



# VAN SCOTT NATURE RESERVE

## Interpretive Trail Guide

**Welcome to the Delaware Highlands Conservancy's Van Scott Nature Reserve. This interpretive guide accompanies stops along a 1.6-mile loop following the Explorer, Butterfly, and Woodland Trails. Trail conditions are moderately strenuous and often quite wet in places. Please be prepared for biting insects, observe the Reserve Rules, and stay on the trails. A map of the trails and numbered stops is on the back of this guide.**

As a non-profit conservation organization, the Conservancy's ownership of this property supports the protection and enhancement of quality wildlife habitat, public access and recreation opportunities for pedestrians, and conservation education projects to be used as demonstrations.

We recognize the Reserve as the ancestral lands of the Lenni-Lenape people (specifically, the Munsee dialect). We honor the traditional Native inhabitants of this place and uplift their historic, unique, and enduring relationship with this land. We pay our respects to their Elders and their past, present, and future people, community, and culture. While we cannot change the past, we commit to continued gratitude for the gifts of nature, along with ongoing respect, care, and stewardship of the land, each other, and future generations.



**1** Depending on the season, the view along this stretch of trail changes dramatically. In late winter into spring these open fields cling to the remainder of summer's plant materials. Native plant species including goldenrod, milkweed, and a variety of grasses line the trail. Attentive observers will be sure to see evidence of the insects (look for webs, galls, and nests) and wildlife (look for nests in the small trees or on the ground, and scat or tracks) who share this trail.

Our conservation goals for the property include increasing biodiversity of plants found on the Reserve and providing quality habitat for wildlife and species in need. Specifically, the Eastern bobolink is a species of bird that migrates from South America north to our region in the spring and uses these open fields for ground foraging, breeding, and nesting. It's conservation status is currently listed as "declining."

No other North American bird has a white back and black underparts (some have described this look as wearing a tuxedo backwards). Added to this are the male's rich, straw-colored patch on the head and his bubbling song.



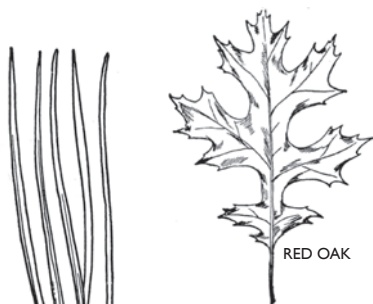
**2** As you walk this section of trail, take note of the variety of native trees planted on the property by the previous owner in the 1990s. The Conservancy intends on encouraging these trees to grow therefore increasing the biodiversity of the meadows on the property.

Starting near the trail kiosk, you will note the evergreen foliage of the white pines whose needles are always in bundles of 5. You can also tell how old a white pine sapling may be by counting each whorl of branches around its trunk which represents one year of growth.

Further along the trail on the right side, you will see red oaks which have leaves with bristle tips at the end of each lobe. Red and black oak acorns need two growing seasons to mature.

On the left side of the trail, you will see white oak, which have similar lobed leaves as the red oak, but white oak leaves have rounded lobes. White oak acorns ripen in September after only one growing season.

As you approach the pond, you will see black cherry trees on the right and left sides of the trail. Look for elongated, oval-shaped leaves and small horizontal lines, called lenticels, on the bark. A common fungal disease of cherry trees is black knot, which creates black swollen galls on the trunk and branches.

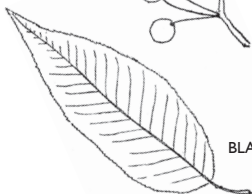


RED OAK



WHITE OAK

WHITE PINE



BLACK CHERRY

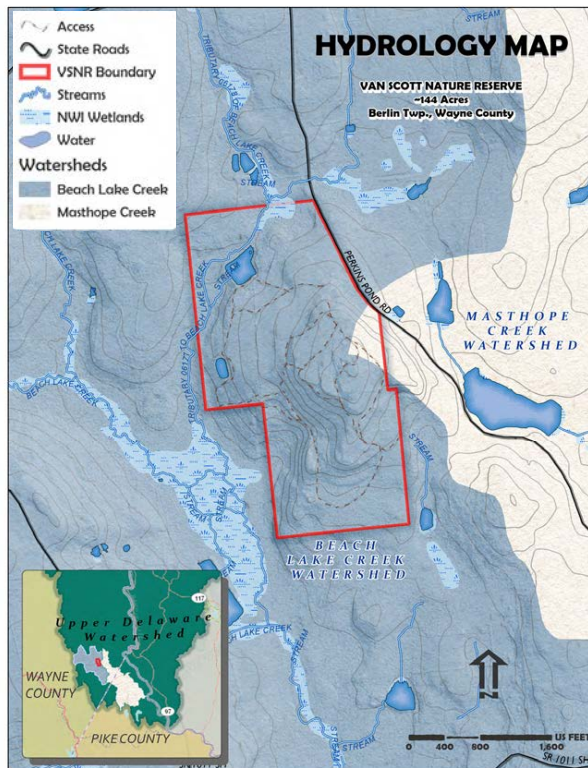


**3** Watersheds are natural systems linking land, people, and water. What happens on the land can affect both surface and groundwater resources and in turn, the residents of a watershed. Different types of land cover in a watershed determines to what degree water infiltrates (becomes ground water), accumulates (remains as puddles), or flows over the land (runoff).

The majority of the Reserve property, including this pond, likely created in the 1990s for fishing and aesthetic value, drains into a tributary of Beach Lake Creek which is designated by the Pennsylvania Department of Environmental Protection as a High-Quality, Cold-Water Fishery capable of providing important habitat for native aquatic species. Beach Lake Creek and its tributaries are all a part of the larger Masthope Creek watershed which drains directly into the Delaware River.

Aquatic habitats like this pond and the associated wetlands and streams provide a variety of places for mammals, birds, fish, amphibians, and insects to find shelter, food, and places to breed. Common wildlife sightings at the pond include beaver, a variety of birds including wood ducks and bald eagles, turtles, frogs, and white-tailed deer. In the winter, mammals, such as white-tailed deer, will venture across the frozen pond to the middle outcrop to find shelter or food. In the warmer months you can find frogs, turtles, and small mammals in the tall grasses along the pond edge. You may choose to turn right to walk along the ponds edge and hear and see the Tributary (06177) to Beach Lake Creek that runs along the pond.

**At the trail junction, walk up the hill to continue on the interpretive trail.**



4

Stone walls were historically used to contain livestock, define boundaries, and serve as convenient storage for the many rocks removed from fields to allow for pasturing livestock and growing crops. Stone walls typically portray the personality of the person constructing them - some artistic, others simply utilitarian. The dry-laid stone wall seen here represents the oldest techniques of wall construction being held together by weight, friction, and interlocking of adjoining stones with no mortar or bonding agent.

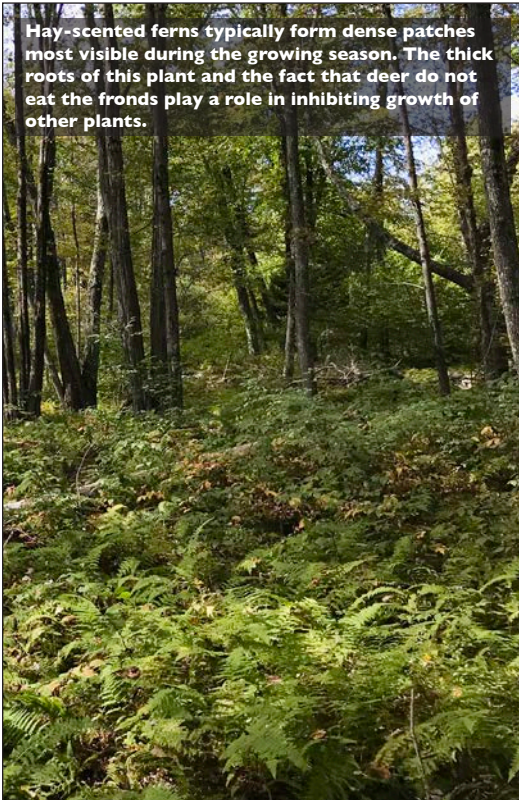
The meadows or pastures on the Reserve were used for grazing dairy cattle and for the production of hay. Historic aerial imagery shows that the land use on the Reserve has not changed much since at least 1939. See the map for stop 7.



**At the next trail junction, stay right to follow the Woodland Trail.**



Hay-scented ferns typically form dense patches most visible during the growing season. The thick roots of this plant and the fact that deer do not eat the fronds play a role in inhibiting growth of other plants.



5

A short walk beyond this trail marker towards the rocky ledge provides a view into the forest and rocky landscape. As you approach the ledge you may notice a dense area of hay-scented fern. The reduced understory in this wooded area likely has several causes which include the influence of this native, yet aggressive plant and the amount of white-tailed deer that browse for food in these woods.

The Van Scott Nature Reserve is located in the glaciated low plateau section of the Appalachian plateaus province. The Appalachian Plateaus consist of sedimentary rocks such as sandstones, conglomerates, and shales.

The soil on this property belongs to the Oquaga-Wellsboro-Arnot association. Soils in this association are generally well drained to moderately well drained. This soil type makes up roughly 28% of Wayne County's soil, is suitable for woodland use, and is rarely used for farming, which is likely why this area was not converted to meadows. This soil is common in steep slopes where there is a lot of surface rock likely left behind by the retreating glaciers.



**6** With the goal of increasing biodiversity on the property, our land management efforts focus on keeping non-native and aggressive species of plants from displacing native plants and, ultimately, native wildlife habitat from our meadows.

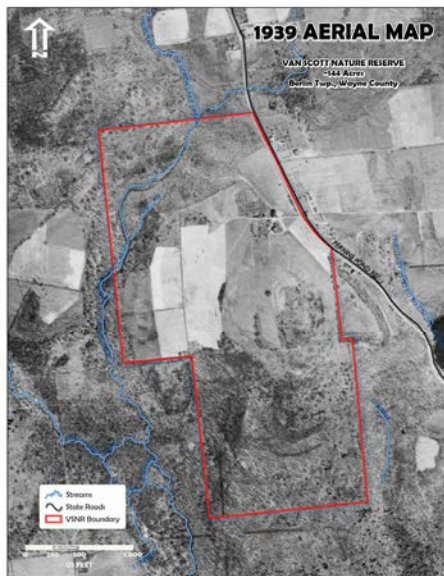
Management of unwanted plant species is generally divided into four categories - biological, cultural, mechanical, and chemical. Biological control involves the use of species-specific predators from a plant's native habitat. Cultural control involves changing the habitat with the goal of creating conditions that will be unfavorable to the unwanted plant, which may include planting desirable species that can shade out unwanted species. On the Reserve, plants we consider unwanted include Japanese barberry and multiflora rose and we carefully determine the appropriate control methods to use for these select plants. When possible, we use mechanical control which involves the physical cutting or removal of the plant. Sometimes, chemical control which involves the use of herbicides is necessary where unwanted plants are increasingly aggressive and displacing native plants.



**Mechanical methods of removing Japanese barberry are labor intensive but effective. In some instances, the use of a propane torch to burn the root collar of individual bushes has shown to successfully control small populations without the use of chemicals.**



**At the next two trail junctions, stay straight to follow the Explorer Trail uphill and join the Butterfly Trail.**



As you approach the open fields you may notice small sections of exposed rock and trees. Rocky outcroppings are places where the bedrock is exposed. These areas often have an “island-like” appearance in the landscape as they provide shelter and protection to plants and wildlife. They were not able to be accessed by livestock or farm equipment and therefore contain trees like the gray birch here that can grow with limited soil and nutrients.

The bedrock at the Reserve is comprised of shale originating from the Devonian period which occurred about 419 to 359 million years ago. At that time, what is now North America was underwater. The Devonian period was rich in flora and fauna and these rocky outcrops can provide us with fossils and indications of some of the ecological history of this area.

At the top of the hill, notice the view of the agricultural landscape of Beach Lake, PA. This area of Wayne County has been used for agriculture dating back to the early 1800s. Aerial images like the one shown here date back to 1939 and show proof of this part of the property being used for pasture.

**At the trail junction, stay right to follow the Butterfly trail to the scenic view at interpretive stop #8.**

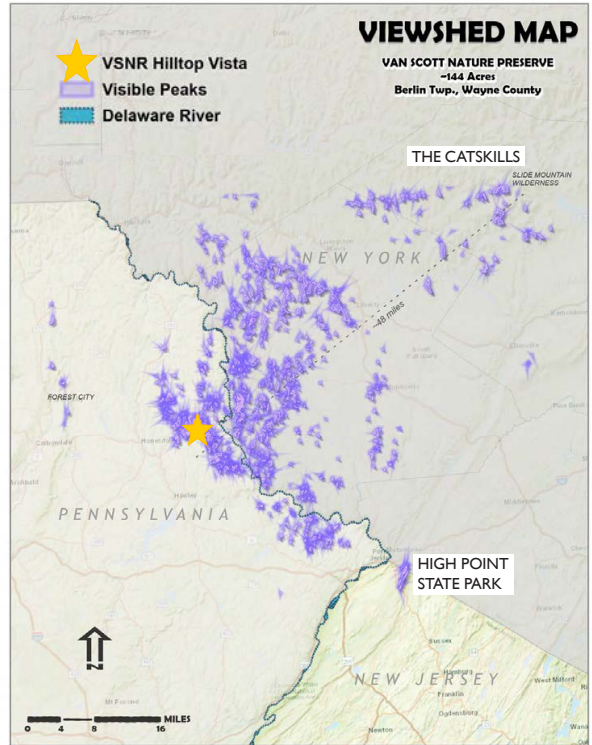


8

This is the highest point on the property at approximately 1,340 feet above sea level. Looking approximately 60° east, the Catskill Mountains in New York are visible. Looking approximately 140° southeast you may be able to see the obelisk-shaped monument at High Point, New Jersey. The rolling hills and valleys of the tri-state area all contribute to the Delaware River watershed.

This region of northeastern Pennsylvania, New York, and New Jersey currently has a thriving bald eagle population. Bald eagles from northern areas including Canada and upstate New York migrate south to this region in the winter months searching for open water and its associated food. The Delaware Highlands Conservancy's Eagle Watch program relies on volunteers to monitor and collect data on the wintering eagles. Find more information and join our Eagle Watch volunteer program at [www.delawarehighlands.org/eagles/](http://www.delawarehighlands.org/eagles/).

You may notice the red shale quarry just below this viewpoint. There is a possibility that stone from this quarry was used to build some of the local roads in the area. This quarry is now home to a variety of wildlife. Killdeer, a shorebird that does not usually nest near water, will nest in gravel from March-August. Killdeer will give a broken-wing display to deter predators from finding their nest in the open gravel. You may notice them calling to you and giving a broken-wing display if their nest is nearby. Please keep a respectful distance from wildlife.



**9** Meadows play an important role in our ecosystems. Besides being a home for a large variety of species, they filter water from the surrounding slopes. This important habitat is on the decline due to the succession of pastures back to forests or brushlands which is why many species that depend on meadows are also in decline.

The meadows on the Reserve are maintained by periodic mowing in the late summer/early fall after the field nesting birds have fledged. Mowing prevents woody vegetation such as shrubs and trees from reclaiming the area and allows native wildflowers including milkweed, bergamot, goldenrod, and aster to flourish. This helps maintain the meadows as great pollinator habitat for many different insects including the monarch butterfly. In addition, the meadows are monitored for the presence of unwanted plant species which could degrade the habitat.

The bench at this stop along the trail is placed in memory of Ed Wesely, a dear friend and supporter of the Conservancy since its inception, founder of the Butterfly Barn Nature Center at his and Barbara Yeaman's home alongside the Delaware River, and a lifelong champion of the natural world. He passed away on May 26, 2021.

Ed's many projects in support of protecting nature, wildlife conservation and education, and the preservation of local history included rescuing, raising, and releasing hundreds of monarch butterflies every year. People of all ages enjoyed learning from Ed at his popular monarch butterfly programs, where he shared an enduring message of respect and care for the natural world.

**Continue to follow the Explorer Trail past the buildings toward the barn to stop #10.**



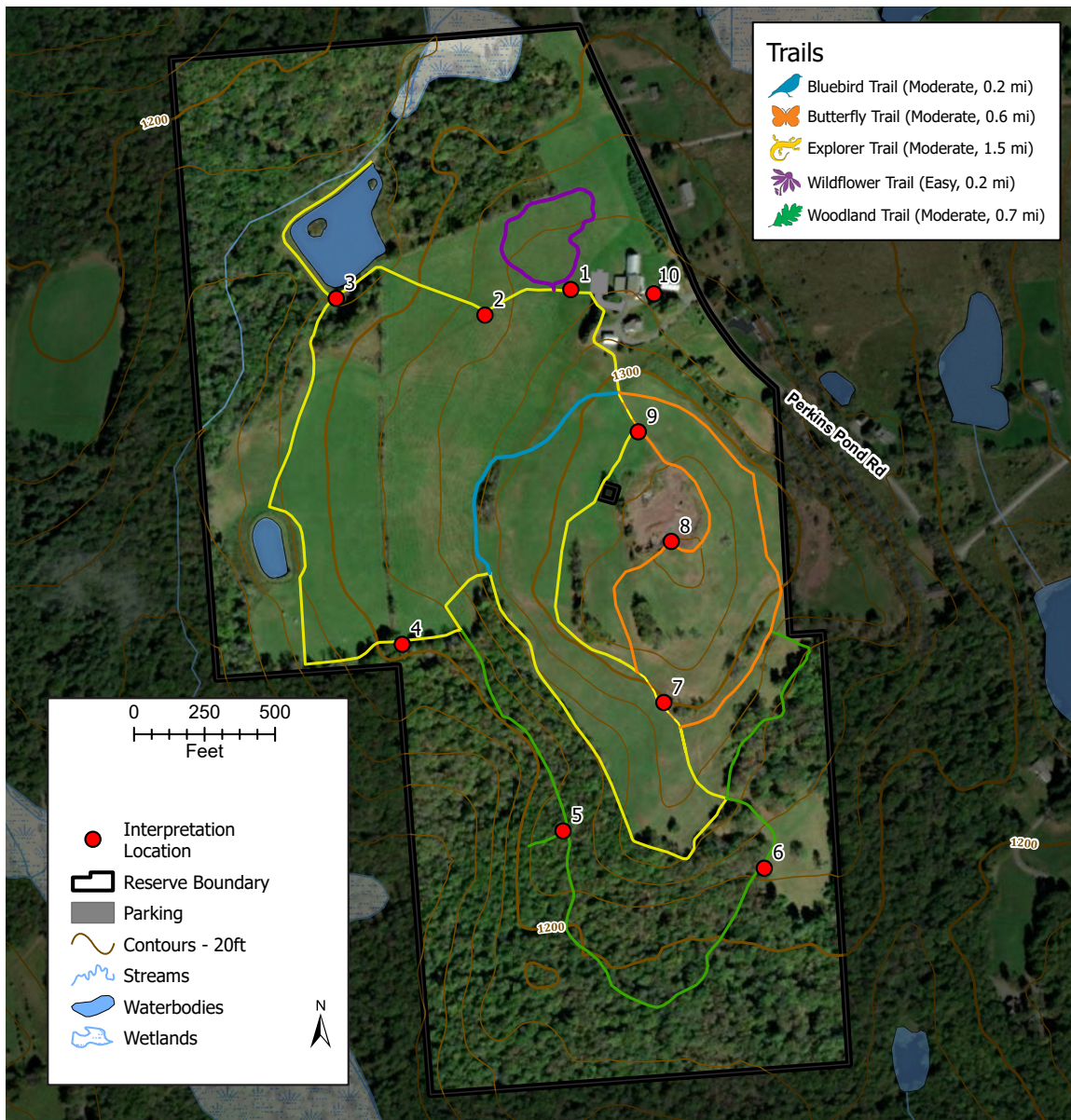
**10** On the smaller metal pole barn to your right, you will notice a wooden bat box. Little Brown Bats are a species of concern and it is important to the Conservancy to provide habitat for these small mammals. All of the region's bat species are insectivores. A single bat consumes thousands of insects each night, which helps to control our insect populations. During daylight hours, bats can be found roosting in an assortment of structures ranging from cavernous snags deep within our northern forests to residential attics in our most populated areas. Little Brown Bats tend to stay in larger colonies and are being negatively affected by habitat loss as well as a fungus called white-nose syndrome. We are hoping to provide habitat to these bats by installing bat boxes around the Reserve and protecting land through conservation easements to ensure species of concern have shelter and food.



**Ed Wesely shows a milkweed plant at an educational monarch butterfly program.**







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