

Conducted by the ODNR Division of Watercraft's Scenic Rivers Program for the 2013 National Nonpoint Source Monitoring Conference

For 30 years, volunteer monitors have been collecting macroinvertebrate samples for the Stream Quality Monitoring (SQM) Project, coordinated by the Ohio Department of Natural Resources' Division of Watercraft's Scenic Rivers Program. The Ohio SQM Project provides opportunities for public participation in scenic river protection efforts on each of the state's 14 designated wild, scenic and recreational rivers. More than 70,000 students, conservation organizations, individuals, and families are committed to monitoring more than 150 reference stations along Ohio's wild, scenic and recreational rivers.

The SQM Project volunteers, also referred to as river monitors, are taught to assess macroinvertebrate communities and collect basic water quality data. Macroinvertebrates (e.g. mayfly, stonefly) are highly effective indicators of a river's health because they have varying tolerances of pollution. Surveying the presence/absence, quantity, and diversity of macroinvertebrates can indicate potential water quality problems. When negative impacts to a stream occur, the result may show a decline or absence of certain macroinvertebrate species. Because SQM doesn't require any laboratory chemical analysis, biological monitoring is a simple and cost-effective method of testing a stream's health.

The information collected by volunteers has become a critical tool for documenting the health of Ohio's state scenic, wild and recreational rivers. Through consistent monitoring, of trends in the macroinvertebrate communities the Ohio Scenic Rivers Program can detect and addressing potential impacts to a stream. The Ohio Scenic Rivers Program staff compiles volunteer field assessment information into the SQM Project database and into the Ohio Environmental Protection Agency statewide database. . The database serves as a tool to track short- and long-term changes and trends over time. As the data accumulates, seasonal and other normal fluctuations can become predictable. Abnormal changes can indicate potential pollution problems, which would prompt further investigation.

During the workshop, Scenic Rivers Program staff will give an in-depth introduction to Ohio's Scenic Rivers Program and the Ohio SQM Project. Participants will learn about the simple, yet effective, river monitoring techniques that have kept Ohio's citizens volunteering for years. Participants should be prepared to be in the water and be willing to learn about some of Ohio's macroinvertebrates.