

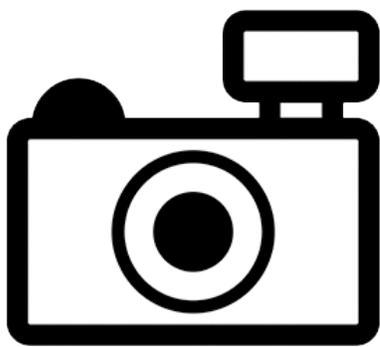
Listrura nematopteryx (a catfish, no common name)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, January 2017

Revised, February 2017

Web Version, 2/9/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“South America: marsh that is the source of a creek later joining Imbariê Creek, tributary of the Estrela River, Piabetá, Rio de Janeiro, and similar habitats in Picinguaba, São Paulo, Brazil.”

Status in the United States

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

From FFWCC (2016):

“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. [...]

Freshwater Aquatic Species [...]

Parasitic catfishes [...]

Listrura nematopteryx”

Means of Introductions in the United States

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

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2017):

“Kingdom Animalia
 Subkingdom Bilateria
 Infrakingdom Deuterostomia
 Phylum Chordata
 Subphylum Vertebrata
 Infraphylum Gnathostomata
 Superclass Osteichthyes
 Class Actinopterygii
 Subclass Neopterygii
 Infraclass Teleostei
 Superorder Ostariophysi
 Order Siluriformes
 Family Trichomycteridae
 Subfamily Glanapteryginae
 Genus *Listrura*
 Species *Listrura nematopteryx* de Pínna, 1988”

“Current Standing: valid”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length : 3.7 cm SL male/unsexed; [de Pínna and Wosiacki 2003]”

Environment

From Froese and Pauly (2016):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2016):

“Tropical, preferred ?”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“South America: marsh that is the source of a creek later joining Imbariê Creek, tributary of the Estrela River, Piabetá, Rio de Janeiro, and similar habitats in Picinguaba, São Paulo, Brazil.”

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 Froese and Pauly (2016):

“Differs from congeners in having one pectoral fin ray. Pectoral, dorsal and anal fin rays unbranched; 31-35 dorsal procurrent caudal fin rays, 28-32 ventral procurrent caudal fin rays; 14-19 premaxillary teeth; 13-18 dentary teeth [Landim and Costa 2002].”

Biology

From Villa-Verde and Costa (2006):

“*Listrura* species inhabit interstitial spaces in the substrate (*i. e.*, sand, litter) of shallow forest streams (Landim & Costa, 2002; de Pinna & Wosiacki, 2002).”

Human Uses

No information available.

Diseases

No information available.

Threat to Humans

From Froese and Pauly (2016):

“Harmless”

3 Impacts of Introductions

No introductions of this species have been reported.

From FFWCC (2016):

“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. [...]

Freshwater Aquatic Species [...]

Parasitic catfishes [...]

Listrura nematopteryx”

4 Global Distribution



Figure 1. Known global established locations of *Listrura nematopteryx* in southeastern Brazil. Map from GBIF (2016).

5 Distribution Within the United States

This species has not been reported in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match (Sanders et al. 2014; 16 climate variables; Euclidean Distance) was medium in peninsular Florida and along the Gulf coast of Texas, and low elsewhere in the contiguous U.S. The Climate 6 proportion indicated a medium climate match for the contiguous U.S. overall. The Climate 6 proportions indicating a medium climate match are those greater than 0.005 and less than 0.103; the Climate 6 proportion of *Listrura nematopteryx* was 0.007.



Figure 1. RAMP (Sanders et al. 2014) source map of South America showing weather stations selected as source locations (red; in southeastern Brazil) and non-source locations (gray) for *Listrura nematopteryx* climate matching. Source locations from GBIF (2016).

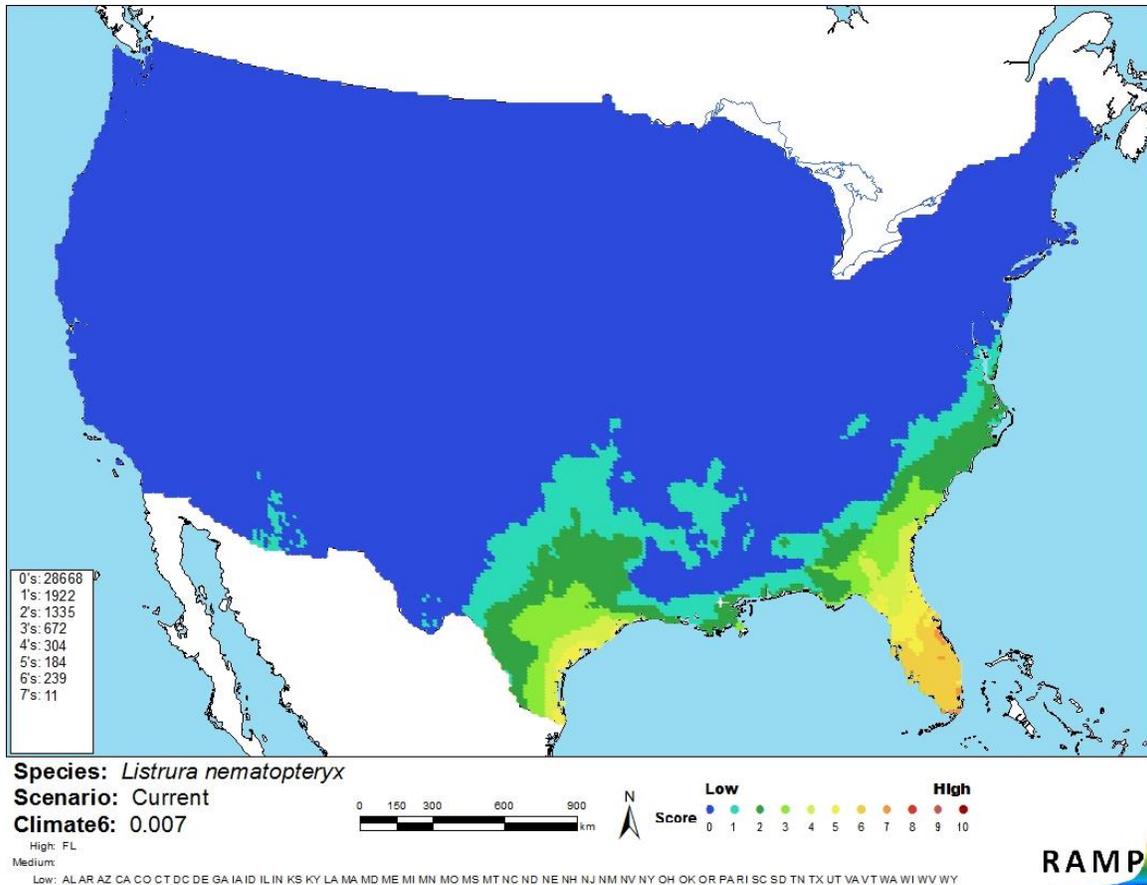


Figure 2. Map of RAMP (Sanders et al. 2014) climate matches for *Listrura nematopteryx* in the contiguous United States based on source locations reported by GBIF (2016). 0=Lowest match, 10=Highest match. Counts of climate match scores are tabulated on the left.

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
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

There is very limited information available on the biology and ecology of *Listrura nematopteryx*. The potential impacts of an introduction are unknown because the species has not yet been observed in a novel environment. Due to this lack of information, the certainty of the assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Listrura nematopteryx is a trichomyterid catfish native to southeastern Brazil that lives in the substrate of shallow streams. Very little is known about its biology, and it has not been reported as introduced outside its native range, so impacts of introduction are unknown. Climate match to the contiguous U.S. is medium. Overall risk posed by *L. nematopteryx* is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Medium**
- **Certainty of Assessment (Sec. 7): Low**
- **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.

FFWCC (Florida Fish and Wildlife Conservation Commission). 2016. Prohibited species list. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida. Available: <http://myfwc.com/wildlifehabitats/nonnatives/regulations/prohibited/#nogo>. (December 2016).

Froese, R., and D. Pauly, editors. 2016. *Listrura nematopteryx* de Pinna, 1988. FishBase. Available: <http://www.fishbase.org/summary/Listrura-nematopteryx.html>. (January 2017).

GBIF (Global Biodiversity Information Facility). 2016. GBIF backbone taxonomy: *Listrura nematopteryx* de Pinna, 1988. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/2343314>. (January 2017).

ITIS (Integrated Taxonomic Information System). 2017. *Listrura nematopteryx* de Pinna, 1988. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=682133#null. (January 2017).

Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. US Fish and Wildlife Service.

Villa-Verde, L., and W. J. E. M. Costa. 2006. A new glanapterygine catfish of the genus *Listrura* (Siluriformes: Trichomycteridae) from the southeastern Brazilian coastal plains. *Zootaxa* 1142:43-50.

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.

- de Pinna, M. C. C., and W. B. Wosiacki. 2002. A new interstitial catfish of the genus *Listrura* from southern Brazil (Siluriformes: Trichomycteridae: Glanapteryginae). *Proceedings of the Biological Society of Washington* 115:720-726.
- de Pinna, M. C. C., and W. Wosiacki. 2003. Trichomycteridae (pencil or parasitic catfishes). Pages 270-290 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.
- Landim, M. I., and W. J. E. M. Costa. 2002. *Listrura tetra radiata* (Siluriformes: Trichomycteridae): a new glanapterygine catfish from the southeastern Brazilian coastal plains. *Copeia* 2002(1):152-156.