

THE RED HORSE MINNOW

Notropis lutrensis (Baird and Girard, 1853)

By James Cokendolpher

The genus Notropis contains many active, schooling fishes. One in particular is the Red Shiner or Red Horse Minnow, as it is called locally. Unlike the majority of shiners, the Red Horse Minnow's breeding colors rival many of the sought after tropical species. In the late 1800's Jordan and Everman (1) described the range of N. lutrensis as "southern Illinois to South Dakota, Kansas, and the Rio Grande; very abundant in clear brooks southwestward". Today the species ranges from Wyoming to southern Illinois and southward to northern Mexico. The growing range of this species is mostly due to fishermen releasing their bait minnows. The original population probably existed in several color varieties, possibly some meriting subspecies status. The stock with which this article deals were collected in the midstream of the Pease River one mile north, one-half mile west of Vernon, Wilbarger County, Texas.

Being a devoted killie keeper, it was my intention to keep the Red Horse Minnow only for it's beauty and not for breeding. Gradually the wild fish were introduced to their new home, a well planted ten gallon tank. After maintaining the stock over the winter, I required their tank for some growing killie fry.

On June 2, 1974 I removed the four males and three females and placed them in a tank already occupied by five adult pairs of Fundulus kansae (stock from Quartz Mountain, Oklahoma), and six young (about four centimeters) Adinia xenica. The new home was a twenty gallon tank (24" X 12½" X 16"), which received a 24 hour photo period. The tank was bare except for several top spawning mops. For details on making and using spawning mops see Terceira (2). The water temperature fluctuated between 24.3°C and 25.7°C. Two teaspoons of rocksalt (NaCl) were added to each gallon of hard, alkaline water. Ninety five percent of the water was changed weekly. Generous amounts of high quality flake food and frozen adult brine shrimp were fed daily. When I had spare mosquito larvae, they also received portions.

On June 10, just eight days after introduction, I found four eggs lodged in a dark green top mop. Two days later I found five more eggs. The eggs were clear and had an average diameter of 1.08 mm. The eggs were placed in a petri dish with water from the spawning tank. Five days after the eggs were deposited the first fry appeared, another 36 hours and all fry were free swimming. The actual spawning was not witnessed by me, but by a friend, Keith Ford.

Not believing that Kieth had seen them spawn and, since the Red Horse Minnow is supposed to be an egg scatterer, I

suspected that the eggs belonged to the Adinia. The question of the fry's true identity was of considerable debate for several weeks. Much to my surprise and Kieth's relief after three weeks the forked tail (Adinia do not have forked tails) was quite distinct.

When the fry were free swimming I began to feed infusoria, a week later I started them on live baby brine shrimp. Growth was rather rapid and by June 29 they were already eating frozen adult brine shrimp.

When the fry were about ten centimeters long I had lost only one juvenile. They were placed in a 15 gallon tank with similar sized Cyprinodon atrorus. Unfortunately the remaining eight juveniles perished due to the overaggressive atrorus.

Although a tankful of Red Horse Minnows is not as majestic as say a couple of bowfins or, as in my case, killies, I hope each member will give this beautiful native a chance.

Literature cited

- (1) Jordan, David S., and Barton W. Everman. 1896 The Fishes of North and Middle America. Part I. Bull. U.S. Natl. Mus. No. 47: pp. 271-272 (Smithsonian Inst., TFH Reprint Fund, 1963).
 - (2) Terceira, Anthony C. 1974 Killifish Their Care and Breeding. Pisces Publishing Corporation, Norwalk, Ct. pp. 32-42.
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