



Dedicated to the preservation of our Wetlands and more...

Endangered Mussel Nursery

Freshwater mussels are mollusks and are similar to the marine clam and oyster. Around the world, mussels live in a variety of freshwater habitats but are most prevalent in streams and rivers. Freshwater mussels are an essential component of our rivers and streams. By their siphoning actions, mussels filter bacteria, algae, and other small particles, which make them one of the few animals that improve water quality. Mussels also serve as a food source to many species of fish, reptiles, birds, and mammals. The outer shell of a live mussel is usually covered by aquatic insects, algae, and plants. Even when dead, the empty shell functions as a nesting site for small fish.

Of the estimated 1,000 species worldwide, about one third is found in the United States. The most diverse populations, 102 species, are in the Virginia's Tennessee River Drainage, which includes the Clinch River. 31 of these species are listed as either state or federally threatened and endangered. In 1998, the Virginia Department of Game and Inland Fisheries (VDGIF) created the Aquatic Wildlife Conservation Center (AWCC), a facility located at the Department's Buller Fish Cultural Station near Marion Virginia, to address the decline of the mussel fauna. It is their mission to hold, propagate and grow mussels.

For detailed information about Virginia's Endangered Mussel projects, visit these sites: <http://www.dgif.virginia.gov/awcc/> and <http://www.dgif.virginia.gov/wildlife/freshwater-mussels.asp>

Why propagate and grow mussels?

Mussel Filtration Rates - Clinch River

- 1 mussel can filter ~1 gallon/hr.
- 1 mussel = 24 gallons/day
- Mussel bed = 5 -10 mussels/yd²
- 100 yd long x 30 yd wide = 3,000 yd²
- Number of mussels = 15,000 - 30,000
- Water filtered/day = 360,000 - 720,000 gallons
- In summer, entire river volume can easily be filtered in only a couple river miles



On March 31, 2010, Team Estonoa came one step closer to assisting in the AWCC's goal; to help reverse the decline and actively recover Virginia's freshwater mussel population. We visited the Buller Hatchery and, together with the VDGIF, came up with a working plan. Starting in May 2010, we placed three silos containing juvenile mussels at three locations in the Clinch River NORTH of St. Paul.. We monitored their growth monthly and by early fall they were released. The team paid for the silos, VDGIF built them, and helped with set-up and monitoring.

On June 9, 2011, Team Estonoa began the second cycle of assisting VDGIF in their efforts to stop the decline of endangered freshwater mussels in our waterways and reestablish colonies of these animals in the Clinch River. Partnering with the VDGIF and Dominion Resources, Team Estonoa placed infant wavy ray lampmussels in protective silos at several locations in the Clinch River, SOUTH of St. Paul. They were monitored monthly by Team Estonoa members then released from their silos mid-October, 2011.

Cycle 3 is currently in the planning stages and the Team is ready to go! For details on Team Estonoa's efforts, visit <http://wetlandsestonoa.org>



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Wetlands Estonoa



one people
one purpose
one planet

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This is why... Clean, healthy waterways!



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