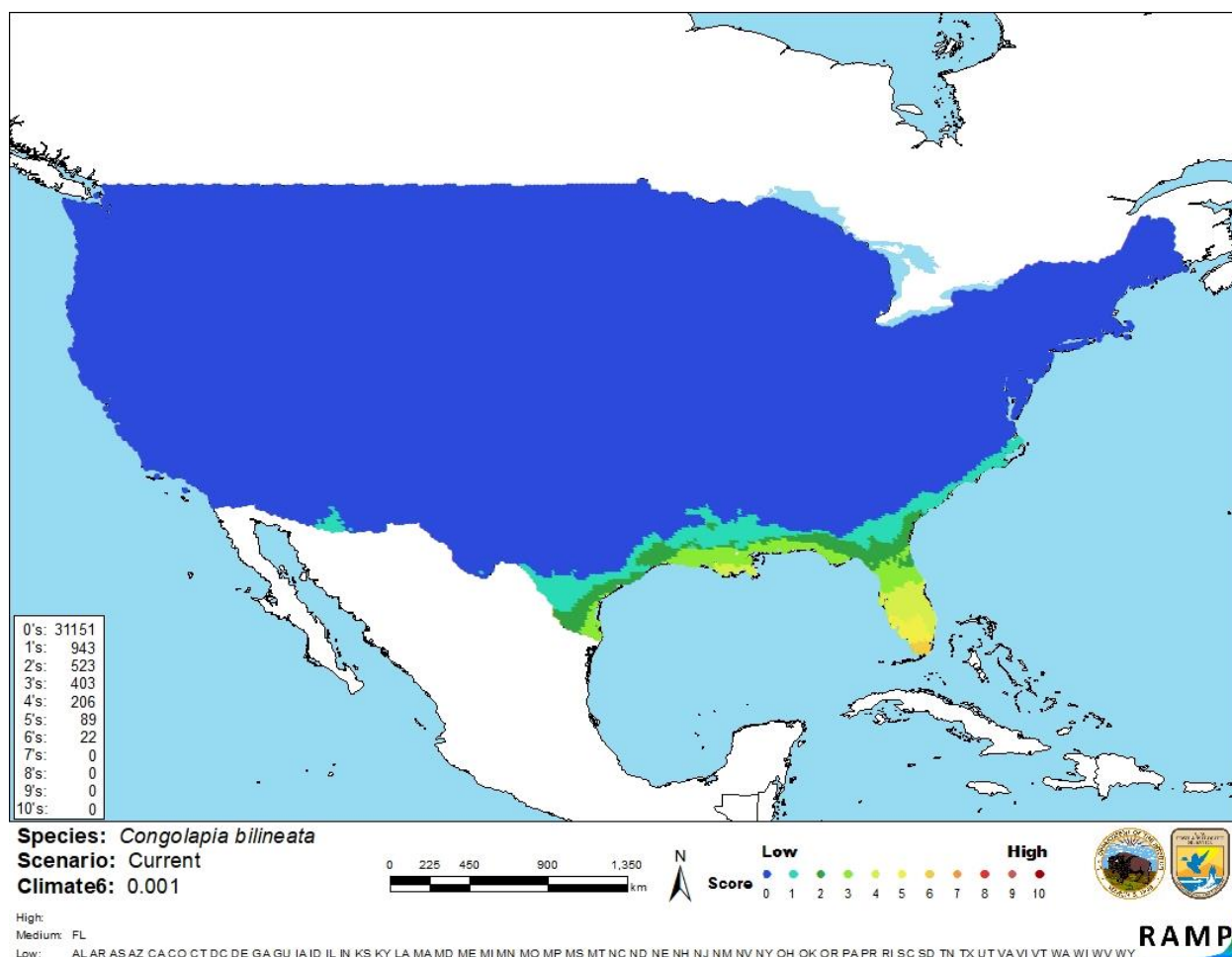


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Congolapia bilineata* in the contiguous United States based on source locations reported from GBIF Secretariat (2019). 0 = Lowest match, 10 = Highest match.

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
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

The certainty of assessment for *Congolapia bilineata* is low. There is sufficient information about the biology and distribution of the species. No information on introductions of *Congolapia bilineata* was found, so impacts of introduction are unknown.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Congolapia bilineata is an African fish native to the Democratic Republic of the Congo and Republic of the Congo. It is used for human consumption. The history of invasiveness is uncertain. It has not been reported as introduced or established anywhere in the world outside of the native range. The overall climate match for the contiguous United States was low. The only areas of medium match were found in southern Florida and Louisiana. The certainty of assessment is low due to lack of introductions. The overall risk assessment category for *Congolapia bilineata* 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.

- Dunz, A. R., E. Vreven, and U. K. Schliewen. 2012. *Congolapia*, a new cichlid genus from the central Congo basin (Perciformes: Cichlidae). *Ichthyological Exploration of Freshwater*. 23(2):155–179.
- Fricke, R., W. N. Eschmeyer, and R. van der Laan, editors. 2019. Eschmeyer's catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (February 2019).
- Froese, R., and D. Pauly, editors. 2019a. *Congolapia bilineata* (Pellegrin, 1900). FishBase. Available: <https://www.fishbase.de/summary/Congolapia-bilineata.html>. (February 2019).
- Froese, R., and D. Pauly, editors. 2019b. *Congolapia bilineata*. In *World Register of Marine Species*. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1018984>. (October 2019).
- GBIF Secretariat. 2019. GBIF backbone taxonomy: *Congolapia bilineata* (Pellegrin, 1900). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/8129067>. (February 2019).

Moelants, T. 2010. *Tilapia bilineata*. The IUCN Red List of Threatened Species 2010: e.T182586A7921631. Available: <https://www.iucnredlist.org/species/182586/7921631>. (February 2019).

OIE (World Organisation for Animal Health). 2019. OIE-listed diseases, infections and infestations in force in 2019. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/>. (October 2019).

Sanders, S., C. Castiglione, and M. Hoff. 2018. Risk assessment mapping program: RAMP, version 3.1. 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.

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

Pellegrin, J. 1900. Cichlidés nouveaux de l'Afrique équatoriale. Bulletin du Muséum National d'Histoire Naturelle (Série 1) 6(6):275–278.

Thys van den Audenaerde, D. F. E. 1963. La distribution géographique des *Tilapia* au Congo. Bulletin des Séances. Académie Royale des Sciences d'Outre-Mer 9(3):570–605.

Thys van den Audenaerde, D. F. E. 1964. Révision systématique des espèces congolaises du genre *Tilapia* (Pisces, Cichlidae). Royal de L'Afrique Centrale, Tervuren, Belgique. Annales, Serie In-8°, Sciences Zoologiques 124:1–155.