

Utah Forest Facts

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Utah Forest Types: An Introduction to Utah Forests-Youth Edition

Darren McAvoy, Mike Kuhns, Justin Black

This fact sheet describes Utah's forest types – forests grouped by their combination of tree types and the roles they play in the landscape.

Introduction

Utah is known more for its red rock than for its forests, but trees cover about one third of the state. This is equal to 15 million acres of forest. About five million of those acres are aspen and conifer forests. The rest are found in lower elevation forests in foothills and along stream bottoms. They are referred to as woodlands.

Forests, Elevation, and Aspect

Elevation and aspect play an important role in the ecology of Utah forests, mostly because of the availability of water. Elevation refers to how many feet a location is above sea level. Aspect focuses on which direction the hill is facing. Generally, if enough water is available in



Ponderosa pine in Bryce Canyon National Park

the soil, trees will be found. The most plentiful coniferous forests grow in upper elevation basins or mountain slopes that face to the north or east. Higher elevation means more precipitation and cooler temperatures, both good for trees. Lower

elevation valley bottoms have lower precipitation and water is only near streams. These areas usually aren't forested except for cottonwoods and willows near those streams. Middle elevation areas get slightly more rain than low elevation areas, and tend to have drought-tolerant trees like pinyons, junipers, oaks, and

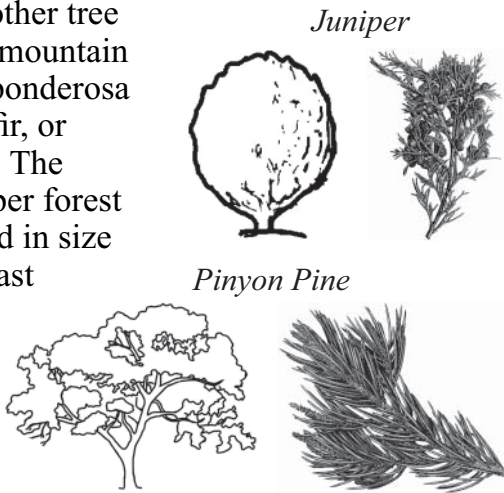
maples. Often these woodlands are only found on northern and eastern facing slopes of hills or mountains. This is due to the heat on the southern and western facing slopes making it too dry for trees to live.

Other factors that determine where forests and woodlands are found and how well they do are temperature, soil type, animal grazing, aggressive weeds, and fire.

Forest Types

Forest and woodland communities can be better understood by dividing them into different forest types. Forest types are defined by which tree is most common in the area. Utah has 15 different forest types that include quaking aspen, Engelmann spruce, Douglas-fir, lodgepole pine, ponderosa pine, and woodland species like pinyons, junipers, oaks, and maples.

Pinyon-Juniper Type The forest type that covers the most area in Utah is the pinyon-juniper, which usually is found in the foothills. Utah has two kinds of pinyons: singleleaf pinyon and Colorado pinyon. Utah also has two junipers: Utah and Rocky Mountain juniper. They often grow together, but they also grow with other tree species like mountain mahogany, ponderosa pine, white fir, or Douglas-fir. The pinyon-juniper forest has increased in size during the past century because of fire fighting efforts and grazing.

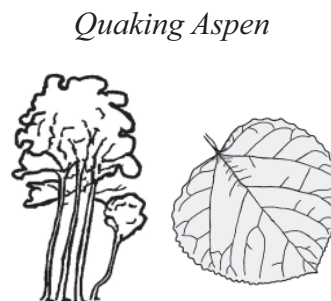


Pinyon-Juniper Type

- 8 million acres at 5,000 to 8,000 feet elevation.
- Occupy the driest forested sites.
- Nearly 60 percent of Utah forest cover.
- Important for wildlife and livestock grazing.
- Used for fence posts and poles, firewood, mine props, charcoal, Christmas trees, and pinyon nuts.

Aspen Type Quaking aspen, or quakies, are Utah's second most common forest type, covering over 1.4 million acres. They are best known for their brilliant yellow to orange fall color, and for being carved in by sheepherders and campers. Aspen are found mostly in moist areas. Stands of aspen grow together in clones. This is to say that the same group of trees may have the same root system connecting them all. In other words the entire stand of trees is just one tree. The roots spread out in the ground and come up somewhere else appearing as a different tree. Many people are fooled thinking that each tree has its own roots and is separate from those trees around it.

Aspen can be found from canyon bottoms to upper elevations and often grow with conifers like subalpine fir and spruce. Scientists have shown that there are far fewer aspens in Utah now than in the 1880s. They are concerned that the conifers will continue taking over stands of aspen. The forest floor in stands of aspen can have up to 10 times more plant types than a stand of evergreens.

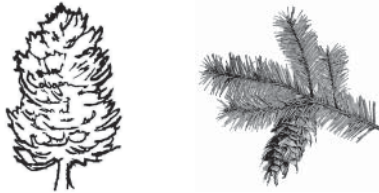


Aspen Type

- 1.4 million acres at 7,000 to 10,000 feet elevation.
- Important for wildlife habitat, grazing, biodiversity, and beauty.
- Easily grows back after clearcutting or burning
- Does not like shade. Because of this, large conifers can take over a stand of aspen by blocking the sunlight.

Douglas-fir Type The next most common forest type has both Douglas-fir and white fir. This type of forest covers more than one million acres in Utah. Early pioneers sought Douglas-fir for building material. The pioneers often called it red pine because of the reddish heartwood. There are at least five canyons in Utah named Red Pine because of this.

Douglas-fir



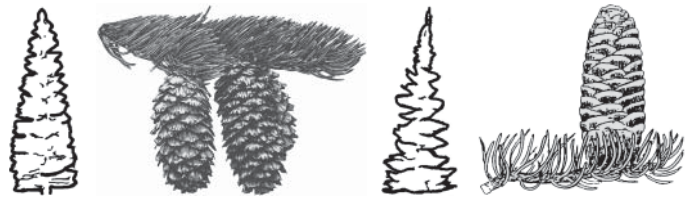
Douglas-fir Type

- 1 million acres at 6,000 to 9,000 feet elevation.
- Important timber and recreation resource and provides critical wildlife habitat.
- Not as bothered by shade as aspen but can be replaced by other trees that don't need as much sun.

Spruce-Fir Type Spruce-fir is the fourth most common forest type in Utah, and is usually found at higher elevations. Engelmann spruce and subalpine fir are found mixed with Douglas-fir, white fir, and aspen, as well as many different types of pines. The majority of spruce found in Utah is Engelmann spruce, while the blue spruce is only about five percent. Spruce trees are very good for timber because they have very straight grain. Spruce trees are often used for log house. A massive spruce beetle epidemic is devastating much of Utah's spruce forests.

Engelmann Spruce

Subalpine Fir



Spruce-Fir Type

- 3/4 million acres at 8,000 to 10,000 feet elevation.
- Important for wood fiber, wildlife habitat, recreation, and watershed.

Pine Types Several pine forest types exist in Utah. Some of these are ponderosa, lodgepole, limber, and bristlecone pines. Pines don't grow well in shade, but do better in a drought than similar conifers.

Ponderosa Pine Ponderosa pine is the pine of Bryce Canyon National Park, and is found from the Uintas south. Ponderosa is the largest pine. It will eventually get an orange-yellow bark that earns it the name of yellow pine.

Lodgepole Pine Lodgepole pine covers nearly half a million acres in Utah, mostly at higher elevations around the Uintas. Lodgepole has a short life when you compare it to other trees. They may live to be 150 years old. Lodgepole grows very straight and tall and is often used for fence poles and lumber.

Limber Pine Limber pine tends to be found on higher ridges in Utah. Although, it covers less than a million acres in Utah, its common name, "white pine," honors 19 places in our state.

Bristlecone Pine Bristlecone pine covers a very small area in Utah. It is found mostly on upper elevation plateaus in southern and western Utah. This tree is best know for being the oldest living tree on earth.

Oak-Maple Type Gambel oak and canyon or bigtooth maple woodlands occupy our lower mountain slopes and foothills and turn brilliant colors in the fall. As the city expands, more homes are built in these woodlands. Their management is extremely important to prevent fire disasters.

Ponderosa Pine

Bristlecone Pine



Oak



Lodgepole Pine

Limber Pine



Maple



Pine Types

- Total of 1.1 million acres of pines at 7,000 to 10,000 feet elevation, depending on species.
- Ponderosa pine naturally grows in open, park-like stands maintained by frequent fire; fire suppression leads to dense stands; thick bark protects older trunks from fire damage.
- Lodgepole pine tends to grow back from seed after a fire.
- Limber pine is found on cold, windy, steep, rocky hillsides. It is often found near timberline. Some Utah limber pines are over 2,500 years old.

Oak-Maple Type

- Common native species in lower elevations between 5,000 and 7,800 feet.
- Important for birds and big game.
- Although they often grow together, oaks prefer southern facing slopes while maples prefer northern and eastern facing slopes.
- Grows back very quickly after a fire.
- Oak tend to be scrubby small trees less than 30 feet in height, but can reach 60 feet tall.
- Maple can reach 50 feet in height.

More Information

For more information on Utah's forests and woodlands visit the Utah State University Forestry Extension Web site at <http://extension.usu.edu/forestry>