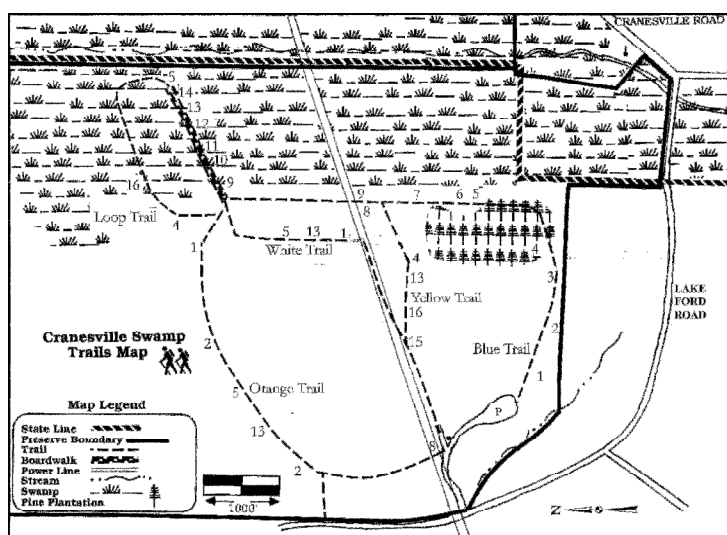


## Cranesville Swamp Trails

The lush forest and wetlands of Cranesville Swamp are home to more than 48 rare plants and animals, including Jacob's ladder, southern water shrew, and mountain earth snake. In addition to over 100 species of common birds that can be seen in the skies overhead, Cranesville Swamp Preserve is also an attractive site for the endangered sharp-shinned hawk, northern saw-whet owl, and dark-eyed junco.

There are five trails at Cranesville Swamp, including a 1,500 foot boardwalk. Although all trails are fewer than two miles and not difficult to walk, hiking boots are recommended as some trails may be muddy. We encourage you to use sunscreen when appropriate, avoid poison ivy along the trail, and use insect repellent to protect against chiggers, mosquitoes, and ticks—especially deer ticks—which can carry Lyme disease. Camping, pets, bicycling, and motorized vehicles are not permitted on the trails.

- *Note- Trail posts are not numbered in order, but numbered to match nearby natural elements. Do not be alarmed if the trail posts are not sequential.*



#1: Successional Process- Cranesville Swamp is continuously in a state of change. After a natural area is exposed to a disturbance such as farming, timbering, or fire, a consistent pattern of vegetative growth - succession - occurs. First, low-growing plants like grasses and herbs colonize the area. Over time shrubs and tree saplings become established, shading out shorter-lived species. Shade intolerant perennials drop out as the canopy closes over. This process eventually changes a field into a forest over decades of growth. A look at this area shows several stages of this process in effect.

#2: Running Pine- on the ground below are small vines that look like miniature evergreen trees, called “running pine”. These plants are classified as Club Mosses, which reproduce by spores rather than seeds. There are at least three types of running pine found on the forest floor at Cranesville Swamp. They all belong to the genus *Lycopodium*, from the Greek *lycos*, meaning “wolf” and *podos*, meaning “foot”, which refers to the “paw-like” appearance of the tips of the plant’s branches.

#3: Beaver- the trail to the water below is often used by beavers. Beaver activity increased at Cranesville Swamp after logging of conifer

forests took place in the early 1900’s. This disturbance allowed for the growth of more hardwoods, which are more palatable to beavers. Beavers can play a significant role in wetland community dynamics by clearing trees and building dams that create rising ponds. Over time the ponds can become silted and shallow, and eventually convert into shallow wetlands or wet meadows.

#4: Pine Plantation- the ordered stand of trees surrounding you is not a natural occurrence; these Norway spruce, Scots Pine, and red pine were planted in the 1950’s for timber production. While these trees are healthy, they have transformed 10 acres of the site into an “ecological desert”, as only a few plant and bird species live within this dense forest.

#5: Hemlock- part of a “conifer swamp forest community” targeted for protection at Cranesville Swamp, a large, evergreen eastern hemlock stands nearby with short soft needles and small cones at the end of its branches. The Conservancy often chooses to focus protection efforts on natural communities of plants which are found in similar ecological conditions, thus protecting all plants and animals that live within each community type. The eastern hemlock

belongs to a forest community type with an uncertain future, threatened by the accidentally introduced hemlock woolly adelgid. These tiny insects, found throughout the northeastern U.S., feed at the base of the needles of hemlocks, eventually killing the trees. Biological control of these destructive insects using carnivorous beetles is already underway in many counties in Maryland.

#6: Rhododendron, Mountain Laurel- there are two shrubs in the surrounding undergrowth that may be familiar to visitors- rhododendron and mountain laurel. Rhododendron, with large, waxy green leaves and pink flowers, can form dense thickets, as seen behind this sign. Shorter, with smaller leaves, white star-shaped flowers, and red-grey bark, mountain laurel is common throughout Cranesville Swamp. Both shrubs are common in the Appalachian Mountains and favor cool, damp conditions.

#7: Birds- Cranesville Swamp provides a wide variety of habitats for many bird species. Small birds, like the Alder Flycatcher and Nashville warbler, find cover and food in the thick bramble areas along the swamp. Over the more open swamp waters, you may hear the deep-throated call of the raven, the crow's larger cousin.

#8: Powerline- humans have long played a role at Cranesville Swamp, and the powerline seen here is another reminder of how people have helped shape this landscape. The Nature Conservancy works with the power company to maintain the ecological integrity of these open powerline areas, which contain several rare plants and animals.

#9: Cranberries- there are two types of cranberries at Cranesville, both found in the open peatland areas. The large cranberry, whose shiny red berries can be up to one inch wide, is the same species grown for commercial harvest. Bitter and crunchy, the cranberries in this open area in front of you are eaten by birds, fox, raccoons, and bears in late autumn.

#10: Bog- another natural community exemplified around the boardwalk where you stand is the "open bog peatland community". A bog peatland is a nutrient poor and very acid permanently wet area where partially decomposed plant debris has collected and compacted into peat. An important component of peat is sphagnum moss ("peat moss"), the spongy, lime-green vegetation growing in the water. Most trees are unable to survive in these harsh conditions. However, other specialized vegetation has adapted to grow in this habitat, making the open bog peatland communities the areas with the greatest concentration of rare species at Cranesville.

#11: Grasses, rushes, and sedges- upon viewing the swamp, grasses may seem to be the dominant plant type. But actually the two most

common plant groups in swamps are not grasses at all, but their close relatives, *rushes* and *sedges*. Rushes and sedges favor wet areas, while grasses generally like higher, drier ground. The most common rush found in the bog is the Soft Rush, a plant with dense patches of small brownish-green flowers along its round, tall, stem. Cottongrass, with its cottony brown-white tufts atop an edged stem, is actually not a grass at all, but a sedge.

#12: Skunk Cabbage- the squat plant with large, lettuce-like leaves you see in the swamp is skunk cabbage. The plant, which favors shaded wet areas, is aptly named for its strong sulfur-like smell, which is particularly fragrant in early spring. By fall the leaves will shrink and fade to brown.

#13: Ferns- the cool, shaded conditions here at Cranesville provide a home for many different species of ferns, including the Cinnamon, Interrupted, and globally rare Bog Fern. In spring, you may see "fiddleheads", sprouting ferns with their tops curled inward like the stem of a fiddle. Ferns, like the running pine seen earlier, reproduce with spores rather than seeds.

#14: Tamarack- also known as larch, the tamarack tree in front of you is one of the most unusual species at Cranesville. With short pine needles and small cones that dangle along the branches, the tamarack is normally found further north and into Canada. Tamarack populations have not been found in most of Maryland and West Virginia since the last Ice Age, but are still present at Cranesville due to the cool "frost pocket" microclimate of the site. As one of the few conifers that sheds its needles in fall, the barren tamarack is easy to spot during the cold winter months.

#15: Blackberries- depending on the time of year you visit Cranesville, you may see an uninviting tangle of thorned branches, or you may see a green bush flush with plump berries. The large huckleberry bush in front of you blooms in summer, and fruits in autumn. By wintertime, though, its leaves will have fallen off and a set of short thorns will be revealed along its branches. This huckleberry bush provides food for birds, insects, and mammals.

#16: Fallen trees: as trees die, eventually they fall over. Once on the ground, a process of decomposition begins. First to move in are insects, which feed on the bark and heart of the tree. Next, mushrooms and other fungi take hold as the trunk becomes damp with groundwater. Freezing and thawing may further hasten the process of physically breaking apart the log, eventually transforming the wood into soil. During this time, seeds from other trees may take root along the line of the fallen tree, creating a "nurse log". Over time, these seedlings may grow in a "colonnade", a line of trees that grow in the open space provided by a downed tree.

Thank you for visiting Cranesville Swamp Preserve.

*\*\*Please return this guide to the kiosk.\*\**