

Emmitsburg Children Learn about Stream Ecology
From Dr. Jeffrey A. Simmons, Mount St. Mary's University

“Well, we’ve got good news and bad news,” said the Professor to the 7th graders at Mother Seton School in Emmitsburg on May 27th. The Professor, Dr. Jeffrey A. Simmons of Mount St. Mary’s University, was summarizing the results of the students’ water quality testing of Willow Rill, a small stream that runs through the school’s property. Students measured the pH and the dissolved oxygen concentration of water samples taken from the Rill as part of lesson on Stream Ecology put on by Dr. Simmons and three college students.

The good news was that the pH of the Rill was in the optimum range. The bad news was that dissolved oxygen was only about 4 parts per million, which is too low to support a healthy population of fish and too low for many other aquatic animals. However, oxygen levels fluctuate day to day, so a one-time measurement does not tell the whole story.

Students also learned to identify many types of macroinvertebrates that live in the stream bed using “flash cards”. Using these cards, students calculated a stream health index for two fictional streams. Muddy Creek had very few species of macroinvertebrates compared to Trout Creek, therefore it was classified as being in “poor health”.

Assisting Dr. Simmons were three MSMU students – Dana Young and Erin Arentz (Environmental Science majors) and Tim Rosen (Biology major).

At the end of the lesson Mother Seton School teachers were presented with a water quality testing kit so that they and their students could continue to monitor the health of Willow Rill. The funding for the visit to the school and the testing kit was provided by The New Forest Society and by a grant from the Chesapeake Bay Trust Mini-Grants Program.