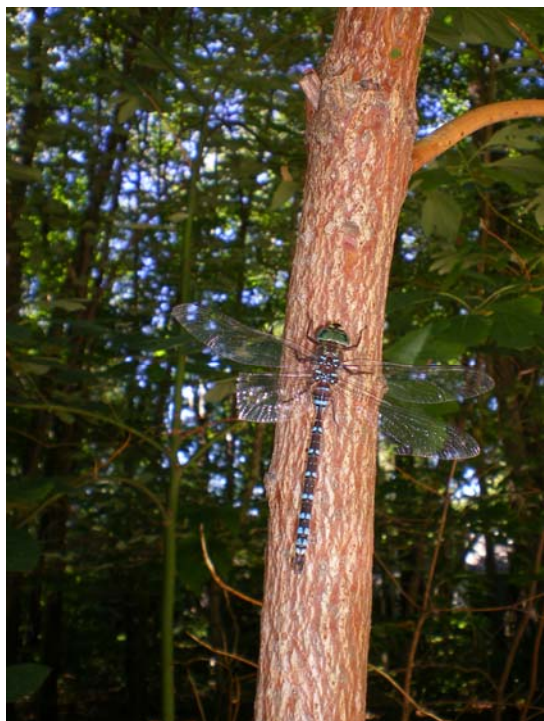


Big Tree of the Month - September 2013

Anne Krantz, Tree Steward and NH Big Tree Committee

Sassafras (*Sassafras albidum*) – Part II



We all love the colorful leaves of fall in New England. Among the brilliant leaves are the yellow to red leaves of native sassafras. Its unique mitten shaped leaves are fun for children to find because they really look like a hand. The mitten is one of three random leaf forms that grow on the same tree; the others are the mitten with a pinky finger and a single long oval shape. These strange leaves with unusual smooth edges make identifying sassafras easy, but it is not a common tree in NH and found mostly in the southern part of the state. Look for this medium sized often shrubby tree growing in clumps along roadsides or in field hedgerows in sunny locations.

The leaves are not the only strange characteristics of this interesting tree. Its flowers, bark, aromatic qualities and especially its odd fall fruits are other fascinating features. It is classified as a member of the Laurel family along with 3,000 species of flowering plants found worldwide, but mostly in tropical regions in Asia and South

America. Most are fragrant like cinnamon and bay. Sassafras is the only *Lauraceae* family that grows naturally New England. Our Mountain laurel, *kalmia latifolia*, is a member of the heath family – Ericaceae and not a lauraceae at all. (Little)

A clump grows along our roadside so I have observed it over the years. This spring I was amazed to see clusters of greenish flowers on some of the smaller saplings. Years ago I noticed the bright red and blue tropical looking fruit on some of our trees. The unusual blue ½” oval berry-like fruit sits in a bright red cup that is part of a thick red stem. Seeing the flowers gave me hope that fruit would develop again this year. Early in September I was delighted to see a few of the fruit drupes (fleshy fruit with hard or stone pit) on a lower branch. Hopefully more are growing at the tops.

Sassafras is not a prolific seed producing tree; the fruit production is sporadic, just every few years, not in huge quantities and only on the female trees. Curious to learn about the drupes, I just picked one and cut it in half to discover a large pit - still soft, but they become hard as they mature. (Little p. 450)

I hope to gather ripe fruits for the seeds and try to get them to germinate. L. H. Bailey says “propagation is by seeds sown as soon as ripe.” p 3082

But the NRCS web site says: “Seeds should be cleaned and stored at cool temperatures where they will last for up to two years. The seeds require pre-chilling for 120 days in order to germinate. Sow the seeds .5 to 1.5 cm deep in prepared beds in the late fall. The plants do not transplant well because of a deep



taproot. It is therefore best to purchase young plants that have been grown in containers for successful transplanting.” http://plants.usda.gov/plantguide/pdf/cs_saal5.pdf. So I will try both methods.

Although the fruit is sparse, the flowers were abundant this past spring. The tree is *dioecious* meaning that there are male and female flowers on different trees. This is confounding – I must have clumps of both male and female sassafras growing together. The flowers of both look similar but the male flowers have 9 pollen producing stamen and the female flowers have a central pistil with the ovary at that becomes the fruit and seed. There is no fruit on the small trees that had the flowers, they must have been the male flowers – will check next year! Now that I know which trees are female, I hope they flower next spring so I can compare the two flowers.

The tree also spreads by underground suckers that form the clumps. Seedlings and suckers are shade tolerant but the trees need sun, to grow to maturity. So they grow along field edges and where blow-downs create an opening in a forest canopy to allow sunlight to reach the floor and perhaps sassafras seedlings. The tops grow up to the sun shading the lower branches that die so the tree grows tall and skinny in these low light situations.

Its bark is unusual too. I just noticed a tall sprout in the roadside clump that is light green with a whitish coating or bloom. I think the huge sprout is all this year’s growth. Older sprouts develop brown stripy bark over the green that later becomes reddish brown stripes, while more mature trees develop furrowed bark. Photos

Sassafras is found mostly in southern NH although I remember seeing one at Canterbury Shaker Village years ago. The tallest and biggest sassafras listed in the NH Big Tree Register grows along a roadside in Hollis where there is open land and plenty of sun. We just re-measured it this summer and it is 75 feet tall with a trunk circumference of 79 inches.

When shaded out by tall forest trees like pine, sassafras dies out which is why they are uncommon in NH. So you are most likely to see them from your car window growing along the road next to open fields. Look for the stunning color and the rounded shaped leaves with no points.

Because of its deep tap root sassafras do not transplant well and are not generally sold in nurseries. It is too bad they are so difficult to get started because they are lovely shade trees, free of diseases or insect problems.

For additional information about the UNH extension NH Big Tree program and directions for submitting a Big Tree nomination, go to: <http://extension.unh.edu/Trees/NH-Big-Tree-Program> Or: nhbigtrees.org.

Big Tree for August 2006 – Sassafras (*Sassafras albidum*) Part I

Last summer, (2006) I helped re-measure the Hillsborough County Champion sassafras tree, originally measured in 1973, to update the NH Big Tree records. We drove up and down the rural country road, lined with hedgerows and thickets looking for the distinctive mitten-shaped sassafras leaves that are so easy to spot. We finally gave up and got help. Once we were told to look over our heads - there it was! Actually there were several huge ones, and it was hard to tell which was the tallest. These astonishingly tall sassafras trees, soaring to the sky, are totally unexpected this far north. NH is the northern edge for this mostly southern tree, and smaller, shrubbier trees are more usual here. Sassafras belongs to the tropical plant family Lauraceae that includes [cinnamon](#), [cassia](#) and [camphor Laurel](#) , [bay laurel](#), [spicebush](#), and [avocado](#). On the other hand, American mountain laurel (*Kalmia latifolia*) is not a member of the laurel family, but belongs in the Heath Family.

The tallest one, growing in a lovely sunny location, is over 70 feet tall. It is a handsome tree with a straight trunk, and lush foliage. The three forms of the odd leaves: oval, mitten shaped and mitten with both a thumb and pinky finger, grow in clusters at the end of the twigs. Open sunny sites like this have declined in NH as farms reverted to forest during the past century. Sassafras is classified as intolerant of shade at all ages, and dies out when overtopped by taller trees.

We have a clump of shrubby sassafras trees on our property growing along the road at the edge of a wooded area. Sassafras grows on moist, well- drained, sandy loams (the exact the conditions we have), and is a pioneer species that sprouts in abandoned fields, along fence rows, or following fires. The ones in our property probably sprouted when the former farm was abandoned, but that was long ago and the clump is now becoming shaded out by tall oaks and pines. The trees next to the road where a sliver of sun peeks through are the most vigorous.

Clumps of Sassafras trees expand by underground runners from parent trees. I discovered this years ago when I tried to make tea from the bark of the roots. The fragrance from the crushed leaves is truly delightful and enticing - spicy, with a hint of orange, so I fell for the idea. I selected a small sassafras sprout for this experiment, but discovered the root was such a runner – so the sapling died and I got some dirty root bark that did inspire me to make the tea. Early settlers must have been desperate to go through this to get a cup of tea. But in addition to the interesting taste, they attributed medicinal qualities to the tea – it was popular as a spring tonic to ‘thin the blood’.

Early explorers in the 15th and 16th centuries were looking for spices similar to the wonderful ones found in the East Indies. Cinnamon and camphor were valuable products for both food preparation and for medical uses. Since the first explorers thought they were in Asia, sassafras was mistaken for other trees, and they named it 'cinnamon tree'. UNH Cooperative Extension Forester Jon Nute explains that “during the early colonial era, the settlers were desperate to send goods back to Europe to make money to pay the bills they incurred in getting here in the first place. Sassafras bark has a spicy aroma, and when ground and added to boiling water, made sassafras tea, which was popular in Europe as a cure for syphilis and other ailments. It is not a cure, but the people thought it was. It was such a convenient moneymaker for the colonists (easier than catching and salting cod, curing beaver hides or sawing white pine lumber) that the trees were heavily exploited to the point that they became rare in what had been their natural range. The trees have been recovering and multiplying from this experience since. “

By 1610, sassafras was so highly prized that England was demanding sassafras oil from the colony of Virginia as a condition of charter, and by the mid-1600' it was second only to tobacco in export to Europe from America. But harvesting roots for tea, and other economic uses didn't do much for the survival of the species. The mass of sprouts near the parent tree are a bit weedy, so early settlers could hardly imagine that harvesting the roots would harm the supply, any more that fishing or logging would ever end.

Not only was sassafras not an effective cure-all medicine, it was not healthy in food. The Food and Drug Administration determined that oil of sassafras was carcinogenic and banned it from commercial uses in foods in 1976. It could no longer be used to flavor root beer and candies. Maybe root beer did taste better in the old days! The fragrance industry also banned it, so it is no longer used to scent perfumes or soaps either.

The orange colored sassafras wood is of little value for lumber aside from utilitarian uses like buckets and posts.

The new twigs are very green and have a pleasant taste when used like a tooth pick. The new stems are green and stay green all summer long, a distinctive feature. Because of the thick layers of leaves the trees are stunning in the fall when they turn a pretty yellow-orange color. But most unusual is the fruit – I couldn't believe my eyes the year our young trees first produced fruit. I thought I was in the tropics because of the vivid colors: clusters of blue berries encased in a bright red cup on a red stem. I have been watching each fall, but no production of seed has matched that year – they produce bountiful crops of seed only every 3-4 years.

The seed is distributed by birds and I have a few sprouts growing on the other side of the yard, in too much shade. I was ready to yank them out, but now that I know they are rare, they will stay, adding to the jungle look of our property. Sassafras saplings are hard to transplant, mostly because of the attachment to the parent plant by the runner. I don't know about these solitary plants – maybe I'll try to move one.

You can help the NH Big Tree Committee update its records by looking for giant trees. To compare a tree you discover with the NH champions, visit the NH Big Tree web site at: www.nhbigtrees.org for the complete list champion Big Trees. If you find one that seems bigger than those listed, contact the NH Big

Tree State Coordinator, Carolyn Page, carolyn_page@hotmail.com, phone: 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.