

Congo Tetra (*Phenacogrammus interruptus*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2011
Revised, November 2018
Web Version, 7/13/2020

Organism Type: Fish
Overall Risk Assessment Category: Uncertain



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1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“Africa: lower and middle Congo River basin in Democratic Republic of the Congo [Poll 1967] and Republic of Congo [Daget and Stauch 1963].”

From Snoeks et al. (2010):

“*P. interruptus* is known from Pool Malebo (Stanley Pool) and from the Central Congo basin [Republic of the Congo, Democratic Republic of the Congo].”

From Seriously Fish (2018):

“Wild populations are endemic to parts of the River Congo drainage in the Democratic Republic of Congo. Most of the fish available in the trade are bred commercially in the Far East and Eastern Europe.”

Status in the United States

From Fuller (2018):

“Established in Puerto Rico.”

Phenacogrammus interruptus is in the aquarium trade in the United States (Aqua Imports 2020).

Means of Introductions in the United States

From Fuller (2018):

“Aquarium release.”

Remarks

No additional information.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al. (2018), *Phenacogrammus interruptus* (Boulenger 1899) is the current valid name of this species.

From ITIS (2018):

Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia

Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Characiformes
Family Alestiidae
Genus *Phenacogrammus*
Species *Phenacogrammus interruptus* (Boulenger 1899)

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 80 cm TL male/unsexed; [Mills and Vevers 1989]; 6.0 cm (female)”

From Seriously Fish (2018):

“Male 3.2” (8cm). Female 2.4” (6cm).”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic. [...]; 23°C - 26°C [assumed to be recommended aquarium temperature] [Schliewen 1992]”

From Snoeks et al. (2010):

“Wetlands (inland)”

Climate

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“Africa: lower and middle Congo River basin in Democratic Republic of the Congo [Poll 1967] and Republic of Congo [Daget and Stauch 1963].”

From Snoeks et al. (2010):

“*P. interruptus* is known from Pool Malebo (Stanley Pool) and from the Central Congo basin [Republic of the Congo, Democratic Republic of the Congo].”

From Seriously Fish (2018):

“Wild populations are endemic to parts of the River Congo drainage in the Democratic Republic of Congo. Most of the fish available in the trade are bred commercially in the Far East and Eastern Europe.”

Introduced

No records of introductions for *Phenacogrammus interruptus* have been found outside the United States.

Means of Introduction Outside the United States

No records of introductions for *Phenacogrammus interruptus* have been found outside the United States.

Short Description

From Seriously Fish (2018):

“The male fish are larger and much more colourful. They also develop extended filaments in the caudal fin and a greatly extended dorsal fin”

Biology

From Snoeks et al. (2010):

“*P. interruptus* is a benthopelagic species. It feeds on worms, small insects, crustaceans and plant matter (Mills and Vevers 1989). In a tank, after vigorous driving by the male, the female lays up to 300 eggs, sometimes more, which sink to the bottom. The eggs hatch after about 6 days (Mills and Vevers 1989).”

Human Uses

From Snoeks et al. (2010):

“This species is collected commercially for the aquarium trade.”

From Seriously Fish (2018):

“Most of the fish available in the trade are bred commercially in the Far East and Eastern Europe.”

Phenacogrammus interruptus is in the aquarium trade in the United States (Aqua Imports 2020).

Diseases

No information on diseases of *Phenacogrammus interruptus* was found. **No records of OIE-reportable diseases (OIE 2020) were found for *P. interruptus*.**

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

From Fuller (2018):

“The impacts of this species are currently unknown, as no studies have been done to determine how it has affected ecosystems in the invaded range. The absence of data does not equate to lack of effects. It does, however, mean that research is required to evaluate effects before conclusions can be made.”

4 History of Invasiveness

Phenacogrammus interruptus is introduced to and has established in Puerto Rico. No studies have been done to investigate possible impacts of introductions. The species is in the aquarium trade but no specific information was available regarding the duration or volume of trade. The history of invasiveness is classified as data deficient.

5 Global Distribution



Figure 1. Known global distribution of *Phenacogrammus interruptus*. Locations are in Democratic Republic of the Congo, and Republic of Congo. Map from GBIF Secretariat (2018). GBIF also had a point located in Thailand. It was not included in the climate match because the occurrence was an aquarium specimen.

6 Distribution Within the United States



Figure 2. Known records of *Phenacogrammus interruptus* in the United States. Map from Fuller (2018).

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Phenacogrammus interruptus* was low for much of the contiguous United States. There were small patches of medium match in the southeast along the Gulf Coast from Florida to Texas). Much of peninsula Florida had a medium climate match, except for a very small patch in extreme southern Florida, which had a high match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.003, low (scores between 0.000 and 0.005, inclusive, are classified as low). Each State had a low individual Climate 6 score, except Florida, which had a high individual score.

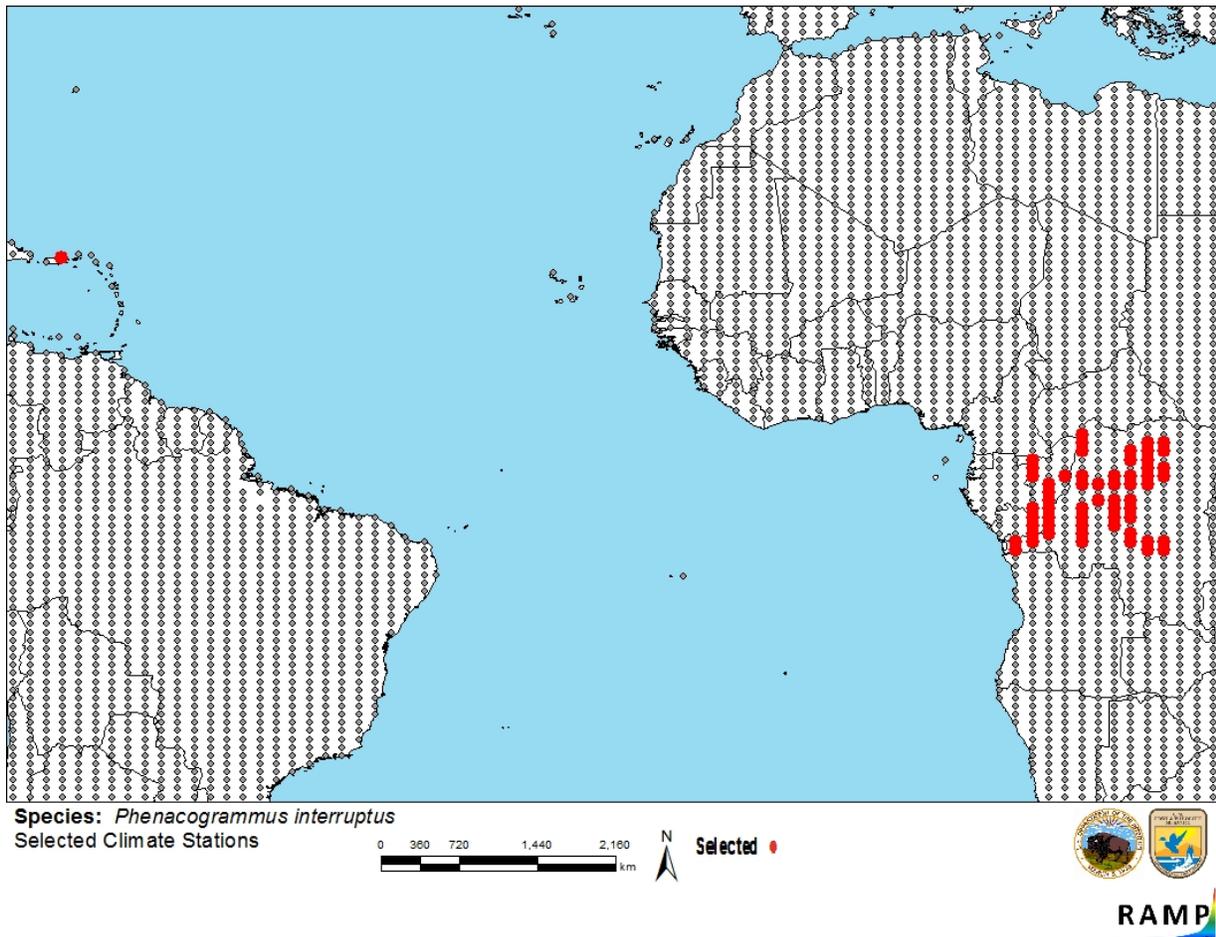


Figure 3. RAMP (Sanders et al. 2018) source map showing weather stations in Eastern Africa and Puerto Rico selected as source locations (red; Gabon, Republic of the Congo, Democratic Republic of the Congo, Republic of Congo, Puerto Rico) and non-source locations (gray) for *Phenacogrammus interruptus* climate matching. Source locations from Fuller (2018) and GBIF Secretariat (2018). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

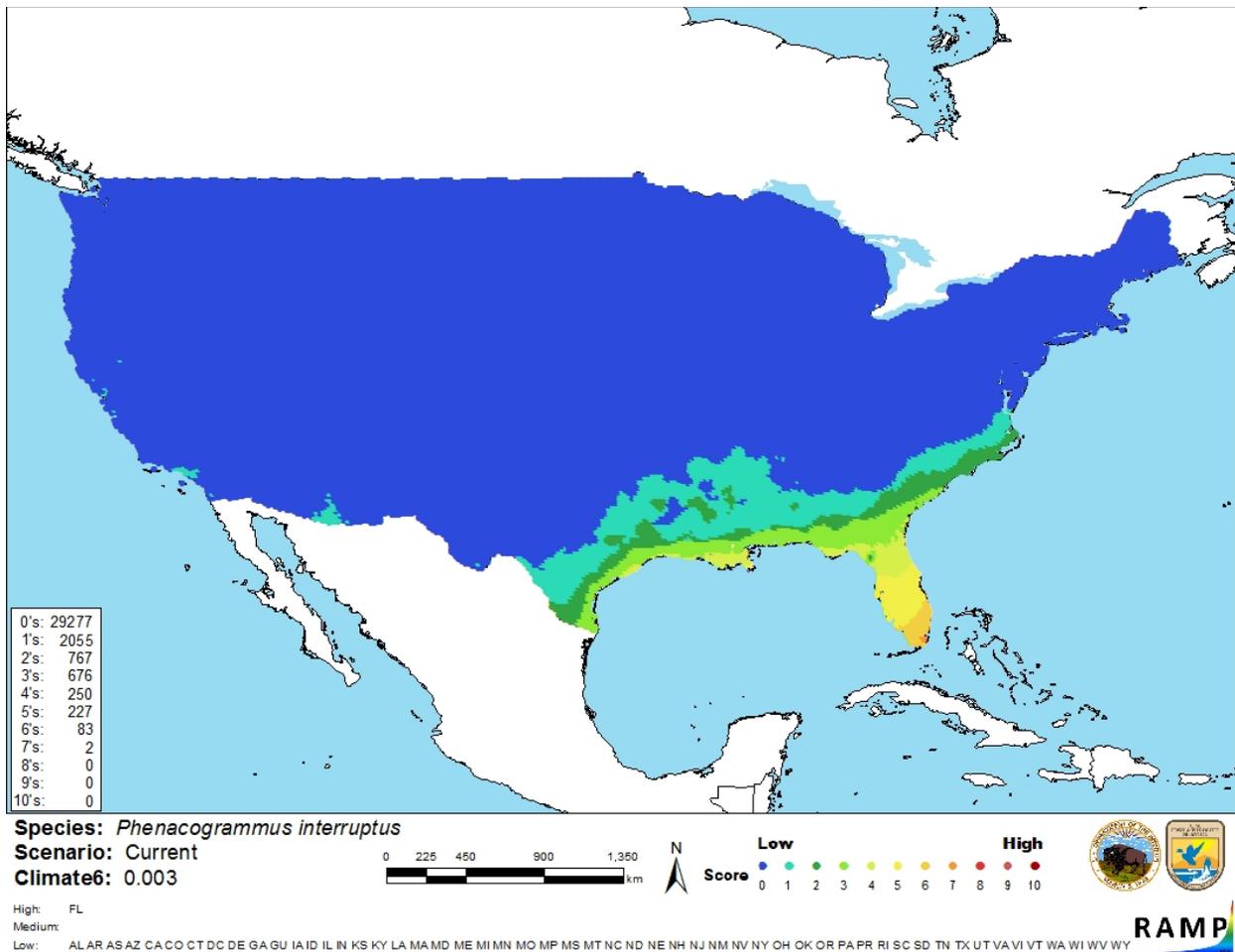


Figure 4. Map of RAMP (Sanders et al. 2018) climate matches for *Phenacogrammus interruptus* in the contiguous United States based on source locations reported by Fuller (2018) and GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest 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 *Phenacogrammus interruptus* is low. There was some biological and ecological information available. The only record of introduction found was in Puerto Rico, and no research has been done on the impact of that introduction.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Congo Tetra (*Phenacogrammus interruptus*) is a species of fish native to Eastern Africa. It is collected and reared commercially for the aquarium trade. It is in the aquarium trade in the United States. There is one record of introduction in Puerto Rico from an aquarium release, that resulted in an established population. There is no information available on the ecological impacts *P. interruptus* has in introduced areas. Therefore, the history of invasiveness is classified as Data Deficient. The climate match with the contiguous United States was low, overall. There were areas of medium match along the Gulf Coast from Texas to Florida. Peninsular Florida had a medium match, with a small patch of high match in the southern tip. The certainty of assessment is low due to a lack of information. The overall risk assessment category is Uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 4): Data Deficient**
- **Overall Climate Match Category (Sec. 7): Low**
- **Certainty of Assessment (Sec. 8): Low**
- **Remarks/Important additional information: No additional remarks**
- **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.

- Aqua Imports. 2020. Congo tetra (*Phenacogrammus interruptus*) – group of 5 fish. Boulder, Colorado: Aqua-Imports. Available: <https://www.aqua-imports.com/shop/product/congo-tetra-phenacogrammus-interruptus/> (July 2020).
- Fricke R, Eschmeyer WN, van der Laan R, editors. 2018. Catalog of fishes: genera, species, references. California Academy of Science. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (October 2018).
- Froese R, Pauly D, editors. 2018. *Phenacogrammus interruptus* (Boulenger, 1899). FishBase. Available: <https://www.fishbase.de/summary/Phenacogrammus-interruptus.html> (October 2018).
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- GBIF Secretariat. 2018. GBIF backbone taxonomy: *Phenacogrammus interruptus* (Boulenger, 1899). Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/2356255> (October 2018).

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- [OIE] World Organisation for Animal Health. 2020. OIE-listed diseases, infections and infestations in force in 2020. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2020/> (July 2020).
- Sanders S, Castiglione C, Hoff M. 2018. Risk Assessment Mapping Program: RAMP. Version 3.1. U.S. Fish and Wildlife Service.
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- Snoeks J, Laleye P, Moelants P, Contreras-MacBeath T. 2010. *Phenacogrammus interruptus*. The IUCN Red List of Threatened Species 2010: e.T167968A6428241. Available: <https://www.iucnredlist.org/species/167968/6428241> (October 2018).

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.

- Daget J, Stauch A. 1963. Poissons de la rive droite du Moyen-Congo. Mission A. Stauch (février-avril 1961). Bull. Inst. Rech. Sci. Congo 2:41–48.
- Mills D, Vevers G. 1989. The Tetra encyclopedia of freshwater tropical aquarium fishes. New Jersey: Tetra Press.
- Poll M. 1967. Révision des Characidae nains Africains. Annales du Musée Royal de l'Afrique Centrale: Sciences Zoologiques 162:158.
- Schliewen UK. 1992. Aquarium fish. Barron's Education Series.