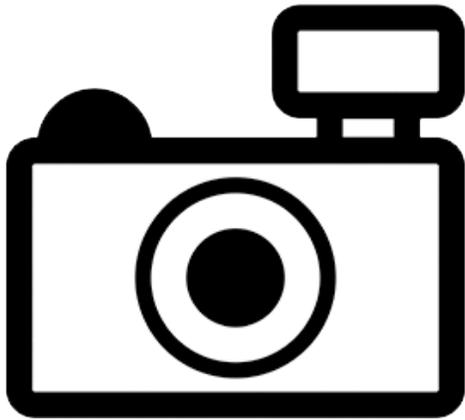


Halfbanded Pyrrhulina (*Pyrrhulina laeta*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, May 2011
Revised, February 2019
Web Version, 9/13/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“South America: presumed to be central and upper Amazon River Basin [Peru and questionably Brazil].”

From Fricke et al. (2019):

“Amazon River basin: Brazil (?), Peru, Colombia [...]”

According to Oliveira et al. (2009), *Pyrrhulina laeta* has been recorded in the Catua-Ipixuna Extractive Reserve in Brazil in at least seven locations.

Status in the United States

No records of *Pyrrhulina laeta* were found in the wild or in trade in the United States.

Means of Introductions in the United States

No records of *Pyrrhulina laeta* were found in the wild in the United States.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2019):

“**Current status:** Valid as *Pyrrhulina laeta* (Cope 1872).”

From ITIS (2019):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Characiformes
Family Lebiasinidae
Subfamily Pyrrhulininae
Tribe Pyrrhulinini
Genus *Pyrrhulina*
Species *Pyrrhulina laeta* (Cope, 1872)”

Size, Weight, and Age Range

From Froese and Pauly (2019):

“Max length : 7.6 cm SL male/unsexed; [Weitzman and Weitzman 2003]”

Environment

From Froese and Pauly (2019):

“Freshwater; benthopelagic; pH range: 5.8 - 7.0; dH range: 2 – 8 [...] 23°C - 27°C [Baensch and Riehl 1985; assumed to be the recommended aquarium temperature].”

Climate/Range

From Froese and Pauly (2019):

“Tropical;”

Distribution Outside the United States

Native

From Froese and Pauly (2019):

“South America: presumed to be central and upper Amazon River Basin [Peru].”

From Fricke et al. (2019):

“Amazon River basin: Brazil (?), Peru, Colombia [...].”

According to Oliveira et al. (2009), *Pyrrhulina laeta* has been recorded in the Catua-Ipixuna Extractive Reserve in Brazil in at least seven locations.

Introduced

From Froese and Pauly (2019):

“Possibly introduced into the Arena drainage [Trinidad], where it became established.”

Means of Introduction Outside the United States

No information on the means of introduction for *Pyrrhulina laeta* was found.

Short Description

From Schäfer (2009):

“A characteristic pattern for the species is the black line that extends to the level of the dorsal fin.”

Biology

From Froese and Pauly (2019):

“Feeds on worms, crustaceans and insects [Mills and Ververs 1989].”

From Schäfer (2009):

“Like all its congeners *P. laeta* is a broodcaring species. The eggs (up to 500) are deposited on the top of a large leaf. The male defends and cares for the eggs until they hatch.”

Human Uses

From Froese and Pauly (2019):

“Aquarium: commercial”

Diseases

No information on diseases was found. **No OIE-reportable diseases (OIE 2019) were found to be associated with *Pyrrhulina laeta*.**

Threat to Humans

From Froese and Pauly (2019):

“Harmless”

3 Impacts of Introductions

Although *Pyrrhulina laeta* has been introduced outside of its native range, no information on the impacts of its introduction was found.

4 Global Distribution

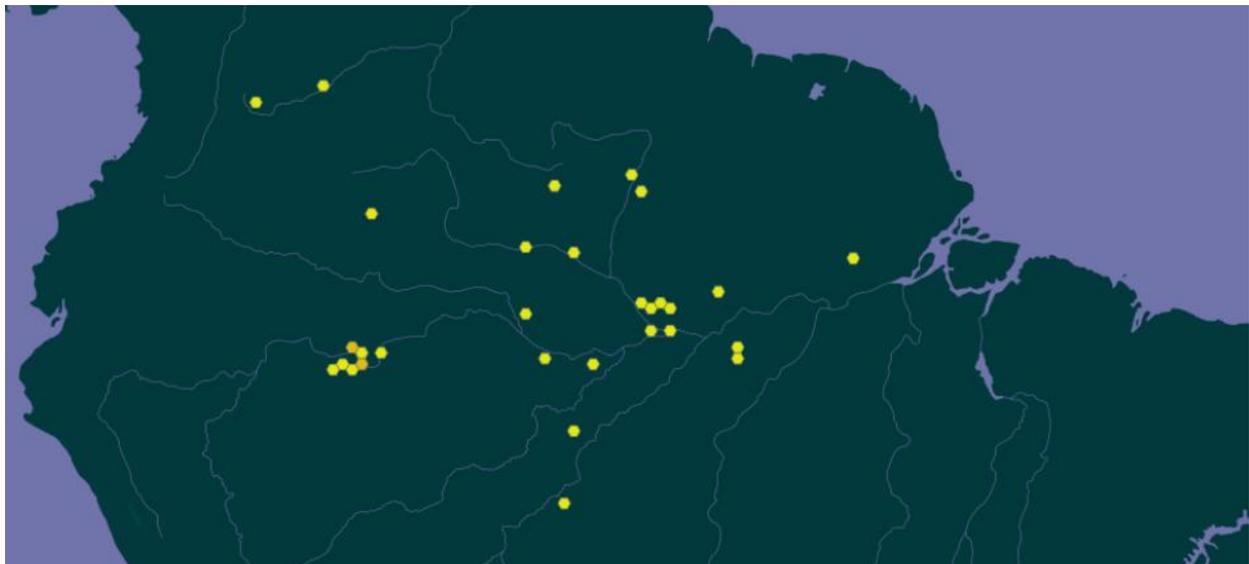


Figure 1. Known global distribution of *Pyrrhulina laeta*. Locations are in Brazil, Colombia and Peru. Map from GBIF Secretariat (2019).

No georeferenced observations were available for Trinidad and Tobago but due to the small geographic size of the country source points were able to be selected to represent the established population there in the climate match.

5 Distribution Within the United States

No records of *Pyrrhulina laeta* were found in the wild in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

Pyrrhulina laeta had a generally low climate match throughout the contiguous United States. There was an area of medium match in southern Florida, while the rest of the contiguous United States had a low climate match. There were no areas of high match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.001, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States had low individual Climate 6 scores except for Florida, which had a medium score.

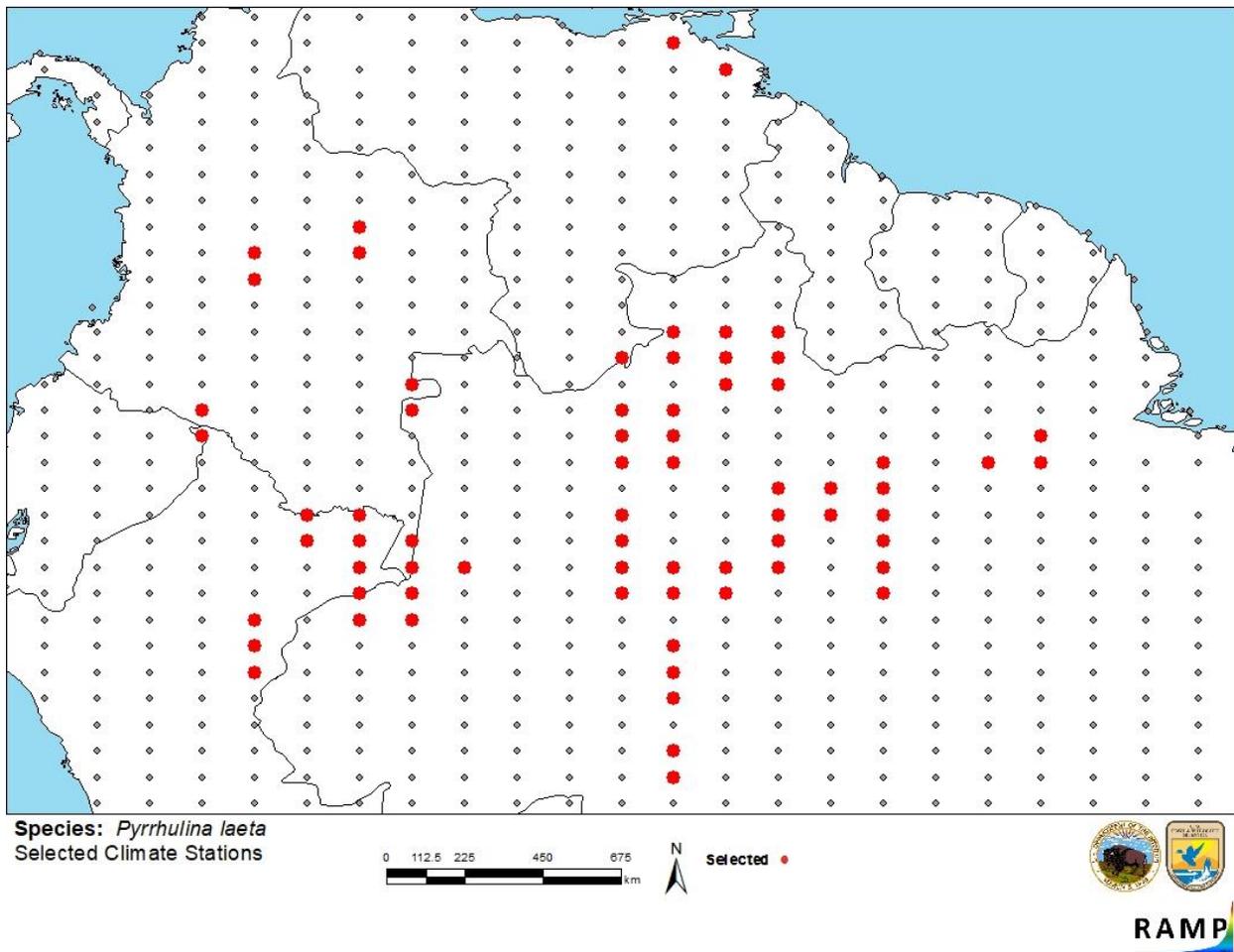


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in South America selected as source locations (red; Colombia, Venezuela, Peru, Brazil) and non-source locations (gray) for *Pyrrhulina laeta* climate matching. Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves. Source locations from GBIF Secretariat (2019).

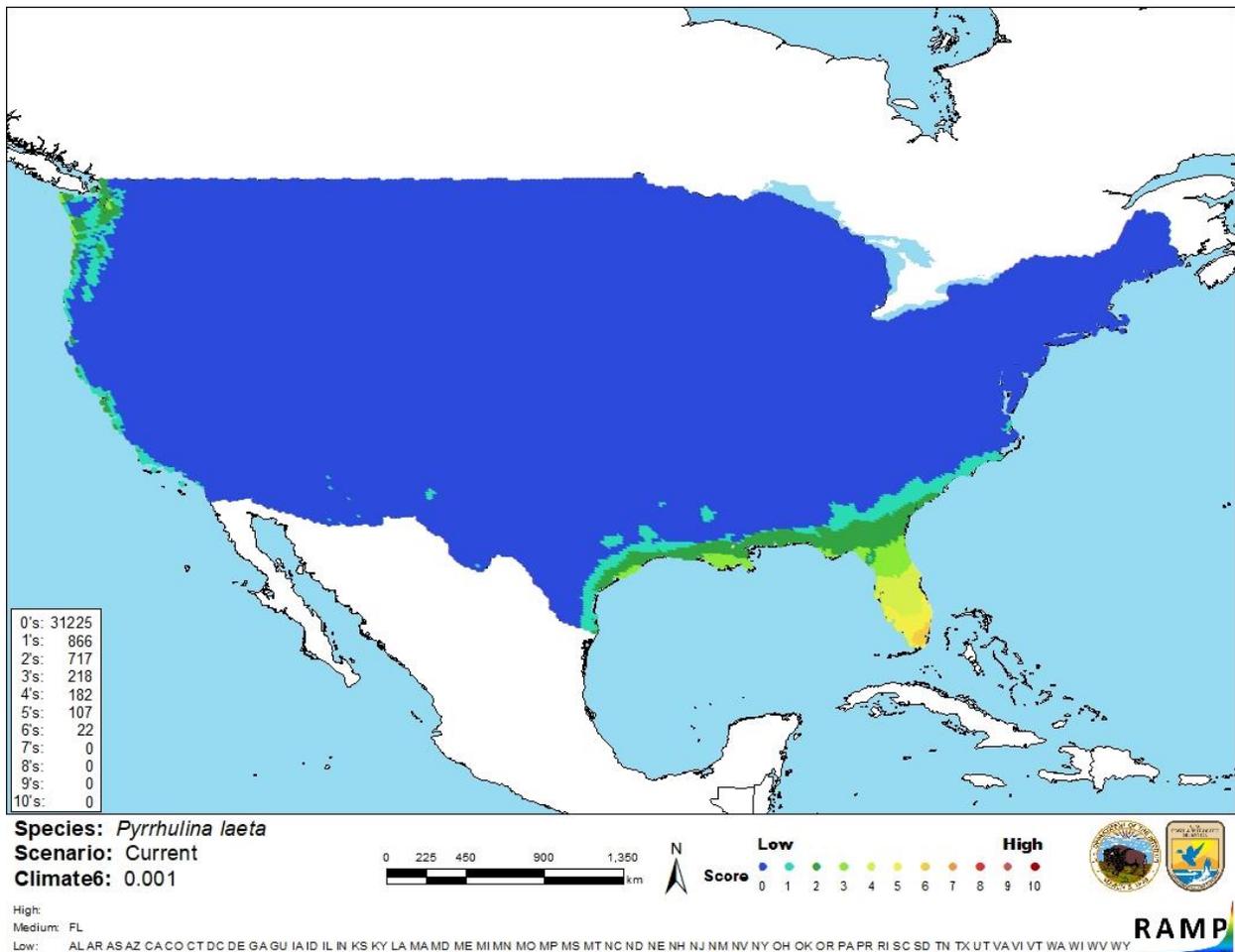


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Pyrrhulina laeta* in the contiguous United States based on source locations reported by GBIF Secretariat (2019). 0 = Lowest match, 10 = Highest match.

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
≥ 0.103	High

7 Certainty of Assessment

Certainty of assessment for *Pyrrhulina laeta* is low. Limited information is available on this species. Although there is a record of introduction and establishment outside of its native range, there was no information on impacts of introduction found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Halfbanded Pyrrhulina (*Pyrrhulina laeta*), is a South American fish found in the Amazon River basin within Brazil, Colombia and Peru. It is used in the aquarium trade. The history of invasiveness is None Documented. There is a record of introduction resulting in an established population but no information on impacts from that introduction were found. The climate match for the contiguous United States is low with the only area of medium climate match in southern Florida. The certainty of assessment is low due to lack of studies of the one reported introduction. The overall risk assessment for *Pyrrhulina laeta* is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): None documented**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information: No additional remarks.**
- **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.

Fricke, R., W. N. Eschmeyer, and R. van der Laan, editors. 2019. Eschmeyer's catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (February 2019).

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Schäfer, F. 2009. *Pyrrhulina laeta*. Aquarium Glaser GmbH. Available: <https://www.aquariumglaser.de/en/fish-archives/pyrrhulina-laeta/>. (September 2019).

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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Cope, E. D. 1872. On the fishes of the Ambyiacu River. *Proceedings of the Academy of Natural Sciences of Philadelphia* 23:250–294.

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Weitzman, M., and S. H. Weitzman. 2003. Lebiasinidae (pencil fishes). Pages 241–251 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.