

Vernal Pools- A Natural Wonder

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Surely many read the title to this article and may have instantly been left wondering if this was truly an article about nature. Fear not, this is an article about a unique natural feature that dots the landscape of Ohio. Vernal pools are found in many forested areas of Ohio and find themselves home to a wide variety of both plants and animals. Through this article, we will answer several questions by explaining what vernal pools are, the functions they serve, the plants and animals of vernal pools, where they are located, and how to maintain them. Let's look at a little-known feature of our natural landscape.

A vernal pool is not something that you build or dig in the backyard but rather it is a small and isolated wetland typically found in forested areas. According to the Michigan Natural Features Inventory, these seasonal wetlands experience routine wet and dry periods on a regular cycle usually filling with spring rains or melting winter snow pack and drying out during the hot summer months or during droughts. The bottom side of vernal pools consist of clay type soil along with fibrous roots and decayed organic material such as leaves. Vernal pools will vary in size but are typically an acre or less in size. According to the Ohio Vernal Pool Network, any shallow depression in the landscape with no drainage channel and that can fill with water has the potential to become a vernal pool and get a host of biological activity started.

According to Michigan State University Extension, vernal pools are generally disconnected from any water sources such as a river or stream that could potentially feed them and that because of their seasonal nature fish will not be found in these wetlands. With the lack of fish predators, other animal species can thrive such as frogs, salamanders, along with a variety of members of the crustacean family. Many experts write that more than seeing the residents of vernal pools, it is more common to hear them. The calls of spring peepers or wood frogs are said to be some of the most common sounds that can be heard coming from vernal pools.

As National Geographic writes, spring peepers are to the amphibian family what robins are to the bird family as they are well-known for their "sleigh bell like chorus" at the start of the spring season, particularly the males. It is said that by hearing the spring peeper, it is a sign that winter has finally ended. These amphibians are more likely to be heard rather than seen as they blend in very well to their vernal pool home with a tan or brownish color to their bodies. Along with the spring peeper, the wood frog is another vernal pool inhabitant. Michigan State Extension writes that wood frogs will appear early in the spring with their distinct calls, gathering for a brief time to lay their eggs in masses in a sticky clump. The wood frog's call is a fast-paced series of quacking sounds that are made as these creatures are awaking from their winter hibernation.

Plants of vernal pools

The Ohio Vernal Pool Network provides some insight on features to look for when identifying a vernal pool, not just animals but plants as well. Signs of a commonly wet area, even if you may not actually see water can be identified by certain species growing in the area. Tree species such as cottonwood, pin oak, swamp white oak, red

& silver maple, green ash, and sycamore are some signs of a water-dominated area. The Ohio Vernal Pool Network writes that tree trunks in a vernal pool area will often have an “exaggerated flare” where the roots thicken and emerge above the ground and often have a thick layer of moss that will appear up to a distinct mark, indicative of a high-water mark. Upon a closer look, you may also find a shrub layer that contains species such as spicebush, buttonbush, or winterberry holly; all of which are species that like a saturated environment.

The Ohio Vernal Pool Network provides some additional tips for vernal pool identification. Areas with water-stained leaves in a depression denoted by wetland scientists as “sparsely vegetated concave surfaces” can also be the sign of a vernal pool when water has receded. You will also find typical signs of wetlands such as hydric soils, which are soils that are dark in appearance and have low oxygen levels in them due to them being inundated with water.

Vernal pools are found in many areas across the northeastern United States, Canada, as well as in many forested areas all throughout Ohio. Michigan State University writes that due to the spotty nature and varying water levels of vernal pools, they are often hard to spot and designate. To help expand knowledge about these seasonal wetlands and how to identify the special features of them, the Ohio Vernal Pool Network hosts a variety of workshops and vernal pool expedition and discovery days throughout the state of Ohio. If you would like more information, visit the Ohio Vernal Pool Network website at www.ohiovernalpoolnetwork.org.

Vernal pools are a little known natural feature that serve a very big importance to the overall functions of our environment. Who knows, you may have a vernal pool near you!