

Abstracts

Thursday, May 1

Session M3: Training and Coordinating for Better Results

3:30 – 5:00 pm | Room 261

Training and Educating Digitally – How YouTube is Revolutionizing Water Quality Monitoring

James Beckley

Virginia Dept. of Environmental Quality, Richmond, Va.

Abstract

With the advent of low cost video production equipment and free distribution services like YouTube, government and volunteer organizations can now produce inexpensive, high quality training and educational videos.

The Virginia Department of Environmental Quality is developing a series of online training videos on popular methods to monitor water quality for organizations like citizen volunteer groups, local government agencies, and the general public interested in performing water quality monitoring. This resource allows the agency to ensure organizations submitting water quality data are familiar with quality assurance and proper test protocols while reducing the need for in-person training while helping to standardize monitoring methods.

Citizen volunteer organizations such as the Virginia Citizens for Water Quality and the Chickahominy Swamp Rats are producing short educational movies about water quality topics for the general public to view. The videos are an effective primer on why issues like fecal bacteria, sediment, and other pollutants are worth monitoring for and ways people can reduce such pollutants from entering their local waters.

This session will outline what is necessary to develop a good training video and the amount of time and expense an organization would expect in developing similar videos. If time permits, this session will show some examples of videos produced and editing tricks to make a polished and well received video.

The Maryland Biological Stream Survey Training and Certification Program

Daniel Boward, Scott Stranko, Jay Kilian, Andrew Becker and Ronald Klauda

Maryland Dept. of Natural Resources, Annapolis, Md.

Abstract

The Maryland Biological Stream Survey (MBSS) is a statewide, freshwater stream monitoring and assessment program begun in 1995 by the Maryland Department of Natural Resources (DNR) in partnership with staff from the University of Maryland Appalachian Laboratory. Fish, benthic macroinvertebrates, water chemistry, physical habitat and land use are evaluated at about 250 sites per year. Uses of MBSS data include status and trends in stream condition across various spatial scales, evaluation of stream restoration effectiveness, rare threatened and endangered species distributions, and water quality regulations. Since the inception of the MBSS, several state and county agencies and consultants have adopted MBSS sampling methods. To ensure consistent data quality and facilitate data sharing, DNR established an MBSS methods Training and Certification Program in 2012. Five certifications are currently offered: 1) benthic macroinvertebrate sampling, 2) benthic macroinvertebrate laboratory processing and subsampling, 3) fish sampling, 4) fish sampling crew leader, and 5) fish taxonomy. A field audit is required for benthic macroinvertebrate sampling, fish sampling crew leader, and fish taxonomy certification. Seventy-one individuals were certified in one or more protocols across both years (2012 and 2013). Benthic macroinvertebrate sampling and fish sampling were the most “popular” certifications. Twenty applicants received two or more certifications. Most applicants (56%) worked for consulting firms, 23% for local/regional governments, and 18% for state agencies. DNR staff plan to offer these certifications again in 2014 and may also

expand to offer certifications in other protocols depending on demand. The MBSS Certification Program will continue to address the need for high quality stream ecological data for years to come.

Coaching Volunteers to Obtain Meaningful and Useful Data

Susan Higgins

Missouri Dept. of Natural Resources, Jefferson City, Mo.

Abstract

Training Volunteer Water Quality Monitors does not end with the workshop. In order to obtain the highest quality data possible, it is important to coach new (and experienced) volunteers to improve their data submission skills. Our volunteers come from all walks of life and many do not have a science background, but all seem to have a sincere desire to learn to submit useful data to the program. At Missouri Stream Team Volunteer Water Quality Monitoring Program each data submission is reviewed for data quality before and after it is entered into our database. Many times, errors can be caught and corrected early in the process. In this way volunteers are assured that someone is reviewing their data and helping them reach their goal of submitting useful information to the program. Successful coaching together with the tiered structure of volunteer workshops and mandatory validation training for more experienced volunteers have all combined to make big improvements to water quality data received and create more agency interest in using volunteer data. Learn how we coach volunteers, QC data and ensure that erroneous data is not included in data request fulfillment.

Large-Scale Sampling Events: Using Volunteers to Monitor at the Watershed Level

Tara Muenz and Harold Harbert

Georgia Adopt-A-Stream, Atlanta, Ga.

Abstract

Georgia Adopt-Adopt-A-Stream partners annually with many organizations, universities and watershed groups to conduct sampling events with volunteers on a watershed level, ranging from one-day snapshots to week-long paddle trips. One-day sampling events, also called 'Blitzs, River Adventures, and River Rendezvous,' target 20-30 sites within a watershed. The longer week-long events involve sampling anywhere from 80-120 sites and are a part of a larger momentum called 'Paddle Georgia.' This annual event, coordinated by the Georgia River Network, is located on a different Georgia river each year and brings along over 350 citizens on the adventure. Partners for these events include local governments, watershed organizations, Adopt-A-Stream groups and many other entities which provide sampling equipment, technical support and sponsorship. Depending on the objectives of the event, data can be collected on many parameters including chemistries, bacteria, macroinvertebrates, amphibians, and physical characteristics in addition to conducting river cleanups at certain sites. Data is posted on our website/database and is available for citizens and partners to view and download for analysis. In addition to collecting and sharing the data, small reports are written and shared with the community. During this presentation we will discuss the logistics of organizing a watershed-wide sampling event, including the partnerships involved, data display, successes and lessons learned.