

Stream Monitoring News

Spring 2009

High Level of Interest in Stream Monitoring

By mid-May, about 50 new volunteers will be added to a group of Level 2 citizen monitors already 150 strong. New volunteers hail from the Wolf River Chapter of Trout Unlimited, Milwaukee Riverkeeper, Adams County, Galesville Ettrick Trempealeau High School, Oregon High School, UW-Parkside Geosciences Club, and Valley Stewardship Network.

Nearly 20 Level 1, Water Action Volunteers (WAV), trainings are being held this spring as well. Welcome to new WAV monitors and many thanks to all the local coordinators who have hosted or will host trainings this spring! Interested in attending a training? Visit: <http://watermonitoring.uwex.edu/wav/events.html>

This high level of interest in volunteer stream monitoring was evident in January too, as 70 volunteers attended the 2009 Citizen-based Stream Monitoring Symposium at UW-Stevens Point. All the presentations from the event are posted online if you missed this event (<http://watermonitoring.uwex.edu/level2/Symposium/2009/presentations.html>). Input from those who attended helped us assess how we can best support you in the future. We are working on two things right away - to find ways to continue to further your knowledge of stream ecology, and to support your outreach of water issues to communities and decision-makers.

Thanks for Your Contributions!

Collectively, the Level 1, 2, and 3 volunteer stream monitors have made a huge impact over the years. There are nearly 700 sites registered in the WAV database and another 260 in the SWIMS database used by

Level 2 monitors! Since its inception in 1997, the volunteer stream monitoring program has grown from a single level program with just 3 groups, to a multi-level program that supports 45 citizens' groups monitoring in Level 1 (WAV), 17 groups that support DNR biologists in collecting information to make management decisions about our state's stream resources (Level 2), and additional individuals and groups conducting special research projects to address specific water quality issues

(Level 3). In 2008 citizens monitored 340 stream sites and have logged over 8700 site visits since 1997. Thank you for your contributions to data collection on streams of the state!

Who is Your Local DNR Biologist?

An online interactive map is now available to help you find contact information for your local DNR biologists. This may be useful if you find a severe water quality problem while monitoring, or if you have a concern about water quality in your area. The map includes contact information for both stream and lake biologists, and links to contact information for fisheries biologists and DNR water managers. You can view the map at this site:

<http://watermonitoring.uwex.edu/ctymap/index.html>

Automated Reports and Updated Forms for Level 2

Level 2 monitors can now download automated reports of monitoring results. The following reports are available:

- Annual summary reports for your site
- Continuous temperature data from your site
- Annual summary report of water quality data for your DNR region



Symposium attendees watch dragonfly larvae catching their prey.

Follow directions on our website to view and print these reports (<http://watermonitoring.uwex.edu/level2/swims.html>).

We revised the Level 2 data sheets, thermistor log, and DO / pH calibration logs. All changes were made to ensure better quality data. We are placing a letter explaining more, along with copies of each new form, in each set of Level 2 equipment.

DNR Biologists Working With Citizens on Special Projects

DNR biologists showed strong interest for citizen-collected data earlier this spring as they submitted a variety of proposals to work with citizen groups to complete monitoring projects around the state. Project funds will go towards:

- Water chemistry sampling by Valley Stewardship Network on the North and South Fork Bad Axe River before and after installation of a large hog farm;
- Equipment for Galesville Ettrick Trempealeau High School to assess tributaries to Marinuka Lake for possible inclusion on the state's list of impaired waters;
- Volunteer water chemistry monitoring on tributaries to the Big Eau Pleine flowage;
- Water chemistry sampling by Central Wisconsin Chapter of Trout Unlimited to assess three headwater streams for future restoration efforts;
- Citizen monitoring in the Black Earth Creek and Upper Sugar River watersheds;



DNR biologist Jim Kreitlow helps volunteer calibrate their pH meters.

- Efforts of the Friends of Scenic Lodi Valley to assess the Spring Creek watershed;
- Expansion of citizen stream monitoring by Milwaukee Riverkeeper.

These and other projects funded by the Citizen-based Stream Monitoring Program represent the next step in encouraging the use of citizen-collected data for management purposes. If any other groups have an idea for a shorter-term special monitoring project, we suggest discussing the possibilities with your local DNR biologist or county staff person.

High Quality Citizen-collected Data: The Impossible?

Some Tips for Level 2 Monitors

By Chris Clayton, Level 2 Program Coordinator

We don't think it's impossible to collect high quality data in a volunteer program. Even though the program continues to gain legitimacy and appreciation, the quality of citizen-collected data continues to be questioned, more often than not, by those who have little to no experience with citizen science or volunteer programs. When people I encounter show curiosity in citizen stream monitoring, I always ask them what they think about it. Invariably, I get something along the lines of, "I think it's valuable, but I'm not so sure about the quality of the data."

For the record, one of the main goals of volunteer stream monitoring is to collect trusted, high quality data. This means that you play a large and important role as a citizen monitor. We will continue to make the point to all potential data users that volunteers are doing a good job of ensuring high quality data.

We cannot stress enough just how important it is that you continue to take the proper steps in monitoring and entering data into the database. After all, the data are only as good as the care we all take in collecting and recording them. What do you need to do to help out with Quality Assurance and Quality Control as a Level 2 monitor?

1. Instrument Calibration

Each time you monitor, please follow the instructions for calibrating the meters, step by step. This includes

completely filling out the calibration logs each time you calibrate the meters. Good record keeping assures us that the meters are well maintained and functioning properly.

2. How to Address Abnormal Results

If a measurement is outside the expected range noted on your data sheet, please repeat the measurement. If it's still outside the expected range, please recalibrate the meter and repeat the measurement. If you find an abnormally low or high value, call me or your local WDNR biologist as soon as possible.

3. Side-by-Side Sampling

Each year, I visit with many citizen monitors in the field. Field visits are usually made with first or second-year citizen monitors. During this visit, I will sample for DO and pH using my meter, side-by-side with the volunteer. I do this to check that citizen monitors are properly calibrating meters and following methods. I keep yearly records on the results of the side-by-side sampling.

4. Entering your Data

Follow the instructions for entering data in the database, and pay close attention to the numbers you enter and the placement of decimal points. It's that simple.

5. Review your Data

Take a look at the data you entered. If you need to edit the data, please follow the instructions in your manual.

Rock River Basin Monitors to Conduct Monitoring Snapshot

Citizen monitors in the Rock River Basin are being recruited to participate in a one day snapshot monitoring event on Saturday, June 13 between 8 AM and 2 PM. The Snapshot will allow us to get an idea of what the water quality is across the Basin on that day. As many citizen monitors as possible are being sought to participate in this event. If you live or monitor in the Rock River Basin, contact your local coordinator to sign up. A report will be produced that offers a glimpse of water quality in the Basin based on the citizen monitors' findings. It will be shared with local officials, DNR biologists, and citizens.



Level 2 coordinator, Chris Clayton, training members of the Wolf River Chapter of Trout Unlimited.

Outreach in Your Communities

In last summer's newsletter, we introduced you to an ongoing project between our citizen stream monitoring program, and Dr. Bret Shaw and his graduate student Elizabeth Goers (Communicating Results Back to You and Your Communities, <http://watermonitoring.uwex.edu/pdf/level1/news/Summer2008News2.pdf>).

Since then, Elizabeth has published about a half dozen articles about your efforts in local papers. Plus, she worked with some of you to present a glimpse of volunteer stream monitoring on the radio, through WORT-FM in Madison. For example, your neighbors learned in the Wisconsin Outdoor News about the efforts of Jim Hlaban, John Gremmer and other members of Trout Unlimited in central, northeastern, and northern WI to help monitor and restore habitat in cold water streams. Plus, others learned about Georgia Janssen and her monitoring team's involvement in a Level 3 project with DNR biologist Mark Hazuga. Read about these volunteers' and others' activities on our website (<http://watermonitoring.uwex.edu/level2/outreach.html>).

Additionally, we are working to link WAV methods to WI's model academic standards and make the methods friendlier for use by teachers with their middle and high school classes. We are contacting many teachers and others who work with schools to get your input on this effort. We will pilot test the refreshed methods this fall in two or three schools, then revise and share the curriculum widely next spring. As part of this effort, we will seek volunteers who may be interested in working with schools to help teachers implement WAV monitoring. We

will provide volunteers with training in how to work with students to teach stream monitoring.

There is much more in the works as well. For instance, Dr. Shaw is working with the River Alliance to develop an online training designed to empower volunteers to work more effectively with community leaders. Plus, a new brochure about volunteer stream monitoring was developed that you can share with people interested in your efforts (see "New Fact Sheets..." on last page). Dr. Shaw and Elizabeth are also preparing information for you about how to write letters to the editor, and are developing model letters you can use to help you obtain additional funding for your efforts from local sources.

Stream Monitoring Award Winners Announced

To recognize exemplary work in volunteer stream monitoring, UWEX and the WDNR implemented the WI Volunteer Stream Monitoring Awards Program in 2002. Since that time 30 individuals or groups have been recognized for their efforts to monitor streams, share their knowledge with others, and make a positive impact on streams and stream quality in their communities. This year's winners collectively have over 30 years of volunteer monitoring experience. They have shared their knowledge with thousands of others, and have developed partnerships and programs to restore and protect their local waterways. Their efforts have made an impact across the state. This year's winners are:

Employee: Mary Holleback

Mary has been Riveredge Nature Center's Adult Program Coordinator for over 17 years. She directs the "Testing the Waters" program for high schools in the Milwaukee River Watershed and has reached over 25,000 students in her tenure!

Adult: Dick Pollock

Dick became the Monitoring Coordinator for the Central Wisconsin Chapter of Trout Unlimited (CWTU) in 2005, and worked tirelessly in that role through 2008. He was responsible for coordinating CWTU's involvement in WAV and Level 2 monitoring, and led their involvement in several Level 3 research projects.

Group: South Fork Flambeau River Watershed Assoc.

This group obtained grants to initiate their monitoring in 2005. They monitor multiple locations in the watershed, working in all 3 levels of the stream monitoring program. Their efforts led to identification of failed septic systems and two illegal direct discharges of sewage, and actions were taken to correct the problems.

Teacher: Jon Johnson and his Environmental Science Classes

Jon teaches at Galesville-Etrick-Trempealeau High School. He and his students have been actively involved in volunteer stream monitoring since 2003. He initially obtained a grant to conduct surveys for habitat, water quality, fish and macroinvertebrates on Hardies Creek. Jon and his class have also monitored in Level 2 since its inception in 2006.

Read more about the winners at: <http://watermonitoring.uwex.edu/wav/monitoring/awards/index.ht>



Jon Johnson and students Haily Henderson, Zach Gendreau, and Alexandra Gendreau with Kris Stepenuck and Chris Clayton.

New Fact Sheets and Posters

We have a variety of new educational materials available free of charge. Contact Kris or Chris for copies. You can also view them online (<http://watermonitoring.uwex.edu/wav/> then go to "newsletters and reports").

- A fact sheet explaining the multi-level structure of our volunteer stream monitoring program
- A handy, pocket-sized stream monitoring brochure to provide to people interested in your monitoring
- A poster that can be personalized to advertise for local stream monitoring training sessions
- A poster showing macroinvertebrates in their stream habitats. This is for trainers and teachers.

Stream Monitoring Program Contacts:

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Level 2: Chris Clayton (608.257.2424 x 120, cclayton@wisconsinrivers.org)

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