

***Epalzeorhynchos munense* (a fish, no common name)**

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, June 2012
Revised, November 2018
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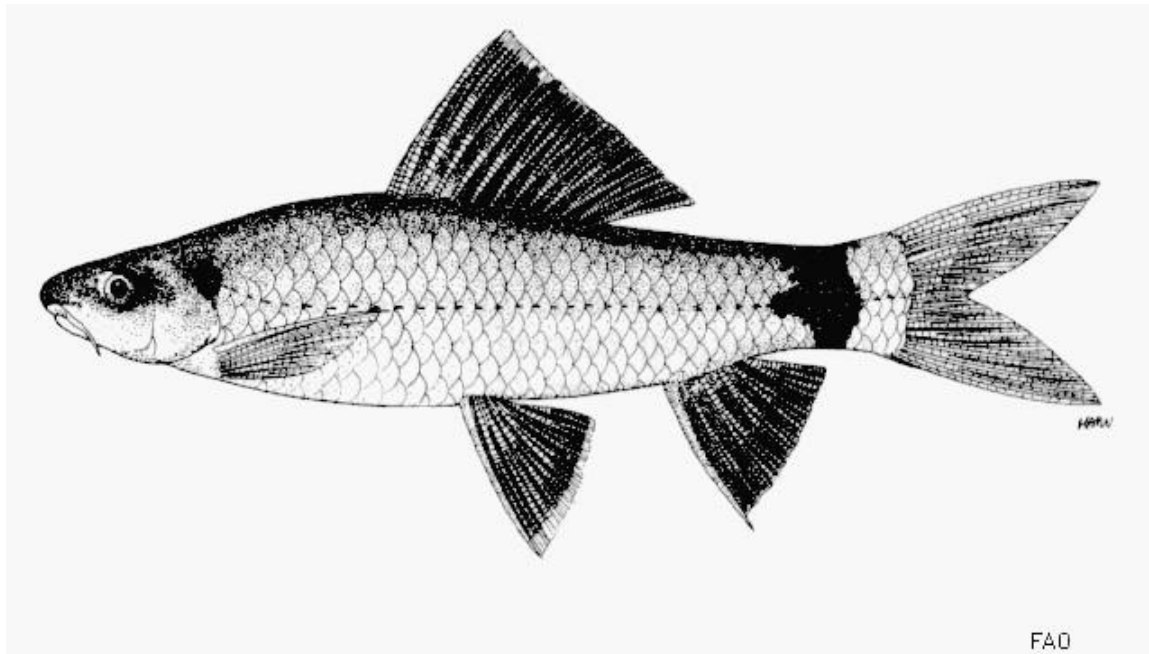


Photo: W. J. Rainboth/FAO. Licensed under Creative Commons BY-NC 3.0 Unported.
Available:
<http://www.fishbase.org/photos/PicturesSummary.php?StartRow=0&ID=27163&what=species&TotRec=2>. (November 9, 2018).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2018a):

“Asia: Mekong [Cambodia, Thailand, Laos] and Chao Phraya [Thailand] basins [Kottelat 2001] and Maeklong basin [Thailand] [Vidthayanon et al. 1997].”

“[In Laos:] Known from the middle Xe Bangfai, a tributary of the Mekong basin [Kottelat 1998].”

Status in the United States

No records of *Epalzeorhynchus munense* in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of *Epalzeorhynchus munense* in the wild in the United States were found.

Remarks

Information searches were conducted using the valid name *Epalzeorhynchus munense* and the synonym *Labeo munensis*.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Fricke et al. (2018), *Epalzeorhynchus munense* is the valid name for this species. It was originally described as *Labeo munensis*.

From Froese and Pauly (2018b):

“Animalia (Kingdom) > Chordata (Phylum) > Vertebrata (Subphylum) > Gnathostomata (Superclass) > [...] Actinopterygii (Class) > Cypriniformes (Order) > Cyprinidae (Family) > *Epalzeorhynchus munense* (Species)”

Size, Weight, and Age Range

From Froese and Pauly (2018a):

“Max length : 9.3 cm SL male/unsexed; [Kottelat 1998]”

Environment

From Froese and Pauly (2018a):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2018a):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2018a):

“Asia: Mekong [Cambodia, Thailand, Laos] and Chao Phraya [Thailand] basins [Kottelat 2001] and Maeklong basin [Thailand] [Vidthayanon et al. 1997].”

“[In Laos:] Known from the middle Xe Bangfai, a tributary of the Mekong basin [Kottelat 1998].”

Introduced

Xiong et al. (2015) list *Epalzeorhynchos munense* as introduced to China in the aquarium trade. There was no indication if the species was introduced to the wild or just imported in trade.

Means of Introduction Outside the United States

Xiong et al. (2015) lists the aquarium trade as the introduction vector.

Short Description

From Froese and Pauly (2018a):

“Head, body and anal fin black; bright red caudal fin; red dorsal fin; pelvic and pectoral fins with black margins [Kottelat 1998]. With 11-12 branched dorsal-fin rays; 26-30 gill rakers on anterior side of first arch [Rainboth 1996].”

Biology

From Froese and Pauly (2018a):

“Observed among boulders and rocks [Kottelat 1998]. Known from midwater to bottom levels of streams and rivers. During the flood season, it moves into inundated forests and returns to the river as water levels recede. Feeds on phytoplankton and zooplankton.”

Human Uses

From Jenkins et al. (2009):

“Use of this species for human food is certain. It is probable that this species is also used in the aquarium trade. No farming known, therefore 100% wild harvest assumed.”

Diseases

No information on diseases of *Epalzeorhynchos munense* was found.

Threat to Humans

From Froese and Pauly (2018a):

“Harmless”

3 Impacts of Introductions

One record of introduction was found in China (Xiong et al. 2015), but it was not clear if it was an introduction to the wild and there is no information on impacts of introduction.

4 Global Distribution



Figure 1. Known global distribution of *Epalzeorhynchus munense*. Locations are in Thailand, Laos, and Cambodia. Map from GBIF Secretariat (2018).

5 Distribution Within the United States

No records of *Epalzeorhynchus munense* in the wild in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Epalzeorhynchus munense* was mostly low for the contiguous United States. There was a small area of medium match in the southern tip of Texas and southwestern Florida had a medium climate match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, low. All States had low individual climate matches.

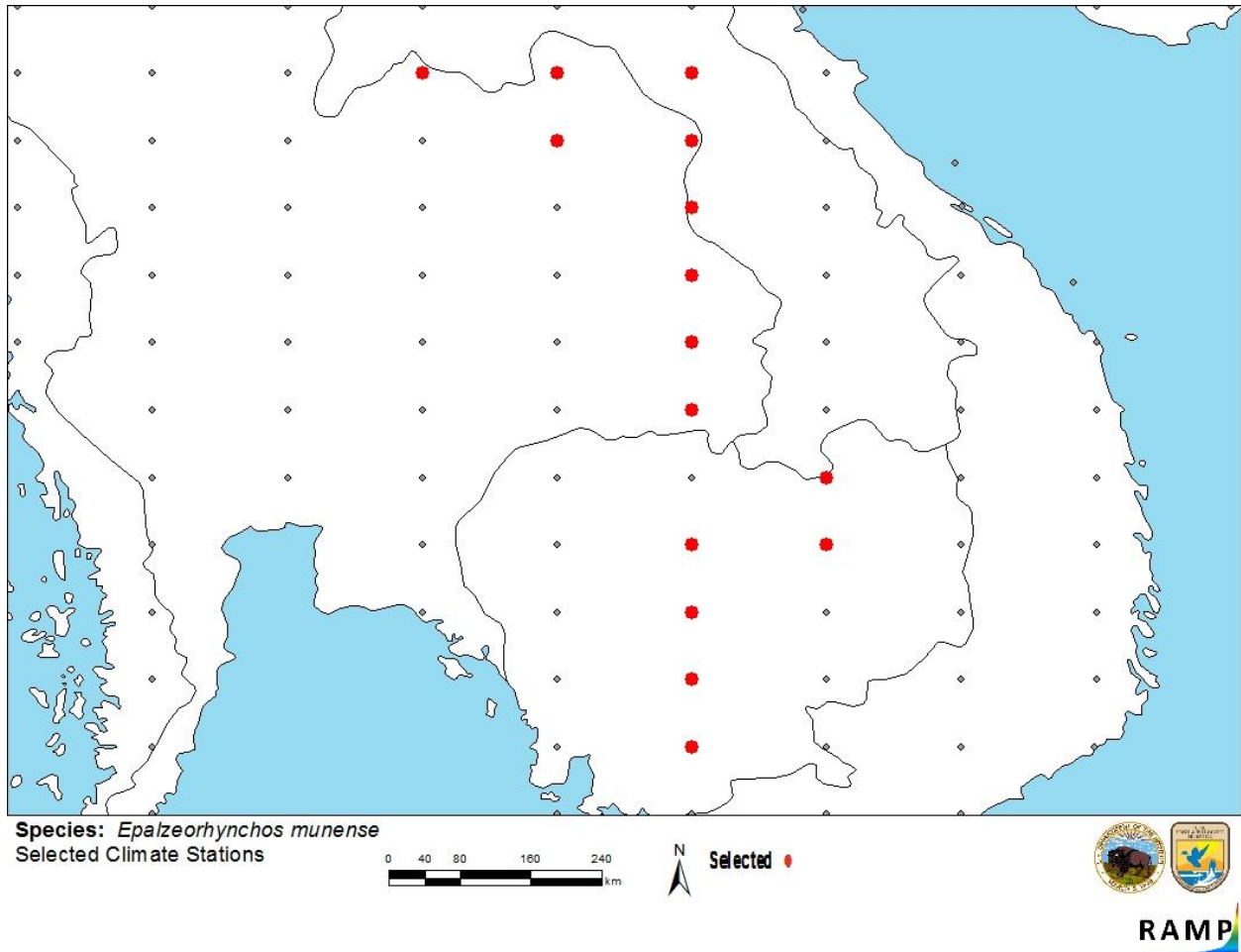


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Southeast Asia selected as source locations (red; Thailand, Laos, Cambodia) and non-source locations (gray) for *Epalzeorhynchus munense* climate matching. Source locations from GBIF Secretariat (2018).

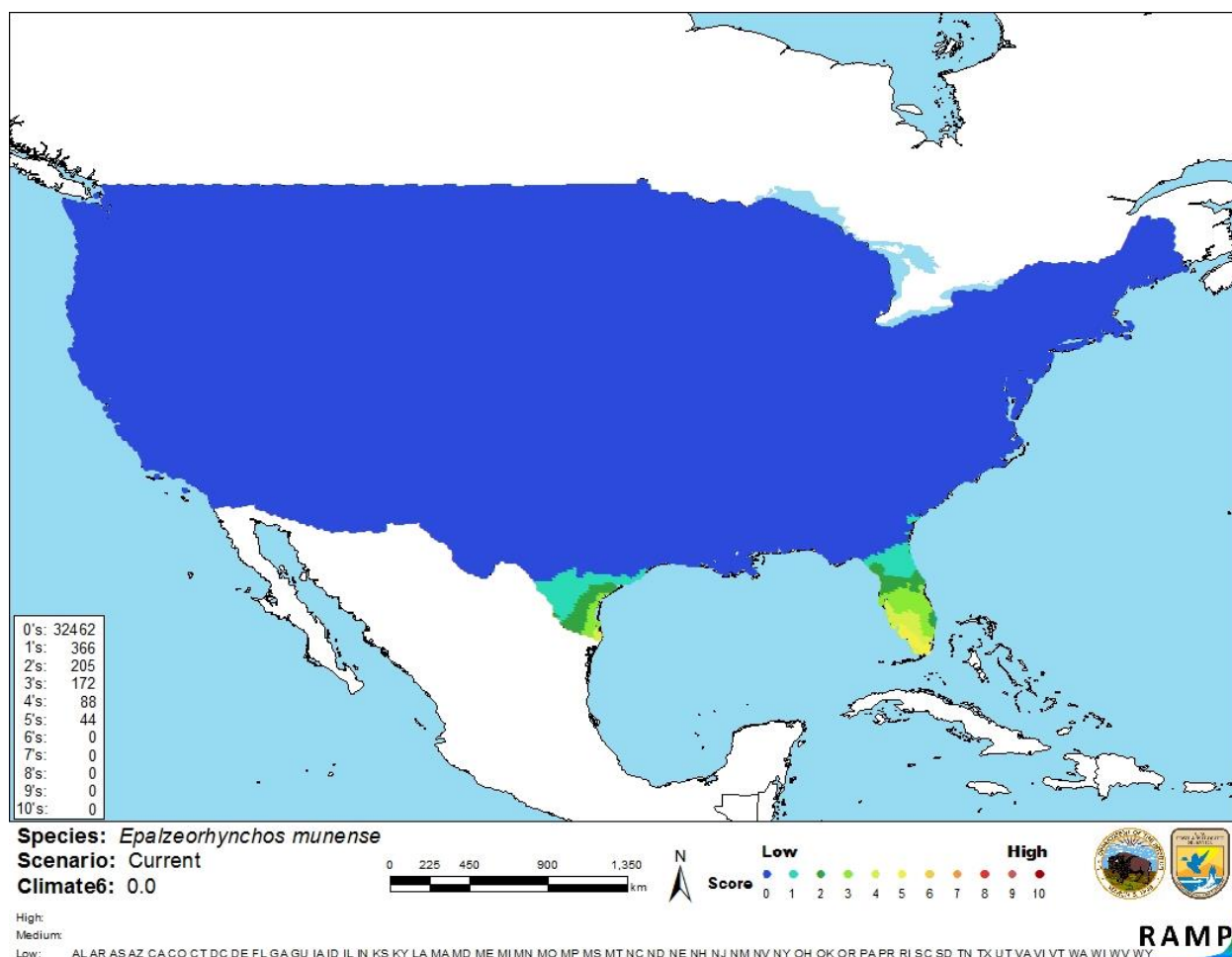


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Epalzeorhynchus munense* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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 *Epalzeorhynchus munense* is low. There is some information available for this species, but not much peer-reviewed literature. A single record of introduction was found (China), but it is unclear if the introduction was to the wild or just into the country as part of the aquarium trade. There is no information on impacts of introductions.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Epalzeorhynchus munense is a species of cyprinid fish that is native to river basins in Southeast Asia. It is used for human consumption and is in the aquarium trade. The history of invasiveness is uncertain. A single record of introduction was found (China) but there is no record of any established non-native populations. No information on the duration or volume of trade was found. The climate match is low for the contiguous United States. There were small areas of medium climate match in southern Texas and Florida. The certainty of assessment is low. The overall risk assessment category 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. 2018. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (November 2018).

Froese, R., and D. Pauly, editors. 2018a. *Epalzeorhynchus munense* (Smith, 1934). FishBase. Available: <http://www.fishbase.se/summary/Vandellia-cirrrosa.html>. (November 2018).

Froese, R., and D. Pauly, editors. 2018b. *Epalzeorhynchus munense*. In World Register of Marine Species. Available: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=1015545>. (November 2018).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Epalzeorhynchus munense* (Smith, 1934). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2360406>. (November 2018).

Jenkins, A., F. F. Kullander, and H. H. Tan. 2009. *Epalzeorhynchus munense*. The IUCN Red List of Threatened Species 2009: e.T169524A6642292. Available: <https://www.iucnredlist.org/species/169524/6642292>. (November 2018).

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

Xiong, W., X. Sui, S.-H. Liang, and Y. Chen. 2015. Non-native freshwater fish species in China. *Reviews in Fish Biology and Fisheries* 25:651–687.

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.

Kottelat, M. 1998. Fishes of the Nam Theun and Xe Bangfai basins, Laos, with diagnoses of twenty-two new species (Teleostei: Cyprinidae, Balitoridae, Cobitidae, Coiidae and Odontobutidae). *Ichthyological Explorations of Freshwaters* 9(1):1–128.

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Vidthayanon, C., J. Karnasuta, and J. Nabhitabhata. 1997. *Diversity of freshwater fishes in Thailand*. Office of Environmental Policy and Planning, Bangkok, Thailand.