

SPAWNING CRENICHTHYS NEVADAE

by Tom Baugh, Las Vegas, NV

The Railroad Valley Springfish (Crenichthys nevadae) is a small (c. 1.5-2") fish found naturally only in two warm, spring-fed aquatic systems in Railroad Valley, Nye County, Nevada. This species has also been introduced into two manmade habitats, one in Nye County and one in Mineral County, Nevada.

On March 30, 1980, I obtained six male and twelve female C. nevadae from one of these warm spring habitats under permit from the Nevada Division of Wildlife. The fish were divided into two groups, with three males and six females placed in each of two twenty-gallon aquariums. The aquariums were maintained at 85°F. Commercial, medium-sized aquarium gravel was placed over sub-gravel filters to a depth of 2.5". The water was constantly aerated, and each tank was planted with two 12" artificial plants. The fish were fed a mix of TetraMin^R Staple food, Tetra Krill Flakes^R, and Tetra Algae Flakes^R at 6:30 a.m. and San Francisco Bay Brand^R frozen brine shrimp at 4:30 p.m. each day.

By early April, 1980, all males were showing courtship colors. They were generally darkish gray, and the golden yellow stripes down their broad backs were quite apparent. Several females had rounded abdomens.

On April 5, 1980, one 2" male and one 1" female were removed from a parent aquarium and placed in a 10-gallon aquarium. This aquarium was set up much the same as the parent tank. About 2.5" of medium-sized aquarium gravel was placed over a sub-gravel filter. The tank was constantly aerated and planted with two 8" artificial plants. Several strands of Living World[®] spawning grass were placed on the gravel. The feeding regimen was as previously described and the temperature was held at 85°F.

Courtship and spawning began almost immediately. The male pursued the female, nipping at her vent area. When she became receptive, the female would allow the male to come alongside and maneuver her against the gravel. The pair would then assume an S-shape and vibrate rapidly while the egg and sperm were released.

At the end of four days, the first female was removed and replaced with a second. At the end of the second four-day period, both adults were removed. No attempt was made to protect or remove the eggs while the adults were in the spawning tank.

The eggs of this species are clear, about 1.5 mm in diameter. Hatching takes place in 8-10 days at a temperature of 85°F. The larvae are about 3 mm at hatching. They develop rapidly with twice-daily feeding of brine shrimp nauplii and the addition of a small amount of TetraMin[®] Baby Fish Food "E". At 30 days, the fry are about 8 mm long.

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