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## Butler County Stream Team January News - 2012



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

### Wonderful Watery Wetlands!

Did you know there is a [World Wetlands Day](#) on February 2nd every year? Many people the world over think the value of wetlands lies only in their draining so that they can be useful. However, way back in 1971 the global conservation community realized that wetlands were rapidly vanishing **and** their demise was endangering many ecosystem services. So on Feb. 2, 1971, a



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very cool!

treaty was signed in Ramsar, Iran, that "[provides the framework for national action and international cooperation for the conservations and wise use of wetlands and their resources.](#)" Today, there are 160 [nations involved](#) and almost 2 thousand [wetland sites](#) on the Ramsar list. Twenty-six of these are in the [US](#), and range from OSU created wetlands, the [Olentangy River Wetland Research Park](#), to the 14,000 acres of bald cypress forest in Florida's [Corkscrew Swamp Sanctuary](#). Around the world, almost 500 million acres of wetland are conserved through the Ramsar Convention.

### Volunteer Spotlight

A nice treat this year at the Stream Team lab has been some of the new IES students who have continued to help out each month. Travis Drury is one of those.

Travis graduated from Ohio Northern University with a B.S. in environmental studies in 2009.

Stream team, as well as other activities he has participated in at Miami, is helping him focus on a career in water resource analysis.

Travis has had some interesting positions in his journey into environmental science. While at Ohio Northern, Travis was an intern at the Okefenokee National Wildlife Refuge. Upon graduating, he interned for a year in resource management at the Cumberland Gap National Historical Park, then remained for another yearlong internship working with geographic information systems (GIS).

So if you've ever been to Cumberland Gap, or want to go, give Travis a holler next time in lab!

My holler is .... THANKS TRAVIS!  
We really appreciate your help!

### Volunteer Educational Opportunities

To help celebrate World Wetlands Day, Donna is going to host a **brunch and wetland hike** on her property, the [Edge of the Farm Conservation Area](#) on **Saturday, Feb. 18th, at 10 a.m.** (RSVP if possible to [mccollids@muohio.edu](mailto:mccollids@muohio.edu)).



Hopefully the weather won't be too bad, but we will be hiking, rain or shine, or even snow! Depending on the weather it may be wet or slick, and the walk will be about half a mile on mostly flat but maybe soggy terrain, so bring shoes or boots appropriate to the conditions. We have several pairs of boots to loan, but sizes may or may not be appropriate. You'll learn more about the Edge of the Farm if you come and hike, but briefly, we have worked with US Fish and Wildlife, Pheasants Forever, and the Three Valley Conservation Trust to put about 11 acres in a prairie/wetland complex that is in a conservation easement. That means the land will never be developed but will remain in its current protected status forever.

You might ask **why we would want to do that**, so let me give you a little more information about wetlands. First, wetlands come in [many forms](#) - lakes, streams, swamps, marshes, bogs, fens, flood plains, and riparian bottomlands. But all are defined by the fact that water is present for some stretch of days during most years. In the US, the term is [legally defined](#) by the existence of 3 characteristics - wetland hydrology, hydric soils, and hydrophytic plants (see [What is a Wetland](#) for more info and illustrations). Wetland hydrology means water must be present on the surface or just underground. Hydric soils are those that are low in oxygen because they are saturated with water for long stretches. Hydrophytic plants are species that have special adaptations to living in saturated, low oxygen soils.

### Ohio Scenic Rivers film

Are you interested in attending a special screening of a new documentary on Ohio's scenic rivers? It will be shown this month in Dayton (Jan. 28th) and Yellow Springs (Jan. 29th). For more information, check out the Ohio Scenic River [website](#). If anyone is interested in going as a group, contact Donna at [mccollids@muohio.edu](mailto:mccollids@muohio.edu).

### Webinar Series

If you are interested in learning more about streams, in particular about how storm water contributes to them, 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!

### Retrofit This -- A guide to retrofitting the world?

Wed. Feb. 29th

### Build This - Stormwater retrofit construction issues

Wed. April 18th

### Stream Restoration: Implementation you can take to the BANK

Wed. June 20th

### Get the Dirt on Stormwater

Wed. Aug. 15th

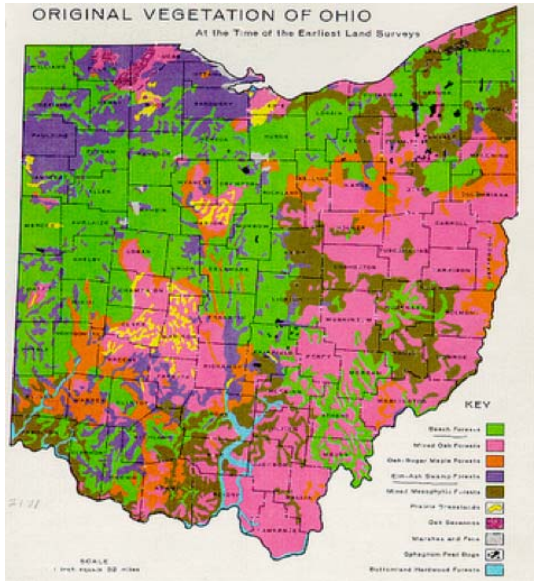
### Leaving You Out In The Rain - Design and implementation of monitoring projects

Wed. Oct. 24th

### Customizing Your Stormwater BMP Design for Specific Pollutants

Wed. Dec. 12th

For more information on these webinars or to register, email [Bob Lentz](mailto:Bob.Lentz) or call at 785-4120.

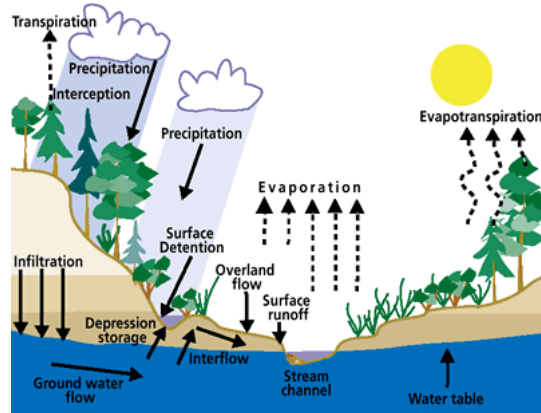


In Ohio, 90-95% of our original wetlands (before European settlement) have been drained. In the [map](#) of native Ohio vegetation to the left, all of the dark purple areas were

elm-ash swamp forests, the small gray areas in west central Ohio were peat bogs and fens, and the light blue strips were bottomland forests (seasonally wet). Since the mid 1700s, the area of Ohio in wetlands has decreased from about 5 million acres to less than 500,000 acres. They have been drained to allow farming and development, leveed off to keep adjacent land from flooding, and cleared for timber. The wetlands that remain are small and isolated, at least in relationship to their historical size.

But you may still be asking "So what", right? The [answer](#) to that is long, but very important.

Wetlands have often been called the "[kidneys](#)" of the landscape because they are natural cleaners of overland runoff; as water sits in wetlands, microbes naturally adapted to these areas degrade toxins and break down oils so that the water is clean and clear as when it fell from the sky. Wetlands also are important areas for stormwater runoff to seep



into groundwater ([picture at right](#)), providing areas

## Creativity Corner ...

### Great Miami River at SR 73, Trenton

from Bob Lentz



### Care to contribute ?

How about taking a great picture at your favorite sampling site?? To contribute to our next **Creativity Corner**, whether it be a picture, poem, art, or whatever inspires you, email Donna McCollum at [mccollids@muohio.edu](mailto:mccollids@muohio.edu)

## Mark Your Calendars!

**January Sampling Day** - Saturday, Jan. 14th

**Wetland Hike** - Saturday, Jan. 14th

### BCSWD webinars, Wednesdays:

- February 29
- April 18
- June 20
- August 15
- October 24
- December 12

### 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 and 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 the problems have been reported to us, we can pass it along to the appropriate agencies.



for rainwater to accumulate and slowly soak into the ground. The water that soaks into soils keeps small streams running during the dry months, as some water slowly moves laterally through the soils to stream valleys. The water that soaks into the ground also moderates flooding, decreasing the volume of water that flows rapidly into streams after storms, thus decreasing flood height and damage.

Dr. [Donald L. Hey](#) estimates that only 1.4 to 5.5% of a watershed need be in wetlands to accommodate all its runoff and prevent all but the worst floods.

All of the above could be called "[ecosystem services](#)" (pic from Union of Concerned Scientists); that is, functions that ecosystems perform that help humans. The value of these services is difficult to



quantify, since no one pays for them but they benefit everyone. However, an attempt (reference below) by a group of scientists in 1997 valued the global services of "Mother Nature" at \$33 trillion ... WOW! The [tourism value](#) alone of wetlands in Africa was recently evaluated as up to \$550 / hectare / year!

Besides the services listed above, wetlands provide lots of [habitat](#); although wetlands cover only about 3.5% of the area of the US, about 1/3 of all US threatened species spend at least part of their life cycle in wetlands. Wetlands offer important stopover sites for migrating birds and crucial habitat for many species of reptiles and amphibians. A [recent study](#) suggests a value of over \$6,000 /acre for marketable goods taken from wetlands, such as fish, shellfish, and fur-bearing animals.

If you can come to Donna's on Feb. 18th, we'll talk more about all of the above as we tour 5 wetlands on our "back forty". Hope to see you there! (5398

Thanks again for all you do for Butler County Stream Team!  
Crisis Spot emails can be sent to Donna McCollum at [mccollids@muohio.edu](mailto:mccollids@muohio.edu).

For comments, concerns, or suggestions, please contact us at [mccollids@muohio.edu](mailto:mccollids@muohio.edu)

McCoy Road, Oxford)

For more information, check out these videos:

- great definition of what makes a wetland - [What is a Wetland?](#)
- [Wetlands: Keeping our planet alive](#)
- longer video dealing with children and nature/wetlands - [Wetlands and Wonder](#)
- agricultural wetlands - [Wetlands Scientist](#)
- common wetland species in Flint, MI (also here) - [No Time To Lose](#)
- detailed report on [Water Quality and Wetland Function](#)

1 - Robert Costanza *et al.*, "The Value of the World's Ecosystem Services and Natural Capital," *Nature*, Vol. 387 (1997), p. 259.

Butler County Stream Team Monthly Newsletter

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