

***Paradoxoglanis caudivittatus* (a catfish, no common name)**

Ecological Risk Screening Summary

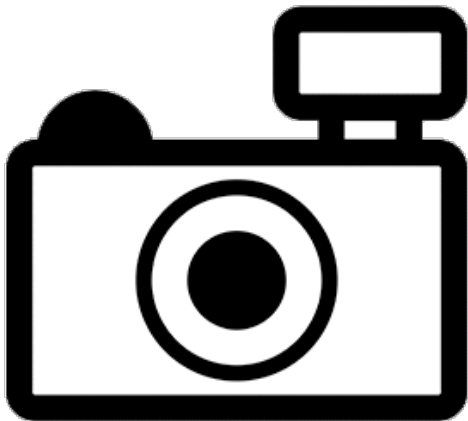
U.S. Fish & Wildlife Service, March 2012

Revised, January 2019

Web Version, 2/11/2021

Organism Type: Fish

Overall Risk Assessment Category: Uncertain



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“Africa: Tshuapa and Lukenie River systems [Democratic Republic of the Congo] [Norris 2002].”

Status in the United States

No records of *Paradoxoglanis caudivittatus* in the wild or in trade in the United States were found.

The Florida Fish and Wildlife Conservation Commission has listed the tilapia *P. caudivittatus* as a prohibited species. Prohibited nonnative species (FFWCC 2020), “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.”

From Mississippi Secretary of State (2019):

“All species of the following animals and plants have been determined to be detrimental to the State's native resources and further sales or distribution are prohibited in Mississippi. No person shall import, sell, possess, transport, release or cause to be released into the waters of the state any of the following aquatic species [including all species of Family Malapteruridae] or hybrids thereof.”

From Texas Parks and Wildlife (2020):

“The organisms listed here [including all species of Family Malapteruridae] are legally classified as exotic, harmful, or potentially harmful. No person may possess or place them into water of this state except as authorized by the department. Permits are required for any individual to possess, sell, import, export, transport or propagate listed species for zoological or research purposes; for aquaculture(allowed only for Blue, Nile, or Mozambique tilapia, Triploid Grass Carp, or Pacific White Shrimp); or for aquatic weed control (for example, Triploid Grass Carp in private ponds).”

Means of Introductions in the United States

No records of *Paradoxglanis caudivittatus* in the wild in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al. (2019), *Paradoxglanis caudivittatus* Norris 2002 is the current valid and original name of this species.

From ITIS (2019):

Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Siluriformes

Family Malapteruridae
Genus *Paradoxoglanis*
Species *Paradoxoglanis caudivittatus* Norris, 2002

Size, Weight, and Age Range

From Froese and Pauly (2019):

“Max length : 12.5 cm SL (female)”

Environment

From Froese and Pauly (2019):

“Freshwater; demersal.”

Climate

From Froese and Pauly (2019):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2019):

“Africa: Tshuapa and Lukenie River systems [Democratic Republic of the Congo] [Norris 2002].”

Introduced

No records of introductions of *Paradoxoglanis caudivittatus* were found.

Means of Introduction Outside the United States

No records of introductions of *Paradoxoglanis caudivittatus* were found.

Short Description

From Froese and Pauly (2019):

“Anal spines: 0; Anal soft rays: 8 - 10; Vertebrae: 38 - 40. Diagnosis: pectoral fin with sharply defined dark bar; caudal saddle and bar pattern well developed; lateral line extending to at least the level of the pelvic fin base (usually further, most commonly 45-50% SL); normally a single sensory pore between inner mental barbels [Norris 2002].”

Biology

From Moelants (2010):

“*Paradoxoglanis caudivittatus* is a demersal species. Besides plant matter (both intact and detrital), gut content examination revealed unidentified worms, a shrimp, insect larvae (colepteran and dipteran) and various unidentified insect parts (Norris 2002).”

Human Uses

From Moelants (2010):

“This species is harvested for human consumption.”

Diseases

No information on diseases of *Paradoxoglanis caudivittatus* was found. **No records of OIE-reportable diseases (OIE 2021) were found for *P. caudivittatus*.**

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

This species is classified within the electric catfish family of Malapteruridae but no reports were found indicating that this species could cause harm to humans.

3 Impacts of Introductions

No records of introductions of *Paradoxoglanis caudivittatus* were found.

P. caudivittatus is regulated in Florida, Mississippi, and Texas.

4 History of Invasiveness

No records of introductions of *Paradoxoglanis caudivittatus* were found, so the history of invasiveness is no known nonnative population.

5 Global Distribution

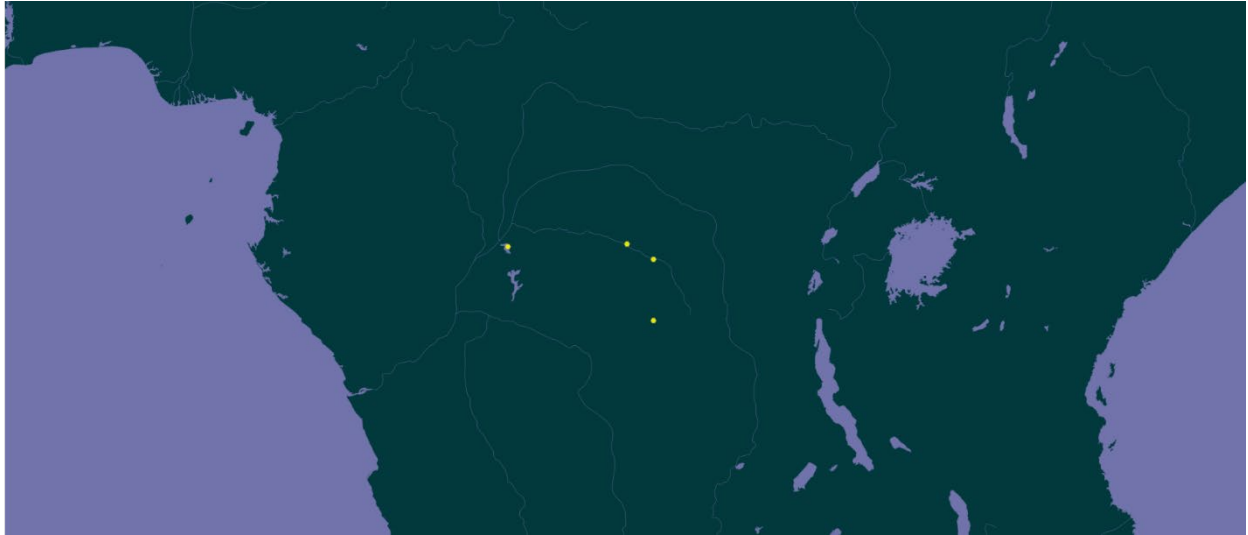


Figure 1. Known global distribution of *Paradoxoglanis caudivittatus*. Locations are in The Democratic Republic of the Congo. Map from GBIF Secretariat (2019).

6 Distribution Within the United States

No records of *Paradoxoglanis caudivittatus* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Paradoxoglanis caudivittatus* was low for the majority of the contiguous United States with parts of southern Louisiana and Florida having 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 low individual climate scores except for Florida, which had a medium individual climate score.

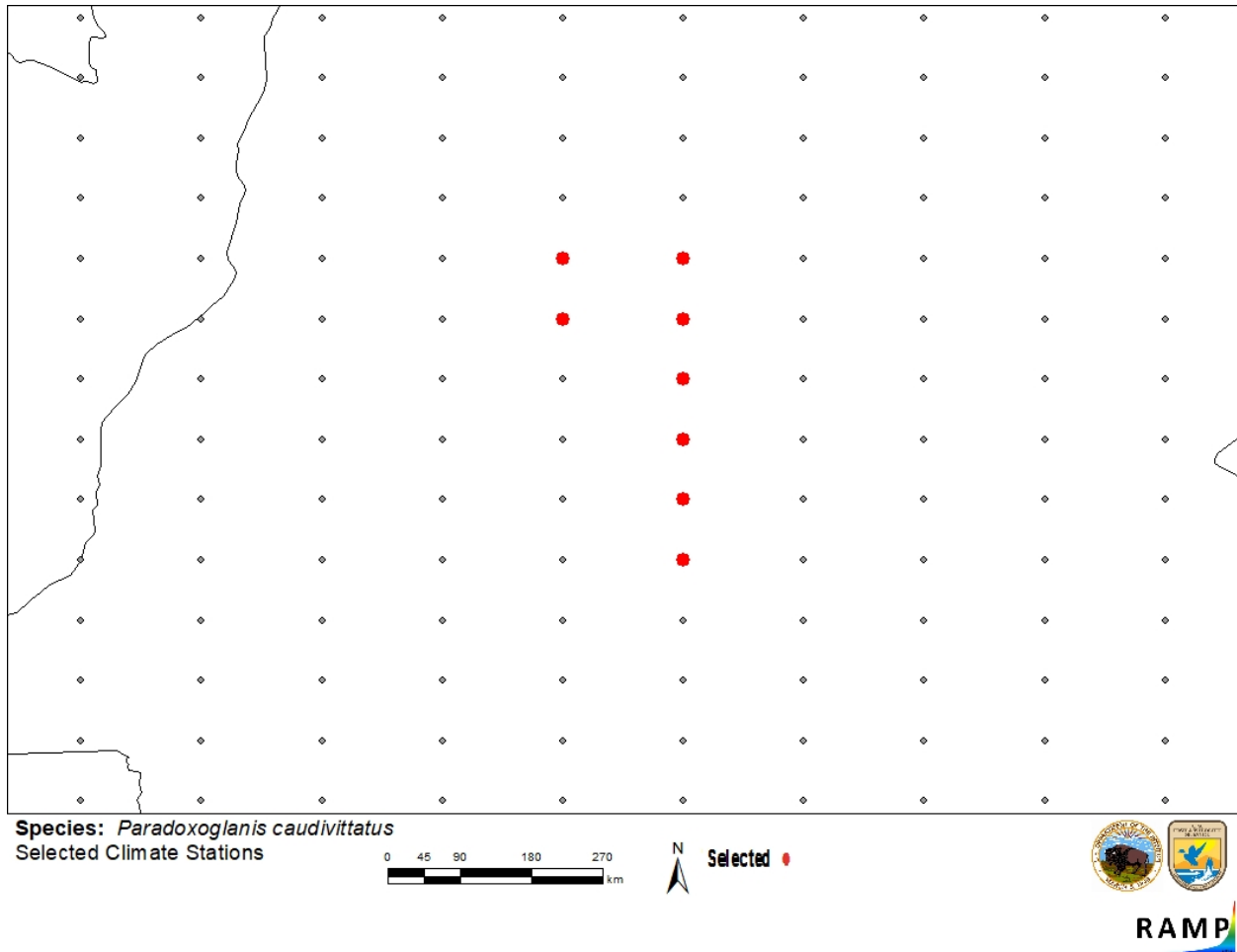


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Africa selected as source locations (red; Democratic Republic of the Congo) and non-source locations (gray) for *Paradoxoglanis caudivittatus* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations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

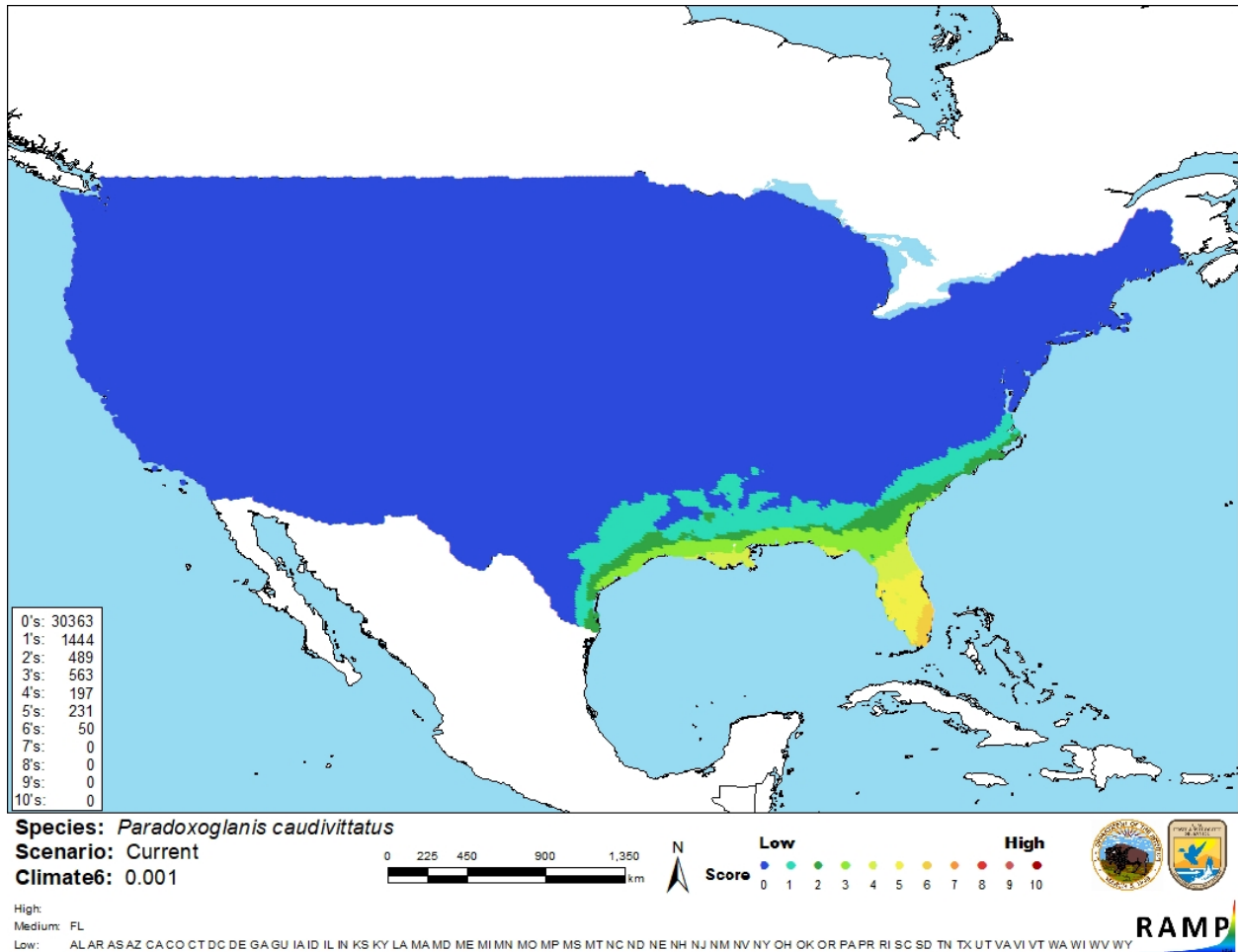


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Paradoxoglanis caudivittatus* in the contiguous United States based on source locations reported from GBIF Secretariat (2019). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

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

Climate 6: (Count of target points with climate scores 6-10)/ (Count of all target points)	Overall Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

8 Certainty of Assessment

The certainty of assessment for *Paradoxoglanis caudivittatus* is low. There is minimal information available for this species. No information on introductions of *Paradoxoglanis caudivittatus* was found.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Paradoxoglanis caudivittatus is an African catfish native to the Democratic Republic of the Congo. The history of invasiveness is no known nonnative population. *P. caudivittatus* has not been reported as introduced or established anywhere in the world. *P. caudivittatus* is regulated in Florida, Mississippi, and Texas. The climate match for the contiguous United States was low. Most of Florida and some of the Gulf coast had a medium match, everywhere else was low. The certainty of assessment is low. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 4): No Known Nonnative Population**
- **Overall Climate Match Category (Sec. 7): Low**
- **Certainty of Assessment (Sec. 8): Low**
- **Remarks/Important additional information:** No additional information
- **Overall Risk Assessment Category: Uncertain**

10 Literature Cited

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 11.

[FFWCC] Florida Fish and Wildlife Conservation Commission. 2020. Prohibited species list. Tallahassee, Florida: Florida Fish and Wildlife Conservation Commission. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/> (October 2020).

Fricke R, Eschmeyer WN, van der Laan R, editors. 2019. Eschmeyer's catalog of fishes: genera, species, references. California Academy of Science. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (January 2019).

Froese R, Pauly D, editors. 2019. *Paradoxoglanis caudivittatus* Norris, 2002. FishBase. Available: <http://www.fishbase.se/summary/Paradoxoglanis-caudivittatus.html> (January 2019).

GBIF Secretariat. 2019. GBIF backbone taxonomy: *Paradoxoglanis caudivittatus* (Norris, 2002). Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/2342054> (January 2019).

[ITIS] Integrated Taxonomic Information System. 2019. *Paradoxoglanis caudivittatus* (Norris, 2002). Reston, Virginia: Integrated Taxonomic Information System. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=681511#null (January 2019).

Mississippi Secretary of State. 2019. Guidelines for aquaculture activities. Mississippi Administrative Code, Title 2, Part 1, Subpart 4, Chapter 11. Jackson, Mississippi: Regulatory and Enforcement Division, Office of the Mississippi Secretary of State.

Moelants T. 2010. *Paradoxoglanis caudivittatus*. The IUCN Red List of Threatened Species 2010: e.T182794A7970170. Available: <https://www.iucnredlist.org/species/182794/7970170> (January 2019).

[OIE] World Organisation for Animal Health. 2021. OIE-listed diseases, infections and infestations in force in 2021. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2021/> (February 2021).

Sanders S, Castiglione C, Hoff M. 2018. Risk Assessment Mapping Program: RAMP. Version 3.1. U.S. Fish and Wildlife Service.

Texas Parks and Wildlife. 2020. Invasive, prohibited and exotic species. Austin, Texas: Texas Parks and Wildlife. Available: https://tpwd.texas.gov/huntwild/wild/species/exotic/prohibited_aquatic.phtml (November 2020).

11 Literature Cited in Quoted Material

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.

Norris SM. 2002. A revision of the African electric catfishes, family Malapteruridae (Teleostei, Siluriformes), with erection of a new genus and descriptions of fourteen new species, and an annotated bibliography. *Annales, Musée Royal de l'Afrique Centrale, Tervuren, Série in 80, Sciences Zoologiques* 289:1–155.