

Damming, vegetation removal affect Buffalo Creek tributaries

By Stephanie Farr

sfarr@sungazette.com

LEWISBURG—Two Lycoming College students who worked as interns this past summer with the college's Clean Water Institute presented their findings on five Buffalo Creek tributaries to the Buffalo Creek Watershed Alliance November 2 at the Union County Government Center.

Brad Musser of Mifflinburg and Katie Swanson of Eldred braved snakes, bugs and paranoid campers this summer to study the bank erosion and water chemistry of the creek's tributaries.

From May to August of this year, Musser and Swanson traversed the tributaries at least three times a week looking for bank erosion, illegal dumping and any sign where human beings have impacted the natural formation and flow of the streams.

Along with pollution, the main sources of stress for the tributaries are unnatural damming by people and removal of vegetation near stream banks, which leads to erosion, the students said.

"We found a man-made dam this summer with a 12-inch brook trout caught in it," Swanson said. "By the time we found it, it was low on oxygen; it almost died, but we saved it."

The institute's work with the watershed group for the past two years has been supported by a Department of Environmental Protection grant, said Dr. Melvin Zimmerman, a biology professor at the college and institute director.

About 15 people were at the meeting and heard the students' findings that point sources were a major cause of disturbance along the creek and its tributaries. Point sources are facilities or individuals that drain waste directly into the watershed.

Musser and Swanson documented the disturbances in photographs and in writing, recorded their frequency and severity, and collected water and macro invertebrate samples, among other activities.

But their experiences along the tributaries did not just consist of data collection and observation.

"I was walking one day and I heard a splash so I turned around and there was a fish standing straight up out of the water," Swanson said. "I thought, 'That's not normal.'" What Swanson

saw was a water snake trying to consume a large fish.

Musser was an institute intern last summer as well, when the group's focus was on the main stem of the creek, which runs 28 miles through Union County and joins the West Branch of the Susquehanna River here.

Along with seeing more snakes this year than last year, Musser said another difference he noticed this year was the low water level of the streams. "There was so little water that at some points, it wasn't even up to our shoe tops," he said.

Excessive rip-rap – as bricks, concrete or rocks placed along the banks prevent erosion – was another problem, the students said.

"People put these rip-raps up thinking it will help the bank, but it actually causes more problems downstream," Musser said.

Although most of the people Swanson and Musser encountered were friendly and curious, there were those who questioned their presence, and their motives, Musser said.

"The first question everybody always asked us is if we were with the DEP," he said. "One day we ran into a group of gentlemen camping, and they weren't very happy to see us there because there were about four hoses coming out of their camper into the stream. They were curious about what we were doing, and we were very curious about what they were doing."

The students presented the alliance with a large binder full of their reports.

A tributary map is being developed that will include all of the erosion sites, Zimmerman said.