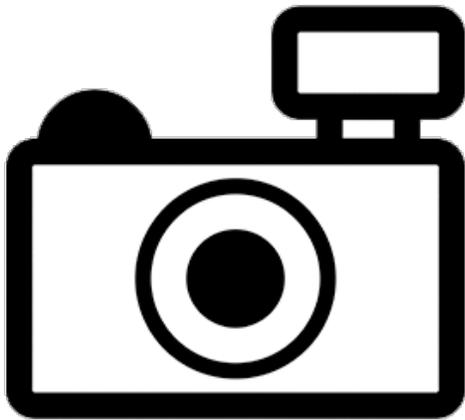


***Pangasius rheophilus* (a catfish, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, April 2012
Revised, August 2018
Web Version, 2/10/2021

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: Indonesia.”

From Gustiano (2009):

“Distribution: *P. rheophilus* is presently known from Kayan and Berau River in the Bulungan Regency, Kalimantan Timur (Indonesia). *P. rheophilus* has been collected from freshwater near the mouth but also from the upper reaches of the two basins. In the lower reaches, the habitats consist of large pools near the sea, with deep and turbid waters. In the upper reaches, the habitats consist of big torrent characterized by turbulent and clear water (altitude 200-400 m).”

Status in the United States

No records of *Pangasius rheophilus* in the wild or in trade in the United States were found.

Pseudolais micronemus falls within Group I of New Mexico's Department of Game and Fish Director's Species Importation List (New Mexico Department of Game and Fish 2010). Group I species "are designated semi-domesticated animals and do not require an importation permit." With the added restriction of "Not to be used as bait fish."

Means of Introductions in the United States

No records of *Pangasius rheophilus* 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 rheophilus* Pouyaud and G. Teugels 2000 is the current valid name and the original name for this species.

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 rheophilus* Pouyaud and Teugels, 2000

Size, Weight, and Age Range

From Froese and Pauly (2018):

"Max length : 77.5 cm SL male/unsexed; [Pouyaud and Teugels 2000]"

Environment

From Froese and Pauly (2018):

“Freshwater; pelagic.”

Climate

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018):

“Asia: Indonesia.”

From Gustiano (2009):

“Distribution: *P. rheophilus* is presently known from Kayan and Berau River in the Bulungan Regency, Kalimantan Timur (Indonesia). *P. rheophilus* has been collected from freshwater near the mouth but also from the upper reaches of the two basins. In the lower reaches, the habitats consist of large pools near the sea, with deep and turbid waters. In the upper reaches, the habitats consist of big torrent characterized by turbulent and clear water (altitude 200-400 m).”

Introduced

No records of introductions of *Pangasius rheophilus* were found.

Means of Introduction Outside the United States

No records of introductions of *Pangasius rheophilus* were found.

Short Description

From Froese and Pauly (2018):

“Body width 14.9-17% SL; predorsal length 34.6-36.1% SL. Large vomerine tooth plate bordered by long and slender palatine tooth plates. A 2-chambered swim bladder is confined to the abdomen.”

Biology

From Gustiano (2009):

“Ecology: Information from fishermen indicates that immature specimens occur all over the basin, mature specimens seem only present in the upper reaches in running water. Still according to local fishermen, the large specimens are able to cross important water falls by jumping out of the water. Mature fish were caught in November, at the beginning of the rainy season, in the

upstream part of the Bahau River (Kayan tributary). Reproductive behaviour is unknown. Skeletal parts of small cyprinid species and remains of fruits were collected in the stomach of a large specimen (775 mm SL), molluscs predominant in stomach contents of small specimens (Pouyaud and Teugels 2000).”

Human Uses

No information on the human uses of *Pangasius rheophilus* were found.

Diseases

No records of OIE-reportable diseases (OIE 2021) were found for *Pangasius rheophilus*.

Pariselle et al. (2001) lists *Thaparocleidus redebensis* as a parasite of *P. rheophilus*.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

No records of introductions of *Pangasius rheophilus* were found; therefore, there is no information on impacts of introductions.

4 History of Invasiveness

No records of introductions of *Pangasius rheophilus* were found; therefore, the history of invasiveness is no known nonnative population.

5 Global Distribution



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

6 Distribution Within the United States

No records of *Pangasius rheophilus* in the wild in the United States were found.

7 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Pangasius rheophilus* was low across the entire contiguous United States. There were no areas of high or 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 had a low individual climate score.

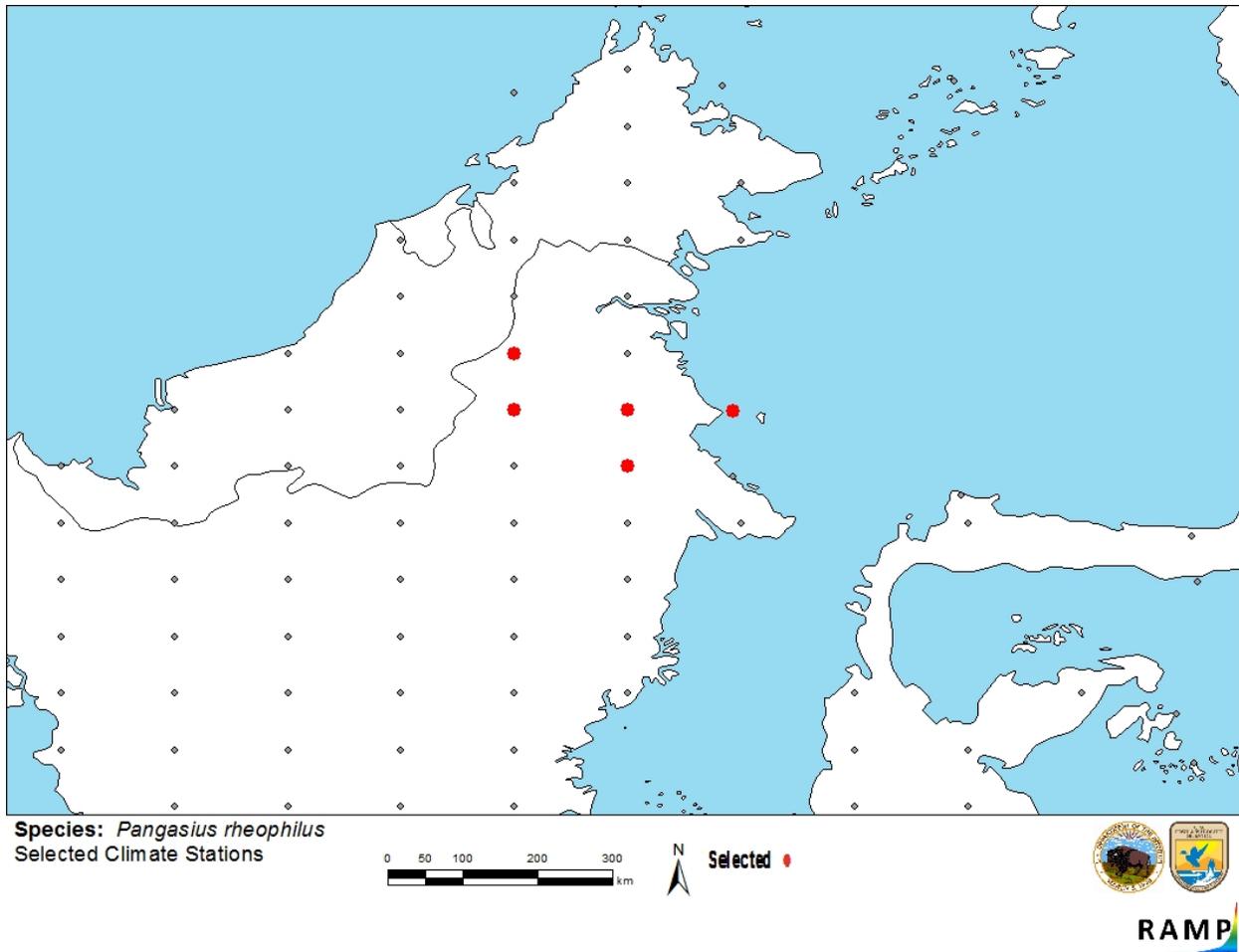


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in southern Asia selected as source locations (red; Indonesia) and non-source locations (gray) for *Pangasius rheophilus* climate matching. Source locations from GBIF Secretariat (2018). Selected source locations are within 100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

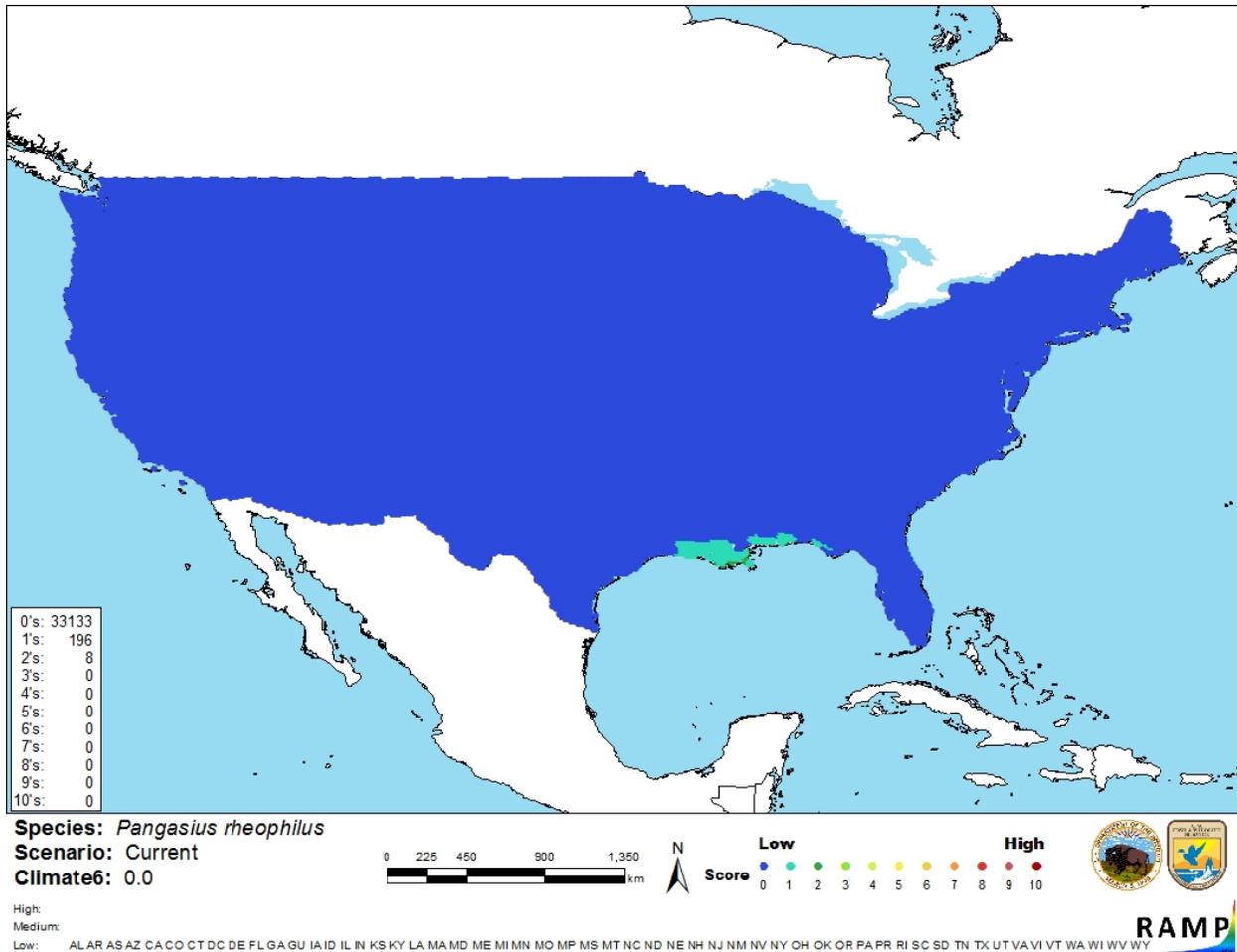


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Pangasius rheophilus* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match.

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 is low. There was some general information about the species available from peer-reviewed sources. There were no records of introductions found and therefore there is no information on impacts available to evaluate.

9 Risk Assessment

Summary of Risk to the Contiguous United States

Pangasius rheophilus is a species of catfish native to northern Borneo in Indonesia. Adults can be found in upstream areas and have the ability to overcome barriers such as waterfalls via a jumping behavior. The history of invasiveness is no known nonnative population. There were no records of introductions to the wild found. The climate match was low. There were no areas of high or medium match. The certainty of assessment is low. The overall risk assessment 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 rheophilus* Pouyaud and Teugels, 2000. FishBase. Available: <https://www.fishbase.de/summary/Pangasius-rheophilus.html> (August 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Pangasius rheophilus* (Pouyaud and Teugels, 2000). Copenhagen: Global Biodiversity Information Facility. Available: <https://www.gbif.org/species/5202449> (August 2018).

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New Mexico Department of Game and Fish. 2010. Director's species importation list. Santa Fe, New Mexico: New Mexico Department of Game and Fish. Available: http://www.wildlife.state.nm.us/download/enforcement/importation/information/Directors-Species-Importation-List-08_03_2010.pdf (November 2020).

[OIE] World Organisation for Animal Health. 2021. OIE-listed diseases, infections and infestations in force in 2021. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2021/> (February 2021).

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.

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.

Pouyaud L, Teugels GG. 2000. Description of a new pangasiid catfish from east Kalimantan, Indonesia (Siluriformes: Pangasiidae). Ichthyological Exploration of Freshwaters 11:193–200.