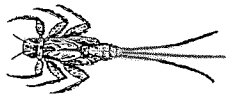
IOWATER
Volunteer Water Quality Monitoring

THE
IOWA
CITIZEN
MONITOR

VOLUME 1, NO. 2 SUMMER 2000

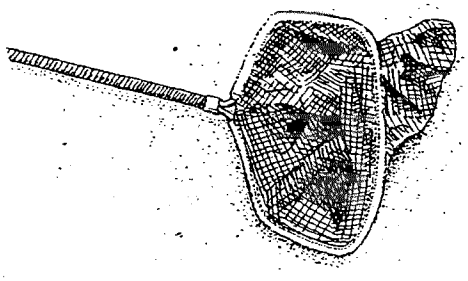


IOWATER Watershed Tour 2000

Rich Leopold – IOWATER Coordinator

As the summer progresses, so has IOWATER's workshop schedule. As our team began moving through the schedule of eighteen workshops, we started to see similarities with what a musical group on tour does. Drive to the area, check in to the hotel, and set up the "stage" (in our case usually a nature center or other meeting room and a near-by stream). Then it's showtime! After, the tear down and put away, the good-byes, and the drive home in anticipation of the same routine to be played out again at the next location. The only thing missing is "roadies" and "groupies," both of which we quickly recruit from willing volunteers as we go from place to place.

IOWATER's supporting cast has been wonderful to work with in giving the program a powerful workshop filled with commitment, enthusiasm and professional expertise.



Allow me to introduce:

From the Geological Survey Bureau in Iowa City (drum roll), **Lynette Seigley and Mary Skopec!** In addition to tireless work behind the scenes in creating and maintaining the IOWATER database, Lynette and Mary to cover workshops topics such as mapping, data submission, and chemical/physical field assessment techniques.

From the Boddy Media Group in Des Moines (drum roll), **Pat Boddy and Kim Shelquist!** They interactively connect team building, media relations and communication skills to IOWATER participants.

New to the stage as IOWATER's first intern, from Iowa Lakes Community College in Estherville (drum roll), **Steve Reighard!** As well as being the tour's "get things done" guy, Steve presents the biological and stream assessment monitoring field techniques at workshops.

(continued on following page)

And lastly, the IOWATER Coordinator (drum roll), **Rich Leopold,** providing the State of the Water Address and the stream assessment techniques portions of the training.

Our team has been encouraged and humbled by the support of those attending these workshops. Seeing the willingness and ability of citizens from across the state to take action on protecting their environment will be the long-term lasting effect of this "IOWATER Watershed Tour 2000" on it's supporting cast. Thank you.

Watershed Assistance Grants

While many granting processes are focused more on "stuff" than "people," this grant opportunity provides for just the opposite! This grant is a direct result of the federal Clean Water Action Plan and an application for the year 2000 is now available at:
http://www.rivernetwork.org/wag2000.htm
Watershed Assistance Grants support the growth and sustainability of local watershed partnerships in the United States. This year, grant awards will range from $1,500 to $30,000. Grants will be made to local watershed partnerships and may be made directly to incorporated watershed partnerships. If the watershed partnership is not incorporated, the grant recipient may be a nonprofit group, tribe and/or local government, or agency that is an active participant in the watershed partnership. **Applications must be postmarked no later than August 15, 2000.** Watershed Assistance Grants are to create a framework for successful watershed restoration and protection.

Iowa State Fair Booth

We Need Your Help!

The Iowa Sate Fair is fast approaching and IOWATER needs your help! IOWATER will have a booth inside of the Iowa Department of Natural Resources building and we need trained IOWATER Citizen Monitors to attend to the booth and answer questions as needed. You will receive an IOWATER shirt, free parking and admittance to the State Fair, and the wonderful feeling of knowing YOU helped spread the word (all free of charge!).

The dates run from August 10 through August 20. We will have two shifts per day, the early shift being from 8:30 am – 2:30 pm and the late shift being from 2:30 – 8:00 pm. Please contact Rich Leopold as soon as possible if interested at (515)281-3252 or e-mail at richard.leopold@dnr.state.ia.us. Leave name, number (or e-mail address), date and shift interested in.

There are many ways to help our environment, and this opportunity could be one of the most effective.

GET INVOLVED NOW!

"Credible Data"

and volunteer water monitoring

Mark O. Lambert - Executive Director
Iowa Environmental Council

What does the new state "credible data" requirement mean for IOWATER volunteer water monitors?

This year, the Iowa Legislature passed, as part of its Clean Water Initiative, language requiring the use of "credible data" for designating impaired waters in the state. "Credible data" is defined as data on water quality collected using scientifically valid chemical, physical or biological monitoring data collected under a scientifically-accepted sampling and analysis plan including quality control & quality assurance procedures. To qualify as "credible data" it must be collected by the DNR, a professional designee of DNR, governmental entities, or a qualified volunteer.

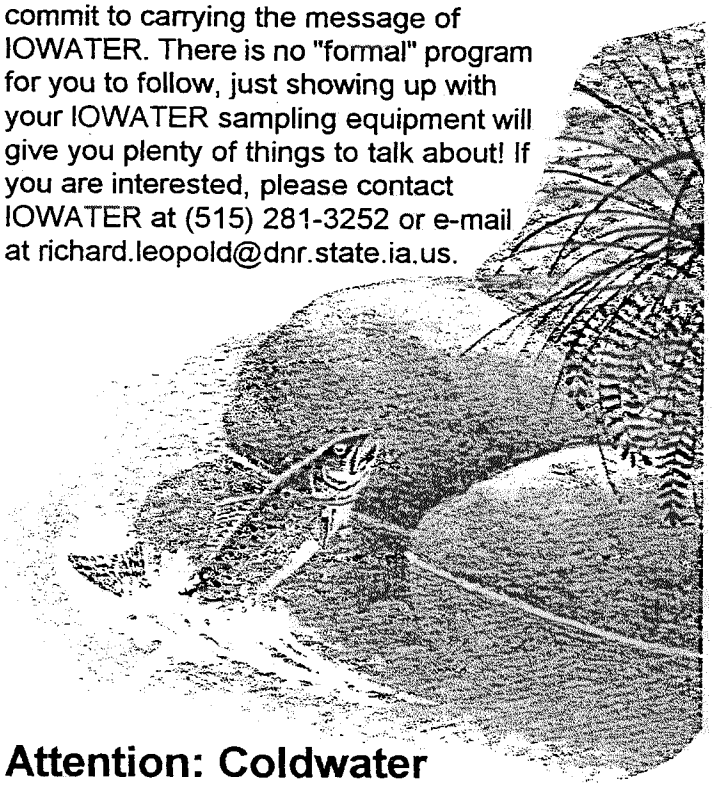
DNR is required to establish requirements for a person to become a "qualified volunteer." The first step is to complete the Volunteer Water Quality Monitor training offered by DNR through the IOWATER program. This, however, does not assure that you are a "qualified volunteer" under the law for the EPA's impaired water listing. In addition, you need to work closely with DNR on your monitoring plan make sure that quality control and quality assurance measures are followed and properly documented.

If you aren't a "qualified volunteer," your data is still useful to DNR and others for a variety of purposes. However, unless you become a "qualified volunteer" your data cannot be used for determining whether your water body is impaired for purposes of the EPA's impaired waters listing.

Speakers Network

The IOWATER program has been receiving many requests for informational speakers to talk about the IOWATER program. We have begun to make a list, so that as these requests come in, we can refer them to a certified Level I IOWATER Citizen Monitor in their area.

To be involved, you don't need to be a professional speaker (although some experience in public speaking always helps!). What you do need is the willingness and small amount of time to commit to carrying the message of IOWATER. There is no "formal" program for you to follow, just showing up with your IOWATER sampling equipment will give you plenty of things to talk about! If you are interested, please contact IOWATER at (515) 281-3252 or e-mail at richard.leopold@dnr.state.ia.us.



Attention: Coldwater Trout Stream Monitors!

If you are monitoring a stream that has naturally reproducing trout, DO NOT enter the water between the months of October and January. This is when trout reproduce, and rather than endanger this process, we should only use monitoring techniques that don't involve going into the water.

Guest Editorial

"But What If the Volunteers Sue Us?"

The Missouri Experience

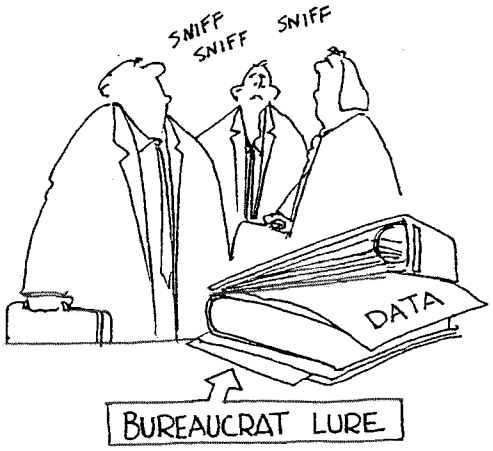
Sharon Clifford – Missouri DNR

When the Missouri Stream Team Program began in 1989, volunteer Stream Team activities included litter pickups and a visual inventory of their adopted stream, but no actual monitoring. Then, in 1992, a survey of volunteers indicated that what they really wanted to do was monitor water quality in their stream.

With volunteer monitoring as a new program goal, Stream Team's original two sponsors- the state Department of Conservation and the nonprofit Conservation Federation of Missouri-invited the state regulatory agency, the Missouri Department of Natural Resources (DNR), to join in as the program's third sponsor. DNR would help design the monitoring program and assist with training.

Agency Concerns

State regulatory agencies are frequently apprehensive about becoming involved with volunteer monitoring. This was also true in Missouri. At one presentation to DNR about the Stream Team program, the very first question was, "Does this mean we are going to have a bunch of pseudo-experts out there running to the press?"



Concerns expressed by DNR are representative of why many government agencies are cautious. Questions included:

Could volunteer monitoring create more problems than it solved because people with limited knowledge would be involved in complex scientific issues?

Would volunteers use their information to create crises by speaking to local groups or the media?

Could the Stream Team program result in a heavier workload for agency employees?

Did the possibility exist that sponsoring such a program could hurt the agency in political circles?

Would volunteers really be able to gather useful data, given that generating "good" data requires so much time, effort, and expertise?

If volunteer data wasn't used, would volunteers get frustrated and confrontational?

Could volunteer monitoring help create an atmosphere of "get your neighbor" and result in adversarial relationships in local communities?

Despite all these concerns, the potential benefits of the program eventually carried the day. In 1993 the volunteer monitoring component of the Stream Team Program was initiated, with Missouri DNR onboard as a sponsor.

What has really happened.

So, after six years, have any of the feared outcomes happened in Missouri? The answer is yes. Stream Teams have made their presence felt at city council and county commission meetings, at state legislative hearings, and in the media. Some volunteers are involved in lawsuits (which could have major impacts on DNR) over issues like the 303(d) list and Total Maximum Daily Loads. The number of public comment letters received on NPDES permits and proposed rules has increased dramatically.

And has all this citizen activism hurt the sponsoring agencies? Quite the opposite! During 1998, when DNR was seeking legislative approval for a big staff increase, there was concern that Stream Team participants were gaining such notoriety that the program might become a liability for the agency at the State Capitol. But in fact DNR sponsorship of the Stream Team Program was never raised as an issue, and the legislators allotted the agency 45 new full-time employees out of 48 requested. The newly approved staff positions included planners, support personnel, field staff, GIS and modeling specialists, and data and grant managers. Many people believe that the increased interest in water quality on the part of the general public is at least partially responsible for the agency's success.

To the question of whether decision-making authorities would be able to use volunteer monitoring data, the answer is that they can and they have. Data from volunteers who have participated in a quality assurance/quality control program is included in the state's 305(b) report to EPA, and volunteer data is also evaluated when developing the 303(d) impaired waters list. In addition, Stream Team data has been used to verify the accuracy of data received from the regulatory community. Bottom line: the more information available for decision-making, the better the resulting decisions.

And what about fears that the program might result in adversarial relationships? In a few instances, this has occurred. The popularity of the Missouri Stream Team Program has led to the formation of over 1,400 teams, representing thousands of volunteers. In a program this large, all ends of the spectrum are represented, including (inevitably) a few people who choose to be confrontational. The program's goal is to provide participants with education and the tools to work on the issue of their choice. No attempt is made to control how volunteers approach advocacy or how they should think on a particular issue.

But adversarial relationships are the exception. For the most part, Stream Team has fostered cooperative, friendly relationships. A case in point has been the formation of Stream Team Watershed Associations that are committed to local cooperative efforts to benefit their streams. Several Associations have received grants for such projects as providing watershed education, installing best management practices, and developing a model for cost-effective urban stormwater management.

Changing hearts

To quote Stream Team volunteer Justin Mutrux, "If you think that a volunteer monitoring workshop just teaches you to test the quality of stream water, you're wrong. Learning to monitor a stream teaches the importance of caring about our world. By monitoring the waters, we change our hearts."

The Missouri Stream Team Program is fortunate that it has been able to make "changing hearts" a major goal. Generation of data is a highly valuable secondary result. To all state agencies concerned about participating in volunteer monitoring, the Missouri experience says that this type of effort may well produce more actual benefits for the resource than all the permit writing and law enforcement currently being done. And isn't that what it is all about?

Reprinted by permission from *The Volunteer Monitor* - The National Newsletter of Volunteer Water Quality Monitoring, Vol. 11, No. 2, Fall 1999.

Knock, Knock – Who's there?

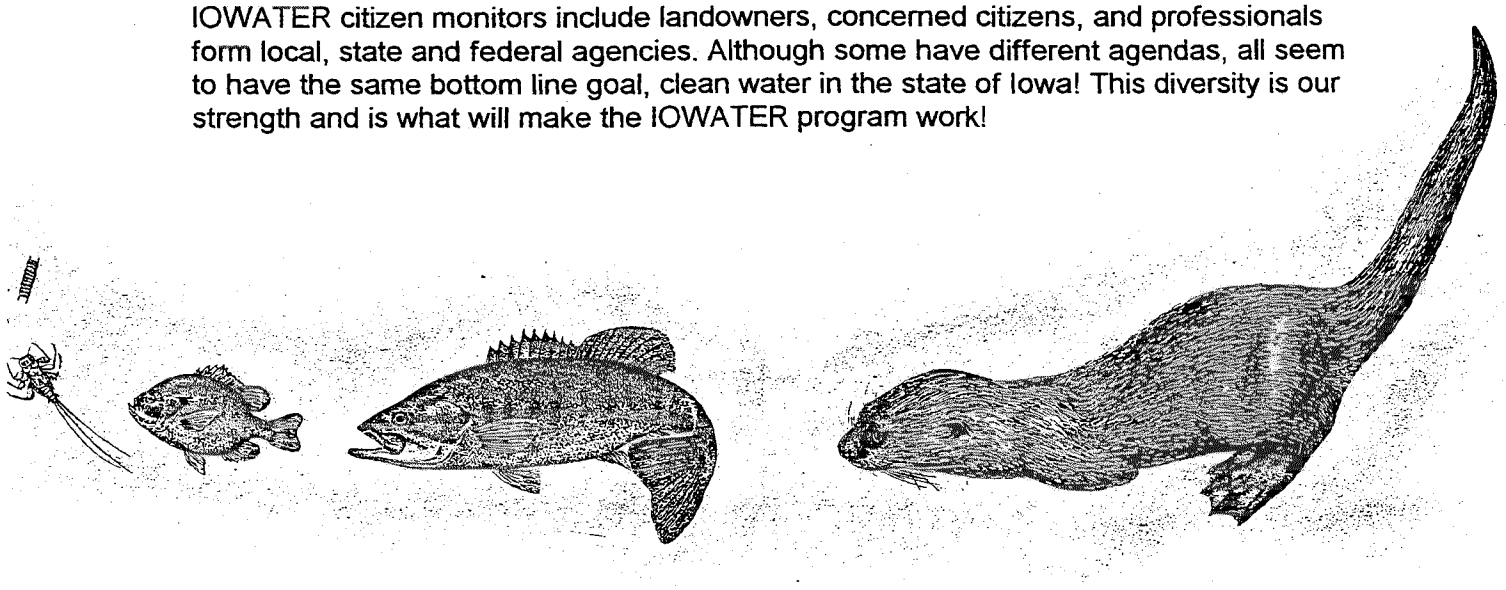
IOWATER – Come On In!

Rich Leopold – IOWATER Coordinator

With the success of the IOWATER workshops so far this season, the question arises as to who has been attending these workshops and what are their affiliations? The answer is almost every segment of our society! Take a look at some of the affiliations listed by IOWATER participants.

- ✓4-H leaders
- ✓Area Education Agencies
- ✓AmeriCorps
- ✓Audubon Societies
- ✓Catfish Creek Coalition
- ✓City park and water departments
- ✓Community colleges
- ✓County Conservation Boards
- ✓County health departments
- ✓County Farm Bureaus
- ✓Future Farmers of America
- ✓Hawkeye Flyfishing Association
- ✓Iowa Dept. of Agriculture
- ✓Iowa Dept. of Natural Resources
- ✓Iowa Environmental Council
- ✓Iowa Soybean Association
- ✓Iowa Waste Reduction Center
- ✓ISU Extension Service
- ✓Izaak Walton Leagues
- ✓Lake Delhi Recreation Association
- ✓Maquoketa River Alliance
- ✓Mineral Creek Watershed Council
- ✓National Park Service
- ✓Natural Resources Cons. Service
- ✓Public and private schools
- ✓Raccoon River Watershed Alliance
- ✓Resource Cons. & Development
- ✓Sailors, Inc.
- ✓Sierra Clubs
- ✓Soil and Water Conservation Districts
- ✓Story County Water Quality Coalition
- ✓Trees Forever
- ✓Upper Iowa River Project
- ✓University professors and students
- ✓University of Iowa Wildlife Camps
- ✓Wapsi River Alliance
- ✓Winnebago Citizens for the Environment
- ✓Wright Cty. Volunteer Water Monitors

IOWATER citizen monitors include landowners, concerned citizens, and professionals form local, state and federal agencies. Although some have different agendas, all seem to have the same bottom line goal, clean water in the state of Iowa! This diversity is our strength and is what will make the IOWATER program work!



iowater.net

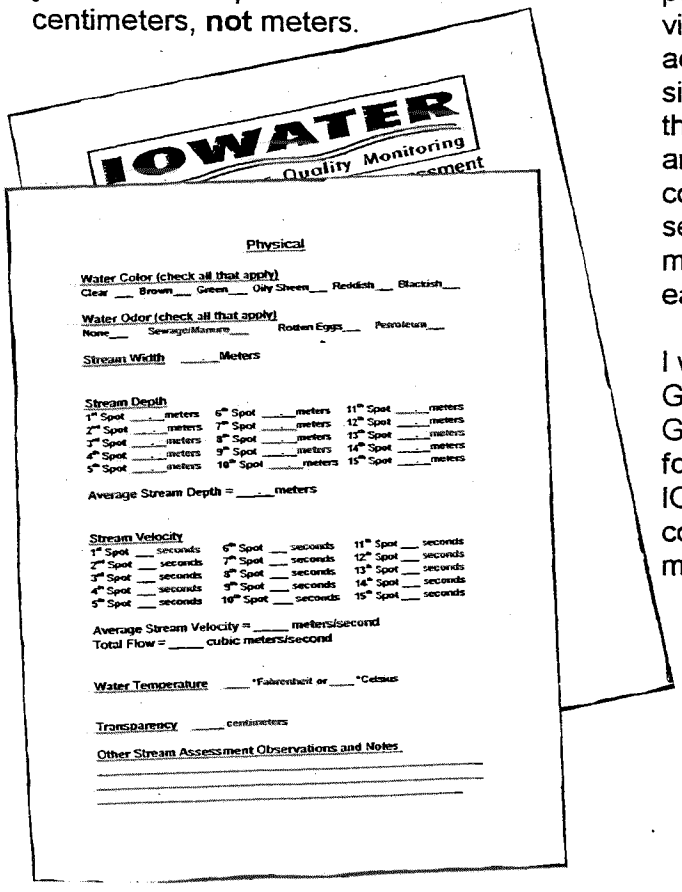
Net Notes

Lynette Seigley – Research Geologist

The IOWATER database is now on-line! The database will run properly only under INTERNET EXPLORER 4.0 or better. To upgrade your browser there is a link on the IOWATER web page in the database section where you can download a free version of INTERNET EXPLORER.

Registering Sites. To register a site to monitor, you will need your unique monitor ID and password assigned to you at an IOWATER workshop. Once you submit site registration, please allow one week for a site ID to be assigned. Once you have a site ID, you can begin to submit data. **To date, 70 sites have been registered across Iowa!**

Stream Depth. For the chemical/ physical assessment, be sure to submit your stream depth measurements as centimeters, **not** meters.


IOWATER
Quality Monitoring

Physical

Water Color (check all that apply)
Clear ___ Brown___ Green___ Oily Sheen___ Reddish___ Blackish___

Water Odor (check all that apply)
None___ Sewage/Manure___ Rotten Eggs___ Petroleum___

Stream Width _____Meters

Stream Depth
1st Spot _____meters 6th Spot _____meters 11th Spot _____meters
2nd Spot _____meters 7th Spot _____meters 12th Spot _____meters
3rd Spot _____meters 8th Spot _____meters 13th Spot _____meters
4th Spot _____meters 9th Spot _____meters 14th Spot _____meters
5th Spot _____meters 10th Spot _____meters 15th Spot _____meters

Average Stream Depth = _____meters

Stream Velocity
1st Spot ___ seconds 6th Spot ___ seconds 11th Spot ___ seconds
2nd Spot ___ seconds 7th Spot ___ seconds 12th Spot ___ seconds
3rd Spot ___ seconds 8th Spot ___ seconds 13th Spot ___ seconds
4th Spot ___ seconds 9th Spot ___ seconds 14th Spot ___ seconds
5th Spot ___ seconds 10th Spot ___ seconds 15th Spot ___ seconds

Average Stream Velocity = _____ meters/second
Total Flow = _____ cubic meters/second

Water Temperature ____ °Fahrenheit or ____ °Celsius

Transparency _____ centimeters

Other Stream Assessment Observations and Notes

Viewing Data. Data submitted to IOWATER can now be viewed on-line by anyone interested! You may select data by site, county, HUC 8 watershed (Hydrologic Unit Code), or HUC 11 watershed. Once you select a site, the data available for the biological, chemical/physical, and habitat assessments will appear. Data will be listed chronologically, from the most recent to the oldest. If no data is available, it will indicate "No data is currently available." Each record also indicates who collected the data.

Instant Gratification. The IOWATER database is interactive, meaning that as soon as you submit data, you can view the data!

To Correct Data in the Database. If you realize, after submitting data, that you made a mistake, please contact me (lseigley@igsb.uiowa.edu; 319/335-1598) to correct the problem.

Coming Soon. A map application will soon be available in the VIEW DATA part of the database. This will you to view the distribution of monitoring sites across Iowa, zoom in to an area to see sites more closely, click on a point on the map and view the site information and access data for that site. Also coming soon will be the IOWATER list server, giving the ability to citizen monitors to communicate on-line with each other!

I would like to thank Bill Bunker, Jack Gilmore, and Joost Korpel of the Geological Survey Bureau in Iowa City for their assistance in developing the IOWATER database. We welcome any comments or suggestions you have for making the database easier to use.

IOWATER
Wallace Office Building
502 East 9th Street
Des Moines, IA 50319
515.281.3252, fax: 515.281.8895
www.iowater.net