

# Ripsaw Catfish (*Oxydoras niger*)

## Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2011  
Revised, March 2019  
Web Version, 5/1/2020

Organism Type: Fish

Overall Risk Assessment Category: Uncertain



Photo: Jonathan Armbruster. Licensed under Creative Commons Attribution 2.0 Generic. Available: [https://commons.wikimedia.org/wiki/File:DSCN6772\\_\(6260750690\).jpg](https://commons.wikimedia.org/wiki/File:DSCN6772_(6260750690).jpg). (March 2019).

## 1 Native Range and Status in the United States

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### Native Range

From Froese and Pauly (2019):

“South America: Amazon, São Francisco and Essequibo River basins. Possibly in the Orinoco River basin. [Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Venezuela].”

## Status in the United States

No established populations in the wild have been reported. This species is found in the aquarium trade in the United States.

From Froese and Pauly (2019):

“This species was reported from an unspecified locality in Florida, apparently prior to 1984 [...]”

“probably not established, no data”

From Nico et al. (2019):

“Status: Failed in Florida.”

From Arizona Aquatic Gardens (2019):

“Catfish – Ripsaw Catfish or Turushuki Blue Catfish  
[...]

List: \$79.00 - \$109

\$66.00 - \$89”

## Means of Introductions in the United States

From Nico et al. (2019):

“This species was probably an aquarium release, as many species of Doradidae are popular in the aquarium trade.”

## Remarks

No additional remarks.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al. (2019), *Oxydoras niger* (Valenciennes 1821) is the current and valid name of this species; it was originally described as *Doras niger* Valenciennes in Humboldt and Valenciennes 1821.

From ITIS (2018):

Kingdom Animalia

Subkingdom Bilateria

Infrakingdom Deuterostomia

Phylum Chordata

Subphylum Vertebrata

Infraphylum Gnathostomata

Superclass Actinopterygii  
Class Teleostei  
Superorder Ostariophysii  
Order Siluriformes  
Family Doradidae  
Genus *Oxydoras*  
Species *Oxydoras niger* (Valenciennes in Humboldt and Valenciennes,  
1821)

## Size, Weight, and Age Range

From Froese and Pauly (2019):

“Maturity:  $L_m$  62.5 [...]

Max length : 100.0 cm SL male/unsexed; [Sabaj and Ferraris 2003]; common length : 59.0 cm SL male/unsexed; [Le Guenec 1985]; max. published weight: 11.0 kg [IGFA 2001]; max. published weight: 11.0 kg”

From Nico et al. (2019):

“Size: 120-cm fork length and 20 kg.”

## Environment

From Froese and Pauly (2019):

“Freshwater; demersal; pH range: 6.0 - 7.8; dH range: ? - 25. [...] 21°C - 24°C [Baensch and Riehl 1985; assumed to be recommended aquarium temperature]”

“Known from [water] temperatures ranging from 24-29.8 °C, pH range of 5-9, and an alkalinity range of 42-142.”

## Climate/Range

From Froese and Pauly (2019):

“Tropical; [...]”

## Distribution Outside the United States

Native

From Froese and Pauly (2019):

“South America: Amazon, São Francisco and Essequibo River basins. Possibly in the Orinoco River basin. [Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Venezuela].”

## Introduced

*Oxydoras niger* has not been introduced outside of the United States.

## Means of Introduction Outside the United States

No introductions of *Oxydoras niger* have been reported outside of the United States.

## Short Description

No information on a short description of *Oxydoras niger* was found.

## Biology

From Froese and Pauly (2019):

“Occurs over mud in streams and lakes. Forms schools [Goulding 1981]. Feeds on detritus, chironomid and ephemeropteran larvae, and crustaceans [Goulding 1980].”

## Human Uses

From Froese and Pauly (2019):

“Fisheries: minor commercial; aquarium: commercial”

From Arizona Aquatic Gardens (2019):

“Catfish – Ripsaw Catfish or Turushuki Blue Catfish  
[...]  
List: \$79.00 - \$109  
\$66.00 - \$89”

## Diseases

**No OIE-reportable diseases (OIE 2020) were found to be associated with *Oxydoras niger*.**

From Silva et al. (2011):

“From a total of 27 examined fish [*Oxydoras niger*], 70.3% were parasitised by at least one parasite species as follows: *Ichthyophthirius multifiliis* (Protozoa), *Chilodonella* sp. (Protozoa), *Cosmetocleithrum gussevi*, *C. confusus*, *C. parvum* and *Costemtocleithrum* sp. (Monogenoidea), *Paracavisona impudica* (Acanthocephala), *Cucullanus gradistomis* (Nematoda), *Proteocephalus kuyukuyu* (Cestoda) and *Dadaytrema* sp. (Digenea).”

According to Poelen et al. (2014), *O. niger* also has the parasite *Cosmetocleithrum sobrinus*.

## Threat to Humans

From Froese and Pauly (2019):

“Harmless”

## 3 Impacts of Introductions

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No impacts of introduction were found. A single introduction of *Oxydoras niger* was found in Florida, but this introduction did not result in an established population.

## 4 History of Invasiveness

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A single introduction of *Oxydoras niger* was found in Florida, but this introduction did not result in an established population; therefore, the history of invasiveness is “No Known Nonnative Population.”

## 5 Global Distribution

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**Figure 1.** Known global distribution of *Oxydoras niger*. Locations in Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Venezuela. Map from GBIF Secretariat (2019). Location in the Pacific Ocean off of Colombia was not used to select source locations for the climate match. *Oxydoras niger* is a freshwater fish and no literature supports any marine locations. The most southern location in Brazil was not used to select source locations for the climate match because no literature supports an established population in this river basin.

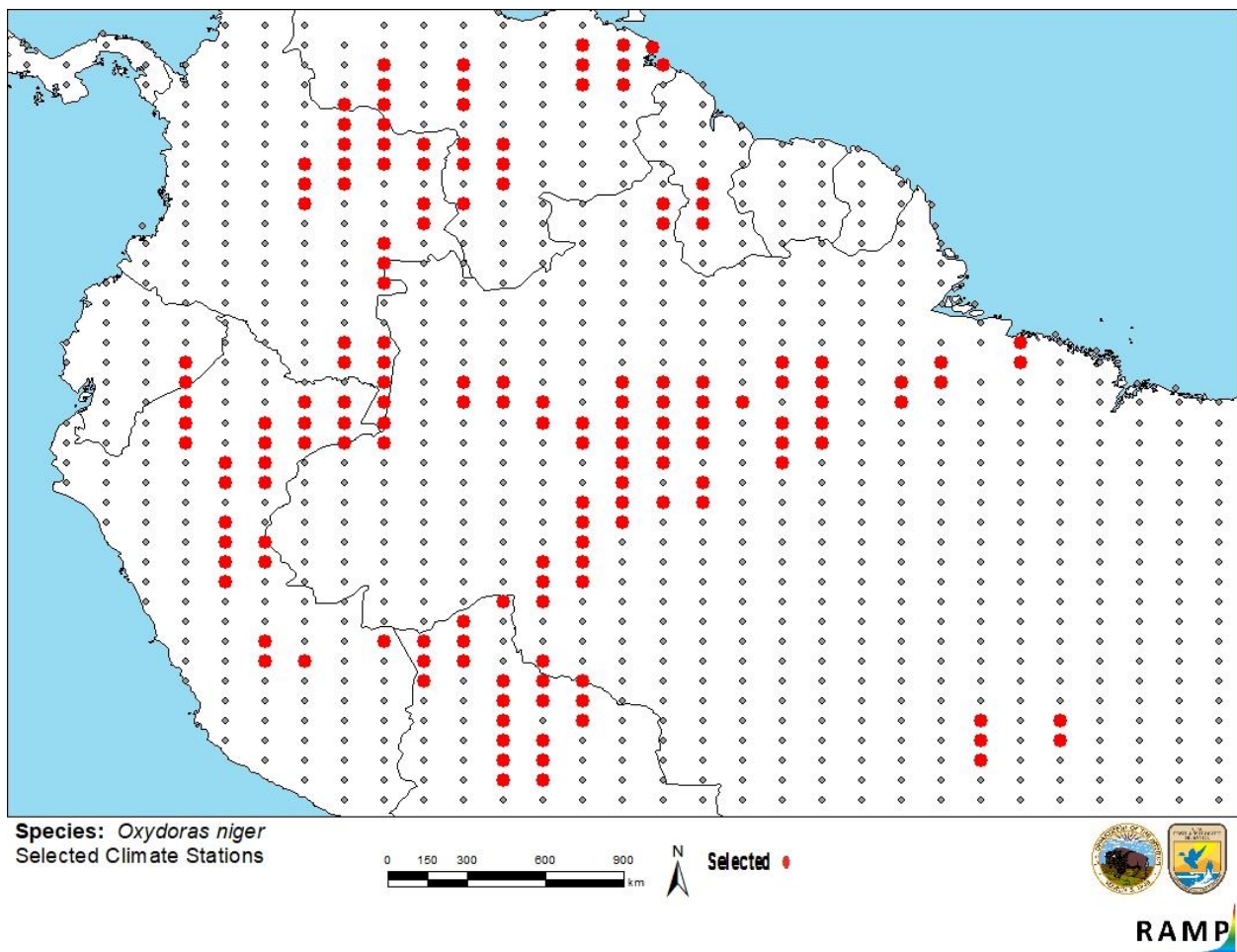
## 6 Distribution Within the United States

No established populations have been documented in the United States. A single occurrence was documented in Florida, likely due to an aquarium release.

## 7 Climate Matching

### Summary of Climate Matching Analysis

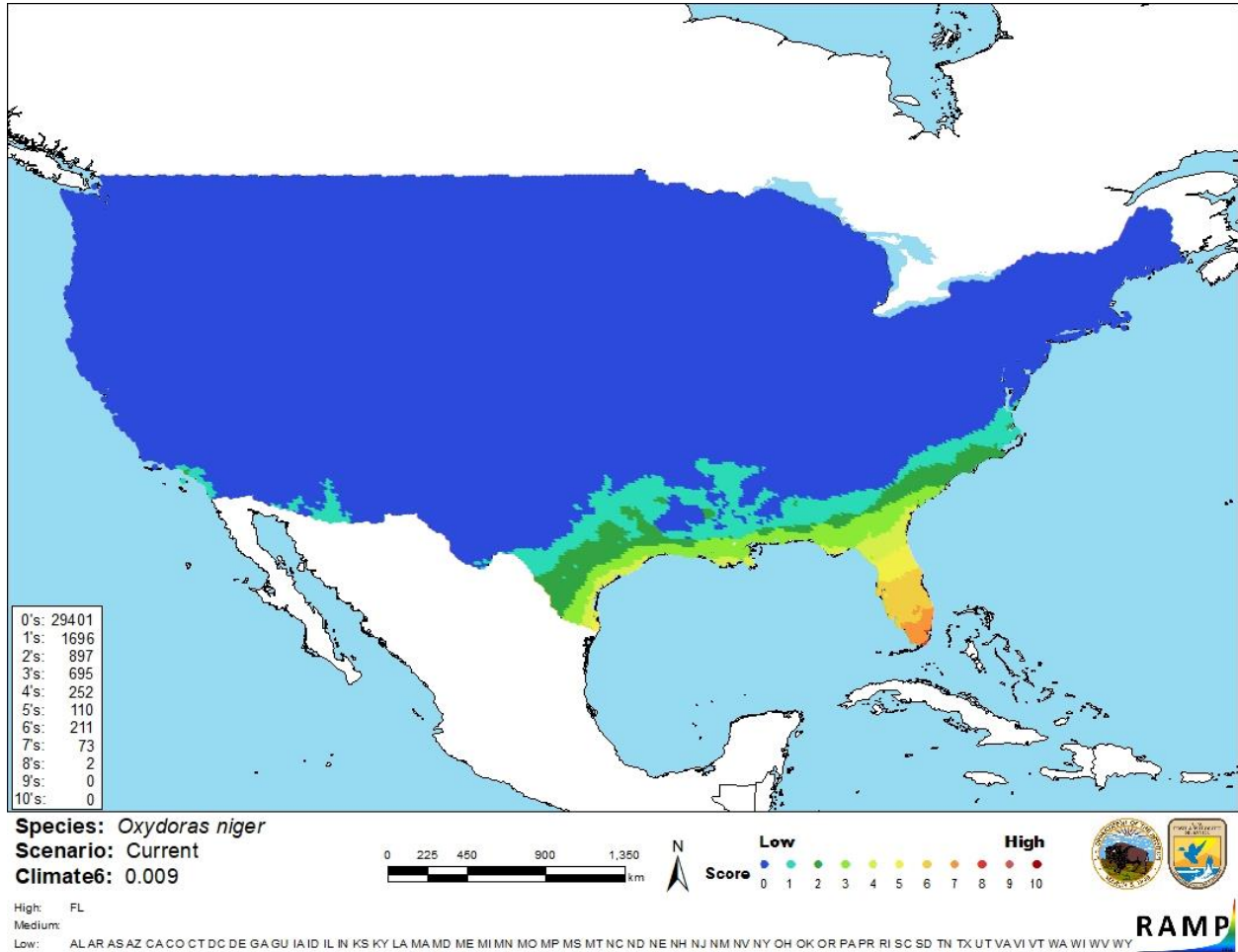
The climate match for the contiguous United States was generally very low throughout most of the country. Small areas of medium match were found in States along the Gulf of Mexico. The only area of high match was found in peninsular Florida. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for contiguous United States was 0.009, medium (scores greater than 0.005, but less than 0.103, are classified as medium). All States received low individual climate scores, with the exception of Florida, which had a high climate score.



**Figure 2.** RAMP (Sanders et al. 2018) source map showing weather stations in South America selected as source locations (red; Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Venezuela) and non-source locations (gray) for *Oxydoras niger* 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 *Oxydoras niger* in the contiguous United States based on source locations reported by 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
$\geq 0.103$	High

## 8 Certainty of Assessment

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The certainty of assessment is low. There is minimal biological information available on *Oxydoras niger*. An adequate amount of information was available regarding the distribution of the species. No established populations have been reported anywhere outside of the native range.

## 9 Risk Assessment

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### Summary of Risk to the Contiguous United States

Ripsaw Catfish (*Oxydoras niger*) is a tropical fish found in Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Venezuela in the Amazon, São Francisco, Orinoco, and Essequibo River basins. *Oxydoras niger* is found in the aquarium trade. The history of invasiveness is no known nonnative population. A single introduction has been documented in Florida, but according to Froese and Pauly (2019) and Nico et al. (2019), it does not represent an established population. No impacts of introduction have been documented. The climate match for the contiguous United States is medium, with all States receiving low individual climate scores except Florida, which had a high climate score. The certainty of assessment is low. The overall risk assessment category for *Oxydoras niger* is uncertain.

### Assessment Elements

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

## 10 Literature Cited

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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 11.**

Arizona Aquatic Gardens. 2019. Catfish – ripsaw catfish or turkushuki blue catfish. Available: <https://www.azgardens.com/product/ripsaw-catfish-or-turushuki-blue-catfish/> (March 2019).

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> (March 2019).

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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/> (April 2020).
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## 11 Literature Cited in Quoted Material

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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.**

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- Le Guenec B. 1985. Claves longitud - peso de 38 especies de la region de Trinidad Bolivia. O.R.S.T.O.M.-Cordebeni-UTB (Trinidad-Bolivia), *Inf. Cien.* 3.

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