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Butler County Stream Team

November News - 2015

Next Sampling Date: November 14

Please remember if you can't sample, contact us
ASAP



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Can't Sample?

If you can't sample on Saturday, please let us know in order to have someone else grab your samples.

- Lynn White - [513-615-2538](tel:513-615-2538)
- Teresa Barnes - [513-706-8991](tel:513-706-8991)

2016 sampling

If you currently collect samples, [please let Lynn know](#) if you are still willing and able to collect in 2016.

We are sad that Carol Jones has to take a step back. Carol has been with us from the beginning and hopefully she will still be able to join us for some of our get togethers. Carol picks up samples across a large area of the county, and we are looking for a new volunteer to collect some of her samples from the Trenton area. If you know of anyone that may be interested, please have them [contact Lynn](#).

Volunteer Breakfast

February 13, 2016

Save the date for our annual breakfast in February. This year it falls on Saturday, February 13. Looks like we will again be at the Butler County Engineers Office on Rt 4 in Hamilton.

We are in the planning stages at this point, but it sounds like we will be sharing updates to the program and will have a special guest speaker.

Stream Team Sampling Dates

Nov 14 - Last day of the season : (
Next Sampling date is March 12, and the Breakfast is on February 13.

Conservation District's Open House and Hog Roast

Nov 12, 3- 7pm

Join Lynn, Beth, and the other SWCD staff at their annual open house. Learn about the many SWCD projects and try the free hog roast.

1802 Princeton Road,
Hamilton, Ohio ([map](#))

Conservation Supervisor Elections

Nov 12, 3- 7pm

During the open house, county residents can vote in the Butler Soil and Water Conservation District's Supervisor Elections. The Board of Supervisors consists of five county residents that volunteer to serve a three year term. Early voting is possible. More details will be posted on the [Butler](#)

Understanding and Valuing Natural Soundscapes

By Sarah Dumyahn

The crunch of fall leaves, the honking of Canada geese on their flight south, and the rippling of brisk streams punctuate the increasingly quieter autumn. Gone are many of the migratory birds, insects and amphibians that contributed their vocalizations or stridulations to the acoustic environment this spring and summer.

The collection of sounds present in a given area can be referred to as a soundscape. Broadly the natural sources of sounds that comprise soundscapes can be categorized as non-human biological sounds, or biophony, and geophysical sounds, or geophony (see Table 1 for examples). Human-generated sounds, called anthrophony, also can be present in a soundscape. The presence of biophony, geophony and anthrophony within a soundscape are influenced by the types of land uses, habitats, and human activities in the area (see Figure 1).

[SWCD website](#) as soon as they are available.

Table 1. Main sources of sounds

Source	Description	Examples
 Biophony	Non-human biological sounds from vocalizing animals	Amphibians - frogs (spring peepers can be exceptionally loud) and toads Birds - owls, woodpeckers, nighthawks, warblers, ducks, pigeons, hawks, and many others Insects - cicadas, crickets, mosquitos, katydids, etc. Mammals - wolves, coyotes, whales, bats (even though we can't hear them!) Reptiles - alligators, turtles, lizards and snakes
 Geophony	Geophysical sounds	Moving water or ice - streams, waves, waterfalls, ice creaking Weather - thunder, wind, rain, sleet Geologic - rock slides, lava flows, singing sand dunes
 Anthrophony	Human-generated sounds	Human voices - laughing, yelling, singing Motorized transportation sounds - cars, trucks, trains, airplanes, helicopters, all-terrain vehicles, boats, personal watercraft, among others Motorized equipment - lawn mowers, chainsaws, generators Other sounds - cell phones, air conditioners, sirens, bells, foghorns, chimes

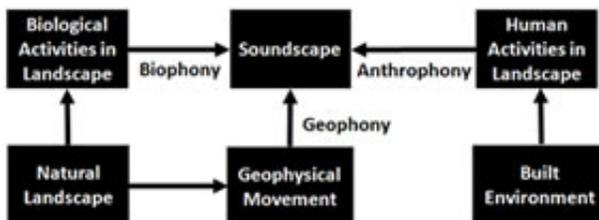


Figure 1. A soundscape system showing the main sources of sound (modified from Pijanowski et al. 2011).

As we transform natural areas to agriculture or urban and suburban developments and continue to expand our transportation systems we create soundscapes that are dominated by human sounds. Additionally the loss of habitats that support wildlife reduces the biological diversity and, therefore, biophony that is comprised in soundscapes. The increase in human-generated sounds also has impacted wildlife. Researchers have documented that noisy locations can lower species abundance and result in some species missing important audible cues to find food and avoid predators (Barber et al., 2010; McClure et al., 2013). In some instances species will adapt to noisy conditions by vocalizing at higher frequencies or at different times of day, such as the European robin that sings at night in

Sheffield, England (Fuller et al. 2007).

Natural soundscapes are beginning to be recognized as important natural resources. The U.S. National Park Service has the Natural Sounds & Night Skies Division that identifies the importance of natural sounds for wildlife, as well as park visitors. Visitors report that the ability to experience natural soundscapes are important aspects of their park visit. The Natural Sounds & Night Skies Division staff are monitoring park soundscapes and identifying ways to effectively manage park soundscape resources. Explore their website to find out more.



<http://www.nature.nps.gov/sound/index.cfm>

As you head out for the last Stream Team sampling this year or spend time outside, consider what sounds you value or provide a sense of place for where you call home. The sounds of nature are our acoustic link to the environment and provide an important connection to the natural world. Enjoy the sounds of winter and look forward to the dawn and dusk choruses of spring!

Midwestern stream, photo by S. Dumyahn

See the following additional resources for more information:

Barber, J. R., Crooks, K. R., & Fristrup, K. M. (2010). The costs of chronic noise exposure for terrestrial organisms. *Trends in Ecology & Evolution*, 25(3), 180-189.



Fuller, R. A., Warren, P. H., & Gaston, K. J. (2007). Daytime noise predicts nocturnal singing in urban robins. *Biology Letters*, 3(4), 368-370.

McClure, C. J., Ware, H. E., Carlisle, J., Kaltenecker, G., & Barber, J. R. (2013). An experimental investigation into the effects of traffic noise on distributions of birds: avoiding the phantom road. *Proceedings of the Royal Society of London B: Biological Sciences*, 280(1773), 20132290.

Pijanowski, B., Villanueva-Rivera, L., Dumyahn, S., Farina, A., Krause, B., Napoletano, B., Gage, S. & Pieretti, N. (2011). Soundscape ecology: the science of sound in the landscape. *BioScience*, 61(3), 203-216.

Contact Sarah with any questions or comments:

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Interesting News Articles

Mississippi River has natural potential to remove nitrogen

<http://farmprogress.com/story-mississippi-river-has-natural-potential-remove-nitrogen-8-133752>

New USGS Study—U.S. Rivers Show Few Signs of Improvement from Historic Nitrate Increases

<http://onlinelibrary.wiley.com/doi/10.1111/1752-1688.12321/full>

A recent U.S. Geological Survey (USGS) study provides a rare glimpse into how nitrate levels in 22 large rivers across the Nation have changed over the last 65 years.

How Polluted with Toxic Algae is Ohio's Drinking Water

<http://www.dispatch.com/content/stories/local/2015/10/22/ohio-epa-proposes-toxic-algae-rules-for-public-water-systems.html>

A year after Toledo's water crisis and less than a month after record-breaking algae blooms fouled Lake Erie, the Ohio River and sites in between, the state wants to tighten regulations on how public water systems test for, treat and report toxic algae.

Health Agency Says Widely Used Herbicide Likely Carcinogenic

<http://goo.gl/mG31CO>

Glyphosate, a herbicide widely marketed as Round Up, likely has the potential to cause cancer in humans, a World Health Organization agency said Friday.

State EPA proposes reporting, testing rules for public water systems

<http://goo.gl/mG31CO>

A year after Toledo's water crisis and less than a month after record-breaking algae blooms fouled Lake Erie, the Ohio River and sites in between, the state wants to tighten regulations on how public water systems test for, treat and report toxic algae.

Ohio lawmakers to hear plans for water quality bond issue

<http://goo.gl/0y0ZZp>

A group of lawmakers will entertain two proposals next week that will ask Ohio voters to approve a bond issue to improve all of the state's waters.

The Lake Erie Legislative Caucus will hold a forum at the statehouse Oct. 27, to hear about the creation of a state trust,

funded by the sale of state bonds and private money, that could be used for a wide variety of water quality improvements. Projects could include upgrades to failing infrastructure, like water and sewer lines; dams; farm manure storage; and more education and research about improving Ohio's water quality.

Healthy Water Ohio : A Strategy for water Resources Management

http://healthywaterohio.org/download/HwO_Report.pdf

Healthy Water Ohio (HwO) was convened in November 2013 to examine the state's water challenges and identify ways to optimize its water resources. The steering committee made a set of recommendations centered around six areas: research, policy & jurisdiction, infrastructure, funding, education & awareness and plan implementation. The hope is that the implementation of these recommendations will help Ohio continue to meet its comprehensive water needs and ensure access and use of water is balanced for all.

Butler County Stream Team Monthly Newsletter

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