

Trees of the Shasta-Trinity

Shasta-Trinity National Forest



Because of its unique geographic setting, the Shasta-Trinity National Forest are home to dozens of unique species of trees. From the towering and stately Sugar Pine of the mid elevation pine belt to the attractive Quaking Aspen found in scattered pockets at higher elevations. Trees provide us with an almost innumerable variety of services... from simple shade, to stunning forested vistas, from much needed lumber to homes for birds and other animals. Native Americans found an excellent supply of food in the acorns of the California Black Oak and in the nuts of the Gray Pine.

Conifers, from which most lumber is sawn, lose needles throughout the year but keep green needles year round. In the winter they mark a stark, green contrast to the hardwoods of the forest. Hardwoods are deciduous trees that lose their leaves each year and stand with bare branches throughout the winter months. Spring brings new green leaves to these trees and in the summer they provide us with shade. Autumn brings the turning of the leaves as another cycle of growth comes to an end and their demise is marked with a flutter of red and gold.

The most common conifers and hardwoods found on the Shasta-Trinity National Forest are included in this brochure...



Ponderosa Pine
Pinus ponderosa

Ponderosa are hard pines with three dark green needles in a bundle. The upturned limbs, tufted with needles, give this tree a well shaped appearance. It grows to 180' in height and takes 35 years to reach saw timber proportions. On

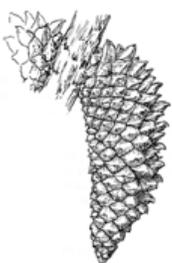
older trees, the orange to cinnamon colored bark breaks off in "jigsaw puzzle" pieces which are yellowish underneath. People unfamiliar with the species can easily mistake Ponderosa pine with Jeffrey pine which has a distinct vanilla or pineapple smell to sunwarmed bark.



Gray or Foothill Pine
Pinus sabiniana

This tree, a hard pine with three long needles in stiff bundles, is an important food source for various forest animals like squirrels and birds. The nuts are hidden in the thick, woody scales of the cone. Native Americans prized the nuts of this tree also, frequenting groves of the

trees during the harvest season. It is an odd shaped tree, with branches growing at dizzying angles and sometimes leaning close to the earth. It offers very little shade

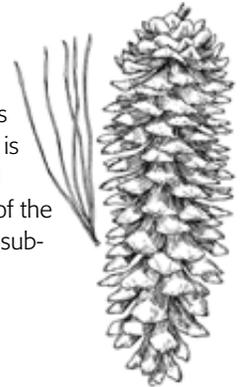


Knobcone Pine
Pinus attenuata

The knobcone is a hard pine with three stiff, yellow-green needles in a bundle. It often grows on southerly exposed slopes. Cones form on the main trunk and larger branches in clusters of 3 to 5. These cones do not drop so the trunk may grow over them. The cones open to disperse their seeds when heated by fire.

Sugar Pine
Pinus lambertiana

This soft pine not only has the longest cones, but it is the tallest American pine. Five needles appear in a bundle on mature trees. The bark is cinnamon red, and the branches are long and nearly horizontal. Cones hang from the ends of the branches. The name is derived from a sugary substance that exudes from the bark.



Foxtail Pine
Pinus balfouriana

The Foxtail pine is a subalpine tree, growing on high ridges and mountainsides. The branches are often thick and grow at odd angles, reflecting its lifelong battles with wind and snow. These trees can reach amazing sizes, never very tall, but very big in girth. When they die they can stand for centuries, white and stark against the sky.



Lodgepole Pine
Pinus contorta

Lodgepoles grow throughout a wide variety of habitats on the Shasta-Trinity but will most often be seen at mid to higher elevations. It is characterized by very straight trunks which were highly prized for building by early settlers. Its needles grow in bundles of 2 and the cones can persist on the branches years after opening.



Western white Pine
Pinus monticola

This is a soft pine with five needles in a bundle. The open crowned tree has silver gray bark and can grow to 125' high. The cones are long and slender and smaller than the sugar pine



Douglas Fir

Pseudotsuga menziesii

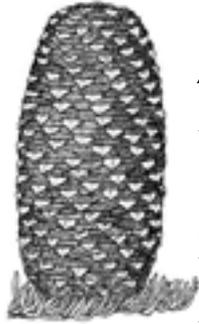
Botanically speaking, this is not a fir at all. It more closely resembles the hemlock. The 1 inch needles grow out from the slender branches in all directions and leave a leaf scar when detached from the branch. Three pointed, tongue like bracts give the downward hanging cones a shaggy look. The bark, which is resistant to fire in older trees, is gray to reddish brown and deeply furrowed. This tree is our most important timber tree, being used for lumber, plywood, veneer and other products.



Incense Cedar

Libocedrus decurrens

This aromatic tree grows to a height of 150 feet. The branches are flattened with the leaves overlapping in whorls of four. On older trees the bark is a dark brown to red and very fibrous with deep irregular furrows. Wood from this tree is used for making pencils, and lining closets. Use your sense of smell to discover how this tree got its name.



California Red Fir

Abies magnifica

This is a widespread, high elevation fir that has short, stiff needles curving upward from its branches. On older trees, the bark is a furrowed reddish brown and is a deep red when broken. The cones are barrel shaped and stand upright on the branches near the crown of the tree.

The cones appear shaggy because of bracts which are longer than the scales. The cones disintegrate from the top down leaving the central stem standing needle like atop the branches. A variety of the California red fir known as the Shasta red fir grows at higher elevations throughout the northern part of the Forests.

White Fir

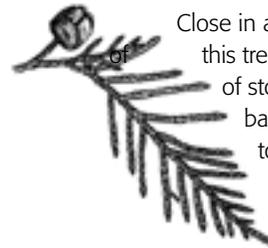
Abies concolor

This fir is variable throughout its wide range on the Shasta-Trinity. At higher elevations the needles are short and stout, curving upwards from its stems, somewhat resembling the red fir. At mid elevations the needles tend to emerge flat from the stems growing horizontally out on either side. The cones are smaller than red fir cones and not as shaggy looking. They stand upright and disintegrate in the same manner as red fir cones when the seeds are mature.



Port Orford Cedar

Chamaecyparis lawsoniana



Close in appearance to incense cedar, the branches of this tree are not as flattened and they have silver Xs of stomata on the underside. The vertically ridged bark is reddish brown when new, weathering to a fibrous silver brown. This cedar is worth more commercially than any other tree on the Shasta-Trinity.

Pacific Yew

Taxus brevifolia

The flat, prickly tipped needles of the Pacific yew are dark green on top and light green beneath and emerge horizontally from the branches on two sides. Seeds are encased in fleshy, salmon colored berries. The reddish purple bark peels off to expose a soft, rose colored inner bark. This tree can grow as high as 75 feet in moist areas, most frequently along deeply shaded streams. Because of its strength, Native Americans long used yew wood to make bows for hunting. More recently a chemical compound found in yew bark and needles has become important in treating certain cancers.



Mountain Hemlock

Tsuga mertensiana



This is a tree of the subalpine regions and in the colder areas of the red fir and mixed conifer forest. Because it grows at higher elevations, its branches are stiff to shed snow. Dead trees are persistent, often standing for centuries after they die. The wood is tough and the bark is a beautiful mix of soft purples, grays and silvers. The cones are small and

are bright purple when very young, crowding the tops of the tree and often covered with dripping pitch.

Weeping Spruce

Picea breweriana

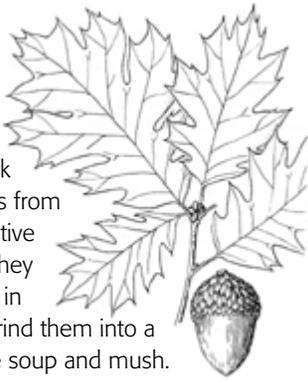


This very uncommon and beautiful tree grows at higher elevations on cool, moist slopes. It is readily identifiable by its very "droopy" aspect, its long, slender and flexible branches sometimes hanging all the way to the ground. The silver green needles emerge from the branches all the way around. Cones are a light, ochre brown and hang downwards from the branches. The bark is variable and plated in thin, soft purple to light brown and silver gray sheets.

Black Oak

Quercus kelloggii

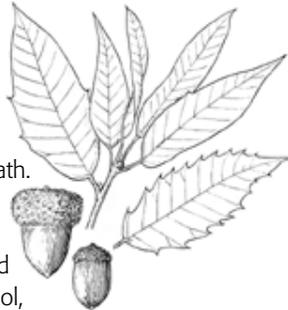
The dark green, deciduous leaves of this tree are deeply lobed and each lobe has a prickly tip. The dark bark is ridged and furrowed. Acorns from this tree were the staple diet of Native Americans throughout California. They would gather the nuts, leech them in water to remove tannic acid and grind them into a meal. This meal was used to make soup and mush.



Canyon Live Oak

Quercus chrysolepis

This oak keeps its thick, leathery leaves year round. They are bright green on top and tawny brown beneath. Leaves may be toothed or rounded, even on the same tree. The bark is dark, ridged, scaly and easily damaged by fire. The tree generally grows in cool, rocky gulches where fire occurrence is rare. The acorns of this tree provide an important winter food source for deer.



Tan Oak

Lithocarpus densiflorus

This tall tree is not a true oak. It is related to the chestnut. The leaves are dark green on the topside and a lighter green beneath. The underside is coated with a snowy white "wool" which can cause sneezing. The bark of large trees is ridged and was once used for tanning. The acorns of this tree were an important part of the Native American diet.



Sadler or Deer Oak

Quercus sadleriana

This shrubby oak grows on open, rocky slopes in association with mixed conifer trees at mid elevations. The light green leaves are broad and toothed. The acorns are an important part of the diets of deer and other animals.



Blue Oak

Quercus douglassii

The leaves of this lower elevation oak are a light bluish green on top, smooth edged and wavy. Some leaves can be slightly lobed. The underneath side of the leaf is a pale bluish green. Bark on this tree is light, almost white and papery feeling. It prefers open woodlands, on dry slopes and flats.



Big Leaf Maple

Acer macrophyllum

This broad crowned shade tree has the largest leaf of any tree in the area. The five lobed leaf, which may be up to a foot across, turns a brilliant yellow in autumn. The seeds are encased in a double winged samara that "helicopters" down to the forest floor. The presence of this tree often indicates that there is a high water table in the area.



Vine Maple

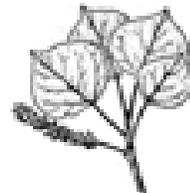
Acer circinatum

This maple grows very quickly in canyons that are deeply shaded and wet and presents an almost vine like appearance. The trunk and branches are covered in a greenish bark that is slightly furrowed, the furrows showing white. The leaves are large and papery, turning a beautiful lemon yellow in the fall. The seeds resemble those of the Big Leaf Maple.

Black Cottonwood

Populus trichocarpa

This deciduous tree is found by streamsides. The leaves are dark green on the top side and silvery white with rusty veins below causing the leaves to appear to shimmer in the wind. Leaf margins have rounded teeth, and the twigs are sticky. In autumn the leaves turn a brilliant yellow.



Quaking Aspen

Populus tremuloides

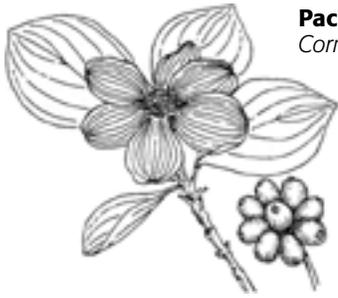
This beautiful, white barked tree gets its name from its leaves and the way they seem to shimmer in the wind. The leaves are on long, limber petioles that allow the leaf to move in the slightest breeze. They are a dark green on top and silvery beneath. Quaking Aspens grow in isolated pockets on the Shasta-Trinity and are not a common sight.

Pacific Madrone

Arbutus menziesii

This large and beautiful tree is easily distinguished from all other trees on the Shasta-Trinity. Its bark is a very smooth, reddish brown color, deeply furrowed and rough on the lower trunks of older trees. The evergreen foliage is a deep, shiny green on top and yellow green beneath. Its showy, large clusters of flowers resemble lillies of the valley.





Pacific or Mountain Dogwood
Cornus nutallii

Dogwoods are one of the early bloomers of the forest under-story, usually beginning its brilliant show in late April and lasting through June as you progress up in elevation. It is a tree that inhabits cool, shady draws

and flats where there is an abundance of water. What most people think are the flowers of the dogwood are actually greenish white sepals that surround the tiny flowers that cluster in the center. The sepals and flowers are large and saucer shaped, often 6" or more across. The leaves are veined with a point at the tip and turn a brilliant crimson in autumn. The bark is gray to black and has the appearance of an alligator's hide.

Miners or Stream Dogwood
Cornus sericea

This is a streamside dogwood, often with its feet directly in the water. The branches are red to purple, thin and very limber. Leaves are narrower than the Pacific Dogwood, but veined the same and the same color. This dogwood lacks the large greenish white sepals of its more showy cousin, but has small clusters of white flowers at the tips of its branches.



McNab Cypress
cupressus macnabiana

The McNab cypress grows on dry slopes and flats associated with chaparral and pine/oak woodlands. It is often found on serpentine type soils. It is a low growing tree with long, undulating branches covered with short, blue to gray green needles. The needles are very fragrant when crushed. The cones are round and a dark brown. The dark brown bark is fibrous and shaggy.



California Juniper
Juniperus californica



Junipers grow on dry slopes and flats in association with sage and sometimes with pinyon pine. It can be multi trunked with thin, dark gray bark. The seed cones are round and bluish when young, red brown when mature. Juniper berries, as the cones are called, are frequently used in cooking, especially with wild game. This tree doesn't grow very tall and is most often found in the north eastern part of the Shasta-Trinity.

Other trees to look for on the Shasta-Trinity...
Engleman spruce, Giant Sequoia, Mountain Mahogany, Fremont Cottonwood, Klamath Plum, and Mountain Ash

Notes...

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