Native Trees of Illinois Ladd Arboretum, Evanston, Illinois

A number of trees native to Illinois are found along the path leading along the North Shore Channel from the Evanston Ecology Center in the direction of Green Bay Road. These are listed in roughly the order you might encounter them. Most of these trees are indigenous to northeast Illinois—that is, they were found in this area at the time of European settlement.



American elm (Ulmus americana)

One of the trees that dominated woodlands in this area in pre-European times, the American elm has declined since the 1950s because of Dutch elm disease (DED), a fungus spread by beetles. Most elms have been removed from the arboretum as they have succumbed to DED, so now most elms here are small understory trees. The elm is host to many insects, which makes it one of the most important trees for migratory songbirds.

American basswood (Tilia americana)

Like the elm and silver maple, the basswood was characteristic of floodplain forests historically found along creeks and rivers. A fast-growing tree that tolerates dry shade, with early summer blossoms pollinated by bees, the basswood is used by many insects. Basswood leaves are up to 8" long and 4" or more across. The similar European linden (Tilia cordata), which has smaller leaves, is often used in urban



landscaping, and volunteers of this tree are found along the channel banks. We have removed many of them so newly planted trees and shrubs get more light and have a chance to become established.



Eastern cottonwood (Populus deltoides)

Cottonwood trees are found along streams, ponds, and moist depressions and are common in some of Evanston's channel-side parks. Cottonwoods are dioecious (each tree is either male or female). Female trees produce fluffy white seeds in early summer. Because the tree's big leaves have flat stems (called petioles), even a breeze causes them to tremble. The tree is host for caterpillars (larvae) of a number of butterflies and moths.



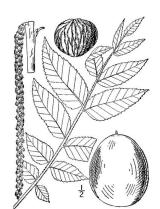
Squirrels are big fans of these nut-producing trees and have helped to spread them along the channel banks. The leaves are used by the caterpillars of many kinds of moths. Black walnuts are not often used in home landscaping or parks because the hulls of the nuts stain anything they touch, and the trees produce a substance called



juglone that inhibits the growth of many other plants.

Tuliptree (<u>Liriodendron tulipifera</u>)

This tall, straight-trunked, fast-growing tree with tulip-shaped flowers is native to southern and southeastern Illinois. Bees visit the flowers, as do ruby-throated hummingbirds. Sapsuckers drill holes and eat the insects trapped in the sap. Some birds (including goldfinches and cardinals) eat the seeds.



Maples

Maples can grow in shadier areas. You may notice these as you continue along the path.

Silver maple (Acer saccharinum)

A tree of moist woodlands and river banks, the silver maple grows quickly and spreads easily through its fast-germinating seeds. Some species of birds eat the seeds or buds, but in general this and other maples are not well used by migratory birds. It gets its name from the silvery underside of its leaves.



Sugar maple (Acer saccharum)

Humans are not the only animals who appreciate sugar maples. Yellow-bellied sapsuckers also drill holes in these trees and feed on the sap. The sugar maple's yellow, orange, and red fall foliage distinguish it from the similar but non-native **Norway maple** (Acer platanoides). Both have winged seeds (samaras), but sugar maple wings are at acute angle, while Norway maple samaras are at an obtuse angle. When you break off a Norway maple leaf, white sap comes out. Introduced to America by John Bartram in 1756, the Norway maple was valued as a shade tree that tolerates urban conditions. Planted widely after chestnut blight and Dutch elm disease eliminated earlier urban favorites, the Norway maple has escaped into natural settings, where it out-competes other more desirable trees. We have removed many Norway maples from the arboretum and will continue to remove more as we expand native plantings.

Box elder (Acer negundo)

The box elder is a member of the maple family that tolerates a wide range of conditions, including disturbed woodlands. Box elders grow fast, which means their wood is weak and prone to breaking. They can be identified by compound leaves that resemble poison ivy, bright green branches from the year's new growth, and winged seeds (on female trees—they are dioecious). Black-and-red boxelder bugs feed on female box elders; they don't damage the trees, but can be a nuisance when they gather in or around a house, and few birds eat them. Box elders are so common and weedy, we have removed many of them and continue to cut back resprouts.



Around the Grady Bird Sanctuary

Near the waterfall and the far side of the slope, you may notice these small trees growing in dappled sunlight.

The evergreen hemlock and junipers are not native to this region.



Pagoda dogwood (Cornus alternifolia)

A small multi-stemmed tree of moist and partly shady woodlands, thickets, and stream sides, this is the only dogwood with alternating leaves (others have leaves that are opposite on the stem). Many birds eat the dark-blue fruits.

Redbud (Cercis canadensis)

A small tree native in southern Illinois, the redbud has bright pink flowers in the early spring. Some bees and caterpillars feed on the tree, but its value here is primarily ornamental. Its size and heart-shaped leaves make it easy to identify.

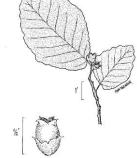


Hop hornbeam (Ostrya virginiana)

An understory tree that can reach 40 feet, the adaptable hop hornbeam can grow in dry, partially shaded settings. Like the American hornbeam (Carpinus caroliniana), it has catkins in early spring followed by nutlets in papery sacs that resemble hops. Downy woodpeckers and purple finches are among the birds said to feed on these nutlets. Sometimes called "ironwood" because of its durable wood, the tree turns a beautiful yellow in the fall.

Witch hazel (Hamamelis virginiana)

Growing up to 20 feet tall, this multi-stemmed tree blooms late in the year, usually after its leaves have turned yellow and fallen. Many moth larvae and insects feed on the flowers and leaves, and some birds eat the seeds.

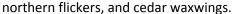


Just beyond the Grady Bird Sanctuary

Beyond the waterfall there is a clump of non-native viburnums and several elderberry bushes. In back of them along the slope are several larger native trees.

Hackberry (Celtis occidentalis)

Clues to identifying the hackberry are warty bark and, in larger trees, nipple gall on the leaves and witches brooms along twigs and branches (caused by a combination of powdery mildew and a mite). Hackberry is a larval host for a number of butterflies and moths. In the late summer and fall, its deep purple fruits are popular with birds, including thrushes,





Ohio buckeye (Aesculus glabra)

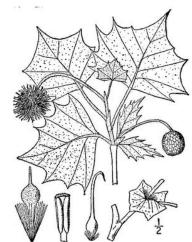
The small buckeye trees found here and there along the slopes were probably planted by squirrels. Occasional throughout the state in mixed woodlands and along streams, the tree is smaller than the similar but non-native horse chestnut. Bees and hummingbirds visit the flowers. It turns a beautiful yellow and orange in early fall.



American sycamore (Platanus occidentalis)

Found throughout Illinois in bottomland woodlands and along stream banks, the sycamore is easily identified by its peeling bark and round seedballs. The American sycamore is

one of the parents of the London plane tree, a tough tree often used in urban settings (its seedballs hang in pairs, while the native sycamore has only one seedball per stem). The sycamore is used by many insects, and some birds use its seeds during the winter. Fossil leaves have helped traced the sycamore's ancestry back 70-80 million years.



Black cherry (Prunus serotina)

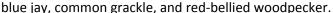
These trees are found throughout the state and have spread along the channel banks. The bark is one clue to identification—horizontal white lenticels on younger branches, rough bark on older trunks. The black cherry is exceptionally valuable for wildlife, including the tiger swallowtail caterpillar and a <u>long list of birds</u>. It is the largest native cherry in Illinois, growing to 80 feet tall.

Oaks and hickory

Oak-hickory woodlands are one of the major ecosystems indigenous to this region. Oaks and hickories are host trees for hundreds of kinds of caterpillars and other insects, which in turn provide food for birds.

Swamp white oak (Quercus bicolor)

An oak of moist woodlands and stream banks, this tree is relatively adaptable to compacted urban soils. Leaves have fuzzy light-colored undersides, hence the species name. Acorns are used not only by squirrels and other mammals, but by birds like the





Chinquapin oak (Quercus muehlenbergii)

Part of the white oak group, this tree also has leaves that are shiny on the top and pale green and fuzzy underneath. This tree tolerates alkaline soil more than most oaks do.

Shingle oak (Quercus imbricaria)

A member of the red oak group, the shingle oak is distinguished by its leathery oblong leaves. The tree was once favored for making shingles, which accounts both for its name and the rarity of older specimens.



Northern red oak (Quercus rubra)

One of the faster-growing and more shade-tolerant oaks native to Illinois. Acorns of trees in the red oak group are bitter so are not the first choice of squirrels, but of course squirrels eat them anyway, as do a number of birds.



Pin oak (Quercus palustris) Another member of the red oak group, the pin oak prefers acidic and well-drained soils and does not thrive in the arboretum. Another member of the red oak group,

its leaves have fewer lobes and deeper sinuses (the spaces in between) than those of the northern red oak.



Shagbark hickory (<u>Carya ovata</u>)

Easily identified by their bark and compound leaves, shagbark hickories have long taproots so are hard to transplant, and they grow slowly. Squirrels and some birds eat the nuts. Because of the large number of insects they attract, hickory trees are also important to birds—including flycatchers, vireos, chickadees, gnatcatchers, and warblers. The peeling bark also hides insects during the winter.



Sources

Plants of the Chicago Region, 4th edition (2012) Floyd Swink & Gerould Wilhelm Illinois Wildflowers, website maintained by Dr. John Hilty www.illinoiswildflowers.info USDA-NRCS PLANTS Database is source of illustrations