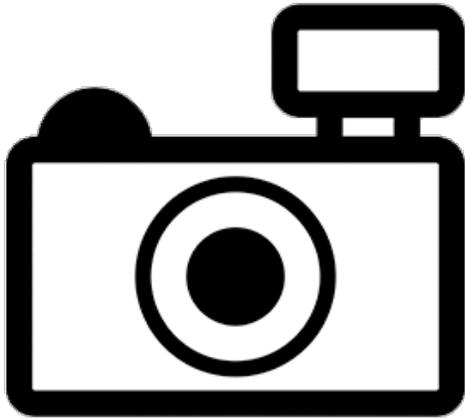


***Potamotrygon yepezi* (a stingray, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, August 2012
Revised, September 2018
Web Version, 1/20/2021

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 (2018):

“South America: Rivers draining into Maracaibo Lake [Venezuela, Colombia].”

Status in the United States

No records of *Potamotrygon yepezi* in the wild in the United States were found. *P. yepezi* is in trade in the United States.

From Reynolds et al. (2017):

“Trade and transport of potamotrygonids [neotropical river stingrays] is currently regulated and/or prohibited in the following states and territories: Arizona, California, Florida, Georgia,

Oklahoma, Puerto Rico, Nevada, Texas and Utah. Zoos and public aquaria may be granted special permission to transport and hold potamotrygonids.”

Potamorygon tigrina is considered a prohibited species in Mississippi (Mississippi Secretary of State 2019). Prohibited species “have been determined to be detrimental to the State's native resources and further sales or distribution are prohibited in Mississippi.”

Means of Introductions in the United States

No records of *Potamotrygon yepezi* 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. (2018), *Potamotrygon yepezi* Castex and Castello 1970 is the valid name for this species; it is also the original name.

From ITIS (2018):

Kingdom Animalia

Subkingdom Bilateria

Infrakingdom Deuterostomia

Phylum Chordata

Subphylum Vertebrata

Infraphylum Gnathostomata

Superclass Chondrichthyes

Class Chondrichthyes

Subclass Elasmobranchii

Superorder Euselachii

Order Myliobatiformes

Family Potamotrygonidae

Genus *Potamotrygon*

Species *Potamotrygon yepezi* Castex & Castello, 1970

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 40.0 cm WD male/unsexed; [Galvis et al. 1997]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“South America: Rivers draining into Maracaibo Lake [Venezuela, Colombia].”

Introduced

No records of *Potamotrygon yepezi* introductions were found.

Means of Introduction Outside the United States

No records of *Potamotrygon yepezi* introductions were found.

Short Description

No description of *Potamotrygon yepezi* was found.

Biology

From Froese and Pauly (2018):

“Prefers shallow muddy bottoms with turbid waters [Galvis et al. 1997]. Feeds on insect larvae [Galvis et al. 1997].”

From Góes de Araújo et al. (2004):

“The species *Potamotrygon yepezi* is listed as a vulnerable species in the Red Book of Fishes from Colombia. No information or conservation records are available concerning the species and their protection (Monjica, et al., 2002).”

Human Uses

No information on actual human uses of *Potamotrygon yepezi* was found but the species is regulated in multiple States.

Diseases

No records of OIE-reportable diseases (OIE 2021) were found for *Potamotrygon yepezi*.

Poelen et al. (2014) list *P. yepezi* as a host for *Acanthobothrium quinonesi*, *Potamotrygonocestus amazonensis*, *Rhinebothroides freitasi*, and *Rhinebothroides venezuelensis*.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introductions were found for *Potamotrygon yepezi*; therefore, there is no information on impacts of introduction.

4 History of Invasiveness

No records of introductions of *Potamotrygon yepezi* were found, and thus the history of invasiveness is classified as “no known nonnative population.”

5 Global Distribution



Figure 1. Known global distribution of *Potamotrygon yepezi*. Locations are in Colombia and Venezuela. Map from GBIF Secretariat (2018).

6 Distribution Within the United States

No records of *Potamotrygon yepezi* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Potamotrygon yepezi* was low across the vast majority of the contiguous United States. There are a few small areas that had a medium climate match in southeastern Texas and southern Florida. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States had low individual climate 6 scores.

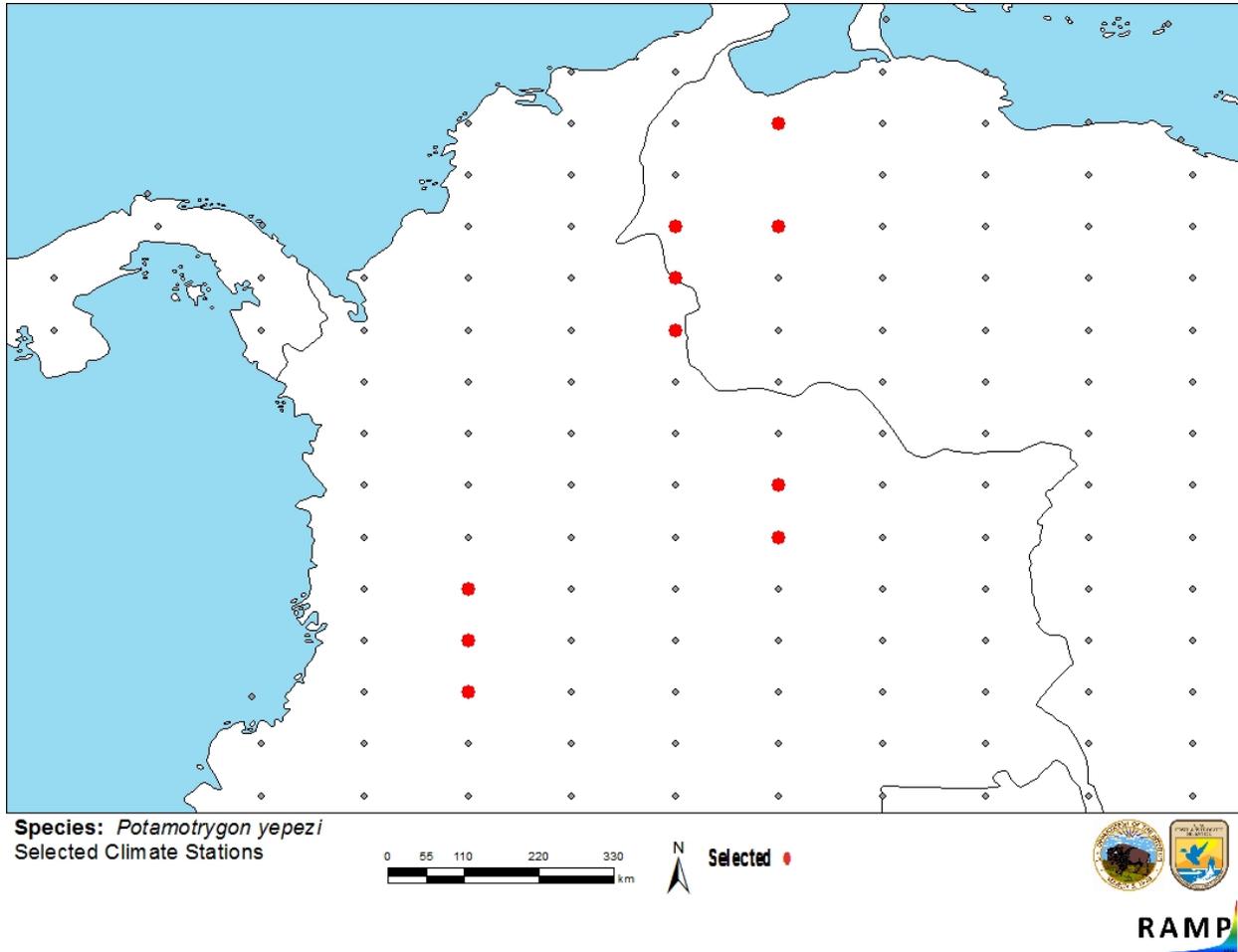


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in northern South America selected as source locations (red; Colombia, Venezuela) and non-source locations (gray) for *Potamotrygon yepezi* climate matching. Source locations from GBIF Secretariat (2018). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

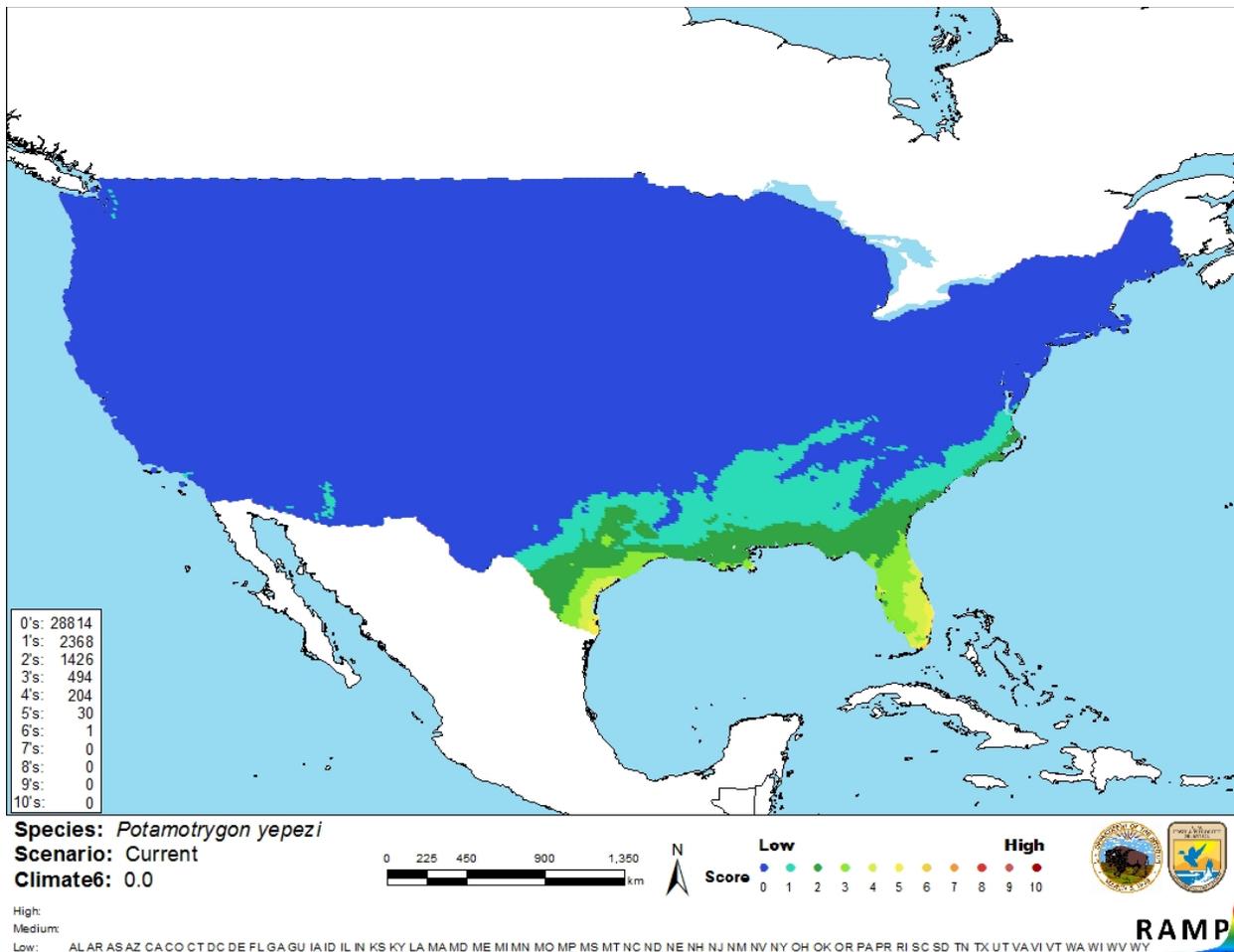


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Potamotrygon yepezi* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

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 *Potamotrygon yepezi* is low. There is a lack of information available for this species. No records of introduction were found, therefore there is no information on impacts of introductions.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Potamotrygon yepezi is a species of freshwater stingray native to the Maracaibo Lake drainage in Colombia and Venezuela. This species is utilized in the aquarium trade but it is uncertain to what extent. The history of invasiveness is classified as “no known nonnative population.” No records of introduction were found, therefore there is no information on impacts of introduction. The climate match is low, with only a couple small areas having a medium climate match. The certainty of assessment is low. The overall risk 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 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.

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> (September 2018).

Froese R, Pauly D, editors. 2018. *Potamotrygon yepezi* Castex and Castello, 1970. FishBase. Available: <http://www.fishbase.org/summary/Potamotrygon-yepezi.html> (September 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Potamotrygon yepezi* Castex and Castello, 1970. Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/2419350> (September 2018).

Góes de Araújo ML, Charvet-Almeida P, Pinto Almeida M, Pereira H. 2004. Freshwater stingrays (Potamotrygonidae): status, conservation and management challenges. Information document AC 20:1–6.

[ITIS] Integrated Taxonomic Information System. 2018. *Potamotrygon yepezi* Castex and Castello, 1970. Reston, Virginia: Integrated Taxonomic Information System. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=564440#null (September 2018).

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.

[OIE] World Organisation for Animal Health. 2021. OIE-listed diseases, infections and infestations in force in 2020. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2021/> (January 2021).

Poelen JH, Simons JD, Mungall CJ. 2014. Global Biotic Interactions: an open infrastructure to share and analyze species-interaction datasets. *Ecological Informatics* 24:148–159.

Reynolds J, Hornbrook E, Stettner G, Terrell R. 2017. Husbandry of freshwater stingrays. Pages 99–112 in Smith M, Warmolts D, Thoney D, Hueter R, Murray M, Ezcurra J, editors. *Elasmobranch husbandry manual II: recent advances in the care of sharks, rays and their relative*. Columbus, Ohio: Ohio Biological Survey. Special Publication.

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

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.

Galvis G, Mojica JI, Camargo M. 1997. *Peces del Catatumbo*. Santafé de Bogotá, Colombia: Asociación Cravo Norte.

de Carvalho MR, Lovejoy N, Rosa RS. 2003. Potamotrygonidae (river stingrays). Pages 22–28 in Reis RE, Kullander SO, Ferraris CJ Jr, editors. *Checklist of the freshwater fishes of South and Central America*. Porto Alegre, Brazil: EDIPUCRS.

Monjica JIC, Castellanos C, Usma S, Alvaréz R, editors. 2002. *Libro Rojo de peces dulcealciocolas de Colombia*. La serie Libros Rojos de Especies Amenazadas de Colombia. Bogotá, Colombia: Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Ministerio del Meio Ambiente.