

***Pangasius kinabatanganensis* (a catfish, no common name)**

Ecological Risk Screening Summary

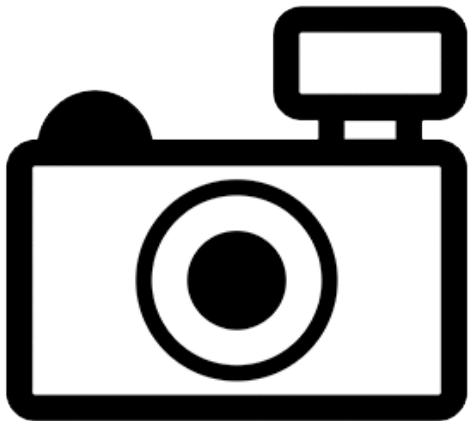
U.S. Fish & Wildlife Service, March 2012

Revised, August 2018

Web Version, 5/1/2020

Organism Type: Fish

Overall Risk Assessment Category: Uncertain



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018):

“Asia: Known only from the Kinabatangan basin, northeastern Borneo.”

“[In Indonesia:] Known from Kalimantan Timur, Borneo.”

“[In Malaysia:] Known from Sabah [Kottelat and Whitten 1996].”

Status in the United States

No records of this species in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of this species in the wild in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2018), *Pangasius kinabatanganensis* Roberts & Vidthayanon 1991 is the valid name for this species; it is also the original name.

From ITIS (2018):

Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysi
Order Siluriformes
Family Pangasiidae
Genus *Pangasius*
Species *Pangasius kinabatanganensis* Roberts & Vidthayanon 1991

Size, Weight, and Age Range

From Roberts and Vidthayanon (1991):

“Attains at least 60 cm standard length”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic.”

Climate

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“Asia: Known only from the Kinabatangan basin, northeastern Borneo.”

“[In Indonesia:] Known from Kalimantan Timur, Borneo.”

“[In Malaysia:] Known from Sabah [Kottelat and Whitten 1996].”

Introduced

No records of introduction were found for this species.

Means of Introduction Outside the United States

No records of introduction were found for this species.

Short Description

From Roberts and Vidthayanon (1991):

“*Pangasius kinabatanganensis* differs from all other other [sic] species of *Pangasius* except *P. lithostoma* in having the combination of palatal dentition consisting of a single large median (entirely vomerine?) toothplate and a humeral spine extending posteriorly one-half or less the distance to end of adpressed pectoral fin spine. It differs from *P. lithostoma* in having only 27-30 anal fin rays (instead of 40-41). Gill rakers on first gill arch 7-9+15-17=22-25. Vertebrae 49-50.”

“Although it has fewer rays, the anal fin of *P. kinabatanganensis* is much larger than that of *P. lithostoma*; the anterior anal fin rays are one and a half times as long as in *P. lithostoma*, the posterior rays fully twice as long. The adipose and pelvic fins are also much larger in *P. kinabatanganensis*. In the 590 mm paratype the palatal tooth plate is enormous, but even so it does not project so strongly downwards from the roof of the mouth as does the toothplate in *P. lithostoma*. In the smaller holotype and other paratypes of *P. kinabatanganensis* the toothplate is much smaller and relatively flat rather than strongly convex.”

Biology

From Gustiano and Pouyaud (2005):

“[...] the guts content of five specimens were examined and hard seeds as well as small crustaceans were found in the gut.”

Human Uses

No information on human uses of *Pangasius kinabatanganensis* was found.

Diseases

No records of OIE-reportable diseases (OIE 2020) were found for *Pangasius kinabatanganensis*.

Pariselle et al. (2001) list *P. kinabatanganensis* as a host of *Thaparocleidus bahar* and *T. sabanensis*.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introduction were found for this species; therefore, there is no information on impacts of introduction.

4 History of Invasiveness

No records of introduction were found for this species; therefore, the history of invasiveness is no known nonnative population.

5 Global Distribution

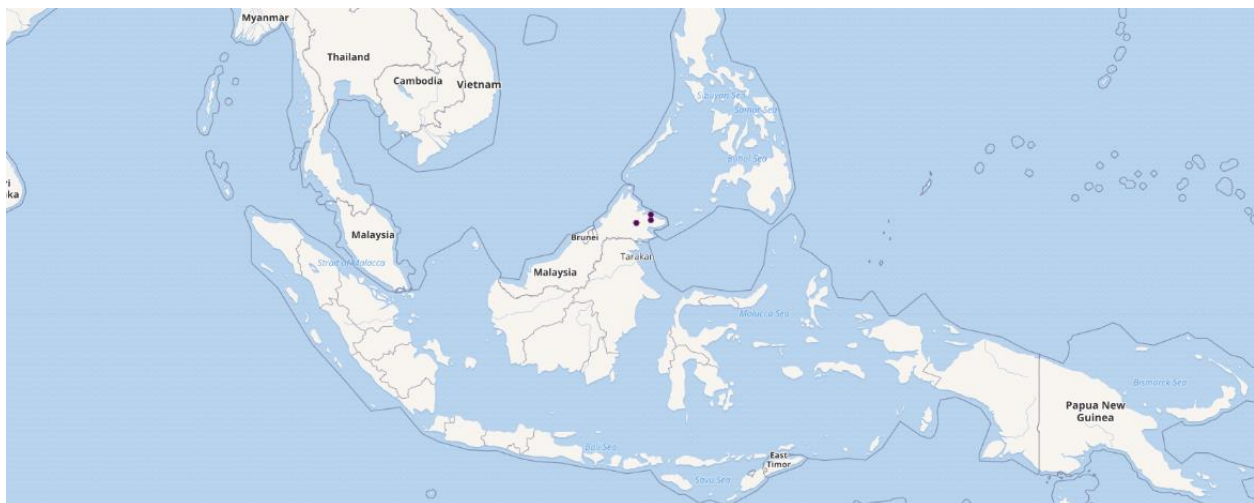


Figure 1. Known global distribution of *Pangasius kinabatanganensis*. Locations are in Malaysia on the island of Borneo. Map from GBIF Secretariat (2018).

6 Distribution Within the United States

No records of this species in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Pangasius kinabatanganensis* was low for the entire contiguous United States. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for contiguous United States was 0.000, low (scores below 0.005 are considered low). All States had low individual climate scores.

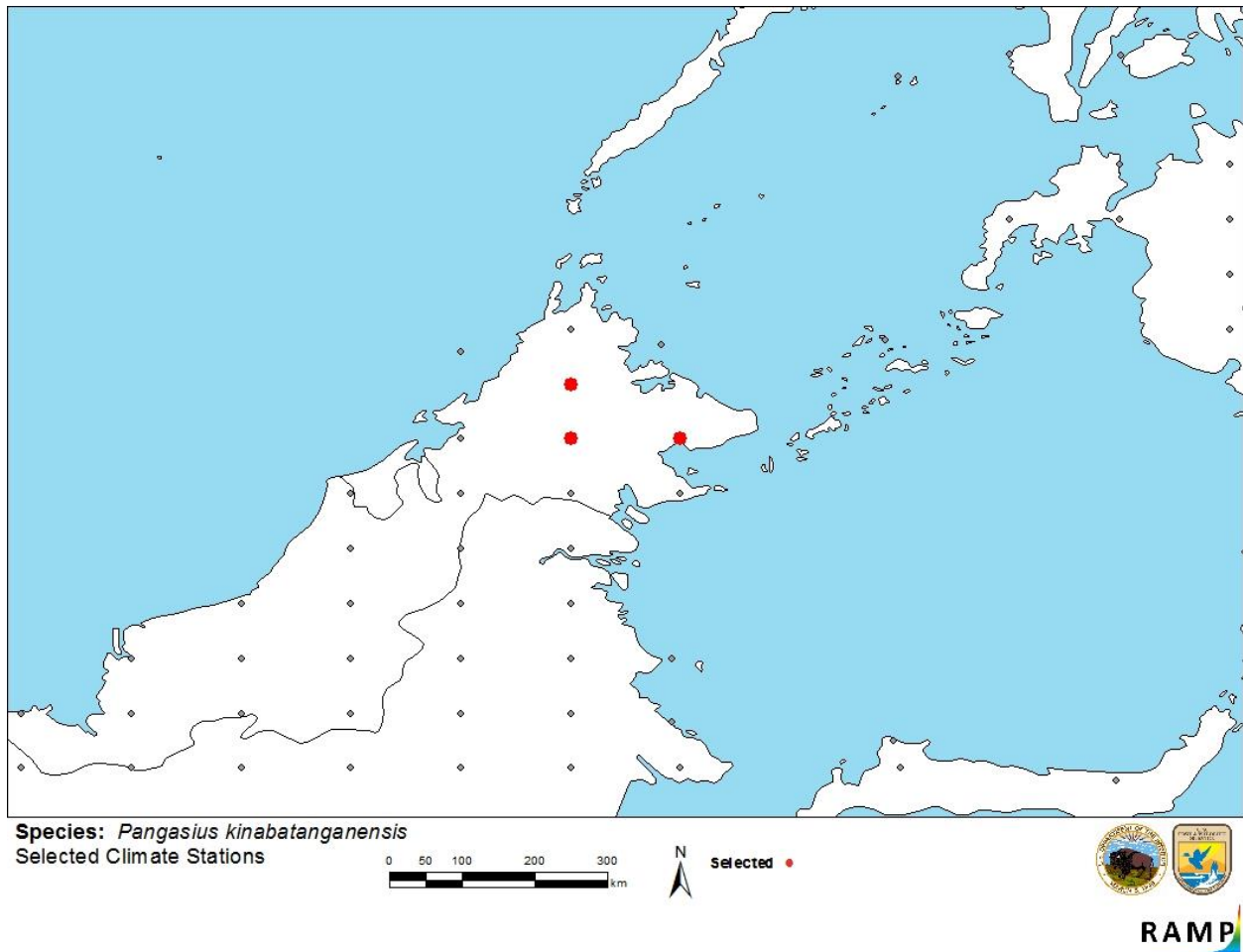


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations selected as source locations (red; Malaysia on Borneo) and non-source locations (gray) for *Pangasius kinabatanganensis* climate matching. Source locations from GBIF Secretariat (2018). Selected source locations are within 100 km of one or more species occurrences and do not necessarily represent the locations of occurrences themselves.

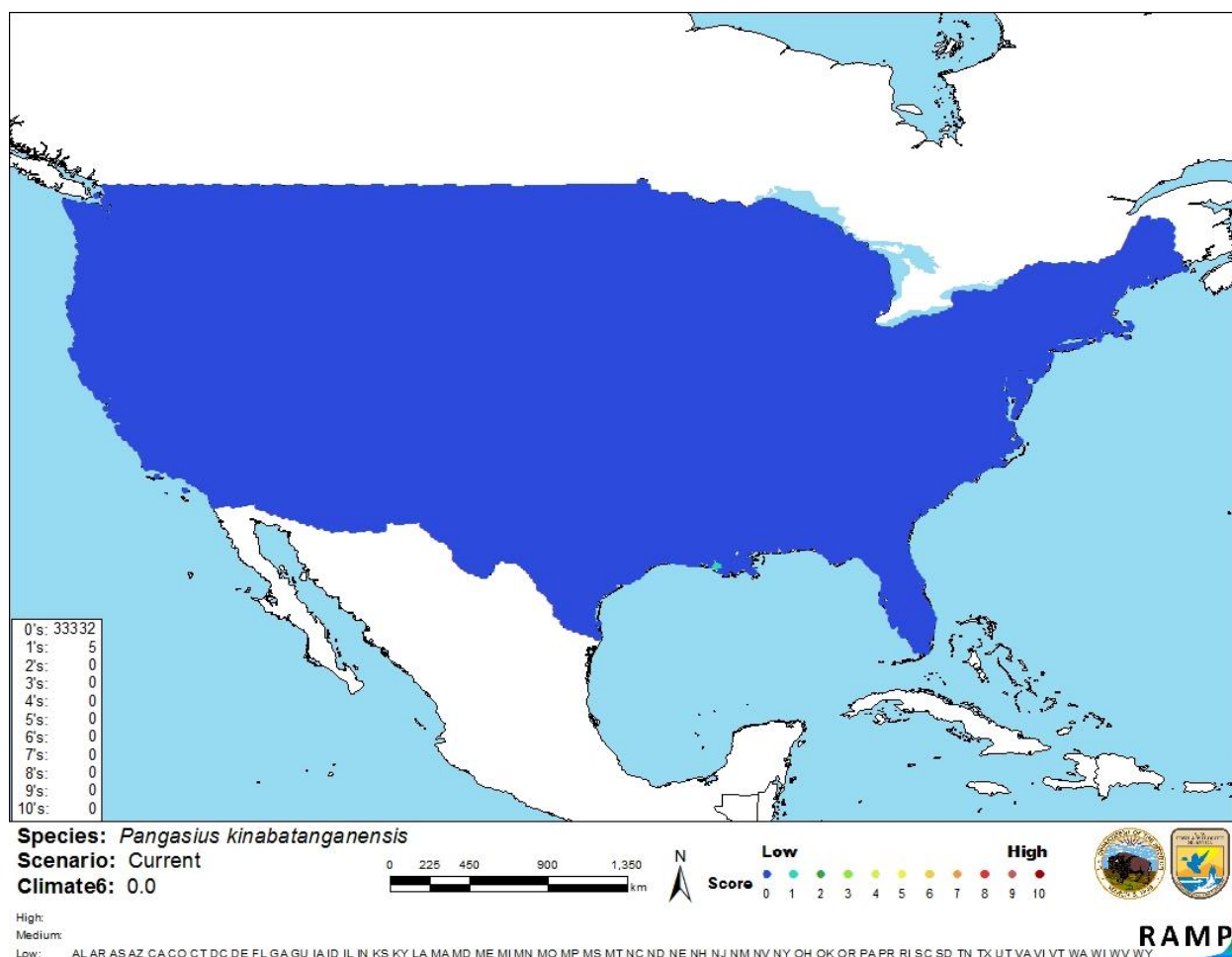


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Pangasius kinabatanganensis* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

The High, Medium, and Low Climate match Categories are based on the following table:

Climate 6: (Count of target points with climate scores 6-10)/ (Count of all target points)	Overall Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

8 Certainty of Assessment

The certainty of assessment for *Pangasius kinabatanganensis* is low. There was some biological and ecological information available for this species. No records of introductions were found. Therefore, there is no information on impacts of introductions to evaluate.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Pangasius kinabatanganensis is a species of catfish native to the Kinabatangan River basin in northeastern Borneo. No information on human uses of *P. kinabatanganensis* was found. The history of invasiveness is no known nonnative population. No records of introduction were found so there is no information on impacts of introductions. No records of this species in trade were found. The climate match is low. The entire contiguous United States had a low climate match. The certainty of assessment is low. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 4): No Known Nonnative Population**
- **Overall Climate Match Category (Sec. 7): Low**
- **Certainty of Assessment (Sec. 8): Low**
- **Remarks/Important additional information: no additional information**
- **Overall Risk Assessment Category: Uncertain**

10 Literature Cited

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 11.

- Eschmeyer WN, Fricke R, van der Laan R, editors. 2018. Catalog of fishes: genera, species, references. California Academy of Science. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (August 2018).
- Froese R, Pauly D, editors. 2018. *Pangasius kinabatanganensis* Roberts & Vidthayanon, 1991. FishBase. Available: <http://www.fishbase.se/summary/Pangasius-kinabatanganensis.html> (August 2018).
- GBIF Secretariat. 2018. GBIF backbone taxonomy: *Pangasius kinabatanganensis* Roberts & Vidthayanon, 1991. Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/5202440> (October 2017).
- Gustiano R, Pouyaud L. 2005. Riverine catfishes of Kalimantan, Pangasiidae: diagnosis, distribution, and ecology. Indonesian Fisheries Research Journal 11:59–66.
- [ITIS] Integrated Taxonomic Information System. 2018. *Pangasius kinabatanganensis* Roberts & Vidthayanon, 1991. Reston, Virginia: Integrated Taxonomic Information System. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=681700#null (August 2018).

[OIE] World Organisation for Animal Health. 2020. OIE-listed diseases, infections and infestations in force in 2020. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2020/> (April 2020).

Pariselle A, Lim LHS, Lambert A. 2001. Monogeneans from Pangasiidae (Siluriformes) in Southeast Asia: I. Five new species of *Thaparocleidus* Jain, 1952 (Ancylo-discoidinae) from *Pangasius pangasius*, *P. kinabatanganensis*, *P. rheophilus* and *P. nieuwenhuisii*. Parasite 8:127–135.

Roberts TR, Vidthayanon C. 1991. Systematic revision of the Asian catfish family Pangasiidae, with biological observations and descriptions of three new species. Proceedings of the Academy of Natural Sciences of Philadelphia 143:97–143.

Sanders S, Castiglione C, Hoff M. 2018. Risk Assessment Mapping Program: RAMP. Version 3.1. U.S. Fish and Wildlife Service.

11 Literature Cited in Quoted Material

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.

Kottelat M, Whitten AJ. 1996. Freshwater fishes of Western Indonesia and Sulawesi: additions and corrections. Hong Kong: Periplus Editions.