



Red Shiner

Cyprinella Lutrensis (Baird & Girard, 1853)
syn. *Notropis lutrensis*, *Leuciscus lutrensis*

ALBERTA REGULATION:
FISHERIES ACT

Last Updated: February 2018



U.S. Geological Survey



Male red shiner in full breeding colours.
Credit: Marine discovery.

Overview:

The red shiner is a small, ray-finned minnow native to Northern Mexico and parts of the Central U.S.¹ It is commonly used as a bait fish or as an aquarium fish. Aquarium and bait bucket releases have facilitated its spread.²

Red shiners are considered habitat generalists since they can thrive in degraded habitats, intermittent flows, excessive turbidity, sedimentation, and temperature extremes. Upon introduction, the population rapidly multiplies and disperses. Their diet consists primarily of small invertebrates, like insects and crustaceans, but they will also feed on the eggs and larvae of native fish.¹

Red shiners may be confused with the blacktail shiner, *Cyprinella venusta*, which have 35 or more lateral line scales and a distinct caudal spot.¹

Habitat:

Red shiners inhabit turbid water, muddy river bottoms, and backwaters, as well as mid-sized streams with sandy or silty bottoms, and rocky pools.³ Prefer disturbed and low gradient habitats as they have adapted to a wide range of environmental conditions.

Identification:

Red shiners have a deep, compressed body and sharp compressed head. In large males, the snout may overhang the mouth. The back is olive-green with silver colored sides,³ and a whitish abdomen. The scales are diamond-shaped and arranged in a crosshatch pattern.¹

There are 34-36 lateral line scales, the dorsal fin has 7-8 soft rays, the pelvic fin has 8 soft rays, and generally, the anal fin has 9 (8-10) soft rays.³ Beginning of the dorsal fin is close to the start of the pelvic fin.³ The average length is 4.9 to 7.5 cm and the average age is up to 3 years.¹

Breeding males have red or orange on the top of the head, a purple crescent behind the gills, and pinkish sides (with some blue). The dorsal fin is dark and the caudal, pelvic, and pectoral fins are reddish-orange.¹

Ecology:

Red shiners spawn from spring to fall, but it peaks mid-summer.³ Spawning occurs over gravel riffles or submerged objects.³ Eggs are deposited in a variety of locations: crevices, submerged aquatic plants, sand or mud. Females may release up to 16 batches of eggs per day and up to 71 eggs per batch. Males and females may spawn 5-19 clutches over the season. Eggs hatch after about 105 hours at 24.5°C. Sexual maturity is reached in 1-2 years.¹

Economic Impacts:

The decline of native sportfish populations could have impacts on recreation and tourism.



Red Shiner (continued)

Environmental Impacts:

Red shiners prey on the eggs and larvae on native fish as well as compete with native fish for food and habitat. They also hybridize with native *Cyprinella* species, which impacts gene pools and species diversity.¹

Sociological Impacts:

Loss of native fish species and transformation of fish communities results in the intrinsic loss of natural capital and enjoyment of natural areas.

Prevention:

Accidental and intentional releases are responsible for red shiner introduction and spread. May be sold in pet stores under the name, Rainbow Dace. Never empty your aquarium into natural water bodies.

Control:

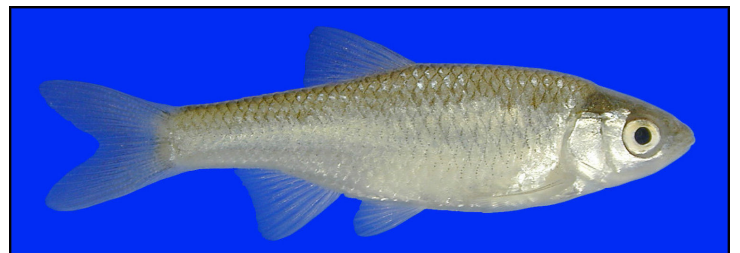
Currently, there are no established control options for red shiner other than preventing introduction and minimizing disturbed aquatic habitat.¹



North American Native Fishes Association



Male: Chad Thomas, Texas State University



Female: Chad Thomas, Texas State University

REFERENCES:

1. Datasheet report for *Cyprinella lutrensis* (red shiner). Invasive Species Compendium. www.cabi.org/isc/datasheetreport?dsid=86206 Accessed: October 14, 2016.
2. Leo Nico, Pam Fuller, and Matt Neilson. 2016. *Cyprinella lutrensis*. USGS Nonindigenous Aquatic Species Database, Gainesville, FL. <http://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=518> Revision Date: 1/4/2016. Accessed: October 14, 2016.
3. Global Invasive Species Database. 2016. Species profile: *Cyprinella lutrensis*. www.iucngisd.org/gisd/species.php?sc=1148 Accessed February 6, 2018.