

Blackline Rasbora (*Rasbora borapetensis*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, July 2010

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Available: https://commons.wikimedia.org/wiki/File:Rasbora_borapetensis.jpg. (March 2019).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“Asia: Mekong [Cambodia, Laos, Thailand, Vietnam], Chao Phraya and Meklong basins [Thailand]; also northern Malay Peninsula.”

“[In Cambodia:] Found in Stung O Krien, Stung Po Ben, Beng Kebal Damrey, Stung Chihreng, Tuk Sap, Snoc Trou, Spean Tros [Kottelat 1985].”

“[In Laos:] Found in the middle Xe Bangfai River [Kottelat 1998], Tha Ngon, Tha Bo, Sithan Tay, Pakse, Hatsalao and Pathoum Phon of the Mekong basin [Taki 1974].”

“[In Thailand:] Found in Mekong, Meklong and Chao Phraya basins and in the northern Malay Peninsula [Kottelat 1998]. Collected in the Mekong basin at Nam Man about 2 km upstream of Amphoe Dan Sai in Loei Province [Kottelat 1990]; also from Khon Kaen, Chachoengsao, Sakon Nakhon, Nakhon Sawan, Nakhon Ratchasima, Narathiwat, Phrae, Chanthaburi, Phitsanulok, Prachin Buri and Surat Thani [Monkolprasit et al. 1997].”

From Vidthayanon (2012):

“Brunei Darussalam; Cambodia; Indonesia (Sumatera, Kalimantan); Lao People's Democratic Republic; Malaysia (Sarawak, Sabah, Peninsular Malaysia); Thailand; Viet Nam”

Status in the United States

No records of *Rasbora borapetensis* in the wild in the United States were found. *R. borapetensis* is in trade in the United States.

From That Pet Place (2019):

“Brilliant Rasbora – *Rasbora borapetensis*
\$1.99”

Means of Introductions in the United States

No records of *Rasbora borapetensis* in the wild in the United States were found.

Remarks

Rasbora borapetensis is a popular aquarium fish throughout the world.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2019):

“**Current status:** Valid as *Rasbora borapetensis* Smith 1934.”

From ITIS (2019):

“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 *Rasbora*
Species *Rasbora borapetensis* Smith, 1934”

Size, Weight, and Age Range

From Froese and Pauly (2019):

“Max length : 6.0 cm SL male/unsexed; [Vidthayanon 2002]”

Environment

From Froese and Pauly (2019):

“Freshwater; benthopelagic; pH range: 6.5 - 7.0; dH range: ? - 12. [...] 22°C - 26°C [Riehl and Baensch 1991; 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):

“Asia: Mekong [Cambodia, Laos, Thailand, Vietnam], Chao Phraya and Meklong basins [Thailand]; also northern Malay Peninsula.”

“[In Cambodia:] Found in Stung O Krien, Stung Po Ben, Beng Keal Damrey, Stung Chihreng, Tuk Sap, Snoc Trou, Spean Tros [Kottelat 1985].”

“[In Laos:] Found in the middle Xe Bangfai River [Kottelat 1998], Tha Ngon, Tha Bo, Sithan Tay, Pakse, Hatsalao and Pathoum Phon of the Mekong basin [Taki 1974].”

“[In Thailand:] Found in Mekong, Meklong and Chao Phraya basins and in the northern Malay Peninsula [Kottelat 1998]. Collected in the Mekong basin at Nam Man about 2 km upstream of Amphoe Dan Sai in Loei Province [Kottelat 1990]; also from Khon Kaen, Chachoengsao, Sakon Nakhon, Nakhon Sawan, Nakhon Ratchasima, Narathiwat, Phrae, Chanthaburi, Phitsanulok, Prachin Buri and Surat Thani [Monkolprasit et al. 1997].”

From Vidthayanon (2012):

“Brunei Darussalam; Cambodia; Indonesia (Sumatera, Kalimantan); Lao People's Democratic Republic; Malaysia (Sarawak, Sabah, Peninsular Malaysia); Thailand; Viet Nam”

Introduced

According to Froese and Pauly (2019) *Rasbora borapetensis* has been introduced but establishment unknown to the Philippines and established in Singapore.

Means of Introduction Outside the United States

Froese and Pauly (2019) list “ornamental” as the introduction reason for the Philippines.

Short Description

From Froese and Pauly (2019):

“Dorsal soft rays (total): 9; Anal soft rays: 8. Has an incomplete lateral line, reaching at most to anal-fin origin; a dark brown mid-lateral stripe from gill opening to somewhat in front of caudal-fin base, not widening posteriorly [Kottelat 1998] and above it a second, pale stripe [Kottelat 2001]. No black pigment on fins [Rainboth 1996].”

Biology

From Froese and Pauly (2019):

“Occurs in swamps [Vidthayanon 2002], ponds, streams and drains [Lim and Ng 1990], usually in slow flowing, often somewhat turbid water [Kottelat 1998]. Found from midwater level to surface in nearly all ponds, ditches, canals and reservoir margins of 2 m depth or less [Rainboth 1996]. Inhabits medium to large rivers, flooded fields and brooks of the middle Mekong [Taki 1978]. Feeds on zooplankton, insects [Rainboth 1996], worms and crustaceans [Mills and Ververs 1989].”

Human Uses

From Froese and Pauly (2019):

“Aquarium: commercial”

“Used in the aquarium trade [in the Philippines] [ASAP 1996].”

From Vidthayanon (2012):

“This is a popular aquarium fish, exported in large numbers from Thailand, the main source. Wild caught fish are increasingly rare in the trade as it is being produced commercially in several countries.”

R. borapetensis is in trade in the United States.

From That Pet Place (2019):

“Brilliant Rasbora – *Rasbora borapetensis*
\$1.99”

Diseases

No records of OIE-reportable diseases (OIE 2019) were found.

According to Poelen et al. (2014) *Rasbora borapetensis* is a host to the parasite *Paracapillaria philippinensis*.

Threat to Humans

From Froese and Pauly (2019):

“Harmless”

3 Impacts of Introductions

Although *Rasbora borapetensis* has been recorded outside of its native range, no information was found regarding impacts of those introductions.

4 Global Distribution

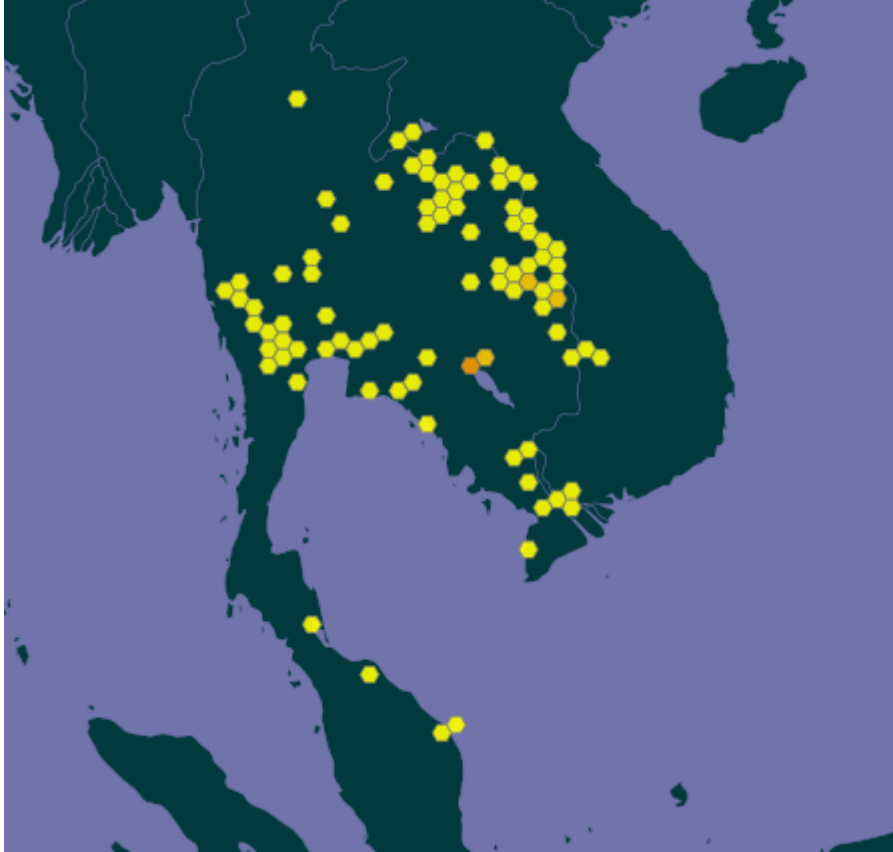


Figure 1. Known global distribution of *Rasbora borapetensis*. Locations in Malaysia, Thailand, Cambodia, Laos and Vietnam. Map from GBIF Secretariat (2019). The point located in the ocean off the coast of Malaysia was not used in the climate match because there is no evidence suggesting that *Rasbora borapetensis* can survive in a marine environment.

No georeferenced observations were available in Brunei Darussalam, Indonesia, or Singapore to use in selecting source points for the climate match.

5 Distribution Within the United States

Rasbora borapetensis has not been reported in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Rasbora borapetensis* was low for the entire contiguous United States. There were some patches of medium match in southern Texas and Florida but most of the country had very low 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 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States had low individual Climate 6 scores.

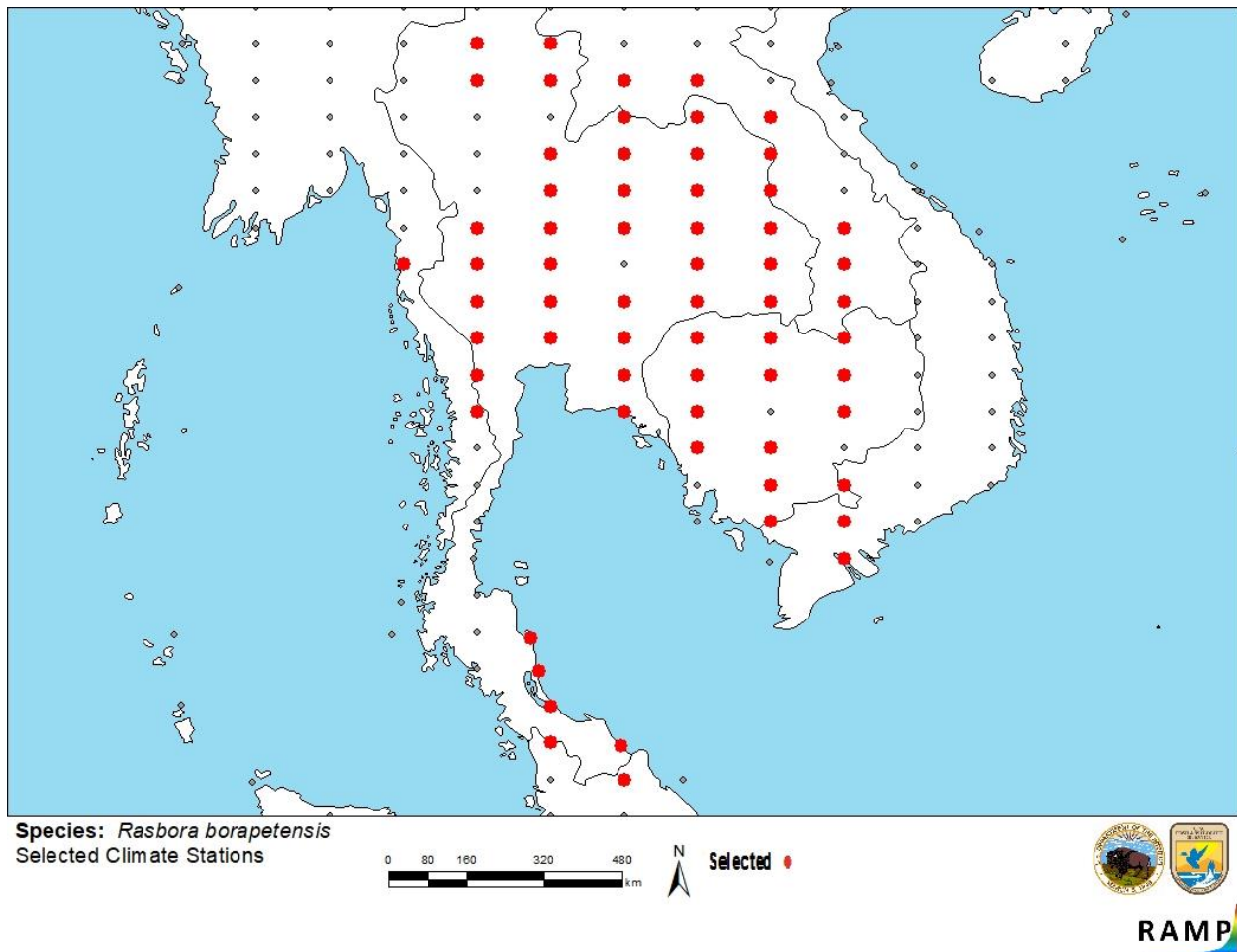


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in southeastern Asia selected as source locations (red; Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam) and non-source locations (gray) for *Rasbora borapetensis* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

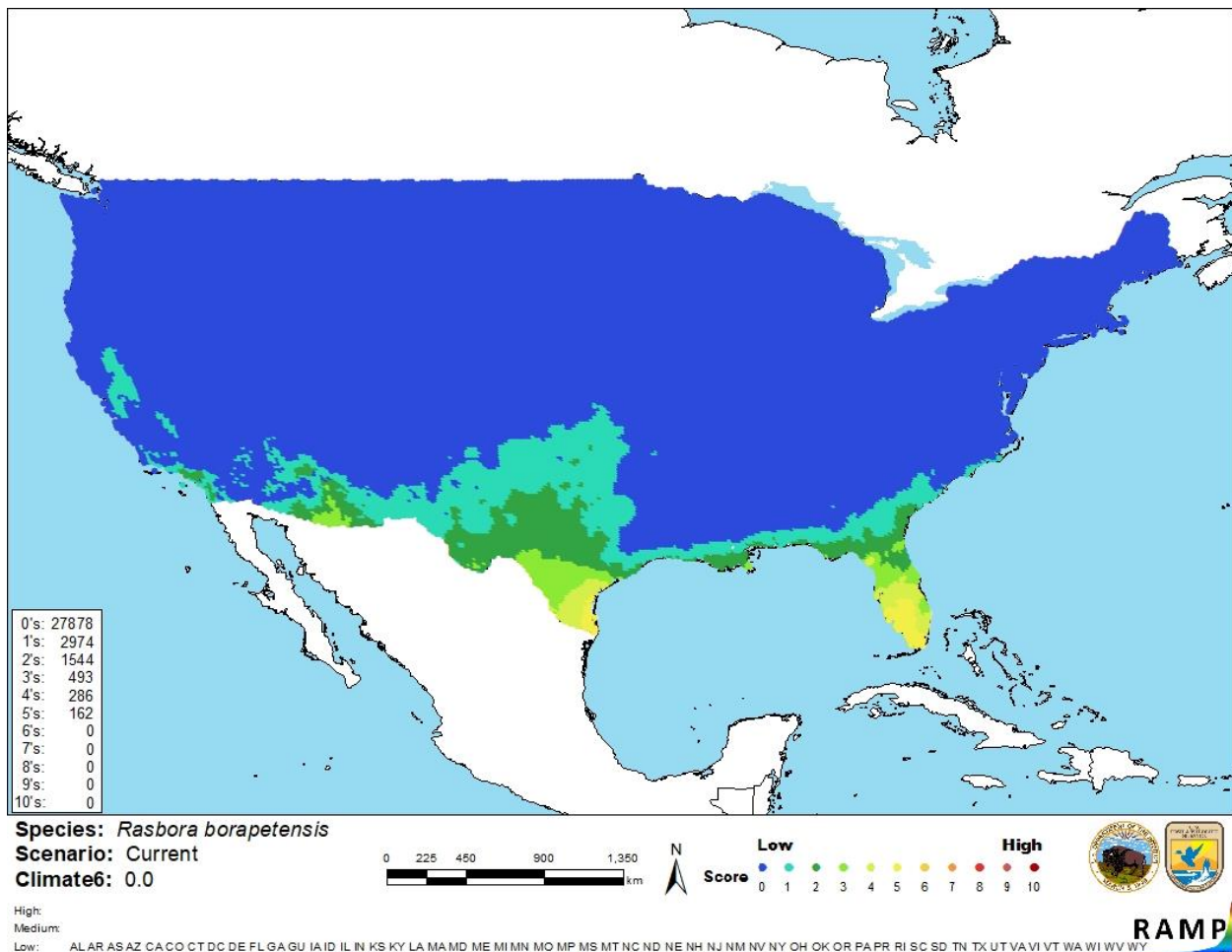


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Rasbora borapetensis* in the contiguous United States based on source locations reported by GBIF Secretariat (2019). 0 = Lowest match, 10 = Highest match.

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

The certainty of assessment for *Rasbora borapetensis* is low. *R. borapetensis* has been found outside of its native range but information on whether there have been any impacts was not found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

The Blackline Rasbora, *Rasbora borapetensis*, is a fish native to Southeast Asia from Thailand to northern Indonesia. This species is a popular fish in the aquarium trade and is in trade in the United States. The history of invasiveness is none documented. *R. borapetensis* has been introduced and become established in Singapore and was introduced in the Philippines. There is no information on any impacts of the introduction. The overall climate match for the contiguous United States was low; there was a medium match in southeast Texas and parts of Florida. The certainty of assessment is low due to lack of information about introductions. The overall risk assessment category for *Rasbora borapetensis* 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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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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