

# Area teachers train for Adopt-A-Watershed

What the heck are benthic macro-invertebrates?

In everyday terms, they are critters without backbones that can be seen with the naked eye and live at the bottom of a body of water. The quantity and variety of benthos are good indicators of a creek's health. They are what Powell teachers Bob LaVoie and Bart Gadola have come to Stock Creek to find.

LaVoie and Gadola, along with other Knox County teachers, volunteered four days of vacation time last week to receive training for the Knox County Adopt-A-Watershed program. The program raises student awareness of local ecology through classroom learning and hands-on outdoor projects.

The teachers, led by Ruth Anne Hanahan of the UT Water Resources Research Center and several Americorps volunteers, participate in projects that students will do in the

fall. These projects include classroom sorting of benthic macroinvertebrates, observation of watershed models and, of course, good old creekside study.

Tennessee Department of Environment and Conservation biologist Jonathon Burr joined the class on a field trip to Stock Creek in South Knoxville. LaVoie and Gadola ran experiments to discover the content of creek water, raced rubber ducks to determine flow speed, and even put on waders to collect benthics and fish for study.

"When we did this, my students just loved handling the fish," said LaVoie. "It's very hands-on. If you could figure out how they could do that all day long, it would be awesome."

LaVoie's students were right – the fish are the best part. Burr used electrodes to pass a mild electric current through the water. Although this does not damage the fish, it does interfere

with their swim bladders, causing them to float to the top for collection. Waders and high-water boots protect participants from electric shock.

Hanahan said the program has been running for eight years and keeps getting better.

"We have improved it over the years, and it's become more comprehensive and interdisciplinary," she said, adding that teacher training includes music and poetry as well as science.

Hanahan said that seeing the light bulb pop on when students realize that what they do can make a difference in their community is the most rewarding aspect of her work.

"Pride instilled in students is what's most important to me," she said. "This program could not exist without our community partners (TVA, local utility boards) supporting it."

— Shannon Carey



Powell Middle earth sciences teacher Bob LaVoie, TDEC fisheries biologist Jonathon Burr and Powell High ecology teacher Bart Gadola examine an abnormality in a fish caught in Stock Creek during the Knox County Adopt-A-Watershed training program.