

Birches - The Important Distinctions

	Sweet Birch <i>Betula lenta</i>	Yellow Birch <i>Betula alleghaniensis</i>	Gray Birch <i>Betula populifolia</i>	Paper Birch <i>Betula papyrifera</i>
B	Smooth on young trees; broken into irregular plates on older trees.	Separates into thin, ribbon-like strips.	Does not separate into papery layers.	Separates into thin, papery layers.
A	Dark to almost black.	Bright silvery gray or light orange.	Outer, chalky or grayish white; inner bark orange.	Outer, cream white and shiny; inner, bright orange.
R	Strongly aromatic on young branches.	Aromatic on young branches.	No odor.	No Odor.
K	3 - 5 inches.	3 - 4½ inches.	2½ - 3 inches.	2 - 4 inches.
L	Egg-Shaped.	Egg-Shaped.	Triangular.	Egg-Shaped.
E	Singly and sharply toothed.	Coarsely and doubly toothed.	Coarsely and doubly toothed.	Doubly toothed.
A	Base heart-shaped.	Base unevenly rounded.	Tip long pointed.	Tip short pointed.
V	Upper dark green, dull; Lower light yellow-green.	Upper dark green, dull and hairy.	Upper dark green and glossy.	Upper dark green and dull.
E				
S				

Birches - The Important Distinctions (continued)

	Sweet Birch <i>Betula lenta</i>	Yellow Birch <i>Betula alleghaniensis</i>	Gray Birch <i>Betula populifolia</i>	Paper Birch <i>Betula papyrifera</i>
FLOWER	3 - 4 Catkins.	3 - 4 Catkins.	Single or Pair Catkins.	3 Catkins.
Arrangement	Not clustered.	Not clustered.	Not clustered.	Clustered.
Texture	Smooth.	Smooth.	Not sticky.	Sticky when squeezed.
Shape	Long, sharp pointed.	Long, sharp pointed.	Short, globe-like.	Long, tapered.
Scales	Without hairs.	Hairy.	Without hairs.	Without hairs.
Color	Chestnut brown.	Reddish-brown.	Red-brown to greenish brown.	Reddish-brown.
Texture	Smooth, with spur shoots, no hairs.	Somewhat hairy, with spur shoots.	Very fine, warty but not hairy, without spur shoots.	Hairy, with spur shoots.
Color	Reddish-brown.	Greenish or yellow-brown.	Dull gray or brown.	Depends on age.
Oder	Strong wintergreen oder.	Slight wintergreen oder.	No wintergreen oder.	No wintergreen oder.

A number of minor species or varieties of birch occur in Maine.

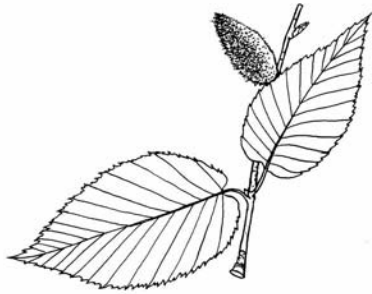
SWEET BIRCH

Betula lenta L.

Sweet, black, or cherry birch is found, though uncommonly, in the southern one-third of the state. It inhabits the banks of streams or moist, rich upland soil. It is a handsome tree with a tall dark stem, spreading, slender, horizontal branches, pendulous at the ends. It has a graceful, open, narrow head, which in full sun becomes round and symmetrical. It grows to a height of 60 - 70 feet and a diameter of 1 - 2 feet.

The **bark** on the trunk of old trees is dark to almost black, and separates into large, thick, irregular plates. On young trees and branches it is smooth, shiny, dark brown tinged with red, aromatic, and has a very pronounced wintergreen flavor.

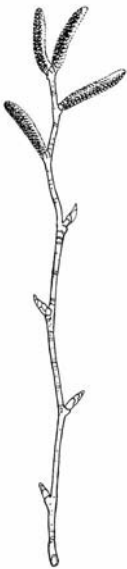
The **leaves** are alternate, 3 - 5 inches long, aromatic, ovate or somewhat oblong, sharply toothed; upper surface dark green, dull; lower surface light yellow-green.



The **flowers** are produced in catkins. The winter shoots support three to four staminate catkins. They open just before the leaves unfold in the spring.

The **wood** is hard, heavy, strong, and can be beautifully polished. It is very much prized for use in the manufacture of furniture. Limited amounts are used as pulpwood. An oil having some medicinal value can be obtained from the branches and bark by distillation, and is generally known as wintergreen oil.

The name "cherry birch" is applied to this tree because of the resemblance of the bark on old trunks to that of the black cherry.



YELLOW BIRCH

Betula alleghaniensis Britt.

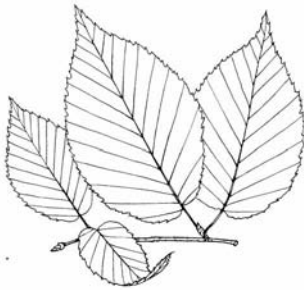
Yellow birch is the largest of the native birches, growing to a diameter of three feet and a height of 70-85 feet. The spreading branches are somewhat pendulous, and form a broad, round-topped head in the open, but irregular in the woods. It grows well statewide on cool, moist sites, and is frequently mixed with beech and sugar maple, or with hemlock.

The **bark** on the branches and on the stems of young trees is very shiny, silvery gray or yellowish brown in color, separating into loose, thin, often ribbon-like layers. On old trees it is divided into large thin plates and is colored a dull gray or black. The young twigs are aromatic like the black birch, although to a lesser degree. Both the buds and twigs have a pronounced wintergreen taste.

The **leaves** are ovate or nearly oblong, alternate, the edges doubly toothed, the upper side dull, dark green, hairy and 3 - 4½ inches long.

The **flowers** are in catkins. In winter there are 3 - 4

pre-formed staminate catkins on the shoots, but not in clusters. They open in the early spring.



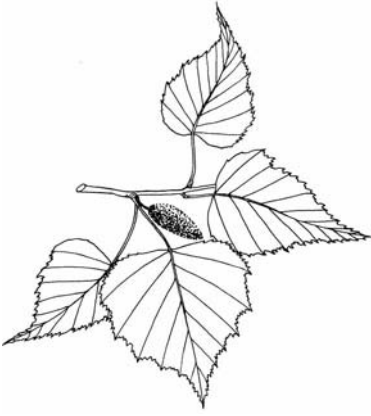
The **twigs** are yellowish to dark brown, with a wintergreen taste and are somewhat hairy.

The **wood** is hard, strong, heavy, and will take a good polish. It is close grained and evenly textured. The heartwood, which makes up the bulk of the wood, has a very pleasing reddish color. It takes stains easily, makes excellent veneer wood, and does not easily warp. It is also used for furniture, flooring, woodenware, lumber for interior finish, plywood, railroad ties, pallets, pulp, gunstocks, and dowels. The yellow birch is one of our most valuable timber trees.

GRAY BIRCH

Betula populifolia Marsh.

Gray birch is a short-lived and not a particularly valuable tree. It occurs to some extent statewide, but is only abundant in the southern and eastern sections of the state.



It is frequently found in old fields, burns, and heavily cut areas. This is a small tree which commonly reaches 20 - 30 feet in height and 4 - 8 inches in diameter. It usually occurs in clumps and often leans. The branches are sho

rt, slender, and frequently pendulous and contorted. These bend toward the ground when the tree is not crowded. The head is long, narrow, pointed and open.

The **bark** is close and firm and does not easily separate into thin layers. The outer part is dull grayish white or chalky. The inner portion is orange.

The **leaves** are 2½ - 3 inches in length, thin, long-pointed, triangular, alternate, and doubly toothed. The upper surface is dark green and glossy. The slightest breeze causes them to flutter like those of the poplars, hence the scientific name *Betula populifolia* which means "birch with poplar leaves."

The **flowers** are produced in catkins. Those which appear in the fall are of the male sex and are usually solitary. They open in early spring before the leaves. The **twigs** are the finest of our native hardwoods. They are tough and wiry, dull gray or brown, hairless, and have a rough, warty surface. The **wood** is light, soft, often coarse-grained, and decays rapidly when exposed. It is used primarily for pulpwood.

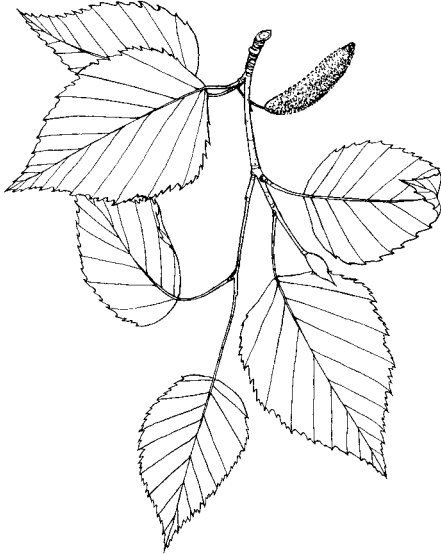


PAPER BIRCH

Betula papyrifera Marsh.

Paper, white or canoe birch is a common tree in all parts of the state and occurs in pure stands or in mixture with other species. It reaches 60 - 70 feet in height, and 1 - 2 feet in diameter. It grows along streams and on the borders of lakes and ponds, thriving best in a rich, moist soil.

When young, the branches are short, slender, and spreading, somewhat drooping, and forming a narrow, regular head. In the forest the trunk is free from branches well up from the ground, and the tree forms an open, narrow and round-topped head.



The **bark** on the trunk and limbs separates freely and easily into thin, papery sheets. The outer surface is white, the inner part bright orange. Seedlings or very young trees have a darker colored bark, which gradually changes to a creamy-white. The bark is a protective layer and should never be removed from living trees.

The **leaves** are alternate, ovate, short-pointed, 2 - 4 inches long, thicker than those of gray birch, doubly-toothed, with the upper surface dark green and dull.

The **flowers** are in catkins. Those appearing in the fall are dormant, staminate catkins and occur mostly in clusters of 3. They open in early spring before the leaves.

The **twigs** are usually hairy, and unlike yellow birch, without a wintergreen taste. The buds are slightly sticky.

The **wood** is close-grained, moderately hard, and strong. It is used for clothespins, woodenware, flatware, turned products, including spools, toys, toothpicks, dowels, furniture parts, paper-roll plugs; plywood, and for pulp.

This is one of the most valuable tree species in Maine. The tree gets the name of "paper birch" because of the use to which the bark was put by the early settlers, and that of "canoe birch" because the bark was used to make canoes. Paper birch sap in the early spring contains considerable sugar.

HYBRID BIRCHES

It is known that natural hybrids often occur between certain closely related species of birches, especially between gray and mountain paper birch. The offspring are often intermediate between the parents, or in some cases, resemble one parent much more than the other. In such hybrids, it would require the experience of a specialist in order to determine the exact parentage.

Minor Species or Varieties of Birch in Maine:

Mountain Paper Birch (*B. cordifolia* Regal) is known from many points in Maine, particularly on mountain slopes and coastal headlands and islands east of Mount Desert Island. The leaves are heart-shaped, abruptly pointed, coarsely doubly serrate. The bark separates into thin layers and is reddish-brown or white.

Dwarf Paper Birch (*B. minor* (Tuckerm.) Fern.) is found near the summit of Mt. Katahdin.

Blueleaf Birch (*B. x caerulea* Blanchard) is widely distributed on exposed mountain slopes. Leaves are dull bluish-green above doubly serrate, ovate, long-pointed. Trees reach a considerable height.

Dwarf Birch (*B. glandulosa* Michx.) is a dwarf species found on Mt. Katahdin.

Low or Swamp Birch (*B. pumila* L.) is another dwarf species. Found infrequently through the central part of the state in open bogs.