

Trees of Sovereign Oaks



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Alder, Tag

Alnus serrulata

Identification – Small to mid-sized tree typically found along streams with football-shaped leaves with serrated edges and prominent veins.

Mature Height – 20 ft.

Where to find – Along Bull Creek; we have a fine example at the east end of the footbridge, and another where the path again approaches the creek.

Notes: Prefers to grow along streams. The fruit resembles a small pine cone. A tea made from the bark is said to work as a treatment for diarrhea, coughs, toothaches, sore mouth.



Ash, Green

Fraxinus pennsylvanica

Identification – Mid-sized tree typically found along streams and in bottomlands with a 8-12" long compound leaf with 3-7 leaflets opposite one another on the branch.

Mature Height – 60 ft.

Where to find – Along Musterfield Creek.

Notes: A bottomland tree historically planted as an ornamental due to its appearance and salt resistance. Susceptible to Emerald Ash Borer. Preferred wood for electric guitars (incl. Fender, Gibson) since it is light and produces a bright sound.



Bamboo

Phyllostacys sp.

Identification – Has a distinctive jointed stem and is usually found in large colonies.

Mature Height – to 100 ft.

Where to find – There is a large grove adjacent to the treehouse on the Bull Creek West trail.

Notes: A member of the grass family. Extremely fast growing; some were recorded to grow at 1.5" per minute. Can be harvested in 3-5 years, so it is becoming popular as an ecologically sustainable alternative to other woods. Commonly used in construction in Asia, due to its high strength to weight ratio.



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Beech, American

Fagus grandifolia

Identification – Distinguished by its thin smooth bark.

Mature Height – 115 ft.

Where to find – Near the SW corner of the intersection of Towering Oaks Lane and Wandering Oaks Way.

Notes: A large, slow-growing but long-lived tree. It has shallow roots that can be susceptible to drought, flooding, or soil compaction. Beech nuts are an important wildlife food.



Birch, River

Betula nigra

Identification – Distinguished by its peeling reddish-brown bark.

Mature Height – 100 ft.

Where to find – In addition to the many planted in landscapes, there are very large specimens in the wetland east of the Bamboo trail.

Notes: Prefers periodically wet areas like floodplains, and is often used for erosion control along river banks. Its reddish brown bark peels off, with the useful benefit of allowing it to shed vines. Some cultivars have a whiter bark. Produces a lot of pollen.



Birch, Sweet

Betula lenta

Identification – Light-colored bark has fine horizontal reddish-brown lines. Leaves and twigs give off a strong scent of wintergreen when scratched or crushed.

Mature Height – 95 ft.

Where to find – Along the Bull Creek East trail.

Notes: Grows in forest gaps in areas not recently disturbed by fire. Sweet Birch was once the primary source of wintergreen flavoring, but it is now generated synthetically.



Cedar, Eastern Red

Juniperus virginiana

Identification – A small to medium-sized evergreen tree with unique scaly blue/green needles.

Mature Height – 65 ft.

Where to find – Can be found sporadically throughout Sovereign Oaks. There is a small example along Parkland Circle across from the pond.

Notes: Despite the name, is actually a juniper. Grows well in a wide variety of conditions, but is vulnerable to fire. Host to cedar-apple-rust fungus, which can discolor leaves on apple trees and hawthorns. Cedar waxwings love the fruit, and those passing through a bird's gut are three times more likely to germinate. The wood is rot-resistant and repels moths, so was formerly used in cedar chests for storing clothes.



Cherry, Black

Prunus serotina

Identification – Oval leaves resembling spear tips. Younger branches are smooth with fine lines called lenticels, whereas older bark resembles burnt cornflakes.

Mature Height – 80 ft.

Where to find – Common throughout Sovereign Oaks. A large specimen can be found on the Bull Creek West trail across from the Duke Energy green box.

Notes: A scratched twig smells of almond, but you are actually smelling a relative of cyanide that makes the tree toxic. It produces nectar at its leaf stalks to attract ants, which then attack caterpillars that can threaten tree. The fruit is an important wildlife food. The wood is highly prized for woodworking.



Chestnut, American

Castanea dentata

Identification – Long serrated football-shaped leaves. Usually on stump sprouts from trees killed by chestnut blight.

Mature Height – 100 ft.

Where to find – Uncommon but some sprouts can be found on individual lots.

Notes: Chestnuts once comprised 25% of the trees in our forests, but populations declined swiftly after the introduction of chestnut blight from Asia in 1904. It is estimated that 3-4 billion chestnuts were killed. The blight kills the above-ground parts of the tree but not the stumps, so it is still possible to find sprouts that do well for a couple of years before succumbing. The chestnut was historically a very important tree for the Cherokee and for wildlife. A number of Save the Chestnut initiatives are underway, focused on finding naturally resistant trees and crossing them with blight-resistant Chinese Chestnuts. The wood is rot-resistant, and can still be found in older split rail fences in the area.



Dogwood, Flowering

Cornus florida

Identification – A small to medium-sized tree distinguished by a unique checkered bark pattern and leaves shaped like a fat football with prominent upward sweeping veins.

Mature Height – 30 ft.

Where to find – Common throughout Sovereign Oaks. A nice specimen can be found on the Bull Creek West trail near the gate.

Notes: Planted frequently as ornamental, it is also a common understory tree in forest. Its numbers are declining now due to an anthracnose fungus. It is the state flower of North Carolina, but the familiar white petals of the flower are actually leaf bracts; the yellow center is the flower. Its fruit is high in nutritious lipids for wildlife, and therefore disappears quickly.



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Fringetree

Chionanthus virginicus

Identification – A small tree distinguished by unique fringelike flower clusters in spring. The leaves are spear-shaped with purplish stalks.

Mature Height – 30 ft.

Where to find – A specimen has been planted near the small building at the entrance to the community.

Notes: A native tree also known as Old Man's Beard due to the appearance of its white flower clusters. It is pollinated by evening flying moths, and female trees will produce berries. It is drought-tolerant and popular as a small landscape tree, but can be susceptible to the emerald ash borer.



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Hawthorn, Green

Crataegus viridis

Identification – A small tree distinguished by uniquely shaped leaves and is usually found with thorns along the trunk and branches.

Mature Height – 40 ft.

Where to find – Popular as a small flowering tree in landscape designs. A specimen stands in front of the community greenhouse.

Notes: Gets its name from its thorns although the Green Hawthorn has relatively few thorns compared to other varieties. Commonly found on mountain balds. Its fruits are popular with birds who help disperse the seeds. Some birds have been seen to get drunk on fermented hawthorn berries.



Hemlock, Eastern

Tsuga canadensis

Identification – A large evergreen tree with flat dark green needles.

Mature Height – 100 ft.

Where to find – Along the Bull Creek East trail. A nice healthy example is on the left side of the Bull Creek West Road where it turns to meet the footbridge.

Notes: Can live to over 500 years old. Is very tolerant of shade with a strategy to outlast other trees to eventually take over the canopy. It prefers wet areas so it is often found along streams. It has been decimated in our area by the hemlock woolly adelgid, which appears as a white cottony substance at the base of the needles.



Hickory, Bitternut

Carya cordiformis

Identification – A large tree with compound leaves with usually nine leaflets, narrower than the other hickory leaflets. The fruit husk has four distinct sections.

Mature Height – 100 ft.

Where to find – There is a specimen on the west side of Bull Creek just north of the footbridge.

Notes: Named for its exceptionally bitter nut. Even squirrels won't eat it unless there is little else to choose from. Prefers streambanks or wet bottomlands.



Hickory, Mockernut

Carya tomentosa

Identification – A large tree with compound leaves with 7-9 large football-shaped leaflets. The gray bark has a woven appearance. Mockernut hickories have hairy leaf stalks.

Mature Height – 80 ft.

Where to find – Common throughout Sovereign Oaks. A nice specimen can be found at the corner of Parkland Circle and Brookridge Lane.

Notes: This hickory has sweet edible nuts, but the large husks and shells have only a small amount of meat inside, hence the name “Mockernut”. Native Americans not only ate the nuts with cornmeal, but also threw crushed green hulls into pools to stun fish and make them easier to catch. Its wood is popular for construction and smoking meats. Can be a messy yard tree due to nut production



Hickory, Pignut

Carya glabra

Identification – Similar to the Mockernut Hickory but typically has 5-7 leaflets and smooth leaf stalks.

Mature Height – 90 ft.

Where to find – Some small examples can be found along the trail connection between Towering Oaks Lane and the Musterfield Creek trails.

Notes: Since the pignut hickory has bitter nuts, the settlers used them to feed their pigs.



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Holly, American

Ilex opaca

Identification – A small to medium-sized evergreen tree with unique dark green prickly leaves.

Mature Height – 65 ft.

Where to find – Common throughout Sovereign Oaks, both in wooded areas and planted in landscapes.

Notes: Slow-growing and shade-tolerant. Evergreen but replaces some leaves each spring. Both male and female trees are needed to produce fruits. The fruits are less nutritious than many others so birds will often leave them for most of the winter.



Hophornbeam, Eastern

Ostrya virginiana

Identification – A small to medium-sized tree with light brown shredded-looking bark and oblong, toothed leaves.

Mature Height – 55 ft.

Where to find – A specimen stands on the south side of the east-west portion of the Upper Musterfield Creek trail near where it meets Wandering Oaks Way.

Notes: A slow-growing, long-lived and shade-tolerant tree that prefers rocky soils. As one of two trees commonly called ironwood, the Cherokee used the dense tough wood for longbows and war clubs.



Hornbeam

Carpinus caroliniana

Identification – A small understory tree usually found along streams with smooth bark with a “muscular” appearance. The leaves appear corrugated.

Mature Height – 35 ft.

Where to find – Along the Bull Creek East trail.

Notes: Also known as Musclewood because of its flexed bicep appearance. The wood is heavy and hard, and is used for tool handles, longbows, and walking sticks.



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Locust, Black

Robinia pseudoacacia

Identification – The large compound leaves have many oval leaflets and typically have a pair of spines where they meet the branch.

Mature Height – 100 ft.

Where to find – Common throughout Sovereign Oaks. Small saplings appear quickly in disturbed areas.

Notes: Native to the Appalachians but has been introduced widely to other areas where it is often considered an invasive pest. The wood is highly rot resistant and is therefore popular for split rail fences, decks, and raised beds.



Maple, Red

Acer rubrum

Identification – Look for the distinctive maple leaf shape with five lobes and serrated edges. The bark is smooth and gray.

Mature Height – 90 ft.

Where to find – Common throughout Sovereign Oaks. A large specimen stands above the bamboo grove on Bull Creek West trail.

Notes: This tree has something red all year round; twigs and buds in winter, flowers and new leaves in the early spring, leaf stalks & seeds in summer, and foliage in the fall. Red maples are more common in the Southern Appalachians now due to fire suppression, as they outcompete other species in disturbed areas.



Maple, Striped

Acer pensylvanicum

Identification – A small tree distinguished by its green bark with light colored stripes running down the trunk. The large leaves have only three lobes.

Mature Height – 30 ft.

Where to find – Along the upper parts of Musterfield Creek.

Notes: Smallest maple east of Rockies but with the largest leaves. The soft, tear-resistant leaves make it a good emergency toilet paper.



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Mountain Laurel

Kalmia latifolia

Identification – A small evergreen tree or bush with crooked branches and leathery leaves.

Mature Height – 25 ft.

Where to find – Common in the northern part of the community. Some nice specimens can be found along the Bull Creek East trail.

Notes: Thrives on rocky slopes with acidic soils. The bowl-shaped flowers have tiny pouches enclosing anthers under tension which spring loose to deposit pollen onto visiting bees when touched. Often grows into dense thickets called laurel hells.



Oak, Black

Quercus velutina

Identification – Dark gray to black bark. Leaves have prominent spikes at the tip of each lobe, but can vary widely in shape.

Mature Height – 100 ft.

Where to find – There are some nice specimens on the inside of the curve in Towering Oaks Lane.

Notes: A member of the red oak family, this species is actually more common in our area than the Southern Red oak which is more prominent in Sovereign Oaks. The leaves in the sun and those in shadier parts of the tree can have quite different shapes.



Oak, Chestnut

Quercus montana

Identification – A large tree with a leaf resembling a chestnut but with rounded lobes. The bark is dark with gray ridges.

Mature Height – 100 ft.

Where to find – A large example can be found near the upper end of the retention pond along the Dam South trail.

Notes: Usually prefers ridgetops and upper slopes with dry, rocky soils, where it does well because the acorn has a more food storage for the seedling than most other oaks.



Oak, Southern Red

Quercus falcata

Identification – A large tree whose leaves have 3-5 pointed lobes and often appear droopy or wilted.

Mature Height – 95 ft.

Where to find – Common throughout Sovereign Oaks. A number of large specimens line the lower portion of Wandering Oaks Way.

Notes: Prefers south & west slopes. Acorns not as tasty as those of the white oak but are a favorite of squirrels and jays. A good shade tree especially in less fertile sites. Red oak is popular for flooring and furniture.



Oak, White

Quercus alba

Identification – A large tree distinguished by its light gray bark and round-lobed leaves.

Mature Height – 100 ft.

Where to find – Common throughout Sovereign Oaks. A number of large specimens line the lower portion of Wandering Oaks Way.

Notes: Can live to over 450 yrs old. One tree can produce 10,000 acorns in a mast year. The acorns are an important food for mammals and birds. The name stems from the color of the wood, which is used for boat-building, flooring & furniture.



Pine, Shortleaf

Pinus echinata

Identification – Distinguished by its blocky bark pattern and needles in clusters of two.

Mature Height – 100 ft.

Where to find – Found throughout Sovereign Oaks. A few specimens can be seen on the SW corner of the intersection of Wandering Oaks Way and Towering Oaks Lane.

Notes: A highly adaptable pine that likes open sunny spaces. It benefits from fire that clears out competing hardwoods, while it stays protected thanks to its thick bark and high crown.



Pine, Virginia

Pinus virginiana

Identification – Distinguished by brown flaky bark and twisted needles in cluster of two (in the shape of a V as in Virginia).

Mature Height – 55 ft.

Where to find – Can be found throughout wooded areas of Sovereign Oaks. A few specimens can be seen on Parkland Circle opposite the pond.

Notes: Tends to be a successional species in disturbed areas that is ultimately overtopped by larger competitors.



Pine, Eastern White

Pinus Strobus

Identification – Distinguished by branches in a series of whorls heading up the trunk, and by needles in clusters of five.

Mature Height – 100 ft.

Where to find – Common throughout wooded areas of Sovereign Oaks.

Notes: Years ago before logging, trees 250-300 years old and 175 ft. tall were common in this region. The age of the tree can be estimated by counting the number of whorls, since one set of branches is produced each year. The tall straight trunks were used for masts in large sailing ships in 17th & 18th century.



Poplar, Tulip

Liriodendron tulipifera

Identification – Typically tall and straight with a unique leaf shape.

Mature Height – 120 ft.

Where to find – Very common throughout Sovereign Oaks.

Notes: Despite the name, it is actually a magnolia. It is named for its tulip-like flowers which are an important nectar source but are often hard to see high in the canopy. Tulip poplar is a pioneer species that colonizes cleared land. It is unusual in that it is both fast-growing and long-lived. It is an important lumber tree whose wood is known for its stability.



Redbud

Cercis canadensis

Identification – Unique large heart-shaped leaves and distinctive pink blossoms along the trunk and branches in spring.

Mature Height – 30 ft.

Where to find – Planted recently in many landscapes in the community. Many of these are a cultivar whose leaves remain dark red until summer.

Notes: The flowers are edible. Unlike most of our natives, this tree prefers calcium in the soil. Redbud trees adjust their leaf angle to manage the amount of sunlight, and therefore can appear droopy on bright sunny days.



Rhododendron, Rosebay

Rhododendron maximum

Identification – A small evergreen tree or bush with unique thick oval leaves, and showy white blossoms in June.

Mature Height – 15 ft.

Where to find – Very common in the northern part of the community, including along the Bull Creek East trail.

Notes: Grows well on moist acidic slopes and along streams. It became more common in this region as a result of logging and the chestnut blight which opened up space in the forest forests.



Sassafras

Sassafras albidum

Identification – A small tree with a uniquely shaped leaf, alternately with one lobe, two lobes, or none.

Mature Height – 65 ft.

Where to find – A few small saplings can be found opposite the intersection of the Bamboo trail with the Bull Creek West trail.

Notes: Sassafras roots were used in traditional root beer until banned by the FDA. Dried and ground leaves and used to make the filé powder used for gumbo in Creole cooking. The Cherokee used it to flavor bear fat. It has many traditional medicinal uses, and in the early 17th Century was North America's 2nd biggest export behind tobacco.



Serviceberry

Amelanchier grandiflora

Identification – A small multi-stemmed tree with a light mottled gray bark, and white flowers early in the spring.

Mature Height – 30 ft.

Where to find – Commonly planted in landscapes including at the SE corner of Wandering Oaks Way and Trail Top Lane. A wild specimen can be seen just upstream from the dam ruin.

Notes: Locally called "Sarvis" by old timers, who claim that the name comes from the days of small mountain villages served only by traveling preachers. In those days the preacher couldn't visit during the harsh winters, so the early blossoms heralded the opportunity for wedding, funeral and church services. On mountainsides serviceberry trees look like clouds in leafless early spring forest, where they are an important early source of nectar. The fruits are popular with hikers, birds, & bears.



Sourwood

Oxydendrum arboretum

Identification – Easy to distinguish by its usually bent shape and deeply furrowed bark. It is also unique in that it flowers in summer, and tends to be the first tree to turn color in the fall, although the leaves remain on the tree a long time.

Mature Height – 65 ft.

Where to find – Common throughout the wooded areas of Sovereign Oaks.

Notes: The bent shapes come from its tendency to seek creative paths to the canopy in order to find light. Sourwood belongs to the same family as blueberries and therefore appreciates acid soils. It is the source of the highly prized sourwood honey.



Sycamore

Platanus occidentalis

Identification – A large bottomland tree distinguished by its "camouflage" bark pattern and leaves resembling a maple.

Mature Height – 130 ft.

Where to find – Along Bull Creek and next to the pond on the Bull Creek West trail.

Notes: One of the largest and most ancient native trees in the region. George Washington measured one at 44' diameter. Fossils identical to today's trees have been dated back 100 million years. It is a good shade tree in yards but needs lots of space.



Tree of Heaven

Ailanthus altissima

Identification – The very large compound leaves have 11-41 arrowhead-shaped leaflets. The bark is gray and smooth. The stem has an unpleasant smell when broken.

Mature Height – 45 ft.

Where to find – A very invasive exotic species, it can be found attempting to establish itself in open areas throughout the community. Specimens can be found adjacent to the road near the Bull Creek West trail gate.

Notes: Native to China but introduced to North America as an ornamental tree that has become an invasive pest. The "heaven" part of its name comes from its very rapid growth – rapidly reaching for heaven. It is an allelopathic species that emits a compound from its roots that poisons most competing plants. It suckers if cut but can be eradicated with glyphosate and persistence.



Tupelo, Black

Nyssa sylvatica

Identification – Has shiny dark green leaves with smooth edges shaped like an oval spear tip. Branches tend to protrude at a right angle from the trunk.

Mature Height – 80 ft.

Where to find – A number of specimens can be found along the trail connection between Towering Oaks Lane and the Musterfield Creek trails.

Notes: Also known as Black Gum, this tree is an important producer of nectar for bees, and thereby gives its name to our Asheville-based Tupelo Honey restaurant chain. An excellent landscape tree with brilliant fall color.



Walnut, Black

Juglans nigra

Identification – Large compound leaves with 13-23 sharp-toothed and pointed leaflets. The bark is dark brown or silver-black. Is usually the last tree to leaf out in spring and one of the first to lose its leaves in the fall.

Mature Height – 90 ft.

Where to find – A number of specimens can be found along the Bull Creek West road below the gate. Some Tree of Heaven with similar leaves are in the same area but the bark is much different.

Notes: Important ecologically for its nut production to sustain wildlife. Note that the dropped nuts are messy and can stain concrete; so this tree works best planted away from the house. The wood is highly valued for woodworking. Black walnut trees are allelopathic; the roots excrete the compound Juglone which is toxic to most other plants.

Recommended References

- Identifying Trees, An All Season Guide to Eastern North America, by Michael D. Williams
- Wildflowers & Plant Communities of the Southern Appalachians & Piedmont, by Timothy B. Spira
- www.carolinanature.com
- <https://projects.ncsu.edu/cals/plantbiology/ncsc/tnc/list.htm>

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Photos mostly credited on the image, most were taken from the two websites noted above in the References section.