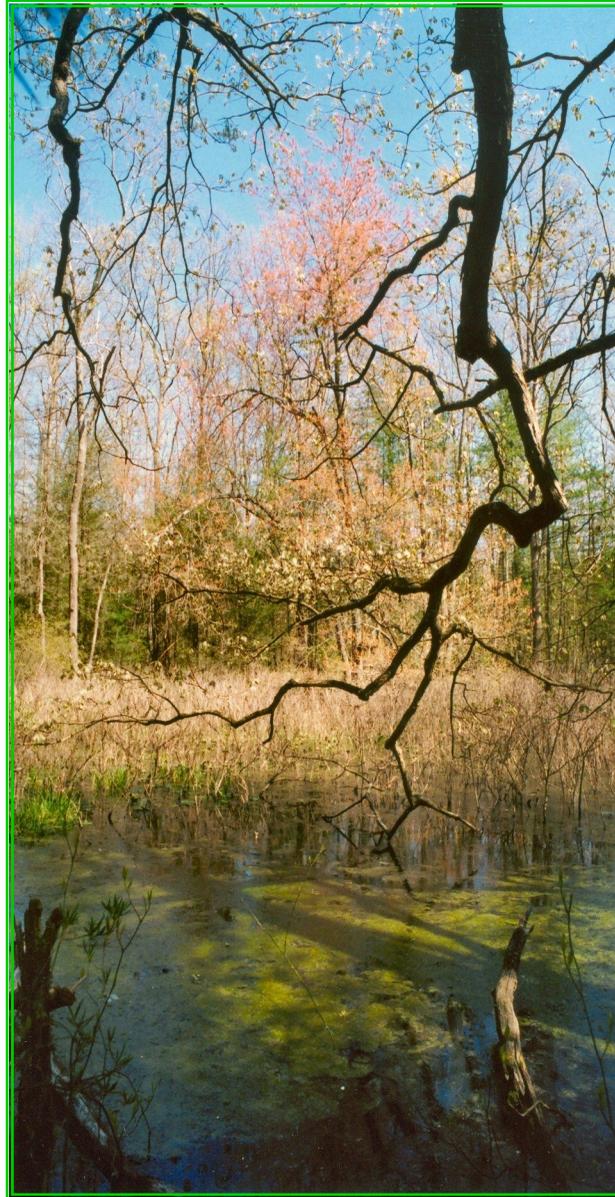


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# VERNAL POOLS OF PENNSYLVANIA



Western Pennsylvania Conservancy  
Vernal Pool Coordinator  
208 Airport Drive  
Middletown, PA 17057



## THE VERNAL POOL REGISTRY

Do you look forward to the signs of a new season? Do you anticipate the spring rains that melt winter snows or the green blush of new vegetation?

Do you listen for the soft hoots of tundra swans heading north, or the noisy chirps of spring peepers? These are some of the signs that a seasonal pool near you is coming to life.



Gray Tree Frog

The Pennsylvania Vernal Pool Registry is a citizen-based effort to document locations of temporary or seasonal wetlands and the species associated with them.



Vernal pool in the spring, Centre County



American Toad

The registry is an important step towards understanding Pennsylvania's ephemeral wetland habitats.

The information will be available to researchers who study seasonal pools and to landowners and agencies who manage them.

We are relying on volunteer participants to submit information about where seasonal pools are located and what animals are utilizing them.

This project is an opportunity for all citizens of Pennsylvania to contribute towards the conservation of a unique natural habitat. You do not need to have a scientific background in order to participate. Anyone with an interest in seasonal pools is welcome to become involved.



Spotted Salamander

## WHAT ARE VERNAL POOLS?

Vernal pools, which are also referred to as seasonal pools, are a unique type of wetland habitat. They are typically small, shallow, ephemeral water bodies, and have no permanent inlet or outlet.

They are filled each spring by rain and snow melt, then dry up for a period of time during the summer. The dry phase of a seasonal pool is important because it prevents year-round water dependent animals such as fish from living in these pools. When fish are present in a body of water, they become major predators on the eggs and larvae of other aquatic species.



Vernal pool, Franklin County

These qualities of vernal pools distinguish them from other types of wetlands. They are essential because they support a number of species that require temporary wetlands for survival.

## INDICATOR SPECIES

Animals that require vernal pool habitats to complete some phase of their life cycle are called indicator species.



Marbled Salamander

Four species of mole salamanders require vernal pools for development of their young. They are the marbled, spotted, Jefferson, and blue spotted salamanders. The adults spend most of the year underground in the uplands surrounding vernal pools.



Springtime Fairy Shrimp

Other vernal pool indicators are the wood frog and the eastern spadefoot (a burrowing frog).

Small crustaceans known as fairy shrimp are also indicators.

## OTHER VERNAL POOL LIFE

Some animals are found in vernal pools but they can also live in permanent wetlands. These are called facultative species. The red-spotted newt, northern spring peeper, American toad, wood turtle, and spotted turtle are facultative species because they use both seasonal and permanent bodies of water. Many species of dragonflies and damselflies as well other aquatic invertebrates are facultative species.



Spring Peeper

## CONSERVATION CONCERNS

Because they are dry part of the year, vernal pools are often overlooked. This has resulted in the loss of many pools nationwide. Forestry practices and human development surrounding the pools can infringe on this critical habitat. Runoff from nearby roads can adversely affect water quality. Roads often become obstacles for animals migrating to the pools from the uplands where they live to the vernal pools where they breed and the young grow. Many vernal pool amphibians return each year to breed in the same pool where they were born.

## PARTNERSHIPS AND FUNDING

The Vernal Pool Registry for Pennsylvania is a project of the Pennsylvania Natural Heritage Program (PNHP).

Find out more about the PNHP at

<http://www.naturalheritage.state.pa.us/>.



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## VISIT OUR WEBSITE AT

<http://www.paconserve.org/54>

For more information contact:

Western Pennsylvania Conservancy  
Vernal Pool Coordinator  
208 Airport Drive  
Middletown, PA 17057  
Email: [spcoordinator@paconserve.org](mailto:spcoordinator@paconserve.org)

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Betsy Leppo: Cover photo  
Sally Ray: Franklin County pool  
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