

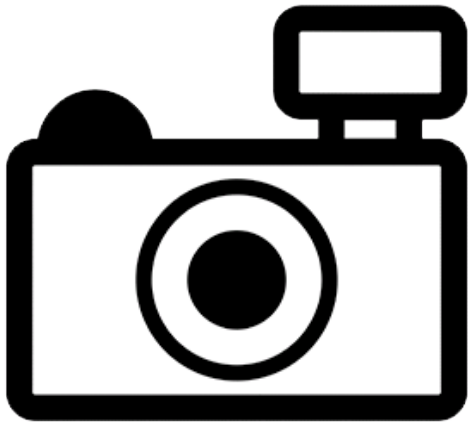
Yellowfin Culter (*Chanodichthys flavipinnis*)

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, June 2012

Revised, March 2019

Web Version, 10/17/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2019):

“Asia: Annam, Viet Nam.”

From Huckstorf and Freyhof (2012):

“The species is known from Red River basin in northern Viet Nam and southern China (Chu and Chen 1989, Nguyen and Ngo 2001) and the Huong, Quang Tri, Giang and Lam river basins in Central Viet Nam (J. Freyhof pers. com. 2010 [Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin]).”

Status in the United States

Chanodichthys flavipinnis has not been documented in trade or in the wild in the United States.

Means of Introductions in the United States

Chanodichthys flavipinnis has not been documented in the wild in the United States.

Remarks

Both the current valid name, *Chanodichthys flavipinnis* and the previous valid name *Culter flavipinnis* were used to conduct research.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2019):

“**Current status:** Valid as *Chanodichthys flavipinnis* (Tirant 1883).”

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 *Chanodichthys*
Species *Chanodichthys flavipinnis* (Tirant, 1883)”

Size, Weight, and Age Range

No information was found on size, weight or age for *Chanodichthys flavipinnis*.

Environment

From Froese and Pauly (2019):

“Freshwater; benthopelagic.”

Climate/Range

From Froese and Pauly (2019):

“Tropical”

Distribution Outside the United States

Native

From Froese and Pauly (2019):

“Asia: Annam, Viet Nam.”

From Huckstorf and Freyhof (2012):

“The species is known from Red River basin in northern Viet Nam and southern China (Chu and Chen 1989, Nguyen and Ngo 2001) and the Huong, Quang Tri, Giang and Lam river basins in Central Viet Nam (J. Freyhof pers. com. 2010 [Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin]).”

Introduced

Chanodichthys flavipinnis has not been reported as introduced anywhere outside of their native range.

Means of Introduction Outside the United States

Chanodichthys flavipinnis has not been reported as introduced anywhere outside of their native range.

Short Description

No information was found on a short description for *Chanodichthys flavipinnis*.

Biology

No information was found on the biology of *Chanodichthys flavipinnis*.

Human Uses

From Huckstorf and Freyhof (2012):

“Likely to be found in local fisheries.”

Diseases

No information on diseases was found for *Chanodichthys flavipinnis*. **No OIE-reportable diseases (OIE 2019) were found to be associated with this species.**

Threat to Humans

From Froese and Pauly (2019):

“Harmless”

3 Impacts of Introductions

Chanodichthys flavipinnis has not been reported as introduced anywhere outside of its native range. Therefore, there is no information on impacts of introduction.

4 Global Distribution



Figure 1. Known global distribution of *Chanodichthys flavipinnis*. Location in Vietnam. Map from GBIF Secretariat (2019).

5 Distribution Within the United States

Chanodichthys flavipinnis has not been reported in the United States.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for the contiguous United States was consistently very low. There are no areas of medium or high climate match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for contiguous United States was 0.000, low (scores between 0.000 and 0.005, inclusive, are classified as low). All States have low individual Climate 6 scores.

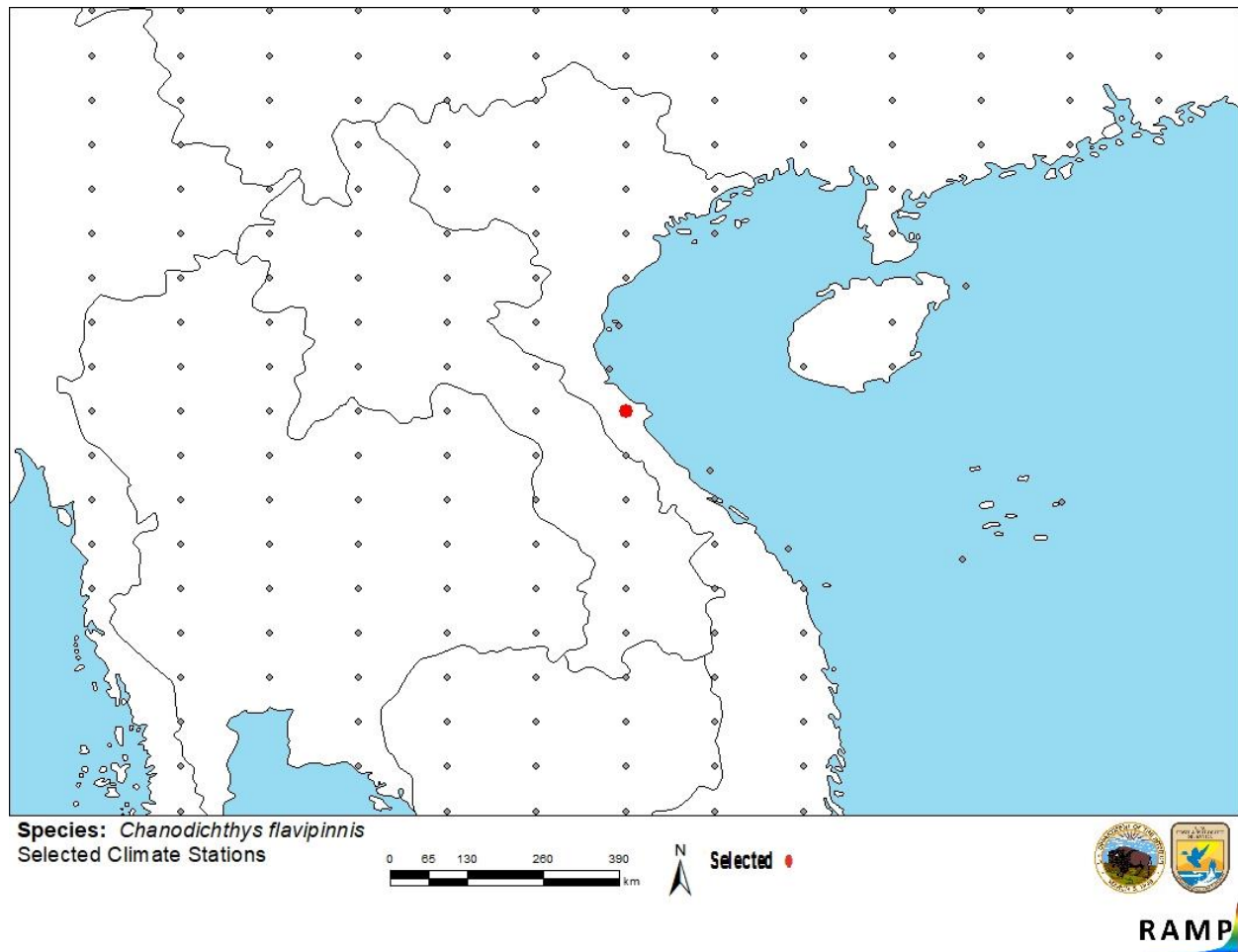


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in Vietnam selected as source locations (red) and non-source locations (gray) for *Chanodichthys flavipinnis* climate matching. Source locations from GBIF Secretariat (2019). Selected source locations are within 100 km of one or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

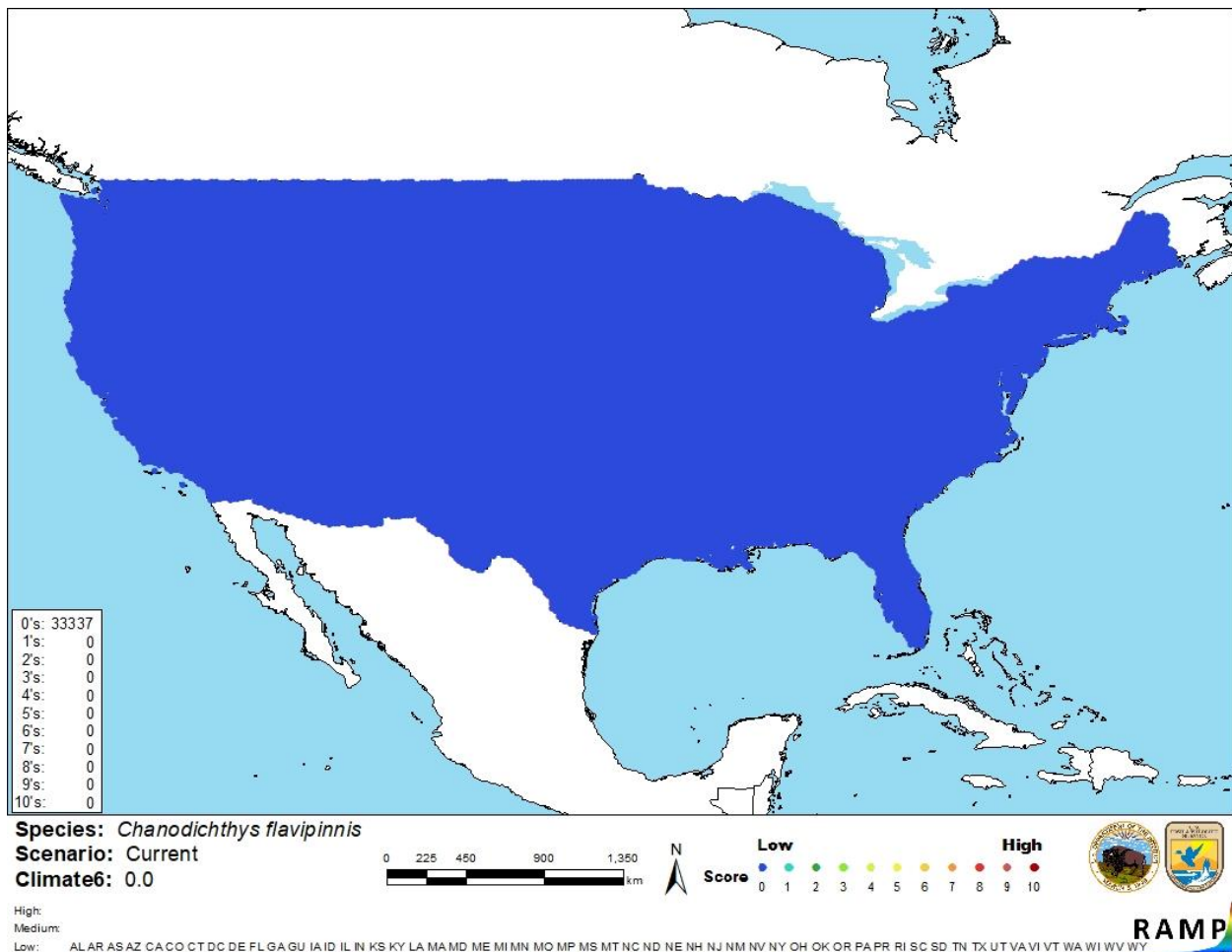


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Chanodichthys flavipinnis* in the contiguous United States based on source locations reported by GBIF Secretariat (2019). Counts of climate match scores are tabulated on the left. 0 = Lowest match, 10 = Highest match.

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

Certainty of assessment is low. Limited information is available on *Chanodichthys flavipinnis* and they have not been reported as introduced anywhere outside of their native range.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Chanodichthys flavipinnis is a freshwater cyprinid native to Annam, Vietnam. Limited information is available about this species. Huckstorf and Freyhof (2012) refer to *C. flavipinnis* as data deficient in the IUCN assessment. No records of introductions outside of the native range have been found, creating an uncertain history of invasiveness. This fish is not found in trade. The climate match for the contiguous United States was unanimously low, with all states receiving low individual climate scores. The certainty of assessment is low. The overall risk assessment category for *Chanodichthys flavipinnis* 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., Eschmeyer, W. N., and R. van der Laan, editors. 2019. Eschmeyer's catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (March 2019).

Froese, R., and D. Pauly, editors. 2019. *Culter flavipinnis* (Tirant, 1883). FishBase. Available: <http://www.fishbase.org/summary/Culter-flavipinnis.html>. (March 2019).

GBIF Secretariat. 2018. GBIF backbone taxonomy: *Culter flavipinnis* (Tirant, 1883). Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2367710>. (March 2019).

Huckstorf, V., and J. Freyhof. 2012. *Chanodichthys flavipinnis*. The IUCN Red List of Threatened Species 2012: e.T180699A1653158. Available: <http://dx.doi.org/10.2305/IUCN.UK.2012-1.RLTS.T180699A1653158.en>. (March 2019).

ITIS (Integrated Taxonomic Information System). 2019. *Chanodichthys flavipinnis* (Tirant, 1883). Integrated Taxonomic Information System. Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=688857#null. (March 2019).

OIE (World Organisation for Animal Health). 2019. OIE-listed diseases, infections and infestations in force in 2019. Available: <http://www.oie.int/animal-health-in-the-world/oie-listed-diseases-2019/>. (October 2019).

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

Chu, X. L., and Y. Chen. 1989. The fishes of Yunnan, China. Part I Cyprinidae. Science Press, Beijing.

Nguyen, V. H., and S. V. Ngo. 2001. Freshwater fish of Viet Nam. Agriculture Publisher, Ha Noi, Vietnam.