

Checker Barb (*Oliotius oligolepis*)

Ecological Risk Screening Summary

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1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2016):

“Asia: Sumatra, Indonesia [Kottelat et al. 1993].”

Status in the United States

No records of *Oliotius oligolepis* in the United States were found.

Means of Introductions in the United States

No records of *Oliotius oligolepis* in the United States were found.

Remarks

Different sources list *Puntius oligolepis* (ITIS 2016) and *Oliotius oligolepis* (Froese and Pauly 2016; Eschmeyer et al. 2017) as the senior synonym. Information searches were performed using both names.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2016):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii
Infraclass Teleostei
Superorder Ostariophysi
Order Cypriniformes
Superfamily Cyprinoidea
Family Cyprinidae
Genus *Puntius*
Species *Puntius oligolepis* (Bleeker, 1853)”

Froese and Pauly (2016) list *Capoeta oligolepis*, *Puntius oligolepis*, and *Barbus oligolepis* as synonyms for *Oliotius oligolepis*.

From Eschmeyer et al. (2017):

“***oligolepis***, ***Capoeta*** Bleeker [P.] 1853:296 [Natuurkundig Tijdschrift voor Nederlandsch Indië v. 4 (no. 2) [...]] Lake Meninju [Maninjau], Sumatra, Indonesia. Syntypes: (4) ?BMNH 1866.5.2.209 (1) Priaman; RMNH 1610 (2), 2037 (1), 4952 (1). •Valid as *Puntius oligolepis* (Bleeker 1853) -- (Kottelat et al. 1993:43 [...], Doi 1997:11 [...]). •Valid as *Oliotius oligolepis* (Bleeker 1853) -- (Kottelat 2013:128 [...]). **Current status:** Valid as *Oliotius oligolepis* (Bleeker 1853). Cyprinidae: Cyprininae.”

Size, Weight, and Age Range

From Froese and Pauly (2016):

“Max length: 5.0 cm TL male/unsexed; [Mills and Vevers 1989]”

Environment

From Froese and Pauly (2016):

“Freshwater; benthopelagic; pH range: 6.0 - 6.5; dH range: ? - 10. [...]; 20°C - 24°C [assumed to be recommended aquarium temperature range] [Riehl and Baensch 1996]”

Climate/Range

From Froese and Pauly (2016):

“Tropical; [...]”

Distribution Outside the United States

Native

From Froese and Pauly (2016):

“Asia: Sumatra, Indonesia [Kottelat et al. 1993].”

Introduced

From Froese and Pauly (2016):

“Has been transported worldwide and recorded from natural waters in Colombia [Welcomme 1988].”

Froese and Pauly (2016) list *Oliotius oligolepis* as introduced and established in Colombia and introduced but probably not established in India.

From FAO (2016):

“*Puntius oligolepis* introduced to Colombia from unknown”

“Status of the introduced species in the wild: Established”

“*Puntius oligolepis* introduced to India from Indonesia”

Means of Introduction Outside the United States

From FAO (2016):

“Reasons of Introduction: 1) ornamental”

Short Description

From Pethiyagoda et al. (2012):

“Only one other Southeast Asian *Puntius* has the last unbranched dorsal-fin ray smooth, *Puntius oligolepis* [Bleeker, 1853]. This species, however, is distinguished from *Puntius* s.s. by having an incomplete lateral line, only 17 scales in the lateral series, and 1 /2 3 scale rows between the dorsalfin origin and lateral-line scale row. Its relationships remain to be investigated.”

Biology

From Froese and Pauly (2016):

“Feeds on worms, small crustaceans, insects and plant matter.”

“In creeks, rivers and lakes.”

Human Uses

From Froese and Pauly (2016):

“Aquarium: highly commercial”

Diseases

No records of OIE reportable diseases were found.

From Froese and Pauly (2016):

“White spot Disease, Parasitic infestations (protozoa, worms, etc.)
Bacterial Infections (general), Bacterial diseases”

Threat to Humans

From Froese and Pauly (2016):

“Harmless”

3 Impacts of Introductions

No records of impacts from introductions were found for *Oliotius oligolepis*.

4 Global Distribution



Figure 1. Known global distribution of *Oliotius oligolepis* in Sumatra, Indonesia. Map from GBIF Secretariat (2016).

The records of introduction to India and Colombia did not provide location information (FAO 2016; Froese and Pauly 2016) and were not able to be used as source points for the climate match.

5 Distribution Within the United States

No records of *Oliotius oligolepis* in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Oliotius oligolepis* was low across the entire contiguous United States. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous U.S. was 0.000, low. No states had an individually high climate match.

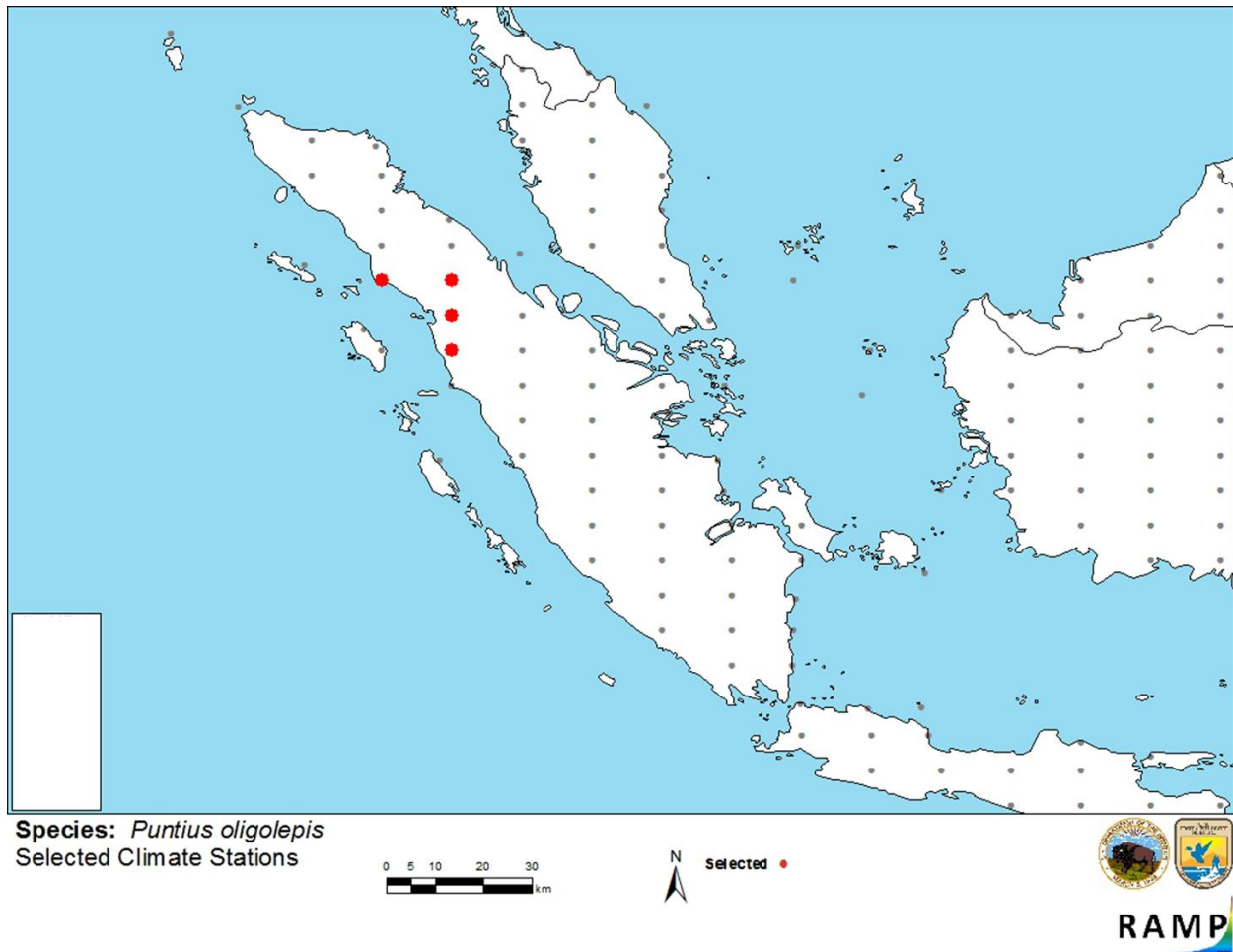


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Sumatra, Indonesia) and non-source locations (grey) for *Oliotius oligolepis* climate matching. Source locations from GBIF Secretariat (2016).

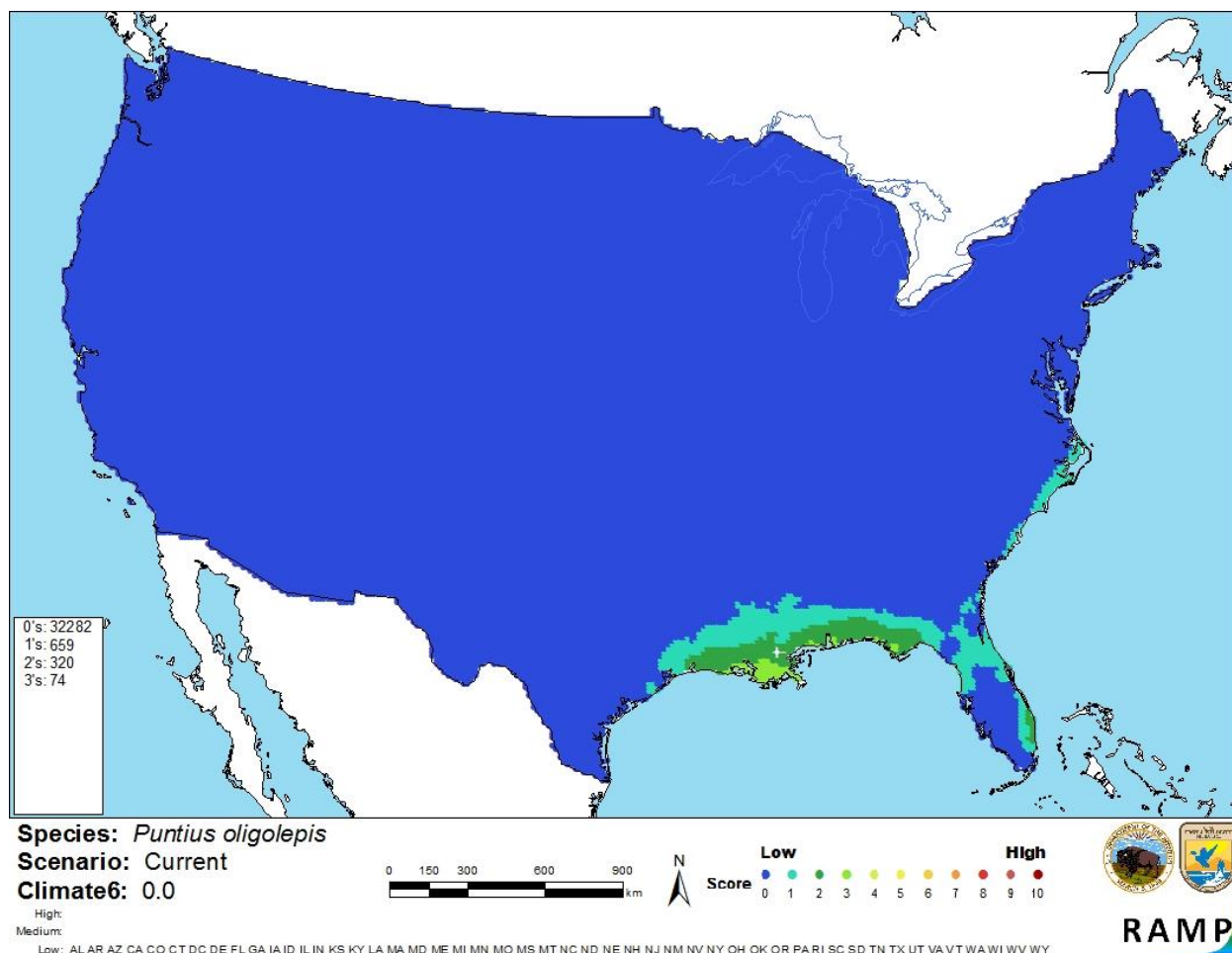


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Oligotus oligolepis* in the contiguous United States based on source locations reported by GBIF Secretariat (2016). 0 = Lowest match, 10 = Highest match.

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

7 Certainty of Assessment

The certainty of this assessment is low. There was some biological and ecological information available for *Oligotus oligolepis*. A few records of introduction were found but they did not contain geographic information that could be used in the climate match. The source locations available for the climate match were limited and may not reflect the actual distribution of the species. There were no records of impacts of introductions found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Oliotius oligolepis is a small freshwater fish that is native to Indonesia. This species may be popular in the aquarium trade. The history of invasiveness of *O. oligolepis* is not documented. There were records of introductions to Colombia and India, with the introduction in Colombia resulting in an established population. There were no records found of impacts of those introductions. The climate match was low across the contiguous United States. The certainty of assessment is low. The overall risk assessment category 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.

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Sanders, S., C. Castiglione, and M. 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.

Bleeker, P. 1853. Diagnostische beschrijvingen van nieuwe of weinig bekende vischsoorten van Sumatra. Tiental V-X. *Natuurkundig Tijdschrift voor Nederlandsch Indië* 4(2):243–302.

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Kottelat, M., A. J. Whitten, S. N. Kartikasari, and S. Wirjoatmodjo. 1993. Freshwater fishes of Western Indonesia and Sulawesi. Periplus Editions, Hong Kong.

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