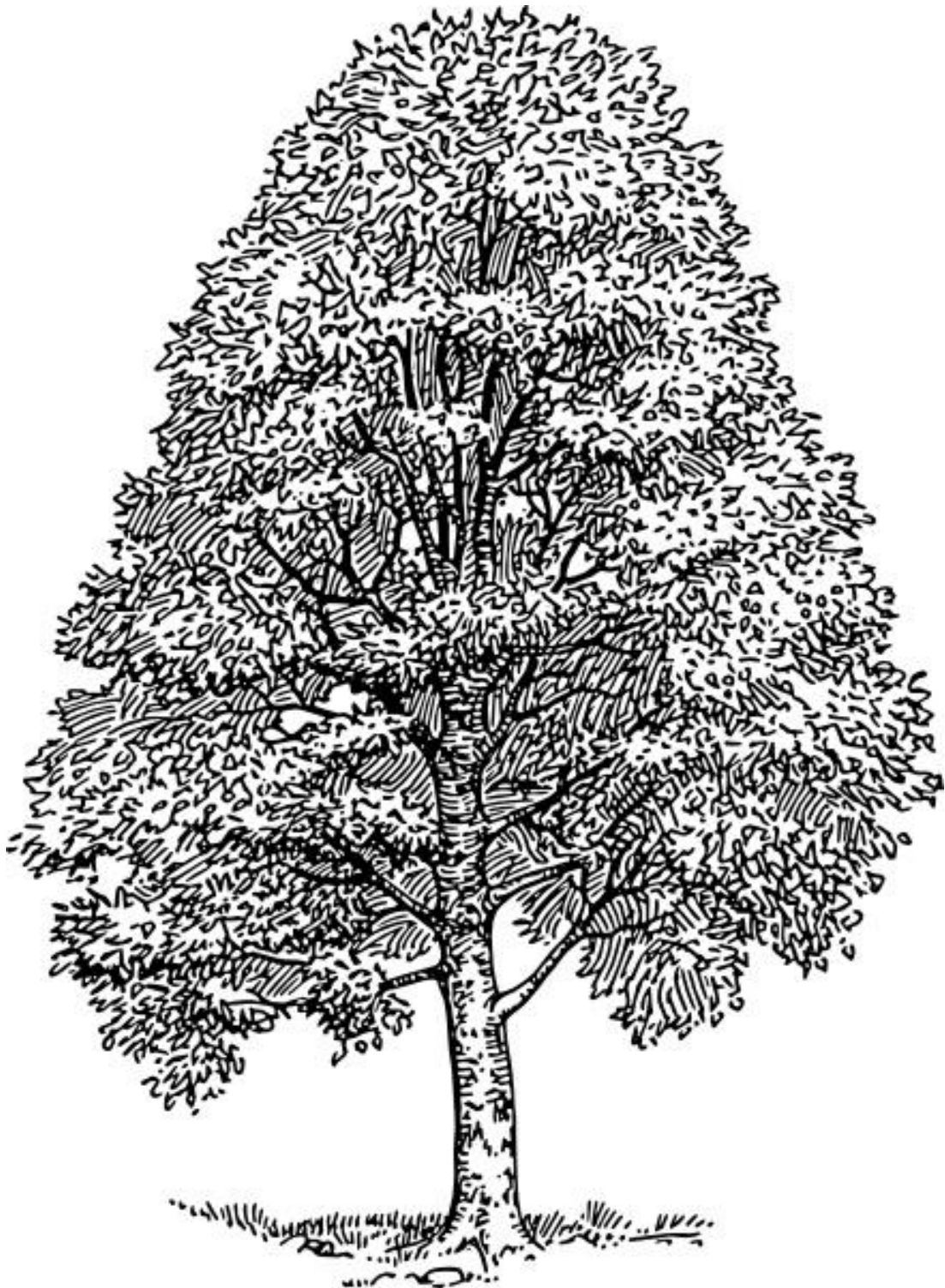


*The Anita C. Leight Estuary Center  
Otter Point Creek Component  
Chesapeake Bay National Estuarine Research Reserve - MD  
Harford County Department of Parks & Recreation*



**Tree Trail  
Guide Book  
2021**



**Murphy Robinson, John Carroll 2021**



**Steven Mack, Troop 973**

# Anita C. Leight Estuary Center Tree Trail



Chesapeake Bay



**National Estuarine  
Research Reserve  
Maryland**

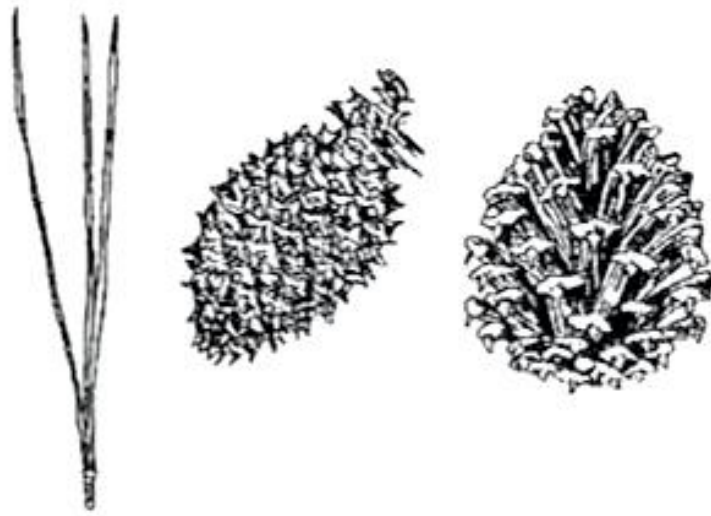


**Otter Point**  
CREEK ALLIANCE

*at the Anita C. Leight Estuary Center*



#1

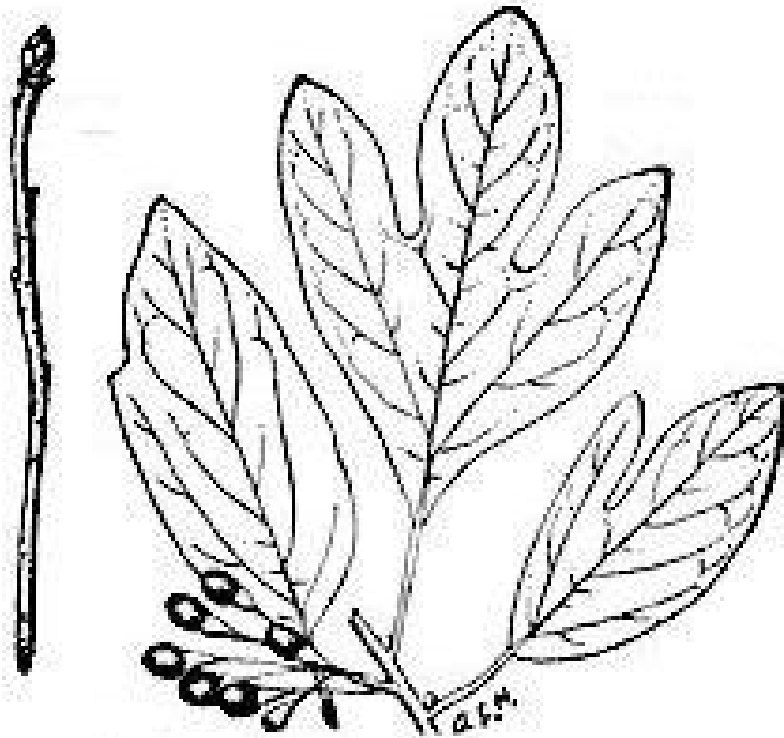


# Pitch Pine

*Pinus rigida*

- Leaves:** Evergreen needles in clusters of 3, stiff, 2½" - 5" long, yellowish green.
- Twigs:** Stout, brittle, rough, angled in cross-section, golden-brown. Buds egg-shaped, about ½" long, resinous, red-brown.
- Fruit:** Cones 1½"-3½" long with short, stiff prickles, nearly stalkless, often remains attached for 5 years or more after ripening. Many remain unopened until being heated by passing forest fire.
- Bark:** Green and smooth on young branches, thick, rough, grayish brown on older trunks.
- General:** Pitch Pine is a medium sized tree, 40'-50' high. It is commonly found on poor, sandy soils and areas where forest fires have killed most other trees. Its wood has a high resin content, and is used for railroad ties, construction lumber, pulpwood and fuel. Pitch Pine seeds are important to nuthatches, Pine grosbeak and Black-capped chickadee. Deer and rabbit browse the seedlings.

#2

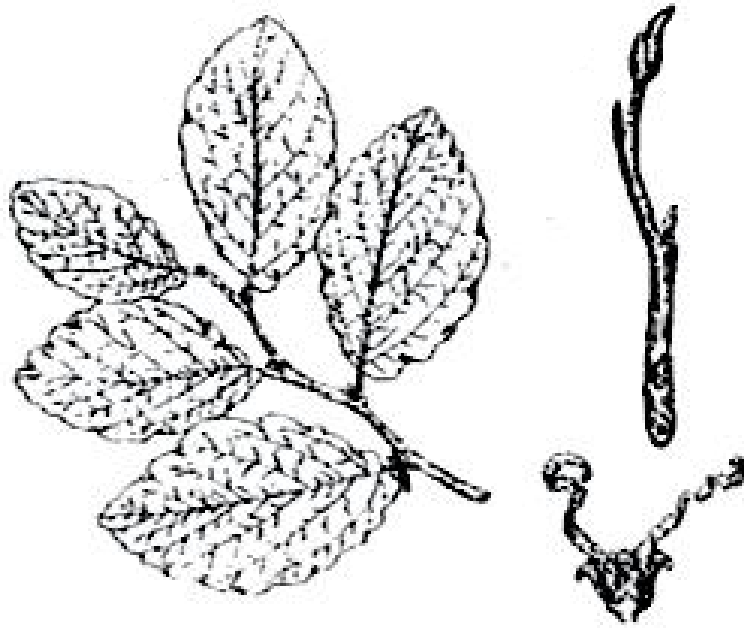


# Sassafras

*Sassafras albidum*

- Leaves:** Alternate, simple, leaves may be unlobed, 2-lobed (resemble a mitten), or 3-lobed (resemble a trident), and all three shapes may be present on the same branch, deciduous, green above and below and fragrant when crushed, 3-6 inches
- Twigs:** Slender, green and sometimes pubescent, with a spicy-sweet aroma when broken
- Fruit:** Dark shiny blue, ovoid, fleshy drupes (1/3 inch long) that are borne in a red cup attached to a red stalk, held upright, maturing late summer
- Bark:** Brown, with cinnamon-brown inner bark, becoming coarsely ridged and furrowed; when cut the spicy aroma is obvious
- General:** Children often call this a Mitten Tree, and the 3-lobed leaf a dinosaur track. Spreads by root suckers to form large colonies in the wild. May grow to 60 ft. Host plant for the caterpillar of the promethea silkmoth and the spicebush swallowtail. In Native American culture, sassafras oils were freely used as medicine. Culinary uses have included sassafras tea (bark), root beer flavoring (root oil) and a gumbo-thickening agent called filé (stem pith). During a brief period in the early 1600's, sassafras was the second-largest export from the British colonies in North America behind tobacco. The bark had large concentrations of the aromatic safrole oil and could only be harvested once, causing the tree to die, contributing to the quick reduction in commercially viable quantities of the oil.

#3



## Witch Hazel

*Hamamelis virginiana*

- Leaves:** The leaves and twigs are typically hairless but rarely hairy and leathery. They are oval and simple, and roughly 4"-6" long. The veins are prominent on the leaf, and the color varies from a dark green on one side of the leaf to a paler green underneath.
- Twigs:** Zigzag, light-brown with small light green pith, rather slender, often downy or scaly especially near the end, but sometimes smooth and shiny, with a few scattered, white lenticels., red-brown.
- Fruit:** A yellowish-brown woody pod holding two shiny black seeds, ripens in October and November of the year following fertilization, at the same time as the current year's blossoms appear. Flowers with bright yellow strap-shaped petals. Ripe pods burst open throwing the seed five feet or more.
- Bark:** Light brown somewhat mottled, when young smooth, later scaly. Inner bark reddish purple.
- General:** A small tree or large shrub, to 25' high, tolerant of shade. Found in moist, rocky locations throughout the state, occasionally ascending slopes to rather dry sites. A medicinal extract is distilled from the bark, and can still be found on your local pharmacist's shelf today.



#4



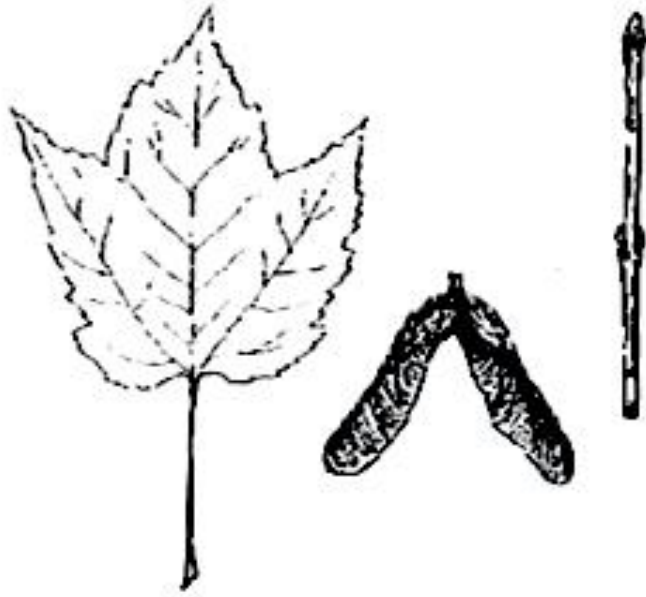
## Black Gum

*Nyssa sylvatica*

- Leaves:** Alternate, simple, 2"-5" long, oval with entire and slightly thickened margins, dark green and shiny above, often downy beneath, turning vivid red in early autumn.
- Twigs:** Smooth grayish to reddish brown, pith white and chambered, buds round, pointed and reddish brown, ¼" long.
- Fruit:** A dark blue berry, 1/3–2/3" long, 1-seeded with thin flesh, borne singly or 2-3 in a cluster, ripening in autumn.
- Bark:** Grayish, smooth to scaly, darker gray, thick and fissured into quadrangular blocks forming what is called "alligator bark" on very old trunks.
- General:** Also called Black Tupelo, this is usually a medium sized tree to 40' in height on dry slopes and ridge tops, but it can reach 100' and 5' in diameter in moist areas along streams. The wood is difficult to split and is used for boxes, fuel and railroad ties. The fruits, twigs and foliage provide food for many birds and animals. The brilliant red autumn color and abundant blue fruit make this species an interesting ornamental planting.



#5

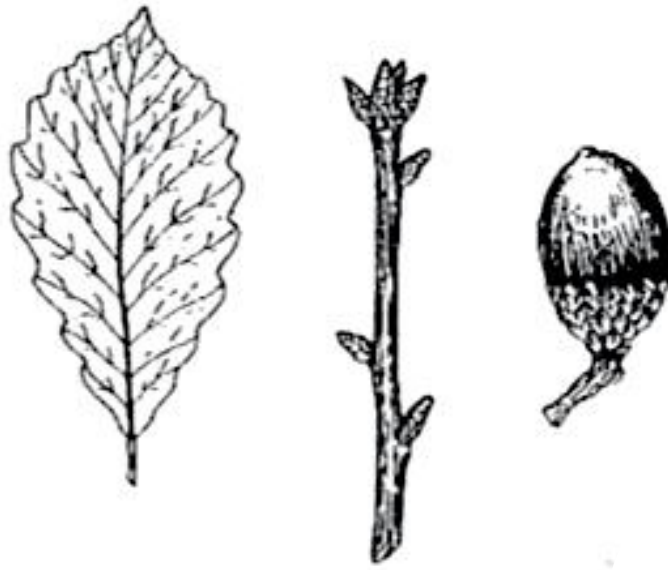


# Red Maple

*Acer rubrum*

- Leaves:** Opposite, simple, with 3-5 shallow lobes, coarsely toothed, light green above, pale green to whitish beneath, turning brilliant red or orange in autumn.
- Twigs:** Slender, glossy, at first green, later red.
- Fruit:** Wings usually less than 1" long, spreading at a narrow angle, red to brown, maturing in May or June.
- Bark:** Smooth and light gray on young trunks and branches, older trunks darker, shaggy and roughened with long, irregular peeling flakes.
- General:** Found throughout Maryland in a wide variety of habitats, typically reaching 50' high, it grows best in wet soils, sometimes over 100'. Also known as Soft Maple because its wood is not as hard as Sugar Maple, this is an excellent ornamental tree. Young trees are heavily browsed by deer and rabbits; rodents consume the seeds.

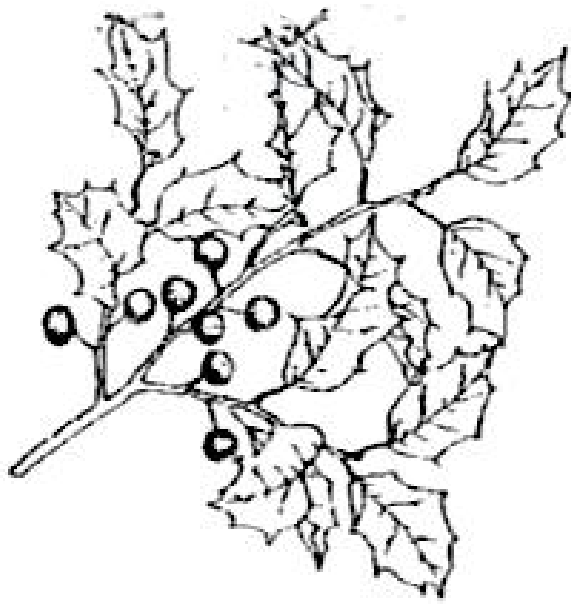
#6



## Chestnut Oak

*Quercus prinus*

- Leaves:** Alternate; simple, 5"-9" long, to 3" wide; with course, rounded teeth. Dark green and smooth above, paler and occasionally downy beneath.
- Twigs:** Smooth, orange-brown to reddish-brown. Buds light brown, sharp pointed, edges of scales hairy, ¼ to ½" long.
- Fruit:** An acorn, 1 to 1½" long; rich dark brown, shiny. Cup thin, hairy inside, enclosing 1/3-1/2 of the nut; cup scales knobby. Fruit ripens in one growing season with kernels moderately sweet.
- Bark:** Grey and smooth on young trees, later brownish gray to dark gray, thick, tough, deep-fissured.
- General:** Also called Rock Oak and Basket Oak, this tree grows to 80' on dry slopes and ridgetops. Large crops of acorns produced every 4-7 years are important food for deer, bear, turkey and many other birds and animals. The bark is very rich in tannin and the wood heavy and strong. It is used for furniture, flooring, millwork, and railroad ties.



#7

# American Holly

*Ilex opaca*

- Leaves:** Alternate, simple, and persistent, thickened and leathery, elliptical in shape, 2 to 4 inches long, dark green and shiny above, pale green below with entire or spiney-toothed margins.
- Twigs:** Slender with rust-colored pubescence.
- Fruit:** A berrylike drupe, red, rarely yellow when ripe, 1/4 inch in diameter, containing ribbed nutlets. Maturing September to October, persisting on tree into winter.
- Bark:** Light gray, with prominent warts.
- Flower:** Dull green-white, male flowers on 3 to 7 flowered cymes, female flowers are solitary with a pleasant odor. Flowers apparent April to June.
- General:** A small tree, with a thick crown and pyramidal form, usually with branches to the ground. This particular tree is also known as Delaware's state tree.

#8

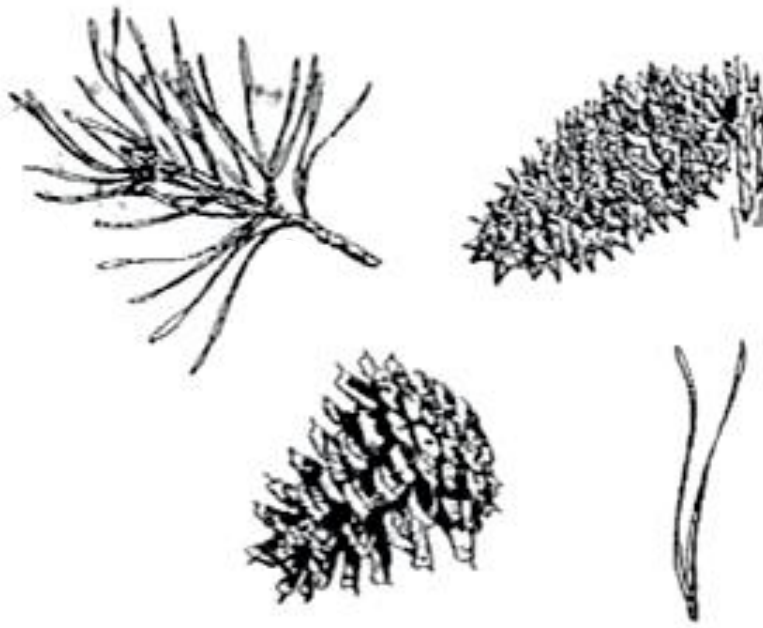


# Scarlet Oak

*Quercus coccinea*

- Leaves:** Alternate, simple, 3"-6" long, with 7-9 narrow, bristle-tipped lobes, sinuses between the lobes go almost to the mid-rib. Shiny bright green above, paler and smooth beneath except for small tufts of hair in vein axils; named for its scarlet autumn color.
- Twigs:** Reddish brown, smooth when mature. Buds blunt pointed, to 1/4" long, upper half wooly.
- Fruit:** An acorn, to 1" long, oval, light brown; kernel white and bitter, ripening over two growing seasons. Cup bowl-like, covering 1/2" of the nut; cup scales sharp pointed, smooth and tight.
- Bark:** Smooth and light brown for many years, older trunks are ridged, darker; inner bark reddish.
- General:** A medium to large sized tree to 75', of dry upland sites and many parks and streets. Drooping dead lower branches persist on the tree for many years. The acorns are important food for many mammals and larger birds. Fungus often infects Scarlet Oaks.

#9



# Virginia Pine

*Pinus virginiana*

- Leaves:** Evergreen needles in clusters of 2, twisted, stout, relatively short 1½"-3" long.
- Twigs:** Slender, curved, flexible, brown to purple with bluish white coating. Buds egg-shaped, usually less than ½" long, brown and resinous.
- Fruit:** Cone 2"-3" long, prickles small but sharp, edge of scales with darker bands, usually without a stalk, remains attached for 3 or 4 years.
- Bark:** Smooth, thin, reddish brown and scaly, shallowly fissured into small flat plates.
- General:** Also called Scrub pine, this small tree attains a height of 30'-40' on sandy or poor rocky soils of barrens and ridgetops. Virginia Pine is a southern species that reaches its northern limit in Pennsylvania. It is valuable as cover for worn-out farmlands and is harvested for pulpwood. The seeds are eaten by squirrels, songbirds and game birds.

#10



## Sweetgum

*Liquidambar styraciflua*

- Leaves:** The leaves are 3-6" long and wide. They are star shaped, with 5, sometimes 7, long-pointed saw tooth lobes and 5 main veins from the base. The leaves leave a resinous odor when crushed; the leafstalks are slender, nearly as long as bladed. They're dark green above and turn reddish in Autumn.
- Twigs:** Medium textured, shiny green to yellow-brown, usually with apparent corky outgrowths, particularly when fast growing. The terminal bud is large and is usually sticky, covered with orange-brown scales.
- Fruit:** Easy to identify "gumballs", woody brown spheres, 1 to 1 ½ inches in diameter with openings in the surface that release 2 seeds from each capsule. Maturing from September to November.
- Bark:** Gray-brown, irregular furrows and ridges.
- Flower:** Female borne on a slender stalk, capped with a globose head. Male flowers borne on an upright raceme. Both are small, green in color and not showy. Apparent March to May.
- General:** The Sweetgum is a large, aromatic tree with straight trunk and conical crown that becomes round and spreading. It generally thrives in most soils of valleys and lower slopes in mixed woodlands. The tree's Latin name, "Liquidambar", refers to the golden, sticky resin that the tree produces.

#11



# Sweetbay Magnolia

*Magnolia virginiana*

- Leaves:** Alternate, simple, narrow elliptical, entire margin, evergreen to semi-evergreen in the south, 3 to 5 inches long, shiny dark green above, silvery white below.
- Twigs:** Moderate, pale green, pubescent, stipule scars circle twig, buds are long (1/2 inch) with fuzzy, silvery gray scales that curl at their ends.
- Fruit:** Cone-like cluster of follicles, 2 inches long, pink to red ripening to reddish-brown; bright scarlet-red seeds, ripen in late summer.
- Bark:** Smooth, reddish-brown to gray, often mottled.
- Flower:** Creamy white, 2 to 3 inches in diameter, 9 to 12 petals, mild lemony scent, appearing in May to June.
- General:** This tree has a narrow, rounded crown that sheds its leaves in winter. It is a small tree that is typically not over 20 feet in height. It is multi-stemmed and grows taller in southern areas such as South Florida. It generally thrives in wet soils of coastal swamps and borders of streams and ponds. . .





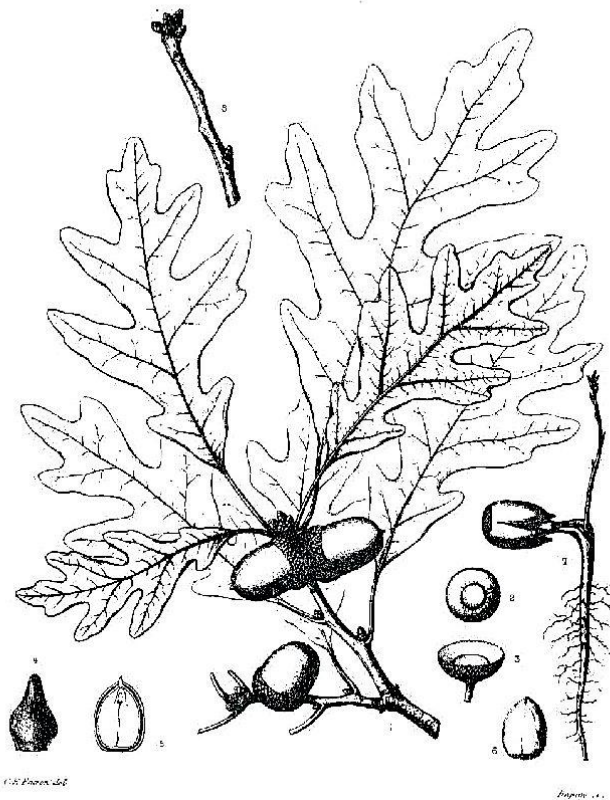
#12

## American Beech

*Fagus grandifolia*

- Leaves:** Alternate, simple, 3"-4" long, stiff leathery texture, with a tapered tip and sharply toothed margins, light green and glossy above, yellow green below.
- Twigs:** Slender, dark yellow to gray, at first hairy, later smooth, zigzag. Buds very long slender sharp-pointed, covered by 10-20 reddish-brown scales.
- Fruit:** A stalked, prickly 4-valved bur containing triangular, pale brown, shining nuts.
- Bark:** Smooth, light gray mottled with dark spots.
- General:** Found on moist rich soils throughout the state but more abundant in the north. An important timber species typically reaching 50'-60' high but can be higher. The beechnuts are very important food for wildlife including bears, squirrels, turkeys, and grouse. Beech is a handsome shade tree for large open areas in parks and golf courses.

#13



# White Oak

*Quercus alba*

- Leaves:** Alternate, simple, oblong, 4 to 7 inches long; 7 to 10 rounded, finger-like lobes, tip is rounded and the base is wedge-shaped, green to blue-green above and whitish below.
- Twigs:** Red-brown to somewhat gray, even a bit purple at times, hairless and often shiny; multiple terminal buds are red-brown, small, rounded and hairless
- Fruit:** Oblong acorn, cap is warty and bowl-shaped, covers 1/4 of the fruit; cap always detaches at maturity; matures in one growing season in the early fall.
- Bark:** Whitish or ashy gray, varying from scaly on smaller stems to shaggy plates or blocks on large trunks. On older trees smooth patches are not uncommon
- Flower:** Male and female flowers on the same tree; male flowers are yellow-green, look worm-like, 2 to 4 inches long; female flowers are reddish green and appear as very small single spikes; appearing with the leaves in mid-spring
- General:** White oak may live 200 to 300 years, with some even older specimens known. The Wye Oak in Wye Mills, Maryland was estimated to be over 450 years old when it finally fell in a thunderstorm in 2002. Can grow 100' tall. The acorns are excellent wildlife food to some birds, squirrels, and deer, and can be eaten by humans. Native Americans ground acorns into flour, a technique they shared with early European settlers. The wood is prized for barrels and flooring. Oak trees, in general, provide larval food for over 500 native species of butterflies and moths.



#14

# Mountain Laurel

*Kalmia latifolia*

- Leaves:** Alternate, simple, evergreen, shiny/waxy above, light green below, 2 to 5 inches long, elliptical in shape, mid vein raised on upper surfaces
- Twigs:** Generally forked and twisted, green when young, later brownish-red.
- Fruit:** A round, brown dehiscent capsule, 1/4 inch long, splitting into 5 valves when dry; releasing very small seeds. Maturing in September and October.
- Bark:** Thin, dark brown to red in color, shredding.
- Flower:** Very showy clusters, white to rose colored with purple markings, 1 inch across, with the petals forming a distinct firm bowl about the pistil and stamens. Present March to July.
- General:** Evergreen, many-stemmed, thicket-forming shrub or sometimes a small tree with short, crooked trunk; stout, spreading branches; a compact, rounded crown; and beautiful, large, pink flower clusters. An interesting fact is that the honey made by honeybees from this tree is poisonous to humans. This tree is a favorite meal of deer and the ruffed grouse, however it is not very popular to most animals for food consumption.



#15

## Pinxter Flower

*Rhododendron periclymenoides*

- Leaves:** Alternate (tightly clustered at twig tips appearing whorled), simple, deciduous, ovate, 1 to 3 inches long, dull green above and green below
- Twigs:** Very slender, red-brown to gray, bristly-hairy; buds are multiple terminal, pointed and yellow-green to red-brown, flower buds are much larger, 1/2 inch long.
- Fruit:** An oblong capsule, 1/4 to 1/2 inch long. The capsule splits when ripe, releasing the very tiny, somewhat winged seeds in late summer.
- Bark:** Gray to reddish-brown, becoming finely shreddy.
- Flower:** Male and female flowers on same plant; very showy, light pink to violet, 1 1/2 inches long and across, in large clusters appearing with or just before the leaves in mid-spring.
- General:** This is a deciduous shrub that is native to moist woods, swamp margins and open areas from Massachusetts to South Carolina and Tennessee. It typically grows 2-6' tall. Slightly fragrant, funnel-shaped flowers, each with 5 long curved stamens. This plant provides nectar for pollinators like bumble bees. Hummingbirds and swallowtail butterflies are attracted to the blooms. Rhododendrons contain poisonous substances and should not be ingested by humans or animals. Honey made from flowers also may be toxic. All parts of the plant are poisonous.

# **Please return this Guide Book to the Estuary Center for another guest to enjoy**



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Abingdon, MD  
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