

Big Trees of the Lamprey River



By
Kevin Martin

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We all seem attracted to large trees, especially when they are deep in the forest and stand out in the woodlands around them. If it is a tall tree, the trunk goes up and up and you strain to see the top. The shorter giants have stout lower branches that look like a regular sized tree growing sideways out of the trunk. It feels like a different world when under the tree and looking out from the space that is carved out by the limbs. The bark is more noticeable as it has a look and feel that draws you in closer to examine it. Most locals who use the woods have learned to appreciate these trees and will know where you are directing them when you say “over by the big oak.” While sitting under it, your mind can wander feeling protected by this old forest landmark. It is likely that generations of landowners, hunters, fisherman, and hikers have stopped there for a while to ease the stress of their busy lives.

In today’s society with computers and so many other distractions bringing us inside and out of the natural world, it is important to take the time to appreciate the outdoors and the trees around us. These large plants do so much to keep our world in balance. They help prevent erosion and control flooding by absorbing water during heavy rains. They absorb much of the carbon people introduce into the air and give us the oxygen we breathe. Trees are used in so many ways. Their lumber is valuable for building our homes and also for furnishing those homes. They provide firewood as a source of heat. The leaves and bark are even used to cure our illnesses. In the cities and towns, the bigger trees help cut down on costs for managing storm water run-off and for cooling buildings.

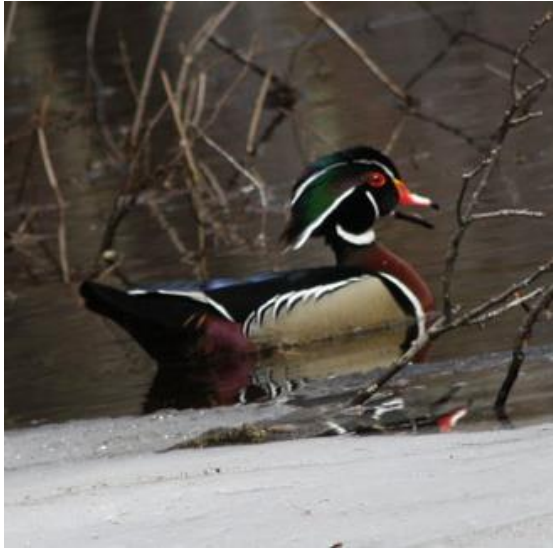
Visiting these larger trees will help us appreciate the tremendous work that they do. This guide will direct you to several short hikes to some large trees along the Lamprey River. The hikes will showcase different types of the Big Trees, so if you do not already know some of the species, you can learn to identify them.

While the guidebook is up to date as of 2013, keep in mind that the New Hampshire Big Tree Champions list is always changing as old trees fall or die and new ones are discovered. Enjoy your hikes and be sure to look around while out in the woods along the Lamprey River!

About the New Hampshire Big Tree Program

The NH Big Tree program is part of a national program that is run in each state to keep track of the largest trees in the country and in each state. There are set guidelines on how to measure the trees. In New Hampshire, there are county, state and national champion trees that are listed. Big Trees that make the list are re-measured every 10 years in order to keep their champion status. Under the best circumstances, each county has a team that measures any trees reported. The state coordinator sends out certificates to the owners and nominators of champion trees and reports to the national group at American Forests.

Big Trees Benefit Wildlife



Wood duck.

As you look at these large trees, keep an eye out for the signs of use by the wild creatures in the area. The older trees have been there through generations of birds, animals, and humans. Wildlife can be seen at most of the sites either very near the trees or in them. I like to say that a partridge led me to a large black gum (tupelo) that I was searching for during partridge hunting season. I had looked for the tree I had heard about in the area a few times with no luck.

One day a partridge flew up off a trail into the thick brush. I circled a few times looking for it and came upon the tree. I never found the partridge. In the same wood, I looked for the state champion black gum that I had seen earlier but had no GPS reading. I was hot and sweaty

after wandering for some time, getting turned around as the woods all looked the same. I was almost ready to give up when a rabbit went bounding into a swampy area. I went toward it and looked up and, lo and behold, the tree was right there.

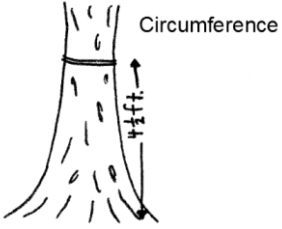
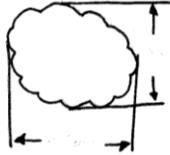
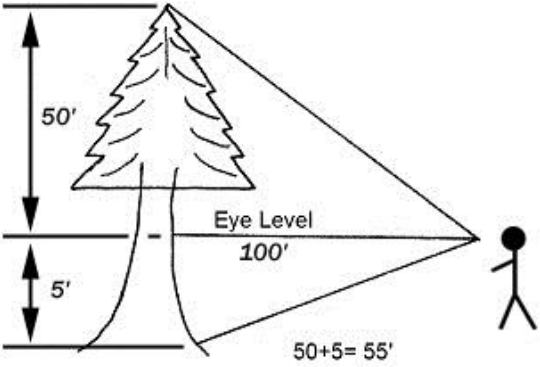
Many of the big trees get heart rot in the center which provides nesting areas and shelter for rabbits, porcupines, raccoons, and some types of birds. In very large trees, even bears will use them to hibernate. The tall trees also are great roosting sites for the large birds of prey. You may see or hear hawks, owls, or eagles using the high perches to scout out the area.



Big Trees can produce large crops of fruit, nuts, and cones that are a boon to the wildlife in the area. They may be feeding there in the morning or late afternoon, so if you time your visit and keep quiet you may get a glimpse of some of the birds or animals that come to the tree. Not too long ago, people would also note the trees that produced bumper crops of berries or nuts, then collected the bounty to help get through the long New Hampshire winter. The Lamprey River Advisory Committee hopes that this tour will help people to again recognize the many benefits these Big Trees provide to us and our environment.

How to Measure the Trees

If you find a new big tree that you think may be a champion, measure the circumference as shown below. The county team will compare the tree to others on the Big Tree list to see if it is close in size to other champions listed. Official measurements will then be taken.

<p>1. The circumference breast height, or CBH, is the circumference around the trunk at 4½ feet up from the ground. If the ground at the trunk is sloped, measure from in between the high and low spot at 4½ feet. For those who are so inclined, diameter tapes are available that tell the circumference as well as the diameter with one measurement. The tapes are somewhat expensive, so a regular 25' tape will work if you do not plan to do much measuring.</p>	
<p>2. The average crown spread, or ACS, is based on two measurements of the tree's foliage area. The first measurement is the widest distance with the trunk at the center. The second crown measurement is perpendicular to the first. When you add the two crown spreads and divide by 2, you will have the ACS.</p>	
<p>3. The vertical height, or VH, is the most difficult and is usually determined by the county measuring team. It requires the use of a percent clinometer, a calibrated instrument available through forestry suppliers. If you have a percent clinometer, use a measuring tape to find a location 100 feet from the tree. Look through the clinometer to obtain a reading of the height from your eye up to the top of the tree. Look through the clinometer again to sight the bottom of the tree. To get the VH, add or subtract this bottom measurement from your eye to top height, depending on if you are higher or lower than the tree bottom at 100 feet away.</p>	

The tree is then scored using a point system and compared with others on the list. The total points are determined by adding the circumference in inches to the height in feet, then adding 25% of the average crown spread. A tree with 75" CBH, 100' VH, and 60' ACS is scored as 75 +

100 + 15 = 190 total points. A GPS reading is then taken and the tree condition is checked and reported as excellent, good, fair, or poor.

Keep in mind that some types of trees just do not grow very large. You may not be very impressed by a champion gray birch or American chestnut unless you have some idea of how an average sized tree of that species looks. While you are out measuring, be sure to look at the other trees around. If you come to a grove that consists of mostly one type of tree, be sure to look for the largest one. When you do see the champion of that type you will appreciate it even more.

What You Will Need to Bring and Other Considerations:

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> water | <input type="checkbox"/> tree measuring gear- if desired |
| <input type="checkbox"/> snacks | <input type="checkbox"/> warm clothing- if needed |
| <input type="checkbox"/> compass | <input type="checkbox"/> boots for wet areas |
| <input type="checkbox"/> binoculars | <input type="checkbox"/> tree id book |
| <input type="checkbox"/> camera | <input type="checkbox"/> GPS -needed to find most of the trees |
| <input type="checkbox"/> map of area | <input type="checkbox"/> insect repellent |

Some of the hikes are in woods that are hard to get around in or may have trails that end before you get to the tree. Be prepared with a GPS (with extra batteries) and a map and compass for backup. During hunting season, be sure to wear some hunters' orange clothing to be safe.

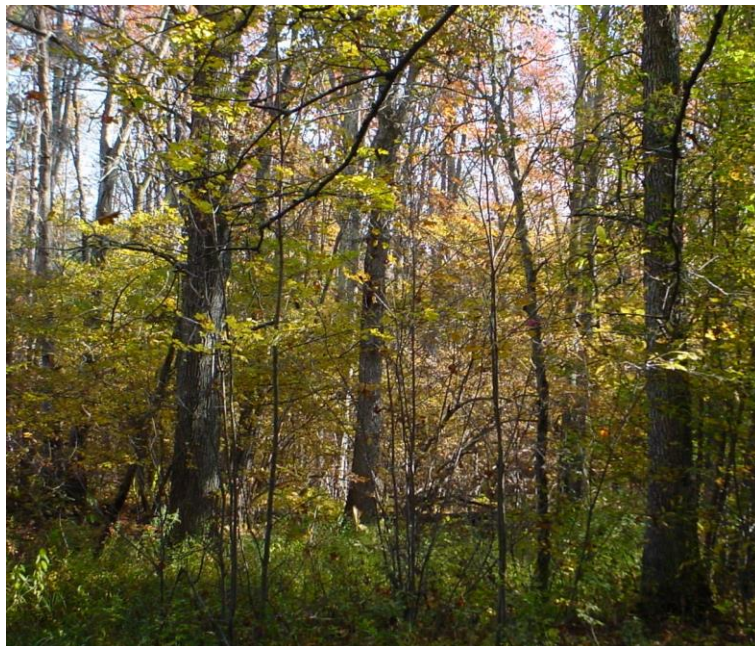
You must always respect the property you are on and the trees you are viewing. Do not let the kids pull off the bark or hack away at the trunk with whatever they have in hand. Tread softly around the tree and try not to damage any exposed roots.

Some of these hikes are on private property and access could be restricted at any time, especially if the land is abused. Even trees on public land will be protected if damaged and steps could be taken to restrict viewing them. Just use some common sense so future generations will be able to come back to visit these same impressive trees.

Trip Difficulty Rating

1. An easy short walk with little to no rise in elevation. Good for young families.
2. A bit harder but still easy enough. There may be some elevation rise and rocks and roots on the trail. May be ½ mile or more to the tree and may include additional hiking if desired. Children will still enjoy this.
3. A good trip that may take some time to both get to the area of tree and then find it. Some off trail travel may be required. Could include wet areas to get through or some elevation gain up steep slopes. Older children with fair hiking skills and the proper equipment would enjoy the challenge.
4. An adventure for the experienced hiker and will be off trail for the most part. Expect swamp tromping and bush-whacking. Will take considerable time to get to the tree and then find your way out. Plan half a day and go early so you are not trying to find your way out in the dark.

The GPS coordinates for the trees are provided, but for some of the trips you will have to mark the coordinates for the access point where you park your vehicle so you can find your way back out of the woods. Take a compass reading also, GPS power or signals are not always dependable and you may have to rely on a map and compass.



It can be difficult to get around in swamp white oak woods.

A Wild and Scenic River Big Tree Tour



This is a tour of trees that are on conserved land near the Lamprey River. This river has been declared a National Wild and Scenic River in the towns of Epping, Lee, Durham, and Newmarket. The Lamprey River Advisory Committee has put in many years of hard work to be sure the land in this area is preserved. Thanks to its efforts, wildlife and Big Trees can continue to survive here, and the people have outdoor space for recreation.

Through the natural resource studies that were completed to nominate the river into the national Wild and Scenic program, a few large trees were documented. Years later they were searched out and measured. These are included in this tour along with some others that were already listed in the NH Big Tree program. The trees include red pine, northern white cedar, white pine, American chestnut, northern red oak, and swamp white oak. Most stops take about 15 minutes to get to the trees with the exception of the red pine and chestnut, which require a longer hike. The whole tour would take most of a day depending on how long you linger at each site. If less time is available, the two longer hikes could be planned for another day. There is no need to rush; take your time and enjoy yourself along this well conserved and nationally recognized Lamprey River.

Northern White Cedar, Epping

This white cedar growing in the corner of the Central Cemetery was planted here many years ago. Cedars are known as symbols of eternity and are planted in many cemeteries. The beautiful green foliage also adds some color in the stark New Hampshire winters. They grow naturally in the northern part of the state, with some planted in southern New Hampshire as a landscaping tree. The Atlantic white cedar is found naturally in the swamps of the southern part of the state. This Epping tree has lost some of its top in a storm, so it is not as symmetrical as it once was. It is near the center of town with the former high school, Watson Academy, just across the street.

difficulty rating: 1

GPS coordinates: 43 02.583'
W 071 04.456'

measurements:

90" CBH 59' VH 32' ACS

total points: 157

condition: good

Rockingham County
Champion



Northern white cedar at Central Cemetery in Epping
with Watson Academy in the background.

American Chestnut, Epping

We all have heard of chestnuts roasting on an open fire, but hardly anyone roasts them anymore, because they are not that common. The chestnut blight that was imported into the country has infected them and kills the trees off before they can reach the grand stature they once had. They were as common as the oaks are now and the lumber had many uses. Some of the old canoes or rowboats had chestnut for the stems or gunwales. This tree is the largest recorded in the state, but at 44" circumference it is not all that big. It does have some chestnuts in their prickly husks that may help spread new growth in the area. Recent visits to this tree have shown it to be rapidly declining so it may not be the largest in New Hampshire for long.

difficulty rating: 2- stream crossing

GPS coordinates: N 43 03.203' W 071 01.610'

measurements: 41" CBH 82 VH 32 ACS

total points: 131

condition: good

State Champion



Chestnut husk.

White Pine, Epping

The eastern white pine is perhaps the most recognizable tree in New England. The pine cones are an important food source for many small mammals and birds. These tall trees are used for nesting by squirrels and roosting sites for large birds of prey. The lumber is used extensively for furniture and trim on our houses. There is a bigger pine (the county champion) in the woods a half mile or so from here that has 2 or 3 trunks joined together to make one tree. This one is more impressive than most, though, and is the biggest single stem pine along the river. The tree highlighted here is in the George Falls Woods that is owned by the Town of Epping and managed as a pine forest. The town has thinned out many of the poorly formed trees and will continue to improve this notable stand of pines. The trail, built in the early 1990s as an Eagle Scout project, brings you in a loop with a spur down to the towering tree and the Lamprey River.



difficulty rating: 1

GPS coordinates: N 43° 03.214' W 071° 01.360'

measurements: 127" CBH 100' VH 61' ACS

total points: 242

condition: excellent

Red Oak, Lee

This red oak is not listed with the NH Big Tree Program because there are many larger oaks in the county and state, but it is such a nice tree I could not pass up including it as part of this tour. It is not small by any means and one of few you will find of this size in a woodland setting. This is a healthy tree that is straight and tall. The property is owned by the Homeowners Association of Riverside Farm Drive. When the farm property was developed, an agreement was worked out where part of the land was developed for homes and a working farm was left on about 40 acres. The rest was set aside as common land for the homeowners to enjoy. This is not public property, so please respect the owners and just go to view the tree and do not wander around on the rest of the land.

difficulty rating: 1

GPS coordinates: N 43 05.513' W 071 01.280'

measurements: 150" CBH 94' H 70' ACS

total points: 257

condition: excellent



Four kids are needed to reach around this red oak.

Swamp White Oak, Newmarket

Growing near the edge of Tuttle Swamp in Newmarket, this swamp white oak is the current county champion. It is a good sized tree and you can see different forest stages on the way out to it. The first part of the trail out has been clear-cut at one point and the young shrubs and small trees are filling out the land. This type of cover is important for many small mammals and birds. You will notice the difference at the old boundary line where this oak is located. The former county champion was a much larger swamp white oak that fell in the summer of 2013. If you go across the woods to the north toward the power lines, you can see the stump and fallen tree in the high grass and shrubs. You should also be able to notice how hollow the old tree was and can see the space it required on the edge of the woods.



Swamp white oak woodland.

The swamp white oak forest where the tree grows is one of a few small pockets along the Lamprey where you will find them; the grove is like a separate forest in itself. The trees grow at the edge of the swamp where it is too wet

for most other trees and survives the annual overflow of the wetlands in the spring and during heavy rains. These areas are important for the wood ducks which will land in the deeper water nearby in the fall and swim into the flooded forest to eat the acorns.

difficulty rating: 1 (could be wet in the spring; wear boots, and spray for protection from ticks)

<u>standing tree</u>	<u>fallen tree</u>
GPS Coordinates: N 43° 04.823' W 070° 59.631'	GPS coordinates: N 43° 04.858' W 070° 59.703'165"
measurements: 114" CBH 68' VH 52' ACS	measurements: CBH 72' VH 79' ACS
total points: 234	total points: 278
condition: good	condition: dead
Rockingham County Champion	former County Champion

Red Pine, West Epping

(Optional)

The Lamprey River Forest, where this tree is located, was one of the first properties conserved with the help of the Lamprey River Advisory Committee and its efforts to protect the health of the river. This land includes a long stretch of the Lamprey and is owned and managed by the Society for the Protection of New Hampshire Forests. The red pine shown here has the second largest circumference in New Hampshire and has a long clear trunk. This type of pine is also known as Norway pine even though it is native to the Northeast in this country. Many are planted throughout the state because they are known as fast growing trees. They will grow in quickly after a fire and love the sandy soils that are found here near the river. This one is a boundary tree and, because of its size, must have been here quite a bit longer than other nearby trees of the same type. There is a grove of planted trees on the property that is worth a visit to see as an example of a healthy mid-aged red pine forest. To appreciate the size of this red pine, be sure to see the grove just a little farther up the trail.

difficulty rating: 2 Be sure to have a GPS or map and compass for off trail use.

GPS coordinates: N 43° 02.615' W
071°07.148'

measurements: 91" CBH 96' VH 37'ACS

total points: 196

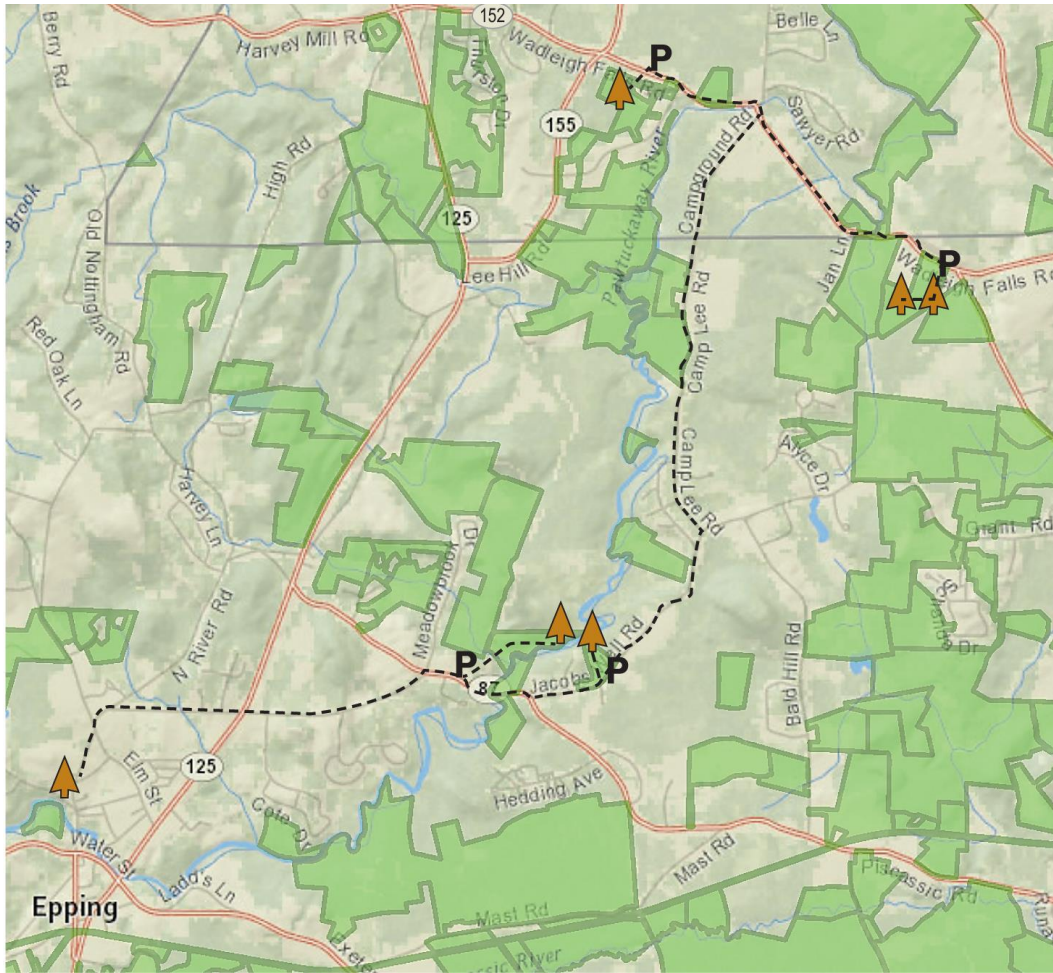
condition: fair

Rockingham County Champion



Red pine.

Main Tour Directions



northern white cedar-To take this tour you can start with the white cedar in downtown Epping at the Central Cemetery on the corner of Main Street and Prescott Road.

chestnut- After viewing the cedar, continue up Main Street and bear right at the fork to North River Road and then right again on Old Hedding Road. Go to and cross Route 125 at the lights and continue on Old Hedding to a stop at the end. Turn right on Route 87 (Hedding Road) and go about one quarter of a mile to a dirt road on the left just before the Amethyst House and the river.

The road is closed to vehicle traffic, so pull in and park in front of the stones in the small parking area. Walk down the dirt road about half a mile. You will have to cross Rum Brook which has washed out the road, so be careful during high water. If too high, go visit the next tree. After the brook, go up the hill a little and go right into the gated gravel pit and all the way to the other end where the trail goes out. Then bear right on the trail through the boulders and go left at the fork that will bring you down near the river. The chestnut tree will be on the right just before a swampy area.

eastern white pine- Continue down Route 87 and take the first left after the river onto Jacobs Well Road. Go past Windsor Lane on the left and keep a look out for a fence gate at the George Falls Woods on the left. You can park off the road at the gate or at any pull-off nearby. Go past the gate and follow the trail down toward the river. The pine is on the trail just before the river.

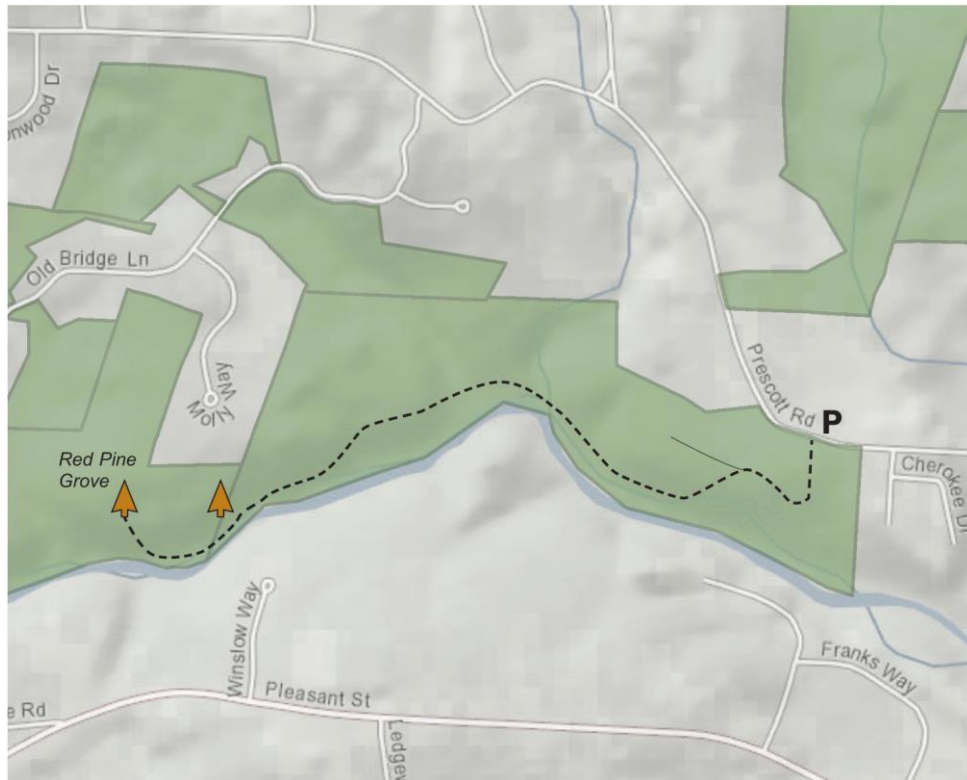
red oak -Continue down Jacobs Well Road and go right onto Camp Lee Road. Follow it to the end at Wadleigh Falls and take a left to cross the river. Follow Route 152 along the river and then around the corner. Just after Kustra's Auto Body, pull over on the right before the snowmobile trail that crosses the road. Walk across the street and follow the trail beside Kustra's about a half mile to the tree.

swamp white oak-When ready, go back on Route 152 toward Newmarket. After about one mile down the road, look for a guard rail at a corner in the road. Just after that there is a pullover on the right and parking for a few cars at Tuttle Swamp. Follow the path in front of you a few hundred feet and then go right onto another trail that cuts across in the tall grass. Follow that trail a hundred feet or so to the edge of the taller woods. Follow the boundary to the left that separates the two stages of forests. The tree is a few hundred feet down on the boundary line. From here you can see the clearing behind you for the power lines where the other fallen oak is located. This is a good end of the tour, but be sure to wander a little in the Lamprey River's best swamp white oak forest that surrounds you before you go.

(Optional)

red pine, Lamprey River Forest- Get off Route 101 on the Depot Road exit in West Epping. Follow Depot Road and cross Route 27 onto Blake Road. Go 1.2 miles and take a right onto Prescott Road. Go 1.3 miles to a sign for Lamprey River Forest on the right. Pull in between the stone walls and park. Be sure to leave room for farm vehicles to get in and out of the nearby fields. Walk along the edge of the back field on the left and you will come to the trail. A half mile or so in on the trail, take care to stay near a stream after you cross it as the trail is hard to locate there. Follow it to the river. Follow the river upstream. The trail dies out and the land rises, so you will have to walk through the woods and keep the river within sight. If you keep the river to your left, you will come back to a level trail and the river. Use the GPS coordinates to get close to the tree. When you start seeing some boundary markers, be sure keep going a few hundred feet farther along the river. There is a nice grove of red pines on the right that should be seen first then come back to the Big Tree.

Map to the Big Red Pine in West Epping (optional)



About the Author

Kevin Martin has always been interested in working with wood, brought on from his father's interest in woodworking tools and the wooden boat that his father built. Kevin has carried on the tradition of boatbuilding by building well over one hundred small boats and restoring many more. A visit to his workshop will usually reveal at least one or two fascinating canoes or boats in progress. His interest in working with wood has led him to admire the giant trees he encounters as he walks the woods of New Hampshire. At first he viewed these trees as prime sources of good lumber for his work. As an accomplished naturalist and outdoorsman, he has since learned of the many other important benefits that big trees provide.

Kevin's interest in visiting Big Trees began when searching for some trees he had heard about in the wildlife studies that were completed along the Lamprey River. He found some state champions in special natural settings which brought about a great respect for the different types of forests and the waters that nourish them. He shares many of his experiences in his book, [Big Trees of New Hampshire](#), featuring hikes to them in many parts of the state.

Kevin and his wife, Kim, live in the house that they built along the banks of the Lamprey River in Epping, New Hampshire.