



**EAST
STROUDSBURG
UNIVERSITY**

ARBORETUM GUIDE

THE TREES OF THE ESU CAMPUS



A Project Of The



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MISSION

The East Stroudsburg University Arboretum was created to educate the members of the campus and local community on the unique plant species found on the campus property. By doing this, the Environmental Club aims to broadcast the importance of plants within our environment.

WELCOME

East Stroudsburg University's Arboretum comprises the landscaped part of the main campus (approximately 100 acres). This guide identifies 48 different species of trees. Several are the largest of their kind in the area. Maps of the tree locations have been included for your convenience.

The campus offers a superb site to see beech, dogwood, maple, pine, chestnut, mulberry, cedar, birch, spruce, ginkgo, magnolia, oak, and elm, among other trees. There is so much to see. I invite you to use an early morning walk or lunch hour to explore these magnificent specimens of trees. They are truly a campus treasure.

Dr. Peter Hawkes
Dean, College of Arts & Sciences



Legend

- | | |
|---------------------------------|---------------------------------|
| 1 Silky Stewartia | 25 Japanese White Pine |
| 2 Peegee Hydrangea | 26 American Sweetgum |
| 3 American Holly | 27 Katsura |
| 4 Cornelian-Cherry Dogwood | 28 Flowering Plum |
| 5 Kousa Dogwood | 29 Weeping Alaskan Cedar |
| 6 Bloodgood Japanese Maple | 30 Heritage River Birch |
| 7 Robin Hill Pink Shadblow | 31 Japanese Tree Lilac |
| 8 Weeping White Pine | 32 Sourwood |
| 9 Ruby Horse-Chestnut | 33 Chinese Chestnut |
| 10 Golden Rain-Tree | 34 Japanese Snowbell |
| 11 Weeping White Mulberry | 35 Dawn Redwood |
| 12 White Fringetree | 36 Blue Limber Pine |
| 13 European Copper Beech | 37 Sweetbay Magnolia |
| 14 Fern Leaf European Beech | 38 Butternut |
| 15 Fastigate Hornbeam | 39 Bristlecone Pine |
| 16 Star Magnolia | 40 Variegated American Sweetgum |
| 17 Kentucky Coffee-Tree | 41 Jacquemontii Himalayan Birch |
| 18 Forest Pansy Redbud | 42 Serbian Spruce |
| 19 Blue Atlas Cedar | 43 Fastigate English Oak |
| 20 Weeping European White Birch | 44 American Yellowwood |
| 21 Weeping Norway Spruce | 45 Rohanii European Beech |
| 22 Ohio Buckeye | 46 Chinese Elm |
| 23 Paperbark Maple | 47 Tricolor European Beech |
| 24 Ginkgo | 48 Weeping European Beech |

ESU's Arboretum: Overview



Author: Weston Strubert
 Date: 3/8/2018
 Scale: 1:6,000
 0 200 400 600
 Feet

Notes:

Map portrays all 48 tree species within the Arboretum
 Not Shown In Legend:
 Black & White Line = ESU's Property
 Blue Box = Shows the extent of the main map (Left)



Legend

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|---------------------------------|---------------------------------|
| 1 Silky Stewartia | 25 Japanese White Pine |
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| 15 Fastigate Hornbeam | 39 Bristlecone Pine |
| 16 Star Magnolia | 40 Variegated American Sweetgum |
| 17 Kentucky Coffee-Tree | 41 Jacquemontii Himalayan Birch |
| 18 Forest Pansy Redbud | 42 Serbian Spruce |
| 19 Blue Atlas Cedar | 43 Fastigate English Oak |
| 20 Weeping European White Birch | 44 American Yellowwood |
| 21 Weeping Norway Spruce | 45 Rohanii European Beech |
| 22 Ohio Buckeye | 46 Chinese Elm |
| 23 Paperbark Maple | 47 Tricolor European Beech |
| 24 Ginkgo | 48 Weeping European Beech |

ESU's Arboretum: Western Section



Author: Weston Strubert

Date: 3/8/2018

Scale: 1:2,250

0 75 150 225 Feet

Notes:

Map portrays 27 tree species within the Arboretum

Not Shown In Legend:

Black & White Line = ESU's Property

Blue Box = Shows the extent of the main map (Left)



Legend

- | | |
|---------------------------------|---------------------------------|
| 1 Silky Stewartia | 25 Japanese White Pine |
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| 22 Ohio Buckeye | 46 Chinese Elm |
| 23 Paperbark Maple | 47 Tricolor European Beech |
| 24 Ginkgo | 48 Weeping European Beech |

ESU's Arboretum: Northern Section



Author: Weston Strubert

Date: 3/8/2018

Scale: 1:1,000

0 25 50 75
Feet

Notes:

Map portrays 11 tree species within the Arboretum

Not Shown In Legend:

Black & White Line = ESU's Property

Blue Box = Shows the extent of the main map (Left)



Legend

- | | |
|---------------------------------|---------------------------------|
| 1 Silky Stewartia | 25 Japanese White Pine |
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| 20 Weeping European White Birch | 44 American Yellowwood |
| 21 Weeping Norway Spruce | 45 Rohanii European Beech |
| 22 Ohio Buckeye | 46 Chinese Elm |
| 23 Paperbark Maple | 47 Tricolor European Beech |
| 24 Ginkgo | 48 Weeping European Beech |

ESU's Arboretum: Eastern Section



Author: Weston Strubert

Date: 3/8/2018

Scale: 1:2,000

0 50 100 150
Feet

Notes:

Map portrays 10 tree species within the Arboretum

Not Shown In Legend:

Black & White Line = ESU's Property

Blue Box = Shows the extent of the main map (Left)



1. SILKY STEWARTIA
Stewartia malacodendron

Silky stewartia grows as a small tree or a bushy shrub. It has dense foliage, with dark green leaves between 2 and 4 inches long. The bark is gray-brown in color, with shallow ridges and furrows. The flowers, which bloom in June and July, have five white petals. The bases of the petals can sometimes have purple streaks. In the center of the flower are many stamens, which are the male structures of a flower. The stamens consist of a purple stalk called a filament, at the end of which is a powder-blue anther, where the flower's pollen is produced. The fruits are woody egg-shaped capsules that open to reveal shiny brown seeds.

2. PEEGEE HYDRANGEA
Hydrangea paniculata 'Grandiflora'

Peegee hydrangea is a large shrub, whose dark green leaves turn yellow to reddish-purple in the fall. The hydrangea's flowers are produced in large, conical clusters called panicles. Flowers are initially white when they bloom in June, and age to a purple-pink color by August.



3. AMERICAN HOLLY
Ilex opaca

This is the only species of holly that is native to the United States, and is familiar to many as Christmas ornamentation. American holly tends to grow in a dense, pyramid-like shape. Its dark green leaves feature widely-spaced teeth that are tipped with spines. On some holly plants, you can see evidence of leaf miner insect damage, which causes winding white paths across the surface of the leaf. The red fruits, often eaten by birds, ripen in October and persist into the winter. This is a slow-growing plant, averaging about six inches per year.



4. CORNELIAN-CHERRY DOGWOOD
Cornus mas

This species of dogwood is native to Europe and Asia, but planted in the United States as an ornamental shrub. It produces bright yellow flowers in March, before it has developed any leaves. The leaves are dark green in spring and summer, and may develop into a deep reddish-purple in fall. The small, red fruits, each containing a single seed, ripen in June and July. These are favored by fruit-eating birds, and are also used by some to make jams and preserves.



5. KOUSA DOGWOOD
Cornus kousa

The Kousa dogwood produces star-like blooms in the spring. The four creamy-white "petals" are not petals at all, but bracts – modified leaves found underneath each cluster of the plant's true flowers, which are tiny and green. The fruits bear some resemblance to raspberries, and appear on the plant in September and October. The bark on older trees has a jigsaw-like pattern, with patches of gray, tan, and brown.



6. BLOODGOOD JAPANESE MAPLE
Acer palmatum 'Bloodgood'

This tree is one of many 'cultivars,' or cultivated varieties, of Japanese maple. Leaves of this species have five to nine lobes, and are finely toothed along their edges. This cultivar is named 'Bloodgood' in reference to its foliage. While many Japanese maples have green leaves that turn yellow or red in autumn, the foliage of 'Bloodgood' is a dark reddish-purple color in spring and summer, turning bright red in fall. Its flowers and fruits are also red to reddish-purple; flowers are produced in mid-spring, followed by the winged fruits characteristic of maples.



7. ROBIN HILL PINK SHADBLOW
Amelanchier x grandiflora 'Robin Hill'

This small tree is a cultivated variety of a naturally-occurring hybrid between two wild serviceberry species, downy serviceberry (*Amelanchier arborea*) and Allegheny serviceberry (*Amelanchier laevis*). When the leaves first emerge in spring, they are somewhat purple in color, as well as slightly fuzzy. The flower buds in this cultivar are pink, but that color fades after the buds open, revealing five-petaled white flowers.



8. WEEPING WHITE PINE
Pinus strobus 'Pendula'

Weeping white pine is a cultivated variety of Eastern white pine, a common tree in eastern North America. 'Pendula' and 'weeping' refer to the tree's branches, which droop and may touch the ground, rather than being held upright on the trunk of the tree. Its needles range in color, with various shades of green and blue-green. Looking closely at a branch, you will see that the needles are attached to the branches in bundles of five – the number of needles in a bundle is an important identifying characteristic of pine species. White pines may experience damage from pine tip moths, which destroy new growth.



9. RUBY HORSE-CHESTNUT
Aesculus x carnea 'Briotii'

The ruby horse-chestnut is a cultivated hybrid between the North American red buckeye (*Aesculus pavia*) and the European horse-chestnut (*Aesculus hippocastanatum*), the latter of which is widely introduced and planted throughout the United States. It is named 'Ruby' for the color of its flowers. Blooming in May, the deep rose-red flowers are found in loosely-branched clusters covering the tree. Each leaf bears five to seven leaflets. The branches are particularly stout and close-knit, forming a very dense canopy on this tree.



10. GOLDEN RAIN-TREE
Koelreuteria paniculata

The most distinctive feature of the golden rain-tree are its papery, lantern-shaped fruits, which form in summer and often remain attached to the tree through winter. These capsules are a rich green color when they first develop, later becoming yellow and then brown. This tree is also known for its richly yellow flowers produced in June and July, before the fruits emerge. Although each flower is only about half an inch wide, they occur in large quantities in branched clusters. Each of its leaves bears seven to fifteen leaflets, which are a rich green color through spring and summer, turning golden-yellow in the fall.

11. WEEPING WHITE MULBERRY
Morus alba 'Pendula'

As with the weeping white pine (#8), the name of the weeping white mulberry ('Pendula') refers to its soft branches that bend downward toward the ground. While there are some species of tree that naturally take a weeping form in the wild, it is more common to see this form of growth in cultivated varieties for ornamental purposes. Both the weeping white pine and the weeping white mulberry on our campus are cultivated varieties. A particularly interesting characteristic of mulberry is the shape of its leaves, which can be unusually variable. Some leaves on a mulberry tree have lobes, and some do not. Its small white flowers grow in dangling spikes called 'catkins.' After flowering, the fruit also develop on these spikes, producing a cluster of tiny fruits functionally joined together as one 'multiple fruit' – a single fruit made from multiple flowers. Mulberry fruits are edible, often used for jams and pies, and are also eaten by various wildlife.



12. WHITE FRINGETREE
Chionanthus virginicus

The most notable feature of the white fringetree is its flowers, blossoming in May and June. Each flower has five long, strap-like white petals, which droop toward the ground. Its fruit, ripening in September, are a powdery-blue color and found in grape-like clusters. The leaves of this tree are variable in length (between 3 to 8 inches) and color (from medium to dark green), but tend to be somewhat glossy.





13. EUROPEAN COPPER BEECH
Fagus sylvatica 'Purpurea'

The bark of beech trees is smooth and gray, reminiscent of an elephant's hide. The European Copper Beech's name comes from its leaves, which often have a coppery sheen. When the leaves first form in the spring, they are coppery to purple in color, darkening in color as they mature. In summer, the leaves may fade to mostly green, with some lingering tinges of the original colors. The edges of the leaves are often wavy. Several other varieties of European beech, quite diverse in leaf appearance, are found in the arboretum (#14, #45, #47, and #48).

14. FERN LEAF EUROPEAN BEECH
Fagus sylvatica 'Asplenifolia'

This tree is the same species as the previous tree (#13, European Copper Beech), but of a different cultivated variety. The leaves are once again the most notable feature of the cultivar, although now it is their shape rather than their color that is remarkable. Unlike the leaves of most beech trees, the leaves on this tree are slender and with deep lobes along the edges, giving an overall appearance something like the leaf of a fern. There are several other cultivars of this species in the arboretum (#13, #45, #47, and #48).



15. FASTIGIATE HORNBEAM
Carpinus betulus 'Fastigiata'

'Fastigate' is a term referring to branches that grow upright and very close together, rather than spreading out horizontally. The cultivar name 'Fastigiata' follows from this, describing the overall shape of this hornbeam – a very slender tree with all its branches reaching upward. The bark of the hornbeam tree is smooth and grey, often with lighter vertical stripes. The veins are deeply set into the upper surface of the leaf, and very prominent on its lower surface, creating an overall ribbed appearance to the leaf. The leaves of this tree tend to turn yellow in the fall.

16. STAR MAGNOLIA
Magnolia stellata

This tree produces some of the earliest flowers you will see in the spring, blooming in March and April. One of the most ancient lineages of flowering plants, the structure of its flowers differs from that of many other species. Most flowers have distinct petals and sepals (sepals are the outermost 'whorl' of a flower, often green and leaf-like, and protecting the petals while the flower is in bud). Magnolias have structures called 'tepals', a term for the petal-like structures of the flower when distinct petals and sepals cannot be identified. The star magnolia has 12 to 18 long, white tepals on each flower, producing a starlike appearance. These flowers arrive and then disappear before leaves fully develop in the spring. The leaves are 2-4 inches long and a dark, glossy green, turning yellow or bronze in the autumn.



17. KENTUCKY COFFEE-TREE
Gymnocladus dioica

This species is called 'coffee-tree' because historically, its seeds would sometimes be roasted for use as a coffee substitute. The seeds are inedible (and in fact toxic) before roasting, as are the pods in which the seeds are located. Its leaves are finely divided – each leaflet on a single compound leaf is itself divided into multiple sub-leaflets, so what looks like a whole branch covered in leaves can really just be one very large leaf. When the leaves first emerge in the spring, they can be pink- or bronze-tinted, becoming blue-green and then yellow in autumn. The bark on older parts of the tree has scaly, curved ridges. This species of tree has separate male and female individuals. Any given tree will produce either male or female flowers, both of which are small, white, and star-shaped. Only females produce the 5 to 10 inch long, leathery brown seed pods. The tree featured in the arboretum is female, but there are also male trees on campus.



18. FOREST PANSY REDBUD
Cercis canadensis 'Forest Pansy'

The redbud tree is another early spring-blooming species. Clustered magenta buds open into flowers in March and April. While other varieties of redbud also have magenta flowers, the flowers of 'Forest Pansy' are particularly intense and vibrant. The heart-shaped leaves emerge soon after. The young leaves of this variety are reddish-purple and have a shimmery appearance, later fading to green or yellow. The bark can be very dark in color, and the trunk often features rust-colored patches where the outer layers of the bark have worn away.



19. BLUE ATLAS CEDAR
Cedrus atlantica 'Glauca'

There are several native plants in our region that bear the common name 'cedar', but none belong to the genus *Cedrus*, the true cedars. This plant is one such true cedar, a species originally native to Morocco and imported here as a decorative tree. The needles are generally between 0.75 and 1.5 inches, attached to the branch in distinct clusters. These needles have a distinct frosty blue-green color, particularly on the newest growth at the tips of each branch. As is the case for many conifers, this tree produces both male and female



cones. Male cones are two to three inches long, and almost finger-like, releasing clouds of yellow pollen in September. Female cones found on the same tree are egg-shaped, initially blue-green and aging to a rich brown color. Female cones are only found on older trees, and each cone takes two years to mature and release seeds.

20. WEeping EUROPEAN WHITE BIRCH
Betula pendula 'Youngii'

A striking characteristic of the white birch is its white bark, which develops at a young age. The bark is dotted with dark horizontal lines called lenticels. Lenticels are openings in the bark that allow air to circulate to the inner tissues of the tree. The leaves of this species are one to three inches long and diamond-shaped, initially dark green and becoming yellow in autumn. This cultivated variety tends to have a 'weeping' appearance, with branches drooping toward the ground rather than growing horizontally or upward. Under stressful conditions (like extreme heat or drought), this species can be susceptible to an insect called the bronze birch borer, the larvae of which chew through bark to access the nutrients in the plant's vascular system.



21. WEeping NORWAY SPRUCE
Picea abies 'Pendula'

The leaves of spruce trees are needles, attached individually to the twig, rather than in bundles as in pines. Spruce needles are square – if you roll one between your fingers, you can feel that it has four distinct sides. Each needle is attached to the twig by a short woody peg. This peg stays on the twig when the needle falls off, leaving older branches with a rough and bumpy texture. Norway spruce is a species native to Europe, but widely planted elsewhere both as a decorative tree and for its wood. The Norway spruce has dark green needles, and cones that are initially purple, aging to light brown. Like several other species in the arboretum, this is a 'Pendula' or 'weeping' variety – its branches hang downwards.



22. OHIO BUCKEYE
Aesculus glabra

The buckeye is named for its shiny brown seeds, which are known as buckeyes, and found within prickly capsules that open when they dry to release the seeds. The tree has compound leaves, composed of five to seven leaflets between three and six inches long. The foliage is dark green in spring and summer, and may become pumpkin-orange in the fall. It produces greenish-yellow flowers in May, which are found in branching clusters called panicles at the ends of branches.

23. PAPERBARK MAPLE
Acer griseum

This is a relatively uncommon maple species, originating from China and occasionally planted here as an ornamental species. As is hinted by the name, the bark is the distinguishing feature of this tree, peeling in rich cinnamon or reddish-brown sheets. Its leaves are dark bluish-green with three distinct leaflets, often turning red in the fall.



24. GINKGO
Ginkgo biloba

The species *Ginkgo biloba* has existed, largely unchanged, for millions of years. Fossil ginkgo leaves can be dated to the Mesozoic era (a span of time between 252 and 66 million years ago). The ginkgo phylum contained many species in that era, but is now reduced to this single species. Ginkgo trees were historically cultivated in Chinese temples, which likely saved this species from extinction. Ginkgo is now widely planted as an ornamental tree. The leaves are bright green and fan-shaped, often with two distinct lobes (hence the name *biloba*), and turn bright yellow in the fall. In the first hard frost of the autumn or winter, the ginkgo generally drops all its leaves within a single day. The species has separate male and female trees, and it often takes 20 years or more before a tree is mature and will develop flowers. Female trees produce seeds, which are contained in a fleshy, orangish, fruit-like coating (although it is not a true fruit). When this outer flesh begins to decompose, the seed gives off an odor like rancid butter. The ginkgo in front of Dansbury Commons on the ESU campus is one such female tree.

25. JAPANESE WHITE PINE

Pinus parviflora

This slow-growing conifer has wide-spreading branches, bearing blue-green needles that occur in bundles of five. This species produces many cones even when young, whereas many conifers do not produce cones until they are mature. The cones are between 1.5 and 4 inches long, bearing thick, waxy scales that are initially green and become brownish-red with age.



26. AMERICAN SWEETGUM

Liquidambar styraciflua

Sweetgum has distinctive star-shaped leaves, with five to seven lobes. Dark green in spring and summer, these leaves produce a variety of colors in the autumn – yellow, orange, red, and purple. The fruit is a hard, spike-covered ball, which dries and opens to release the seeds. While native to the United States, the species is sometimes considered to behave like an invasive, due to its high reproductive success and ability to spread to new locations.

27. KATSURA

Cercidiphyllum japonicum

The katsura has wide, heart-shaped leaves, with toothed edges. The young leaves appear bronze or purple, fading to green, and then becoming yellow or apricot in the fall. The autumn leaves, before they fall from the tree, may give off a spicy odor reminiscent of burned sugar or cotton candy. Male and female flowers are produced on separate trees in this species. The tree featured in the arboretum is male, but there are also female katsura trees nearby. The flowers are reddish-purple, and appear on the tree in March and April, before the leaves emerge. Fruits (found only on the females) are brownish, banana-shaped pods, which contain small, winged brown seeds.



28. FLOWERING PLUM

Prunus cerasifera

The genus *Prunus* contains many fruit-producing trees, including plums, apricots, cherries, peaches, nectarines, and almonds. This species is planted for its attractive white flowers rather than its fruit, bearing the characteristic five-petaled flowers of all species in this group. The flowers are generally produced in April before the emergence of its reddish-purple leaves.

29. WEEPING ALASKAN CEDAR

Chamaecyparis nootkatensis
'Pendula'

The weeping Alaskan cedar, like any cultivated variety named 'Pendula', has a growth form with drooping branches. Small branchlets are quite flattened in appearance, and hang downward off the main branches. The leaves are very small and scale-like, grayish-green to blue-green in color. The cones are under an inch long, quite round, and covered in four to six scales.



30. HERITAGE RIVER BIRCH

Betula nigra 'Heritage'

River birches are so named because these native trees are often found in moist soils along waterways. The 'Heritage' cultivar has larger leaves than the wild species, and is more generally suited for ornamental planting – fast-growing and vigorous. This tree has salmon-colored bark that peels to reveal a white inner layer. Peeling is particularly prominent in the early years of growth (two to five years of age).





31. JAPANESE TREE LILAC
Syringa reticulata

This lilac can grow as a large shrub or a small tree. The bark is a shiny brown color, with horizontal white lines called lenticels, similar in appearance to the bark of cherry trees. Like other lilacs, this plant is primarily planted for its flowers. The flowers on the Japanese tree lilac are white, found in large branching clusters that are six to twelve inches long and about the same in width.



34. JAPANESE SNOWBELL
Styrax japonicas

The Japanese snowbell is a small tree that produces white, bell-shaped flowers in May and June. The five-petaled flowers, which are slightly fragrant, hang at the end of long stalks in clusters of three to six. The bark is gray, and quite smooth.

32. SOURWOOD
Oxydendrum arboreum

Sourwood has strongly fragrant flowers in June and July. These are small (about a quarter-inch long), white, and urn-shaped. After flowering it produces small brown fruits that open to release the seeds after they dry out. The bark can vary in color from olive-green to red on the young stems, and breaks up into a blocky pattern on older trunks. The leaves are iridescent green in the spring, dark green in summer, and can be yellow, red, or maroon in the fall.



35. DAWN REDWOOD
Metasequoia glyptostroboides

The genus *Metasequoia* was first known only from fossils found in 1941, but living dawn redwoods were discovered by a Chinese botanist in 1944, probably saving the species from extinction. The tree looks quite feathery from a distance, due to the arrangement of its short, bright green needles on small branchlets. Young trees have reddish-brown bark, while older trees have dark, fissured bark that peels from the trunk in narrow strips. The trunk will also develop buttresses in maturity – wide, above-ground roots that act as support. Unusually for a coniferous species, this tree is deciduous; the needles turn orange or red in autumn before falling from the tree.



33. CHINESE CHESTNUT
Castanea mollissima

Chinese chestnut is a true chestnut (of the genus *Castanea*), unlike the horse-chestnut (Arboretum Species #9), which is of the genus *Aesculus*. This tree is native to Asia, but introduced as an ornamental species in our region. It has a relatively short trunk, with major branches forming at quite a low point on the tree and spreading widely. The flowers are very small, growing along dangling branches known as catkins. The nuts, which are edible, are found in groups of two or three inside of a prickly fruit.

36. BLUE LIMBER PINE
Pinus flexilis 'Cesarini Blue'

The limber pine is so named for its branches and twigs, which are quite flexible. The 'Cesarini Blue' variety is a relatively small and compact tree, with powdery-blue foliage. Like all pines, its needles are attached to the twig in bundled groups. In this species, there are five needles in each bundle.





37. SWEETBAY MAGNOLIA
Magnolia virginiana

The flowers of the sweetbay magnolia are creamy white, cup-shaped, and fragrant. The dark green leaves are silvery on their undersides, and the bark is also a silver-gray color. While the leaves of this tree are deciduous in our region (falling each autumn), the plant is evergreen in more southern areas, continually producing new leaves rather than losing and regenerating them seasonally.

38. BUTTERNUT
Juglans cinerea

The butternut is a species of walnut native to the northeastern United States. The bark of this tree was historically used for various medicinal purposes, including treatment of various stomach illnesses, as well as treating dysentery and preventing smallpox. The species is vulnerable to a fungal disease called butternut canker, which has killed the vast majority of butternut trees in some regions.



39. BRISTLECONE PINE
Pinus longaeva

The bristlecone pine is one of the longest-living species on Earth – the oldest known individual is over five thousand years old. The tree is quite small, even when mature, generally limited to under twenty feet in height. As in all pines, the needles are attached to the twig in bundles; in this species, each bundle contains five needles.

40. VARIEGATED AMERICAN SWEETGUM
Liquidambar styraciflua 'Variegata'

Similar to its parent species (see #26) in most respects, this cultivar is named 'Variegata' due to the appearance of its leaves, which have yellow streaks in spring and summer instead of a uniformly green appearance. Like other American Sweetgums, its leaves can turn many colors in autumn – yellow, orange, red, or purple.



41. JACQUEMONTII HIMALAYAN BIRCH
Betula utilis var. jacquemontii

Native to the Himalayas, this species is planted for its attractive bark, which is milky-white and peels from the trunk in thin sheets. In spring, it produces tiny flowers attached in groups along stalks called catkins.



42. SERBIAN SPRUCE
Picea omorika

This spruce species is native to Serbia and Bosnia, but planted widely in Europe and North America as a desirable ornamental tree that can tolerate a variety of soil types. Serbian spruces have thin trunks, and their form is generally quite narrow due to the relatively short branches. The needles have two silver stripes on their lower surface. The cones hang downward from the tree, and are initially violet colored, turning a shiny brown as they mature.





43. FASTIGIATE ENGLISH OAK
Quercus robur 'Fastigiata'

As in the fastigiata hornbeam (#15), this cultivar of English oak is named for the pattern of its dense branches, which grow vertically with little horizontal spreading. English oak is native to Western Europe, but widely cultivated in temperate regions globally. This cultivar is somewhat smaller than the wild tree.



46. CHINESE ELM
Ulmus parvifolia

The distinguishing characteristic of the Chinese elm is its peeling bark, which can have gray, green, brown, and orange patches. The dark green leaves are quite thick and leathery. Unlike our native elm species, the Chinese elm appears to be highly resistant to elm-specific pests like Dutch elm disease and the elm leaf beetle.



44. AMERICAN YELLOWWOOD
Cladrastis kentukea

American yellowwood is native to the southeastern United States. Like many beech trees, its bark is grey and quite smooth. When the leaves of this tree first emerge from their buds in the spring, they are covered in silky hairs, giving the tree a grayish appearance. As the leaves age, they change color to a rich pea-green, and then yellow or golden brown in autumn. The white flowers occur in dangling, branching clusters in May and June, and have a strong fragrance.

47. TRICOLOR EUROPEAN BEECH
Fagus sylvatica 'Tricolor'

The 'Tricolor' variety of the European beech (see also #13, #14, #45, and #48) features purple leaves with a pinkish-white border around the edges. Like other beeches, the bark is smooth and gray, reminiscent of an elephant's hide. Unlike some of the other European beech cultivars, the edges of the leaves in this variety are smooth or 'entire', without any teeth.



45. ROHANII EUROPEAN BEECH
Fagus sylvatica 'Rohanii'

Another variety of the European beech (see #13, #14, #47, and #48), the 'Rohanii' cultivar has deep red or purple leaves, sometimes with hints of green and brown. The edges of the leaves are deeply jagged into large triangular teeth, each of which may also bear finer serrations. The veins and the stalk of each leaf are bright red. This is in contrast to the wild form of European beech, whose leaves do not have such pronounced teeth, and are medium green in color.



48. WEEPING EUROPEAN BEECH
Fagus sylvatica 'Pendula'

The 'Pendula' cultivar of European beech, like the other 'Pendula' cultivars in the arboretum, is named for its drooping branches. Like in the 'Tricolor' European beech (#47), the leaves of this tree have no teeth along the edges, in contrast to some other varieties of this species. Other cultivars of this species can be seen throughout the arboretum (#13, #14, #45, and #47).

SPECIAL THANKS

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Mapping References

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