



"NH Big Tree of the Month – February 2007" White Pine – *Pinus Strobus*

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The King's pine or white pine (*Pinus strobus*) still reigns as the king of trees in New Hampshire. When the first settlers arrived in New England, they were astounded by the enormous pines that towered above all other trees – one was recorded at 220 feet tall.

Today, the NH Big Tree Committee maintains a list of the champion trees for all native species. According to these records, a grove of huge white pines on Rt. 103 in Bradford that soar to over 150 feet tall, are the tallest trees in New Hampshire. They are easy to find near a variety store/gas station with a paved parking area at the site. A few of the trees even have lightning rods on them.

Prized by the first settlers for not only their immense size but for their ramrod straight trunks, these New World giants were perfect for ship masts. Considered the best masts in the world, they were like gold to the shipbuilders and provided a naval advantage to the British Royal Navy. Formerly, the masts for their increasingly large ocean-going vessels were made by piecing together several pine trees obtained from Scotland.

Beginning in 1654, 'mast trees' were felled along the Piscataqua River and shipped back to England on 'mast ships' that carried up to 30 at a time! Dropping such behemoths without splitting or cracking them took skill and lots of space. Many other trees were sacrificed to fell a perfect mast tree. The American 'giant mast trees' were 36 inches in diameter and 36 yards long (108 feet). In little over four decades the accessible pines were gone and the Royal Navy and king acted to protect the remaining large mast pines. It is estimated that about 4,500 masts were shipped to the Royal Navy shipyards between 1694 and 1775.

The king responsible for the name 'king's pine' was King William, who with Queen Mary issued the Massachusetts Bay Charter in 1691. It established New Hampshire as a separate royal province free from Massachusetts rule, and it set forth the onerous 'Mast Preservation' clause that dogged the Colonists until the Revolution.

But the enterprising settlers realized they could make more money by selling lumber to other markets than selling masts to England, and they generally ignored the laxly enforced law. Surveyor-generals and their agents were responsible for selecting and marking the desirable trees with a broad axe to inscribe the Broad Arrow mark made with three chops that looked like crow's feet tracks

The lumber from the soft wood, straight-grained pines, perfect for building construction, interior finishing and furniture, also provided the settlers with the amazing wide boards used for wide interior decorative panels admired in historic homes as well as for rough flooring in barn lofts and attics.

Although white pine trees are generalists that grow in varied sites, in Colonial times they were conveniently found in low sites along stream beds protected from wind. Pine seeds germinate when in contact with bare soil. Today they sprout up along roadsides and abandoned pastures, burn sites, sunny ridge tops or disturbed areas.

White pine, historically the backbone of the timber industry in New Hampshire, continues to occupy an estimated 750,000 acres of land in the state and continues to be the dominant lumber tree. The Hurricane of 1938 removed nearly two billion feet of downed, salable lumber including the tallest trees, the white pines

White pine trees are so common today it is hardly necessary to mention it is the only five-needled conifer east of the Rockies, and that it grows with a central leader surrounded by whorled branches. The distance between the whorls of branches show the annual growth that averages about a foot a year. But on optimum sites of sandy loam, with sun, and plenty of moisture, growth can be much greater. Their height can sometimes make them a hazard near buildings and homes where wind can topple them.

There were times when the lumber industry thought they would lose their most economically important tree to pests and diseases. UNH Cooperative Extension Forest Resources Educator Jon Nute explains that “white pine blister rust apparently became established in New Hampshire in 1917, from seedlings introduced from Europe with the disease. The first quarantine regulations in New Hampshire were introduced in 1917, but the big era for work crews to eradicate gooseberries and currants coincided with federal work programs in the great depression from 1928 to the end of WW II. They must have done their job well, for with the lowered population of ribes, the blister rust infection is also low, now at about 3.2 percent of all white pine larger than 14 inches trunk diameter, which is acceptable.”

Other noticeable pests are the white pine weevil that attacks the leader of open-grown young pines producing a dead tuft at the top of young trees. This produces a crooked stem, multiple leaders and a low branching growth. The Eastern pine shoot borer causes similar damage.

While enjoying the outdoors this winter be on the lookout for colossal pines that tower above all others. If you discover unknown giants, visit the NH Big Tree web site at: www.nhbigtrees.org for the complete list champion Big Trees to see how yours compares. If it 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. The 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.

For more information about the Kings Pines go to an article by Compatriot Davison
<http://www.nhssar.org/essays/Whtpines.html>

Recommended books:

Reading the Forested landscape, Tom Wessels, 1997, Countryman Press, Woodstock, VT
Changes in the Land, William Cornon, 1983, Hill & Wang, NY

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