



"NH Big Tree of the Month – July 2007" The Shagbark Hickory

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Remember the old song:

*“School days, school days, dear old golden rule days,
Reading and writing and ‘rithmetic,
Taught to the tune of the hickory stick...”*

This is how lyricist Will D. Cobb and composer Gus Edwards recalled their school days when they wrote this song in 1907.

Singing this grade school jingle was probably the first time I heard the word hickory, but I thought it was something like a licorice stick; no association with a tree or wood. Not until I moved to New Hampshire in the 1980s did I learn about hickory trees. Our new location on the edge of mature woods offered me a “total immersion” opportunity to learn about New Hampshire tree species. New to me were so many trees with compound leaves, including the hickory and ash trees that grow on our property.

Out of confusion and curiosity, I joined the NH Forest Society to learn more. Their magazine described many interesting outings and classes, including the Community Tree Steward program that at that time they co-sponsored with UNH Cooperative Extension. I arranged to attend a class on tree identification, but went to the wrong session and was convinced to take the whole course. Now I am a Tree Steward on the NH Big Tree Committee.

I learned that distinguishing hickory from ash is easy; hickory has alternate branching and ash has opposite branching. Of course we learned to look for many other clues – from buds to bark. Shagbark hickory’s compound leaves generally have five leaflets on each stem; one at the end with two opposite pairs along the stem. Other kinds of hickory have more pairs of leaflets along each stem, as do ash, walnut and butternut. Palmate compound leaflets are attached at a single point at the end of a stem like horsechestnuts leaves. Once I could tell ash from shagbark hickory I realized we have several kinds of hickories growing on our lot. One still puzzles me. Its smaller nuts suggest it is either a pignut or bitternut hickory.

The tall shagbark in our woods competes with oak and red maple, as all these trees reach for sun. The shagbark has a strong center leader with no limbs for at least for 50 feet, and because of the competition around it, has a narrow crown at the very top. When growing in an open setting, it is a handsome tree with dark green luxuriant foliage, and with lower branches drooping to the ground.

A few years ago, I stuck three nuts in the ground in the back yard between some arborvitae bushes in a sunny spot with well drained, deep soil. They all sprouted. Since I never expected they would survive squirrels, I don’t remember what kind of hickory nuts I planted. They are now taller than me. The one getting the most sun grew two feet last year and has grown almost two more feet this year. So even though hickories are called a slow growing tree, they can grow fast when conditions are right, plenty of sun and space, and good well-drained soil. Fortunately I

planted them in a location where I want them, because hickories have a deep taproot and don't transplant. For this reason they are seldom sold in nurseries.

Eventually the arborvitae will have to go, because this hardwood grows to a height of 100 feet. Once established, the deep roots seem to enable hickories to survive the abuse of compacted soils of parks and play areas. It also grows along well-drained roadsides where the soil isn't only compacted, but salt is used. But also roadsides, open parks, edges of rivers and edges of woods provide openings for sun, essential for hickories to thrive.

A competitive trick of some trees, especially hickories and oaks, is for leaves at the bottom of the tree to grow to an enormous size, helping the tree to capture more sun. These huge and distorted leaves are called sun leaves. The leaves at the top remain smaller to let the sun penetrate through to the lower leaves. I just checked the hickory saplings along the edge of the woods and discovered a virtual hickory stick farm! Enormous leaves are growing from these sprouts; the biggest is 30 inches long and the end leaflet is 14 inches long. This tree sprout has no branches yet, so when the leaves drop in the fall, all that will remain is an 80-inch tall hickory stick!

A native North American tree, John Eastman in his fascinating book Forest and Thicket, 1992, Stackpole Books, explains, "Hickory's very name is thoroughly American, deriving from the Algonquin word pohickory." They used the nuts for food by grinding them with cornmeal to bake in small cakes. Hickory is classified as a tree of the American Central Hardwood Forests, and New Hampshire is the northern edge of its range. I checked my Encyclopedia Britannica, Eleventh Edition, 1935, Vol. 13-14, pg. 447, to get the British view of this American tree. It describes hickories as "fine-looking noble trees...with straight symmetrical trunks, well-balanced ample heads, and bold, handsome, pinnate foliage."

It also gives a charming description of uses of hickory wood: "The timber is both strong and heavy, and remarkable for its extreme elasticity, but it decays rapidly when exposed to heat and moisture, and is peculiarly subject to the attacks of worms. It is extensively employed in manufacturing musket stocks, axle-trees, screws, rake teeth, the bows of yolks, the wooden rings used on the rigging of vessels, chair backs, axe-handles, whip-handles, and other purposes requiring strength and elasticity. Its principal use in America is for hoop making; and it is the only American wood found perfectly fit for that purpose. The wood of the hickory is of great value as fuel, on account of the brilliance with which it burns...."

The brilliance of the fire is a feature I never considered, but certainly Abe Lincoln did as he read by the firelight. It also kept him warm as hickory wood has the highest BTU's per cord of all woods. Of course this unique quality meant that hickories were valued for fuel and cut down. Since it takes 30 to 40 years for hickory trees to begin producing flowers and nuts, once all the trees and seed nuts were gone, it took a long time for them to return.

The NH Big Tree Committee's champion shagbark hickory trees are in the 80 feet tall range, and have huge, three to four-foot diameter trunks. It has been awhile since any of the champion trees were measured so certainly there are other contenders out there. Help the committee update its records. During your summer rambles, be on the lookout for huge shagbark hickories along roadsides or along the edges of rivers and streams.

To compare a tree you discover with the New Hampshire county champions, visit the NH Big Tree web site at: www.nhbigtrees.org for the complete list champion Big Trees. If it seems bigger than those listed, contact the NH Big Tree State Coordinator, Carolyn Page, carolyn_page@hotmail.com, 603-664-2934, who will pass the information on to the appropriate county coordinator.

UNH Cooperative Extension and the NH Division of Forests and Lands sponsor the NH Big Tree program in cooperation with the National Register of Big Trees through American Forests.

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