

**“The Other Hickories”**  
By Anne Krantz, NH Big Tree Team

When we moved to a lovely wooded suburban lot in southern New Hampshire over 20 years ago, I immediately fell in love with the mature canopy of trees surrounding our house. It included many kinds of tall oaks, red maples, pines, and some mystery trees I didn't recognize.

My confusion and curiosity about the various trees with similar looking compound leaves inspired me to register for a tree identification class sponsored by UNH Cooperative Extension and the NH Division of Forests and Lands. I arranged after-school plans for our youngest son (a liberated Mom!), packed up my leaves and eagerly trekked over to Manchester for the day-long class.

What a disappointment to discover I was too eager, and the class I wanted was scheduled for the following week. Instead, I was at the first class of a 10-week course for Natural Resource (Tree) Steward training, and I was invited to come back the next week for the tree identification class. Although I couldn't imagine how I could handle the after-school logistics, I was soon a member of the class. I found more mystery leaves for the next class. (For more information on the Natural Resource Course go to <http://extension.unh.edu/Forestry/FORCTS.htm>)

My various compound leaves turned out to be so simple to distinguish, it now seems impossible I didn't know the trick. A tree's branching pattern is the key. Trees' twigs grow either in an alternating pattern along a branch, or

grow with two twigs exactly opposite each other on the branch. I was confused by ash leaves and hickory leaves so the mnemonic for the few opposite branching trees provided the answer. Maple, Ash, Dogwood and Horse Chestnut are the only trees with opposite branching.



Both ash and hickories grow in our woods, and their compound leaves are now obviously different. The hickory leaves have a deeper color with a more leathery texture. The leaflets along the side of the leaf stem may vary in size with the terminal leaflet and the two attached right next to it the largest. Leaflets can number from five to 11. The ash leaves are a lighter green with usually seven leaflets of about the same size, a terminal one and three along each side.

I was still puzzled about the tree at the end of the driveway with hickory leaves, but with furrowed, forked bark so different from the shaggy bark of the other hickories on our lot. Much to my surprise I learned there are a variety of hickory species growing in the state.

The NH Big Tree list includes shagbark, pignut, mockernut and bitternut. I also learned there are many clues for identifying trees in addition to leaves, bark and branching pattern. Experts, who may resort to magnifying glasses, also look at buds, twigs, flowers, fruit and nuts, and even leaf scars!

This fall I was determined to once and for all figure out my mystery hickory, but alas, it didn't produce nuts this year! Sometimes leaves, flowers or buds are out of reach



on tall trees. Hickories often grow so tall leaves are impossible to reach and one must wait until they fall. Hickory flowers usually grow at the very top of the trees where they go unnoticed.

To help me identify my own mystery hickory I eliminated several hickory species: no shaggy bark and not a bitternut hickory. So how to distinguish between pignut hickory and mockernut hickory, something I discovered that even confounds the experts? Now that the leaves are turning yellow, I can more easily see the winter buds. There is a big bud at tip of twig with tiny round side buds, a characteristic of a mockernut hickory.

A taste of the nut would also help. I just gathered nuts from a huge local tree that I think is also a mockernut hickory, so I will try one. A hand nutcracker does nothing, so down to the basement and some strong-armed turns of the vise handle before exploding the nut. I pick out a sliver of dried-up blackish nut that doesn't appear appetizing. No odor, so into my mouth. It tastes like nothing! No horrible bitter taste that lingers, so it isn't a pignut.

On to the leaf scars for final confirmation. My tree is just beginning to shed its huge lower compound leaves. The lower leaves compensate for lack of sun, by growing to an enormous distorted size, especially in a wet year like this. So obviously the leaf scars left on the twig when these huge leaves fall will be much bigger than those of the smaller leaves on the top of the tree.

The scar on my mystery tree is definitely heart shaped, with three groups of bundle scars that look like a face with the bottom one a large circle and two smaller ones above for eyes. Another clue, these are the leaf scars of a mockernut hickory, and now I am sure that my tree and the huge one at Bragdon Farm, Amherst ( see photos), are mockernut hickories, *Carya tomentosa*. The Latin word *tomentosa* means 'with short matted hairs, wooly,' and they are found on the back of the leaf.

Hickories, members of the walnut family, are uniquely native to North America. They are deep rooted, tough trees that withstand wind. The strong, elastic wood is valued for firewood; it burns clean and it has the highest BTU rating of all Eastern hardwoods. It also makes good charcoal. For this reason, it's amazing there are any hickories left in New Hampshire, as charcoal was an important product in the 1800's. Hickory-smoked meats are prized for flavor.

Loggers don't distinguish the different hickory species for the wood. Hickory wood was valued for its toughness and elasticity in early America, and used for wagon wheels, tool and broom handles, and furniture (chairs). Later these qualities were discovered to be perfect for skis and even bats.

Hillsborough Extension Forest Resources Educator Jon Nute notes hickory trees aren't found much north of Concord. Hickory trees have a long tap root and are difficult to transplant, so most trees are planted by squirrels and animals. This fall I saw a squirrel hop across the back yard with a shagbark hickory nut in its mouth that seemed as big as its head. I guess they don't immediately eat them all, because I also saw a tail sticking out of a hole in the ground where a squirrel was busy planting something. It was so well covered that later I could not find the hole, but maybe I will find a hickory shoot next spring.

If you know of a spectacular New Hampshire hickory tree that might be a champion, go to: [NHBigtrees.org](http://NHBigtrees.org). There you will find information about the program with a link to the list of state and county champions, and instructions on how to submit a potential Big Tree for measuring by a county team.