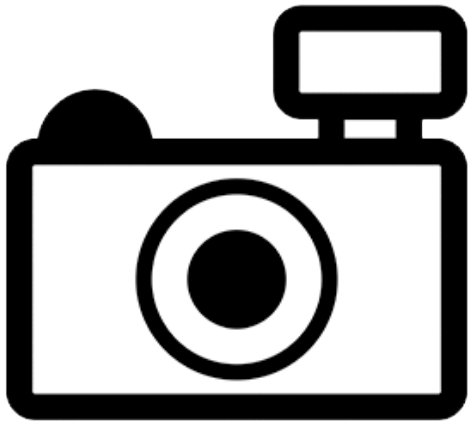


# Onesided Livebearer (*Jenynsia lineata*; a fish)

## Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, July 2017  
Revised, January 2018  
Web Version, 8/16/2018



No Photo Available

## 1 Native Range and Status in the United States

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### Native Range

From Froese and Pauly (2017):

“South America: southern tributaries of the Mirim Lagoon.”

Froese and Pauly (2017) list this species as native to Argentina (Cordiviola de Yuan and Pignalberi de Hassan 1985), Brazil (Wischnath 1993), and Uruguay (Ghedotti 1998).

### Status in the United States

No known occurrences in the United States.

From Hellweg (2014):

“Their cousins the *Jenynsia* are sometimes available in hobbyist circles. There are a dozen or so species that have been popularized as the one-sided livebearer.”

## Means of Introductions in the United States

No known occurrences in the United States.

## Remarks

From Froese and Pauly (2017):

“Synonym: *Lebias lineata*. CoL [Catalogue of Life] Status: synonym. Synonym: *Fitzroyia lineata*. CoL Status: synonym.”

Both the above synonyms were used in addition to the accepted scientific name to search for information about this species.

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2017):

“Kingdom Animalia  
  Infrakingdom Deuterostomia  
    Phylum Chordata  
      Subphylum Vertebrata  
        Infraphylum Gnathostomata  
          Superclass Actinopterygii  
            Class Teleostei  
              Superorder Acanthopterygii  
                Order Cyprinodontiformes  
                  Suborder Cyprinodontoidei  
                    Family Anablepidae  
                      Subfamily Anablepinae  
                        Genus *Jenynsia*  
                          Species *Jenynsia lineata* (Jenyns 1842)”

“Taxonomic Status: valid”

### Size, Weight, and Age Range

From Froese and Pauly (2017):

“Maturity: L<sub>m</sub> 2, range 4 - 4 cm  
Max length : 5.5 cm SL male/unsexed; [Ghedotti 2003]”

### Environment

From Froese and Pauly (2017):

“Freshwater; benthopelagic.”

“[...] 18°C - 23°C [Baensch and Riehl 1985; assumed to represent recommended aquarium water temperature range]”

## **Climate/Range**

From Froese and Pauly (2017):

“Subtropical [...]”

## **Distribution Outside the United States**

Native

From Froese and Pauly (2017):

“South America: southern tributaries of the Mirim Lagoon.”

Froese and Pauly (2017) list this species as native to Argentina (Cordiviola de Yuan and Pignalberi de Hassan 1985), Brazil (Wischnath 1993), and Uruguay (Ghedotti 1998).

Introduced

No known introductions.

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

No known introductions.

## **Short Description**

From Froese and Pauly (2017):

“Dorsal spines (total): 0; Dorsal soft rays (total): 9; Anal spines: 0; Anal soft rays: 9. Fins colorless. The ground color of the body is olive gray and the flanks show six to eight dark, fine lines or dotted longitudinal stripes; the underside is light. Males are significantly more slender and smaller than females. Both sexes exhibit almost the same coloration. Unfertilized females have an orange-colored spot on the anal fin, situated either on the right or the left (Wischnath 1993).”

## **Biology**

From Froese and Pauly (2017):

“Occurs in shallow water. Viviparous (Wischnath 1993) found along with the livebearing *Cnesterodon decemmaculatus* in waters with heavy algal growth. Genital opening in the female asymmetrical.

Gestation period usually lasts six weeks. Produces 10 to 20 (rarely up to 40) young.”

## **Human Uses**

From Froese and Pauly (2017):

“Aquarium: commercial”

From Hellweg (2014):

“Their cousins the *Jenynsia* are sometimes available in hobbyist circles. There are a dozen or so species that have been popularized as the one-sided livebearer.”

### **Diseases**

None reported.

### **Threat to Humans**

From Froese and Pauly (2017):

“Harmless.”

## **3 Impacts of Introductions**

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No known introductions.

## 4 Global Distribution

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**Figure 1.** Known global distribution of *J. lineata*, reported from Brazil, Uruguay, and Argentina. Map from GBIF (2017).

## 5 Distribution Within the United States

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No known occurrences within the United States.

## 6 Climate Matching

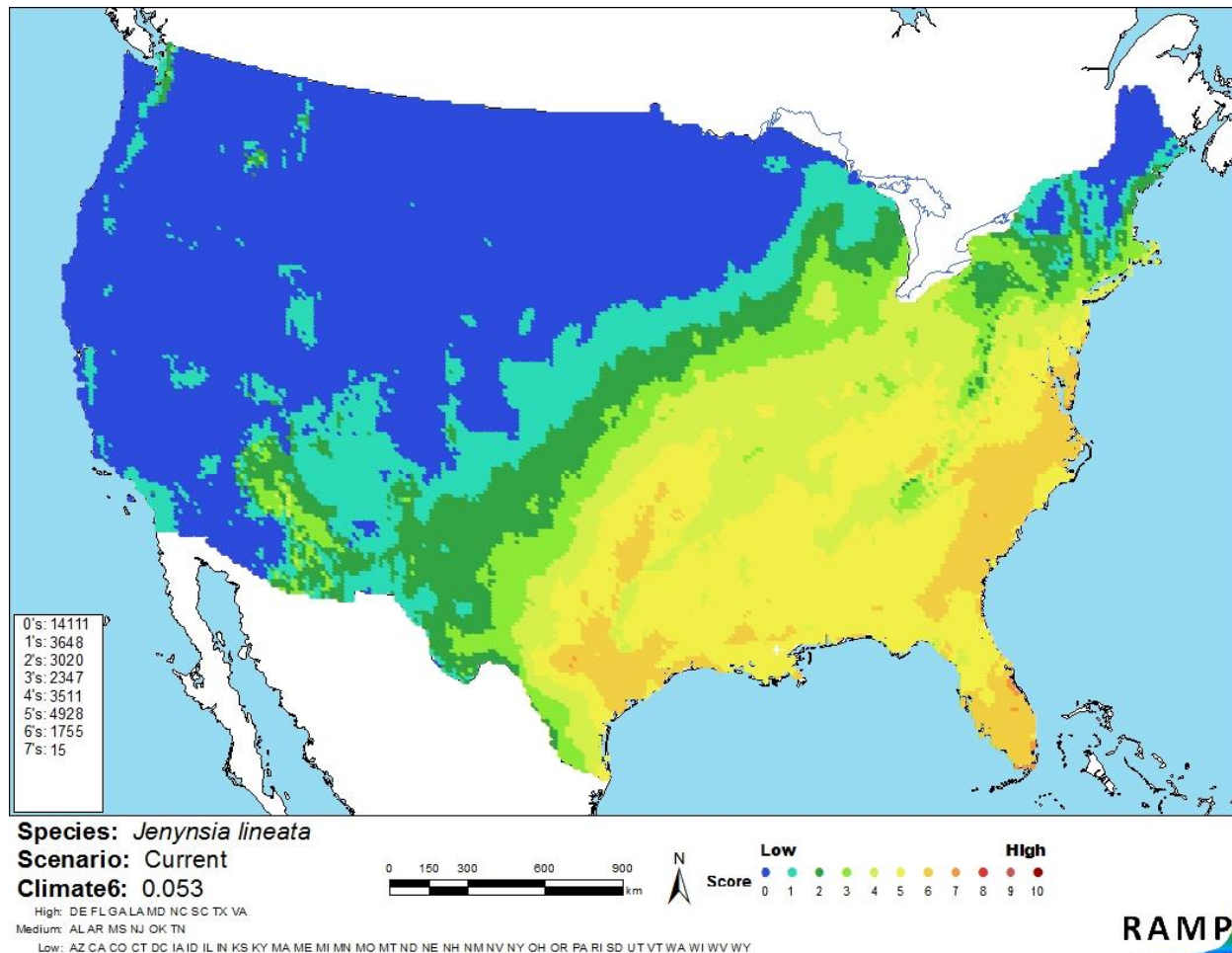
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### Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States is 0.053, which is medium. A medium match occurs on the East Coast and states bordering the Gulf of Mexico, with lowest matches in the northern and western United States.



**Figure 2.** RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Brazil, Uruguay, Argentina) and non-source locations (gray) for *J. lineata* climate matching. Source locations from GBIF (2017).



**Figure 3.** Map of RAMP (Sanders et al. 2014) climate matches for *J. lineata* in the contiguous United States based on source locations reported by GBIF (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
$\geq 0.103$	High

## 7 Certainty of Assessment

Although *Jenynsia lineata* has been subject to multiple studies, most are limited to its fecundity and viviparity. There is little information available; all information for this assessment came from five primary sources. More information is required to determine impacts of introduction. Therefore the certainty of this assessment is low.

## 8 Risk Assessment

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### Summary of Risk to the Contiguous United States

*J. lineata* has a medium climate match for the contiguous U.S. with highest matches across the East Coast and bordering the Gulf of Mexico. This species, however, has little history of movement and no documented introductions. Therefore, history of invasiveness is uncertain. More information is required to adequately assess the risk of this species, leading to a low certainty for this assessment. The overall risk of *J. lineata* to the United States 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

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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.**

Froese, R., and D. Pauly, editors. 2017. *Jenynsia lineata* (Jenyns, 1842). Available: <http://fishbase.org/summary/11958>. (January 2018).

GBIF (Global Biodiversity Information Facility). 2017. GBIF backbone taxonomy: *Jenynsia lineata*, Jenyns. Available: <http://www.gbif.org/species/2350704>. (January 2018).

Hellweg, M. 2014. Livebearers—more than just the “Big Four.” *Tropical Fish Hobbyist Magazine*. Available: <http://www.tfhmagazine.com/details/articles/livebearersmore-than-just-the-big-four-full-article.htm>. (January 2018).

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## 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.**

Baensch, H. A., and R. Riehl. 1985. *Aquarien atlas*, volume 2. Mergus, Verlag für Natur-und Heimtierkunde GmbH, Melle, Germany.



- Cordivola de Yuan, E., and C. Pignalberi de Hassan. 1985. Fish population in the Paraná River: Lentic environments of Diamante and San Pedro areas (Argentine Republic). *Hydrobiologia* 127:213-218.
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- Wischnath, L. 1993. Atlas of livebearers of the world. T. F. H. Publications, Inc.