

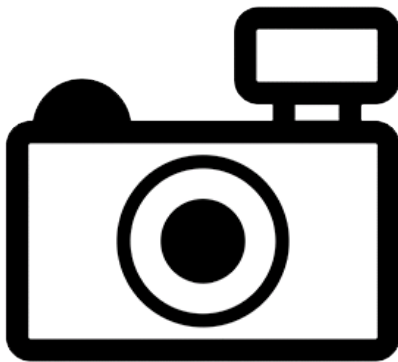
***Labeo roseopunctatus* (a carp, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, February 2012

Revised, April 2018

Web Version, 5/29/2018



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“Africa: present in the upper reaches of the Senegal and Niger river basins [Guinea, Mali; Lévêque 1990, Lévêque 2003].”

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.

Means of Introductions in the United States

This species has not been reported as introduced or established in the U.S.

2 Biology and Ecology

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 Cypriniformes
Superfamily Cyprinoidea
Family Cyprinidae
Genus *Labeo*
Species *Labeo roseopunctatus* Paugy, Guégan and Agnèse, 1990”

From Eschmeyer et al. (2018):

“Current status: Valid as *Labeo roseopunctatus* Paugy, Guégan & Agnèse 1990. Cyprinidae: Labeoninae.”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 20.3 cm SL male/unsexed; [Lévêque 1990]”

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):

“Africa: present in the upper reaches of the Senegal and Niger river basins [Guinea, Mali; Lévêque 1990, Lévêque 2003].”

Introduced

This species has not been reported as introduced or established outside of its native range.

Means of Introduction Outside the United States

This species has not been reported as introduced or established outside of its native range.

Short Description

From Froese and Pauly (2018):

“Dorsal soft rays (total): 17-19; Anal soft rays: 8. Diagnosis: dorsal profile straight to slightly arched; inner surface of lips with transverse folds; body depth 3.3-3.9x SL; depth of caudal peduncle 0.9-1.2x its length; 32-42 (50-150mm) and 46-49 (150-250mm) gill rakers; scale formula 7.5/38-40/7.5-8.5; 4.5 scales between lateral line and pelvic-fin base; 16 scales around caudal peduncle; 13-15 dorsal fin branched rays; body silvery in life, but salmon-pink spots on scales of sides; so far known from the upper basins of the rivers Senegal and Niger [Lévêque 1990, Lévêque 2003].”

From Paugy et al. (1990):

“The inner surface of the upper lip (labial fold) bears transverse folds [...]. There are no papillae on the upper lip border in either young or adult specimens. A pair of short posterior barbels is more or less covered in a fold situated on the lateral border of the mouth. Anterior barbels seem to be absent. The head is approximately twice as long as it is wide. Head length is equal to that of the dorsal fin base. The dorsal fin is straight or convex and is situated just in front of the pelvic fins, which are inserted in the middle of the body (standard length). The caudal peduncle is deeper than it is long, except in young specimens (SL ≤120 mm), in which we observed the contrary [...]. The number of gill rakers increases with body length [...].”

“In life the color is silvery, bright, bronzy or greenish above and silvery white beneath. Scales, situated in five or six rows on either side of the lateral line are coloured with salmon-pink - orange spots. The border of these scales is darkened with melanophores. Along the sides of the body are dark longitudinal lines. The dorsal fin is brownish pink, the caudal fin is wine colored - pinkish, the anal fin is also pinkish but less so than the caudal fin, and the pelvic and pectoral fins are dark pink or slightly orange. There is a pale humeral spot and another spot at the end of the caudal peduncle just before the fin (this mark is clearer on young fishes).”

“At first glance, *L. roseopunctatus* may be mistaken for *L. senegalensis* because of its silvery color. However, in contrast to *L. senegalensis*, *L. roseopunctatus* has no papillae on the upper labial fold, and its inner surface has well-developed transverse striae or “costae” which are not present in *L. senegalensis*. In this character, *L. roseopunctatus* is allied with the *L. coubie*-group in opposition to the *L. niloticus*-group to which *L. senegalensis* belongs [...] (Reid 1985). All specimens of *L. roseopunctatus* observed have the transverse scale count formula $7\frac{1}{2}/7\frac{1}{2}-8\frac{1}{2}$. Under sympatric conditions all *L. senegalensis* and *L. coubie* have transverse scale count formulae of $6\frac{1}{2}/6\frac{1}{2}$ and $6\frac{1}{2}/7\frac{1}{2}-8\frac{1}{2}$, respectively. *Labeo roseopunctatus* has a greater number of dorsal fin rays (IV-14-15) than *L. senegalensis* (IV-13) and *L. coubie* (IV-12). It also has a lower number of gill rakers and [sic] *L. senegalensis* [...].”

Biology

From Paugy et al. (1990):

“Information about the ecology of *L. roseopunctatus* is rather limited. The species apparently has a preference for rocky substrates in deep and quiet water. It seems that the maximum length reached by *L. roseopunctatus* is less than that of *L. senegalensis* and *L. coubie*. We have captured mature specimens, which allows us to affirm that reproduction takes place during the wet season (August to September).”

Human Uses

From Awaïss and Lalèyè (2010):

“This species is harvested for human consumption.”

Diseases

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

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

This species had not been reported as introduced or established outside of its native range.

4 Global Distribution



Figure 1. Known global distribution of *Labeo roseopunctatus*, reported from Mali. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

This species has not been reported as introduced or established in the U.S.

6 Climate Matching

Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.0, which is a low climate match. The climate match was low across the entire contiguous U.S., but there were some areas of slightly higher match in southern Florida, Texas, and Arizona.

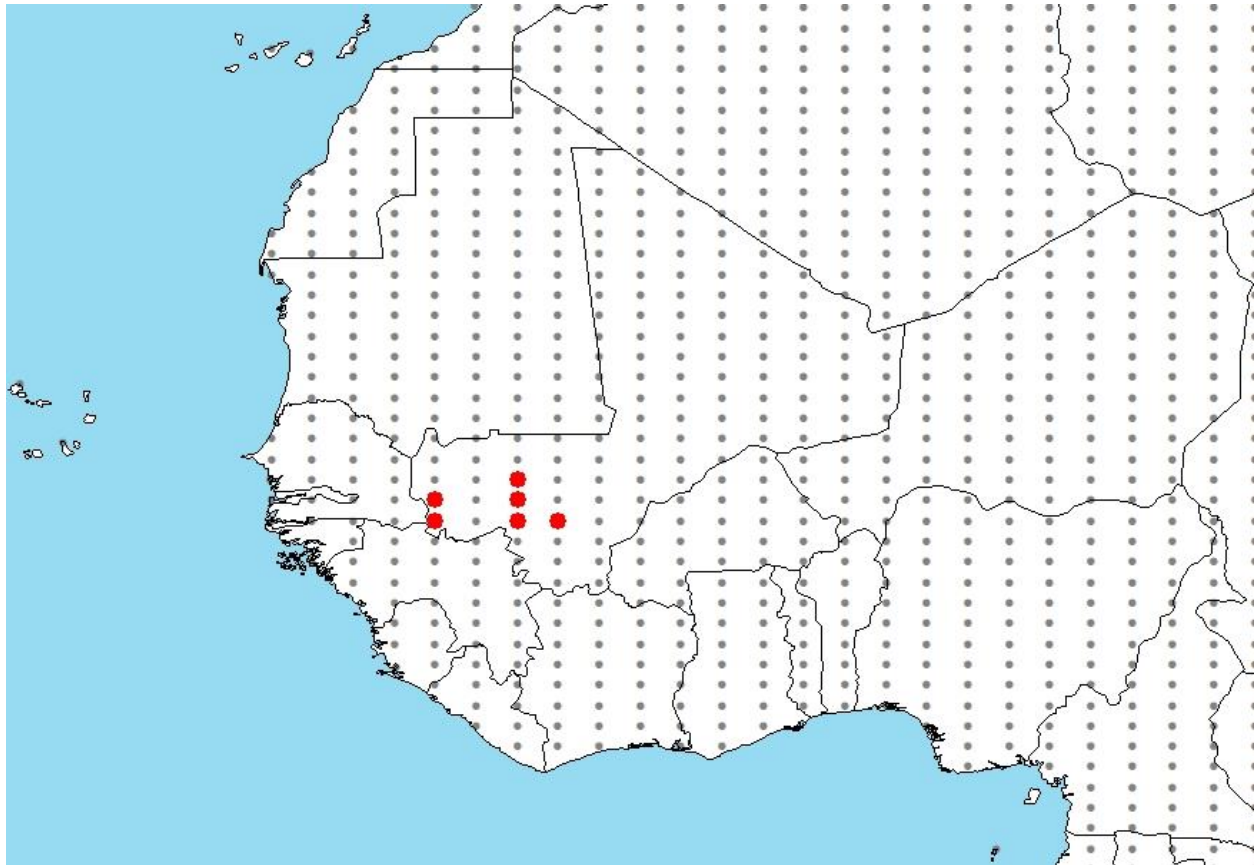


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in West Africa selected as source locations (red; Mali) and non-source locations (gray) for *Labeo roseopunctatus* climate matching. Source locations from GBIF Secretariat (2017).

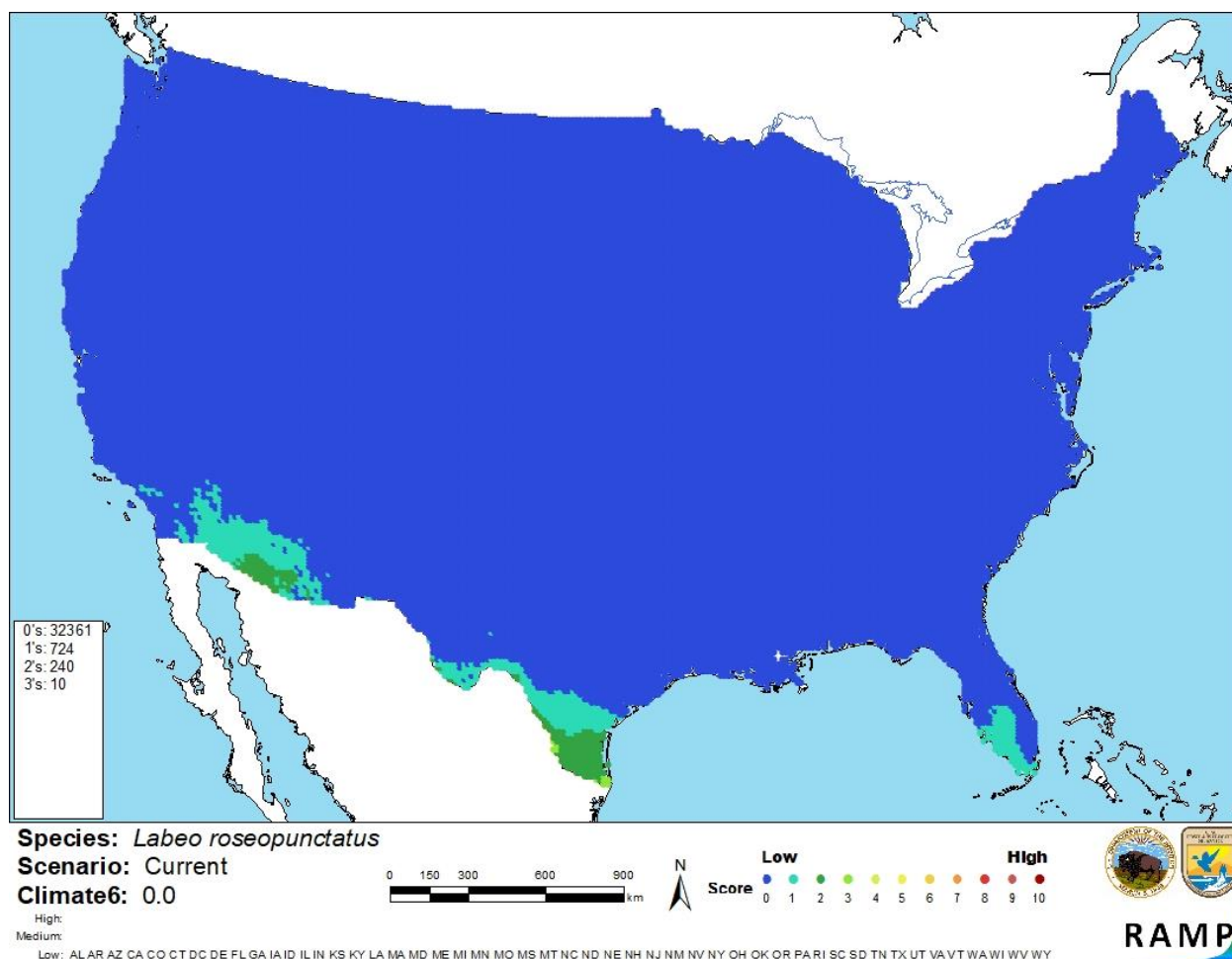


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Labeo roseopunctatus* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0=Lowest match, 10=Highest match.

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

7 Certainty of Assessment

There is little information available about *Labeo roseopunctatus*. This species has not been reported as introduced outside of its native range, so there is no information available on impacts of introduction of this species. Further information is needed to adequately assess the risk this species poses to the contiguous U.S., so the certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Labeo roseopunctatus is a cyprinid native to Western Africa. *L. roseopunctatus* is harvested for human consumption. This species has a low climate match with the contiguous U.S., and it has never been reported as introduced or established outside of its native range. Certainty of this assessment is low because of the lack of information available about this species. The overall risk category is Uncertain.

Assessment Elements

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

- Awaïss, A., and P. Lalèyè. 2010. *Labeo roseopunctatus*. The IUCN Red List of Threatened Species 2010: e.T182984A8016730. Available: <http://www.iucnredlist.org/details/182984/0>. (April 2018).
- Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2018. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (April 2018).
- Froese, R., and D. Pauly, editors. 2018. *Labeo roseopunctatus* (Paugy, Guégan & Agnèse, 1990). FishBase. Available: <http://www.fishbase.org/summary/5289>. (April 2018).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Labeo roseopunctatus*, Paugy, Guégan & Agnèse, 1990. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/5206213>. (April 2018).
- ITIS (Integrated Taxonomic Information System). 2018. *Labeo roseopunctatus* (Paugy, Guégan & Agnèse, 1990). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689336#null. (April 2018).
- Paugy, D., J. F. Guégan, and J. F. Agnèse. 1990. Three simultaneous and independent approaches to the characterization of a new species of *Labeo* (Teleostei, Cyprinidae) from West Africa. Canadian Journal of Zoology 68(6):1124-1131.

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

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.

Lévêque, C. 1990. Cyprinidae. Pages 269-361 *in* C. Lévêque, D. Paugy, and G. G. Teugels, editors. Faune des poissons d'eaux douces et saumâtres d'Afrique de l'Ouest. Tome I. Collection Faune Tropicale 28. Musée Royal de l'Afrique Centrale, Tervuren, Belgium, and O.R.S.T.O.M., Paris.

Lévêque, C. 2003. Cyprinidae. Pages 322-436 *in* D. Paugy, C. Lévêque, and G. G. Teugels, editors. The fresh and brackish water fishes of West Africa, volume 1. Collection faune et flore tropicales 40. Institut de Recherche de Développement, Paris, Muséum National d'Histoire Naturelle, Paris, and Musée Royal de l'Afrique Central, Tervuren, Belgium.