

# *Cyprinus intha*

## Ecological Risk Screening Summary

Web Version – 10/31/2012

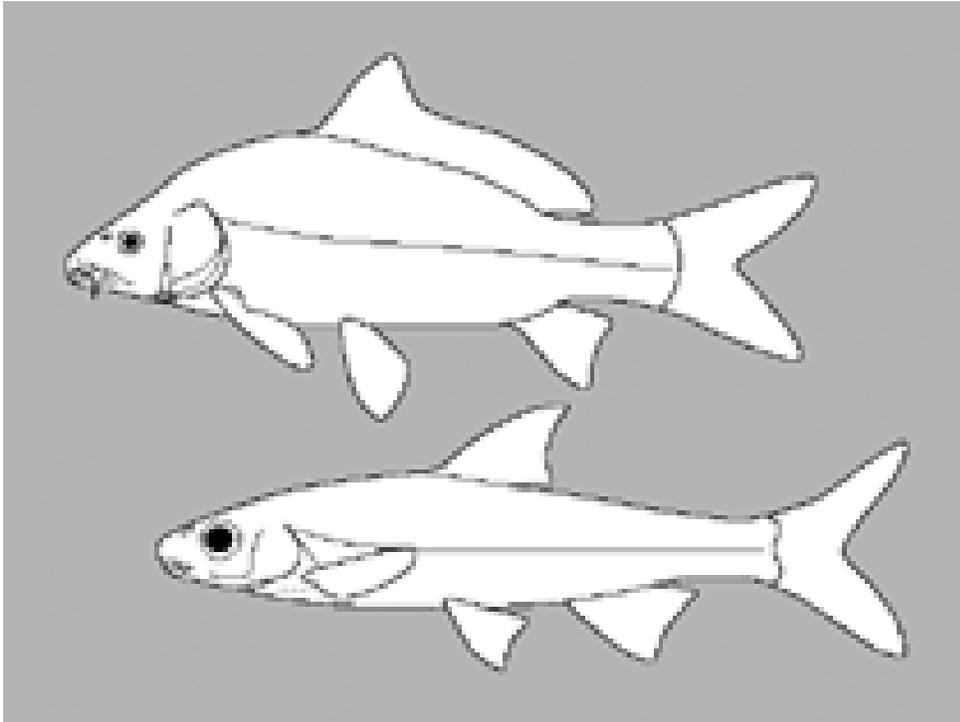


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### **1 Native Range, and Status in the United States**

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#### **Native Range**

From Froese and Pauly (2011): “Asia: Salween basin and probably Mekong basin.”

#### **Nonindigenous Occurrences in the United States**

No known nonindigenous occurrences.

#### **Means of Introductions to the United States**

No known means of introductions.

#### **Remarks**

Species is listed as endangered and declining by the IUCN Red List (IUCN 2011).

From Vidthayanon (2011):

“This species is endemic to Inlé Lake, Myanmar. The area of the lake is ca. 116 km<sup>2</sup>, however the open water area of the lake has declined by 32.4% in recent decades to 46.7 km<sup>2</sup> (Sidle et al. 2002), and may have declined further as a result of recent drought (Htwe 2010).”

“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 meets the threshold of less than 5,000 km<sup>2</sup>, AOO is less than 500 km<sup>2</sup>, and it is found in only one location based on the major threat of overfishing.”

“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. There are also introduced species in the lake, *Cyprinus* spp. which may compete and hybridise with *C. intha*, and *Ctenopharyngodon idella* which was recorded in the lake in 1994 and will significantly alter the lakes habitat. The introduced Water Hyacinth is also widespread in the lake. There is agricultural expansion around the margins of the lake that is causing sedimentation and eutrophication. The water in the lake can no longer be used for human consumption.”

## 2 Biology and Ecology

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### Taxonomic Hierarchy and Taxonomic Standing

From ITIS (2011):

Kingdom Animalia  
  Phylum Chordata  
    Subphylum Vertebrata  
      Superclass Osteichthyes  
        Class Actinopterygii  
          Subclass Neopterygii  
            Infraclass Teleostei  
              Superorder Ostariophysi  
                Order Cypriniformes  
                  Superfamily Cyprinoidea  
                    Family Cyprinidae  
                      Genus *Cyprinus*  
                        Species *Cyprinus intha*

Taxonomic Standing: valid

## **Environment**

From Froese and Pauly (2011): “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 (2011): “Tropical”

## **Distribution**

From Froese and Pauly (2011): “Asia: Salween basin and probably Mekong basin.”

## **Human uses**

None reported.

## **Diseases**

None reported.

## **Threat to humans**

From Froese and Pauly (2011): “Harmless.”

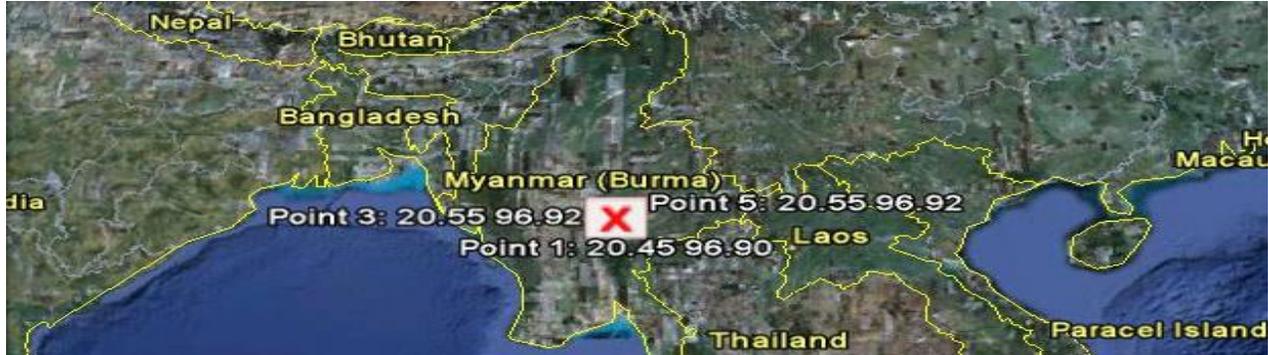
## **3 Impacts of Introductions**

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No known impacts of introductions

## 4 Global Distribution

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**Figure 1.** Known distribution of *Cyprinus intha* in Myanmar. Map from Google Earth (2011).

## 5 Distribution within the United States

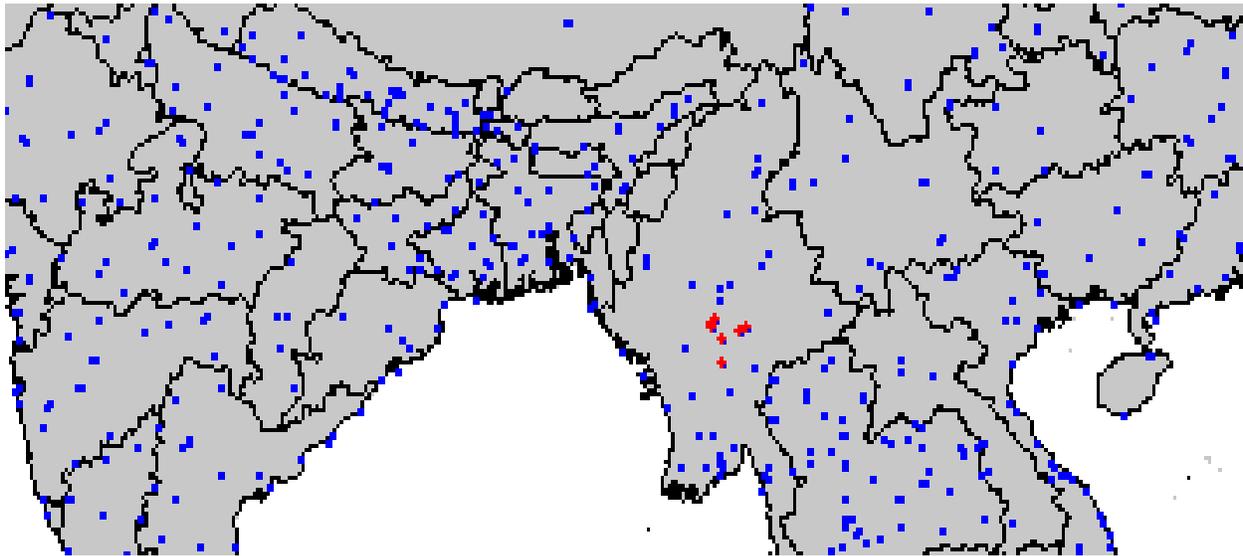
No known distribution within the United States

## 6 CLIMATCH

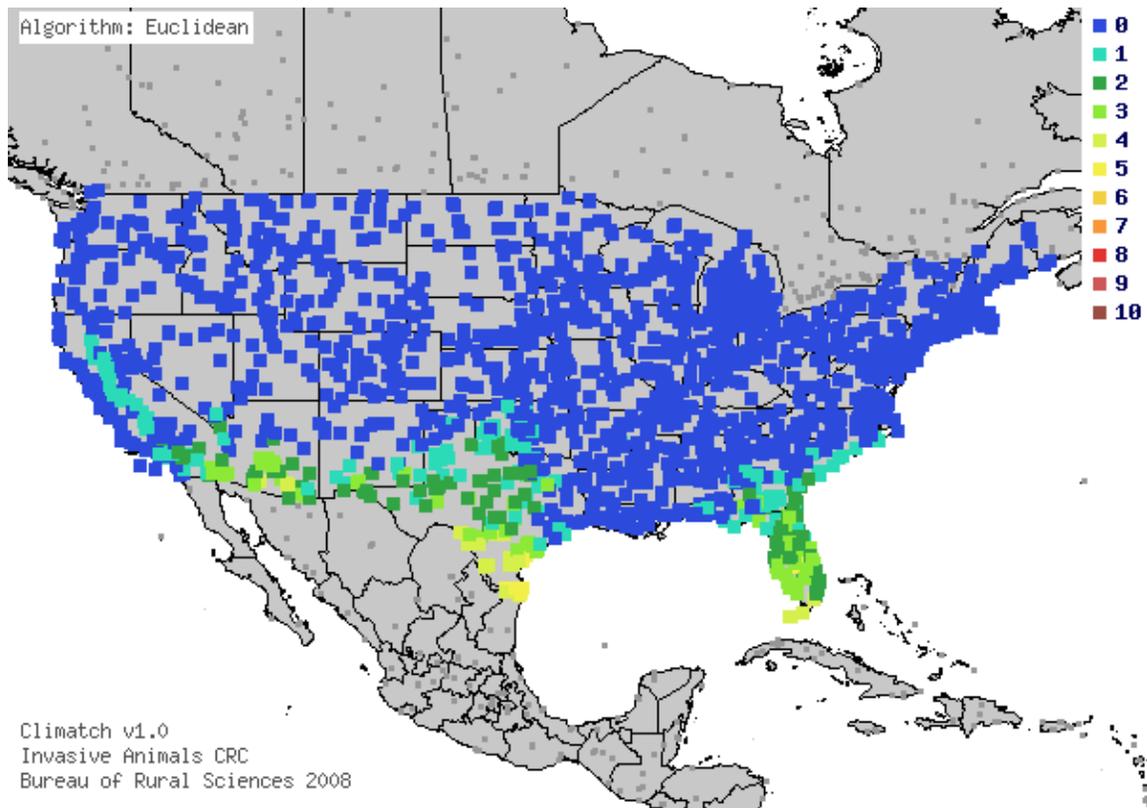
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### Summary of Climate Matching Analysis

The climate match (Australian Bureau of Rural Sciences 2011; 16 climate variables; Euclidean Distance) was low throughout the United States except southern Texas where it was medium. Climate 6 match indicated that the Continental U.S. has a low climate match. The range for a low climate match is 0.0 – 0.005 and the climate match of *Cyprinus intha* is 0.000.



**Figure 2.** CLIMATCH (Australian Bureau of Rural Sciences 2011) source map showing weather stations selected as source locations (red) and non-source locations (blue) for *Cyprinus intha* climate matching. Source locations from Froese and Pauly (2011).



**Figure 3.** Map of CLIMATCH (Australian Bureau of Rural Sciences 2011) climate matches for *Cyprinus intha* in the continental United States based on source locations reported by Froese and Pauly (2011). 0= Lowest match, 10=Highest match.

**Table 1.** CLIMATCH (Australian Bureau of Rural Sciences 2011) climate match scores

CLIMATCH Score	0	1	2	3	4	5	6	7	8	9	10
Count	1544	163	119	87	35	10	0	0	0	0	0
Climate 6 Proportion =	0.000 (Low)										

## 7 Certainty of Assessment

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Peer-reviewed literature on the biology, ecology, and distribution associated with *Cyprinus intha* as well as information on its potential invasiveness is extremely limited. More information and research on this species will be needed to strengthen the certainty of this assessment. The risk level is therefore uncertain, and the certainty of this risk is low.

## 8 Risk Assessment

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### Summary of Risk to the Continental United States

The overall risk assessment category for *Cyprinus intha* is uncertain due to a low climate match and no history of invasiveness. This species is not known to be in the aquaculture or aquarium industry.

### Assessment Elements

- **History of Invasiveness (Sec. 3):** Low
- **Climate Match (Sec. 6):** Low
- **Certainty of Assessment (Sec. 7):** Low
- **Overall Risk Assessment Category:** Uncertain

## 9 References

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**Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.**

Australian Bureau of Rural Sciences. 2011. CLIMATCH. Available:

<http://adl.brs.gov.au:8080/Climatch/> (Accessed September 2011).

Froese, R. and D. Pauly (Eds.). 2011. *Cyprinus intha*. FishBase. Available:

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Google Inc. 2011. Google Earth (Version 6.0.3.2197) [Software]. Available:

<http://www.google.com/intl/en/earth/index.html>. August 2011.

ITIS. 2011. *Cyprinus intha*. Integrated Taxonomic Information System. Available:

[http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=688958](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=688958) (Accessed September 2011).

IUCN. 2011. IUCN Red List of Threatened Species (ver. 2011.1). Available:

<http://www.iucnredlist.org>. (Accessed October 21, 2012).

Vidthayanon, C. 2011. *Cyprinus intha*. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. (www.iucnredlist.org. Available:

<http://www.iucnredlist.org/details/full/180896/0> (Accessed October 21, 2012).

## 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.

Sidle, 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.