Cyprinella lutrensis 正體中文

System: Freshwater

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae

Common name carpita roja (Spanish), red horse minnow (English), red shiner (English)

Synonym *Leuciscus lutrensis* , (Baird and Girard, 1853)
Notropis lutrensis , (Baird and Girard, 1853)

Similar species

Summary *Cyprinella lutrensis* commonly known as red shiner, is native to the rivers and streams of the Midwest of the United States. Its use as bait has helped in expanding its range to include the southwest of the United States and Mexico. The fish prefers disturbed areas where there are few other cyprinids. They are known to eat small invertebrates and spawn in the mid-summer months.

view this species on IUCN Red List

Species Description
Cyprinella lutrensis is a mix of olive green and silver on its sides (TPWD, 2007). The scales are diamond shaped and outlined in crosshatch pattern. The \"lateral band extends 1/3 of the way forward. The beginning of the dorsal fin is close to the start of the pelvic fin (ColoState, undated). The dorsal fin has 7-8 rays. The anal fin has 8-10 rays, although 9 is most commonly seen (TPWD, 2007). There is a triangle on the side behind the head (ColoState, undated).

Lifecycle Stages
The eggs of *C. lutrensis* are layed on many different substrates such as gravel and vegetation (Wang, 1986). The larvae emerge after about 105 hours (NatureServe, 2006). *C. lutrensis* mature in a years time and its lifespan is 3 years (Wang, 1986).

Uses
Cyprinella lutrensis is commonly used as a bait fish (TPWD, 2007). This fish is also sold for use in aquariums (USGS, 2005).

Habitat Description
Cyprinella lutrensis populations are usually located where there are few other cyprinids. They can be found in turbid water, muddy river beds, and unstable banks (Douglas *et al*. 1994). It is rare for *C. lutrensis* to establish itself in undisturbed areas (Baltz and Moyle, 1993). In Wyoming this species was found mostly at elevations of < 250m (Quist *et al*. 2004). It can also be found in backwaters, creek mouths, mid-sized streams with sandy and silty bottoms, rocky pools, and riffles (NatureServe, 2006).

Reproduction
C. lutrensis spawns from spring into fall. The peak is during the mid-summer months. The actual spawning occurs \"on riffles, on or near submerged, over vegetation beds, or in association with sunfish nests (TPWD, 2007). The eggs hatch at a temperature of 24.5°C. The offspring will be sexually mature in 1-2 years (NatureServe, 2006).

Nutrition
C. lutrensis is considered an invertivore because it feeds on small invertabrates such as insects and crustraceans (NatureServe, 2006). According to Wang (1986), plant leaves were found in the stomachs of young *C. lutrensis*.

General Impacts
At the end of the 1970s the natural spread of *C. lutrensis* was through use as a baitfish which led it to New Mexico. With this also came the disappearance of the native spikedace (*Meda fulgida*) (Douglas *et al*. 1994). The niche of the native spikedace changes when it co-exists with *C. lutrensis* (Mooney and Cleland, 2001).
C. lutrensis has been said to be the cause of the decline of the endangered woundfin (see *Plagopterus argentissimus* in IUCN Red List of Threatened Species) and Virgin River chub (see *Gila seminuda* in the US Federal Register. Both species occur within the area designated as critical habitat (includes portions of the Virgin River in Utah, Arizona, and Nevada) (NatureServe, 2006) where *C. lutrensis* is the most numerous and the most problematic among a list of fourteen introduced fish, that prey on and compete with the two listed fish (The Federal Register Environmental Documents, 2000). They compete for food and available habitats and are known to prey on the eggs and early life stages of the listed fishes.

Pathway
Bait release is how *C. lutrensis* spread into rivers and streams ouside its native range in the midwest of the United States (USGS, 2005).

Principal source: Texas Parks and Wildlife Department. 2007. Red Shiner *Cyprinella lutrensis*.; NatureServe. 2006. Online Encyclopedia of Life. *Cyprinella lutrensis*.

Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

Review:

Pubblication date: 2007-05-14

ALIEN RANGE

[1] MEXICO

[14] UNITED STATES

Red List assessed species 1: CR = 1;

Plagopterus argentissimus **CR**

BIBLIOGRAPHY
17 references found for **Cyprinella lutrensis**

Managment information
Centre for Environment, Fisheries & Aquaculture Science (CEFAS)., 2008. Decision support tools-Identifying potentially invasive non-native marine and freshwater species: fish, invertebrates, amphibians.
Summary: The electronic tool kits made available on the Cefas page for free download are Crown Copyright (2007-2008). As such, these are freeware and may be freely distributed provided this notice is retained. No warranty, expressed or implied, is made and users should satisfy themselves as to the applicability of the results in any given circumstance. Toolkits available include 1) FISK- Freshwater Fish Invasiveness Scoring Kit (English and Spanish language version); 2) MFISK- Marine Fish Invasiveness Scoring Kit; 3) MI-ISK- Marine invertebrate Invasiveness Scoring Kit; 4) FI-ISK- Freshwater Invertebrate Invasiveness Scoring Kit and AmphISK- Amphibian Invasiveness Scoring Kit. These tool kits were developed by Cefas, with new VisualBasic and computational programming by Lorenzo Vilizzi, David Cooper, Andy South and Gordon H. Copp, based on VisualBasic code in the original Weed Risk Assessment (WRA) tool kit of P.C. Pheloung, P.A. Williams & S.R. Halloy (1999).
The decision support tools are available from:
http://cefas.defra.gov.uk/our-science/ecosystems-and-biodiversity/non-native-species/decision-support-tools.aspx [Accessed 13 October 2011]
The guidance document is available from http://www.cefas.co.uk/media/118009/fisk_guide_v2.pdf [Accessed 13 January 2009].

Clearwater, Susan J.; Chris W. Hickey and Michael L. Martin. 2008. Overview of potential piscicides and molluscicides for controlling aquatic pest species in New Zealand. Science for conservation 283. March 2008, New Zealand Department of Conservation
Summary: Available from: http://www.doc.govt.nz/upload/documents/science-and-technical/sfc283entire.pdf [Accessed 20 March 2008]
Mendoza, R.E.; Cudmore, B.; Orr, R.; Balderas, S.C.; Courtenay, W.R.; Osorio, P.K.; Mandrak, N.; Torres, P.A.; Damian, M.A.; Gallardo, C.E.; Sanguines, A.G.; Greene, G.; Lee, D.; Orbe-Mendoza, A.; Martinez, C.R.; and Arana, O.S. 2009. Trinational Risk Assessment Guidelines for Aquatic Alien Invasive Species. Commission for Environmental Cooperation. 393, rue St-Jacques Ouest, Bureau 200, Montr&#65533;al (Qu&#65533;bec), Canada. ISBN 978-2-923358-48-1.
Summary: In 1993, Canada, Mexico and the United States signed the North American Agreement on Environmental Cooperation (NAAEC) as a side agreement to the North American Free Trade Agreement (NAFTA). The NAAEC established the Commission for Environmental Cooperation (CEC) to help the Parties ensure that improved economic efficiency occurred simultaneously with trinational environmental cooperation. The NAAEC highlighted biodiversity as a key area for trinational cooperation. In 2001, the CEC adopted a resolution (Council Resolution 01-03), which created the Biodiversity Conservation Working Group (BCWG), a working group of high-level policy makers from Canada, Mexico and the United States. In 2003, the BCWG produced the &#65533;Strategic Plan for North American Cooperation in the Conservation of Biodiversity.&#65533; This strategy identified responding to threats, such as invasive species, as a priority action area. In 2004, the BCWG, recognizing the importance of prevention in addressing invasive species, agreed to work together to develop the draft CEC Risk Assessment Guidelines for Aquatic Alien Invasive Species (hereafter referred to as the Guidelines). These Guidelines will serve as a tool to North American resource managers who are evaluating whether or not to introduce a non-native species into a new ecosystem. Through this collaborative process, the BCWG has begun to implement its strategy as well as address an important trade and environment issue. With increased trade comes an increase in the potential for economic growth as well as biological invasion, by working to minimize the potential adverse impacts from trade, the CEC Parties are working to maximize the gains from trade while minimizing the environmental costs.
Available from: English version: http://www.cec.org/Storage/62/5516_07-64-CEC%20invasives%20risk%20guidelines-full-report_en.pdf [Accessed 15 June 2010]
French version: http://www.cec.org/Storage/62/5517_07-64-CEC%20invasives%20risk%20guidelines-full-report_fr.pdf [Accessed 15 June 2010]
Spanish version: http://www.cec.org/Storage/62/5518_07-64-CEC%20invasives%20risk%20guidelines-full-report_es.pdf [Accessed 15 June 2010].
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Summary: Available from: http://www.epa.gov/fedrgstr/EPA-SPECIES/2000/January/Day-26/e1746.htm [Accessed March 19 2007]

General information

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Summary: This paper lists fishes and their abundances in seine collections from streams of the Salt Plains National Wildlife Refuge (SPNWR) in Oklahoma.
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Baltz, D.M., Boyle, P.B. 1993. Invasion Resistance to Introduced Species by a Native Assemblage of California Stream Fishes. *Ecological Applications*. 3(2): 246-255.
Summary: This article discusses how native fishes that live in undisturbed habitats are more prone to resist invasion than in an undisturbed habitat.
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Summary: This study was conducted to see how the red shiner and spikedace interact and if one impacts the other by the limiting of resources, *etc*.
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Summary: Available from: http://www.iucnredlist.org/search/details.php/17468/all [Accessed March 19 2007]
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Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and Bioscience from BioOne journals.
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Mooney, H.A., E.E. Cleland. 2001. The evolutionary impact of invasive species. *PNAS*. 98(10): 1-6.
Summary: This paper addresses how invasive species alter the environment and how they alter their own evolutionary pathways.
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NatureServe. 2006. Online Encyclopedia of Life. *Cyprinella lutrensis*.
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