

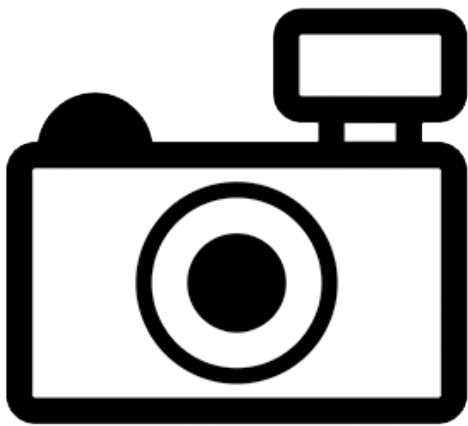
## ***Hoplias teres* (a fish, no common name)**

### **Ecological Risk Screening Summary**

U.S. Fish and Wildlife Service, August 2011

Revised, September 2018

Web Version, 1/28/2019



No Photo Available

## **1 Native Range and Status in the United States**

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### **Native Range**

From Froese and Pauly (2018):

“South America: Lake Maracaibo River basin [Venezuela].”

### **Status in the United States**

This species has not been reported as introduced or established in the United States. There is no indication that this species is in trade in the United States.

The Florida Fish and Wildlife Conservation Commission has listed *Hoplias teres* as a prohibited species. Prohibited nonnative species “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” (FFWCC 2018).

### **Means of Introduction into the United States**

This species has not been reported as introduced or established in the United States.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2018):

“Kingdom Animalia  
Subkingdom Bilateria  
Infrakingdom Deuterostomia  
Phylum Chordata  
Subphylum Vertebrata  
Infraphylum Gnathostomata  
Superclass Actinopterygii  
Class Teleostei  
Superorder Ostariophysi  
Order Characiformes  
Family Erythrinidae  
Genus *Hoplias* Gill, 1903  
Species *Hoplias teres* (Valenciennes in Cuvier and Valenciennes, 1847)”

“Current Standing: valid”

From Fricke et al. (2019):

“**Current status:** Valid as *Hoplias teres* (Valenciennes 1847). Erythrinidae.”

### Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 15.3 cm SL male/unsexed; [Oyakawa 2003]”

### 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: Lake Maracaibo River basin [Venezuela].”

### **Introduced**

No introductions of this species have been reported.

## **Means of Introduction Outside the United States**

No introductions of this species have been reported.

## **Short Description**

From Mattox et al. (2014):

“Syntypes of [...] *H. teres* from Lago Maracaibo, Venezuela, also have the dentaries abruptly converging towards the mandibular symphysis (M. Toledo-Piza, pers. com.). Although we do not have the information whether *H. teres* has bony tooth plates on the basihyal, the form of the dentaries in this species is typical of that of the *H. malabaricus* species group, a condition clearly different from the parallel dentaries present in all remaining species of *Hoplias* (i.e., *H. lacerdae* species group and *H. aimara*) as well as in the other two genera of the Erythrinidae (i.e., *Erythrinus* and *Hoplerythrinus*). More studies are needed, however, to clarify the identity of *H. teres* within the *H. malabaricus* species group and to find putative diagnostic characters for the species.”

## **Biology**

From Oyakawa and Mattox (2009):

“In all habitats they [species in the genus *Hoplias*] are predators of other fish (Taphorn, 1992; Planquette et al., 1996).”

## **Human Uses**

No information available.

## **Diseases**

No information available. No OIE-reportable diseases have been reported for this species.

## **Threat to Humans**

From Froese and Pauly (2018):

“Harmless”

### 3 Impacts of Introductions

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No information available. No introductions of this species have been reported.

The Florida Fish and Wildlife Conservation Commission (2018) has listed *H. teres* as a prohibited species.

### 4 Global Distribution

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**Figure 1.** Known global distribution of *H. teres*, reported from the Lake Maracaibo River basin in northwestern Venezuela. Map from GBIF Secretariat (2017).

### 5 Distribution within the United States

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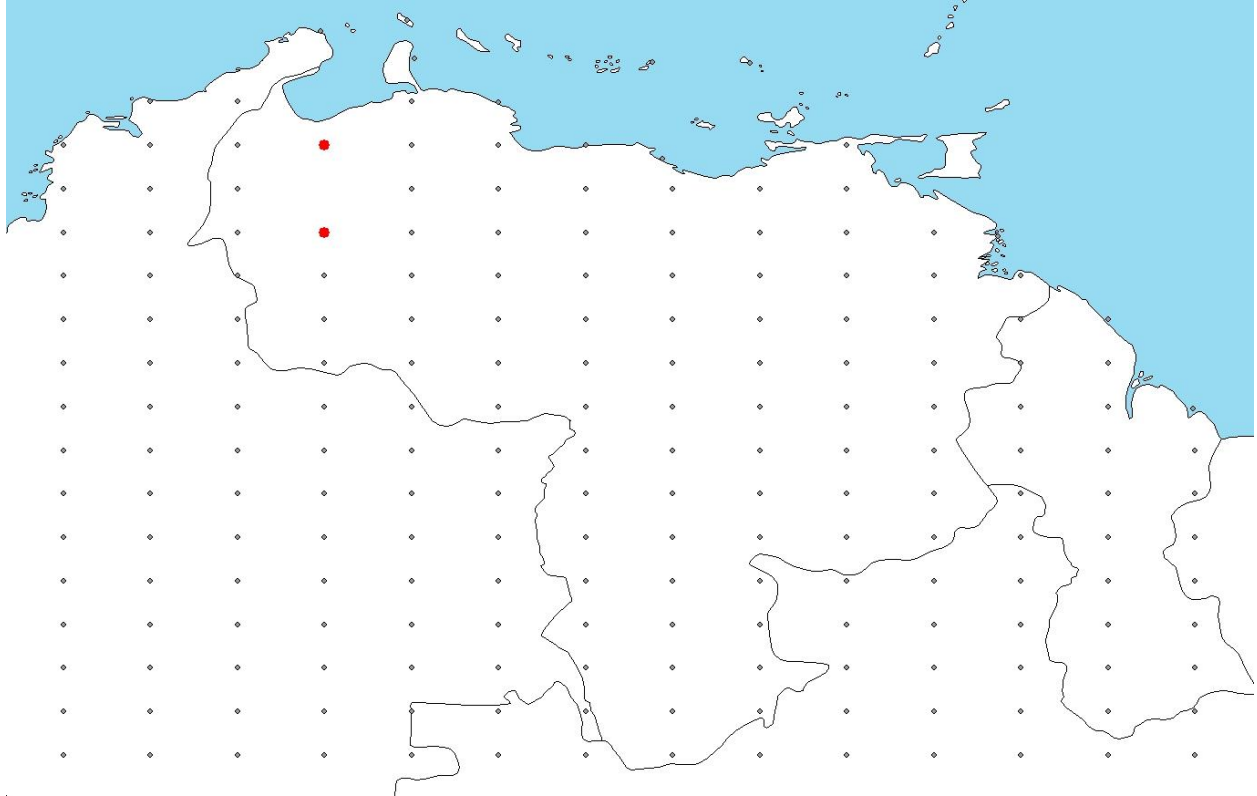
This species has not been reported as introduced or established in the United States.

### 6 Climate Matching

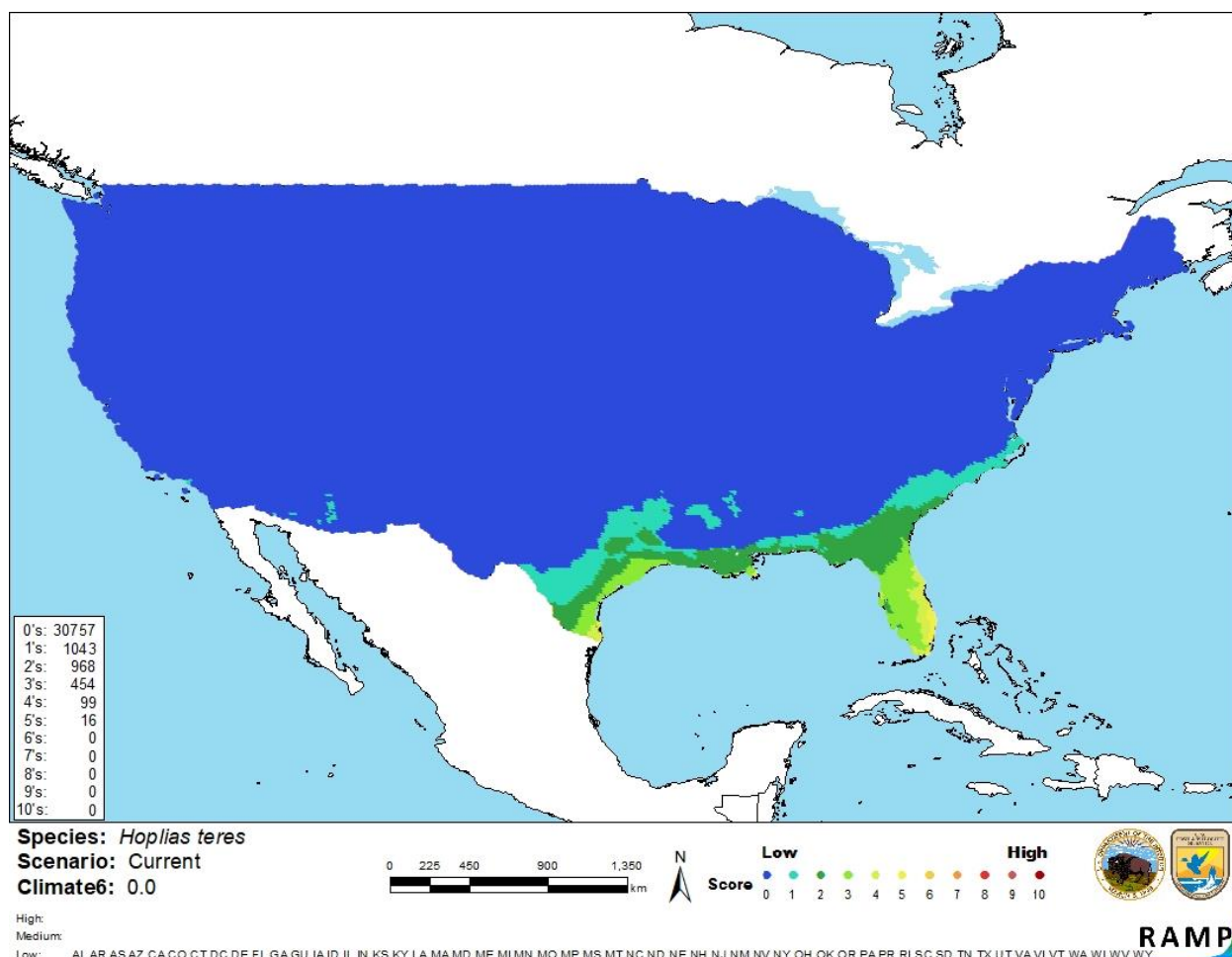
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#### Summary of Climate Matching Analysis

The climate match (Sanders et al. 2018; 16 climate variables; Euclidean Distance) was low across the contiguous United States except for areas of medium match along the Atlantic coast of peninsular Florida and extreme southern Texas. The Climate 6 score indicated that the contiguous United States has a low climate match overall. Scores of 0.005 and below are classified as low match; Climate 6 score for *H. teres* was 0.000. All states had low individual climate scores.



**Figure 2.** RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Venezuela) and non-source locations (gray) for *Hoplias teres* climate matching. Source locations from GBIF Secretariat (2017).



**Figure 3.** Map of RAMP (Sanders et al. 2018) climate matches for *Hoplias teres* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 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
$\geq 0.103$	High

## 7 Certainty of Assessment

Very limited information is available on the biology, ecology, and distribution of *H. teres*. No introductions of this species have been documented, so any impacts of introduction remain unknown. Certainty of this assessment is low; further information would be needed to increase the certainty.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*Hoplias teres* is a species of characiform fish native to Venezuela. Very little information is available on the species. No introductions of *H. teres* have been reported. Therefore, history of invasiveness is uncertain. It is listed as a prohibited species by the State of Florida. The climate match is low throughout the contiguous United States. Because of the lack of introduction history, certainty of the assessment is low and overall risk posed by *H. teres* is classified as “Uncertain”.

### Assessment Elements

- **History of Invasiveness: Uncertain**
- **Climate Match: Low**
- **Certainty of Assessment: Low**
- **Overall Risk Assessment Category: Uncertain**

## 9 References

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**Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.**

- FFWCC (Florida Fish and Wildlife Conservation Commission). 2018. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/>. (September 2018).
- Fricke, R., W. N. Eschmeyer, and R. van der Laan, editors. 2019. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (January 2019).
- Froese, R., and D. Pauly, editors. 2018. *Hoplias teres* (Valenciennes, 1847). FishBase. Available: <https://www.fishbase.de/summary/Hoplias-teres.html>. (September 2018).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Hoplias teres* (Valenciennes, 1847). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2352225>. (September 2018).
- ITIS (Integrated Taxonomic Information System). 2018. *Hoplias teres* (Valenciennes in Cuvier and Valenciennes, 1847). Integrated Taxonomic Information System, Reston, Virginia. Available: [https://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=641099#null](https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=641099#null). (September 2018).

- Mattox, G. M. T., A. G. Bifi, and O. T. Oyakawa. 2014. Taxonomic study of *Hoplias microlepis* (Günther, 1864), a trans-Andean species of trahiras (Ostariophysi: Characiformes: Erythrinidae). *Neotropical Ichthyology* 12(2):343-352.
- Oyakawa, O. T., and G. M. T. Mattox. 2009. Revision of the Neotropical trahiras of the *Hoplias lacerdae* species-group (Ostariophysi: Characiformes: Erythrinidae) with descriptions of two new species. *Neotropical Ichthyology* 7(2):117-140.
- 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

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**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.**

- Oyakawa, O. T. 2003. Erythrinidae (trahiras). Pages 238-240 in R. E. Reis, S. O. Kullander, and C. J. Ferraris, Jr., editors. Checklist of the freshwater fishes of South and Central America. EDIPUCRS, Porto Alegre, Brazil.
- Planquette, P., P. Keith, and P.-Y. Le Bail. 1996. Atlas des poissons d'eau douce de Guyane, volume I. Muséum Nationale d'Histoire Naturelle, Paris.
- Taphorn, D. C. 1992. The characiform fishes of the Apure River drainage, Venezuela. *Biollania* special edition 4. Monografías Científicas del Museo de Ciencias Naturales, UNELLEZ, Guanare, Venezuela.