

Endangered Mussels Released Into the Clinch River

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As part of a plan to restore some rare mussels, more than 35,000 endangered juvenile mussels of six species were released during 1998 primarily into the Clinch River at 3 sites. Mussels were also released at one site on the Powell River.

The six species of mussels were: Cumberland combshell, oyster mussel, fanshell, birdwing pearly mussel, snuffbox and crackling pearly mussel.

The project is a cooperative venture of the Virginia Cooperative Fish and Wildlife Research Unit, Department of Fisheries and Wildlife Sciences, Virginia Tech, U.S. Fish and Wildlife Service, U.S. Geological Survey, Virginia Department of Game and Inland Fisheries, TWRA, TVA, U.S. Army Corps of Engineers, and U.S. Forest Service. The project calls for similar annual releases over the next four years and an evaluation of releases will be initiated in the year 2000.

With nearly 300 species, North America has the greatest diversity of freshwater mussels in the world. However, this family of mollusks is the most imperiled group of animals in the U.S. with 69 species listed as endangered or threatened.

The Tennessee River Basin was home historically to 91 species of mussels. Of those 91, 10 are now extinct, 20 are extirpated, 25 are endangered or threatened, 10 are relic species and only 26 species have stable populations.

Freshwater mussels have a unique life history, requiring the use of fish in the life cycle. Eggs of female mussels are fertilized internally by sperm released into the water and taken in during siphoning. The embryos then develop in the gills of the female until becoming mature larvae (called glochidia). Once mature, the female then spews them out into the water, where they attach and encyst on a suitable host fish for the transformation of larvae to juvenile mussels. The juveniles then drop from the fish to begin their lives on the river bottom.