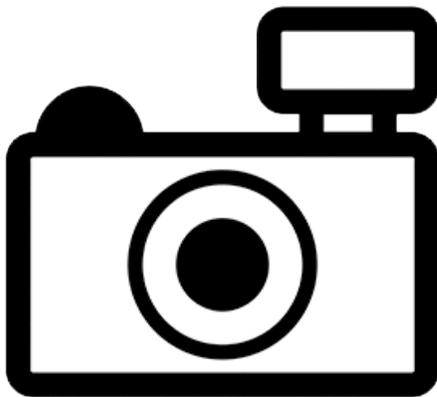


Henicorhynchus lineatus (a carp, no common name)

Ecological Risk Screening Summary

U.S. Fish and Wildlife Service, June 2012
Revised, September 2018
Web Version, 2/15/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Allen (2011):

“Recorded in the Mekong and Chao Phraya basins in Thailand, Cambodia, and Lao PDR.”

Status in the United States

This species has not been reported as introduced or established in the United States. There is no indication that this species is in trade in the United States.

Means of Introductions in the United States

This species has not been reported as introduced or established in the United States.

Remarks

Allen (2011) uses the scientific name *Gymnostomus lineatus* for this species. Information for this report was sought using both scientific names, *Gymnostomus lineatus* and *Henicorhynchus lineatus*.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2018):

“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 *Henicorhynchus*
Species *Henicorhynchus lineatus* (Smith, 1945)”

From Fricke et al. (2018):

“Current status: Valid as *Henicorhynchus lineatus* (Smith 1945). Cyprinidae: Labeoninae.”

Size, Weight, and Age Range

From Froese and Pauly (2018):

“Max length : 15.0 cm SL male/unsexed; [Kottelat 1998]”

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic; potamodromous [Riede 2004].”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Allen (2011):

“Recorded in the Mekong and Chao Phraya basins in Thailand, Cambodia, and Lao PDR.”

Introduced

This species has not been reported as introduced or established outside of its native range.

Means of Introduction Outside the United States

This species has not been reported as introduced or established outside of its native range.

Short Description

From Smith (1945):

“Depth 3.6 in standard length; depth of caudal peduncle 1.5 in its length and 2.5 in depth of body; head 4.3, its width 1.25 in its depth and 1.7 in its length; snout 3 in head; eye 4.5 in head, 1.5 in snout, and 2.5 in interorbital space ; snout and top of head with numerous minute pores and low papillae; width of mouth somewhat greater than diameter of eye, lips thin and entire ; a pair of maxillary barbels 0.25 length of eye concealed in postlabial groove.”

“Squamation : Scales (tube-bearing) in lateral line 33, in transverse series 5.5-1-3 to base of ventral, in predorsal region 10, surrounding caudal peduncle 20 ; ventral axillary scale 2.5 in length of fin.”

“Fins: Origin of dorsal fin far in advance of ventrals, over ninth scale of lateral line; dorsal rays iii, 8, first branched ray as long as head; caudal fin longer than head, equal to depth of body, deeply forked, lobes pointed ; anal rays iii, 5, longest more than 0.5 head ; ventral fins 1.2 in pectorals, which are slightly shorter than head, pectoral rays i, 13.”

“Coloration: Generally silvery white, back and top of head light olive; five narrow, sharply defined blackish longitudinal stripes on body, three above lateral line most distinct; a dark elliptical spot on caudal peduncle at base of caudal fin ; edge of dorsal fin black, dorsal membranes medianly blackish in their posterior half ; caudal fin dusky green ; other fins pale greenish.”

Biology

From Froese and Pauly (2018):

“Occurs mainly in medium to large-sized rivers and enters flooded fields [Taki 1978].”

Human Uses

From Allen (2011):

“Grows to a maximum length of 15 cm, and likely to be utilised in local fisheries.”

Diseases

No information available. No OIE-reportable diseases have been documented for this species.

Threat to Humans

From Froese and Pauly (2018):

“Harmless”

3 Impacts of Introductions

This species has not been reported as introduced or established outside of its native range.

4 Global Distribution

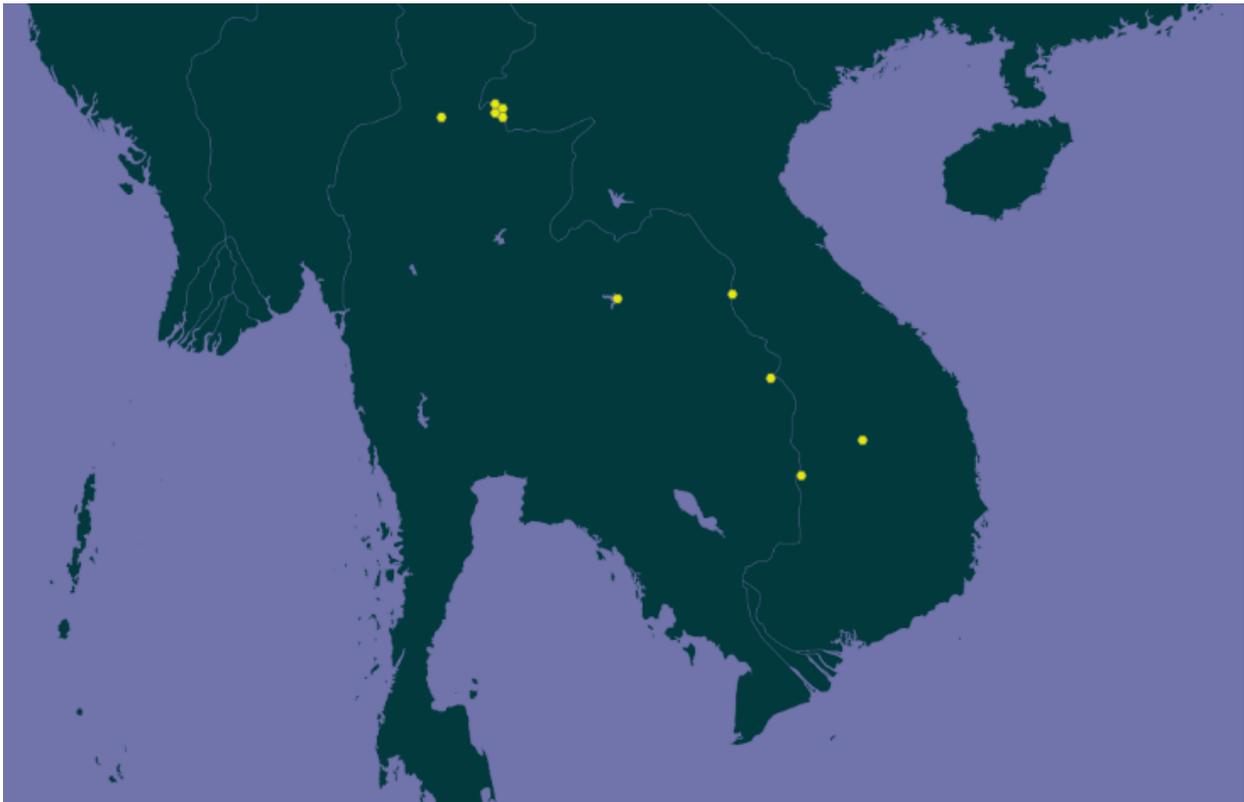


Figure 1. Known global distribution of *Henicorhynchus lineatus*, reported from Southeast Asia. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

This species has not been reported as introduced or established in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.000, which is low. A Climate 6 score of 0.005 or below indicates

a low climate match. All states in the contiguous United States had a low climate score. There were areas of medium climate match in southern Florida and southeastern Texas. The remainder of the contiguous United States had a low match.

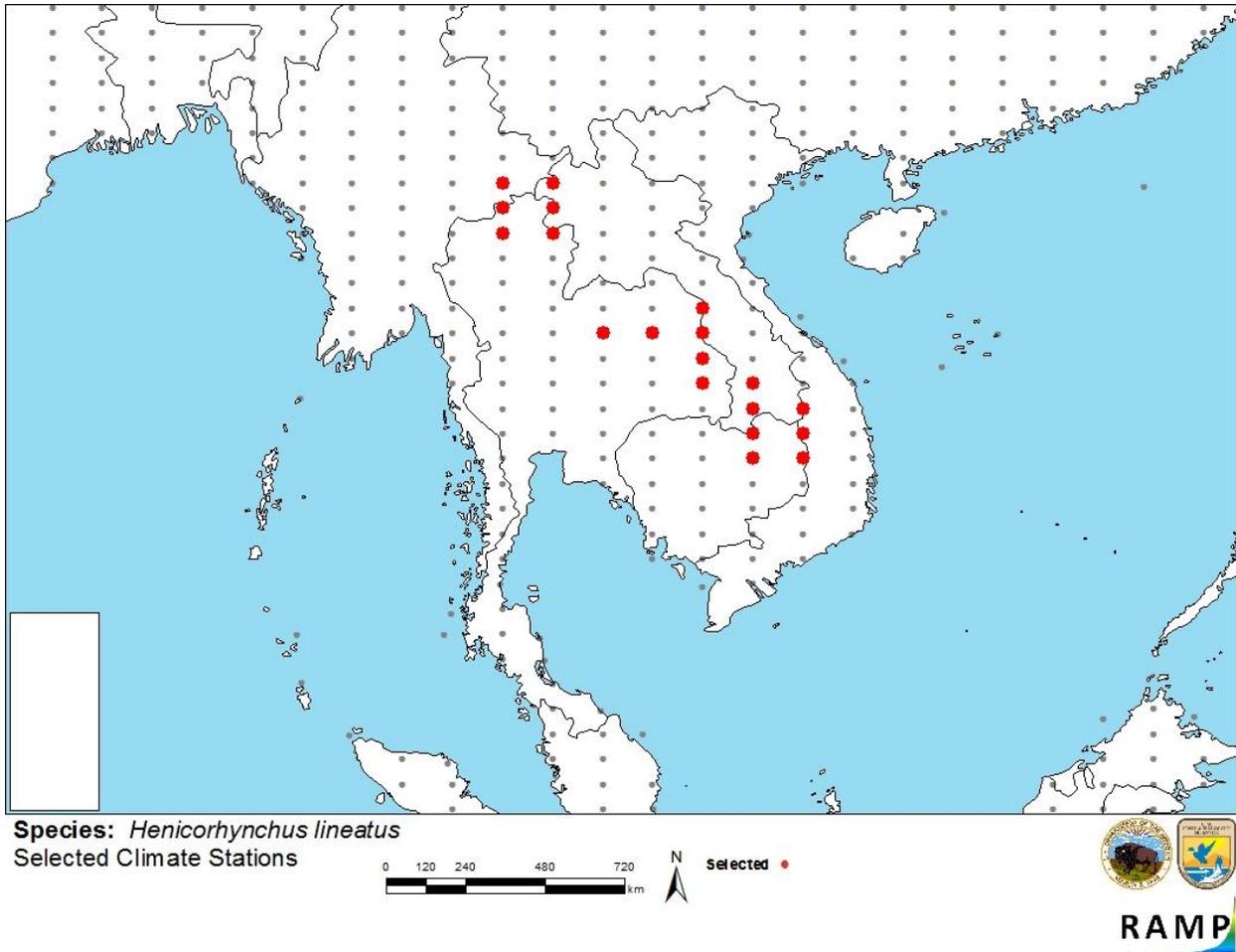


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations selected as source locations (red; Thailand, Cambodia, Laos, Vietnam, and Myanmar) and non-source locations (gray) for *Henicorhynchus lineatus* climate matching. Source locations from GBIF Secretariat (2017). Selected source locations are within 100 km of one or more species occurrences, and do not necessarily represent the locations of occurrences themselves.

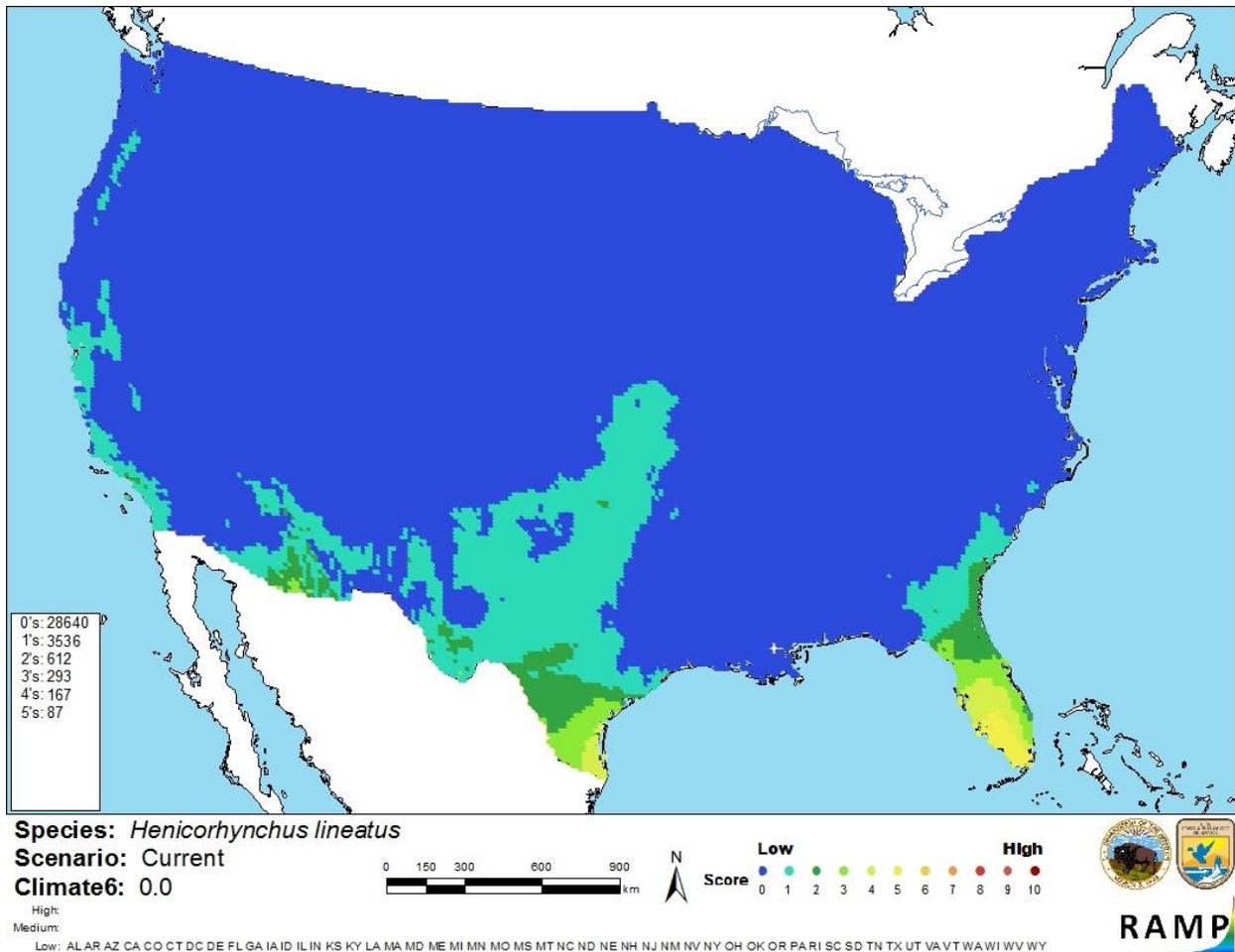


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Henicorhynchus lineatus* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0= Lowest match, 10= Highest match.

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
$0.000 \leq X < 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

There is very little information available about the biology and ecology of *Henicorhynchus lineatus*. This species has never been reported as introduced or established outside of its native range. Because of this, there is inadequate information available from which to assess the risk this species poses to the contiguous United States. Certainty of this assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Henicorhynchus lineatus is a freshwater fish species native to Southeast Asia. It may be used as a food fish in its native range. There is no indication that this species is in trade in the United States. History of invasiveness is uncertain because no introductions of *H. lineatus* have been reported. *H. lineatus* has a low climate match with the contiguous United States. There were areas of medium climate match in southern Texas and Florida. Because so little information is available about *H. lineatus*, certainty of this 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**
- **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.

- Allen, D. J. 2011. *Gymnostomus lineatus*. The IUCN Red List of Threatened Species 2011: e.T187870A8637633. Available: <http://www.iucnredlist.org/details/187870/0>. (September 2018).
- 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>. (September 2018).
- Froese, R., and D. Pauly, editors. 2018. *Henicorhynchus lineatus* (Smith, 1945). FishBase. Available: <http://www.fishbase.us/summary/SpeciesSummary.php?genusname=Henicorhynchus&speciesname=lineatus>. (September 2018).
- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Henicorhynchus lineatus*, Smith, 1945. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2361367>. (September 2018).
- ITIS (Integrated Taxonomic Information System). 2018. *Henicorhynchus lineatus* (Smith, 1945). Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=689219#null. (September 2018).

Sanders, S., C. Castiglione, and M. H. Hoff. 2014. Risk Assessment Mapping Program: RAMP. 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.

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 Exploration of Freshwaters* 9(1):1-128.

Riede, K. 2004. Global register of migratory species - from global to regional scales. Final Report of the R&D-Projekt 808 05 081. Federal Agency for Nature Conservation, Bonn, Germany.

Taki, Y. 1978. An analytical study of the fish fauna of the Mekong basin as a biological production system in nature. Research Institute of Evolutionary Biology Special Publications 1. Tokyo.