SEPTEMBER 2018

TREE OF THE MONTH

The Birches • *Betulacaea*

BLACK BIRCH • YELLOW BIRCH • GRAY BIRCH • WHITE BIRCH

Birches have alternate, toothed leaves that range from ovate to deltoid (triangular). They produce spring flowers on catkins (cylindrical clusters of flowers) with both male and female catkins on the same tree (monoecious). Birch seeds are tiny and winged (samara). These delicate wings help the fertilized fruit, which matures in the autumn, spread out beyond the mother tree.

Black Birch • *Betula lenta*

Young black birch is known for its smooth, shiny bark with horizontal lenticels (porous tissue that helps trees breath). As black birches age the bark becomes rougher and tends toward gray-brown. At about 40-50 years of age the bark begins to peel back in square, irregular sections. Black birch leaves are ovate with delicate teeth along the margins. In the autumn the leaves turn a brilliant yellow. The springtime flowers grow in distinctive catkins (long, cylindrical clusters of flowers). Male catkins droop down from the branches and female catkins stand upright, holding themselves aloft to be fertilized by wind-borne pollen. Black birch is one of the first species to move into a recently logged area and can form dense thickets.

Black birch contains methyl salicylate, the chemical responsible for the wintergreen flavor. Black birch trees were used for centuries to commercially supply wintergreen oil for medicinal and culinary purposes. Native American tribes have long used black birch to treat dysentery, colds, diarrhea, and as a spring tonic. European settlers in North America used wintergreen oil for its medicinal, culinary, and preservative purposes. Unlike yellow birch, Betula alleghaniensis, black birch isn't threatened by deer browsing. This is possibly in part due to the strong wintergreen flavor in its twigs and bark.

Yellow Birch • *Betula alleghaniensis*

Yellow birch bark matures from smooth and mustard-tinged with horizontal lenticels to shiny thin layers that peel back from the trunk giving the tree a slightly shaggy appearance. The twigs have a mild wintergreen taste but not as strong as black birch. Leaves are alternate and ovate with a heart-shaped base with double-toothed edges. The undersides of leaves is often slightly hairy with some tiny resinous glands.

Yellow birch naturally hybridizes with paper birch, B. papyrifera, and with bog birch, B. pumila. Yellow birch seeds require soil disturbance and light to survive beyond the first few years. Trees can frequently live 150 years but in old growth forests can reach 200-250 years, and sometimes beyond.

Yellow birch's natural range extends from Newfoundland and Nova Scotia in the north to the Appalachian Mountains and eastern Tennessee and northeastern Georgia. They prefer to grow in cool ravines but can be found throughout the forest.

Sap can be used to make syrup and medicinal tea can be made from the twigs and inner bark. Early European settlers prized yellow birch for its highly resinous wood that resists rot below water. Today, yellow birch is the most common birch used for furniture and carpentry.

White-tailed deer browse yellow birch seedlings in summer and the green leaves and woody stems in autumn.

Tree of the Month is a collaboration between BEAT, the City of Pittsfield and Pittsfield Tree Watch. The Berkshire Environmental Action Team (BEAT) works to protect the environment for wildlife and in support of the natural systems that sustain us all. Find out more at thebeatnews.org.

BEAT Berkshire Environmental ACTION TEAM

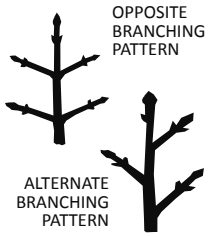
SEPTEMBER 2018

TREE OF THE MONTH

The Birches • *Betulacaea*

BLACK BIRCH • YELLOW BIRCH • GRAY BIRCH • WHITE BIRCH

Birch bark (usually paper birch) has been used by indigenous North American populations for centuries. The Wet'suwet'en people of north western British Columbia used birch bark for baskets and canoes, using split spruce roots to bind the bark. Birch bark must be harvested from a living tree so always harvest responsibly and stick to the 20-1 rule: for every 20 plants you find, harvest from 1. If you find 19 plants, there is not a dense enough population to support your harvest.



Gray Birch • *Betula populifolia*

Gray birch can be easily confused with white birch but the glossy, triangular, sharply-tipped leaves and tight, non-peeling bark. Young trees have white-gray bark with distinct chevrons as branch scars or where branches and trunk meet. Mature trees have darker gray bark with horizontal lenticels.

Gray birch is a short-lived, fast growing, pioneering species of disturbed sites like road cuts and burned areas. They usually reach about 20 years old.

Gray birch is native to northeastern North America, stretching from Nova Scotia to Pennsylvania, with some populations in southern Ontario, northern Ohio, northeast Indiana, and south to North Carolina.

Native American tribes used a decoction of bark to treat swollen or infected cuts. Many animals use gray birch for food, from beaver and porcupine who chew the bark to sapsuckers who consume sap, to ruffed grouse who eat catkins, to snowshoe hare, moose, and white-tailed deer who browse twigs.

White Birch • *Betula papyrifera*

Walk through the New England woods and you'll spot the white birches straight away with their bright white bark. White birch is generally distinguished from grey birch by two factors: ovate, as opposed to deltoid, leaves, and brighter white bark that peels back from the trunk in great pieces on mature trees.

Innermost bark boiled to create a reddish dye by the Flambeau Ojibwe. The pliable wood is used for snowshoe frames, pulpwood, and plywood.

Bear use white birch widely as a 'whiteboard of the forest,' leaving claw marks up and down these bright trees.

White birch is native to northern North American. It grows happily from northwest Alaska to Newfoundland, down to Pennsylvania and across to northeastern Oregon.

Tree of the Month is a collaboration between BEAT, the City of Pittsfield and Pittsfield Tree Watch. The Berkshire Environmental Action Team (BEAT) works to protect the environment for wildlife and in support of the natural systems that sustain us all. Find out more at thebeatnews.org.

BEAT Berkshire Environmental ACTION TEAM