

## Notable Natives

### Bur Oak

The foundation tree of northeastern Illinois and monarch of the savanna, the majestic bur oak (*Quercus macrocarpa*) is arguably the single most important local native plant. When settlers arrived, the savannas beckoned to them with widely spaced oaks and hickories, room to settle, wood for building and fuel, and beauty beyond our comprehension. Carpeted with prairie wildflowers and sheltered by the massive, spreading branches of the bur oak, these savannas were heaven on earth to weary pioneers.

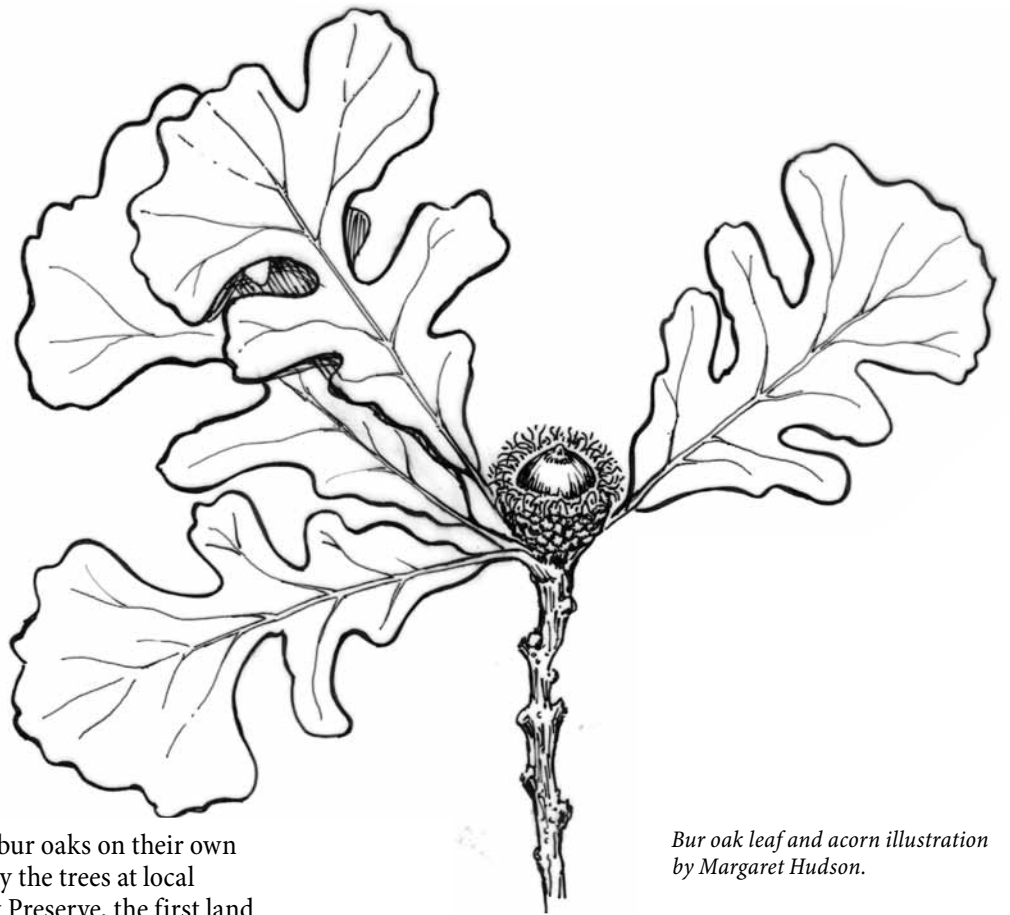
We have lost many of these oaks through development and abuse, but the species survives to provide us with the same amenities it furnished our predecessors. Some residents are fortunate to have mature bur oaks on their own properties, and everyone is able to enjoy the trees at local parks and preserves. Deer Grove Forest Preserve, the first land saved by the Forest Preserve District of Cook County, was named for its bur oak groves. Inverness was built on a series of oak knolls, and all of the Barrington communities include beautiful oak woodlands. CFC has saved several oak savannas and is restoring two of them to pre-settlement conditions at Flint Creek Savanna.

This magnificent member of the white oak family is native to much of the north central United States and the eastern Great Plains. It is a large tree growing 50-100 feet tall and 80 feet wide, oval-shaped in youth but becoming massive and spreading as it matures. Its trunk can reach up to ten feet in diameter.

The bur oak puts down a taproot in its early years, possibly as deep as three feet; thereafter, its roots spread sideways. These spreading roots are highly susceptible to soil compaction so that it is best to avoid heavy activity over its roots.

The bur oak is monoecious, meaning that both male and female flowers (in the form of catkins) exist on the same tree. These flowers appear shortly after the leaves unfurl in April. The male catkin is yellow-green while the female is reddish. Although both sexes appear on the same tree, pollen from one specimen appears to germinate better on the stigmas of another specimen. Thus cross-pollination produces the best seed crop. One will have more acorns if he plants several bur oaks in proximity to each other.

The acorns ripen shortly after they appear and drop as early as August and then well into the autumn. Most germinate almost



*Bur oak leaf and acorn illustration by Margaret Hudson.*

immediately although a few may remain dormant until the following spring.

Of all native oaks, bur has the largest acorn. Many are 1.5 inches or more across with a thick cap almost entirely fringed at the lower end, looking as if it wears a beard. Many species of wildlife feed on them including deer, squirrels, rabbits, mice, wood ducks, blue jays, and insects. Because the acorns are a major source of food for wildlife, the tree has developed a strategy to ensure that some acorns survive to germinate. Trees produce heavy nut crops only every other year or so. These large crops, borne during “mast” years, overwhelm the ability of seed eaters to consume all the acorns and assure that some survive to germinate and become new oaks.

The leaves are dark green, deeply lobed, and shaped like fiddles, turning copper and yellow in autumn. The oak typically grows as a single trunk unless it survived a fire in its youth. Its bark is distinctive, gray and deeply furrowed with narrow vertical ridges, giving a bold, rugged texture to older trees. This thick bark makes the species extremely fire resistant and allowed it to survive the prairie fires of several hundred years ago. Beautiful in the winter, the structure of this deciduous tree is awe-inspiring when it is leafless.

Besides their beauty and historical consequence, bur oaks should be planted at local homes for other important reasons. They are outstanding ornamental trees, among the most tolerant of all oaks of urban and suburban conditions. Additionally, they are drought resistant, a true tree of the

prairie. Conversely, they can survive some wet conditions as well. They prefer full sun but can handle a little shade. They have a high tolerance for pollution and alkaline soils. These are extremely long-lived trees and can provide hundreds of years of benefits when properly sited. They are suitable for landscaping in yards and parks as well as preserves.

Diseases are relatively few in the bur oak. The dreaded oak wilt (*Ceratocystis fagacearum*) is less a problem in members of the white oak family than in the red oak family. Mildew and fungi are generally harmless to the tree.

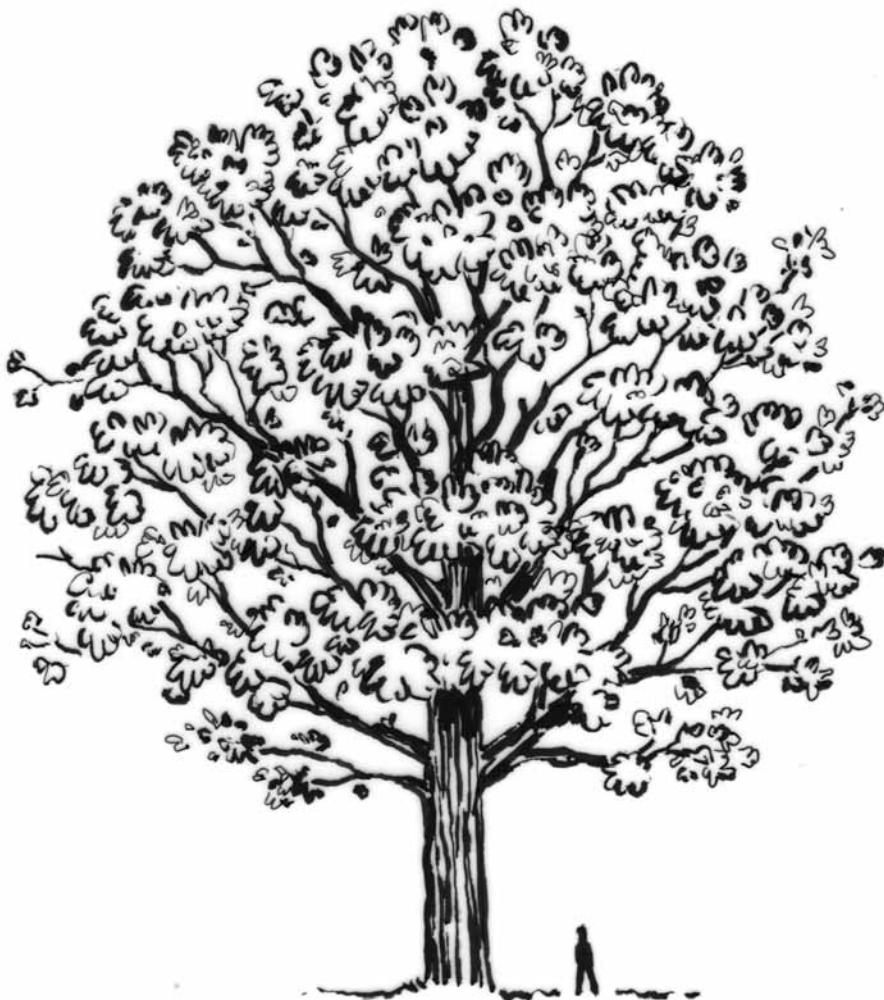
The bur oak is extremely valuable for both nesting birds and migrants. Consider adding a bur oak to your property if you would like to provide a constant source of free food to the birds. Many members of the order *Lepidoptera*, moths and butterflies, feed on this oak, over 250 in fact! Since no native insect will seriously damage this tree, it can provide both lodging and food for almost any feathered family. Examine your bur oak and admire the holes in the leaves, the galls, and the brown spots. The tree is busy feeding the neighborhood.

In the spring, over-wintering and newly arrived migrant birds prepare to mate, nest, and raise young, all of which require energy. The birds can't eat flower buds or tree bark; pollen is in short supply. No berries or seeds remain after the long winter. However, if native vegetation is growing abundantly, especially oak trees, there is plenty of protein-rich food available! From

egg to larvae to adult, insects are often the only food source available in the spring (and are the only food most birds can feed their young). Oaks are known for attracting more species of soft-bodied caterpillars of moths and butterflies than any other plant, thereby providing sustenance for many species of birds and other wildlife.

Consider planting a stately bur oak if you have room for a beautifully rugged shade tree that will provide years of enjoyment and full environmental services. You will contribute to the good health of your backyard community and become a steward of the earth.

—Virginia Black and Meredith Tucker



Bur oak tree and bark illustrations by Margaret Hudson.