

Glossary

Alternate: not directly opposite each other, but staggered at intervals along the stem.

Coarse-toothed: with large teeth.

Compound: divided into leaflets, each of which has the general appearance of a leaf.

Conifer: a tree which has evergreen leaves (only a few exceptions); evergreens with needle- or scale-like leaves.

Double-toothed: each tooth bears smaller teeth.

Fan-compound: a compound leaf with leaflets radiating from a point; palmate-compound.

Fan-lobed: major lobes radiating from a point.

Fan-veined: main veins of the leaf radiate from a point.

Feather-compound: midribs of main leaflets branch from a central main midrib at several points in a feather-like pattern; pinnate compound.

Leaflet: a leaf-like subdivision of a compound leaf.

Lobed: divided into incompletely separated sections.

Midrib: the central rib or main vein.

Opposite: leaves are directly across from each other along the stem.

Single-toothed: bearing only a single set of teeth.

Thorn: a stout, sharp, woody outgrowth of the stem (or braches / trunk).

Find this information online at:
www.fortwayneparks.org

Fort Wayne Parks & Recreation

Administration Building
705 E. State Blvd.
Fort Wayne, IN 46805
Phone: 260-427-6000

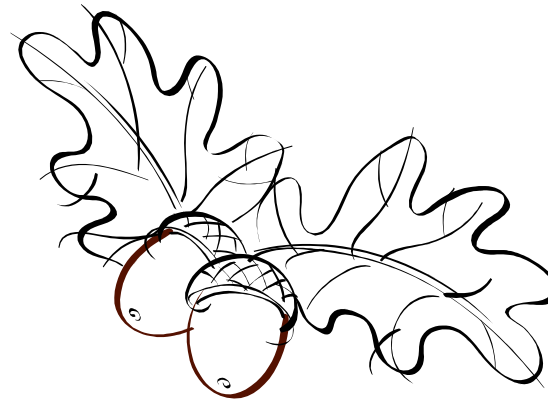
Lindenwood Nature Preserve

Off of Lindenwood Ave. between
Jefferson Blvd. and Bass Rd.; down the
street from St. Francis University
Fort Wayne, IN
Phone: 260-427-6740



Trees

A Lindenwood Nature Preserve Pocket Field Guide



Lindenwood Trees

This guide includes the most common tree species that have been observed at the preserve in the past; species are arranged by leaf type. See the glossary for unfamiliar terms.

Evergreen Needles (Pines)

- Eastern White Pine (*Pinus strobus*): an important lumber tree. Long, straight needles are arranged in bundles of five. Cone is long and slender and is unique because of its white resin-tipped scales.

Opposite Fan-Compound Leaves: leaflets are arranged like fingers on a hand, all originating from the base of the leaf.

- Ohio Buckeye (*Aesculus glabra*): state tree of Ohio; outer nut husk is prickly, inner surface is shiny dark brown; nut is toxic to humans and dogs. Flowers are yellow and arranged in large (4-6") stacked clusters.

Opposite Feather-compound Leaves: individual leaflets are stalked.

- White Ash (*Fraxinus americana*): an important tree for furniture and sporting equipment due to its strength. This species faces extinction due to the attack of the invasive Asian beetle, the "Emerald Ash Borer".

Opposite Lobed Leaves (Maples): our only trees with opposite, 3-5 lobed leaves.

- Silver Maple (*Acer saccharinum*): grayish older bark flakes and leaves brown spots; end leaf lobe has narrow base. Twigs have unpleasant odor when crushed.
- Sugar Maple (*Acer saccharum*): the famous syrup tree. This species' sap contains the highest percentage of sugar and therefore makes the tastiest syrup; also used for hardwood lumber. Sugar maples are the trees that most attract your attention in the fall



because they have the most colorful and brightest leaves.

Opposite Simple Leaves

- Flowering Dogwood (*Cornus florida*): it has bark but it won't bite! This ornamental tree has large white flowers that attract birds, squirrels, deer and rabbits when they form into red fruits.

Thorny Trees with Alternate Feather-compound Leaves

- Honey Locust (*Gleditsia triacanthos*): in its natural state (not the cultivated form) this tree has large, intimidating thorns grouped in clusters along its trunk. The thorns have been used for pins, spear points and animal traps. The long "pea pod" legume fruit is eaten by deer, rabbits, squirrels and bobwhites.

Thorn-less Trees with Alternate Feather-compound Leaves

- Black Walnut (*Juglans nigra*): the yummy walnuts of this tree are eaten by humans, squirrels and mice. Crushed leaves are spicy-smelling; bark is dark and deeply grooved, with dull ridges (not shiny). The strong durable heartwood of the walnut is used for furniture, cabinets and gunstocks; bark is used in tanning.
- Shagbark Hickory (*Carya ovata*): the familiar woodland "shaggy tree"; this is the species with the most tasty nuts that have very thick husks. Leaves have 5 leaflets each. Insects and small mammals like bats use the peeling bark of this tree for cover from potential predators during the day.
- Pignut Hickory (*Carya glabra*): similar to the Bitternut Hickory but with 5 leaflets and similar to the Shagbark Hickory except with tight bark (not shaggy) and thin-husked nuts (not thick).
- Smooth Sumac (*Rhus glabra*): a small tree or slender bush, the sumac has been used by humans for inks and many smaller animals eat the fruits and twigs.

Thorny Trees with Alternate Toothed Leaves

- Hawthorn (*Crataegus* sp.): very dense shrubs or small trees with long thorns; fruits are small, round, yellow to red and apple-like. As many as 1,000 individual species exist in the United States.
- American Crabapple (*Malus coronaria*): a shrub or small tree with gray, rough and vertically cracked bark. Flowers are white or pink and are highly fragrant. Apple-like fruits are green and bitter.

Alternate Fan-lobed Leaves

- Tuliptree / Yellow Poplar (*Liriodendron tulipifera*): state tree of Indiana; unique notched-tip, four-pointed leaves, spicy smelling when crushed. Flowers are orange and green and look like tulips. Fruit is a clustered and winged cone-like structure about 3" long.
- Sassafras (*Sassafras albidum*): leaves are in 3 distinct shapes (a smooth oval, a thumb and mitten shape or shaped like 3 "fingers"). Crushed leaves, bark and twigs have a spicy, lemon-like aroma. Mature bark is red-brown and deeply furrowed. Leaves are used to make tea and roots have been used to make root beer soda.
- Red Mulberry (*Morus rubra*): a small tree or shrub with reddish-brown bark and tasty tangy red or black fruits.

Alternate Fan-veined and Heart-shaped Leaves:

- Eastern Redbud (*Cercis canadensis*): beautiful, showy reddish flowers appear in spring before the leaves. Leaves are distinctly heart-shaped; bark is dark with fine grooves.
- American Basswood / Linden (*Tilia americana*): our nature preserve's namesake. Leaves are somewhat heart-shaped and fine-toothed with thick veins and uneven leaf bases.

Alternate Triangle-shaped Leaves

- Eastern Cottonwood (*Populus deltoides*): leaves are coarsely toothed and have flattened stalks; mature bark has deep ridges. This is the tree that blows its cotton-like seeds in the wind.

Alternate Feather-lobed Leaves with Bristle Tips (Oaks 1)

- Pin Oak (*Quercus palustris*): acorn cup brownish and hairless but shallow and saucer-like; bark is gray and cracked with lighter gray streaks; dead leaves tend to remain on tree in winter.
- Northern Red Oak (*Quercus rubra*): acorn cup flat and saucer-like; bark is dark and furrowed, laced with broad shiny strips.
- Eastern Black Oak (*Quercus velutina*): similar to Northern Red Oak but bark more greenish-gray and without shiny strips (also leaves and acorns slightly different).

Alternate Feather-lobed Leaves with Rounded Tips (Oaks 2)

- Eastern White Oak (*Quercus alba*): a very tall tree, capable of growing very large in circumference; bark is light gray and peels like the open pages of a book toward the crown. Acorns are very popular among woodland animals.

Alternate Leaves that are Wavy-edged or Toothed (Oaks 3)

- Chinquapin Oak (*Quercus muehlenbergii*): leaves have 10 or more pairs of sharp teeth and are not lobed like above oak leaves. Bark is light gray and flaky.

Alternate Coarse-edged Leaves

- Beech (*Fagus grandifolia*): unfortunately this tree is often seen vandalized with carvings due to its light colored and smooth bark (cuts in its bark invite fungus and insects to harm the tree's inner cambium, often causing the tree illness or death). Nuts are small, triangular and enclosed

in spiny bracts. Beech nuts are eaten by many woodland animals.

Alternate Double-toothed Leaves with Uneven Bases

- American Elm (*Ulmus americana*): mature live trees are rarely seen due to a widespread disease, the Dutch Elm Disease. Leaves rough and very distinctive with heavily uneven, lop-sided bases. Bark is yellowish and "spongy" when pressed.

Alternate Double-toothed Leaves with Even Bases:

- the two species described below are often mistaken for each other because of the similarities and their often inter-changed common names. Main differences can be seen in the bark and seeds.
- American Hornbeam / Ironwood / Muscledwood (*Carpinus caroliniana*): smooth gray bark has a distinctive muscular appearance. Fruits are tiny nuts attached to 3-pointed leafy bracts.
- Eastern Hornbeam (*Ostrya virginiana*): bark is brownish and very flaky. Fruits are small nuts completely enclosed in a leafy pouch. Fruit clusters are arranged much tighter than the above species.

Alternate Single-toothed Leaves; Stalks with Glands

- Black Cherry (*Prunus serotina*): the very dark, crackled bark looks like burnt cornflakes. Fruits are small, black and bitter (to humans) yet are used in jams and jellies and are very popular among tree dwelling woodland animals.

Alternate Untoothed Leaves; Not Evergreen

- Common Pawpaw (*Asimina triloba*): a shrub or small tree with dark, smooth bark. Flowers are small and brownish-purple; fruits are large, green, banana-like and tasty. Trees spread by sprouting from mature trees' roots. Large leaves are spoon-shaped and have a strong odor when crushed.