



A Field Guide



To Wildlife

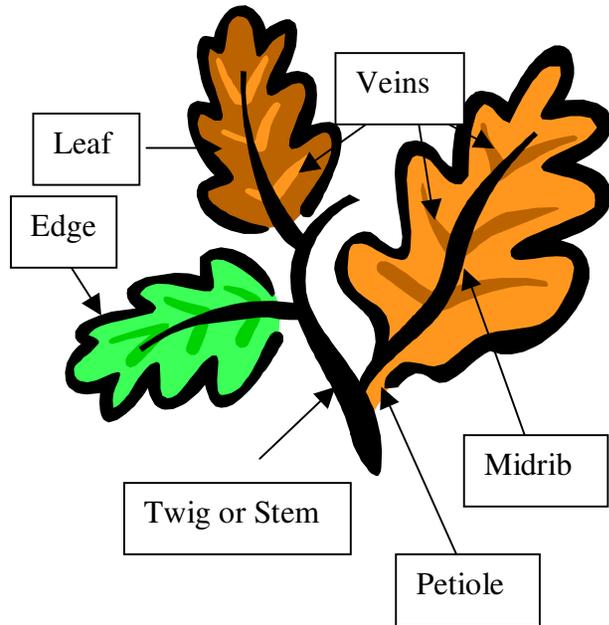


Kent A. Brusstar

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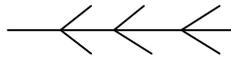
Broad Leaved Trees



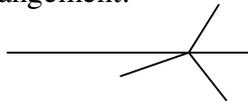
Alternate leaf arrangement:



Opposite leaf arrangement:



Whorled leaf arrangement:



1

American Beech

Fagus grandifolia

Beeches are easily identified by their smooth, gray bark, which too often is vandalized with carvings. The leaves have large, evenly spaced veins. Fruit, which are somewhat triangularly shaped, are often eaten by squirrels and other woodland mammals. Beeches are a long-lived, slow growing tree and are found in abundance in the park.



Catalpa

Catalpa bignonioides



The catalpa is the only tree in our area with whorled leaves. This means they may be in 3's around the stem. Leaves are large and heartshaped, sometimes with one or more large teeth.

2

Cherry

Prunus sp.

Noted for their beautiful wood and fruit eaten by numerous animals, cherries are a valuable member of the forest.



Several species of cherry are common in our area, including pin, or fire cherry, choke cherry, and most prominent, black cherry, seen here. The bark is smooth with many short horizontal marks. Leaves are oval with fine teeth.

Dogwood

Cornus florida



Though also called Flowering Dogwood, what many call flowers are not really flowers.

Dogwood flowers are very tiny and in clusters. The large “petals” are

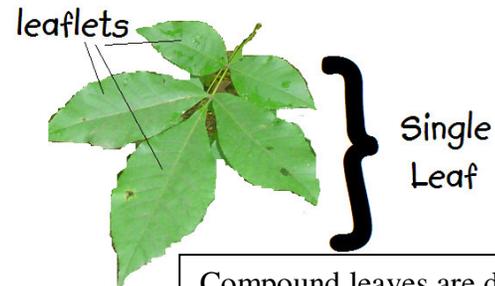
actually bracts, or special leaves that are found, in fours, around the flower cluster. Flowers form a spike-like crown after the bracts fall off, and eventually a cluster of small berries will appear. These are a favorite of many birds, deer, squirrels and other animals. Leaves have 5-6 veins which curve and point toward the tip of the leaf, making them an easy leaf to identify.

Hickories

Bitternut, Shagbark, Shellbark, Pignut

Carya sp.

There are several species of hickory found in our area. All are medium sized trees with compound leaves, usually having 5 or 7 leaflets. Wood of hickories is quite hard and durable, and often used for tool handles. Among the species found here are Shagbark hickory, shellbark hickory, and bitternut hickory.



Compound leaves are divided into parts called leaflets.

Maples

Maple trees are one of the easiest of all trees to identify. Their leaf shape is unmistakable. Also, the arrangement of those leaves is unusual for this area—they are among a very few trees with opposite-simple leaves. This means that the leaves are in pairs along the stem, opposite one another. Their fruits are the well known “helicopters” seen flying in mid to late summer.

Red Maple

Acer rubrum

This tree is found mostly in wet soil, around lakes, ponds, etc. The leaves have typical maple shape with palmate veins (like the palm of the hand). The leaf stem or petiole is often reddish.



Ashleaf Maple (Boxelder)

Acer negundo



While the shape of the leaves resembles those of the ash tree, this is definitely a maple. The leaves are unusual in that they are compound, usually with 3-5 leaflets. The fruit are the familiar

“helicopters” found in all of the maples. The leaves, when in 3’s, may closely resemble poison ivy.

Sugar Maple

Acer saccharum

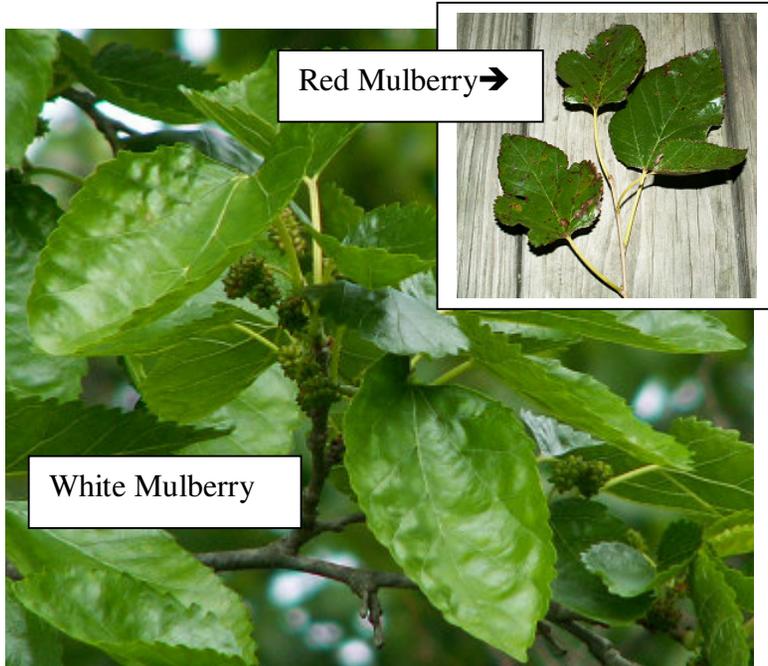
This is the classic tree, famous for it’s sap, from which maple syrup is made.



Mulberry

White Mulberry-*Morus alba*

Red Mulberry-*Morus rubra*



Two species of mulberry are found in our area. Both produce large numbers of berries, often eaten by birds and other animals. Leaves of both can be found with a wide variety of shapes, sometimes with several lobes, but mostly with rounded teeth. Leaves of the red species are rougher, almost like fine sandpaper. Red mulberries, the only native of our area, are by far the tastier. Originally an oriental tree, white mulberries are a favorite food of silkworm moths, and are not native to the U.S. They were introduced to America by the British in colonial times in a failed effort to establish a silk industry here.

Oaks

Northern Red Oak

Quercus rubra

The red oak is probably one of the more common deciduous (loses its leaves each fall) trees in our area. A valuable lumber tree, it is also a source of acorns used as food for many animals. Note the pointed lobes of leaves, making it different from the white oaks.



White Oak

Quercus alba

A valuable lumber tree, source of acorns used as food for many animals. Note the rounded lobes of leaves, different from many other oaks.



Sassafras

Sassafras albidum



This medium-sized tree is unique with three different shaped leaves on every plant: two lobed, three lobed, and oval. The roots were once boiled to make sassafras tea, and were one source of the natural flavoring used in root beer, however, recent research by the USDA shows it may cause cancer and is no longer a suitable flavoring.

Sweetgum

Liquidamber styraciflua



Easily identified by its star-shaped leaves and seed cases that resemble spiked balls. (see arrow) The seeds that fall out of these when dry are a favorite food of wild turkey, squirrels and other animals. The wood is used in furniture and for veneer.

Sourgum

aka Black Gum, Black Tupelo

Nyssa sylvatica

This tree has many names, depending on where it lives. It is a medium sized tree with oblong, pointed leaves, that taper to the base and with berries that are dark blue to black when ripe. They are eaten by many birds and mammals. They are reportedly a favorite treat of bears.



Spicebush

Lindera benzoin

The green, unripe berries of the spicebush are very similar in shape to those of the Sourgum, however, they are very different plants. The berries ripen to a red-orange color. The spicebush is a shrub, not a tree, growing in clumps of many branches. Leaves are oval. Also, crushing the leaves of the spicebush produces a strong, but pleasant spicy aroma. The plant is sometimes called Carolina Allspice, and at one time, berries were dried and used as spice.

Sumacs

Rhus sp.

Poison sumac gives a bad reputation to all of the others. However, poison sumac does not grow this far north, in fact, it is not found anywhere in Pennsylvania. Several species of sumac are found here though. All are considered

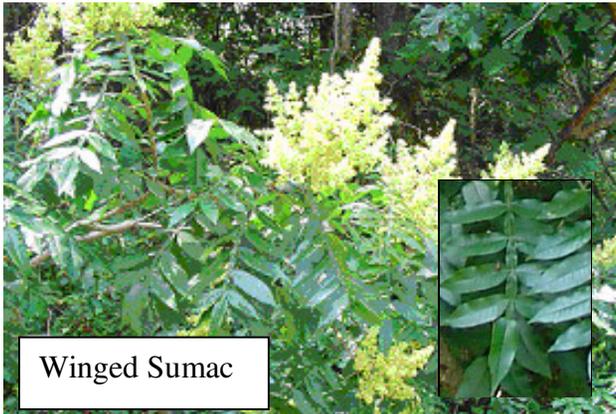


Staghorn Sumac

“weed trees” due to their rapid growth. A single tree can easily grow several feet in a season. They are generally found in any open, sunny, untended area. Sumacs are easily identified by their very large compound leaves,

often having 20 or more coarsely toothed leaflets. Staghorn sumac gets the name from the red, velvety flower clusters. (The velvet somewhat resembles the velvet antlers of young deer.) These flower clusters can be washed and soaked to

make a delicious tea that tastes like lemonade. Winged sumac has unusual leaves. Leaflets are



Winged Sumac

connected by a “wing” section on the midrib of the leaf. Winged sumac has yellow flower clusters.

Tulip Poplar

aka Yellow Poplar or Tuliptree

Liriodendron tulipifera

The tulip tree is the tallest species of tree found east of the Mississippi River. It is easily identified by its uniquely shaped leaves with nearly square lobes. The lumber of the tulip poplar is strong and light, but not very attractive, often being yellowish to purple. It is used inside of furniture as drawers or shelving, or laminated with a more attractive wood. The name “tuliptree” comes from the large showy yellow and orange flowers, which resemble tulips. Though a common tree, these flowers often go unnoticed since they are found in upper branches, perhaps nearly a hundred feet from the ground. Younger trees provide an opportunity to see these flowers. Though referred to as a poplar, the tuliptree is not a true poplar, and is more closely related to magnolias.



Tuliptree in spring

Black Walnut

Juglans nigra



Leaves of the black walnut tree are compound with as many as 15 or more leaflets. Most black walnut trees in our region are seriously blighted. This can be seen in the many yellow leaves present even in the summer months. Black walnuts are among the first to lose their leaves, even before fall begins, and the last to get leaves in the spring due to this blight. The wood of these trees is highly valuable for fine furniture, gunstocks and other items. Black walnuts are also prized as a delicacy. The thick-shelled nuts are found inside a dark green fruit about the size of a baseball. The fruit turns black after falling from the tree, and the "juice" is used as a walnut stain.

Butternut (White Walnut)

Juglans cinerea

Leaves resemble those of the black walnut. Fruits are more oval shaped and often sticky. The wood of the white walnut is seldom used as it is much softer and weaker than that of black walnut. The name "butternut" comes from a butter made by Native Americans using oils from the tree.

Scotch Pine (or Scots Pine)

Pinus sylvestris

A medium sized pine tree with orange bark on the upper trunk and branches. Needles are in 2's, each about two inches long. Cones are about 1 1/2 inches with a sharp point on each of the scales.



White Pine

Pinus strobus

One of the most easily identified of the pine trees, with its long slender needles (usually 3-4 inches) in clusters of five, the white pine is also one of the most valuable softwood lumber trees. It has many uses, from shelving, to inexpensive furniture, and of course, it is easily shaped into many objects, such as Pinewood Derby cars.

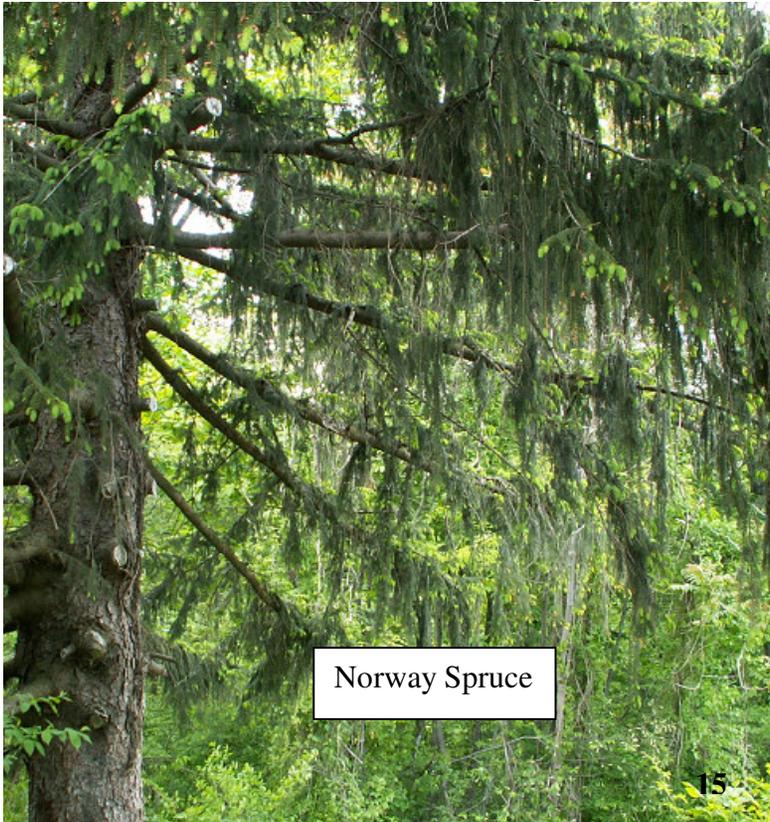
Spruces

Spruces are evergreens, like the Pines, but needles are arranged on twigs singly, not in clusters. Spruces also tend to have needles that are stiff, sharp, and four-sided.

Norway Spruce

Picea abies

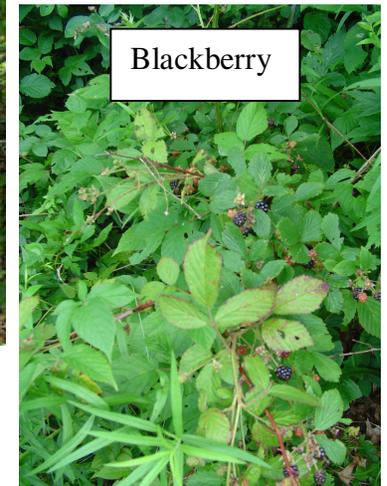
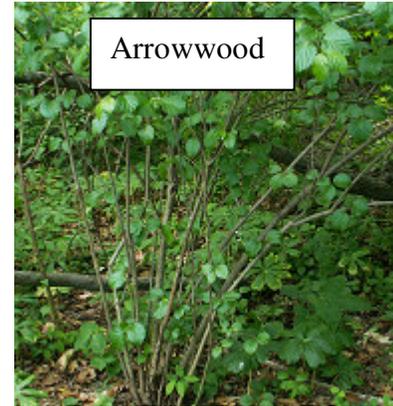
The Norway spruce is easily identified from a distance. A conifer, it has some of the longest cones found in the eastern half of the US. (about 3-5") The seeds found inside cones are a favorite food of small animals. The tree is tall, and limbs appear "droopy" with twigs and smaller branches all hanging downward. Needles are about an inch long.



Shrubs and Vines

Arrowwood

This small shrub has rounded leaves with large teeth. It grows in clumps, often with numerous fairly straight shoots, most being $\frac{3}{4}$ of an inch in diameter or less. It gets its name from the fact that it was a favorite plant of Native Americans who used the branches as arrow shafts.



Blackberry (Brambles)

A bushy or viney plant with stiff, thorny branches that are square edged. Berries that are black when ripe are very tasty. Toothed leaves are in threes, but thorny branches distinguish the plant from poison ivy. Blackberry is one of three edible berries found in abundance in eastern PA.



In the spring, the flowers of brambles are very dramatic and abundant .

Wild Grape (*Vitis sp.*)



There are many species of grapes cultivated, but the wild grape may have started them all! Stems are thick and woody with peeling bark. Excellent climbing vines are aided by tendrils. Though edible fruit are enjoyed

by many, there are also poisonous plants that closely resemble wild grape. DO NOT EAT unless you are sure!!

Poison ivy

Rhus radicans or *Toxicodendron radicans*



DO NOT TOUCH THIS PLANT. DO NOT BURN ANY PARTS OF IT!

Poison ivy may appear in many forms, but always in leaves of three, on thornless stems. It may have shiny leaves, or dull, can be a creeping vine on the ground or a thick vine climbing trees and other objects. Climbing vines may be thick and covered with hairy roots. Poison ivy may also grow in bush-like clumps. Mature plants bear small whitish fruit (about the size of BB's) between August and November. Handling any part of the plant can cause serious skin irritation, but burning the plant, especially these woody stems, can result in a life-threatening condition if vapors in smoke are inhaled. Avoid this plant!

Raspberry

A bushy or viney plant with smooth thorny branches, sometimes reddish and often appearing "frosted". Berries that are red or black when ripe are very tasty. Toothed leaves are in threes, but thorny or prickly branches distinguish the plant from poison ivy. Raspberry (black or red) is one of three edible berries found in abundance along the trails of the park.

Virginia Creeper (*Parthenocissus quinquefolia*) This invasive plant has literally crawled its way here from the south. It is easily identified by its vines with compound leaves made up of 5 coarsely toothed leaflets. Mature plants produce blue berries that are often eaten by numerous forest animals.



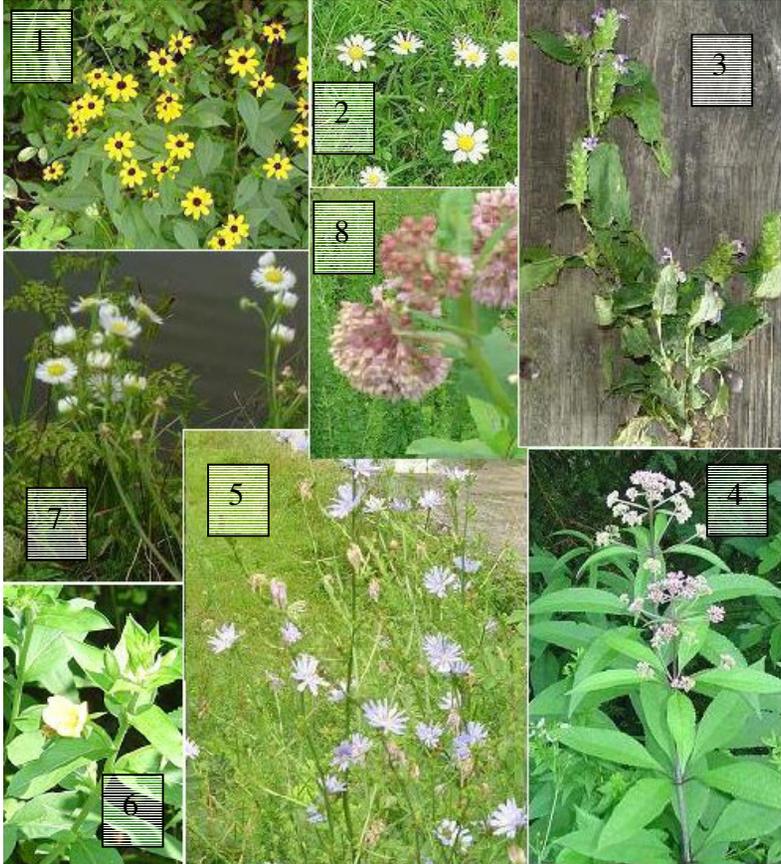
Wine berry

A bushy or viney plant with hairy/thorny branches, producing berries that are red when ripe and very tasty. Toothed leaves are in threes, but thorny or prickly branches distinguish the plant from poison ivy. Wineberry is one of three edible berries found in abundance in the area.



Wildflowers

The hillsides and wooded trails at the Park are rich with many native wildflowers. The species in bloom vary with the seasons. Pictured here are the more common summer-bloomers.



1. Black-eyed Susan (*Rudbeckia hirta*), 2. Oxeye Daisy (*Chrysanthemum leucanthemum*), 3. Heal-All (*Prunella vulgaris*), 4. Joe-Pye Weed (*Eupatorium maculatum*), 5. Chickory (*Cichorium intybus*), 6. Primrose (*Oenothera biennis*), 7. Fleabane (*Erigeron sp.*) 8. Milkweed (*Asclepias syriaca*)

Animals

Numerous animals inhabit the area. Some of the mammals found here include white-tailed deer, grey squirrel, fox, mice, moles, groundhogs, raccoons and rabbits. Reptile residents include box turtles, and several species of snakes. There are also a wide variety of birds, many of which are migratory and not year-round residents.



Since the park has a lot of wetland areas, amphibians are a principal group of animals here. The following pages detail some of the amphibians that may be found around these wetland areas.

Happy Hunting!!

Salamanders



The northeastern United States is home to more salamanders than anywhere else in the world. Like all amphibians, salamanders are hatched from a jelly-like eggs, laid in water, and spend the early part of their life as a tadpole. They are different from most amphibians in that they keep their tails.

1. Long-Tailed Salamander (*Eurycea longicauda*) Orange with black spots or blotches. Tail as long or longer than body.

2. Northern Red Sal. (*Pseudotriton ruber*) A fairly large salamander for our region, found in damp areas under logs, rocks, or piles of rotting leaves. Easily identified by its plump body, orange color and black spots.

3. Spotted Sal. (*Ambystoma maculatum*) Medium sized salamander, 3-4 inches, with a shiny black body and pale yellow or cream-colored spots. Found in moist places.

4. Red Eft/Eastern Newt (*Notophthalmus viridescens*) This interesting animal starts as a tadpole, metamorphoses into a Red Eft, living mostly on land; then a year later metamorphoses again to the adult form, the newt, returning to the water to live. Adult newts are dark green with red spots, yellow stripes or spots. Pre-adult (eft) is red or orange with darker red spots surrounded by black.

5. Slimy Salamander (*Plethodon glutinosus*) A medium sized salamander, 2-3 inches in length, with a dark body and light underside, may have flecks or light speckles, and feel somewhat sticky if handled

6. Red-Backed Salamander (*Plethodon cinereus*) Probably one of the most common salamander found in our area. Dark body with dark red back. Found in almost any moist area, but rarely in plain sight during the day

Frogs and Toads



The pond and the rest of the area are home to many frogs and toads. They hide very well, but can easily be heard at night.

1. Green Frog (*Rana clamitans*) Medium to large frog with various coloring patterns, usually green with lighter belly. Most notable trait is the dorso-lateral ridges that extend from just behind eye to rear of frog's body on either side. (see arrows) Closely resembles a bullfrog (not pictured) but is generally smaller than the bullfrog. Also, dorso-lateral ridges are not found on bullfrogs.
2. Wood Frog (*Rana sylvatica*) A small to medium, brownish frog with prominent dark "mask" behind eyes.
3. Pickerel Frog (*Rana palustris*) Medium sized frog, mostly green, with dark rectangular or square patches in rows. The pickerel frog is often confused with the leopard frog, which has rounder spots, however, cross-breeding between these two frogs has made the differences less and less distinct.
4. Common or American Toad (*Bufo americanus*) Short, squat body, "warty" skin, colors vary from dark brown to brick red.
5. Gray Treefrog (*Hyla versicolor*) Rough skin, gray, mottled appearance. Live high in trees, usually descending only at night.

Groundcover and Other Plants



The moist, dark floor of wooded areas, and swampy wetlands give rise to more specially adapted plants. Here are a few that can be found at the Park.

1. Jewelweed (*Impatiens capensis*) Also called the Touch-Me-Not for the tiny orange fruits (July-September) that pop when touched. Sap from stems takes the sting out of stinging nettles.
2. Rush (*Juncus sp.*) Numerous species of this tall wetland plant are found in our area.
3. Mayapple (*Podophyllum peltatum*) Flowers in May, and later produces an small fruit (not edible by humans). Colonies often cover large areas.
4. Cattails (*Typha latifolia*) Found in very wet places, drainage areas, pond edge, etc.
5. Jack-In-The-Pulpit (*Arisaema atrorubens*) Note the hooded spadix, which hides a flower cluster known as a spathe..
6. Skunk Cabbage (*Symplocarpus foetidus*) Smells like its name!

KEY TO TREES

Please note~not all trees can be found in this key. Some trees may be hybrids, bred in tree nurseries for certain traits. Others are rare trees not native to our area. This key includes the most common naturally occurring trees . If the tree has... go to ... X.

- 1a. Leaves are needle-like ... 2
- 1b. Leaves broad and flat ...4

- 2a. Needles in bundles of five= **White Pine**
- 2b. Needles not in bundles of five ...3

- 3a. Needles in pairs; cones about 1 ½ inches in diameter=**Scotch Pine**
- 3b. Needles single, four-sided, branches “droopy” = **Norway Spruce**

- 4a. Leaves opposite or whorled on stem ...5
- 4b. Leaves alternate on stem ...11

- 5a. Leaves opposite on stem ...6
- 5b. Leaves whorled on stem = **Catalpa**

- 6a. Leaves simple ...7
- 6b. Leaves compound (leaf made up of leaflets) ...9

- 7a. Leaf edge smooth; veins curve along edge of leaf= **Dogwood**
- 7b. Leaf edge lobed (has sections) ...8

- 8a. Leaf with 3 lobes; petiole (leaf stem) often reddish=**Red Maple**
- 8b. Leaf with 5 lobes = **Sugar Maple**

- 9a. Pinnately-compound ...10
- 9b. Palmately-compound= **Horse Chestnut**

- 10a. Leaf divided into 3 to 5 leaflets= **Box-Elder (Ash-leaf Maple)**
- 10b. Leaf divided into 7 leaflets= **Ash**

- 11a. Leaves simple ...12
- 11b. Leaves compound (leaf made up of leaflets) ...24

- 12a. Leaf edge smooth ...13
- 12b. Leaf edge deeply cut, lobed, or toothed ...14

- 13a. Leaves 2 - 5 inches long, leathery; leaf base tapers = **Black Gum**
- 13b. Leaves 2 - 5 inches long, thin, not leathery; strong spicy fragrance from crushed leaf= **Spicebush**

- 14a. Margins deeply cut or lobed ...15
- 14b. Margins coarsely or finely toothed ...20

- 15a. Leaves with five deeply cut lobes, star-shaped leaf= **Sweet Gum**
- 15b. Leaves not star-shaped ...16

- 16a. Leaves square or notched at top= **Tulip Poplar**
- 16b. Leaves not square or notched ...17

- 17a. Leaves from same tree may be entire, or with one or two lobes; crushed leaves have a lemony smell= **Sassafras**
- 17b. Leaves with more than two lobes ...18

- 18a. Leaf veins pinnate ...19
- 18b. Leaf veins palmate-three main veins at leaf base = **Mulberry**

- 19a. Lobes rounded= **White Oak group**
- 19b. Lobes sharp-pointed; may have a hair-like bristle on end of each lobe =**Red Oak group**

- 20a. Teeth coarse, one at end of each lateral vein ...**Beech**
- 20b. Teeth fine, several for each main lateral vein ...21

- 21a. Leaves very narrow, 4 or 5 times as long as wide= **Willow**
- 21b. Leaves broader ...22

- 22a. Leaf stalk with one or two glands (small bumps on stem); has a sour odor when twig is broken= **Cherry**
- 22b. Leaf stalk without glands (serviceberry)= **Juneberry**

- 23a. Sap milky (in stems)= **Sumacs**
- 23b. Sap not milky ...24

- 24a. Terminal leaflet usually larger than other leaflets= **Hickories**
- 24b. Terminal leaflet as large or smaller than other leaflets, or it may be lacking ...25

- 25a. Leaflet round-tipped= **Black Locust**
- 25b. Leaflet pointed ...26

- 26a. Leaves smooth ...27
- 26b. Leaves hairy ...28

- 27a. Leaves not over 7 inches long= **Mountain Ash**
- 27b. Leaves over 12 inches long= **Ailanthus**

- 28a. Terminal leaflet as large as other leaflets= **Butternut**
- 28b. Terminal leaflet small or lacking =**Black Walnut**