

## Rocky Mountain Tree Habitats

Tree Species	Elevation	Habitat	Fire Effects
<b>Bristlecone Pine</b>	9,200 to 11,800 feet	Exposed, cold, dry, rocky slopes and high mountain ridges up to timberline; in pure stands or with limber pine.	Fires virtually nonexistent in these areas due to low temperatures and a short growing season.
<b>Blue Spruce</b>	6,700 to 11,500 feet.	Well-drained, sandy soils; moist sites of narrow bottomlands or along mountains streams; often in pure stands.	Easily killed by fire due to thin bark, shallow roots and low branches.
<b>Douglas-fir</b>	6,000 to 9,500 feet.	Rocky soils of moist northern slopes; in pure stands and mixed conifer forests.	Thin, resinous bark of young trees makes them highly susceptible to fire; after 40 years, trees have developed a very thick layer of bark to protect them during hot ground and surface fires.
<b>Engelmann Spruce</b>	8,000 to 11,000 feet	High, cold forest environments on moist, northern slopes; with subalpine fir and other conifers.	Generally killed by fire due to thin bark, shallow roots, low growing branches, tendency to grow in dense stands and support heavy lichen growth. Large trees may survive low-intensity fires.
<b>Limber Pine</b>	5,000 - 12,000.	Nutrient-poor soils on dry, rocky slopes; ridges up to timberline and often pure stands.	Young trees can be killed by any fire; mature trees can only survive low-intensity fires, but due to the sparse fuels, late snow-melt and short growing season, this species is rarely affected.
<b>Lodgepole Pine</b>	6,000 to 11,000 feet	Mostly well-drained soils in high elevations, often in pure stands.	Ground fires kill many trees due to thin bark. New stands quickly establish when cones open and seeds are released.
<b>Narrowleaf Cottonwood</b>	5,000 to 8,000 feet.	Moist soils along streams; can often be found with willows and alders in coniferous forests	Severe fires can easily kill both young and mature trees. Young trees are able to sprout from roots and/or branches after a fire.
<b>Quaking Aspen</b>	6,500 to 11,500 feet.	Many soil types, especially on well-drained, sandy and gravelly slopes; often in pure stands.	Easily killed by fire, but quick to send out many sucker shoots; readily colonizes after a fire.
<b>Piñon Pine</b>	5,200 to 9,000 feet.	Open woodlands; alone or with junipers on dry rocky foothills, mesas and plateaus.	Easily killed by fire due to thin bark, relatively flammable foliage and accumulation of dead lower branches.
<b>Plains Cottonwood</b>	3,500 to 6,500 feet.	Found in floodplains, bordering streams, near springs and in moist woodlands; pure stands or with willows.	Generally killed by fire; very poor sprouting response.
<b>Ponderosa Pine</b>	6,300 to 9,500 feet.	Dry, nutrient poor soils in open park-like stands or with Douglas-fir, Rocky Mountain juniper and spruce.	Resistant to fire, due to open crowns, thick, insulating bark, self-pruning branches, high moisture content in the leaves and thick bud scales.
<b>Rocky Mountain Juniper</b>	5,000 to 9,000 feet.	Grows on rocky soils in the foothills and on the plains; often associated with piñon pines.	The resinous wood is very flammable. Low intensity fires easily kill this tree due to its thin bark and compact crown.
<b>Subalpine Fir</b>	8,000 to 12,000 feet.	Cold, high elevation forests; with Engelmann spruce and other conifers.	Generally killed by low-intensity fires because of thin, flammable bark, shallow roots, low-growing branches and dense growing conditions. Seeds readily germinate on recently burned ground.
<b>White Fir</b>	7,900 to 10,200 feet.	Moist soils of high mountain valleys; in pure stands and with other firs.	Young are usually killed by low-intensity fires due to thin, resin blistered bark and drooping lower branches; mature trees are moderately fire tolerant.