



Fishback Creek wears its summer finery; vegetation which filters water headed to Eagle Creek - IDEM photo

Greetings Riverwatchers!

A quote by David Emery, in a 9/28/12 Jacksonville.com article by Carole Fader, reads:

"In the thorny search for truth, there's no substitute for doing one's own research and applying one's own considered judgment before thinking oneself informed."

Although, Mr. Emery works to research urban legends for About.com; the sentiment he shared here applies equally well to many things in life, including Hoosier Riverwatch efforts.

Emery's words "thorny search" produce a strong image for me. They remind me of the effort we put forth to accomplish the goals of Riverwatch. It makes me think, not only of wading through summer vegetation (as in the lovely riparian photo above), but also of waiting (this year especially) for water levels to drop enough to gain stream access. Even more so, perhaps, they exhort me to be mindful to clear off my crowded car seat and hectic schedule to make room for some sampling equipment and a trip to a favorite creek site.

The words "doing one's own research," reminds me of HRW's goal to empower citizens to get involved in monitoring and caring for the stream water quality in their localities. By conducting their own sampling, as well as sharing results with others in myriad ways, citizens are enlightening themselves about the state of these precious resources.

The ideas of "applying one's own considered judgment" says that we are all capable of thinking for ourselves once presented with the facts/data; while "thinking oneself informed" hints that other people have data to share, too. **(continued on back page)**

July/August 2015

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- Saying "Aloha"
- Database Previews
- Workshop Recaps
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MARK YOUR CALENDARS!

Basic Workshops

Sep. 9 – Paoli

Sep. 19 – Noblesville

Sep. 26 – Holliday Park, Indpls.

Oct. 10 – Elkhart

E. coli Workshop

Oct. 3 - Zionsville

Hoosier Riverwatch is sponsored by



Tell Me More... Harmful Algae Blooms in Indiana Waters

Harmful algae blooms, or HABs, seem to be in the news quite a bit the past few summers. But what are they and who is keeping an eye out on them?

HABs are problematic algae blooms which, in Indiana, are nearly always caused by cyanobacteria also known as blue-green algae. Blue-green algae are a group of bacteria found naturally in a wide range of water bodies throughout Indiana, the United States, and the world. The most common of the HABs in Indiana are *Dolichospermum*, *Aphanizomenon*, and *Microcystis*, as well as some of their cousins such as *Planktolynghya*, *Planktothrix* and *Aphanacapsa*.

In some water bodies—often saline in nature, such as the ocean—blooms of other algae such as dinoflagellates or diatoms cause a phenomenon known as a “red tide”. Red tides and the more familiar green HABs we see in Indiana can both cause water discoloration. Dying algae also cause depletion of dissolved oxygen in the water column of lakes, major rivers and oceans. Of great concern are the toxins produced by some cyanobacteria, which can cause nerve and liver damage and even fatality to fish, birds, mammals and other organisms.

In the past couple of decades, the aquatic invasive *Cylindrospermopsis* algae began appearing in Indiana lakes. There are places in the world where this species produces fatal toxins. Fortunately, toxin release by *Cylindro* blooms have remained low in Indiana waters. According to Kristin Arnold, IDEM Sr. Env. Mgr. responsible for algae identification, IDEM “sees detections of toxins from *Cylindro*, but not above our benchmark of 5 parts per billion.”

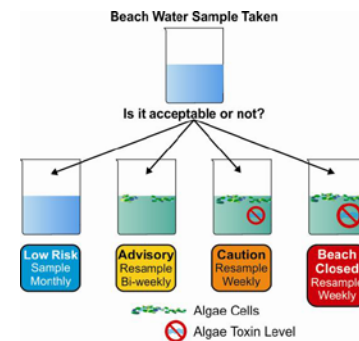
Kristin works diligently to identify algae from lake, beach and other samples coming into the agency. Additional staff is on hand to help isolate and analyze the toxins each week from May through August. This effort monitors State-owned beaches at DNR lake properties. See www.algae.IN.gov for information and test results. Also, see the informative video about this issue and Indiana efforts regarding it at <https://www.youtube.com/watch?v=7QJmbC8Q0Ms>.

Collaborating with IDEM on HAB issues are the Department of Natural Resource www.in.gov/dnr/fishwild/3630.htm, the Board of Animal Health www.in.gov/boah/2617.htm, and the Indiana State Department of Health (see [Fact Sheet on Blue-green Algae](#)). Other good contacts for HAB information are local and county health departments in Indiana.

The efforts occurring in Indiana and elsewhere are based on guidelines set forth by the WHO (World Health Organization). This information is important to keep Indiana bathers well-informed about HAB issues in Indiana so that they, in turn, can keep their families, pets and livestock safe and healthy.



IDEM Photo



ISDH poster available at www.isdh.IN.gov/files/Blue-Green_Algae_Poster.pdf

Aloha to Chuck Bell as He Retires from IDEM's OWQ



KAHUNA = an expert in some field, the one you go to for advice in a particular area; also, one who is a spiritual advisor, priest, or expert in spiritual matters; (e.g. see photo above of Chuck Bell).

Chuck and Jenny Bell at his retirement lu'au from IDEM.

Branch Chief Marylou Renshaw, among others, gave accolades and certificates to Chuck.



IDEM employee and native Hawaiian, Myra McShane, prepares to dance a final farewell hula to Chuck in honor of all that is good about the blessing of freshwater on this earth.



In the past two years, the Hoosier Riverwatch program has had to say good-bye to many persons; including volunteers, instructors, coordinators, support staff and, now, another boss.

IDEM's Office of Water Quality staff said aloha to Chuck Bell with a lu'au luncheon on June 25 of this year. Chuck retired as Chief of the Technical and Logistical Services Section of the Watershed Assessment and Planning Branch. This section houses the Hoosier Riverwatch program and other programmatic support efforts.

Chuck has had a long history of serving water quality, quality assurance, database and myriad other needs throughout Indiana. He was involved in the early and growing days of the Division of Water Quality in Muncie, Indiana. He has operated wastewater treatment plants of various sizes and conditions and designed the laboratory at the Anderson Wastewater Treatment Plant. Chuck oversaw the development of the AIMS (Assessment Information Management System) database, which contains surface water data at IDEM. He was also a big proponent of the Riverwatch program; overseeing its successful transition from the DNR to IDEM.

Chuck loves to garden, travel and spend time with his family. He has served his local church congregation faithfully for many years and, having recently completed a Master's of Divinity degree at Earlham College, will be taking on a greater role in this area.

Chuck's years of service have been greatly appreciated. He will be missed, but is wished all the best in his future endeavors! *Mahalo!*

Upgraded Hoosier Riverwatch Database Debuts Soon

After much ado, we will soon get to enjoy entering, viewing, and retrieving volunteer monitoring data from the enhanced database maintained at www.HoosierRiverwatch.com!

Included here are a few screen shots of this fantastic upgrade. We look forward to getting feedback from you once it goes live. Our goal for bringing it online remains by the end of August.

You may recall that the mapping functions will be fully functional a few months after the main database goes live. We are hoping it will be operational for us by the end of this year.

The top screen shot to the right shows the home page for Hoosier Riverwatchers. Though the appearance has been upgraded, we believe users will find navigating throughout and using the entry pages (for volunteers, organizations, sampling sites, and for actual water quality data) will remain as easy-to-use and self-explanatory as before, if not more so.

Center screen shot shows many of the live data screens and message boards, which will provide immediate and real-time feedback to the users. Get your cameras out, too, as you will soon be able to upload site photos along with your sampling data!

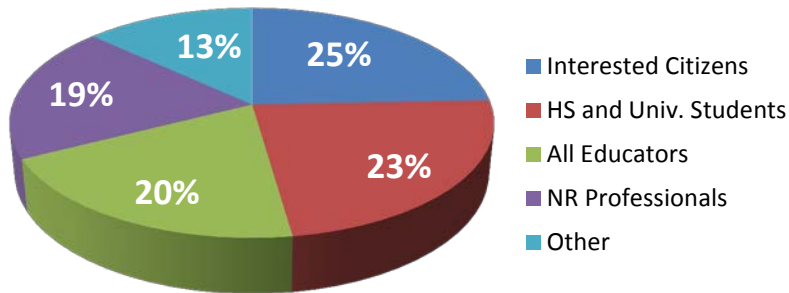
Bottom screen shot shows the enhanced and very robust search page for the database. You should be happy with live mapping checks and data graphs available here, as well as that handy link for downloading data back into a spreadsheet for your own use.



The new database at www.HoosierRiverwatch.com debuts September 2015.

2015 Riverwatch Workshops

HRW Workshop Participants by Occupation, as of August 14



- ❖ **23** workshops held statewide so far this year
- ❖ **2** workshops were half-day, *E. coli* advanced training sessions
- ❖ Workshops were held in **18** different counties
- ❖ **200** people have attended, representing:
 - **43** counties
 - **3** other states



Workshop participants identify and sort macroinvertebrates from a local stream in North Webster, Indiana on June 25.

Photo-Lyn Crighton

Kudos to instructors Kelsey Thetonia and Julie Speelman for guiding 28 Vermillion County high school students and their teachers through a HRW workshop on May 14.

[See a video news clip here.](#)



L-R: Charlie Adams, Megan Bennett, Kristy Porfidio and Rocky Grieswell are ready to sample the East Fork Whitewater River below Thistlewaite Falls, Wayne County, Indiana. They received their basic HRW training at the Hayes Arboretum in Richmond on July 6.

IDEM Photo



John Ulmer illustrates a point while teaching an advanced *E. coli* workshop at Hayes Arboretum in Richmond on July 25.



Meg Hennessey gets animated as she and Asa Duffee practice identifying and counting *E. coli* colonies.



David Klene and Dawn Smith learn to identify the correct colors for *E. coli* colonies.



Stephanie McCurdy, head naturalist at Hayes Arboretum, learns to count *E. coli* colonies from a pour plate.

All Photos-IDEM



Wilderness Inquiry

Join the fun as Wilderness Inquiry (WI) brings its Canoemobile team to Ft. Harrison State Park for the Hoosier Outdoor Experience on the weekend of September 19-20.

Using six 24-foot Voyageur canoes the WI team gives people a hands-on opportunity to learn about historical, cultural, and the environmental significance of rivers via a real-time floating classrooms.



L-R: Gary Moody, Jill Williams, Jill's daughter Kelsey, Christina Gates (power lifting Jill's daughter Alisa), Kerry May, Kris Schwickrath, and Peggy Faulk enjoyed sampling the Big Blue River, Shelby County, Indiana. They work and/or volunteer as part of the Big Blue River Stream Team and received their basic/refresher HRW training in Shelbyville on August 8.

IDEM Photo

Mark Your Calendars:

B A S I C Hoosier Riverwatch Workshops

- Sept. 9** Paoli – Orange County Soil and Water Conservation District Office (9 AM – 4 PM). Contact Michael Wilhite at michael.wilhite@in.nacdnet.net or (812) 723-3311(x3) for information and registration.
- Sept. 19** Noblesville – Blatchley Nature Study Club (9 AM – 4 PM). Contact John Ulmer at watersheds@tds.net or (317) 769-3500 for information and registration.
- Sept. 26** Indianapolis - Holliday Park (9 AM – 4 PM). Contact John Ulmer at watersheds@tds.net or (317) 769-3500 for information and registration.
- Oct. 10** Elkhart – Fly Tiers Cabin, Elkhart Conservation Club (8:30 AM – 4:30 PM). Contact Nancy Brown at nancy.brown@in.nacdnet.net or (574) 533-4386 for information and registration.

Although Volunteer Stream Monitoring training workshops are free, you must contact the local host in advance to register. Training does come at a cost to the program, as well as to the host and/or instructor. Please be considerate and once confirmed, contact your instructor if you cannot attend the workshop you have signed up for.

A D V A N C E D Hoosier Riverwatch Workshops

- Oct. 3** *E. coli* Monitoring – Zionsville Town Hall (9 AM – 12 PM). Contact John Ulmer at watersheds@tds.net or (317) 769-3500 for (574) 533-4386 for information and registration. (Basic HRW training is a prerequisite)





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www.idem.IN.gov



Continued from front page:

A key point of this is how important it is for all of us to come together with our unique pieces of the water quality puzzle, in order to share our information and insights. This is, by far, the better way to preserve and protect these most valuable shared water resources.

So, keep up the good work, Everyone!

Keep your data coming into the database at www.hoosierriverwatch.com and join us here next time when we begin to review how wonderfully our upgraded database is working online. It is still scheduled to go live by the end of August!

- Carol Newhouse

IDEM OWQ Mission:

The Office of Water Quality's mission is to monitor, protect, and improve Indiana's water quality to ensure its continued use as a drinking water source, habitat for wildlife, recreational resource and economic asset.

The office achieves this by: developing rules, guidance, policies and procedures; assessing surface and ground water quality; regulating and monitoring drinking water supplies and waste water facilities; protecting watersheds and wetlands and providing outreach and assistance to the regulated community and the public while supporting environmentally-responsible economic development.

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.



"Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails." – Mark Twain