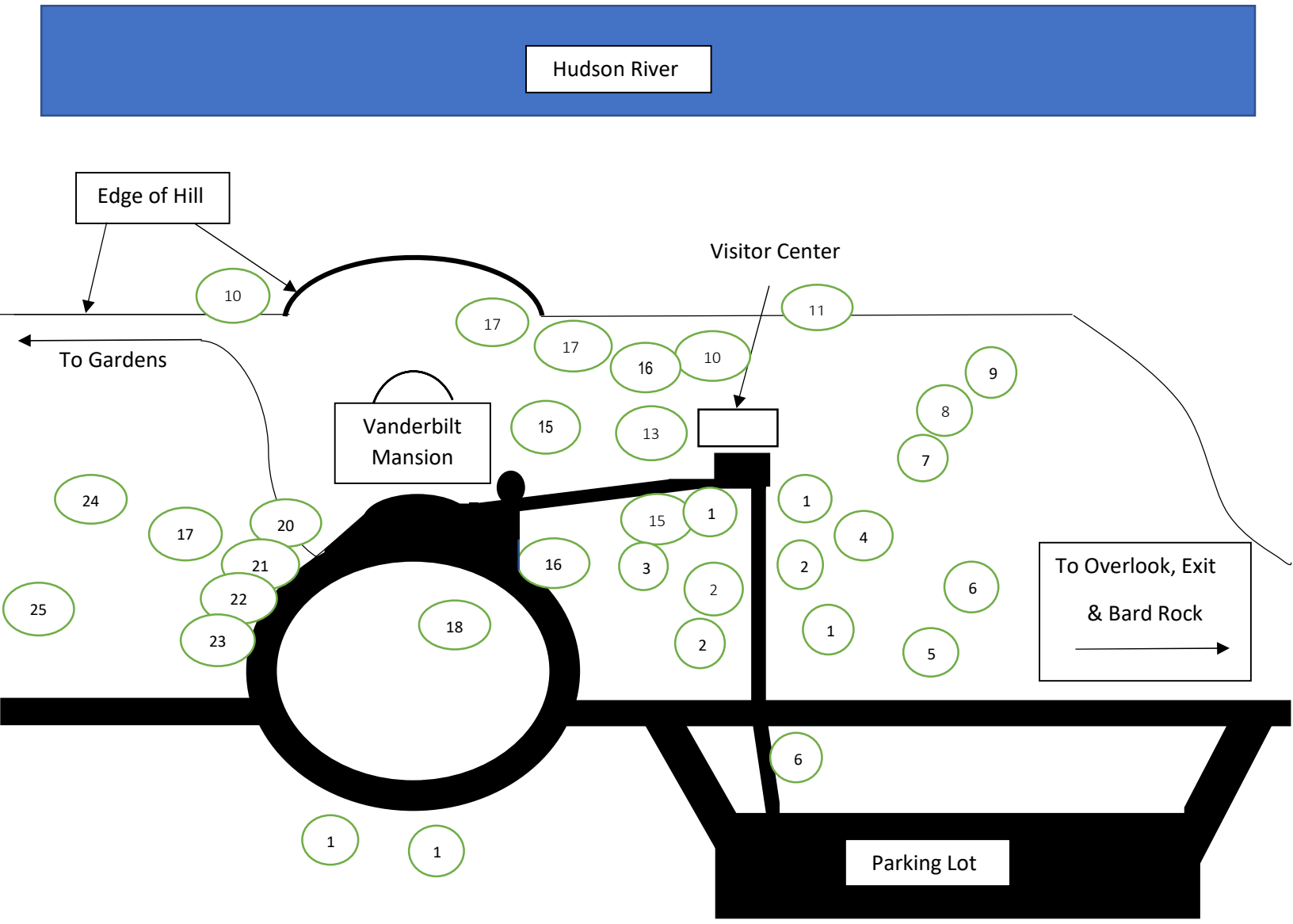
Tree Walk and Guide
Vanderbilt Mansion NHS



Welcome to the Vanderbilt Mansion National Historic Site. This self-guiding walk will introduce you to some of the many types of trees growing on the estate. Please allow one hour to complete the walk.

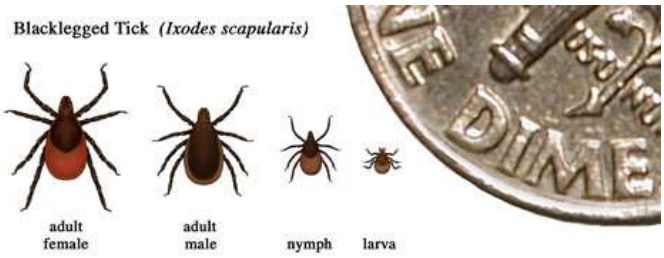
Safety First!

Please be alert for possible safety hazards as you enjoy your stroll among the trees. Look before you step because the ground may be uneven. Sturdy shoes or boots are recommended.

Poison Ivy (photo by nps.gov)

Poison Ivy

Watch for Poison Ivy and its cluster of three shiny leaves. All parts of this plant contain an oil which causes a skin rash in most people. Remember the phrase "Leaves of three, leave it be." **Do not touch!**



Blacklegged tick (Image by Centers for Disease Control)

Lyme and other tick-borne diseases

Lyme disease bacteria, *Borrelia Burgdorferi*, are spread through the bite of infected ticks. The black legged tick (commonly known as the deer tick, Ixodes scapularis) spreads the disease in the northeastern United States. It has also been known to spread babesiosis and anaplasmosis. These ticks are usually found in wooded areas. In general ticks need to be attached for 36 to 48 hours before they can transmit Lyme disease bacteria. The risk of exposure to ticks is greatest in the woods and in the edge area between lawns and woods.

Prevention- Avoid tick infested areas, walk in the center of trails to avoid contact with overgrown grass, brush, and leaf litter at trail edges. **Repel ticks on skin and clothing.** Use Environmental Protection Agency (EPA)-registered insect repellents containing DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone. For more information click on the link: https://www.cdc.gov/lyme/factsheet.pdf

Conserve Natural Features

In order to preserve our National Parks and Historic Sites for future generations to enjoy, the collection or disturbance of plants and animals is prohibited. This includes wildlife in all its forms; animals, trees, pinecones, wildflowers, garden flowers, insects, herbs, ferns, and mushrooms. Please leave these natural objects where they are so that they may be seen and appreciated by others.

PLEASE DON'T LITTER

Estate History

In 1705, a land patent of 3600 acres was granted to Pierre Fauconnier by the British Governor Sir Edward Hyde. This encompassed what we know today as the Vanderbilt Mansion NHS. Fauconnier died in 1764 without developing the property. Today the Vanderbilt Mansion consists of 211.6 acres out of that original 3600 acres.

The estate was purchased by Dr. John Bard, who in 1764 constructed a house, barns and orchard on the east side of the Albany Post Road (Route 9) near the present site of Saint James Episcopal Church. In 1799 his son Dr. Samuel Bard (George Washington's physician) built his house on the west side of Route 9 on the very spot where the Vanderbilt Mansion now sits. Dr. Samuel Bard also designed the landscape in the picturesque style.

After Samuel Bard's death, his medical partner Dr. David Hosack purchased 540 acres of the estate from Bard's heirs. Hosack enlarged the Bard house and began extensive improvements to the landscape. Lavish sums were spent in laying out roads and walks, constructing gardens and greenhouses, and planting rare and exotic trees from around the world. Many of the trees here today date from the period of Hosack's ownership (1828-1835).

The estate at this time was considered one of the finest examples of landscape architecture in America and gained international renown. Dr. Hosack conducted many experiments in botany and agriculture and delighted in showing his estate to his guests. He was also a major pioneer in medicine, advocating for putting an end to bloodletting and the use of mercury to treat disease. Although the mark of Frederick Vanderbilt is evident today in the structures, Hosack's imprint still dominates the landscape.

After Hosack's death the estate was purchased by John Jacob Astor who then sold it to his daughter Dorothea and her husband Walter Langdon Sr. Eventually their son Walter Langdon Jr. would inherit the estate and was the sole owner by 1852. Although the original house burned in 1845, the Langdons would rebuild on the same spot. Langdon Jr. would relocate the gardens a little further south of the house (to their present location) but otherwise the landscape remained unchanged.

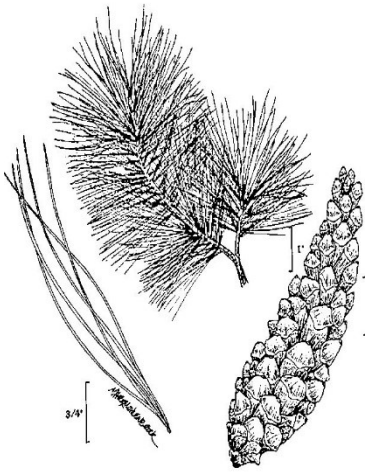
Frederick William Vanderbilt purchased the estate for $125,000.00 in 1895 after the death of Walter Langdon Jr. At that time the property was in a state of disrepair. The landscape had become overgrown and many of the building needed renovation. Vanderbilt had a keen interest in horticulture and agriculture and began replacing farm buildings and greenhouses. Vanderbilt would also make improvements to the formal gardens. His interest in trees was great, and he took great pleasure in showing his estate to his guests. Hours were often spent on horseback, in a carriage or simply walking about the lawns and woods of the property.

After Frederick Vanderbilt's death in 1938, his heir donated the landscaped portion of the estate to the United States of America at the urging of President Franklin D. Roosevelt. The President recognized the significance of the mansion and grounds as an exquisite example of a "Gilded Age" country place. The President took a personal interest in seeing that the mansion, grounds and the collection of specimen trees should be preserved for the enjoyment of future generations. It was designated a National Historic Site in 1940.

Dr. David Hosack and Frederick Vanderbilt both had an intense appreciation for horticulture. Many exotic tree species were planted as well as native trees. Many of these giants are now approaching 200 years of age. Will we be able to maintain this historic arboretum? The National Park Service has been replacing trees of the same species in the same locations as the originals in some cases from seeds or cutting from the original trees. Please help us by sharing this special place with others.

Begin in front of the Visitor Center

1. Eastern White Pine (Pinus strobus)



As you face the parking area you will see an eastern white pine on the edge of the sidewalk to your right. This species is easily separated from other native pines because its needles grow in bundles of five, and have a pale, bluish color. When sailing ships ruled the seas, the British and American navies used white pine for their masts. Shipbuilders prized them for their straightness, height and strength. When growing in full sunlight as this one is, white pine bushes out; hence the nickname “cabbage pine.” This species is plagued by several pests, especially white pine blister rust (fungus) and the white pine weevil (insect).

(Illustration of pine branch and cone)

2. Eastern Hemlock (Tsuga canadensis)

The next large tree on your right is an eastern hemlock. A common species in the Hudson Valley. Native Americans and pioneers made a mild tea from the needles. Often hemlocks grow under a dense forest canopy. It has the ability to grow in thick forests as well as full sunlight. Look for the tiny cones. The Hemlock Wooly Adelgid (Adelges tsugae), a scale insect introduced from Japan, is currently threatening the survival of hemlocks in the eastern U.S.

(Photo of Hemlock sprig)

3.Tamarack (Larix Laricina)

Also, on the right side of the walk, if you look between the White Pine and the Eastern Hemlock you can see the Tamarack, commonly called the American larch. The Tamarack is a deciduous conifer. The needles are short light blue green, turning bright yellow before they fall in the autumn, leaving the shoots bare until the following spring. The cones are the smallest of any larch, only 1-2.3cm long; they are bright red, turning brown and opening to release the seeds when mature, 4-6 months after pollination. The wood is tough and durable, but also flexible in thin strips, and was used by the Algonquin people for making snowshoes and other products where toughness was required. It is also grown as an ornamental tree in gardens in cold regions. Several dwarf cultivars have been created, commonly used for bonsai.

(B&W Photo of Tamarack trees)

4. White Fir (Abies concolor)

Turning back to face the Visitor Center, look to your right about twenty feet to the right of the walk for the large White Fir. This tree is native to the mountains of western North America. This large evergreen coniferous tree grows best in the central Sierra Nevada of California, where the record specimen was recorded as 246 feet tall and measured 183 inches in diameter in Yosemite National Park. White fir is a preferred construction species because of its nail-holding ability, lightness in weight and resistance to splitting. It is also popular as a Christmas tree owing to its soft needles and excellent needle retention.

(B&W photo of White Fir tree)

5. Silver Maple (Acer sachararinum)

Walk towards the parking lot and as you reach the road turn left. About 70 feet ahead on the left side of the road stands a large Silver Maple. A close relative of the Sugar Maple which we will see later, it is identified by its five lobed, toothed leaves that are white on the underside. This species is native to the eastern and central United States and south-eastern Canada. It is one of the most common trees in the United States. It is often found along waterways and in wetlands, leading to the colloquial name “water maple.” The autumn color is less pronounced than in many maples, ending up a pale yellow, although some specimens can produce a more brilliant yellow and even orange and red colorations. It tends to color and drop its leaves earlier in autumn than other maples.

(B&W photo of Silver maple sprig)

6. Norway Spruce (Picea abies)

Crossing the road and to the left of the path to the parking lot is a Norway Spruce. This tree is native to Northern, Central and Eastern Europe. It has branchlets that typically hang downwards, and the largest cones of any spruce, which can grow to almost seven inches long. The Norway Spruce is widely planted for its wood. It is one of the most economically important coniferous species in Europe. It used as an ornamental tree in parks and gardens. It is probably best known for its use as a Christmas tree. Every Christmas, the Norwegian capital city, Oslo, provides the cities of London, Edinburgh and Washington D.C. with a Norway Spruce as their way of expressing their gratitude for the aid these countries gave during the Second World War.

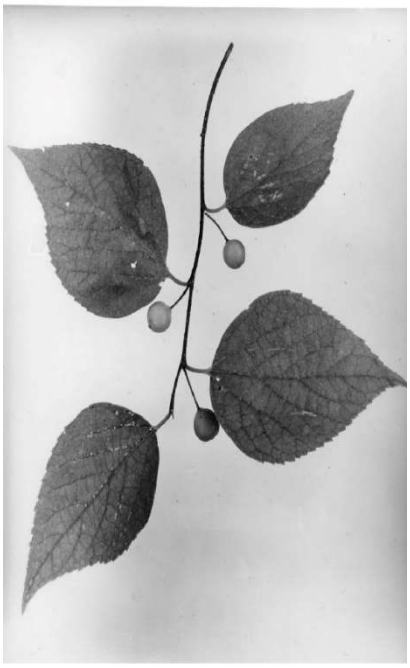
(B&W photo of Norway Spruce tree)

7. Northern White Cedar (Thuja occidentalis)

Now turn back towards the Hudson River while staying well to the north of the Visitor Center until you reach a tree with a double trunk. Note the unusual foliage. Rather than leaves or needles, you will find small flattened scales. The thin and shreddy bark was once used by Native Americans to make rope or string. The wood is soft, light and very durable. It produces top-notch fence posts, boats, canoes and shingles. Commonly called “arborvitae” in the horticulture trade in the United States. Arborvitae or “tree of life” in Latin got its name due to the supposed medicinal properties of the sap, bark and twigs.

(B&W photo of Northern White Cedar sprig)

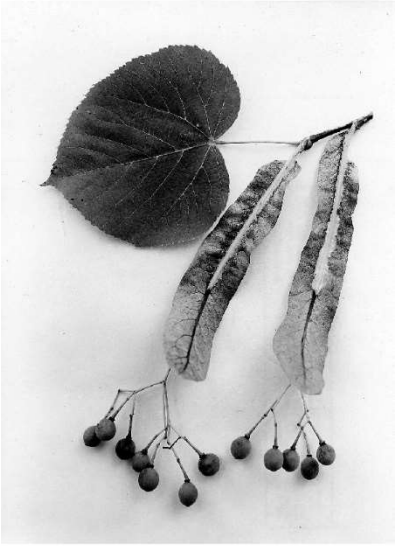
8. Hackberry (Celtis occidentalis)



Continue toward the river to the Hackberry. Look for the corky, warty bark and the leaves with uneven bases. Many species of birds feed on the small, cherry-like fruit, including woodpeckers and cedar waxwings. The leaves may bear galls which seemingly don’t hurt the tree. The trees produce pea-sized berries that are edible, ripening in early September. Unlike most fruits, the berries are remarkably high in calories from fat, carbohydrates and protein, and these calories are easily digestible without any cooking or preparation. Native Americans like the Omaha ate the berries casually, while the Dakota Sioux pounded the berries fine, seeds and all, for use as a meat flavoring. The berries have little meat on them, and a hard seed within. There is a small edible nut within the seed.

(B&W photo of Hackberry sprig)

9. American Basswood (Tilia Americana)



A little further on towards the river stands a large tree with sprouts growing from the base. After the main trunk dies, these sprouts may survive and grow to tree size. Because of this fact, the American Basswood is sometimes found growing in clumps. The American Basswood is recommended as an ornamental tree where the mass of foliage or a deep shade is desired. No native tree surpasses it in this respect. It is often planted on the windward side of an orchard as a protection to young and delicate trees. The flowers, leaves, wood and charcoal are used for medicinal purposes.

(B&W photo of American Basswood sprig)

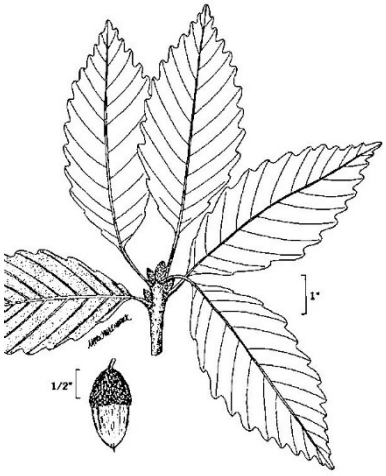
Standing near the edge of the ridge, look straight into the forest toward the Hudson River. The highly manicured designed landscape the Vanderbilts and earlier estate owners enjoyed quickly reverts into a natural forest community. Here are many native trees not found on this walk, such as American hornbeam, American sycamore, pitch pine and black locust. Mature dense forest cover such as this is required by many wildlife species for food, cover or breeding habitat. Ruffed grouse, red-tailed hawk, great horned owl, wild turkey, whitetail deer, red fox, racoon, striped skunk and opossum are all found here.

10. Northern Red Oak (Quercus rubra)

Turning back towards the Visitor Center and walking south along the ridge, you will find a small Red Oak. It is a native of North America. This tree might grow to 100’ and live up to 400 years. It is the most common species of oak in the Northeastern U.S., after the closely related pin oak. The northern red oak is one of the most important oaks for timber production in North America. Quality red oak is of high value as lumber and veneer, while defective logs are used as firewood. Construction uses include flooring, veneer, interior trim and furniture. It is also used for railroad ties and fence posts.

(B&W photo of Northern Red Oak sprig)

11. Chestnut Oak (Quercus prinus)



Continuing south along the ridge you will reach a very large chestnut oak standing about twelve feet below the edge of the bank. Its name comes from the leaves, which resemble those of the American chestnut. Because chestnut oak has the ability to produce root and stump sprouts and can grow on very poor, dry, or rocky soil, it prevents soil erosion on sites barren of any other tree growth. The thick, deeply furrowed bark protects the tree from fire, and was a source of tannic acid used in tanning leather.

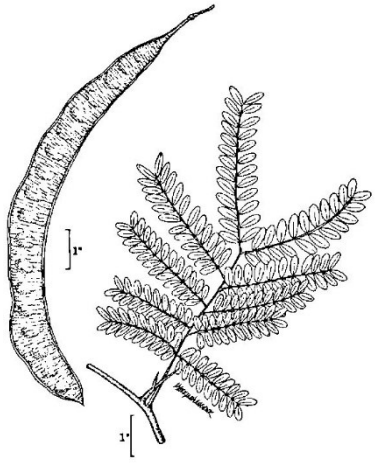
(Illustration of Chestnut Oak sprig and acorn)

12. Black Oak (Quercus velutina)

On the edge of the bank opposite the rear doors of the Visitor Center grows a black oak. This is a small specimen planted a few years ago to replace a very large black oak, the stump of which is still visible at the edge of the ridge. The leaves are similar to those of the northern red oak in shape, but early in the year are covered with a layer of fuzz. The bark is broken up into rectangular blocks. One of the most common of the eastern oaks, the bark of the black oak was a source of dyes and tannins in earlier years. A good shade tree, but not often found in nurseries due to its deep tap root which makes it difficult to transplant.

(B&W photo of Black Oak sprig)

13. Honeylocust (Gleditsia triacanthos)



Now begin walking on the sidewalk toward the mansion. The first large tree on the right is a honey locust. This particular specimen is the largest in New York State and has been nominated for National Champion. Please watch out for the long thorns. A thornless variety has been developed and is often used as a shade tree. Male and female flowers are borne on separate trees. This one is female and produces an abundance of large pods that dry in October and fall throughout the winter. Honey locusts are legumes and are in the same family as peas and beans.

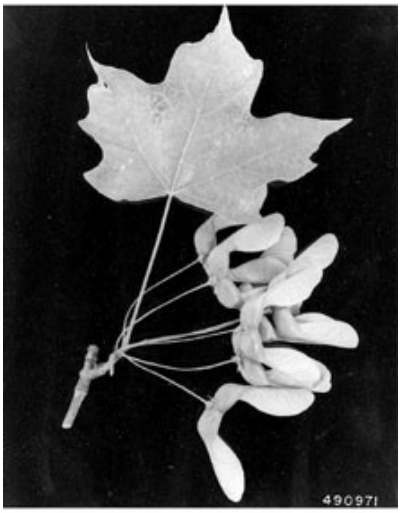
(Illustration of Honey locust sprig & seed pod)

14. Kentucky Coffee-Tree (Gymnocladus dioicus)

Continue along the sidewalk towards the mansion as far as the fire hydrant. The handsome tree on your left is a native of Kentucky and Tennessee. The Kentucky coffee tree takes its name from the seeds which are found inside its' large pods. The seeds resemble coffee beans and a bitter drink was once brewed from them (unroasted seeds and pods are toxic). This tree is one of the last trees on the property to leaf out in the spring which leads to many visitors asking if it's dead.

(Illustration of Kentucky Coffee tree sprig & seed pod)

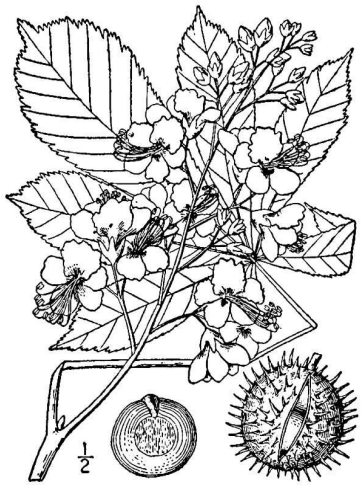
15. Sugar Maple (Acer saccharum)



To your right is a sugar maple. The sugar maple is the state tree of New York, and one of the most common trees in the state. It grows abundantly here on the estate. In fact, the tree growing along the ground in front of the Visitor Center is a sugar maple. That one might seem lazy as it lays there on the ground, but it's a surviving branch from a very old sugar maple that's been gone for decades. That branch had reached the ground and successfully re-rooted. An example of that same process can be seen on the sugar maple behind the one your looking at now. In early Spring throughout New York, New England and Canada, sugar maples are tapped for the sugary sap within. After long hours of boiling over wood fires most of the water evaporates, leaving the sweet maple syrup behind. Brightly colored in the fall, the leaves may be yellow, red, orange or gold. The buds are eaten by deer.

(B&W photo of Sugar Maple sprig)

16. Horse-chestnut (Aesculus hippocastanum)



Between the sugar maple and the edge of the ridge is a small tree with leaves arranged in a whorl of seven. If you are here in May or June, you may see the large white flowers in bloom. The horse-chestnut was introduced to North America many years ago from Greece and Albania. In Autumn the ground beneath is covered with nuts from this tree. The husks are green with many spines, but the nut itself is a shiny brown. The horse-chestnut is not a true chestnut and the nuts are inedible.

(Illustration of Horse-chestnut sprig & nut)

17. Tulip Tree (Liriodendron tulipifera)

Moving along the ridge toward the river side of the mansion look for the large tree with 4-lobed leaves. The tulip tree or yellow poplar as it is sometimes called is named for its tulip like flowers. It typically blooms in late spring to early summer and produces a yellow and green tulip shaped blossom. This species is the tallest and one of the largest eastern hardwoods. It was a favorite of President Franklin Delano Roosevelt who also had them on his estate just two miles south of here. The tulip tree is the only tree of its kind in North America but has an almost identical relative in China.

(Illustration of Tulip tree leaf, bud & flower)

18. Eastern Hophornbeam (Ostrya Virginiana)

From the tulip tree make your way around to the lawn in front of the mansion. This is the eastern (American) hophornbeam. Other names for this tree include “ironwood,” and “leatherwood.” It is typically grown as an ornamental or used as a street tree. Its wood is very resilient and is valued for making tool handles and fenceposts. Being a diffuse hardwood of high density and resistance to compression, historically, it was an excellent material for making long bows.

(Illustration of Hophornbeam sprig & nutlet)

19. Littleleaf Linden (Tilia cordata)

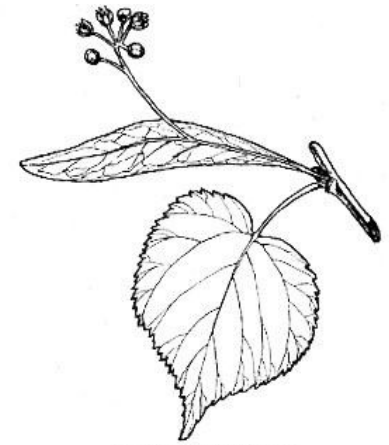
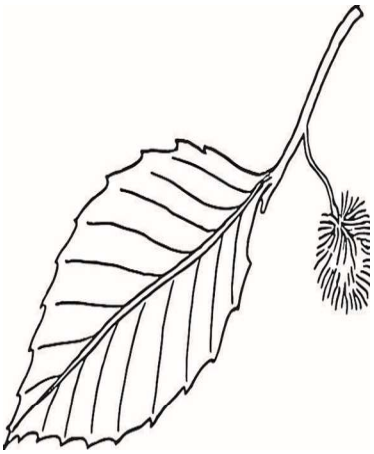


Fig. 327. Tilia cordata Mill.
Portion of branchlet with leaf and flower-cluster, × ¾.

The area to the south of the mansion is a showcase of imported tree specimens. As you walk along the driveway heading south past the mansion, on the right you will first encounter a Littleleaf linden. This tree is in the same family as the basswood we saw earlier. It is found from Britain to western Asia. The leaves are distinctly heart shaped. It is popular as a shade tree and an ornamental. It also does very well for bonsai. Prior to the advent of firearms, it was also commonly used for making shields (as referenced in Beowulf).

(Illustration of Littleleaf Linden sprig)

20. Purple Beech (Fagus sylvatica cv. purpurea)



The smooth skinned tree on your right is the purple beech, a variety of the European beech. The dark purple leaves give it a beautiful appearance, especially when the sun strikes it. Beech trees produce beech nuts which are used in Europe to fatten hogs and produce vegetable oil. This tree will have to live to 30 years old before it produces beech nuts. The word “beech” is very old and means “book.” The first printed bible was produced in the fifteenth century by Guttenberg on a printing press that used movable type carved from beechwood.

(Illustration of Purple Beech sprig)

21. Umbrella Magnolia (Magnolia tripetala)

Just off the circular lawn in front of the mansion heading south toward the formal gardens is a cluster of trees. Look for the tree with the large leaves. This is the umbrella magnolia. The tree gets its name from the large leaves which can give the appearance of a parasol. The flowers are large and appear in the spring, with six to nine creamy-white petals and a large red style, which in late summer to early fall develops into a scarlet fruit.

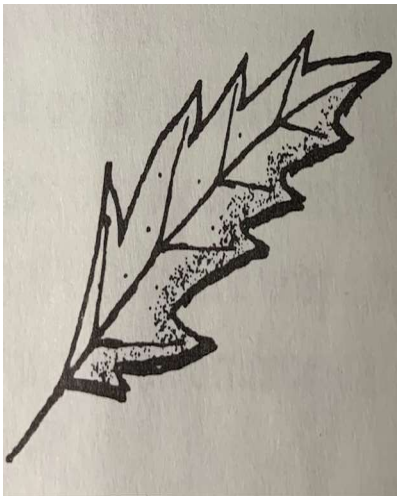
(Illustration of Umbrella Magnolia leaf, flower & fruit)

22. Flowering Dogwood (Cornus florida)

Look on your right just a few feet further down the driveway for a small tree with elliptical leaves and scaly, “alligator hide” bark. If you visit in the spring, the beautiful white flowers of the flowering dogwood may be visible. The wood of this tree is very hard, and is used for tool handles, bobbins, mallets and golf club heads. The fruit and twigs provide food for deer, squirrels, skunks, rabbits and at least 86 species of birds. Dogwood is plagued by a disease called *Anthracnose*, which has killed many dogwood specimens in the wooded areas of the estate.

(B&W photo of Flowering Dogwood in bloom)

23. Cutleaf Beech (Fagus sylvatica cv. laciniata)



Directly behind the flowering dogwood is an unusual tree which is another variety of European beech. You can recognize the Cutleaf beech by its wavy-edged leaves and smooth bark.

(Illustration of Cutleaf Beech leaf)

24. Ginkgo (Ginkgo biloba)

Standing alone in the middle of the south lawn is an enormous tree with unusual fan shaped leaves. The age of this tree is unknown, but it is estimated to be about 190 years old. This is the largest ginkgo in North America! The ginkgo is native to China and was first introduced in America in 1764. It is popular as an ornamental due to its remarkable resistance to insects and disease. When the foul-smelling husk is removed the nut is roasted and considered a delicacy. Male and female flowers are borne on separate trees; this tree is a male and produces no fruit.

(Illustration of Ginkgo sprig)

25. Weeping Beech (Fagus sylvatica cv. pendula)

Continue south across the lawn away from the mansion and just before reaching the formal garden you'll see another European beech tree. This one will stand out due to its sweeping pendulous branches. When the branches reach the ground, they often start to grow roots there. In the case of this tree the trunk is not visible because so many of the branches have reached down to meet the earth.

(Illustration of Weeping Beech tree)

Twenty- five beautiful specimens, but currently these trees are under attack. See the list below for more information about the threats our trees are facing. The National Park Service believes in the long run it is more environmentally sound to use avoid the use of insecticides and accept the loss of some trees rather than risk having these chemicals enter the food chain and harm native insects and birds, etc. We have been using pheromone traps against some invasive insects to help control the spread of these harmful invaders. <u>Do not move firewood.</u>

Forest Health Issues

Pests that Can Harm Our Trees

(The links below will bring you to the New York State Department of Environmental Conservation Website)

Learn about the symptoms and signs, hosts, biology, and available control strategies of many of the harmful insects and diseases that threaten trees and forests in New York State. Damage can also be caused by environmental factors.

Insects:

- Asian longhorned beetle (quarantine*)
- Emerald ash borer
- Gypsy moth
- Hemlock woolly adelgid
- Sirex woodwasp
- Southern pine beetle
- Spotted lanternfly (not yet in NY)
- Tent caterpillars

Diseases:

- Beech leaf disease
- Oak wilt disease

Other:

- Frost damage

***Quarantine**: when movement of certain articles is restricted in order to prevent the spread of a pest, disease or invasive plant.

More about Forest Health:

- Insect, Plant and Plant Disease Identification at the Diagnostic Lab - Identification of insects, plants and tree and plant diseases
- Oak Wilt - Oak wilt is an aggressive disease that affects many species of oak (Quercus spp.). It is a very serious tree disease in the eastern United States, killing thousands of oaks each year in forests, woodlots, and home landscapes.
- Beech Leaf Disease - Beech leaf disease affects and kills both native and ornamental beech tree species.
- Frost Damage - Freezing temperatures can kill new leaves.

This tree guide was originally produced by David Hayes, National Park Service. Updated in 2020 by Michael Autenrieth, National Park Service. Most of the illustrations are courtesy of the U.S. Department of Agriculture.