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### Montour Preserve

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# Goose Woods Trail

Montour Preserve



rev. 20260113

# GOOSE WOODS TRAIL

self-guided trail booklet

Welcome to the Montour Preserve's Goose Woods Trail. This three-quarter-mile-long trail meanders along a creek, through a 16-acre woodland, and past a pond. These three habitats offer a variety of sights and sounds, plants, and wildlife. All three habitats change through time. There are changes that occur through the course of a day. Other changes happen with the seasons, while still other changes are annual. There are also changes in nature that happen incrementally over a longer period of time. Visit often and you will begin to notice these changes.

Please take only photographs and memories with you when you leave; do not pick plants or capture wildlife. Please stay on the trail to avoid damaging sensitive natural areas and hazards such as poison ivy.

Thank you for visiting the Montour Preserve. We hope you enjoy your time here today!

## TRAIL INFORMATION

**Length:** 0.83mi

**Surface:** gravel, mulch, and mowed grass

**Maximum Elevation:** 562ft

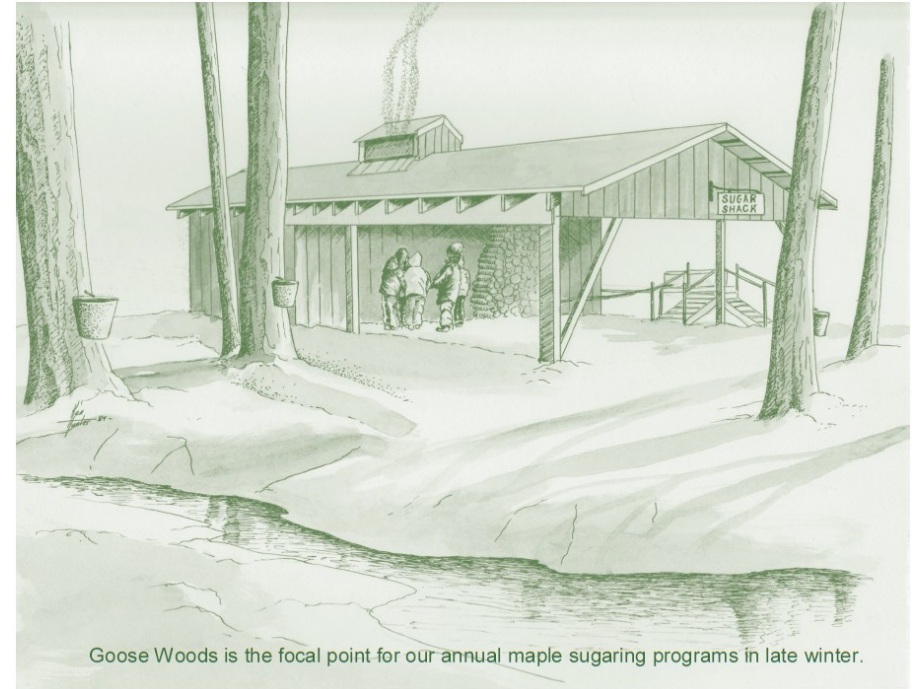
**Minimum Elevation:** 539ft

**Total Elevation Gain/Loss:** 75ft

**Allowable Uses:** pedestrians only (strollers and wheelchairs)

**Prohibited:** pets (except service animals), bicycles, horses, and motorized vehicles

**Hours of Use:** dawn to dark every day



Goose Woods is the focal point for our annual maple sugaring programs in late winter.

## 24. Aliens Among Us!



Adelaide Tyrol

Although you won't see them, you can see the results of their handiwork in this area. In 2007, the emerald ash borer beetle was discovered in Pennsylvania. These Asian beetles hitchhiked to the U.S. in the wood of

packing crates. Adult beetles lay eggs under the bark of ash trees. These eggs hatch into larva that feed on the inner bark of branches and trunks. An infestation of emerald ash borers will kill a young tree in a year or two and more mature trees in three to four years. Eventually ash trees weaken and come crashing down. These non-native insects are changing the nature of Pennsylvania forests.

You have just experienced several habitats and a variety of flora and fauna in Goose Woods. The interactions among plants, animals, soil, air, and water, as well as the adaptability of nature, are often subtle and difficult to detect on a single walk. Goose Woods changes through time. In the spring, these changes can be almost daily. Summer is a slower time, but fall brings weekly changes. Winter is also a time of change, but at a slower, more subtle pace.

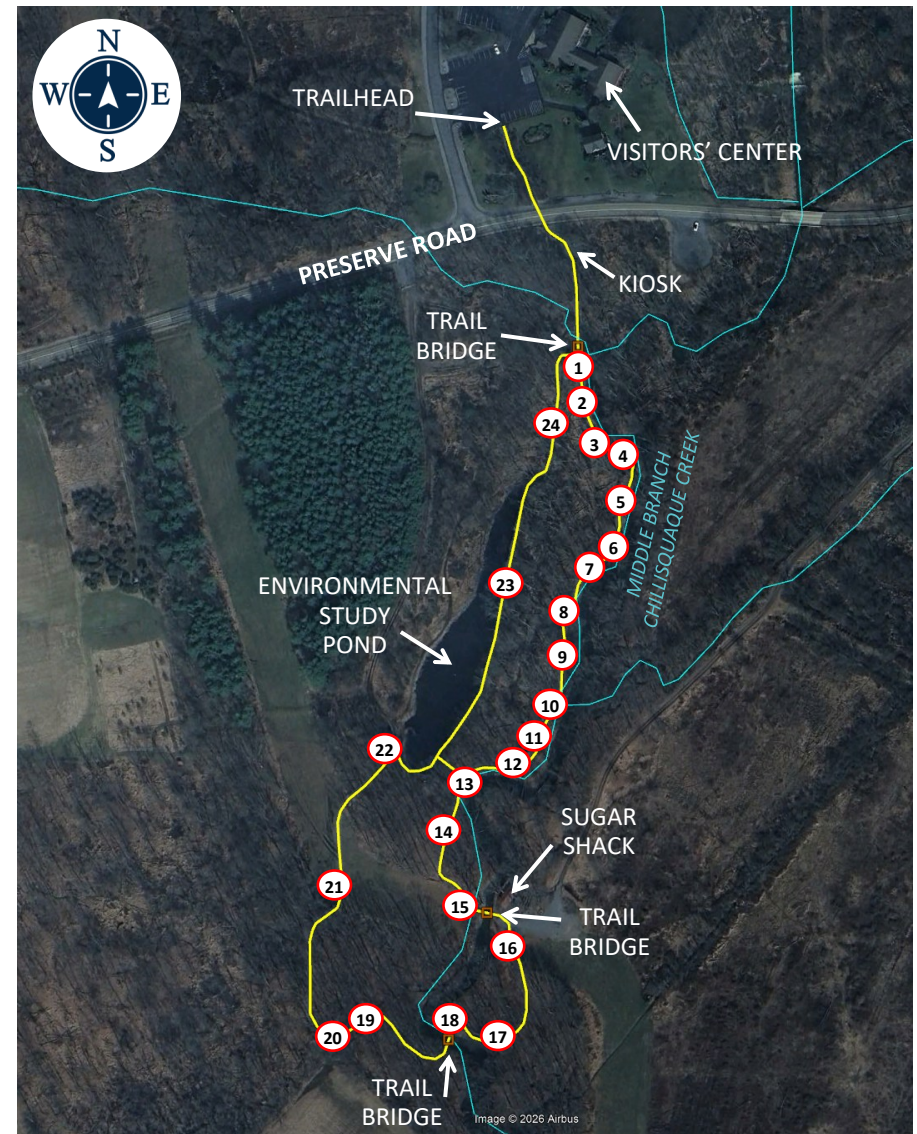


There are always new discoveries waiting along the Goose Woods Trail for those who are willing to slow down, look, and listen. The staff of Montour Preserve invites you to visit again on another day or during another season.

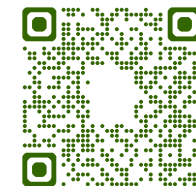
When you are done with this booklet, please consider returning it to the nearest kiosk so that others may enjoy it, too.

Look for our other trail guides, the Montour Preserve's Birders' Checklist, and our Guide to the Common Trees and Shrubs of Montour County.

## GOOSE WOODS TRAIL INTERPRETIVE POINTS



find a Google Maps formatted version of this map (including many other features at the Montour Preserve) at [montourpreserve.org/map/](https://montourpreserve.org/map/) or scan here



# 1. Middle Branch Chillisquaque Creek



This stream is the Middle Branch of the Chillisquaque Creek. It was named from an Iroquois word, “Chilisuagi,” which means “song of the wild goose.” In the early 1970s, PP&L created a dam on this creek about a half mile upstream of this point to form Lake Chillisquaque to serve as a backup reservoir of cooling water for the Montour Steam Electric

Station power plant, located roughly two miles south of here. A constant flow of water from the lake moves through the creek, providing an important habitat for many aquatic creatures. Insects, fish, reptiles, amphibians, mammals, and birds use the stream as part or all of their habitat. How many different animals can you see on your walk?

*Watch and listen to the creek as you walk the trail to see how it changes as it flows through the woods.*

# 2. Japanese Stiltgrass

Look behind you and you will see a dense green growth on the forest floor that turns brown in winter. This grass-like growth is a non-native plant known as Japanese stiltgrass. This plant, which resembles a miniature bamboo, is an invasive species that is causing problems in many of the eastern states. Before Styrofoam packing peanuts, handfuls of stiltgrass were used to cushion Chinese porcelain shipped to the United States. Its seeds came along and it became established in the wild.



Stiltgrass thrives in disturbed areas. Before 2011, there were a few patches of stiltgrass growing here in Goose Woods. They were controlled by pulling them by hand each year. However, flooding in September of 2011 carried seeds throughout parts of Goose Woods as well as scouring the ground. The following year, stiltgrass grew in abundance here. It now grows so thick that it interferes with forest regrowth and chokes out some native plants. It degrades habitat for some species and changes the characteristics of the soil.

# 23. Pond Ecology

This environmental study pond is full of wildlife like bullfrogs, green frogs, painted turtles, water snakes, and muskrats. Then, there are the plants. Cattails, irises, water lilies, and sapling willows are just a few that like to keep their feet wet as they grow from the mud of the pond. The pond also supports a variety of wildlife around it including raccoons, foxes, mink, hawks, herons, and red-winged blackbirds that prey on the inhabitants of this little pond. The pond habitat supplies all the needs of a lot of animals: food, water, shelter, and space. Signs along the edge of the pond tell about some of the residents of this water habitat. Which ones do you see?



## 20. Ancient Trees

The stump and logs you see here are from a forest giant. It is a sign of the age of an older forest. This large oak tree came down during high winds more than 20 years ago, at that time being over 200 years old. Although it was a loss to the forest, once it fell, the new opening in the canopy allowed more sunlight to reach the forest floor. This helps other trees to grow and thrive. Now the tree is serving a new purpose as the damp, decaying logs provide an environment for moss and other plants to grow.

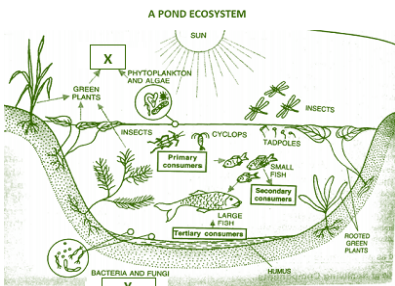


## 21. Water Table

As you walk from here to the next stop, you will notice a difference in vegetation. This is due to the wetland environment occurring, thanks to the water table being higher than other areas along the trail. Species like cattails, grasses, and amphibians thrive during the wet season of the year. The water table continues down, until it can be seen in the stream behind you.

## 22. Underwater ecosystem

You stand at the edge of another community: a freshwater pond. You might not be able to see clearly into the dark waters of summer or beneath winter's layer of ice, but the community under the water's surface is as complex and exciting as those you have seen on land. In the warm seasons, look for darting fish and listen for the "kerplunk" of a frog jumping into the water. Painted turtles slip silently below the surface as you approach and dragonflies dart after insects, while damselflies rest on cattail leaves. Both of these insects spend most of their lives as nymphs living beneath the surface of the water where they are active hunters.



## 3. Riffles

Listen to the creek. What do you hear? As water flows over the rocks here it forms riffles. These are important to life in the creek. Riffles are places where the water captures oxygen from the air. This oxygen is used by insects, fish, amphibians, and reptiles that live in the stream. Damsel and dragonfly nymphs, stoneflies, water pennies, minnows, shiners, bluegills, frogs, and turtles take advantage of the riffles or the quieter pools below them.

## 4. Riparian Buffers

Goose Woods acts as a riparian buffer along this creek. That means trees in the forest provide shade for the creek. This shade keeps the water cooler in the summer months, providing a more stable habitat for those creatures that live in the creek. The trees also hold soil in place, preventing erosion and siltation of the creek, a situation that can cause problems for aquatic creatures living there.



## 5. Fungi are some "Fun guys"



Here in front of you lie multiple dead trees. On those trunks are diverse fungal communities working to break down the nutrients within. Fungi act as the essential decomposers within a forest, returning key nutrients back to the environment for young growths. In the fall, you'll see the ground covered in dying leaves, but by spring, many are gone. That is thanks to fungi. Similar to trunks, they break down the entire leaf, enriching the soil below. This entire process is essential for the health of a forest.

## 6. Wildlife of the Woods

Stand very still and listen to the woods. What do you hear? Many different birds live in or visit these woods throughout the year. Some are summer visitors while others live here year-round. Still other birds pass through this woodland each spring and fall during migration. In the spring you might hear the “chicka dee dee dee” of a black-capped chickadee or the summer “witchity witchity” of a common yellowthroat. Winter offers the nasal “yank yank” of a nuthatch. The numbers and types of birds in Goose Woods change with the seasons.



Watch for chipmunks scurrying about the forest floor. Or a white-tailed deer slipping through the shadows. Goose Woods is alive with wildlife. This is their home and we are merely visitors. These woodland residents often are too shy to show themselves, but if you are quiet and observant, you might see signs of their presence. A turkey’s scratching along the trail, the leafy nests of squirrels high in treetops, tiny insect galls on plant stems or leaves, chipmunk holes in the trail, or mink tracks in the snow or mud are all wildlife tales waiting for us to read.



## 17. Passage of Time

Time, people, and Nature have brought changes to Goose Woods over the years. This forest, once abundant with large trees, has been logged for farmland. Since it became protected as a nature preserve, the trees have been allowed to grow back. The Chillisquaque Creek, once dry during the late summer months, now enjoys a constant water



flow as a result of Lake Chillisquaque. To your right and left are former streambeds. The force of floodwaters and human activities have changed the path of the stream drastically over the years.

## 18. Meandering Streams

Look across the stream to the far bank. Here you can see how the Chillisquaque Creek carves its way through the landscape. On the opposite side, the water’s force cuts into the streambank, while on this side, it deposits its load of gravel, mud, and silt. This alternating pattern of wearing down and building up is a constant process. Streams continually shift their courses through time. The piles of rock act to deflect the water from the bank, reducing the erosion of the stream, especially during high water events.

## 19. Frontier Lands

Long ago, Iroquois hunted and fished here in these woods. After the Penn treaty of 1768, these frontier lands were opened to settlers. Trees became lumber to build homes, heat their houses, cook food, and make tools. The small drainage ditch you walked across and the barbed wire embedded in nearby trees are other clues to past land use.



## 15. Two Oaks

Here are two of the oldest trees in this forest. Both are oaks. One has pale gray bark. This is a white oak. Look for its leaves with rounded tips. The tree with the dark bark is a red oak. As you can tell its leaves have pointed bristle tips.

Both oaks produce acorns that serve as food for chipmunks, squirrels, ruffed

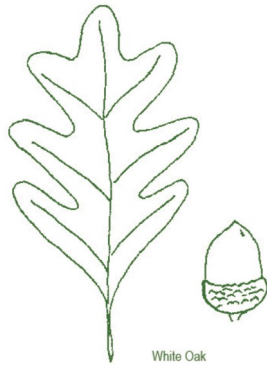
grouse, wild turkeys, white-tailed deer, and black bear. In some years, oaks produce more acorns than in others, known as a mast year.

This occurs due to favorable environmental conditions such as a wet year. Oaks take advantage of these conditions, ensuring higher chance of successful germination. In years with few acorns, animals must find other sources of

food. White oak acorns germinate in the autumn, shortly after falling, but red oak acorns do not germinate until spring. Do you see any signs of acorns along the trail?

## 16. Maple Syrup

In late winter, this part of Goose Woods becomes a maple syrup factory. Sugar maple trees are drilled annually to tap their sweet sap. The maple trees use this sap to provide energy for developing buds. The Montour Preserve uses some of this sap each year to make maple syrup. The holes from tapping the trees do not harm healthy maples. The trees heal from these wounds, just as we do from a cut, it just takes them a longer time. Look closely at the tree trunks and you might find scars from past years' tap holes.



## 7. Oxbow Lake

A stream is a constantly changing system, as flowing water reshapes the land over time. The streambed here has shifted course, cutting into the land in some areas and building it up in others. Looking down, you can see the remnants of an old stream channel, now dry.

As a creek erodes the land, it can form wide bends called meanders. Eventually, it may cut through the narrow neck of a bend, leaving behind an oxbow lake. This process can take years or even decades. While small creeks rarely form oxbow lakes, large rivers like the Susquehanna and Mississippi have done so over millions of years.



## 8. Forest Development

Look into the forest here to see its structure. The ground is covered by leaf litter, branches and fallen trees that will eventually revert back to soil. They provide shelter for small animals that live in the woods and nutrients for plants. Small plants, known as ground cover, also offer a layer of shelter for small animals as well as a food source for some. Shrubs and saplings rise 10-20 feet above the forest floor, offering shelter and some shade. Small trees reach 30-40 feet tall making up the understory. The canopy trees are the tallest, reaching high overhead. Each level of the forest is occupied by its own set of creatures adapted to living there. How many levels of the forest can you find?

*Can you find animals that live or feed in different levels of the forest?*



## 9. Invasives

Here you will see two non-native shrubs. One is multiflora rose, a plant that was introduced into the U.S. to help wildlife. While these bushes do provide good shelter and fruits, they spread quickly and outcompete native plants, changing the environment. Their sharp thorns act like a living barbed-wire fence.



Japanese barberry was introduced as an ornamental plant, but eventually escaped landscape plantings into the wild. There it grows in dense clusters, crowding out native shrubs and plants. Its sharp spines prevent herbivores from eating it. Its oblong, red fruit is eaten by birds that then carry the seeds to another location.



## 10. Opening the Canopy

If you look up into the canopy here, you will see the sky through an opening in the trees. This forest opening provides a unique habitat not found deep in the woods. The opening allows sunlight to reach the forest floor. Wildflowers, ground cover, and shrubs take advantage of this precious light. Plants like raspberry and jewelweed thrive in forest openings. Some tree seedlings also get their start in these openings, but as they grow larger, their canopies eventually close the opening, bringing shade to the forest floor.

## 11. Importance of Trees

Trees make Goose Woods what it is. Leaves on tall trees form the forest roof or canopy. They provide shade for the forest floor, keeping the soil moist. This moisture in turn creates a habitat for ferns, wildflowers, and other plants to grow. These plants provide homes or food for many forest creatures. Trees give us oxygen to breathe, food to eat, shade to cool us, and wood for building materials. Animals help trees by spreading their seeds. Birds eat insects that feed on trees. Insects hasten the decomposition of dead trees, releasing nutrients back into the soil. Can you think of any other ways animals help trees?



## 12. Floodplains

This low area of the forest is part of a floodplain. Trees living here must tolerate wet conditions. River birch, elm, and cherry are a few that can stand to get their “feet” wet from time to time. These trees aren’t the only plants that tolerate wet conditions. There are a variety of fungi that thrive on wet, decaying wood. During high water, this area floods, providing nutrients to the entire region. Can you see any signs of water here?

## 13. Variation in Habitats

From here, you can see three different habitats, and possibly a fourth, depending on the time of year. They are forest, stream, pond, and field. At the edge of each is a rich mixture of two or more adjoining habitats. This change from one habitat to another is known as an edge. Here you can expect more variety and density of plant and animal life because of the greater diversity of the habitat. This is a great place to watch for residents of Goose Woods.

## 14. *Populus grandidentata*-American Aspen

Once, a number of quaking aspens grew here. At that time, this section of the forest was open and sunny. Aspens are pioneer trees because they are among the first trees to take root in a barren or burned area. They help hold soil in place and provide shade that keeps soil moisture from evaporating. This creates a habitat for other trees and plants to grow. Aspens grow quickly but are short-lived. The shade and



moisture these aspens provided allowed maples and oaks to begin growing here. This is part of a natural progression in woodlands. Only a few remnants of the aspens remain, but now other trees are flourishing. How many different types of trees can you see here?