



"Big Tree – Paper Birch"

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Paper birch, also known as canoe birch and white birch, is prized for its distinctive peeling white bark. It's popular as both an ornamental landscaping tree and a striking woodland tree – its snow white trunks brightening up the forest.

The light, waterproof, and durable bark provided the Native Americans with a material they used in many ingenious ways, from the classic birch bark canoes to covering for wigwams, and decay proof containers. The peels of papery bark provide reliable tinder in the wettest weather and the hard wood is an excellent fuel wood.

Today the decorative bark is a popular material for New Hampshire souvenir items – baskets, bowls, candle holders. Collect bark only from fallen trees, as stripping the white bark from live trees leaves a permanent black patch. The fine-grained, light-colored wood is used today for everything from clothes pins and Popsicle sticks to furniture and decorative wooden ware.

As saplings, paper birches don't have white bark. They are disguised for about their first decade with indistinctive brown bark that makes them difficult to identify. When the trees are about 10 years old, 15-20 feet tall and two to three inches in diameter, the brown, papery layers begin to peel off revealing the unexpected, fresh white bark beneath.

The New Hampshire legislature declared the paper birch (*Betula papyrifera*) the Granite State's official tree in 1947 on the suggestion of the New Hampshire Federation of Garden Clubs, who noted that: 'There are several reasons for choosing the paper birch for the state tree. Not only is it native to New Hampshire -- a first consideration -- but it is found in all regions of the state, growing as it does on rich-wooded slopes and along the borders of lakes and streams. It is a characteristic part of the scenery.'

Paper birch is a major species of northern hardwood forests and doesn't do well where the average summer temperatures get above 70 degrees. It thrives in New Hampshire and is common along roadsides where it adds drive by beauty to the scenery in all seasons. Its pointed, oval, doubly serrated leaves turn bright yellow in the fall, but its stark white trunks are outstanding in winter. A close relative is the gray birch (*Betula populifolia*) that also has white bark but tends to be duller in color and not grow as large.

Both birches are pioneer species whose seeds sprout on bare ground in sunny sites after a forest disturbance like fire, construction clearing or logging. Birches produce the most seeds of any tree species. Trees begin to produce seed when about 15 years old.

In early spring just as the leaf buds are swelling, long pollen catkins dangle from the tips of twigs while female flowers - strobiles form further back on the twig. The strobiles become the seeds that are like a long stacks of disks. They remain on the tree until fall when they are dispersed by the wind. There are about 1.5 million birch seeds to the pound. According to USDA Ag Handbook No 271 "Silvics of Forest Trees of the United States," an average fall in a 70-year-old birch stand was 36 million birch seeds per acre.

The paper birch is a fast growing and relatively short-lived tree (60-80 years or so). It prepares the way for successive generations of forest trees. It's a tree with shallow roots that often grows in sandy soils, is vulnerable to wind throws, and its supple branches make it a victim of ice storm damage. The fallen branches and tree trunks rot and enrich the soil by adding humus and organic matter. However the tough bark remains, littering the forest floor with paper birch bark scraps.

The New Hampshire paper birch big tree champion is over 70 feet tall with a circumference of about 110 inches, huge for a short-lived tree. Efforts to re-measure each New Hampshire county champion paper birch are underway by Big Tree County Coordinators. If you notice a really big birch when out in the woods this summer, contact the NH Big Tree State Coordinator, Carolyn Page, carolyn_page@hotmail.com, or call 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 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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