

KEY TO THE *Conifer Trees* OF WYOMING



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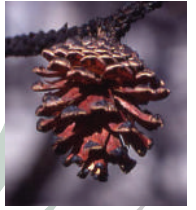
- 1 a. Leaves are short and scale-like, cones like berries (junipers).....2
- 1 b. Leaves (needles) are much longer than wide.....3
- 2 a. Leaves are longer than wide, edges are smooth;
and berries usually have two seeds.....*Rocky Mountain Juniper*
- 2 b. Leaf length and width are approximately equal, edges are not smooth;
berries usually have one seed.....*Utah Juniper*
- 3 a. Needles are attached to twig in bundles (pines).....4
- 3 b. Needles are attached singly to twig.....8
- 4 a. Needles are in bundles of two or three.....5
- 4 b. Needles are in bundles of five.....7
- 5 a. Needles and cones are 2.5” or greater in length.....*Ponderosa Pine*
- 5 b. Needles are in bundles of two, needles and cones are shorter than 2.5”.....6
- 6 a. Cones with relatively few, blunt scales and large seeds.....*Pinyon Pine*
- 6 b. Cones with many sharply-spiked scales and small, winged seeds.....*Lodgepole Pine*
- 7 a. Cones are round, less than 3” long, usually falling apart on tree.....*Whitebark Pine*
- 7 b. Cones are elongate, longer than 3”, remaining intact.....*Limber Pine*
- 8 a. Needles are stiff, sharp, with square cross-section (can be rolled between fingers), twigs are rough
where needles have fallen (spruces).....9
- 8 b. Needles are relatively soft and blunt, and flat (can’t be rolled), twigs are relatively smooth where
needles have fallen (firs and pseudo-firs).....11
- 9 a. Cones are longer than 2.5”*Blue Spruce*
- 9 b. Cones are less than 2.5” in length.....10
- 10 a. Cone scales are smooth and rounded on the edges, needles are 1” or less in length.....*White Spruce*
- 10 b. Cone scales are pointed and somewhat toothed at the tip,
needles are greater than 1” in length.....*Engelmann Spruce*
- 11 a. Needles are narrowest at base. Cones with three-pronged bracts,
extending between scales.....*Douglas Fir* (not a real fir)
- 11 b. Needles don’t narrow toward the base, cones falling apart at maturity.....*Subalpine Fir*



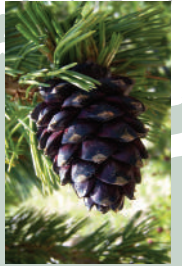
A hand lens or microscope is necessary to see the minute, scale-like leaves of juniper trees. Besides the two tree species, there are also two shrubby junipers in Wyoming. The berries of the common juniper (one of the shrubs) provide flavor for gin. Junipers are well adapted to heat and drought, and can be found in dry, open sites from the foothills to the montane.



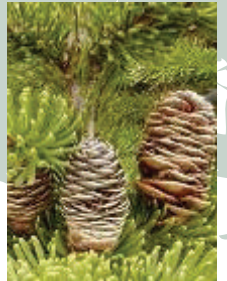
Ponderosas (left) have the longest needles of any Wyoming conifer, making them easy to recognize. The other two-needle pines have shorter needles and much smaller cones. The cones of lodgepoles (right) usually remain on the tree for many years. Some of the cones require heat to open and release seeds, which allows for rapid regeneration after fire. Pinyon pines have large, edible seeds. In Wyoming, pinyons are found only in southern Sweetwater county.



Wyoming's five-needle pines are limber pine (left) found throughout the state in dry, rocky sites, and whitebark pine (right), found only in the western mountains. The seeds of whitebark pine are an important source of nourishment for grizzly bears.



Spruce and fir cones have scales that are much thinner than the woody scales of pine cones. The cones of douglas fir (left) have distinctive bracts that look like the rear ends of mice diving for cover beneath the cones scales. Subalpine fir cones (right) have rounded scales that usually fall from the cone before the cone falls from the tree.



Mature spruce cones hang downward (unlike the cones of subalpine firs). Pictured here are Blue Spruce (left), White Spruce (far right), and the erect young cones of Engelmann Spruce, which will turn down at maturity.



SCIENTIFIC NAMES

- Abies lasiocarpa*.....Subalpine Fir
- Juniperus osteospermum*.....Utah Juniper
- Juniperus scopulorum*.....Rocky Mountain Juniper
- Picea glauca*.....White Spruce
- Picea engelmannii*.....Engelmann Spruce
- Picea pungens*.....Blue Spruce

- Pinus albicaulis*.....Whitebark Pine
- Pinus contorta*.....Lodgepole Pine
- Pinus edulis*.....Pinyon Pine
- Pinus flexilis*.....Timber Pine
- Pinus ponderosa*.....Subalpine Fir
- Pseudotsuga menziesii*.....Douglas Fir

