Butler County Stream TeamJune News - 2014

Volunteer Stream Monitoring in Southwest Ohio Next Sampling Day - June 14th

** Samplers - please contact Lynn White at

WhiteLR@butlercountyohio.org if you cannot collect your samples this month.

***Canoeing - see details below and email Lynn White if you want to go.



Saturday June 28th Please RSVP ASAP!!

to Lynn White at whitelr@butlercountyohio.org

We had hoped to take our summer canoe trip down the Whitewater this year, but that didn't work out. Instead, we will put in on the Great Miami at Fairfield Water Works Park and paddle to Heritage Park in Colerain Twp. The journey is about 8 miles and with the good rains we've been having, the river should be flowing well - not too fast and not too slow. Last time we were on this section of the river we saw this bald eagle up close and personal - wow! Hopefully they are still

nesting there.



Boats - We have a few canoes and kayaks that you can borrow, or if you have your own boat you can use it.

- If you want to borrow a boat we will meet you at 9:45 am at Waterworks Park. After the float, we will drive you back to your car in Fairfield.
- If you use your own boat we will meet you at 9:15 at Heritage Park and load your boat in our trailer please be prompt as the other group will be waiting for us at Waterworks Park. When we finish the float, your car will be there to take you home. You may need to purchase a Colerain Twp parking pass if someone is on duty \$2 a day, or \$10 per year.



Sampling Summary - March

Thanks everybody! Here's what we did last month:

# of samples analyzed	102
# sites too low to sample	16
# volunteers sampling	34
# volunteers in lab	14

A couple of things to note:

- 1 This month, more sites were dry. We expect that to increase over the summer as our spring rains stop. So, **please remember** if your site is dry, turn in the empty bottle with the label attached and with a comment of "dry" or "too low to sample" on it.
- 2 Please note if you cannot collect your sample, please let us know so we can try to get it covered by someone else.

Volunteer Spotlight Donna McCollum

Hi everybody! If you are getting this newsletter, most of you know me ... or at least have talked to me somewhere along the way. I have been working with / managing much of the Stream Team effort for about 6 years and have had a lot of fun watching it grow! I mean, wow, what a great bunch of people to work with!

Please **pack a lunch** and remember your **sunscreen** and plenty of **water**.

Our end point at <u>Heritage Park</u> has restrooms, picnic shelters, frisbee golf, walking trails, native plantings, and a kids play-park.

Remember to RSVP ASAP to book your boat!

Also check out some interesting opportunities with the Whitewater River Watershed Project in the right column - look for Coming Up ...

Stream Bank Erosion

Modified from Butler Soil and Water Conservation District

Remember when you bought your house and thought that little stream or creek running next to your property was a nice feature? There are many benefits to having a creek run through your property, such as added aesthetics, additional wildlife, and a place to cool down on a warm day. Now, five years later, that little stream you thought was so quaint is eroding away your back yard and practically up to your back steps.

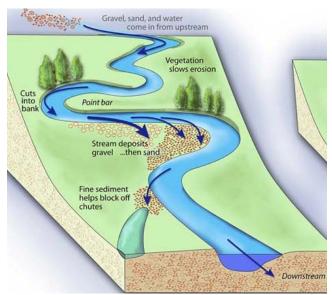
Stream bank erosion is a common problem, but how did this happen and why? Well, although streams/creeks are not technically living things, they do change their courses over time due to the geomorphology of their locations. The stream will always try to be in equilibrium, meaning that it both erodes and deposits sediment, often leading the stream to form a meandering or 'S' pattern (Pic source).

I thought I'd use this month to let you know a bit about me, since I am retiring at the end of this month. And just FYI - I won't be able to do anything with Stream Team for a couple of months, not even volunteer. But hopefully I'll be joining you again in some way this fall, at least to collect samples and work in lab sometimes. Meanwhile, if you want to come join me to clean out one of our wetlands (see me with friends and students below) we do have lots of fun and will be happy to put you to work!



So who is Donna McCollum? Well. like many of you, I have come by my love of water pretty naturally ever since I was a kid. I lived on a small farm in Indiana while very young and, although I wasn't allowed to go by myself, some of my favorite memories are of the "swimming hole" in a creek near (or on?) our property. Later, I used a suburban neighborhood pond not just to ice skate on but also as the scene for many imaginary wild adventures ... along with a few non imaginary ones! My family loved to camp and water ski, and I have lots of memories of skiing on the Great Miami River near Camp Campbell Guard every Sunday in the summers. Mmmmm blackberry cobbler warm from the oven and all the other goodies my aunts provided for "pot luck" lunches and dinners at the river have made me love pot lucks even now!

I went off to college to follow my dream of teaching and graduated with certifications in both biology and health and physical education. I wound up at Miami University in 1990 when, after teaching for 11 years, staying home



During large rain events, storm water enters the stream and increases both the volume of water and its velocity, or speed. As the water rises, it fills up the larger channel, often moving laterally, or side to side, to increase the width of the stream channel and decrease its velocity. As the stream moves laterally, it erodes the outer bank (the outside of the curve where the current is fastest and angle of encounter is most direct) and deposits sediment onto the inner bank (inside of the curve where the current is a bit slower and the water just runs beside the bank). This creates the cut banks and point bars you see in many streams. The eroding of a cut bank is what you notice, as your yard, farm field, or even a trail in a local park is slowly eroded away by the stream. There are ways to modify and stabilize your stream bank, but they do cost money. The most important thing is to understand the natural processes of a stream or creek around you before you buy a home.

The volume and velocity of water entering our streams has increased in urban and suburban areas because impervious surfaces force the rain to runoff instead of letting it naturally soak into the soil. This has further added to the stream bank erosion issues. You can help lower the amount of runoff by keeping more of the rain that falls on your property on your property, using rain barrels and creating rain gardens.

Backvard Stream Maintenance

If you do decide your property needs some protection from your encroaching stream, there are a couple steps that should be followed before

with my young boys for a few years, and doing a variety of odd money-making part-time jobs for a few years, I needed to take 14 hours of classes to get back into public school teaching. And I fell in love with learning again!

Coming back to graduate school, where everyone was focused on their intellectual passions (and actually had time to invest in them!) felt like coming home. So a Master of Arts in Teaching (MAT), Master of Science (MS) and Doctor of Philosophy (Ph.D.) later, I finally thought I had spent enough time in school! But what a great trip. During my years in graduate school, I researched stream ecology and its relationship to land use ... something I still use today and what has made Stream Team such fun!

Another big change during those years was a blooming love of travel. When I first returned to school, I was a student on the first MU Belize course and it changed my life - at 38 years old, I had never been out of the US, and 2 intensive weeks in Belize solidified my love of educational travel forever. While at MU, I was able to develop my own international workshop in Belize, be a student in many locations around the world, and co-teach two other international courses. These have exposed me to so many truly awesome experiences, I can hardly believe it. Here I work with two



students to identify gastropods (snails) that live in the intertidal zone of a rocky beach in theBahamas. And below is a ~18' boa swallowing a red-lored parrot ... ask me about that story sometime!

beginning. Streams are a vital natural resource and are therefore protected under the Clean Water Act (CWA) of 1972.

The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers work together to enforce that restoration and maintenance of waters. The Corps of Engineers heads the permitting program, defined in Section 404 of the CWA, for any projects that include placement or removal of dredge or fill material in a water body. Examples of the types of activities that need permits include bank stabilization, low-level crossing construction, and fill placement in and along the stream. Some activities are also must have a permit due to local floodplain regulations.

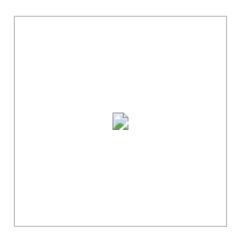
So, to help protect our waters, please contact the U.S. Army Corps to determine if your activity needs a permit before beginning any stream projects. You can also contact Butler SWCD or your local floodplain manager for help in determining if a permit is needed.

Macro Sampling Update We're almost there ...

We just wanted to let you know that now Donna is back from teaching in the Bahamas, we are moving forward with how to get the folks who learned how to smile macro invertebrates into the field. We have a list of equipment to go in the sampling kits. Would you look this over and see if you have anything to add, based on our experience during the training? Thanks! Contact Lynn.

Kit Contents

- Thermometer
- Bug ID sheets
- Ruler to sample depth
- Results sheets 1 laminated sheet for field and paper copies to turn in (we will have digital data entry, as well, but may not get that done for this first round)
- Dry erase markers
- Regular pen and pencils
- Magnifying glass



Now, my job at the Institute for the Environment and Sustainabillity, where I've been in various capacities since 2007/2008, is disappearing and I get to retire! Yay! I am looking forward to getting to do what I want-including some things like finishing some of the many projects I have started over the years (oh, so many!),

still teaching the fun stuff, building a "winter house" on our Florida

wetlands
(that's me on the
right hugging a
cypress with our
70-acre wetland
in the Big Bend
area of Florida in
the background
ad yes, I'm happy
to be a treehugger!), and of
course helping
out at Stream



Team. So, hope to see you around!

Dr. Donna McCollum

Coming up ...

June 16th - Whitewater River Demo Day

Professionals from IDEM (Indiana's equivalent of the EPA) will demonstrate fish and macro invertebrate sampling techniques. Sponsored by the Whitewater River Watershed Project.

Day/Date: Monday, June 16th

Time: 10:00 am

Location: City Park, Brookville, IN **RSVP**: 812-926-2406 ext. 3

- Tweezers
- Eye droppers
- Ice cube tray for sorting critters
- Pan
- Kick seine (net)
- D-net
- Plastic tablecloth put under seine on bank

Lending Library

We all have lots of books that we would love to share with someone who has similar interests. So we thought this might be a way to share some books with people we know like streams! The books are in the Stream Team lab, ready to be borrowed by anyone who would like to do so.

If you have books, DVDs or other things - especially about water - that you would like to contribute, feel free to bring them along anytime. Or, if there are particular books you would like us to buy, let us know and once a year or so we can add a few to our collection.

Here's our list to date:

- *A Guide to Common Freshwater Invertebrates of North <u>America</u>
- *A Guide to Ohio Streams
- *After the Storm DVD
- *An Introduction to the World's Oceans
- *Bugs of the Underworld: a fly fisher's guide to the natural history of aquatic insects (DVD - available on request)
- *Exploring the World Ocean
- *Fostering Sustainable Behavior: An introduction to community-based social marketing
- *Guide to Aquatic Insects & Crustaceans
- *Gulf Hypoxia: Action plan 2008
- *Handbook for Developing Watershed Plans to Restore and Protect Our Waters
- *Introductory Oceanography
- *Life in the Soil: Aguide for naturalists and gardeners
- *Marine Ecology
- *Migratory Shore and Upland Game Bird Management in North America
- *Monitoring Guidance for Determining the Effectiveness of Nonpoint Source Controls
- *Oceanography
- *Ohio's Lake Erie Public Access Guidebook.
- *Ohio's Lake Erie Public Access Guidebook: Rivers Edition
- *Ohio Vernal Pools: Diamonds in the Rough (DVD available on request)
- *Our Waters, Our Health
- *Pond and Brook: Aguide to nature in freshwater

June 18th - Metropark family programs with Lynn White

Our own (Butler Soil and Water) Lynn White will lead several family programs for Butler County Metroparks, where she will lead you into streams! In June, take a walk in Dry Run at Governor Bebb Park to find macroinvertebrates, fossils, and other creek critters.

Day/Date: Wednesday, June 18th **Time**: 10:00 am - 12:00 pm Location: Governor Bebb

Metropark

RSVP: Lynn White June 28th - Canoe trip See details above and let Lynn know if you're interested ASAP.

June 21st - Whitewater **River Watershed** Riversweep

Join the Whitewater River Watershed Project for the annual ORSANCO Riversweep. Help to keep the Whitewater clean and litter free.

Day/Date: Saturday, June 21st

Time: 1:00 pm

Location: meet at Whitewater Canoe Rental, 1154 Main St,

Brookville, IN

To register: 812-926-2406

June 28th - Canoe trip

See details above and let Lynn know if you're interested ASAP.

July 16th - Creekin' in Indian **Creek with Lynn White**

In July, take a walk with Lynn in Indian Creek at Indian Creek Metropark to find macroinvertebrates, fossils, and other creek critters.

Day/Date: Wednesday, July 16th **Time**: 10:00 am - 12:00 pm **Location**: Indian Creek Metropark RSVP: Lynn White

Crisis Spot

As you are out sampling or just out for a walk along the waterways and see something wrong, email us. We always want to hear from our volunteers, especially if there is a problem that can be corrected.

environments

- * Rainbows of Rock, Tables of Stone: The natural arches and pillars of Ohio,
- *River of Words
- *Stemming the Tide of Coastal Fish Habitat Loss
- *Swamp and Bog: Trees, shrubs, and wildflowers of eastern freshwater wetlands
- *The Colorado: A river at risk

 *The Evolution of North America
- *The Face of the Deep
- *The Mill Creek: An Unnatural History of an Urban Stream
- *Watersheds: A Practical Handbook for Healthy Water If you have any comments, concerns, or suggestions, please contact us at mccollds@miamioh.edu.

You are our eyes in the field, the first line of defense for streams in Butler County. Once a problem has been reported to us, we can pass it along to the appropriate agencies. For instance, when a sampler noted a VERY LARGE sycamore trunk had been washed up against a bridge in Wet Chester, we notified the Soil and Water District and they took care of it.

Thanks again for all you do for Butler County Stream Team!

Crisis Spot emails can be sent to Lynn White at whitelr@butlercountyohio.org

Butler County Stream Team Monthly Newsletter

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