Wimple Piranha (*Catoprion mento*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, May 2015
Revised, November 2017
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1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2017):

"South America: Amazon, Orinoco, Essequibo, and upper Paraguay River basins."

Catoprion mento is reported from the states of Amazonas, Mato Grosso, Rondônia, and Roraima in Brazil (Froese and Pauly 2017).

Status in the United States

No records of *Catoprion mento* in the wild in the United States were found.

Catoprion mento has had some presence in the aquarium trade in the United States. A seizure from a pet store is the basis of a record in Florida (GBIF Secretariat 2017).

Means of Introductions in the United States

No records of *Catoprion mento* in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2017), *Catoprion mento* (Cuvier 1819) is the valid name for this species. It was originally described as *Serrasalmus mento*.

From ITIS (2015):

"Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii
Infraclass Teleostei
Superorder Ostariophysi
Order Characiformes
Family Characidae
Genus *Catoprion*
Species *Catoprion mento* (Cuvier, 1819)"

Size, Weight, and Age Range

From Froese and Pauly (2017):

"Max length : 15.0 cm SL male/unsexed; [Jégu 2003]"

Environment
From Froese and Pauly (2017):

"Freshwater; pelagic; pH range: ? - 5.4. […]; 23°C - 26°C [assumed to be recommended aquarium temperature] [Baensch and Riehl 1985]"

Climate/Range
From Froese and Pauly (2017):

"Tropical; […]"

Distribution Outside the United States
Native
From Froese and Pauly (2017):

"South America: Amazon, Orinoco, Essequibo, and upper Paraguay River basins."

Introduced
No records of *Catoprion mento* introductions were found.

Catoprion mento is listed as prohibited to be imported in live form into Sri Lanka (Marambe and Gunawardena 2010).

Means of Introduction Outside the United States
No records of *Catoprion mento* introductions were found.

Short Description
From Janovetz (2005):

"Its reduced, conical-shaped teeth on the upper jaw project forward when the jaws are closed (Gery, 1977; Sazima, 1983; Taphorn, 1992)."

From Nico and Taphorn (1988):

"*C. mento* is a small, deep-bodied fish […], usually less than 80 mm SL adult size, and distantly related to the other piranhas. The teeth of *C. mento* are somewhat everted, and its long lower jaw swings open to more than 180 degrees, making it well suited for scraping scales off other fish."

Biology
From Froese and Pauly (2017):

"Possesses powerful dentition and can inflict serious bites. Has been observed to feed on scales of other fish [Géry 1977]."

"Scale-eaters [Val and de Almeida-Val 1995]. Scale-eating behavior was suggested to originate from modified predation and aggressive behavior [Sazima 1983]. Mutilators feeding on larger fishes' scales [Sazima 1988]. Ambushes or stalks, mainly with use of plant cover and territorial behavior defending the vicinity of submerged plant clumps [Sazima 1988]."

From Sazima (1986):

"*Catoprion mento* (Cuvier, 1819) subsists almost entirely on fish scales, but when young it also ingests insects."

"In the Pantanal pond, intraspecific territorial behavior during feeding activities was observed for the Characiformes *Catoprion mento* and *Curimata spilura* […]"

From Nico and Taphorn (1988):

"The stomachs of all 104 specimens examined contained fish scales (≤ 23 mm in diameter) […]. Plant material—primarily vascular debris and root wads, occasionally filamentous algae was present in small amounts in many stomachs. Rare items included an aquatic beetle larva, a cladoceran, and the head of a small characid fish (*A. erythrurus*)."

"Vieira and Géry (1979) reported that *C. mento* shifted diets from insects and plant material when young to fish scales when adult. However, we found *C. mento* of all sizes to be scale specialists."

Human Uses

From Froese and Pauly (2017):

"Fisheries: minor commercial; aquarium: commercial"

Catoprion mento is of commercial importance in Bolivia and Venezuela (Froese and Pauly 2017).

Catoprion mento has had some presence in the aquarium trade in the United States. A seizure from a pet store is the basis of a record in Florida (GBIF Secretariat 2017).

Diseases

No records of OIE reportable diseases were found.

The following are all listed as parasites of *Catoprion mento*: *Amphithecium prodotum*, *Anacanthorus catoprioni*, *Cleidodiscus amazonensis*, *C. piranhus*, *Heterothecium dicrophallum*, *Odothecium raphidiophallum*, *Pithanothecium amazonensis*, and *P. piranhus* (Strona et al. 2013 in Poelen et al. 2014).

Threat to Humans

From Froese and Pauly (2017):

"Traumatogenic [Géry 1977]"

3 Impacts of Introductions

No records of *Catoprion mento* introductions were found.

4 Global Distribution

Figure 1. Known global distribution of *Catprion mento*. Locations are in the southern United States, Colombia, Venezuela, Guyana, Brazil, and Bolivia. Map from GBIF Secretariat (2017).

Figure 2. Known global distribution of *Catprion mento*. Locations are in Colombia, Venezuela, Guyana, Brazil, Bolivia, and Peru. Map from VertNet (2017).

5 Distribution Within the United States

No records of *Catoprion mento* in the wild in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Catoprion mento* was high in southern Florida and medium in the rest of Florida and the southern Texas Gulf Coast. It was low everywhere else. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.006, medium, and Florida had an individually high climate score.

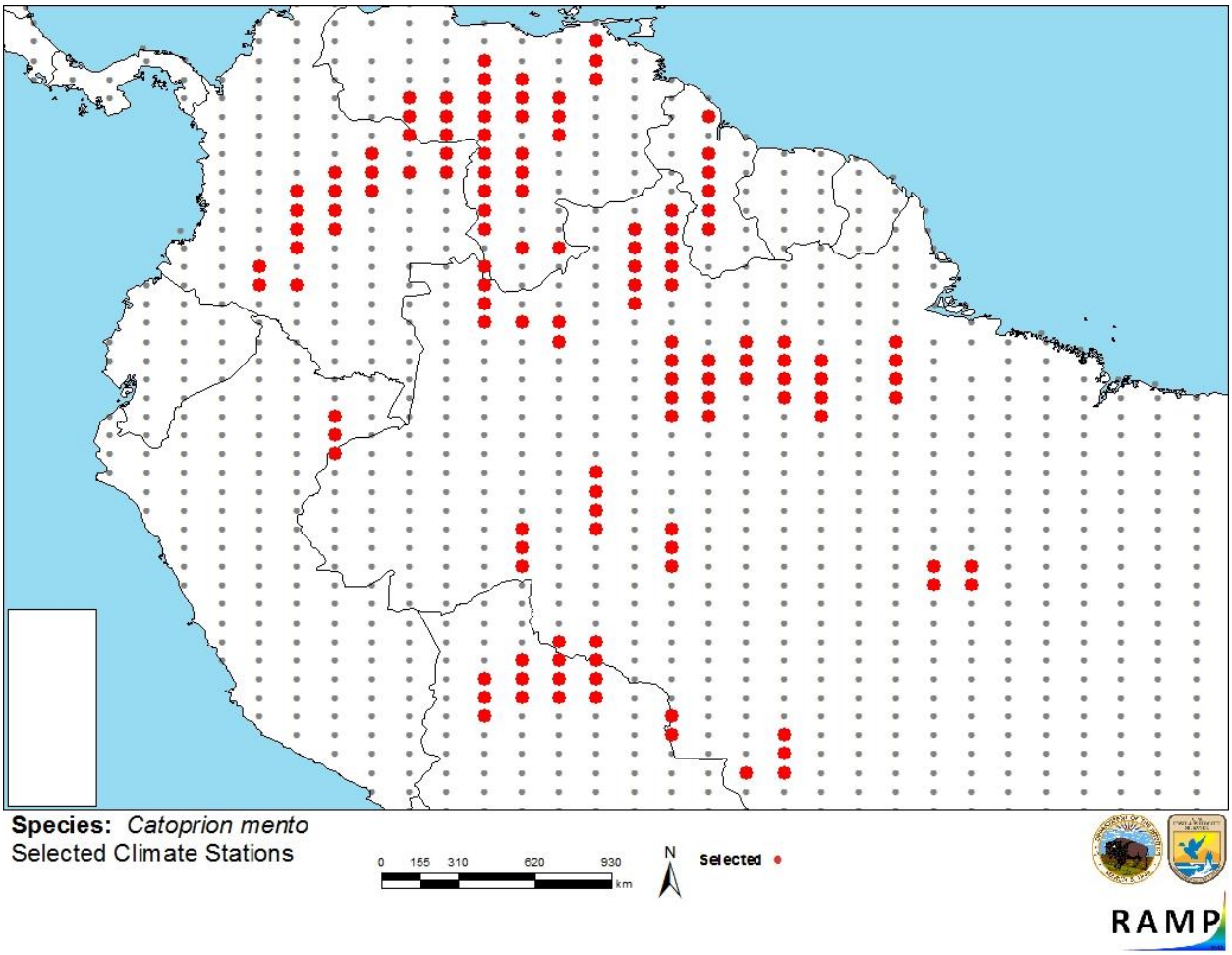

Figure 4. RAMP (Sanders et al. 2014) source map showing weather stations in northern South America selected as source locations (red; Colombia, Venezuela, Guyana, Brazil, Peru, Bolivia) and non-source locations (gray) for *Catoprion mento* climate matching. Source locations from GBIF Secretariat (2017) and VertNet (2017).

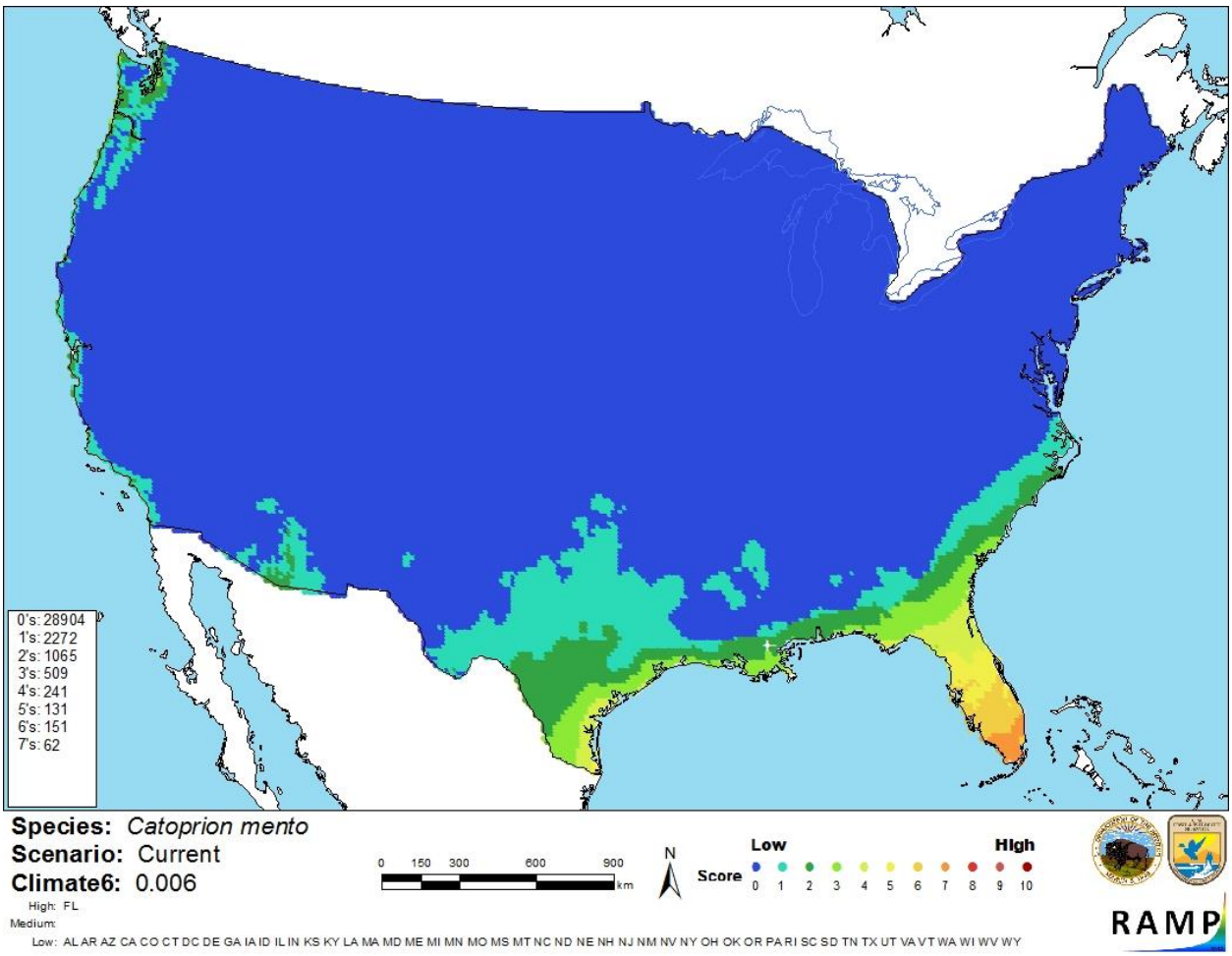

Figure 5. Map of RAMP (Sanders et al. 2014) climate matches for *Catoprion mento* in the contiguous United States based on source locations reported by GBIF Secretariat (2017) and VertNet (2017). 0 = Lowest match, 10 = Highest match. Counts of climate match scores are tabulated on the left.

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 assessment is medium. There was adequate information available for *Catoprion mento*, including georeferenced distributional data. No records of introductions were found for this species.

8 Risk Assessment

Summary of Risk to the Contiguous United States

The Wimple Piranha (*Catoprion mento*) is a species of piranha native to river basins in northern South America. This species of piranha is a scale specialist that may eat other organisms on occasion. This fish is also listed as traumatogenic to humans, presumably due to its biting behavior. The history of invasiveness is uncertain. There were no records of introduction found. There is evidence of this species being transported outside the native range for use in the aquarium trade but no information on volume or length of time in trade was found. The climate match is medium. Florida had an individually high climate match. The certainty of assessment is medium. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Medium**
- **Certainty of Assessment (Sec. 7): Medium**
- **Remarks/Important additional information:** Potentially traumatogenic (Froese and Pauly 2017).
- **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.

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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.

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