Manada Conservancy’s Clawson Preserve Virtual Hike

Join us on a virtual tour of the Clawson VanDeHei Preserve! Use the map below to identify preserve features and learn fun facts along the way.

This project was conceptualized, planned, and implemented by Nick Silvis, a long-time friend of Manada Conservancy. As a young child, Nick was a willing participant in the conservancy’s projects and he has continued to contribute his time and efforts to multiple projects over the years. Nick is pursuing a double major in Public Policy and Environmental Studies at Gettysburg College, where he has recently completed a year-long study with the Eisenhower Institute program for Environmental Leadership. An alum supporter of the Wildlife Leadership Academy, Nick encourages young people who have similar interests in conservation to join the academy.

CAUTION: Though many of the items listed have been used historically for edible or medicinal purposes, we do NOT encourage or advise ingestion.
Location 1

**Kentucky Coffee Tree (Gymnocladus dioicus)**

Aptly named as early pioneers utilized the seeds as a coffee substitute, the Kentucky Coffee Tree is native to the central states of America from Pennsylvania to Nebraska and from Minnesota to Oklahoma. It belongs to the pea or legume family and, although many members of the legume family have an association with a bacterium that converts gaseous nitrogen into a usable form, the Kentucky coffee tree cannot "fix" nitrogen.

The strong, heavy wood is used in general construction, cabinet work, sills, interior finish, fine furniture, railway sleepers, bridge timbers, crossties, fence posts and rails, and fuel wood.

Native Americans introduced the tree to some parts of the continent as they used the pulp from the wood to treat insanity, fever and headaches. A tea was also made from the leaves and pulp and used as a laxative. Certain Native American tribes reportedly ate the roasted beans.

Location 2

**Sassafras (Sassafras albidum)**

Commonly found across the eastern half of the United States, Sassafras is most easily identified by its smooth, lobed leaves. The leaves often take three distinct shapes: a mitten, a ghost, and a football. Crushing a Sassafras leaf yields a citrus scent.

All parts of the sassafras plant, roots, bark, leaves, new shoots, are spicy and aromatic.

Sassafras has many medicinal properties. Infusions made from the bark of the roots were taken internally as a preventive to ward off fever, as well as a remedy to treat diarrhea, rheumatism, measles, and scarlet fever. An infusion of the roots was used as a blood purifier, and as a dietary aid to treat “overfatness.” Infusions of the plant were used as a cough medicine, mouthwash, and as a gargle for colds.
The fruits are readily eaten by wildlife. Birds, such as quails, wild turkeys, kingbirds, crested flycatchers, mockingbirds, sapsuckers, pileated woodpeckers, yellowthroat warblers and phoebes eat the fruits and disperse the seeds. Black bears, beaver, rabbits and squirrels eat the fruit, bark and wood. White-tailed deer browse the twigs and foliage.

Location 3

**Seasonal Wetlands**

Seasonal wetlands are a unique type of wetland habitat. They are typically small, shallow, ephemeral water bodies, and unlike a pond or a lake, they 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.

Seasonal wetlands are considered 'isolated' because they are not permanently connected to other water bodies. They can be found as shallow depressions in an upland area, associated with a wetland complex in a low lying area, or in the floodplain of a stream or river. This wetland provides important habitat for a plethora of wildlife species. Insects breed and feed here. Amphibians like frogs and salamanders lay their eggs in its shallow waters, and reptiles like turtles and snakes find shelter and food here.

Location 4

**Southern Catalpa** (*Catalpa bignonioides*)

With large, heart shaped leaves, the Southern Catalpa is commonly planted as an ornamental tree. Southern catalpa is native to Alabama, Georgia, Florida, and Mississippi, but has become naturalized into northern states where it is widely planted in urban areas as a street and lawn tree. When flowering it has abundant showy blossoms.

Pioneer doctors used the seed pods and seeds to make a decoction for chronic bronchial infection, spasmodic asthma, labored breathing, and heart problems. Juice from the leaves and roots was used to treat swollen eyes and skin infections. Green leaves were crushed and placed on swollen lymph glands.

Catalpa is commonly planted in windbreaks and on mined land reclamation projects. Some plant it to attract catalpa worms, which are harvested and used as fish bait.
Location 5

**Common Milkweed** (*Asclepias syriaca*)

If you walk along this path in the spring or summer, Common Milkweed is abundant. Common Milkweed is a perennial, herbaceous plant that grows to heights of 2 to 6 feet on solitary stalks. Milkweed gets its name from the milky sap contained in its leaves and stems. Chemicals in this sap can be poisonous to animals. However, milkweed is an important food source for the Monarch caterpillar.

Monarch caterpillars feed exclusively on the leaves of milkweed, the only host plant for this iconic butterfly species. As such, milkweed is critical for the survival of monarchs. Without it, they cannot complete their life cycle and their populations decline.

The epithet *syriaca* (having to do with Syria) was given in error when, in the 1630s, upon receiving a packet of plant collections from the Americas, botanists at the Paris Botanical Gardens incorrectly identified common milkweed as being the same species found in the Middle East.

Location 6

**Norway Maple** (*Acer platanoides*)

Making up the pillar of the bench, and a common commercial tree throughout much of Europe, the invasive Norway Maple has been planted extensively in much of the northern half of the United States and has become a staple for city planting. The leaves of Norway maple are marked by long pointed “teeth” and the leaf stem exudes a milky white sap when broken. The color is dark green on the upper surface and pale green below. Flowers appear in early spring and are yellow-green in color.

The greatest threat the Norway maple presents to North America is ultimately the domination of forest canopy and the subsequent loss of richness of native species, both in the canopy and understories. Because of its hardiness, ability to grow in a variety of soils, rapid growth, and copious seed production the Norway maple long ago spread into the mature and second-growth forests of the northeast U.S. In doing so, in many areas it has outcompeted native canopy species.
The Norway maple is also a primary host to the Asian longhorn beetle (*Anoplophora glabripennis*). This is a large insect that lays its eggs within the bark of the tree. The larvae then tunnel into the wood and create extensive galleries within the heartwood and cambium. This creates great damage to the trees’ structure and nutrient flow. Adults then chew their way out to infest other nearby trees. The Asian longhorn beetle is fast becoming a danger to eastern hardwood forests.

**Location 7**

**Autumn Olive** *Elaeagnus umbellata* (Invasive)

First introduced from Asia in the 1800s, Autumn olive is a large deciduous shrub that can grow up to 20 feet tall. Leaves are alternately arranged, elliptic to lanceolate (shaped like a lance head), and smooth-edged. Mature leaves have a dense covering of lustrous silvery scales on the lower surface. Stems and buds also have silvery scales. Flowers are small, creamy white to yellow and tubular in shape; they grow in small clusters. The abundant fruits look like small pink berries, also with silvery scales.

Autumn-olive, despite being an invasive plant, has been promoted as a beneficial wildlife species and planted in wildlife management areas in the eastern U.S. to provide food and cover. Fruit remains on the plant until late winter, potentially becoming an important wildlife food during periods of seasonal food scarcity. Fruits are consumed by a variety of wildlife, including songbirds, northern bobwhite, ruffed grouse, mourning doves, ring-necked pheasants, wild turkeys, mallards, raccoons, skunks, opossums, and black bears. Songbirds that eat autumn-olive fruit include: gray catbirds, hermit thrushes, wood thrushes, house finches, American robins, cardinals, cedar waxwings, common grackles, evening grosbeaks, fox sparrows, house sparrows, song sparrows, white-throated sparrows, mockingbirds, myrtle warblers, purple finches, rufous-sided towhees, starlings, tree swallows, and veeries. Autumn-olive is also browsed by white-tailed deer.
Location 8
**Sycamore** *Platanus occidentalis*

The American Sycamore ranges from southern Maine and Ontario west to Nebraska, south to Florida and Texas. In Pennsylvania, Sycamore is common in all regions except the extreme north central. Look for Sycamore trees around streams, rivers, lakes, and in places with reliable groundwater.

The most striking characteristic of a mature sycamore is the bark: brown at the base of the trunk, and above that, mottled with patches of white, yellow, tan, and pale green. These colors reveal where flat, irregularly shaped sections of the outer bark have peeled and fallen off.

American sycamore is grown in short rotation plantations primarily for pulp and rough lumber. The heavy, close-grained wood is difficult to split and work because of interlocking fibers. It has been used for butcher's blocks, furniture, veneer and interior trim, boxes and crates, flooring, and particle and fiberboard.

American sycamore is recommended for planting on all types of strip-mined land, and it is useful in rehabilitation of various sites with saturated soils. It is often a natural early colonizer of disturbed sites such as old fields, spoil banks, streambanks degraded by channelization, and waterway disposal sites.

Location 9
**Red Oak** *Quercus rubra*

*Quercus rubra*, commonly called red oak or northern red oak, is a medium sized, deciduous tree with a rounded to broad-spreading, often irregular crown, typically growing at a moderate-to-fast rate to a height of 50-75'. The leaves are dark, lustrous, green (grayish-white beneath) with 7-11 toothed lobes that taper to a point at the tip. Leaves turn brownish-red in autumn. Fruits are acorns with flat, saucer-shaped cups which mature in early fall. An abundant crop of acorns may not occur before this tree reaches 40 years old.
Northern red oak provides good cover and nesting sites (including cavities) for a wide variety of birds and mammals.

The white-footed mouse, eastern chipmunk, fox squirrel, gray squirrel, red squirrel, white-tailed deer, flying squirrels, and deer mice consume northern red oak acorns. Acorns are an important fall food source for the black bear. The abundance of fall mast crops can affect black bear reproductive success during the following year.

Acorns of the northern red oak are an important food source for birds such as the bobwhite, red-headed woodpecker, red-bellied woodpecker, blue jay, tufted titmouse, grackle, white-breasted nuthatch, sapsuckers, quail, ruffed grouse, and other birds. They represent a particularly important food source for wild turkey. A single turkey can consume more than 221 acorns at a "single meal".

Location 10
Black Walnut *Juglans nigra*

Black Walnut typically reaches heights of 70-90 feet tall, with a 2 to 3-foot diameter. Remarkably, under ideal conditions, it has been known to reach 150 feet tall and 8 feet in diameter. The branches are widely spread and form a massive crown. The bark is thick and brown to grayish-black in color. The bark has deep furrows and narrow forking ridges. The furrows and ridges form a diamond pattern. The twigs are stout with notched leaf scars.

Black walnut produces a toxin, known as “juglone”, which inhibits the growth of other plants around it, thereby reducing competition. Juglone deprives sensitive plants of energy needed for photosynthate production. The symptoms of plants being affected by juglone include foliar yellowing, wilting, and eventual death. The largest sources of juglone on the tree are located in the buds and roots.

The bark of black walnut was used by many native people. The Cherokee used the bark in tea as a laxative and chewed it for toothaches. The Chippewa and the Cherokee used the bark to make brown and black dyes. The Comanche created a paste from the leaves and husk of the fruit for treatment of ringworm. Black walnut was also used by the Appalachian, Cherokee, Comanche, Iroquois, and Rappahannock to treat athlete’s foot, hemorrhoids, and as an insecticide.