

Bristlecone Pine



Parks &
Open Space

5201 St. Vrain Rd., Longmont CO 80504 303-678-6200 BoulderCountyOpenSpace.org



Rocky Mountain bristlecone pine is a conifer most often found at higher elevations on ridges and mountain tops.

Photo credit: BCPOS employee

Species Description

Tree: Trees rarely exceed 50 ft. in height and often occur as single stems; however multi-stemmed growth is not uncommon.

Needles: Needles occur in bundles of 5 and are clustered at the end of branches, giving a “bottlebrush” appearance. The needles produce small specs of sap that can be used as a distinguishing characteristic from the similar looking limber pine.

Cones: Female cones produce a spike or bristle on the end of each scale and mature in fall of their second year. Winged seeds drop from the cones soon thereafter.

Look Alikes: Limber pine

Habitat: Occurs at high elevations on ridges and mountain tops; elevations in Colorado range between 7,000-13,000 ft.

Background

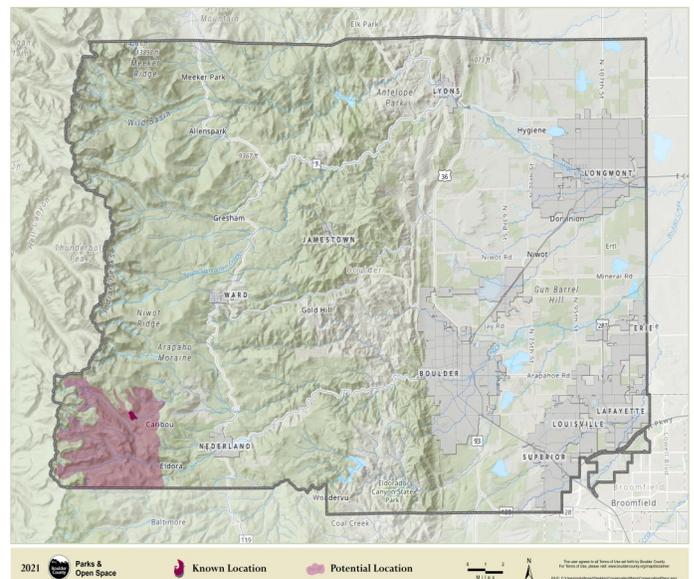
Bristlecone Pines belong to the Family Pinaceae.

In Boulder County, bristlecone is listed as a species of special concern. The northern most extent of Rocky Mountain bristlecone pine occurs in Boulder County, 3 1/2 miles northwest of the Eldora townsite.

Because of its ability to survive in the sub-alpine and alpine environments, it is often referred to as a high-elevation pine. Like other high-elevation pines, bristlecones are ecologically important and provide valuable ecosystem services, such as soil stabilization, snow retention, controlled water runoff, and high elevation biodiversity .

Distribution & Range

Rocky Mountain bristlecone pine is endemic to the southern Rockies, occurring from central Colorado south to northern New Mexico with an outlying population in northern Arizona.



Threats

- *White pine blister rust (WPBR)*: WPBR on Rocky Mountain bristlecone pine is not widespread, with the only known occurrence observed near the Great Sand Dunes.
- *Climate change*: With a changing climate, we can expect Rocky Mountain bristlecone pine populations to shift their distributions in response to these changes.
- *Wildfire*: Fires alone do not threaten long-term survival; however a changing climate could increase the size and frequency of wildfires, which could threaten certain populations that previously were not subject to this disturbance.



Photo credit: BCPOS employee



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Management Considerations

- *Mapping*: Continue to locate unmapped populations, both County wide and on Boulder County Parks & Open Space (BCPOS) properties.
- *Monitoring*: Monitor existing populations for WPBR, Dwarf Mistletoe, and Mountain Pine Beetle.
- *Coordinate management actions with BCPOS*:
 - Collect cones and have seed grown out to test for WPBR resistance.
 - Report any existing populations.

