

## Can you recognize the essential features of The Arboretum wetland?

1. What two landscape aspects cause water to accumulate here in the winter months?
2. Where does the water go after it leaves the Arboretum?
3. What are some of the exotic plant species that have choked out native Kentucky plants in this ecosystem?
4. What is being done to improve the ecological quality of this wetland?
5. How can people help to protect this resource?

### Answers to Quiz

1. *Both surface and groundwater accumulates during winter months in a swale at the base of two hills. The swale flows into this low depression where it is temporarily stored.*
2. *This wetland is part of the headwaters of West Hickman Creek. The water empties into a storm sewer where it travels underground until it reaches a modified urban stream near Zandale Ave. The water then flows through a variety of modified urban waterways before it eventually reaches the Kentucky River.*
3. *Bush honeysuckle, wintercreeper, multiflora rose, Japanese honeysuckle, English Ivy, Japanese knotweed, privet and garlic mustard.*
4. *Remove invasive plants, protect existing native species, locate, propagate & replant missing native plant species, educate residents and visitors about the ecology of our Bluegrass ecosystems, and restore some of the historic natural processes.*
5. *Support volunteer workdays, learn more about the importance of wetlands, refrain from disturbing plants and animals, keep dogs on leash and clean up after your dog.*

## Contact Information

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The Arboretum is open 365 days a year from dawn to dusk. Admission is free. The Dorothea Smith Oatts Visitor Center is open M-F, from 8:30- 4:00.

Restoration Workdays are scheduled 2<sup>nd</sup> Saturday of every month except December, from 9:00 a.m.-11:30 am.



The Arboretum acknowledges the generous support of the many organizations and individuals who have assisted with ongoing efforts to restore this important remnant ecosystem.

Photo above: Swamp Milkweed  
Cover photo: Wetland Boardwalk



## The Rebirth of a Rare Bluegrass Wetland

“Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed.”

*-Society of Ecological Restoration*

## What is a vernal wetland?

Vernal wetlands are distinguished by an unique and diverse array of plants and wildlife.

Our wetland is home to a multitude of water-loving plants, including native grasses, sedges, wild flowers, shrubs and trees.

It also provides a home for many wildlife species: amphibians, turtles, woodland songbirds, mammals, and macro-invertebrate species like crayfish.

In addition to unique flora and fauna, wetlands also have unique soils and are flooded at least part of the year. Vernal wetlands are flooded every spring; hence the name "vernal," meaning "spring."

## Benefits of Wetlands

Wetlands are a very important, and often underestimated, natural resource. Vernal wetlands in particular provide a breeding ground for many beneficial species, such as salamanders and frogs, as well as shelter and a drink of water for birds and mammals.

Wetlands are also of great benefit to the people living around them. Their waterlogged soils serve as a natural water treatment plant, filtering out pollutants and sediment as the water seeps downward; they make a natural flood break as well, protecting homes from rising water.

## A disappearing resource

Wetlands, the most rapidly disappearing ecosystem in the world, are affected by a number of threats, including excessive grazing by livestock, dredging and filling by humans, and the ever-growing problem of invasive exotic species. These species crowd out native plants and greatly disrupt the native ecosystem.

This wetland has been under attack from several invasive species for some time, including bush honeysuckle, multiflora rose, English ivy, winter creeper, European privet, and Japanese honeysuckle.

Our wetland is getting a helping hand, thanks to Arboretum volunteers. Restoration efforts are underway to beat back the invasive species and re-establish natives that once flourished here.

Some of the native plants that may be seen in and around the vernal wetland:

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American elm	<i>Ulmus americana</i>
Black walnut	<i>Juglans nigra</i>
Blue ash	<i>Fraxinus quadrangulata</i>
Blue lobelia	<i>Lobelia siphilitica</i>
Coral berry	<i>Symphoricarpus orbiculatus</i>
Elderberry	<i>Sambucus canadensis</i>
Fox grape	<i>Vitis vulpina</i>
Gray dogwood	<i>Cornus racemosa</i>
Indian tobacco	<i>Lobelia inflata</i>
Kingnut hickory	<i>Carya laciniosa</i>
Manna grass	<i>Glyceria striata</i>
Miami mist	<i>Phacelia purshii</i>
Path rush	<i>Juncus tenuis</i>
Paw paw	<i>Asimina triloba</i>
Sedges	<i>Carex species</i>
Swamp milkweed	<i>Asclepias incarnata</i>
White trout lily	<i>Erythronium albidum</i>
Whitegrass	<i>Leersia virginica</i>
Wild rye grass	<i>Elymus villosus &amp; E. MacGregori</i>

Over 60 native species have recently been documented in the Arboretum Woods. It is uncertain how many species have been lost, but efforts will continue to restore wildflowers, ferns, grasses, sedges, shrubs, and trees that belong to the inner Bluegrass upland forest.

Some of the animal species recently seen include:

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Blue jays  
Cardinals  
Carolina chickadee  
Carolina wrens  
Cottontail rabbit  
Eastern chipmunk  
Eastern grey squirrel  
Nuthatches  
Owls  
Raccoon  
Robins  
Sparrows  
Woodpeckers

As our wetland improves in plant diversity and structure, so will our wildlife diversity.