

We must begin thinking like a river if we are to leave a legacy of beauty and life for future generations. - David Brower

Riverwatch News:

Greetings Riverwatchers!

Greetings to all you wonderful Riverwatchers out there! I am excited to be here at the helm of Hoosier Riverwatch and am learning, with your help, to get my bearings and tack into the wind (so to speak) as you all bubble over with stream monitoring enthusiasm. I appreciate what I hear with regard to your active interest in all things related to clean water for a healthy, vibrant, sustainable and economically viable Indiana! As you will hear me say often: Keep up the good work!

I have only begun to meet and speak with our wonderful facilitators and volunteers, as well as getting re-acquainted with the IDEM staff and I'm so impressed with the dedication and professionalism that everyone associated with this program exhibits! I look forward to getting to know, work with and serve many more of you in the coming months; continuing the efforts started here by many dedicated persons who have walked this path previously.

- Carol Newhouse

September / October 2014

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Riverwatch Events:

Hoosier Riverwatch
Basic Session:
Oct. 4- New Albany
Oct. 7-Bloomington

Hoosier
Riverwatch is
sponsored by





Upcoming Training Sessions

Hang in there! The season isn't over yet!

Hoosier Riverwatch Basic Training workshops introduce citizens and educators to hands-on water quality monitoring methods. Participants learn about assessing the physical, chemical, and biological components of their favorite neighborhood stream environments. Sessions are held in- and out-of-doors.

All interested persons (18 and over) are welcome to attend and, once certified - may teach others how to monitor as well. Although the Volunteer Stream Monitoring Workshops we offer are free, you must contact the local host in advance in order to register. Workshops are typically held from 8:30 A.M. - 4:30 P.M. unless otherwise noted.

Basic Workshops:

October 4 – New Albany High School (*registration is full*), John Ulmer will be facilitating.

October 7 – Bloomington at the IU Teaching and Research Preserve 9 A.M. – 4 P.M. Facilitation by Cathy Meyers and Kriste Lindberg.

To register contact: Monroe County Parks and Recreation at (812) 349-2800.

*Note: This is a Tuesday workshop offered during a school holiday.
Perfect for teachers who have busy weekends!*

Request for Program Feedback

Under the direction of Carol Newhouse, IDEM is analyzing the program itself to find areas of need and opportunities for improvement. Since our trained volunteers and facilitators are the backbone of the program, we are requesting feedback on any ideas you all may have.

Any feedback or suggestion you can give would be greatly appreciated. Please email your suggestions at riverwatch@idem.IN.gov or call (317) 308- 3392, Monday-Friday 9 A.M. - 5 P.M.

Thanks so much for your time and attention!

Start planning for 2015 Equipment Apps

2014 Equipment Grant Applications are now closed. In fact, HRW staff have awarded so many end-of-season equipment grants with the start of the new school year, that we will have to restock supplies! Which means: **Hoosier Riverwatch Volunteers Totally Rock!**

So, now is a great time to start thinking about your needs for the 2015 stream sampling season. New applications will be available online around March 2015. We will let you know as information becomes available.

If you are currently sampling and in need of supply refills, check online at www.idem.IN.gov/riverwatch and look for the refill heading on the right hand side of the page.

Just a reminder that Hoosier Riverwatch equipment is available to groups that meet the following criteria:

- ❖ Be affiliated with a school, nonprofit organization or government agency
- ❖ Agree to the Cooperative Agreement (p. 4 of the application) including:
 - Attend a Basic Training Workshop (must have already completed a workshop or be registered for an upcoming one upon submission of application)
 - Monitor and submit data online at least 4 times per year for 2 years (a total of 8 data sets by December 31, 2016)

Return the completed 2015 Equipment Application no later than **September 1, 2015**.

Did you know?

Canada geese, and other species of migrating birds, often fly in a “V” or “J” formation because these are the most aerodynamically and energy efficient modes of transportation. The lead goose breaks the wind, so to speak, for those flying behind; allowing them to take advantage of the uplift created by the birds in front. There is also evidence that these formations aid in communication and orientation to help the birds avoid in-air collisions among flock members (see Oct. 1, 2007 article by Bruce Batt of Ducks Unlimited at www.scientificamerican.com). It has also been observed that, from time to time, the lead bird rotates back and is replaced by another bird; while the birds further back in the flock often honk or call to supposedly communicate with and encourage those in the lead.

This is quite different from the so-called “murmurations” seen when hundreds or thousands of birds, such as starlings, fly together in an amazingly synchronous and fluid-like cloud; which opens up entirely different scientific disciplines of study. (see February 21, 2013 post written by Andrea Alfano, then Cornell University junior at Hugh's blog.allaboutbirds.org)



Braving the August heat



The river that has captured the imagination of Hoosier children and adults; thanks to story writer Charles Major's book- *Bears of Blue River* (©1901), was in rare form for this event following some local and upstream rainstorms. But that didn't stop Volunteer Facilitator John Ulmer (Zionsville) from teaching yet another Basic HRW Workshop to a group of enthusiastic citizens. Attendance for this August 23 event included: teachers, a daycare operator, two generations of farmers, a fly fisherman, a handful of Soil and Water Conservation District (SWCD) employees, and other interested citizens.

The workshop was sponsored and supported by the recently formed Big Blue River Stream Team. Teaching venues for the day included the Shelby County Public Library and Sunset Park.

Thanks to all who brought in local produce and baked goods for snacks and to Gary Moody for his photos.



September brings favorable weather

The lovely venue at the Holliday Park Nature Center greeted nine new Riverwatch Volunteers on September 6! The hike down the trail with its mixed wood and stone steps to sample a spring-fed rivulet of the West Fork of the White River was pleasant in the cool misty weather.

John Ulmer (Zionsville) facilitated this event; which boasted citizens from as far away as Michigan City and New Albany. Among those being trained on this day were several teachers, two high school students, a college student, a businessman, and a laboratory technician.



Indiana's Blue Green Algae efforts

As the swimming season draws to a close, HRW thought it prudent to give you an update of the efforts in Indiana to monitor any potential threat due to the presence of blue-green algae at State-owned, natural swimming beaches. Note that this information does not necessarily reflect the presence or absence of algae (toxic, nuisance or otherwise) at drinking water intakes or other locations in either our natural lakes or reservoirs. Adapted from: www.IN.gov/idem/algae/ .

The Indiana Department of Environmental Management (IDEM), the Indiana Department of Natural Resources (DNR), the Indiana State Department of Health (ISDH) and the Indiana Board of Animal Health (BOAH) are working to provide information about blue-green algae in our lakes. Blue-green algae, also known as *cyanobacteria*, are found in water bodies around the world, without concern. However, the concentrated presence of blue-green algae can be linked to some adverse health effects. For example, a large bloom of blue-green algae in Lake Erie near Toledo's drinking water intake on August 2 prompted the city to issue a drinking water ban, affecting roughly 400,000 residents. The ban was lifted the morning of August 4.

We are not aware of any ongoing problems relating to blue-green algae at any of Indiana's 33 surface water systems. Although algal toxins in drinking water are not specifically regulated by either federal or state regulations, Indiana's surface water systems routinely monitor for blooms in their source waters. Should an algal bloom threaten to impact a surface water intake, IDEM would work with that system on treatment approaches to reduce any toxins that might be present. Activated carbon, along with other treatment strategies, has been shown to be effective in removing blue-green algae toxins.

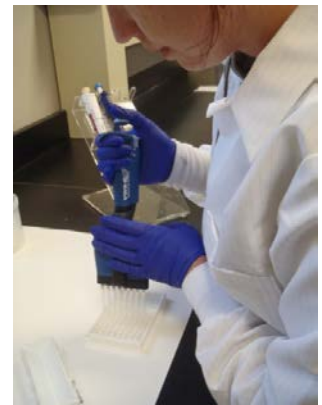
Factors promoting algal growth include sunlight, warm weather, low turbulence, and nutrient sources, such as phosphorus and nitrogen. Phosphorus is particularly important in fueling *cyanobacteria* growth. Often nutrient inputs come from nonpoint source pollution. Fortunately there are many ways to reduce or stop nonpoint source pollution from entering local waterways: many of which are simple things we can do right in our own backyards. Check out IDEM's [Blue Green Algae video](#), which explains how IDEM staff samples the DNR swimming beaches, or this [U.S. EPA video](#) for a broad overview of nutrient pollution.

IDEM's algae website has been updated weekly during the 2014 sampling season to provide the latest information about blue-green algae levels at the DNR lakes and Citizen Energy (CE) reservoirs in central Indiana, as sampled either by IDEM or CE. You can also check the status of the DNR lakes/beaches, which are sampled by IDEM, at the DNR website for individual properties at <https://secure.IN.gov/dnr/3233.htm> .

The respective updates may also include results for other lakes sampled by outside entities wishing to post on this site. You will find links to IDEM's sampling results and laboratory tests as well as links to other websites such as the World Health Organization, the USGS Kansas Water Science Center, and assorted information available through other states.



The photos shown here are (above) one of the fluorescing microscopes utilized by IDEM staff to identify and enumerate / count algal cells, and (below)



IDEM staff use biochemical assays to analyze the amount of algal toxins, if present, in a sample.

Other 'World of Water Quality' Interests

1. NEEF Launches Algal Bloom Photo Contest

The National Environmental Education Foundation would like help documenting algal blooms in the nation's waters. Algal blooms can occur in water bodies as small as a neighborhood pond and as big as the Gulf of Mexico. When algae grow out of control in our waters, the result can be unappealing, harmful to our health and harmful to the environment. Submit photos of algal blooms for a chance to win great prizes! For more information and official contest rules, please visit: <http://neefusa.org/algalbloomcontest>.

2. Join Thunderclap for Clean Water

The U.S. EPA is using a new social media application called *Thunderclap* to provide a way for people to show their support for clean water and the agency's proposal to protect it. Here's how it works: you agree to let Thunderclap post a one-time message on your social networks (Facebook, Twitter or Tumblr) on Monday, September 29 at 2:00 pm EDT. If 500 or more people sign up to participate, the message will be posted on everyone's walls and feeds at the same time. But if fewer than 500 sign up, nothing happens. So it's important to both sign up and encourage others to do so.

Here's the message: "Clean water is important to me. I want EPA to protect it for my health, my family, and my community. www.epa.gov/USwaters."

Thunderclap:

You can participate with U.S. EPA through these two steps:

1. Sign up to join the Thunderclap for Clean Water:
<http://thndr.it/1rUOiaB>

2. Share the link to the Thunderclap with your friends and followers, so we get at least 500 people sharing the message:
a. [Facebook](#)
b. [Twitter](#)
c. [Tumblr](#)

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3. Contest Winner

Lily Crighton, daughter of former HRW coordinator - Lyn (Hartman) Crighton, won a photo contest sponsored by the Indiana Lakes Management Society last year. Check out what is posted on their website at www.indianalakes.org. Congrats, Lily and the other winners. Great job!



'Sunset'

by Lily Crighton

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4. Fun stuff to do with the kids

Rainy day activities are found online at: <http://water.epa.gov/learn/kids/index.cfm>. So, turn off that TV, pour a couple of mugs of your favorite warm soup, and enjoy and educate all at the same time!!!

5. Isn't that a great photo of a stonefly larva?

Check it and others out at <http://macroinvertebrates.org/#/>.

This website gets a WOW from Riverwatch staff as a wonderfully interactive teaching tool for identifying stream insects! Kudos to Carnegie Museum of Natural History and partners! Keep up the good work!



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Saying Goodbye, Already!

It is with mixed emotions that I announce that HRW's own Jessica Trensey will no longer be our own. She has accepted a position as an Air Permit Writer with IDEM's Office of Air Quality.

Jessica has been a big help to the Hoosier Riverwatch program first during its transition from DNR to IDEM, then during the absence of a coordinator after Lisa's farewell, and most recently during my time of orientation with the program. Her quiet presence and ready sense of humor will be missed around the office. We wish her the best in her new adventures of serving Hoosier air quality issues!

Thanks, Jessica.

Hoosier Riverwatch Mission:

The mission of Hoosier Riverwatch is to involve the citizens of Indiana in becoming active stewards of Indiana's water resources through watershed education, water monitoring, and clean-up activities. Hoosier Riverwatch is a water quality monitoring initiative sponsored by the **Indiana Department of Environmental Management's Office of Water Quality**.

For more information, go to www.idem.IN.gov/riverwatch.

