



Forest Teams up with Ohio State University to Monitor Streams

Fourteen long-term aquatic ecological monitoring sites were established on Wayne National Forest streams in 2006.



Dr. Andy Ward of Ohio State and the Wayne National Forest's Kari Kirschbaum record channel cross section measurements in Handley Branch.

The Wayne National Forest Land and Resource Management Plan calls for the establishment of long-term aquatic ecological monitoring sites that will provide information on the status and change of physical, chemical, and biological aspects of stream systems in the Wayne National Forest. Identifying aquatic ecological parameters that change over time in various geomorphological settings, and that are subject to varying disturbances in the landscape, will aid in the shaping of Forest Service land management decisions and activities

to ensure sustainability of aquatic resources.

In 2006, the Wayne and The Ohio State University Research Foundation entered into a participating agreement to install 14 long-term monitoring sites and to collect and analyze baseline physical, chemical, and biological data for each site. The partnership with The Ohio State University enabled some of its students to obtain hands-on field experience necessary for today's workforce.

Dr. Lance Williams from the School of Environment and Natural Resources led the fish sampling crew. Dr. Andy Ward and Dr. Anand Jayakaran from the Department of Food, Agricultural and Biological Engineering managed the geomorphology data collection crew. Field data were collected using the Forest Service's Draft Aquatic Ecological Unit Inventory Technical Guide.

The 14 long-term sites were stratified across several different management

areas on the Wayne. The sites were permanently marked so that follow-up data collection can occur every 3-5 years. Other long-term monitoring sites may be established in other Wayne streams in the future.

Data analysis continues, but statistical analysis of the fish data suggests that there is something unique about the fish assemblage at sites in the Marietta Unit. An early indicator is the preponderance of cold water species at sites in the Marietta Unit suggesting that groundwater at the Marietta sites may be influencing fish assemblages.

The data collected from the Wayne National Forest monitoring sites will not only benefit Forest Service managers. Researchers from The Ohio State University are planning to use our data to compare stream recovery and change in glaciated/agricultural landscapes and unglaciated/forested landscapes in Ohio. They are also considering the possibility of using our data to develop a watershed assessment tool for use at the county Soil and Water Conservation District level.

For more information contact Rebecca Ewing at 740-534-6537