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

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
    Infra kingdom Deuterostomia
      Phylum Chordata
        Sub phylum Vertebrata
          Infra phylum Gnathostomata
            Super class Actinopterygii
              Class Teleostei
                Super order Ostariophys
                  Order Cypriniformes
                    Super family 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).
The High, Medium, and Low Climate match Categories are based on the following table:

<table>
<thead>
<tr>
<th>Climate 6: Proportion of (Sum of Climate Scores 6-10) / (Sum of total Climate Scores)</th>
<th>Climate Match Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000 ≤ X ≤ 0.005</td>
<td>Low</td>
</tr>
<tr>
<td>0.005 &lt; X ≤ 0.103</td>
<td>Medium</td>
</tr>
<tr>
<td>≥ 0.103</td>
<td>High</td>
</tr>
</tbody>
</table>

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.


## 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.


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