

Poplars - Aspens

The Important Distinctions

		Quaking Aspen <i>Populus tremuloides</i>	Bigtooth Aspen <i>Populus grandidentata</i>	Balsam Poplar <i>Populus balsamifera</i>
B A R K	Texture	Smooth in young trees. Often with horizontal bands of circular wart-like outgrowths.	Smooth in young trees. Furrowed in older trees.	Smooth or roughened by dark outgrowths.
	Color	Light or grayish green.	Dark or olive green.	Reddish brown on younger trees.
	Taste	Very bitter.	Not bitter.	Not bitter.
L E A V E S	Length	1 ½" - 3"	3" - 4"	3" - 5"
	Shape	Circular.	Broad egg-shaped.	Egg - shaped.
	Margin	Finely toothed.	Coarsely toothed.	Finely toothed.
	Surface	Shiny upper, not rusty beneath.	Not shiny upper, not rusty beneath.	Shiny upper, rusty beneath.
	Petiole	Flattened.	Flattened.	Rounded.
B U D S	Texture	Not sticky, shiny.	Not sticky.	Very sticky; shiny.
	Shape	Conical.	Broad egg-shaped.	Egg - shaped.
	Scales	No hairs.	Covered with white hairs.	No hairs.
	Odor	Not fragrant.	Not fragrant.	Sweet.

Poplar twigs have a pith that is star-shaped in cross section. The poplars belong to the willow family and resemble willows in flower and fruit characters. The nodding, "woolly bear" caterpillar-like staminate and pistillate catkins are borne upon different trees. They open before the leaves are out and are conspicuous in the early spring. Poplars, like willows, have a transcontinental range, and can be propagated very easily from cuttings.

QUAKING ASPEN

Populus tremuloides Michx.

Quaking aspen, popple or trembling aspen is found statewide and is an abundant, rapid growing tree occurring in either pure stands or in mixture with other species. It is found on many different kinds of soil, but makes the best growth on sandy, moist soils. Frequently it is the first species, with paper birch, to become established following heavy cuttings or burns. It does not persist in dense woods because it is intolerant of shade. It is a graceful tree with slender branches far apart and often



contorted. Head round and narrow. It grows to a height of 60 - 75 feet and a diameter of 10 - 16 inches.

The **bark** is smooth, often roughened by horizontal lines

of wart-like outgrowths. It is a pale green with dark brown patches. Bark on old trees is ash gray, dark at the base where it is divided into broad, flat ridges. It has a very bitter taste similar to quinine.

The **leaves** are alternate, rounded, short-pointed, with finely rounded teeth; dark green and shiny above, 1½ - 3 inches long. The flattened petiole causes the leaves to tremble in a breeze.

The **flowers** are in catkins which appear before the leaves. The **fruit** is a capsule which ripens about June. The seeds are very small, light and cottony, and are carried long distances by the wind. The **buds** are dark brown, have a varnished appearance, and may be slightly sticky. Flower buds are usually larger than the leaf buds.

The **wood** is close-grained, soft, and rots very easily. It is used increasingly for trim, lumber, pallets, and for the manufacture of wafer board, landscape ties, plywood, core stock, and expendable turnery items. It is used extensively for pulp.

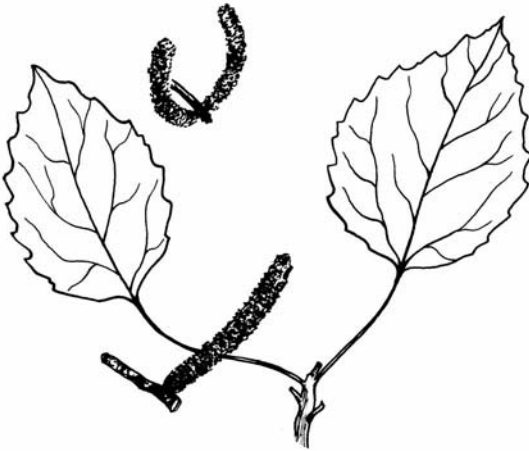
BIGTOOTH ASPEN

Populus grandidentata Michx.

Bigtooth aspen, poplar, or popple occurs statewide and commonly grows with quaking aspen. It is a rapid grower in various soils and in different situations. It grows best in a rich, sandy and fairly moist soil. It is more shade tolerant and therefore more competitive than quaking aspen and grows with other species in either scattered or in small groves. It attains a height of 60 - 80 feet and a diameter of 10 - 20 inches.

The **bark** is smooth, olive to gray-green in color. At the base of old trees, it is dark and divided into broad, irregular, flat ridges.

The **leaves** are alternate, 3 - 4 inches long, broadly egg-shaped in outline, and have a dark green upper surface. When first emerging in spring, they are a distinctive silvery green. The edges are coarsely and irregularly toothed. The petiole, or leaf stalk, is flat.



The **flowers** are in catkins, and appear before the leaves.

The **fruit** ripens in May about the time the leaves begin to come out. The seeds are small and light and are carried long distances by the wind. The **buds** are dull gray, slightly hairy, and not sticky.

The **wood** is like that of the quaking aspen and is used for the same purposes.

BALSAM POPLAR

Populus balsamifera L.

Balsam poplar inhabits the borders of swamps and the low bottom lands along rivers throughout the state except in York County. It gets its name from the fragrance of the resinous, sticky buds.

In habit, the tree is somewhat different from the two preceding poplars. The branches are stout, erect, more or less contorted at the ends, and form an open, rather narrow head. It reaches a height of 30 - 70 feet, and a diameter of 15 - 30 inches.

The **bark** on young trees is smooth, or sometimes roughened by dark outgrowths and is greenish to reddish-brown. On the trunk of old trees it is gray and separated into broad, rough ridges.

The **leaves** are alternate, ovate, 3 - 5 inches long, and 2 - 3 inches wide. They are deep dark green and shiny on the upper surface, light green and usually with rusty blotches on the under side. The edges are lined closely with small, rounded teeth. The petioles are round in cross section.



The **flowers** are in catkins which appear early in the spring just before the leaves.

The **fruit** ripens the last of May or early in June. Each seed is attached to a cottony mass so that it is often carried long distances by the wind.

The **wood** is somewhat like quaking and bigtooth, but it is not as strong. The wood is prone to decay while growing. The larger logs are sawed into landscaping ties.

White-Barked Quaking Aspen (*Populus tremuloides* var. *magnifica* Vict.). Primarily found in Northern Maine and much like quaking aspen, but with white (ash-gray) bark. Bark may look like white birch from a distance, but does not peel off.

White (Silver) Poplar (*Populus alba* L.) is an introduced species planted to some extent. It is easily recognized by its rhomboid leaves which are green above and white, felt-like beneath.

Eastern Cottonwood (*Populus deltoides* Bartr.) has been commonly planted as a street and yard tree but is native further west and south. Leaves are somewhat similar to bigtooth aspen but are much more triangular in outline and are shiny.

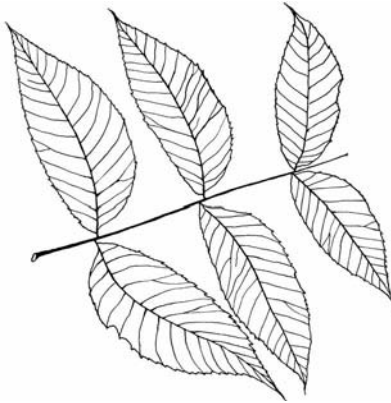
Lombardy Poplar (*Populus nigra* var. *italica* Muenchh.) is a native of Europe and is easily recognized by its narrow, spire-like form. It has been planted commonly but often after a varying number of years dies back due to disease.

Balm-of-Gilead Poplar (*Populus balsamifera* var. *subcordata* Hylander). Probably not native. Somewhat more spreading than the balsam poplar, but with leaves ovate and with base of leaf margin heartshaped. It produces only pistillate flowers, so propagation is only by cuttings or root sprouts. Also has fragrant buds like the balsam poplar.

BLACK WALNUT

Juglans nigra L.

Black walnut is planted occasionally throughout the state. It differs from butternut in that it has a diaphragmed pith, rather than a chambered pith.



Both **Japanese Walnut** (*Juglans sieboldiana* Maxim.) and **Japanese Heart-nut** (*Juglans sieboldiana* var. *cordiformis* Maxim) are hardy and have spread readily around Brunswick.