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# *UWSR Eco Letter*
# *May/June 2025*

## *COMMENTARY:*
## *Shade Trees of New York City*

A tree is a wondrous thing, and some 7 million of them grow in New York City, forming a canopy that covers 21 percent of the City's land. About 670,000 of them line our streets and the rest fill our parks, run along waterways and live in other open spaces.

They are vitally important to all of us. Trees fight climate change by absorbing carbon dioxide, and they send out oxygen. They help prevent water pollution by capturing stormwater runoff. They also absorb solar radiation and provide shade, both of which help lower temperatures during hot summer days while also reducing energy demand. Tree leaves also "breathe," helping cool by evaporation and transpiration. Their roots aerate compacted soil.

All these trees provide habitat and food for wildlife such as birds and other animals or important pollinators like bees. They beautify the streetscape and increase property values. They mask unsightly views, muffle sound, and reduce glare. Trees can make people happier and help reduce the incidence of mental problems. Significantly, neighborhoods that are barren have a greater incidence of violence than their greener counterparts.

There are approximately 150 different species of trees in NYC and the vast majority of them are deciduous. This means that, in order to conserve energy and help survive adverse conditions, they shed their leaves every year, typically in the fall, and then grow new leaves in the spring. It's impossible to cover them all, so we'll just focus on 15 of the larger and more common species you find here, then briefly discuss street-tree maintenance.

### Some Common Deciduous Trees of NYC (in alphabetical order) *

**ASH Trees**: There are an estimated 8 billion ash trees in the United States, the majority being green ash or white ash. In the fall they sometimes stand out early in the season because their pennate leaves change color earlier than most other species. The emerald ash borer, a beetle introduced to the U.S. from Asia in the 1990's, was recognized as a

major threat to ash trees beginning around 2002, with substantial die-off in years since. However, it's been found that some green and white ash innately possess a natural genetic resistance to this pest.

**Green ASH** (*Fraxinus pennsylvanica)* usually reaches 40-80 feet in height with a trunk that grows up to 4 feet in diameter. A large specimen, with a trunk diameter of 55 inches, is located in the Bronx at Crotona Park, south of the Prospect Avenue entrance, behind the playground. Green ash is the most widely distributed of all the American ashes; its range centers on the midwestern U.S. and Great Plains. These trees are adaptable and can tolerate a wide range of temperatures, from deep freezing at -30°F to a very warm 95°F; while they prefer wetter conditions, they are hardy and will also grow in poorer, drier soils. Green ash trees typically live for 100 to 120 years, though some can live longer, reaching up to 200 years.

On young trees the bark is smooth and gray, but it becomes thick and fissured with age. Leaves are 6–12 inches long, green both above and below, and turn golden-yellow in the autumn. Inconspicuous flowers are small, green to purplish, and appear in clusters in the spring at the same time as the new leaves. The fruit is a samara, a winged fruit containing a seed that can be dispersed more easily by the wind. Its wood is used for a variety of purposes, including tool handles, baseball bats, furniture, flooring, and even in the construction of electric guitars.

*Green Ash*

**White ASH** *(Fraxinus americana)* is the largest of the ash trees, reaching 70-100 feet in height (rarely growing to140 feet) with a trunk up to 6 feet in diameter. The silhouette of a young white ash has a narrow head, but the canopy widens with age. A large white ash currently grows in the Bronx's Van Cortlandt Park, not far from Van Cortlandt Mansion; it is 83 feet tall, with a trunk 60 inches in diameter, and a canopy that spreads 60 feet.

The species is native to a wide geographic range of hardwood forests from Nova Scotia west to Minnesota and Texas, south to northern Florida, and occasionally grows even further west. White ash is a forest tree that commonly occurs alongside sugar maple while green ash is a pioneer species that usually inhabits riparian zones (adjacent to rivers and streams) and disturbed areas. Though adaptable to various soil types, white ash thrives in moist, well-drained, and fertile soils and generally performs best in loams and can tolerate some flooding. The lifespan of white ash can reach 200 to 250 years.

The bark is similar to that of green ash but is more deeply fissured in age. The white ash's compound leaves usually have seven leaflets per leaf whereas the counts in other ash trees more often vary. The upper side of the leaves are green but the tree gets its name from the glaucous (dull grayish-green) lighter color on the undersides of the leaves, as opposed to the green ash, whose leaves are similar in color on both its upper and lower sides. White ash leaves turn yellow or red in autumn. Its flowers are small, green to purplish, and appear in clusters on separate male and female trees in early spring, before the leaves emerge. Its fruit is a samara, a one-winged, dry, flattened seed that matures in the fall and persists on the tree into winter, often in clusters. Its tough yet pliant wood is commonly used for furniture, cabinetry, flooring, tool handles, musical instruments, hockey sticks, and, most famously, baseball bats – although baseball bats of white ash are now second in popularity to bats made of maple.

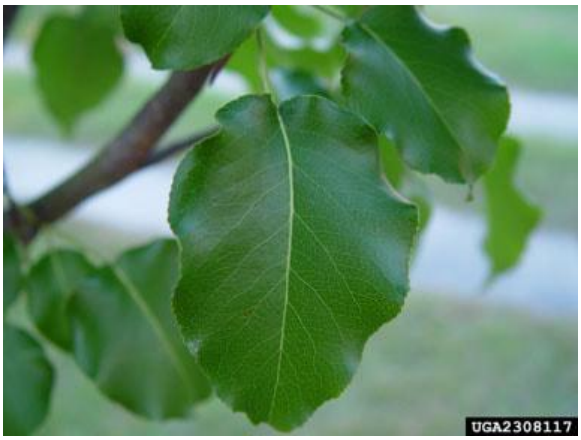
*White Ash*

**CALLERY PEAR** (*Pyrus calleryana),* an invasive species native to China and Vietnam, is shorter than the other trees discussed here, growing to just 16 to 26 feet, with either a conical or a rounded crown. The United States Department of Agriculture first introduced them in the mid-1960's as ornamental landscape trees and they became popular with

landscapers because they were inexpensive, transported well and grew quickly. They'll grow in most soil types including clay and alkaline, are pollution-resistant, and tolerate compaction or drought. Callery pears are very resistant to disease or fireblight, but the spread of these invasive trees is limited by their intolerance to extreme cold, and they have a fairly short lifespan of about 15 to 25 years.

The bark of the callery pear is grayish-brown and smooth on young trees, becoming deeply fissured or scaly with age. The leaves are oval, 1½ to 3 inches long, glossy dark green above and pale beneath. At our latitude, the trees often remain green until mid-November, at which point they turn bright red, orange or yellow. However, since the color often develops very late in autumn, the leaves may be killed by a hard frost before full color can develop.

The abundant dense clusters of white, five-petaled flowers of about ¾ to 1 inch in diameter are produced in early spring before the leaves expand fully, and they are one of the first visible signs of the arriving springtime here in the City – although their odor is often compared to rotting fish! The fruits of the callery pear are small (less than ⅜ inch in diameter) and are often assumed to be inedible due to their abundant, cyanide-laced seeds, but once these hard, almost woody, fruits are softened by frost they are readily taken by birds.

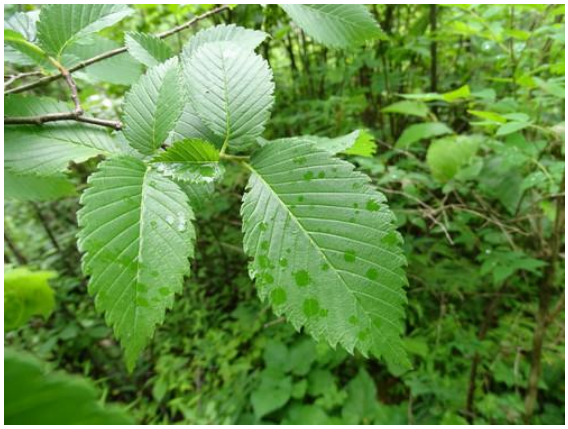


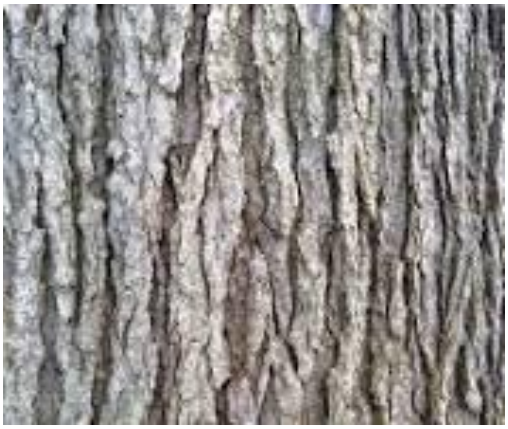

*Callery Pear*

**American ELM** (*Ulmus americana)* is a stately, vase-shaped tree than can grow to heights of 70 to 115 feet and occasionally taller. The trunk may have a diameter at breast height of more than 4 feet, supporting a high, spreading umbrella-like canopy. Native to eastern North American, the American elm can be found from Nova Scotia west to Alberta and Montana, and south to Florida and central Texas. The species occurs naturally in an assortment of habitats, most notably rich bottomlands, floodplains, stream banks, and swampy ground, although it also often thrives on hillsides.

American elm grows best on rich, well-drained loams, but will tolerate some wetness. These trees can tolerate a wide range of temperatures, from freezing -40°F to very warm 95°F. They can live for 175 to 200 years, with some individuals reaching 300 years, but their lifespan has been significantly impacted by the Dutch elm disease (DED, first discovered in the Netherlands in the early 1920s). It has been estimated that only approximately 1 in 100,000 American elm trees is DED-tolerant, most known survivors simply having escaped exposure to the disease. Elms have been able to survive and to reproduce in areas where the disease had eliminated old trees, although most of these young elms eventually succumb to the disease at a relatively young age. There is some reason to hope that these elms will preserve the genetic diversity of the original population, and that they eventually will hybridize with DED-resistant varieties. There is a notable grove of old American elm trees in Manhattan's Central Park Mall, and they also line Fifth Avenue from 59th to 110th Streets. The trees there were apparently spared because of the grove's isolation in such an intensely urban setting. A few remain on Riverside Drive near Columbia University, the rest are disease-resistant elm cultivars.

The bark of the American elm is a dark, ashy gray color with flat-topped, thick ridges and a tendency to flake off in older trees. Leaves are alternate on stems 3 to 8 inches long, with double-serrate margins and an oblique base; they turn yellow in the fall. The flowers are small, purple-brown and, the fruit is a flat samara. Because the American elm's wood is coarse, hard, tough, and difficult to split or chop, it has few uses except for barrel staves, trunk-slats, hoop-poles and the like.



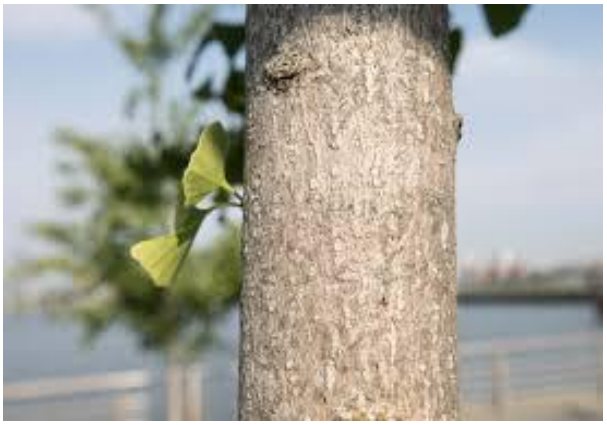


*American Elm*

**GINKGO BILOBA** (native to East Asia), also known as the maidenhair tree, normally reaches a height of 65 to 115 feet, with some specimens in China being over 165 feet, and their trunks can be 2 to 4 feet in diameter. Young trees are often tall, slender, and sparsely

branched; the crown becomes broader and angular as the tree ages. It has long, somewhat erratic branches, and is usually deep-rooted and resistant to wind and snow damage. A combination of resistance to disease, insect-resistant wood, and the ability to form aerial roots and sprouts makes ginkgoes durable, with some specimens claimed to be more than 1,400 years old. Ginkgo trees are adaptable to various soil types, including clay, loam, and sandy soil; they prefer well-drained soil and can endure temperatures down to -30 to -40 °F. While they can handle heat, consistent temperatures above 85°F can cause wilting or leaf scorch.

Ginkgo biloba bark is typically a light grayish brown color with shallow ridges and furrows, developing into deeper furrows and a more uniform ash gray color with age. Its leaves are usually 2 to 4 inches long but sometimes up to 6 inches long and are unique among seed plants in being fan-shaped with veins radiating out into the leaf blade, sometimes bifurcating (splitting). Ginkgoes are prized for their autumn foliage, which is a deep saffron yellow. *Ginkgo biloba* has separate sexes: Male plants produce small pollen cones; female plants do not produce cones. Two ovules are formed at the end of a stalk, and after wind pollination, one or both develop into fruit-like structures containing seeds. The fruits are ½ to 1 inch long, with a soft, fleshy, yellow-brown outer layer that is attractive in appearance, but contains butyric acid and smells foul like rancid butter or vomit once fallen. Ginkgo biloba leaves are a natural blood thinner and are also commonly used to improve memory, concentration, and overall cognitive function. Ginkgo wood, known for its fine texture and ease of carving, is used for making furniture, chessboards, and small carvings.



*Ginkgo biloba*

**Linden Trees:** The Littleleaf Linden is the tree most commonly planted in New York City, but other linden trees, including the American linden (also known as basswood), can be found in NYC parks and along streets.

**Littleleaf LINDEN** (*Tilia cordata*) is a naturally occurring hybrid tree that occurs in the wild in Europe. A common street tree throughout New York City and Central Park, the lttleleaf linden grows to a height of 50 to 80 feet, with a straight trunk 2 to 3 feet in diameter. There is a large linden at Woodlawn Cemetery's Jazz Corner, overlooking the gravesite of Duke Ellington. The base of the trunk often features burrs and a dense mass of brushwood, with tufts of denser hairs in the leaf veins. Littleleaf linden thrives in moist, well-drained, fertile soil that is sandy, loam, or clay, enduring temperatures from -40°F to 90°F. They usually have a lifespan of a few hundred years but have been known to live for more than 1,000 years.

The bark is smooth gray/red/brown when young, but gray/brown and with shallow/narrow ridges at maturity. The heart-shaped leaves are 1 to 3 inches long and broad, with finely serrated margins. They are dark green above but bluish green below; they turn yellow in the fall. Linden trees are known for their fragrant, pale- yellow flowers, which bloom in early summer in clusters of four to ten. Pollinated by bees, honey is derived from these flowers. The fruit is a dry nut-like drupe (fruit with a single, hard pit or stone containing a seed) ⅜ inch in diameter, downy and faintly ribbed. The light wood is used for carving, and the inner bark for making baskets.

*Littleleaf Linden*

**Black LOCUST** (*Robinia pseudoacacia)* is native from Pennsylvania through the Appalachians to northern Georgia and westward to Arkansas and Oklahoma, but it has

been widely planted and naturalized elsewhere in temperate North America. This is a shade-intolerant species and therefore is typical of young woodlands and disturbed areas where sunlight is plentiful and the soil is dry. The roots of black locust contain nodules that allow it to fix nitrogen, so it is a legume. Trees reach a typical height of 40–100 feet with a trunk diameter of 2 to 4 feet. With a very straight trunk, it is an upright tree with a narrow crown that grows scraggly with age. Young trees are often spiny, especially on root suckers and branches near the ground, but mature trees often lack spines. They tolerate a wide range of temperatures, as low as -40°F and also withstanding heat up to 100°F. Black locust trees are fast-growing but relatively short-lived, with an average lifespan of around 60-90 years.

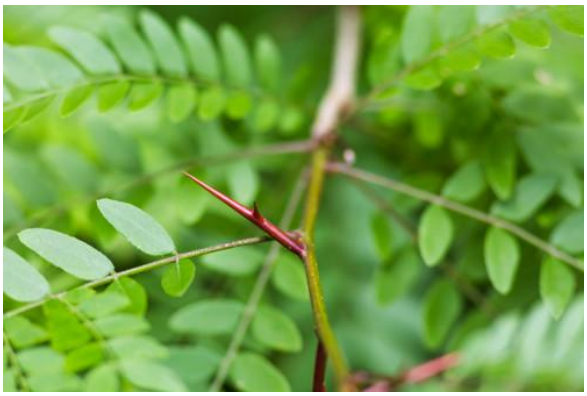
The bark, leaves, and wood are toxic to both humans and livestock. The bark is black and gray and tinged with red or orange and becomes thick and deeply furrowed on older trees. The dark blue-green leaves, which appear relatively late in spring, are lighter on the underside and are compound, meaning that each leaf contains many smaller leaflike structures called leaflets, which are roughly paired on either side of the stem that runs through the leaf. The leaflets fold together in wet weather and at night and turn a clear pale yellow in autumn. The elongated clusters of cream-white flowers open in May or June for 7–10 days, after the leaves have developed. The fruit is a flat and smooth pea-like pod 2 to 4 inches long. Locust wood is extremely hard, one of the hardest in Northern America. Being durable and very resistant to rot, it is prized for making furniture, flooring, paneling, fence posts, and small watercraft.

*Black Locust*

The **Honey LOCUST** (*Gleditsia triacanthos*), also known as the thorny locust, can reach a height of 65–100 feet. Like the black locust, honey locust is a legume. It's native to central North America where it is mostly found in the moist soil of river valleys but it's highly

adaptable to different environments and has been introduced worldwide. Outside its natural range, however, it can be an aggressive and damaging invasive species. Due to the honey locust's tolerance of urban problems such as compacted soils, poor aeration, constrained planting areas, salt spray, and pollution, it has been widely planted in cities. It also adapts to relatively dry conditions and either alkaline or acidic soils, and tolerates temperatures from -30° F to 95° F. The honey locust grows quickly, but has a medium life span, as long as 125 years.

The bark is dark red-brown and smooth on young trees, but on older trees it develops longitudinal ridges with curled edges. Honey locusts commonly have thorns growing out of both their branches and trunks. The leaves are pinnately compound (arranged in a feather-like manner) on older trees. They are green in summer and turn yellow in autumn in shades ranging from cream and tan to golden yellow. Honey locusts leaf out relatively late in spring, but generally slightly earlier than the black locust. The strongly scented greenish yellow to greenish white flowers appear after the leaves have developed. The fruit of the honey locust is a flat pod (a legume) that matures in early autumn, is often twisted or curved, and contains as many as twenty dark brown oval seeds, each about 1 inch long. A niche market exists for honey locust furniture. It is also used for fenceposts and rails because of the dense, rot-resistant nature of the wood.



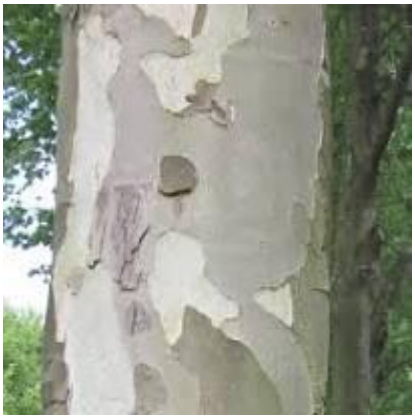
*Honey Locust*

**LONDON PLANETREE (**Platanus x acerifolia) is a cross of the oriental Sycamore (native to Eastern Europe and Western Asia) and the American sycamore. It typically grows from 65–130 feet tall, with a trunk 3 to 8 feet in diameter, and can live for several hundred years. New York City's largest London plane tree is located near the East 96th Street entrance at the

northeast corner of the Reservoir in Central Park, with a trunk diameter of 65 inches and a height of 95.9 feet. This is also the oldest tree in Central Park.

London planetrees grow best in moist, deep, and rich well-drained soil in full sun. Because they're resistant to drought, soil compaction and pollution and are one of the most efficient trees for removing small particulate pollutants in urban areas, they're often used as street trees around the world. It's a hardy tree, tolerating cold down to -20°F and heat up to 104°F.

London Planetree bark is usually pale grey-green, smooth and exfoliating (patches shred off) – making it easy to spot as you go around the City – although sometimes buff-brown and not exfoliating. The leaves are broad, palmately lobed, superficially maple-like though larger at 4-8 inches long and 5-10 inches broad. The young leaves in spring are coated with minute, stiff hairs that wear off by late summer leaving them nearly or entirely hairless. In the fall they turn golden-yellow. Both male (yellowish) and female (reddish) flowers are produced in the spring, but on separate stems, and the mature fruit in the cold months forms a dense spherical cluster of achenes (one-seeded fruit that does not open to release the seed) about 1 inch in diameter and covered with numerous stiff hairs. It should be noted that these achenes can cause respiratory problems, especially among asthmatics, and cause eye irritation, affecting 40% of allergy sufferers. Although it's primarily an urban tree, its bark is occasionally used for veneer, plywood, and flooring applications.



*London Planetree*

**Norway MAPLE** (*Acer platanoides*) is a species of maple native to eastern and central Europe and western Asia. It was introduced to North America in the mid-1700s as a shade tree, but is now considered an invasive and so is no longer planted in Central Park; in fact, the Central Park Conservancy actively removes seedlings. However, it remains a very common street tree. Norway maples grow from 65 to 100 feet tall with a trunk up to 5 feet in diameter, have a broad, rounded crown, and generally live 100 to 150 years, although

they can live up to 200 years.  They can grow in low lighting conditions and, within the forest, are often found in the understory and in a large range of soil textures from sands to moderately compacted clays. However, they don't tolerate either waterlogging or soil that is too dry. They can endure temperatures down to -30°F and up to 90°F.

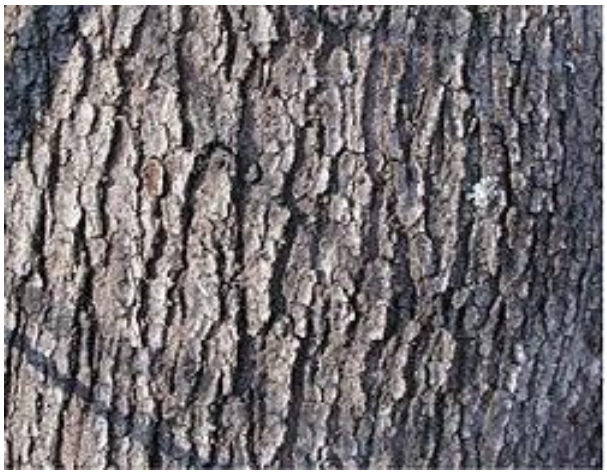
Norway maple bark is grey-brown and shallowly grooved. Unlike many other maples, mature trees do not tend to develop shaggy bark. Like the sugar maple, its waxy dark green leaves have five lobes, but are usually large, sometimes reaching 10 inches in width.  They leaf out earlier than most North American maple species and turn a vibrant yellow in the fall. The flowers appear in the early spring before the new leaves emerge and are yellow to yellow-green. The fruit is a double samara with two winged seeds. Its hard wood is used for furniture, flooring and musical instruments.

*Norway Maple*

**Red MAPLE** (*Acer rubrum*), also known as soft maple (its wood is only three quarters as strong as sugar maple), is the most abundant native tree in eastern North America. It ranges from Canada, south to Florida, and southwest to East Texas. Over most of its range, red maple is adaptable to a very wide variety of soil conditions, perhaps more so than any other tree in eastern North America. Red Maple can be found growing in swamps, on poor dry soils, and almost anywhere in between. At maturity, it often attains a height of 90 to 120 feet and a trunk diameter that ranges from 18 to 60 inches, depending on the growing conditions. Red maples can tolerate temperatures from -40°F to 90°F. They typically live for 80 to 100 years, though some can reach 200 years of age. There are more than 18,000 red maples on New York City streets.

The bark is pale grey and smooth when the tree is young. As it grows the bark becomes darker and cracks into slightly raised, long plates. The leaves of the red maple offer the easiest way to distinguish it from its relatives. The three-lobed leaves are usually 3 to 4

inches long on a full-grown tree. They are green on the top and a light, greenish white on the underside. Red maple flowers, petioles, twigs, and seeds are all red to varying degrees. Among these features, however, it is best known for its brilliant deep scarlet foliage in autumn. The small, hanging clusters of bright red flowers appear in late winter to early spring, from December to May depending on elevation and latitude, usually before the leaves emerge. The fruit is composed of 2 samaras, which ripen from April through early June, before the leaf development is altogether complete. The tree's sap is used commercially on a small scale for maple syrup production and the wood for furniture, flooring, cabinetry, paneling, veneer, musical instruments, tool handles, and other small specialty items.



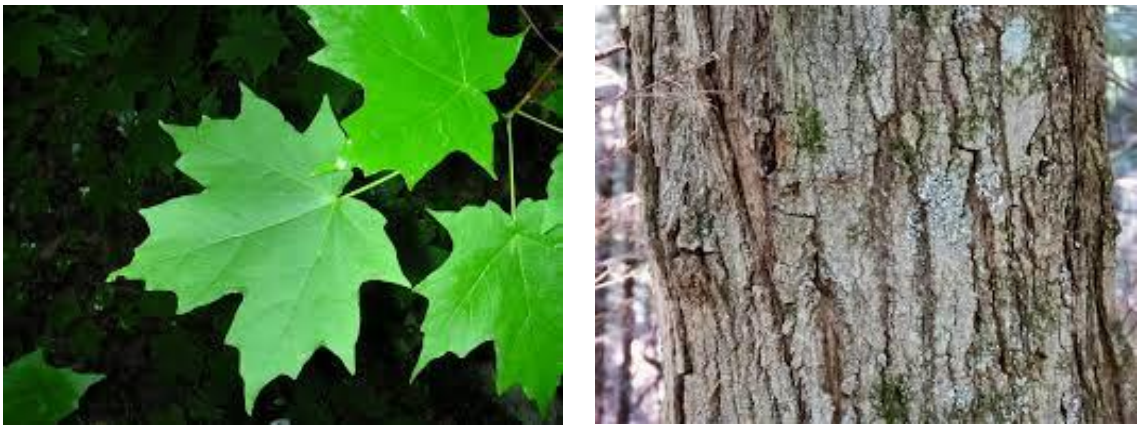
*Red Maple*

**Sugar (Hard) MAPLE** (*Acer saccharum*) is the state tree of New York normally reaching heights of 80–115 feet and exceptionally up to 150 feet, with a trunk diameter ranging from 2 to 5 feet. It's native to the hardwood forests of eastern Canada and the eastern United States. You can find them in Central Park, particularly near The Pool and the North Meadow. A large specimen is located in Wave Hill at the top of the lawn just southeast of the Wave Hill House. It is 88.6 feet tall and has a trunk diameter of 46.5 Inches. Sugar maples thrive in well-drained, loamy soil with a slightly acidic to neutral pH; they don't like compacted or heavy clay soils that impede root growth and water drainage, so they are generally not planted as street trees. Although the sugar maple can be confused with the Norway maple, but they are not closely related within the genus. They tolerate temperatures from -40°F to 100°F and can live from 300 to 500 years.

The leaves are up to 8 inches long and wide, with five lobes borne in opposite pairs. The lower lobes are relatively small, while the upper lobes are larger and deeply notched.

Leaves are green on the top and pale green to whitish on the underside**.** The fall color is often varied and spectacular, ranging from bright yellow on some trees through orange to a fluorescent red orange on others. The flowers arrive in early spring and are yellow-green and without petals. The fruit is a pair of samaras (winged seeds).

Sugar maple contains the sweetest sap of all maple trees and is used to make most maple syrup and maple sugar. The majority of wooden baseball bats are now made from sugar-maple, the preferred choice because of its exceptional hardness and durability. This also makes it ideal for flooring in high-traffic areas and commercial spaces like basketball courts, but it's used for various other applications like furniture, musical instruments, bowling pins, and cutting boards.



*Sugar (Hard) Maple*

**Pin OAK** (*Quercus palustris*) is related to red oak and gets its name from the large number of pin-like branchlets on its main branches. It grows 50 to 100 feet tall, with a trunk up to 3 to 4 feet in diameter. Pin oaks thrive in moist, slightly acidic soil, and they are known for tolerating wet conditions and even some soil compaction. Pin oak is one of the most commonly used landscaping oaks in its native range (eastern and central United States) because it's easy to transplant, grows relatively fast, and tolerates pollution. It can withstand temperatures from -20°F to 90°F and is considered short-lived, with a maximum lifespan of about 120 years.

Young pin oaks have a straight, columnar trunk with smooth bark and a pyramidal canopy. By the time the tree is 40 years old, it develops a rougher bark and the canopy loosens and spreads. This canopy is considered one of the most distinctive features of the pin oak: the upper branches point upwards, the middle branches are at right angles to the trunk, and the lower branches droop downwards. The deep-green leaves are 2 to 6 inches long and 2 to 5 inches broad, with five or seven *pointed* lobes, separated by deep, U-shaped sinuses;

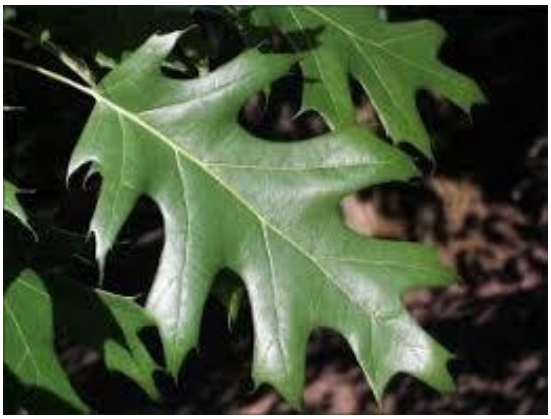
they turn a rich, bronzy-red color in the fall. Pin oaks produce small, yellowish-green flowers: The male flowers are pendulous catkins (elongated clusters), while female flowers are less conspicuous. The acorns are small, rounded, and have a shallow, saucer-shaped cap. Although it has a lot of knots, pin oak wood can be used for pallets, outdoor tables, work benches, cabinetry, furniture, and trim.


*Pin Oak*

**Northern Red OAK** (*Quercus rubra*) is native to eastern and central United States and southeast and south-central Canada. It is the second-most common species of oak in the northeastern US, after the closely related pin oak. Trees grow from 65 to 100 feet tall, with 3-to-5-foot trunk diameter. There is a large red oak, with a trunk diameter of 60 inches, at the New York Botanical Garden in the middle of the Spicebush Trail, across from a large rock outcropping**.** Northern red oak grows best in deep, well-drained loam to silty, clay-loam soils and can tolerate temperatures ranging from -20ºF to 95ºF. Trees may live up to 400 years.

Northern red oak is easy to recognize by its dark grey (sometimes reddish) bark, which features ridges that appear to have shiny stripes down their centers. The catkins and leaves emerge at the same time. As with most other deciduous oaks, leaves sprout in spring when the day length has reached 13 hours. Leaves are oblong, 5 to 10 inches long and 4 to 6 inches broad, with seven to eleven *pointed* lobes tapering gradually from broad bases. When full-grown, they're dark green and smooth, but yellow green and either smooth or hairy on the veins underneath. In the fall red oak leaves typically display a range of colors, including russet-red, or brown and, while most trees lose their leaves in October, some red oaks retain their dead leaves through the winter and drop them in the spring. Male flowers are yellowish-green catkins, similar to those of pin oak, and female flowers are less conspicuous. The acorns develop on the tree over two growing seasons and are released from the tree in early October. They are somewhat oblong, ¾ to 1 inch long, brown to

reddish-brown color, and have a shallow, saucer-shaped cap. Red oak is a popular hardwood that is used extensively in furniture, flooring, cabinetry, paneling, and millwork, as well as for industrial purposes like agricultural implements and railway ties.



*Northern Red Oak*

**Eastern White OAK** (*Quercus alba*) is one of the preeminent hardwoods of eastern and central North America, growing south as far as northern Florida and eastern Texas. It reaches heights of 80–120 feet at maturity, with a trunk diameter of 3 to 8 feet. Its canopy can become quite massive as its lower branches are apt to extend far out laterally, parallel to the ground, and the average canopy has a spread of 80 feet. A large specimen, 90 feet tall and a trunk diameter of 64 Inches, is in Woodlawn Cemetery, near North Border Avenue and Rutgers Avenue, overlooking East 233rd Street. White oak trees thrive in well-drained, slightly acidic to neutral soils, with a preference for rich, sandy or loamy types, and can also grow in clay. They prefer a temperature range of 32° to 95°F but can withstand temperatures as low as -20°F. White oak may live 200 to 300 years, but some have been found that are even older.

White oak bark is typically light gray with plates or scales that resemble vertical shingles on the lower trunk, and it may be furrowed with rectangular blocks on older trees. The deep glossy green leaves grow to be 5 to 8½ inches long and 3 to 4½ inches wide, are whitened underneath, and usually turn red or brown in autumn. They are characterized by their *rounded, finger-like lobes*, which are typically 7 to 10 in number. Flowers bloom in mid-spring as the leaves are unfolding. An individual tree produces both male flowers (yellow catkins) and less conspicuous female flowers and the catkins are an important spring food source for gray squirrels and many other animals. White oak acorns are oblong, light brown, and around 1 inch long, with a warty, bowl-shaped cap covering about a quarter of the nut. The white oak's name comes from the color of the finished wood. A strong and durable hardwood, it's known for its high water-resistance due to its closed-

grain structure, making it a durable choice for applications involving water, such as barrels, casks, or boats. It's also used for cabinetry, desks and tables, interior trim, flooring, boatbuilding, barrels, and veneer.


*Eastern White Oak*

**Street Trees**

(see also UWSR Eco Letter March/April 2018 COMMENTARY*: Trees in Our City*)

Some of the most common deciduous street trees in New York City are London Plane (about 15% of street trees), Linden (Basswood), Norway Maple (about 14% of street trees), Red Maple, Pin Oak, Callery Pear (about 10% of street trees), Honey Locust, Green Ash, and Ginkgo Biloba. These shade trees have proven to be suited to the NYC climate – they are also hardy and tolerate a variety of soil conditions and wetness – and are resistant to the exhaust fumes released by vehicles around them. Evergreen trees currently comprise only a small minority of street trees but have been recently more frequently planted.

*Maintenance of Street Trees*

The NYC Parks Department recommends that newly planted trees receive about 20 gallons of water a week, especially in the hot, dry summer months. Tree pits should be kept free of garbage, road and sidewalk salt, and dog waste, which can contaminate the soil. No extra soil should be added to tree pits as adding soil can suffocate the tree and provide a breeding ground for fungi and insects where the soil touches the trunk of the tree.

In order to keep our mature trees healthy, NYC Parks conducts routine pruning every year on a portion of city trees in each community board. If you think a tree is in need of maintenance pruning, you can either wait for the regular cycle or you can contact 311 to request an inspection by a forester, who will assess the pruning needs of the tree and

determine when that pruning will best correct the issues. If a tree appears to be dead, please call your borough forestry office (for Manhattan, 212-860-1845) or email Manhattan.Forestry@parks.nyc.gov. If an inspector determines that the tree is dead, NYC Parks will remove it within 30 days of receiving the request.

*Trees New York* has over 45 years of experience in community tree planting, stewardship and education projects. Since its founding, Trees New York has trained over 13,500 Citizen Pruners and over 9,000 youth in tree care and stewardship. During the last 10 years, they have planted over 5,000 trees in underserved communities throughout New York City, including on New York City Housing Authority campuses, school playgrounds, community gardens, and street trees.

The West 80s Neighborhood Association co-sponsors an annual Love Your Street Tree Day, a coalition of local organizations and volunteers focused on keeping us aware of the importance of NYC street trees and providing information on the care and maintenance of both trees and tree beds. You can watch tree stewardship demonstrations, receive a gardening goodie bag with supplies and their popular curb-your-dog sign, and get mulch for your tree.

* *Measured in the year 2000 at a height of 133.8 feet with a girth of 18.6 feet, a tulip poplar tree called The Alley Pond Giant (in Queens) may be the tallest and the oldest living organism in the city. It is estimated to be about 350 years old.*

*Additional information*:

- *Great Trees of New York City*
- List of tree species in New York City
- Love Your Street Tree Day, PO Box 732, NYC 10024; West 80s Neighborhood Association
- *A Natural History of Trees of Eastern and Central North America*, Donald C. Peattie, Hughton Mifflin, Boston MA, 1991, 606 pp.
- New York City Department of Parks Tree Services, tel: 311
- *New York City Trees: A Field Guide for the Metropolitan Area*, Edward S. Barnard, Columbia University Press, New York, 2002, 237 pp.; (click here for a PDF)
- New York Restoration Project, 254 West 31st Street #10, New York, NY 10001; tel: (212) 333- 2552
- Street Tree ID Guide
- *Trees of New York Field Guide*, Stan Tekiela, Adventure Publications, Cambridge MN, 2022, 280 pp.
- *The Urban Forest of New York City*
- Trees NYC; tel: (718) 701-4463