## The Trees of Grey Towers

"... I wish I could come back 100 years from now and see my trees." —Gifford Pinchot

## Grey Towers National Historic Site

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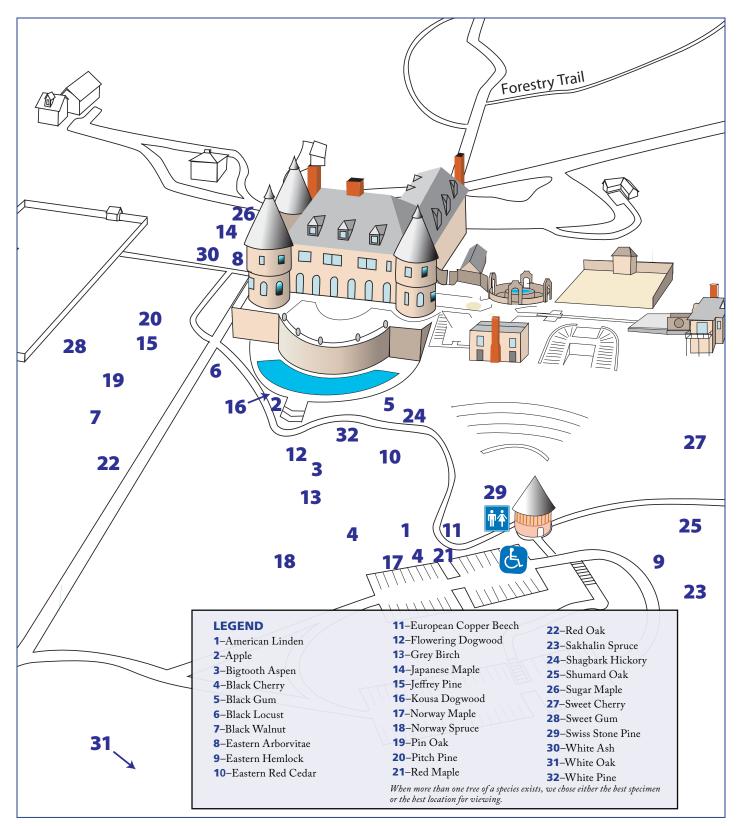
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### **Evolution of the Landscape**

In August 1886, James and Mary Pinchot moved into Grey Towers, their newly built summer home. At that time, little landscaping was done, in part because an open park-like estate was in style. Planting near the home also would have attracted insects and wildlife, which were not popular when the large, commanding windows were left open (and unscreened) to cool the mansion. Instead, James and Mary created a the Walled Garden south of the main entrance.

Gifford and Cornelia Pinchot moved to Grey Towers in 1914. Her design interests favored the style of that time: a living landscape that provided plenty of plant variety. She enjoyed gardening and is responsible for much of the landscaping around the mansion that you see today.



James and Mary planted ornamental roses, fruit trees, and vegetables in the Walled Garden.

## **Meet the Trees**

You are about to meet more than 30 prominent members of the Grey Towers' tree community. Most are native to America, though some are from Europe and Asia. In addition to botanical information, this guide provides background on the significance of some of the trees to the Pinchot family, to the Grey Towers' landscape, and to history. For example, you will learn the answers to these questions:

Which tree was Gifford's favorite?

Why is one tree called a pioneer?

What invasive insect is killing the species chosen as the state tree of Pennsylvania?

Which famous Civil War general planted the sugar maple near the mansion?

Which types of trees provide wood for baseball bats, golf club heads, and gun stocks?

Which tree fruits were once used to flavor rum, brandy, and gin?

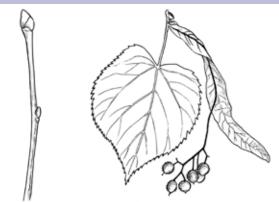
Which flying mammal hides under the bark of one of the native trees?



Cornelia in the orchard.

"To plant trees is to give body and life to one's dreams of a better world." —Russell Page

#### 1. American Linden (Tilia americana)



Iroquois Indians used the inner bark of this tree to make rope, baskets, and mats. The blossoms produce abundant nectar that bees make into choice honey, hence the often-used name, "bee tree." The large leaves are heart shaped, and the pea-size fruits are woody and attached to slender "parachutes" that aid in their dispersal. The linden or basswood is a highly regarded timber and shade tree.

#### 2. Apple (Malus spp.)



Cornelia planted an orchard of apple trees in the lower half of the estate in the 1920s. Today you can see the mature historic trees from the parking lot. Small apple trees grafted from historic stock also are planted in that area, in the original grid pattern created by Cornelia. Closer to the mansion are the showy and fragrant spring flowers of an apple tree planted in 1989 in memory of Gifford and Cornelia's only child, Gifford Bryce Pinchot, who donated Grey Towers to the American public in 1963.

### 3. Bigtooth Aspen (Populus grandidentata)



Called a "pioneer" species because it is one of the first trees to invade abandoned fields or to reseed burnedover areas, bigtooth aspen is favored by beavers for constructing dams and lodges. It is a popular tree to use for making paper, crates, and boxes. Deer and grouse feed on the buds and twigs.

4. Black Cherry (Prunus serotina)



Nearly all of the pale reddish-brown wood of this valuable lumber tree can be turned into furniture. Though the fruit is decidedly bitter, birds eat it and thus distribute the seeds. They are also eaten by grouse, bears, raccoons, skunks, and foxes. The fruits were used to flavor rum and brandy, and the resulting drink was referred to as "cherry bounce."

#### 8

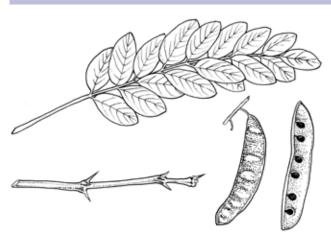
#### 5. Black Gum (Nyssa sylvatica)

Black gum or tupelo, a tree of the eastern United States, has leaves that turn to bright burgundy and eventually to intense bright scarlet in fall. The dark blue, sour fruits are a favorite of birds; the limbs, prone to decay, create cavity homes for small wildlife. The black gum blossoms are

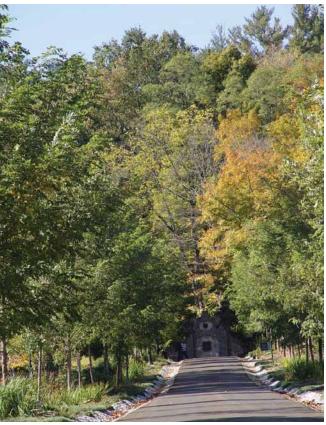


considered to be the source of the best honey in North America. Bark on older trees resembles alligator hide.

#### 6. Black Locust (Robina pseudoacacia)

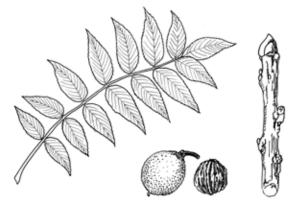


To create a more formal approach to Grey Towers after Gifford was elected Governor, Cornelia added the allee and lined it with black locust dug from the shores of the Delaware River. Those original black locusts, aged and deteriorating, have been replaced to maintain the historic integrity of this popular European design into the future. Black locust wood is considered one of the best for fuel, fence posts, and pole barn supports.



Black locust trees, shrubs and flowering plants greet visitors today along the Grey Towers allee, just as they did when the Pinchots lived here.

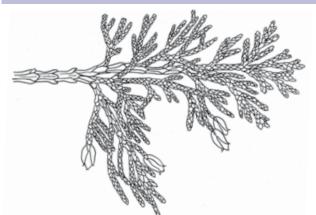
#### 7. Black Walnut (Juglans nigra)



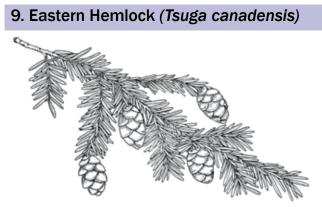
Wood from this tree is sometimes referred to as "gun-wood" because of its extensive use for gunstocks. Its chocolate-brown heartwood also is valuable for furniture. The husk of the nut was used by pioneers to make a dye, and the delicious nuts are a favorite of people and wildlife.

#### 8. Eastern Arborvitae (Thuja occidentalis)

10. Eastern Red Cedar (Juniperus virginiana)



The Onondaga Indians named this tree "Oosootah," which means feather leaf—an appropriate description of this evergreen's flat, tiny, scaled leaves. Eastern arborvitae is one of the most attractive evergreen ornamentals Cornelia used extensively as hedge plantings. The wood is rot- and termite-resistant and is used for products such as posts, rails, and shingles that come in contact with moisture.



In 1931, Governor Pinchot signed legislation making the hemlock Pennsylvania's state tree. At Grey Towers, Cornelia favored this tree as sheared hedges in the Long Garden and Moat areas. Hemlocks grow best in cool, moist environments and are often found along streams in mountain valleys where they keep water cool for trout and other aquatic life. At one time whole hemlock forests were devastated for the tanninrich inner bark that pioneers used to tan leather. This tree species can reach an age of 600 years, but today it is threatened by the hemlock woolly adelgid—a sapfeeding insect that was introduced from Asia.



enjoyed how these trees could serve as a hedge, so she planted them along the LetterBox walkway. She also used them as an ornamental conifer. The light reddish bark of the red cedar peels in long thin shreds, and its purplish berries are a favorite of more than 50 species of birds. At one time, the berries were used to flavor gin. The aromatic, red wood is often used to line cedar chests and closets.

#### 11. European Copper Beech (Fagus sylvatica purpurea)

Gifford planted nine copper beech (about 20 years old) at Grey Towers in 1920. Knowing the grand stature they would command at maturity, he commented at the time, "By George, I wish I could come back 100 years from now and see my trees." You are looking at the mature trees that Gifford envisioned. Similar to our native American beech, the major difference is that the leaves are a beautiful copper color in fall and burgundy in spring. The smooth, gray bark looks like an elephant's hide.

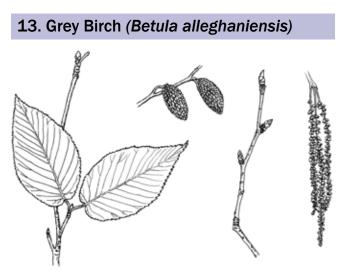


The copper beech was Gifford's favorite tree.

#### 12. Flowering Dogwood (Cornus florida)



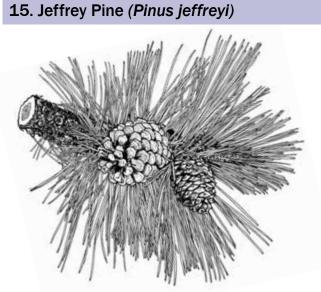
More than 86 birds, including the ruffed grouse and wild turkey, eat the scarlet fruits of this small tree. Dogwood is widely used as an ornamental because of its showy flowers, and Cornelia planted these trees throughout the estate. The bark on mature trees breaks up into small blocks resembling corn flakes. Native Americans used the roots to make a red dye and a tea that served as a substitute for quinine to combat fever. The hard, dense wood has been used to make golf club heads and butcher's blocks.



Smallest of the northeastern birches, this tree is easily identified by its dull, chalky-to-grey bark highlighted by black triangular patches where the branches meet the trunk. The wood is light and soft and decays quickly, making it a short-lived tree. 14. Japanese Maple (Acer palmatum)



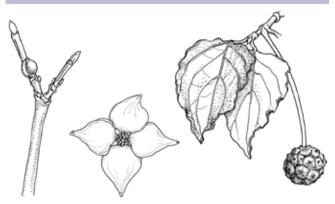
Native to Japan, Korea, and China, this small ornamental tree is quite slow growing and is noted for its tiny, wine red leaves that extend like the fingers of a child.



Discovered by Scottish botanist John Jeffrey, in 1852, this pine has long blue-green needles in groups of three, and sometimes also in bundles of two and three needles on the same tree. The cones are very large.

> "He that plants trees loves others besides himself." —English proverb

#### 16. Kousa Dogwood (Cornus kousa)



Also known as Japanese flowering dogwood, this tree is a native of China, Japan, and Korea. White flowers appear in May and June, and the leaves turn purple and scarlet in fall. The fruit is similar to a large raspberry, and the seeds are eaten by birds and squirrels. This disease-resistant variety was planted in the 1990s to replace an American dogwood that suffered from anthracnose.

#### 17. Norway Maple (Acer platinoides)



This tree is native to Europe, where it is used for timber. Its dark green foliage turns a pale yellow in fall. The leaves are similar in shape to those of sugar maple but are a deeper green, and their stems secrete a milky sap. Cornelia had planted an allee of Norway maples along the lower drive, but due to problems caused by their non-native status and shallow root system, they were replaced with hardier native sugar maples.

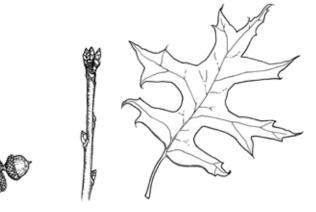
#### 18. Norway Spruce (Picea abies)



An important timber tree in its native Europe, this spruce is easily identified by the way its secondary branches (called skirts) hang down from the main limbs. It also has large cylindrical cones that can usually be found in abundance under the tree. Its thick foliage, which almost touches the ground, makes this tree ideal as a windbreak. The Pinchots planted it here as an ornamental.

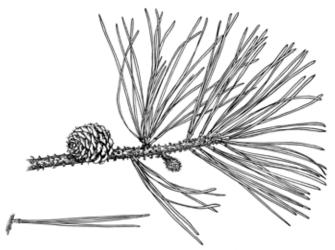
"Too old to plant trees for my own gratification, I shall do it for my posterity." —Thomas Jefferson

#### 19. Pin Oak (Quercus palustris)



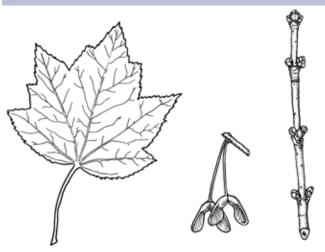
The branches of pin oak are studded with short, stiff pin-like shoots. Pin oak has an attractive form, grows well, and tolerates urban smog. Of all of the oak varieties, pin oak is probably the most extensively planted ornamental.

#### 20. Pitch Pine (Pinus rigida)



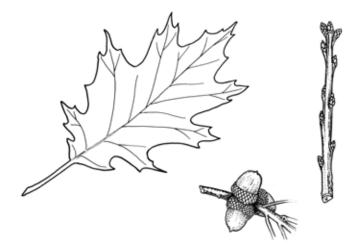
Easily identified by the slightly twisted needles bundled in threes and cones with sharp prickles on their tips, the pitch pine provides winter food for birds and other wildlife. The unusually thick bark makes this scraggly pine fire-resistant. The wood is very resistant to water decay, which made it valuable for the construction of water wheels. Before the American Revolution, pitch pine was used to make tar and turpentine.

#### 21. Red Maple (Acer rubrum)

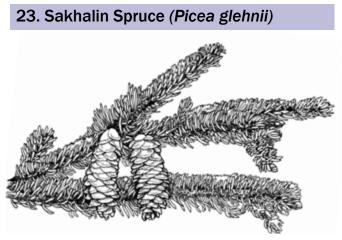


This is one of the first trees to flower in spring, well before its leaves appear. Red maple is best known, however, for its brilliant scarlet autumn foliage. For this reason, it is used widely as an ornamental and shade tree.

#### 22. Red Oak (Quercus rubra)



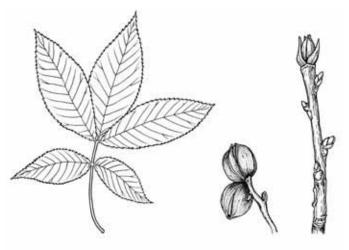
One of the most important and widespread of the northern oaks, red oak wood is heavy, hard, and strong, making it ideal for furniture, flooring, fuel and veneer. Though wildlife prefer white oak acorns to the larger, more bitter red oak acorns, they still provide an important food source.



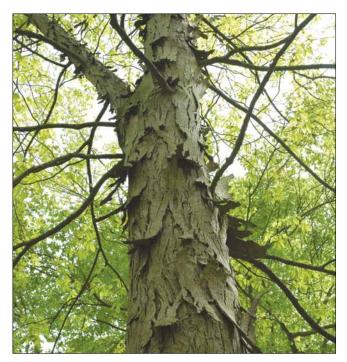
Due to its maturity, large size, location, and rarity, we believe this tree was planted by Gifford and Cornelia in the early 1900s. This species from Asia is commonly used for the study of bonsai and is most effective when used as a specimen in large-scale plantings for lawns, parks, golf courses, highways, or near large buildings. The wood is beautifully grained and is used for pianos, violins, and interiors of buildings.

#### 25. Shumard Oak (Quercus shumardii)

#### 24. Shagbark Hickory (Carya ovata)



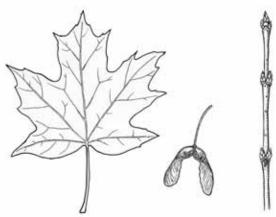
This tree is easily identified by its gray bark, which breaks up into thin, long plates that peel away from the trunk. Brown bats sometimes hide under the bark during the day. When burned, the wood produces more heat than any other and is unrivaled in its combination of strength, toughness, hardness, and stiffness. These qualities make it ideal for tool handles, athletic equipment, and lawn furniture. The wood also is superior for smoking hams and bacon.





Gifford and Cornelia may have planted this tree in the early 1900s, based on its maturity and the fact that it is so far north of its native southern habitat. It grows moderately fast and every 2 to 4 years produces acorns that are used by wildlife for food. This oak makes a handsome shade tree, and its wood is superior to that of most red oaks.

#### 26. Sugar Maple (Acer saccharum)



One of the oldest trees on the estate, this large sugar maple was planted around 1886 by James and Mary Pinchot's friend, General William Tecumseh Sherman. A number of sugar maples line the lower part of the Grey Towers drive, greeting visitors with their brilliant yellow leaves every fall. Sugar maples are known for syrup and candy made from their sap, and for excellent lumber. The wood is hard, making it especially suitable for bowling alleys, pins, and dance floors.

#### 27. Sweet Cherry (Prunus avium)

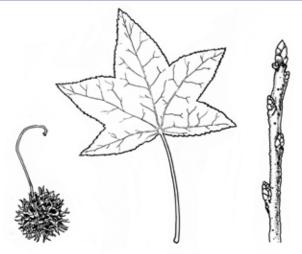
#### 28. Sweet Gum (Liquidambar styraciflua)



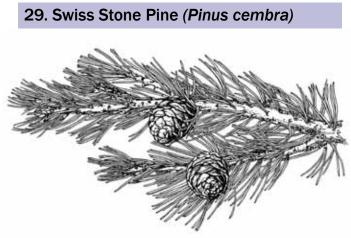
Brought here from Europe around 1927 and sometimes referred to as European bird cherry, the tree's red, fleshy fruits are widely eaten and distributed by birds.



Cornelia chose the location for this sweet cherry so that its springtime pink blooms could be viewed from the balcony and courtyard of the Bait Box—the playhouse she had built for her son, Gifford Bryce.



This tree can grow up to 150 feet tall. The wood has been used for many purposes and is especially valuable because it can be stained to imitate more expensive woods, such as mahogany and black walnut. The starshaped, aromatic leaves typically turn deep red in fall. The spiny, round fruits that hang from short stems remain on the tree through the winter.

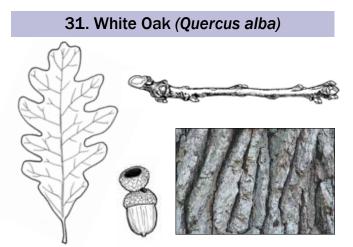


Native to the mountains of Europe and parts of Asia, this hardy evergreen with narrow, dense pyramidal form, can grow to 25 - 35 feet tall and 10 - 20 feet wide. Cornelia had planted red pines here in the 1930's as a backdrop to the amphitheater, but most of those succumbed to disease and were overgrown; the Forest Service replaced them with this more disease-resistant species.

#### 30. White Ash (Fraxinus americana)



The wood of white ash is strong, stiff, and shock resistant, making it the ideal wood for baseball bats, hockey sticks, and tool handles. The bark on mature trees has a diamond-shaped pattern, and the compound leaves are made up of seven leaflets. The crushed leaves are believed to relieve the itch of a mosquito bite or a bee sting.



This majestic white oak near the stone bridge at the main entrance is one of the oldest—and largest—trees on the estate. From photos we know this tree was here before the mansion was built (1886); its trunk is 19 feet around! All of the oaks in the white oak family have leaves with rounded lobes, in contrast to the red oaks whose leaves have points. The bark on mature white oaks is ashy gray. White oak is one of the finest woods for furniture and hardwood flooring.

#### 32. White Pine (Pinus strobus)



The largest northeastern conifer, this tree grows up to 100 feet tall. America's lumber industry was founded on eastern white pine. No other wood has such a wide range of applications; it can be used satisfactorily for practically every part of a home. The soft needles are bundled in groups of five.

Gifford, the trained forester, knew that white pines by nature are weak, and that it was not wise to plant them close to one's home. Cornelia persisted, however, and had two large pines planted very close to the mansion. Nearly 100 years later, Gifford's argument prevailed, and the Forest Service removed those white pines due to decay and the hazard they posed to the mansion and visitors. The White Pine you see today in the Star Terrace was transplanted from Pinchot family lands in 2000.





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