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Butler County Stream Team

June News - 2012



Volunteer Stream Monitoring in Southwest Ohio

Next Sampling Day - June 9th

Remember - New cooler at West Chester Presbyterian Church is available until 10:00

Ohio Water Snakes

One of the animals you might begin seeing as you collect samples this summer is some of Ohio's water snakes. But don't worry - snakes have a bad reputation but it is largely unearned. They generally are largely nonaggressive, preferring to leave without picking a fight, and perform essential functions in our ecosystems. Of Ohio's 29 species of snakes, only a



few are aquatic and no aquatic species are venomous; contrary to popular belief, the water moccasin, or cottonmouth, does not occur in Ohio, as shown in the range map at left. So if you have the good luck to see one of Ohio's interesting water snakes, don't worry - just enjoy the

privilege!

All snakes are ectotherms - or are "cold-blooded". Ectotherms do not warm themselves with their muscles, as mammals do, but instead regulate their body temperature by changing their environment. For water snakes, this means they will often be seen sunning themselves when it's warm, but hanging out in the water or under large rocks when it's hot. When it is very cool or cold, snakes don't do much at all - they may be found under rocks or leaf litter until

Volunteer Spotlight

Thanks to our most recent trainees!

Just wanted to say thanks to the 10 volunteers who were able to make it to Indian Creek Preserve to take part in our annual training event. We had a beautiful morning for it and even though we didn't have enough folks who could go on over to the Whitewater canoe, I think everyone enjoyed themselves. We not only got to review how to take a good sample, we looked at some data from the past five years and got a lot of folks acquainted. This data is part of a 5-year report that will shortly be up on the web site. Lynn is out fo the office this week, but a draft should be up soon at butlercountystreamteam.org.

The training day is important to the Stream Team's efforts to supply Level II credible data. Our Project Study Plan, filed with the Ohio EPA last year, says we will actually train folks who collect samples for us, so doing the training for many people on the same day is very helpful. So thanks for coming!

winter, when they move underground until spring.

When water snakes are approached, they usually "disappear" by retreating to the bottom. If the closest water is shallow and you insist upon approaching further, they may retreat even further to the deepest part of the pool.

One of the most aquatic of Ohio's snakes is the Queen snake (*Regina septemvittata*). These small snakes



(only up to 2 feet) are pretty distinctive looking, with a grey-green-brown back (depending on the light) and a broad creamy stripe down both sides.

Unlike a garter snake, they do not have a central stripe down the spine. On the belly you will see a continuation of the cream color with a narrow brown stripe down each side. These snakes are most often seen in slow-moving, rocky-bottomed creeks where their main prey, crayfish, are found in abundance. They are often found either sunning on top of large rocks or hanging out under them - a behavior necessitated by their ectothermal metabolism. If you are adventurous and would like to catch a snake - just to feel their muscular build - a queen snake might be a good one to try on. It will likely try to bite you, and will certainly empty its musk glands on you, but its tiny teeth can barely pierce the skin and the musk will wash off, so it's no real threat. But don't try to keep these guys as pets - even though they will become gentle, they rarely eat in captivity and so don't generally survive.

A snake that is certainly more beautiful but not nearly so nice to handle is the northern or [common water snake](#) (*Nerodia sipedon sipedon*). These guys have an attitude - although they are very wary and their first reaction to people is generally to slip quietly into the water and swim away, if they feel threatened they will strike aggressively, bite repeatedly, and release musk all over you. Nice! That said, these snakes probably get the worst rap of all our water snakes. They are the most common snake seen around water in Ohio, occurring around almost any permanent body of water

Mark Your Calendars!

BC Storm Water - Webinar Series

If you are interested in learning more about how storm water affects streams, don't miss the 2012 webcast series produced by the Center for Watershed Protection, hosted by the Butler County Storm Water District. Each webcast will air from 12 - 2 pm at the Engineers Office, 1921 Fairgrove Ave., Hamilton. Cost to you is \$0! That's FREE! For more info on these titles, click [here](#).

Stream Restoration: Implementation you can take to the BANK

[Wed. June 20th](#)

Get the Dirt on Stormwater

Wed. Aug. 15th

Leaving You Out In The Rain - Design and implementation of monitoring projects

Wed. Oct. 24th

Customizing Your Stormwater BMP Design for Specific Pollutants

Wed. Dec. 12th

Open Lab and Grand Opening of new lab!

It seems we are going to need to move our lab in Oxford from Boyd Hall. We are not quite certain where our new home will be (maybe in Upham Hall with the rest of the IES department), but we hope to make the move over the summer. When we do, we will have an open lab day! The tentative date will be Saturday, August 25th. More details to come!

Fall Canoe Outing

Saturday, September 22nd or 29th
We have been trying to do two canoe outings every year to get

- we're glad to have one living in our backyard pond, where it seems quite happy eating frogs and minnows and hiding in our pond plants.

Unfortunately, the coloration of common water snakes can be similar to two venomous snakes, water moccasins and copperheads. The image above shows a brown "camouflage" coloration, like a [water moccasin](#) sports, but it is not uncommon for these snakes to be reddish, like a [copperhead](#). However, the water moccasin is a more southern species that doesn't occur in Ohio, and the copperhead is not supposed to be in Butler County, only in Hamilton County and further east. So - don't jump to the quick conclusion that these lovely water snakes are one of their more dangerous cousins. At the same time, unless you are sure you know what you're looking at and given the nasty nature of common water snakes, it's better to leave these guys alone.



The last of the aquatic snakes found in Butler County



is the beautiful and diminutive [eastern ribbon snake](#) (*Thamnophis sauritus sauritus*). These guys look like garter snakes, but brighter and skinnier. They both have light stripes down the spine and sides of their backs, but the side stripes are a bit wider and the dark color darker than in garter snakes, giving them a more ribbonlike appearance. Unlike their relatives in the gartersnake group, ribbon snakes eat minnows, frogs, tadpoles, and salamanders. If you are lucky enough to see a ribbon snake, you can be sure it will be moving away from you - their first act upon approach is to slither away into the water. Then, unlike the two truly aquatic species above, ribbon snakes are likely to swim parallel to the shoreline and, when safely away, glide up into the surrounding vegetation.

The three snakes above are the only ones in Butler County that

people out on the rivers. For those of you who joined us on the Great Miami last year, you know how good it feels to be out on the water and seeing the river from a canoe! Many people got a real highlight seeing a wild bald eagle up close and personal. More details to come!

Collect Data for World Water Monitoring Day

September 18th is the actual day on which people around the world will be monitoring water. But since our September Stream Team day is always at the River Days festival, we decided we should report our October data instead.

So come on out and plan to add your sample to a global effort.

If you have ideas of things you'd like to see the Stream Team do, please let Donna know at mccollids@muohio.edu. For instance, if enough people are interested, we can open the lab up for macroinvertebrate identification again, or run another morning session to get people started knowing what bugs are in our streams.

Lending Library Titles

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 them with people we know like streams! 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 America](#)

*[A Guide to Ohio Streams](#)

*[After the Storm](#) - DVD

*[An Introduction to the World's Oceans](#)

are nearly always found around water. However, a few other sightings are possible of snakes that don't live in the water or eat aquatic prey, but like wet areas and live at least in a neighboring county. These include the northern

copperhead (right), eastern massasauga (below), Kirtland's snake (bottom left), and northern redbellied snake (bottom right). These four are quite different from each other. The



copperhead (*Agkistrodon contortrix mokeson*) and Eastern massasauga (*Sistrurus catenatus*)



catenatus) are venomous, using heat-sensing pits and fangs to find and kill small rodents. Copperheads are best identified by their

identifying characteristic, the copper-colored head, while no one will miss the massauga's rattle. While both of these snakes certainly have the ability to inflict damage, they are like most snakes - nonaggressive and willing to bite only when threatened. The [2009 Reptiles of Ohio](#) shows copperheads in Hamilton County and massasauga in Preble and Greene Counties, so they are close enough that you should be careful of your identifications in the field.



Kirtland's snakes (*Clonophis kirtlandii*) are very small, less than 1.5 feet long, extremely secretive, and eat worms and slugs.

They are the only one of these four that is definitely found in Butler County. Like the red-bellied snake, Kirtland's is a truly beautiful snake, with a bright red-orange belly. It also sports black spots down both sides and a reddish back - hard to beat in beauty contests! The redbellied snake is even more diminutive than Kirtland's, never longer than a foot - its scientific name (*Storeria occipitomaculata*

*[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](#): A guide 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 Vernal Pools: Diamonds in the Rough](#) (DVD - available on request)

*[Our Waters, Our Health](#)

*[Pond and Brook: A guide to nature in freshwater environments](#)

*[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](#)

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.

You are our eyes in the field, the first line of defense for streams in Butler County when there is a problem. Once a problem has been reported to us, we can pass it along to the appropriate agencies. For instance,

occipitamaculata) may be longer than the snake itself! The red-bellied snake also eats worms, slugs and beetle larvae and although it is recorded only from Hamilton county and other southern Ohio areas, it is certainly close enough I've not given up on seeing it!



So, there you have it! Now is a great time to look for snakes, so if you see any of our most misunderstood creatures while out sampling, I hope you look long enough to figure out which species you're seeing! Enjoy the encounter and count yourself very lucky!

River Reflections

Well, it seems some of Jeff Opperman's readers had some of the same thoughts I did last month - check out *Moon River* below. In response to his top ten river tunes column, he received lots of other [suggestions and comments](#). So I've looked for free versions of these songs on the web. Just click on the song title. Hope you enjoy listening!

1. (tie) "[River](#)," Joni Mitchell (10)
1. (tie) "[Moon River](#)," various artists (10)
3. (tie) "[Down by the River](#)," Neil Young (9)
3. (tie) "[Take Me to the River](#)," mostly Talking Heads but also Al Green (9)
5. "[Black Water](#)," Doobie Brothers (8)
6. (tie) "[Old Man River](#)," Paul Robeson (7)
6. (tie) "[Big River](#)," Johnny Cash (7)
8. "[Green River](#)," Creedence Clearwater Revival (6)
9. "[River Man](#)," Nick Drake (5)
10. (tie) "[Cry Me a River](#)," various, including Ella Fitzgerald (4)
10. (tie) "[Proud Mary](#)," [Creedence Clearwater Revival](#) (4)
10. (tie) "[Watching the River Flow](#)," Bob Dylan (4)
10. (tie) "[Down to the River to Pray](#)," Alison Krauss (4)

Carol Jones's interest in streams led her sister to make her aware of cleared brush in her local creek. When Carol contacted us, Doug Dirksing contacted Duke Energy, who was unaware of the mess and promptly cleaned it up. Success is sweet!

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

Crisis Spot emails can be sent to Donna McCollum at mccollds@muohio.edu.

If you have any comments, concerns, or suggestions, please contact us at mccollds@muohio.edu.

Butler County Stream Team Monthly Newsletter

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