Balsam Fir *Abies balsamea* (L.) P. Mill.

Balsam fir is the most abundant tree in the state.

Balsam fir occurs statewide and is the most abundant tree in the state. It is frequently found in damp woods and on well-drained hillsides, and often occurs in thicketS. The tree normally forms a sharp spire to a height of 60–70 feet and grows to 12–20 inches in diameter. On young trees, the branches are horizontal, slender, and produced in regular whorls to form a strikingly symmetrical crown. In old age, the top is often slim, regular and spire-like.

The **bark** on young trees is pale gray, smooth, thin and has prominent blisters that are filled with a resinous liquid known as "Canada balsam." On old trees the bark gets rougher and blisters are absent.

The aromatic **leaves** are about 1 inch long, dark green, and shiny above with 2 rows of white stomata below. The tips are occasionally notched. On branches in full sun, leaves turn up, but on lower branches they spread out at right angles to the branch, giving it a flattened appearance.

MAINE REGISTER OF BIG TREES 2008
Balsam Fir
Circumference: 78''
Height: 104'
Crown Spread: 23'
Location: T4 R3 WELS

Like all true firs, balsam fir cones point upward and disintegrate when they are mature.

The smooth bark with resin blisters distinguishes balsam fir from the rest of our conifers.

The **cones** are 2–4 inches long, erect and dark purple before maturity. Cones ripen in August and September of the first year, and disintegrate shortly thereafter, leaving only the central spike-like stalks. The twigs are smooth after the leaves have shed. Winter buds are covered with clear resin.

The **wood** is soft, light and moderately limber. It is sawed into dimension lumber chiefly for light and medium building construction, and is used extensively for pulp. Balsam fir is favored for Christmas trees and greens. Each fall many tons of branch tips are collected for making Christmas wreaths. In the past, the branches were steamed in a retort to produce oil of balsam. Also, the clear pitch formed in the blisters of relatively young bark was used to mount microscope slides and to attach theatrical costumes to bare skin.

Eastern Hemlock *Tsuga canadensis* (L.) Carr.

The wood of the Eastern hemlock is used for framing, sheathing, roof boards, timbers, bark mulch and pulp.

Eastern hemlock is found in scattered stands in nearly every part of the state. Best growth is attained on moist, cool sites. It generally attains a height of 60–70 feet, and a diameter of 2–3 feet. The terminal shoot droops and bends away from the prevailing winds, quite often toward the east. The trunk usually tapers rapidly from the base. This species can withstand considerable shading.

The **bark** is divided into narrow, rounded ridges covered with thick scales, and varies in color from cinnamon-red to gray. Inner bark exposed by cuts or bruises shows a purplish tinge.

The **leaves** are flat, tapering, generally rounded at the apex, from ⅓–⅔ inch long, with a distinct short petiole and so arranged that the twig appears flat. Leaves become progressively shorter towards the tip of the twig. They are dark yellow-green with a lustrous upper surface, and a whitish undersurface.

The **cones** are about ¾ inch long, oblong, light brown, pendant and suspended on short, slender stalks. Cones mature during the first autumn and generally remain on the branches until the next spring. Seeds are winged and fall during the winter. The **twigs** are very fine, limber and are not pitchy.

The **wood** is coarse, brittle when very dry, light, strong and difficult to work as it is likely to separate at one or more of the annual growth rings. It is used for framing, sheathing, roof boards, timbers and pulp. The bark was once valuable for tanning but has been replaced by chemicals; now it is prized for its purple color when made into mulch.

When cut with a knife, Eastern hemlock bark will show a purple color.

MAINE REGISTER OF BIG TREES 2008
Eastern Hemlock **Circumference:** 127" **Height:** 88' **Crown Spread:** 32' **Location:** North Yarmouth

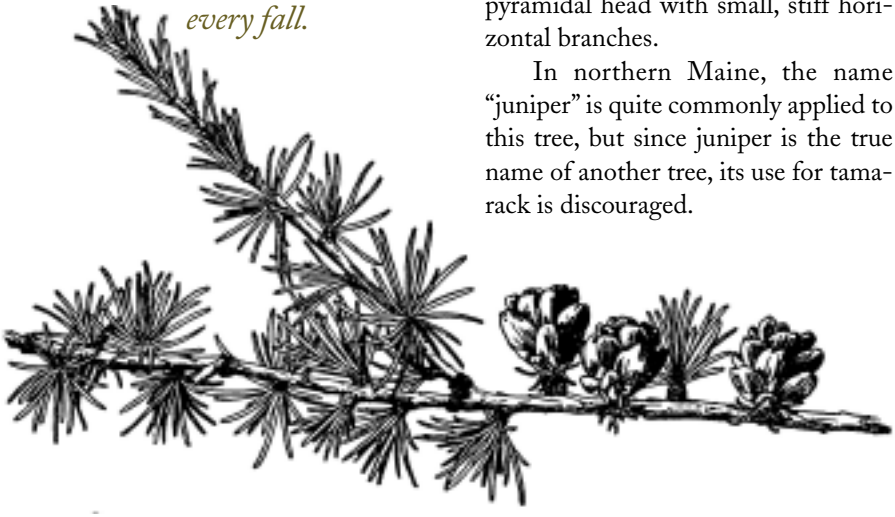
TAMARACK *Larix laricina (Du Roi)* K. Koch

Tamarack is our only native conifer that sheds all its leaves every fall.

Tamarack, eastern larch or hackmatack is most commonly found in cool, swampy places, although it also grows on well-drained soil. It is found in scattered stands throughout the state. It can grow rapidly and is not tolerant of shade.

In the forest, the tree grows to a height of 50–60 feet and a diameter of 20 inches. It has a regular, narrow, pyramidal head with small, stiff horizontal branches.

In northern Maine, the name "juniper" is quite commonly applied to this tree, but since juniper is the true name of another tree, its use for tamarack is discouraged.



NATIONAL AND MAINE REGISTER OF BIG TREES 2008
Tamarack
Circumference: 143"
Height: 92'
Crown Spread: 31'
Location: T13 R8 WELS

The **bark** separates on the surface into small, thin, irregular reddish-brown scales.

The **leaves** are linear, about 1 inch long, triangular in cross section, and borne in clusters of 8 or more on spurs, except on elongating new shoots, where they occur singly. They are bright green and turn a beautiful yellow just before they fall. Tamarack provides some of the last color of the fall, as its needles turn color after most trees have already shed their leaves. It is our only native conifer that sheds all its leaves every fall.

The **cones** are small, nearly spherical, about ¾ inch long, light brown, and borne erect on stout stems. They open in fall to liberate the small winged seeds and usually remain on the tree until the following year.

The **wood** is rather coarse-grained, hard, heavy and strong, with durable heartwood. It is used for planking, timbers, ties, poles, signposts, pilings and pulp. Historically, tamarack knees (the buttresses formed by large roots) were used in shipbuilding. Tamarack was also used for mud sills in home construction.

On older twigs, tamarack needles occur in clusters of up to 50 on short spur branches.

Atlantic White Cedar

Chamaecyparis thyoides (L.) B. S. P.

While Atlantic white cedar wood is of limited use, small trees are cut for fenceposts and shavings are used for pet bedding.

Atlantic or coast white cedar is found in bogs or low areas along ponds or streams. It has a scattered distribution from the mid-coast south. In Maine it rarely reaches a height of over 40 feet. The short branches come out from a gradually tapering trunk, giving the tree a conical appearance. The twigs are only slightly flattened.

The **bark** is fibrous, grayish to reddish-brown, often with twisted spirals; on young trees it is easily pulled off in strips.

The **leaves** are bluish-green, scale-like, and arranged in somewhat fan-shaped clusters. When crushed, they give off an aroma.

The **cones** are small, round, smooth and purplish before maturity, about ¼ inch in diameter with tack-like scales. They persist through the winter, but are inconspicuous.

Atlantic white cedar is rare in Maine and occurs only in a few isolated bogs in the south and mid-coast.

The **wood** is light, close-grained, strongly fragrant, and light brown tinged with red. It is brittle and therefore of limited use, though small trees are cut for fenceposts. The shavings are used for pet bedding.

MAINE REGISTER OF BIG TREES 2008
Atlantic White Cedar **Circumference:** 68'' **Height:** 63' **Crown Spread:** 19' **Location:** Alfred

Northern White Cedar

Thuja occidentalis L.

Cedar has emerged as a viable alternative to pressure-treated wood.

Northern white cedar or eastern arborvitae is generally found in swamps, along streams, on mountain slopes and in old pastures where the soil is moist. Dense stands are widely distributed statewide. It is most abundant in the northern and eastern sections, and grows best on alkaline soils. It is widely used as an ornamental. The head is compact, narrow and pyramidal. The branches are horizontal, short and turned upward. Trees grow to 60 feet in height and to 3 feet in diameter. The trunk is often strongly buttressed.

The **bark** has shallow fissures, which divide it into flat narrow ridges. It is reddish-brown and often tinged with orange.

The **leaves** are opposite or two-ranked, usually only about ⅛ inch long, scale-like, blunt, and so arranged as to make the small branches flat in

Northern white cedar cones are about ½ inch long and often occur in large numbers.

shape. They have a pleasant aroma and a rather pleasing taste, and are a major source of food for deer in the winter.

The **cones** are erect, small, about ½ inch long, with only a few pairs of scales. They mature in one season. The seed is small and winged.

The **wood** is soft and light, coarse-grained, brittle, has very durable heartwood and a fragrant odor. It is used primarily for shingles, slack cooperage (barrels for dry, semi-dry or solid products), poles, posts and rustic fencing; and it is sawed into lumber for hope chests (since the wood is said to repel moths), siding, canoes and boats. More recently, cedar has emerged as a viable alternative to pressure-treated wood. Naturally weather-resistant, it is used for decks, post and rail fencing, outdoor furniture, roof shakes, and pelt stretchers.

Eastern Redcedar *Juniperus virginiana* L.

In Maine, Eastern redcedar is not sufficiently plentiful to be of commercial importance.

Eastern redcedar is not common in Maine. It grows on poor soils, gravelly slopes, rocky ridges and on moist, sandy ground. It is found intermittently in southern Maine and in Bridgton, Porter, Denmark and West Gardiner. It gets the name "redcedar" from the color of the heartwood.

It is variable in its habit. Young trees have slender horizontal branches and a narrow, compact, conical head. The crown of old trees becomes broad and rounded. In Maine, trees attain a diameter of 8–12 inches, and a height of 30 feet.

The **bark** on the trunk is light brown, tinged with red; it separates into long, narrow shreds on old trees.

The **leaves** are scale-like, overlapping, about 1/16 inch long, dark green, and remain on the tree 5–6 years, growing hard and woody the third season. Branchlets appear square in cross section. Current growth and vigorous shoots contain sharp-pointed, awl-shaped leaves —the so-called "juvenile" growth.

The **fruit** is berry-like, globose, with 1–2 seeds, pale green at first, dark blue when ripe, and is about the size of a small pea.

The **wood** is brittle, fine-grained, light, easily worked, durable, and very aromatic. The heartwood is a dull red. It is valuable for fence posts and paneling for moth-proof closets, but in Maine it is not sufficiently plentiful to be of commercial importance. The shavings are used as bedding for pets.

Eastern redcedar invades old pastureland and quickly dies out when other trees begin to shade it.

MAINE REGISTER OF BIG TREES 2008
Eastern Redcedar Circumference: 62" **Height:** 53' **Crown Spread:** 38' **Location:** Hebron

Common Juniper *Juniperus communis* L.

Common juniper is found primarily as a shrub in pastures and open spaces on shallow, rocky soil. It occurs infrequently, primarily in the southern half of the state. It is occasionally found as a tree. Specimens up to 25 feet in height have been recorded, but are extremely rare.

The **bark** is grayish-brown and occurs in thin, longitudinal, shredded layers. The inner portion has a reddish tinge. The **leaves** occur in whorls of three. They are sharp, stiff, dagger-like and persist for several seasons. They are ¼–¾ inch in length. The upper surface is concave and marked with a broad, white line. The underside, which due to the bending of the twigs usually appears uppermost, is dark green.

The **fruit** is dark blue, covered with a thin bloom and is slightly smaller than a pea. Fruits remain on the trees during the winter, and have a strong resinous taste. The fruit is usually found only on select trees since male and female flowers are generally produced on separate trees. This trait is common to most junipers.

The **wood** is hard, close-grained and very durable. The heartwood is light brown. Large stems make long-lasting fence posts if the bark is removed.

Juniper shavings can be used for pet bedding. In Europe, the fruits are used to make gin.

Common juniper is usually found as a shrub rather than as a tree.

Horses were still commonly used to haul logs in the Maine woods until the 1950s.