

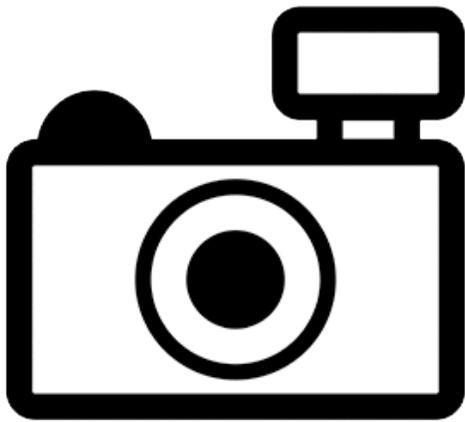
***Puntius sophoroides* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, February 2013

Revised, March 2019

Web Version, 8/8/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

Froese and Pauly (2019) lists *Puntius sophoroides* as native to India and questionable to Thailand, see below information pertaining to Thailand.

From Froese and Pauly (2019):

“Occurrence in Chao Phraya [Thailand] needs further confirmation [Doi 1997]; also from Kanchanaburi, Khon Kaen and Nong Khai [Monkolprasit et al. 1997].”

GBIF Secretariat (2019) lists *Puntius sophoroides* as present in Thailand, India, and Viet Nam.

From Fricke et al. (2019):

“Distribution: Northern India and Bhutan.”

Status in the United States

Puntius sophoroides has not been reported in the wild or in trade in the United States.

Means of Introductions in the United States

Puntius sophoroides has not been reported in the wild or in trade in the United States.

Remarks

Information for this ERSS was searched for using the valid name *Puntius sophoroides* and the synonym *Barbus sophoroides* (Fricke et al. 2019).

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2019):

“**Current status:** Valid as *Puntius sophoroides* (Günther 1868).”

From ITIS (2019):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysii
Order Cypriniformes
Superfamily Cyprinoidea
Family Cyprinidae
Genus *Puntius*
Species *Puntius sophoroides* (Günther, 1868)”

Size, Weight, and Age Range

No information on the size, weight, or age range of *Puntius sophoroides* was found.

Environment

From Froese and Pauly (2019):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2019):

“Tropical”

Distribution Outside the United States

Native

Froese and Pauly (2019) lists *Puntius sophoroides* as native to India and questionable to Thailand, see below information pertaining to Thailand.

From Froese and Pauly (2019):

“Occurrence in Chao Phraya [Thailand] needs further confirmation [Doi 1997]; also from Kanchanaburi, Khon Kaen and Nong Khai [Monkolprasit et al. 1997].”

GBIF Secretariat (2019) lists *Puntius sophoroides* as present in Thailand, India, and Viet Nam.

From Fricke et al. (2019):

“Distribution: Northern India and Bhutan.”

Introduced

Puntius sophoroides has not been reported as introduced anywhere outside of its native range.

Means of Introduction Outside the United States

Puntius sophoroides has not been reported as introduced anywhere outside of its native range.

Short Description

From India Biodiversity Portal (no date):

“A barb with last unbranched dorsal ray osseous, smooth; origin of dorsal fin midway between snout tip and caudal fin base; lateral line scales about 26; barbels present, shorter than eye diameter; a spot at base of middle dorsal rays and a round black spot at caudal base. [Mishra et al. 2013]”

Biology

No information on the biology of *Puntius sophoroides* was found.

Human Uses

No information on the human uses of *Puntius sophoroides* was found.

Diseases

No information on diseases was found. **No OIE-reportable diseases (OIE 2019) have been documented for *Puntius sophoroides*.**

Threat to Humans

From Froese and Pauly (2019):

“Harmless”

3 Impacts of Introductions

Puntius sophoroides has not been reported as introduced anywhere outside of its native range.

4 Global Distribution

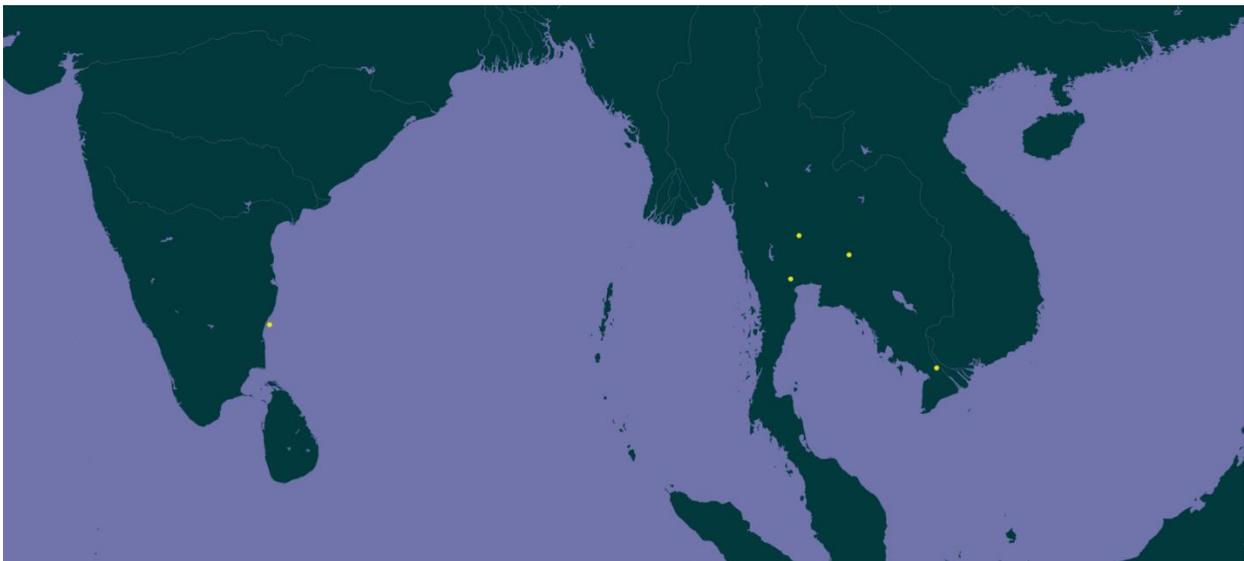


Figure 1. Known global distribution of *Puntius sophoroides*. Locations are in Thailand, Viet Nam, and off the coast of India. Map from GBIF Secretariat (2019). The location off the coast of India was not used to select source points for the climate match, the location was in the ocean and this is not a marine species.

No georeferenced observations were found for India or Bhutan.

5 Distribution Within the United States

Puntius sophoroides has not been reported anywhere within the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for the contiguous United States was low across much of the country, with only portions of southern Florida and Texas having medium match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States received low individual Climate 6 scores.

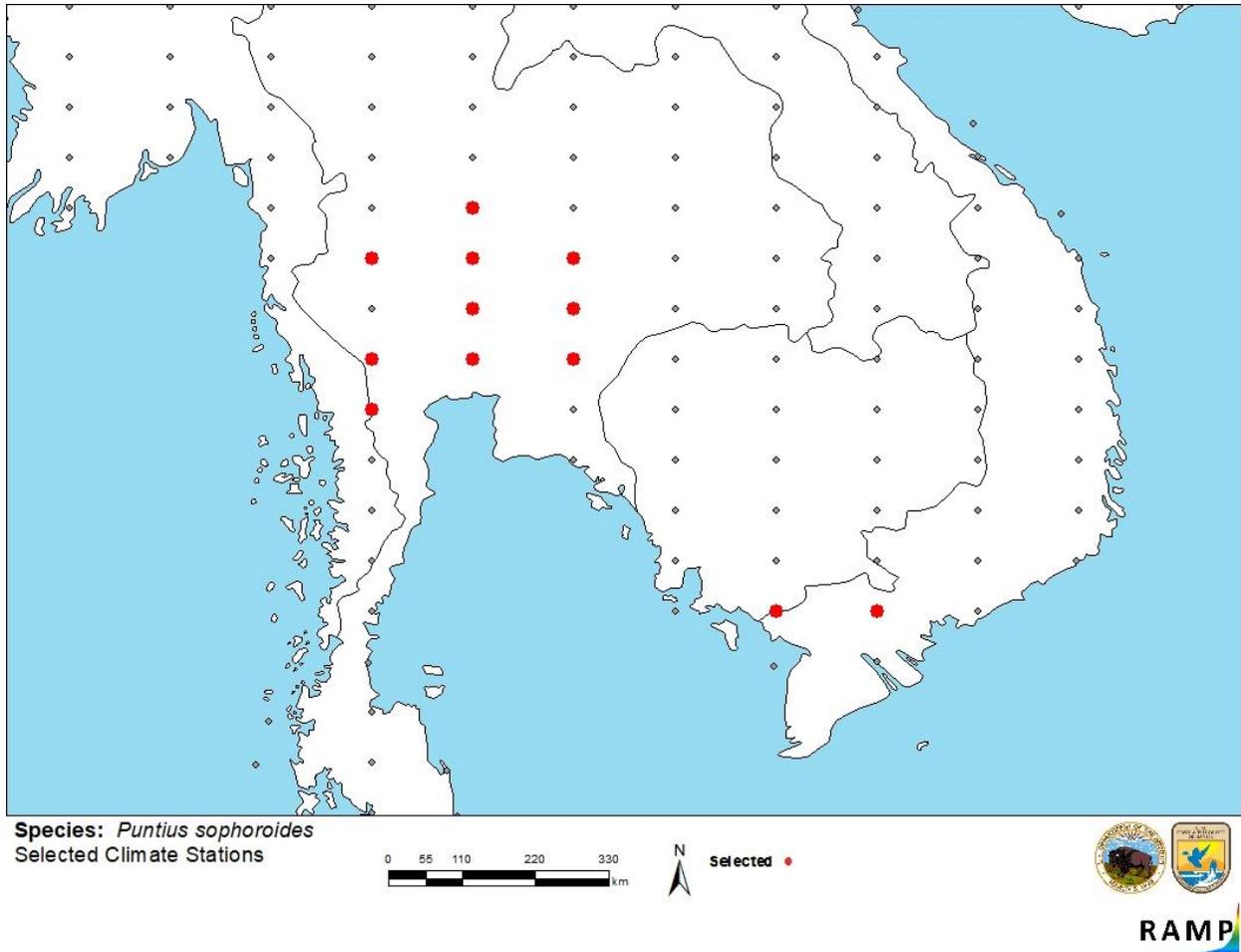


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in southeastern Asia selected as source locations (red; Thailand, Viet Nam) and non-source locations (gray) *Puntius sophoroides* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves. No georeferenced observations from India or Bhutan were available to use in selecting source locations for the climate match.

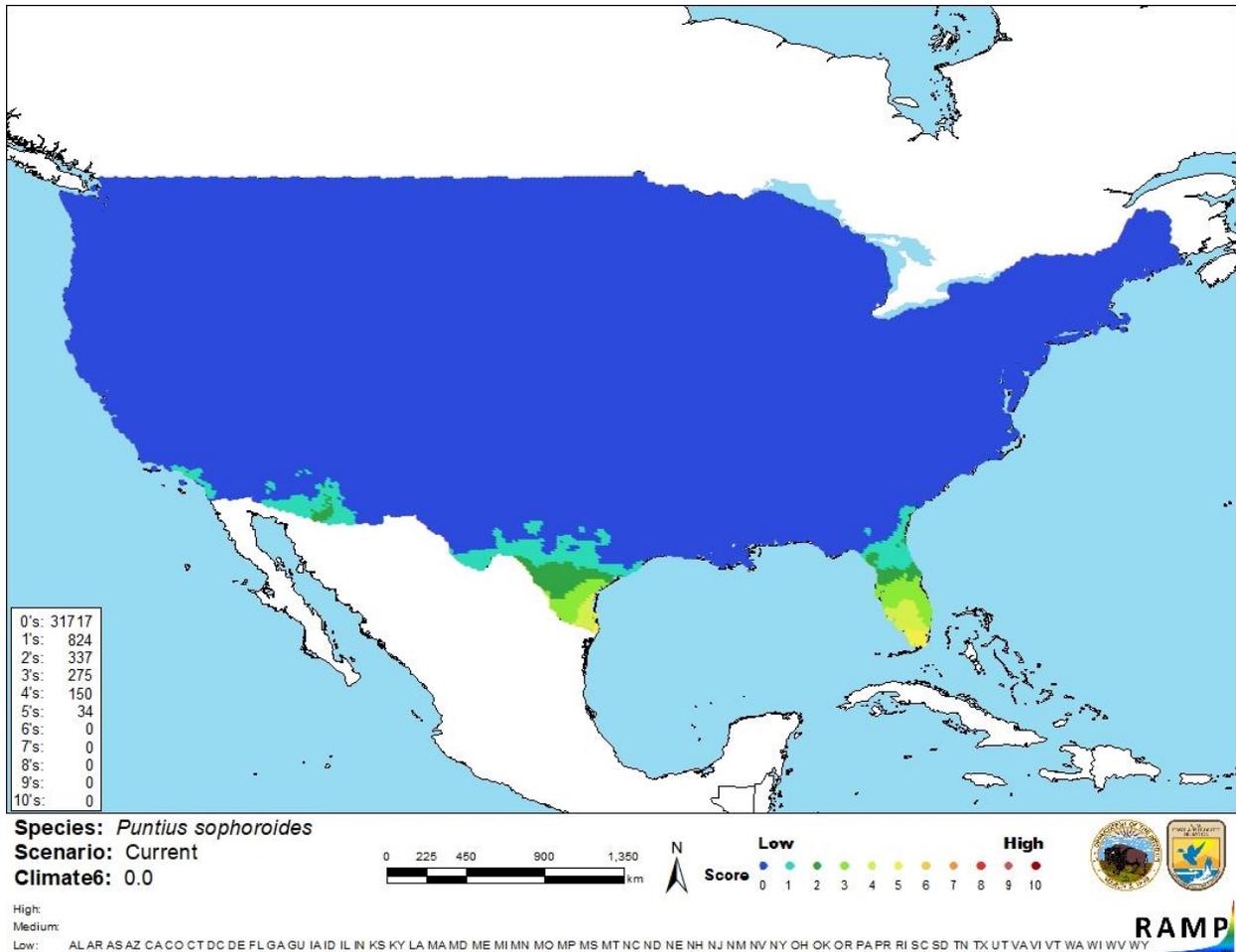


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Puntius sophoroides* in the contiguous United States based on source locations reported by GBIF Secretariat (2019). 0 = Lowest match, 10 = Highest match.

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

Limited information is available for *Puntius sophoroides* and it has not been introduced anywhere outside of its native range, so impacts of introduction are unknown. The certainty of assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Puntius sophoroides is a fish native to Asia. *P. sophoroides* has not been introduced anywhere outside of its native range and no records were found of this species in trade. The history of invasiveness is uncertain. The climate match for the contiguous United States is low, with areas of medium match in southern Texas and Florida. The certainty of assessment is low due to lack of information. The overall risk assessment category for *Puntius sophoroides* is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information: No additional information.**
- **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>. (March 2019).

Froese, R., and D. Pauly, editors. 2019. *Puntius sophoroides* (Günther, 1868). FishBase. Available: <https://www.fishbase.in/summary/Puntius-sophoroides.html>. (March 2019).

GBIF Secretariat. 2019. GBIF backbone taxonomy: *Puntius sophoroides* (Günther, 1868). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2364085>. (March 2019).

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ITIS (Integrated Taxonomic Information System). 2019. *Puntius sophoroides* (Günther, 1868). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689854#null. (March 2019).

OIE (World Organisation for Animal Health). 2019. OIE-listed diseases, infections and infestations in force in 2019. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/>. (March 2019).

Sanders, S., C. Castiglione, and M. Hoff. 2018. Risk assessment mapping program: RAMP, version 3.1. 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.

Doi, A., 1997. A review of taxonomic studies of cypriniform fishes in Southeast Asia. *Japanese Journal of Ichthyology* 44(1):1–33.

Günther, A. 1868. Catalogue of the fishes in the British Museum, volume 7. Catalogue of the Physostomi, containing the families Heteropygii, Cyprinidae, Gonorhynchidae, Hyodontidae, Osteoglossidae, Clupeidae, Chirocentridae, Alepocephalidae, Notopteridae, Halosauridae, in the collection of the British Museum 7:1–512.

Mishra, S. S., L. Kosygin, P. T. Rajan, and K. C. Gopi, K. Venkataraman, A. Chattopadhyay, and K. A. Subramanian, editors. 2013. *Endemic animals of India (vertebrates)*. Zoological Survey of India, Kolkata, India.

Monkolprasit, S., S. Sontirat, S. Vimollohakarn, and T. Songsirikul, 1997. *Checklist of fishes in Thailand*. Office of Environmental Policy and Planning, Bangkok, Thailand.