

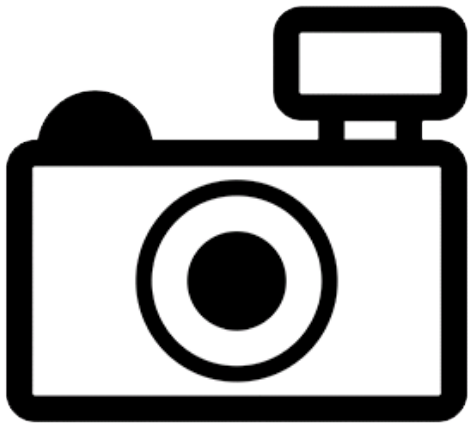
***Cyprinus intha* (a carp, no common name)**

Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, October 2012

Revised, December 2018

Web Version, 5/1/2019



No Photo Available

1 Native Range and Status in the United States

Native Range

From Vidthayanon (2011):

“The species is described from Inlé Lake, Myanmar. The area of the lake is ca. 116 km², however the open water area of the lake has declined by 32.4% in recent decades to 46.7 km² (Sidle et al. 2002), and may have declined further as a result of recent drought (Htwe 2010).”

Status in the United States

No records of *Cyprinus intha* in the wild or in trade in the United States were found.

Means of Introductions in the United States

No records of *Cyprinus intha* in the wild in the United States were found.

Remarks

A previous version of this ERSS for this fish was published in 2012.

From Vidthayanon (2011):

“It is impacted by overfishing and increased sedimentation and eutrophication from expanding agriculture around the margins of the lake. The species may also be impacted (competition and hybridisation) by the introduced *Cyprinus* species. It is assessed as Endangered as the EOO [Extent of Occurrence] meets the threshold of less than 5,000 km², AOO [Area of Occupancy] is less than 500 km², and it is found in only one location based on the major threat of overfishing.”

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

From Fricke et al. (2018):

“**Current status:** Valid as *Cyprinus intha* Annandale 1918.”

From ITIS (2018):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Actinopterygii
Class Teleostei
Superorder Ostariophysii
Order Cypriniformes
Superfamily Cyprinoidea
Family Cyprinidae
Genus *Cyprinus*
Species *Cyprinus intha* Annandale, 1918”

Size, Weight, and Age Range

No information on the size, weight, or age range of *Cyprinus intha* was found.

Environment

From Froese and Pauly (2018):

“Freshwater; benthopelagic”

From Vidthayanon (2011):

“Found in the shallow zone of the lake, in areas with dense submerged vegetation and muddy, high organic bottom.”

Climate/Range

From Froese and Pauly (2018):

“Tropical”

Distribution Outside the United States

Native

From Vidthayanon (2011):

“The species is described from Inlé Lake, Myanmar. The area of the lake is ca. 116 km², however the open water area of the lake has declined by 32.4% in recent decades to 46.7 km² (Sidle et al. 2002), and may have declined further as a result of recent drought (Htwe 2010).”

Introduced

No records of introduction were found for *Cyprinus intha*.

Means of Introduction Outside the United States

No records of introduction were found for *Cyprinus intha*.

Short Description

From Kottelat and Xin-Lou (1988):

“[...] *Cyprinus* even evolved an endemic species in Inle Lake (*C. intha* Annandale, 1918, originally described as a subspecies of *C. carpio* Linnaeus, 1758 but easily distinguished from any other species in the genus by its lower lateral line scale and branched dorsal fin ray counts); [...]”

Biology

From Vidthayanon (2011):

“Found in the shallow zone of the lake, in areas with dense submerged vegetation and muddy, high organic bottom.”

From Hlaing (2014):

“Spawning of this species usually takes place in waters with temperature ranging from 24°C to 26°C, between November and March.”

“Being demersal in nature, eggs of *C. intha* have been observed at the roots of water hyacinth or float loosely at the bottom. [...] Hatching occurs 71-72 hours after spawning, and the newly hatched larva is 5.21 ± 0.04 mm in length surrounding the yolk sac.”

Human Uses

From Vidthayanon (2011):

“There used to be a traditional fishery in the lake, but around 15 years ago, gill nets were introduced and many species have been over harvested including this species.”

From Hlaing (2014):

“Inle carp (*Cyprinus intha*, Annadale 1918), which is endemic to Lake Inle, is a staple of the local diet of the *inthas* [the local people].”

“Many attempts had been made to culture Inle carp, *Cyprinus intha* in fishponds near the Lake Inle to preserve this endemic species which has been declared as endangered”

Diseases

No information on diseases of *Cyprinus intha* was found.

Threat to Humans

From Froese and Pauly (2018):

“Harmless.”

3 Impacts of Introductions

No records of introduction were found for *Cyprinus intha*; therefore, there is no information on impacts of introduction.

4 Global Distribution



Figure 1. Known global distribution of *Cyprinus intha*. Location is in Myanmar. Map from GBIF Secretariat (2018).

5 Distribution Within the United States

No records of *Cyprinus intha* in the wild in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Cyprinus intha* was low for most of the contiguous United States. Southwestern Florida and southern Texas had areas of medium match. There were no areas of high match. The Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for contiguous United States was 0.000, low. All States had low individual climate matches.

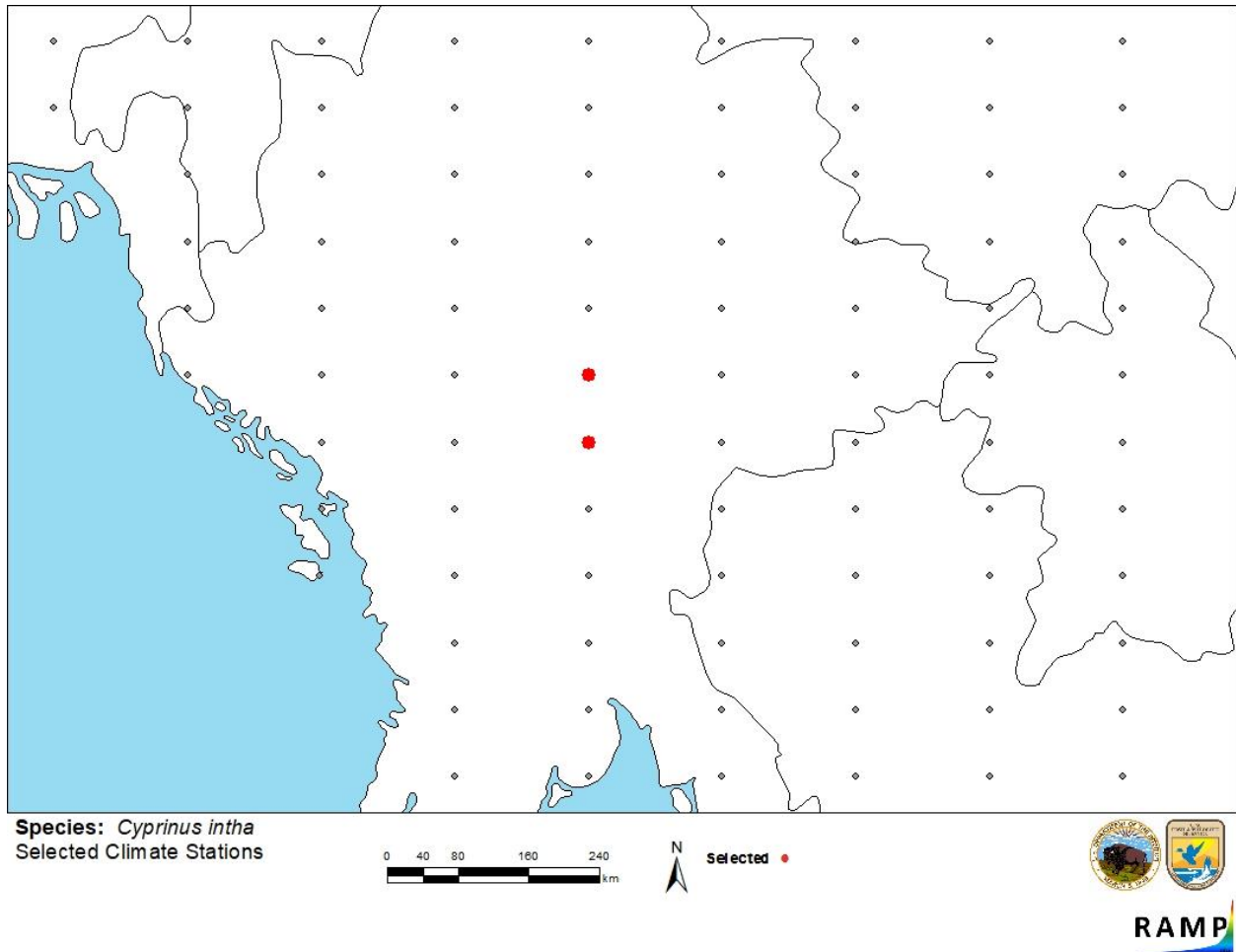


Figure 2. RAMP (Sanders et al. 2018) source map showing weather stations in southern Asia selected as source locations (red; Myanmar) and non-source locations (gray) for *Cyprinus intha* climate matching. Source locations from GBIF Secretariat (2018).

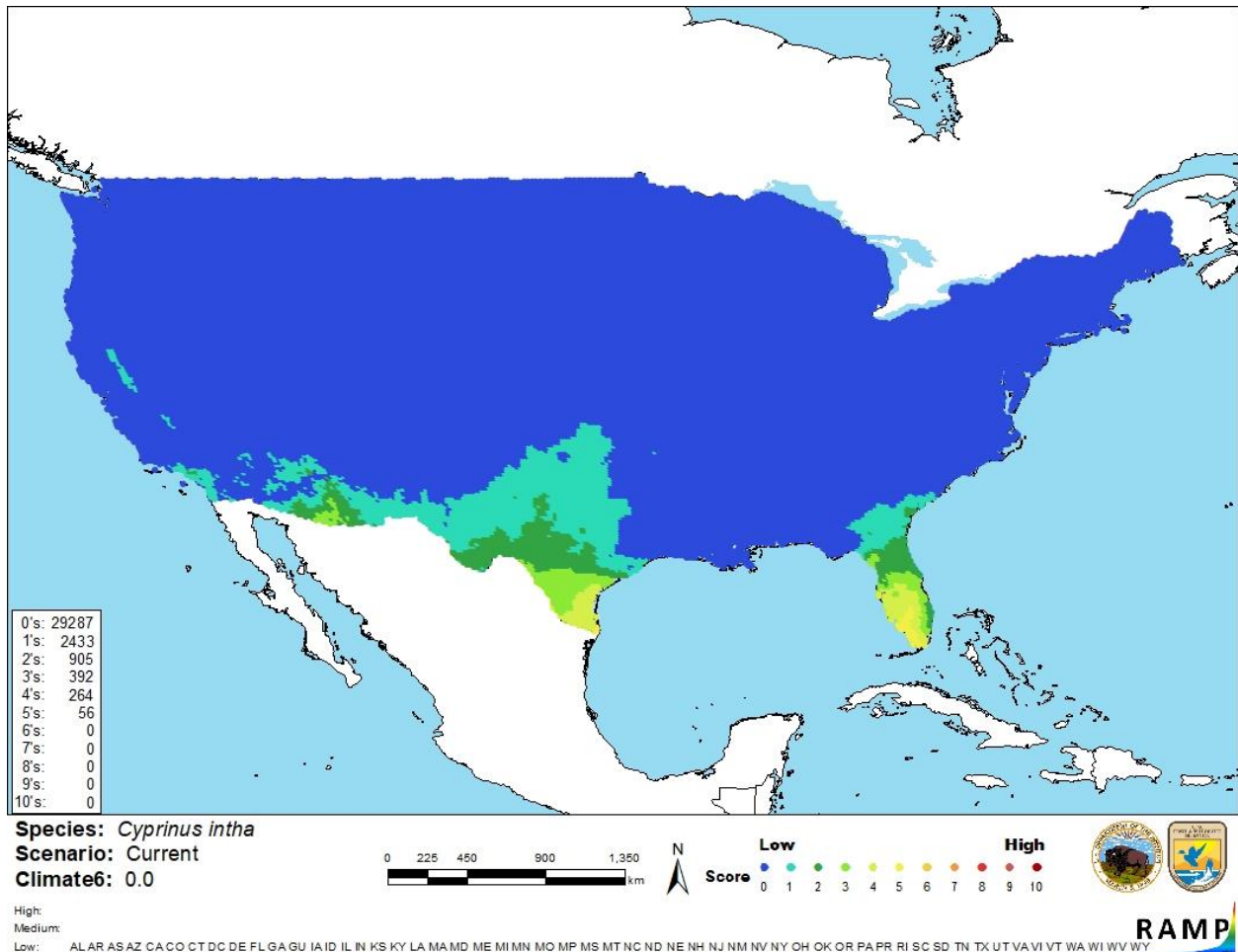


Figure 3. Map of RAMP (Sanders et al. 2018) climate matches for *Cyprinus intha* in the contiguous United States based on source locations reported by GBIF Secretariat (2018). 0 = Lowest match, 10 = Highest match.

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

Peer-reviewed literature on the biology, ecology, and distribution associated with *Cyprinus intha* as well as information on its potential invasiveness is limited. No records of introduction were found. The certainty of assessment is low.

8 Risk Assessment

Summary of Risk to the Contiguous United States

Cyprinus intha is a species of carp native to the freshwater Lake Inle in Myanmar. This fish is used as a food source by the local communities but the population may be declining. The history of invasiveness is uncertain. No records of introduction were found and this species is not found in trade. The climate match was low. Southern Florida and Texas have areas of medium match. 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:** This ERSS was previously published in 2012.
- **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>. (December 2018).
- Froese, R., and D. Pauly, editors. 2018. *Cyprinus intha* Annandale, 1918. FishBase. Available: <https://www.fishbase.de/summary/Cyprinus-intha.html>. (December 2018).
- GBIF Secretariat. 2018. GBIF backbone taxonomy: *Cyprinus intha* Annandale, 1918. Global Biodiversity Information Facility, Copenhagen. Available: <https://www.gbif.org/species/2367203>. (December 2018).
- Hlaing, M. M. 2014. Preserving a critical fishery resource in Inle Lake, Myanmar for sustainable fisheries and food security. *Fish for the People* 12(2):24–29.
- ITIS (Integrated Taxonomic Information System). 2018. *Cyprinus intha* Annandale, 1918. Integrated Taxonomic Information System, Reston, Virginia. Available: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=688958#null. (December 2018).
- Kottelat, M., and C. Xin-Luo. 1988. Revision of *Yunnanilus* with descriptions of a miniature species flock and six new species from China (Cypriniformes: Homalopteridae). *Environmental Biology of Fishes* 23(1-2):65–93.

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

Vidthayanon, C. 2011. *Cyprinus intha*. The IUCN Red List of Threatened Species 2011: e.T180896A7654388. Available: <https://www.iucnredlist.org/species/180896/7654388>. (December 2018).

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.

Annandale, N. 1918. Fauna of the Lake Inle: records of the Indian Museum. *A Journal of Indian Zoology* 14:33–64.

Htwe, K. 2010. Electricity for businesses cut off in Rangoon. *The Irrawaddy*.

Side, R. C., A. D. Ziegler, and J. B. Vogler. 2007. Contemporary changes in open water surface area of lake Inle, Myanmar. *Journal of Sustainable Science* 2(1):55–65.