



Vernal Pools

[UNLEASHING THE POWER OF GREEN]

Microcosmic wetlands...

“Vernal pools” are wetlands that fill up annually but typically dry out during part of the year. These usually small but very dynamic, wetlands fill with water, blossom with life and host a cacophony of sounds and a plethora of life forms every spring, only to disappear into the forest floor every autumn. Vernal pools are miniature, fascinatingly complex and fragile worlds of activity, which play out their drama in a few months every year.

Vernal pools can vary greatly in size and shape. In fact, the time of filling, surrounding habitat, and water source can vary per pool but they all share two common characteristics: they do not permanently hold water and they have no fish.

Vernal pools are special! They:

- improve water quality
- are an excellent educational tool
- serve as a bell weather wetland
- hold flood waters
- provide habitat to hundreds of species, including migratory birds



Photo: © David R. Celebrezze, www.drcphotos.com

Vernal pools are threatened

The major threat to vernal pools is from developers who unknowingly destroy them. Other threats include: invasive species, pollution from run off, mosquito control, destruction of surrounding habitat, and lack of community interest in or knowledge of the pool.



Photo: Tom Schneider

You can help!

By monitoring and documenting these pools, they can be appreciated and preserved.

- Support local efforts to find and monitor vernal pools.
- Raise community awareness by using the local newspaper and talking with your neighbors.
- Join the Ohio Vernal Pools Partnership listserv and keep up-to-date with changes in legislation and the latest technologies in monitoring.

For more information on vernal pool monitoring or to learn the latest news please contact David R. Celebrezze, Director of Air & Water Special Projects, Ohio Environmental Council at 614 487-7506 or david@theOEC.org or visit the Ohio Vernal Pool Partnership at www.ovpp.org.

Vernal pool monitoring



Photo: Mark Dilley

Documenting the life of a vernal pool can be very rewarding and fulfilling. However, there are several key items to keep in mind. If the pool is on private property, ALWAYS get the permission of the landowner. In fact, you can educate land owners on the importance of vernal pools and share your pictures and data with them.

Always remember, safety first. Vernal pools can be dangerous at night if you are not familiar with the terrain. Avoid accidents – visit the pool during daylight hours and map out your path. If possible, take a friend along with you. Below is a partial list of some of the creatures you may find and the materials you will need to ensure accurate data collecting. Above all – enjoy the wonder of nature!

Animals that call vernal pools home include:

Fairy shrimp – can *only* be found in vernal pools!

Frogs and toads

- bullfrog
- green frog
- northern leopard frog
- wood frog
- western chorus frog
- spring peeper
- gray tree frog
- Blanchard's cricket frog



Salamanders

- eastern red-spotted newt
- spotted salamander
- tiger salamander
- smallmouth salamander
- marbled salamander
- Jefferson salamander
- four-toed salamander
- hybrids



Because vernal pools dry up for part of the year, they do not have fish – a top predator.



Photo: Mick Micacchion

Vegetation you may find includes:

Buttonbush

Sedges

Swamp buttercups

Manna grass

Swamp rose

Skunk cabbage

Duckweed

Trees

- American elm
- pin oak
- swamp white oak
- silver maple
- red maple
- yellow birch



Photo: John Mack



Materials Checklist

- clipboard
- compass
- notebook
- pencil
- camera
- maps
- tape recorder
- field guides
- binoculars
- measuring tape
- wading boots
- OEC materials
- cell phone
- GPS unit
- flashlight
- dip net
- observation trays
- magnifying glass
- water-testing kits

Vernal pools have six distinct phases:

1. dry
2. newly flooded
3. early spring
4. mid spring
5. late spring/summer
6. drying

Always put things back the way you find them and NEVER take any animals from the vernal pool.