

# **DePauw Nature Park Field Guide to Trees**

All photographs are by Vanessa Fox,  
unless otherwise indicated.

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Lobed leaves



Chinkapin oak



Red oak



White oak



White oak



Sycamore



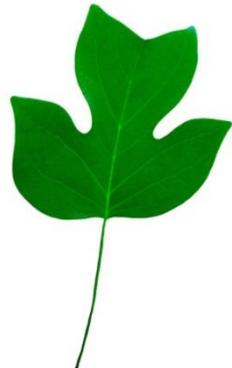
Sugar maple



Sassafras



Sassafras



Tulip poplar

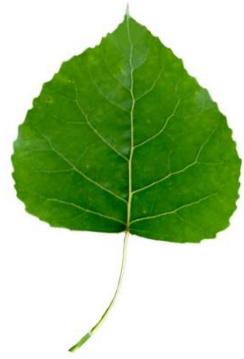
## Heart-shaped and triangular leaves



Redbud



Basswood



Eastern cottonwood

## Leaves with smooth edges



Flowering dogwood



Sassafras



Pawpaw

# Leaves with toothed edges



Black cherry



Hackberry



American beech



Slippery elm



Ironwood



Hop hornbeam

# Compound leaves



White ash



Box elder



Buckeye



Shagbark hickory



Bitternut hickory



Honey locust



Black locust



Black walnut

## American beech

*Fagus grandifolia*

Beech family, Fagaceae

The genus name *Fagus* is from the Latin for "beech tree" and the species name *grandifolia* means "with large leaves."



Leaves are thin with a papery texture. Leaf edges are coarsely toothed. Leaf tip has a long point.



Fruit is a light brown prickly bur. Each fruit contains four triangular nuts. Nuts are sweet, edible.



Bark is light gray, smooth.

## Basswood

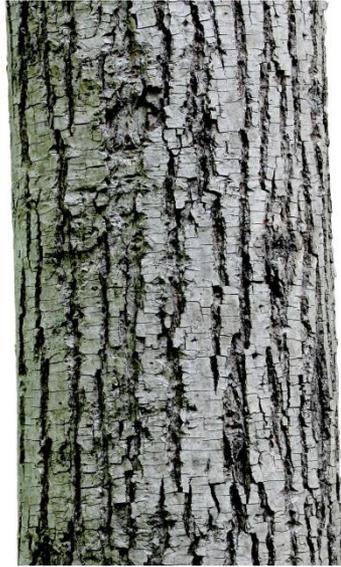
*Tilia americana*

Mallow family, Malvaceae

The genus name *Tilia* is from the Latin for "wing," referring to the wing-like shape of the seed bract.



Leaves are large, heart-shaped.  
Leaf edges are coarsely saw-toothed.  
Base of leaf is asymmetrical.



Bark is dark gray with prominent ridges and narrow furrows.



Fruit is round, gray, hard,  
contains one or two seeds. Fruit  
hangs under a leafy bract.

## Bitternut hickory

*Carya cordiformis*

Walnut family, Juglandaceae

The genus name *Carya* is from the Greek for "walnut." In Greek mythology, Carya was a daughter of King Dion. The Greek God, Dionysus, fell in love with Carya, but her two sisters guarded Carya and kept her away from Dionysus. As punishment, Dionysus transformed Carya into a walnut tree.

The species name *cordiformis* is from the Latin for "heart-shaped" referring to the shape of the nuts.



Leaves are pinnately compound. Each leaf has 7 to 9 leaflets. Leaflets are lance-shaped with saw-toothed edges.



Bark has shallow x-shaped furrows.



Fruit is a nut, enclosed in a thin yellowish husk. Nuts are very bitter, hence the common name "bitternut hickory."

## **Black cherry**

*Prunus serotina*

Rose family, Rosaceae

The genus name *Prunus* is from the Latin for "plum tree." The species name *serotina* is from the Latin for "autumnal" or "late," referring to the late fruiting of the cherry tree.



Flowers are small with round white petals, produced on long hanging clusters during mid- to late spring.



Leaves are shiny dark green, often look glossy. Edges of leaves are finely toothed.



Bark of older trees is rough, dark reddish-brown, looks like burnt potato chips.

## Black locust

*Robinia pseudo-acacia*

Legume family, Fabaceae

The genus name *Robinia* is named for Jean Robin and Vesparian Robin, 16<sup>th</sup> century herbalists of France. The species name *pseudo-acacia* is from the Greek for "false thorn."



Leaves are pinnately compound. Each leaf has 7 to 19 leaflets. Each leaflet is 1 inch long, ½ inch wide.



Flowers are pea-shaped, very fragrant, produced in showy drooping clusters during mid-spring. Fruit is a long flat pod, contains brown beanlike seeds



Bark is thick, light gray or light brown with deep furrows.

## Black walnut

*Juglans nigra*

Walnut family, Juglandaceae

The genus name *Juglans* is from the Latin for "walnut" and the species name *nigra* is from the Latin for "black."



Leaves are pinnately compound and have a feathery appearance. Each leaf has 14 to 24 leaflets. Largest leaflets are located in the center of the leaf. Leaflet edges are finely saw-toothed.



Bark is dark grayish-brown to black, deeply furrowed.



Fruit is a very hard nut, covered by a thick husk. Husk produces a dark-staining strong-smelling juice. Nuts are edible.

## Box elder

*Acer negundo*

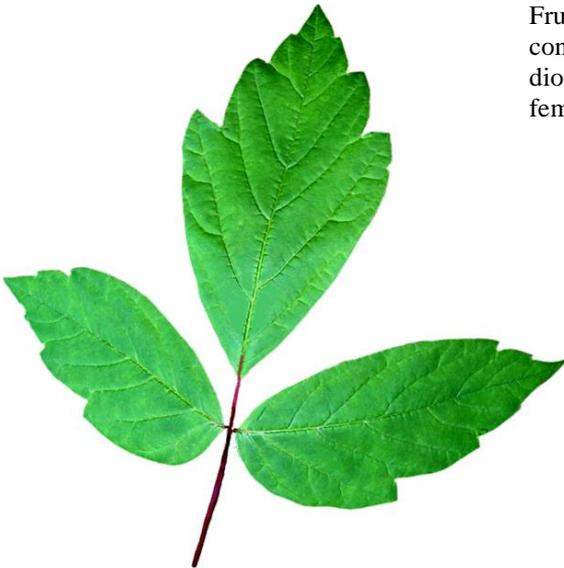
Maple family, Aceraceae

The common name, box elder, is based on the similarity of its wood to boxwood and the similarity of its leaves to elderberry.

The genus, *Acer*, is from the Latin for "sharp," referring to the sharply pointed lobes on the leaves. The species name, *negundo*, is from a Sanskrit name, *nirgundi*, for a tree with leaves shaped like the box elder.



Fruit has two wing-like structures, contains two seeds. Box elder is dioecious with separate male and female trees.



Leaves are pinnately compound. Each leaf has three leaflets, sometimes five or seven leaflets. Edges of leaflets have coarse saw-like teeth. Leaf petioles may be bright red.



Twigs are greenish with large buds.

## Buckeye

*Aesculus glabra*

Buckeye family, Sapindaceae

The genus name *Aesculus* is from the Latin for "horse-chestnut-like," referring to the similarities between buckeye and horse chestnut. The species name *glabra* is from the Latin for "smooth" or "hairless."



Leaves are palmately compound. Each leaf has five leaflets. Buckeyes are the first tree to produce leaves in the spring.



Flowers are showy, arranged in large upright clusters. Flowers are produced during early spring when leaves are emerging.



Fruit is a spiny capsule, contains 1 to 3 nut-like seeds. Seeds (buckeyes) are large, shiny, dark brown with a whitish patch. Seeds are poisonous.

## Chinkapin oak

*Quercus muehlenbergii*

Beech family, Fagaceae

The common name, “chinkapin” is an Algonquian word for the American chestnut, a tree with similar shaped leaves. The genus name *Quercus* is from the Latin for "oak." The species name *muehlenbergii* is named for Henri Ludwig Muhlenberg (1756-1817), a botanist from Pennsylvania.



Fruit is an acorn. Acorns are shiny brown, egg-shaped.

Photo source: [www.cas.vanderbilt.edu/bioimages](http://www.cas.vanderbilt.edu/bioimages)



Leaves are coarsely toothed with wave-like lobes along edges. Leaves are wider toward tip than at base.

## Eastern cottonwood

*Populus deltoides*

Willow family, Salicaceae

The genus name *Populus* is an ancient name for "poplar," literally "the tree of the people." The species name *deltoides* is from the Latin for "triangular-shaped" or "deltoid," referring to the triangular shape of the leaves.



Leaves are triangular in shape.  
Leaf edges are coarsely toothed.  
Some leaves have a red petiole.  
Leaves always move even in the slightest breeze.



Bark is thick and deeply furrowed on older trees.



Flowers are produced in long clusters during early spring before leaves emerge. Fruit is a brownish capsule, contains many tiny cottony seeds.

## Eastern juniper

*Juniperus virginiana*

Cypress family, Cupressaceae

Juniper is from the Latin *juniperus* which is from the French *genever* for juniper.



Leaves are small, scaly, evergreen. Juniper is dioecious with separate male and female trees. Female cones look like small blue berries, but are not true berries. Female cones are a series of fleshy scales that are fused together. Female cones require 6 to 8 months to reach maturity.



Male cones are small, light brown, produced during early spring.

## Flowering dogwood

*Cornus florida*

Dogwood family, Cornaceae

The genus name, *Cornus*, is from the Latin for "horn-like" or "horny." The species name, *florida*, is not for the state of Florida, but is from the Latin for "flowery" or "florid."



Leaves are egg-shaped. Leaf edges are smooth. Leaf veins are parallel to leaf edges.



Bark is grayish or light brown, broken up into small blocks, looks like alligator skin.



Flowers are small, inconspicuous. Showy white "petals" are not actually part of the flowers but are expanded bud scales.



Fruit is a bright red berry, produced in clusters.

# Hackberry

*Celtis occidentalis*

Hemp family, Cannabaceae

The genus name, *Celtis*, is from an ancient Greek name for a tree with sweet fruit. The species name, *occidentalis*, is from the Latin for "western" or "occidental."



Leaf is paisley-shaped, with a narrow curve at the tip. Leaf surface is rough like sandpaper. Leaf edges are toothed. Base of leaf is asymmetrical.



Bark is gray or light brown, covered with distinctive corky ridges and small wart-like bumps.

## Honey locust

*Gleditsia triacanthos*

Legume family, Fabaceae

The genus, *Gleditsia*, is named for Johann Gottlieb Gleditsch (1714-1786), a German botanist. The species name, *triacanthos*, is from the Latin for "three-spined."



Bark is grayish-brown, covered with stout spines. Spines are usually branched, sometimes up to 8 inches long.



Leaves are large, doubly compound.  
Each leaf has many small leaflets.  
Leaflets are much smaller compared to black locust leaflets.

## Hop hornbeam

*Ostrya virginiana*

Birch family, Betulaceae

The common name, hop hornbeam, is based on the resemblance of its fruit to hops. The genus name *Ostrya* is from the Greek for "hard," referring to the hard wood of the tree. The species name, *virginiana*, literally means "from Virginia."



Leaf edges are double-toothed. Leaf veins are branched. Leaves have a soft or papery texture, not rough. Leaves look similar to ironwood (*Carpinus caroliniana*) leaves, but the bark of the two tree species is very different.



Bark is reddish-brown, scaly, rough, looks shredded like a cat scratching post.

## Ironwood

*Carpinus caroliniana*

Birch family, Betulaceae

The genus name *Carpinus* is from the Latin for “hornbeam.” The species name, *caroliniana*, literally means from Carolina (either North or South Carolina).



Leaf edges are double-toothed. Leaf veins are prominent and unbranched. Leaf surface is smooth, not rough. Leaves look similar to hop hornbeam (*Ostrya virginiana*) leaves, but the bark of the two tree species is very different.



Bark is smooth, bluish-gray, looks sinewy like muscles.

# Pawpaw

*Asimina triloba*

Custard apple family, Annonaceae

The common name, pawpaw, is probably derived from the Spanish *papaya*, perhaps because of the similarity of their fruit. The genus name, *Asimina*, is from the French for "pawpaw." The species name *triloba* is from the Latin for "three-lobed."



Leaves are very large, long, widest toward tip. Leaf edges are smooth.



Flowers are large, with dark purple or reddish-brown flowers. Flowers are pollinated by carrion flies and beetles.



Fruit is large, 3 to 4 inches long, edible, tastes like a combination of banana and mango.

## Red oak

*Quercus rubra*

Beech family, Fagaceae

The genus name *Quercus* is from the Latin for "oak" and the species name *rubra* is from the Latin for "red."



Leaves have deep wavy lobes and bristled tips.



Bark is dark gray with distinct vertical stripes, looks like a gentleman's striped pants.



Fruit is an acorn. Acorns require two years to reach maturity. Acorn cap is flat and thick, covers about  $\frac{1}{4}$  of the acorn.

## Redbud

*Cercis canadensis*

Legume family, Fabaceae

The genus name *Cercis* is from the Greek for "Circe," a Greek goddess described in Homer's *Odyssey* who worked at a large loom. The genus name *Cercis* refers to the redbud tree's fruit that looks like a weaver's shuttle. The species name, *canadensis*, means "from Canada."



Flowers are small but showy, bright pink, produced in early spring before leaves emerge, pollinated by bees.



Leaves are heart shaped and have a thin and papery texture. Leaf edges are smooth.



Fruit is a long flat pod, contains flat brown seeds.

## Sassafras

*Sassafras albidum*

Laurel family, Lauraceae

The genus name and common name, *Sassafras*, is from the Spanish *sassafras*. The species name, *albidum*, is from the Latin for "white."



Bark of older trees is thick, reddish-brown, deeply furrowed.



Sassafras is the only tree that has leaves with three distinct shapes: unlobed, two lobes, or three lobes.

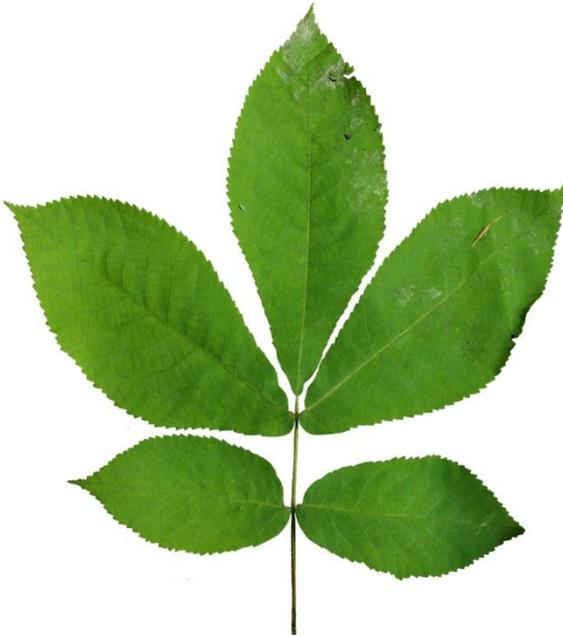
## Shagbark hickory

*Carya ovata*

Walnut family, Juglandaceae

The genus name *Carya* is from the Greek for "walnut." In Greek mythology, Carya was a daughter of King Dion. The Greek God, Dionysus, fell in love with Carya, but her two sisters guarded Carya and kept her away from Dionysus. As punishment, Dionysus transformed Carya into a walnut tree.

The species name *ovata* is from the Latin for "oval" or "egg-shaped."



Leaves are pinnately compound. Each leaf has 5 leaflets. Leaflets are ovate-shaped with saw-toothed edges. The end leaflet is usually larger than the other leaflets.



Bark is very shaggy, peels off in long vertical strips.



Fruit is a nut, enclosed in a thick woody husk. Husk is yellowish-green. Nuts are sweet and edible.

## Slippery elm

*Ulmus rubra*

Elm family, Ulmaceae

The common name, "slippery elm," refers to the tree's slimy inner bark. The genus name, *Ulmus*, is from the Latin for "elm." The species name, *rubra*, is from the Latin for "red," referring to tree's reddish-brown heartwood.



Leaves are rough on upper side, like sandpaper. Leaf edges are coarsely double-toothed. Base of leaf is asymmetrical.



Bark is grayish to light brown.  
Bark has a soft corky texture.



Fruit is a thin papery winglike structure surrounding the seed.

## Sugar maple

*Acer saccharum*

Maple family, Aceraceae

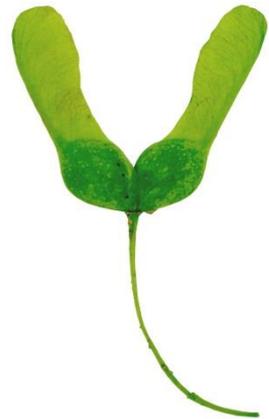
The genus name *Acer* is from the Latin for "sharp," referring to the sharply pointed lobes on the leaves. The species name, *saccharum*, is from the Latin for "sugar."



Leaves are palmately lobed. Each leaf has five wide-lobed notches.



Bark is smooth, light gray on young trees. Bark is shaggier, darker gray on older trees.



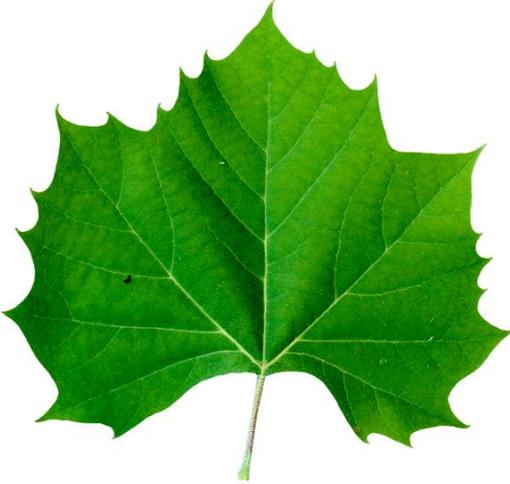
Fruit has two wing-like structures, contains two seeds.

# Sycamore

*Platanus occidentalis*

Plane tree family, Platanaceae

The genus name *Platanus* is from the Greek for "flat" or "plane-like." The species name *occidentalis* is from the Latin for "western" or "occidental."



Leaves are large with 3 to 5 short lobes. Lobes are coarsely toothed.



Bark is smooth and white or brown and flaky. Mature bark peels off in irregularly shaped patches.



Fruit is an aggregated ball of seeds, 1 to 2 inches in diameter. Seeds are wind dispersed.

## Tulip poplar

*Liriodendron tulipifera*

Magnolia family, Magnoliaceae

The genus name *Liriodendron* is from the Greek for "lily-tree," referring to the tree's showy flowers. The species name *tulipifera* is from the Latin for "tulip-like."



Leaves are tulip-shaped. Each leaf has a v-shaped notched tip and four paired lobes.



Bark is furrowed with narrow tight ridges



Flowers are large, showy, cup-shaped with six rounded petals. Flower petals are pale green or yellow with an orange band at the base. Flowers bloom in spring and produce large quantities of nectar.

## White Ash

*Fraxinus americana*

Olive family, Oleaceae

The genus name *Fraxinus* is from the Latin for "ash."



Leaves are pinnately compound.  
Each leaf has 7 or more leaflets.  
All leaflets are usually about the same size.

Fruit is a winglike structure, looks like the blade of a canoe paddle. Each fruit contains one seed. White ash is dioecious with separate male and female trees.



Bark is ashy gray with deep ridges and furrows.



## White Oak

*Quercus alba*

Beech family, Fagaceae

The genus name *Quercus* is from the Latin for "oak" and the species name *alba* is from the Latin for "white."



Leaves have rounded lobes along edges. Lobes may be shallow or deep.



Fruit is an acorn.  
Acorns are long and thin with a shallow cup.



Bark is light gray with shallow plates and fissures.



## About the author

This field guide was prepared by Vanessa Fox, Associate Professor of Biology and Program Coordinator of the DePauw Nature Park at DePauw University in Greencastle, Indiana. Vanessa teaches courses in ecology, evolution, and biostatistics, and conducts research on forest community ecology.

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