

TREE GUIDE TO ST. ANDREW'S CAMPUS

A

SELF-GUIDED WALKING TOUR

PLANT BIOLOGY CLASS:

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1) SCARLET OAK, *Quercus coccinea*

The scarlet oak is best known for its scarlet red leaves in the autumn which are very impressive and beautiful. The leaves are deeply lobed with no hair, or only tufts of hair in the angles of the veins beneath the leaves. Unlike the pin oak, the end buds are hairy, and blunt. The acorn cup is bowl shaped, 1/4" deep and 5/8" to 7/8" in diameter.

2) WILLOW OAK, *Quercus phellos*

The willow oak is a tall tree with narrow, bristle tipped leaves, 2-5" long, hairless, with a silky-white underside. Not the characteristic lobed leaf of the other oaks. The acorn cups are very shallow, 3/8" to 1/2" long.

3) WHITE ASH, *Fraxinus americana*

The white ash, the largest of the ash trees, is particularly valuable for its flexible, lightweight, strong wood. Its general tree shape, in contrast to other types of ash, has branches closer to the ground, and more outstretched.

4) AMERICAN HOLLY, *Ilex opaca*

State tree of Delaware! Its leaves are thick, green and shiny, equipped with numerous spines and fall from the tree in the spring. It flowers in May and June with small green/white flowers. The fruit is scarlet, not glossy, occasionally bright yellow. The berries persist through the winter. Used for Yuletide decoration, the supplying of which in its heyday was an important industry to the people of Delaware.

5) EASTERN HEMLOCK, *Tsuga canadensis*

Also known as the Canadian spruce and white hemlock. The leaves are spirally arranged about the twig, and are green and glossy. It produces a small cone which takes about one year to mature. The hemlock was important forty years ago when its bark was used in the process of tanning leathers. Note - the hemlock used as a poison by the ancients is an unrelated herb.

6) SWEET BAY MAGNOLIA, *Magnolia virginiana*

The Sweet Bay Magnolia, also called the Swamp Magnolia, is a medium sized tree whose size diminishes the further north it lives. It is an evergreen in southern states. Its leaves are thick and leathery and exude a spicy fragrance when crushed. From late spring to midsummer the tree produces large, fragrant blossoms, which later develop into ornamental red-seeded fruit pods.



7) SCOTCH PINE, Pinus sylvestris

In Europe, this tree is regarded as one of the best timber and reforestation trees because of its rapid growth, liberal soil demands, and the good quality timber it produces. Pines can be distinguished from each other by their needles. The Scots pine's are in clusters of two, stiff, twisted, blue-green and 2 to 3 inches long. Note-Delaware's oldest planting of the species was established in 1910 near St. Anne's Church, Middletown.

8) GINKGO, Ginkgo biloba

This tree is native to the orient. The leaves are light green and fan shaped. The male and female flowers are borne on separate trees with a plum-like fruit which is very foul smelling. The planting of female trees is highly discouraged because of the butyric odor they produce. This is a very interesting tree because it is extremely primitive, and is actually more closely related the the cone bearing trees than other deciduous trees.

9) SWEET CHESTNUT, Castanea sativa

Also called the Spanish Chestnut, this tree is not native to the U.S.. The trees at St. Andrew's are not as large as the species can get. The trees produce fruits (nuts) which are in very spiny cases, and some people collect to eat, but are not all that good. The leaves are 3"-4" inches long and with little spikes on the outside edge; very distinct from the palmately compound horse chestnut leaves.

10) SWEET GUM, Liquidambar styraciflua

The sweet gum leaves's resemble a maple's in their lobed nature, with toothed jagged edges . A significant difference that will distinguish the sweet gum from the maple is that the sweet gum's leaves are arranged on the branch alternately, and the maple's are opposite. The leaves turn purple, deep red, and orange in autumn. An important identifying characteristic of the sweet gum is it's fruit, a hard, brown spiked sphere 1" to 3/2" in diameter.

11) TULIP TREE, Liliodendron tulipifera

This tree is characterized by a very tall straight trunk. Its height is about 150-190 ft in the wild. The flowers bloom in May and June and stand upright on the ends of branches; their appearance is similar to the tulip flower. The leaves of the tulip tree have four lobes and turn orange and yellow in autumn.

12) RED MAPLE, *Acer rubrum*

This maple is found in Eastern America and Europe, and found primarily in swampy areas. It is grown for its beauty in autumn, and is a popular wood in furniture manufacturing. Open in March the flowers, male and female, are found on different trees. The leaves are similar to the silver maple's, but not deeply lobed.

13) WEeping WILLOW, *Salix bablyonia*

Native to China, the weeping willow is characterized by its drooping branches and thin simple leaves. Like the red maple, the weeping willow is usually found in swampy areas. Its catkins bloom in the middle of May. The males are yellow, and the females are green, both about 3-6" long.

14) WHITE OAK, *Quercus alba*

This tree is different from the other oak trees that we have noted on campus. This tree is a member of the white oak group, the major difference being its rounded leaves, compared to the pointed lobes on the others. The pointy acorns are also very different, and are 3/4" to 1" long. This species of oak is also a fairly tall tree.

15) WISTERIA, *Wisteria frutescens*

The wisteria is a highclimbing perennial vine with lovely green foliage. The various species of wisteria are very similar except for their blossoms. This particular species has lavender flowers that hang like a cluster of grapes. It is interesting to note that the wisteria vines are the only vines to climb by entwining their stems.

16) SILVER MAPLE, *Acer saccharinum*

The silver maple is native to Eastern North America. The leaves are very characteristic, with deep, jagged lobes, very delicate in appearance. Their underside is silvery, and in autumn the leaves turn yellow or red. The bark is typically grey and smooth, and usually covered with shoots and suckers.

17) BLUE COLORADO SPRUCE, *Picea pungens*

This silver-blue foliaged spruce is commonly used as an ornamental. The leaves are rigid, needle pointed, and 4 angled. This handsome specimen on St. Andrew's front lawn has been decorated with Christmas tree lights in a dramatic display.

18) SIBERIAN CRAB APPLE, *Fyrus baccata*

Distiguishable from other crab-apples because of its unusually small fruit, the siberian crab apple is a small tree with smooth bark, and pointed leaves. Because of its convenient size and attractive shape, the crab apple is a popular ornamental tree.



19) SYCAMORE, *Platanus acerifolia*

Also known as the London Plane, this is a tall tree, with a very fine grained wood. Its flowers bloom in May, males and females in separate groups. The leaves can get very large, with 3 lobes and teeth. They turn yellow and orange in the fall. The bark is very characteristic of the sycamore tree, it flakes off in large pieces, leaving a mottled appearance, with lighter bark showing below. The fruits are about 1 inch across, and when mature, they break up like dandelion fluff.

20) PIN OAK, *Quercus palustris*

A dominant characteristic of the pin oak is that its upper branches are ascending and the lower branches drooping, in an arrowhead fashion. Other characteristics are the small, sharp buds, and the "hairless" twigs. The acorn cup is like a saucercup, and only 3/8"-5/8" in diameter. The leaf is similar in shape to that of the scarlet oak, but with less regular lobes.

21) COMMON BEECH, *Fagus sylvatica*

Also known as the European Beech, this is a handsome, stout tree, with low spreading branches. The fruit is ripe in the early fall, with a spiny husk that splits into four pieces, releasing the two triangular "beechnuts" which are edible and a source of oil. The bark is grey and very smooth; it is very inviting to graffiti artists and the lovesick.

22) MOCKERNUT HICKORY, *Carya tomentosa*

The deciduous Mockernut Hickory, with its deeply furrowed bark, and compound leaves, produces a thick-husked, edible fruit. The size, shape, and number of leaflets are important distinctions between the different species of Hickory. One peculiarity of the Mockernut Hickory is that its leaves are particularly fragrant when crushed.

23) BLACK OAK, *Quercus velutina*

This is a very large, stout tree. The leaves are broad and moderately lobed, usually hairy underneath, somewhat thickened, and glossy above. The acorn cup is bowl shaped, and gray, the edge rough with fringe-like scales.

24) FLOWERING DOGWOOD, *Cornus florida*

The flowering Dogwood is a small, deciduous tree which produces a cluster of small white flowers, surrounded by 4 white or pink modified leaves that we all consider the dogwood's petals. The dogwood's close grained, hard wood is used for handles, mallets etc. Its red berries, though inedible to humans, constitute much of the diet of birds, skunks, deer and other animals.

