



## **"Yellow Birch (*Betula alleghaniensis*) New Hampshire's Big Tree for May"**

*By Anne Krantz, NH Big Tree Team*

Yellow birch, the largest of the birches, has beautiful lustrous yellowish bark that peels in horizontal shreds forming curly fringe along the trunk. This is more obvious on younger trees, as the bark on old trees becomes darker and rougher. Crushing the leaves and twigs releases a faint wintergreen fragrance, but not as strong as black birch. Its oval, pointed, double-toothed leaves are similar to paper and black birch. They turn bright yellow in fall.

Yellow birch grows throughout New Hampshire, but is more common in the White Mountains and north as it prefers cool summers. In the southern edge of its range, it grows in cool locations like north facing slopes. Those of us who ski in New Hampshire and Vermont can easily spot yellow birch when we ride chair lifts and look down on the forests below.

Yellow birch is the deciduous tree with 'cones' on its bare winter twigs. These 'cones' are actually the remains of the upright female catkins that were pollinated by windblown pollen from the drooping male catkins during the previous spring. The seed ripens in late summer and is dispersed by the winter wind landing on the snow. From a chair lift, the broad canopy of yellow birch can be seen growing from the gnarled, old weather-beaten trees clinging to life in harsh weather of the mountains. They can live to 300 years and grow 75 to 100 feet with thicker trunks than other birches. The New Hampshire champion tree is 76 feet tall with a trunk diameter of 183 inches or about six feet.

Yellow birches produce prodigious quantities of seed on a three-year cycle beginning at about 40 years of age. They need this survival technique because the seeds must find perfect soil and climate conditions to germinate and grow. For example, seeds that germinate in leaf litter die when the litter dries out in summer. Young sprouts may freeze if there is an early frost.

Seeds that sprout on long-lasting moss-covered conifer logs and stumps find optimum growing conditions. Even moss covered rocks will do, or better yet, disturbed areas in the forest where the soil is exposed offers seedlings a better chance of surviving. Look for weird roots structures of mature yellow birch trees. They may grow on and around rocks with a network of roots clinging to the rock until finally finding some soil beneath. A yellow birch that sprouts on a stump may end up growing on a scaffold of roots when the stump finally rots away. Rich, well-drained soil is needed for survival. But even if the seedlings make it through these early survival tests, they are vulnerable to browsing deer who favor the tasty sprouts.

A mid-succession tree of the forest, the yellow birch follows the 'pioneer' tree species like gray and paper birch, aspen and pin cherry, species that germinate and grow in full sun in clearing and disturbed land. As these short-lived trees die out, a second wave of semi-shade tolerant, longer lived trees take over including yellow and black birch, white pine, red and white oaks, hickories and red maple.

A moderately valuable timber tree, it is harvested for a wide variety of products. A dense hardwood, the light-colored, smooth and evenly grained lumber from huge old trees makes beautiful furniture. Our first real antique

acquisition purchased many years ago is a lovely birch four-drawer chest from Connecticut. The inch thick top is one 18-inch wide board by 40 inches long, with a lovely graining pattern and lustrous glow to the finish. The sides are made from single boards too. It is heavy!

Yellow birch wood is perfect for a variety of interior uses such as beautiful cabinets, paneling, veneer, interior doors and floors. Because of its tight smooth grain, it stains nicely. It is strong and bends well and is used for dowels, spools, handles that are nice and smooth, and is perfect for toothpicks and tongue depressors because it has no taste and no splinters. Because it is dense, it is good for firewood and its bark is great for starting fires even when it's wet.

Look for the distinctive yellow birch tree trunks while hiking this summer. If you come across a truly gigantic one, let the NH Big Tree Committee know. Contact the NH Big Tree State Coordinator, Carolyn Page, [carolyn\\_page@hotmail.com](mailto:carolyn_page@hotmail.com), phone: 603-664-2934, who will pass the information on to the appropriate county coordinator. Also visit the NH Big Tree web site at: [www.nhbigtrees.org](http://www.nhbigtrees.org) for the complete list champion Big Trees. 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.

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