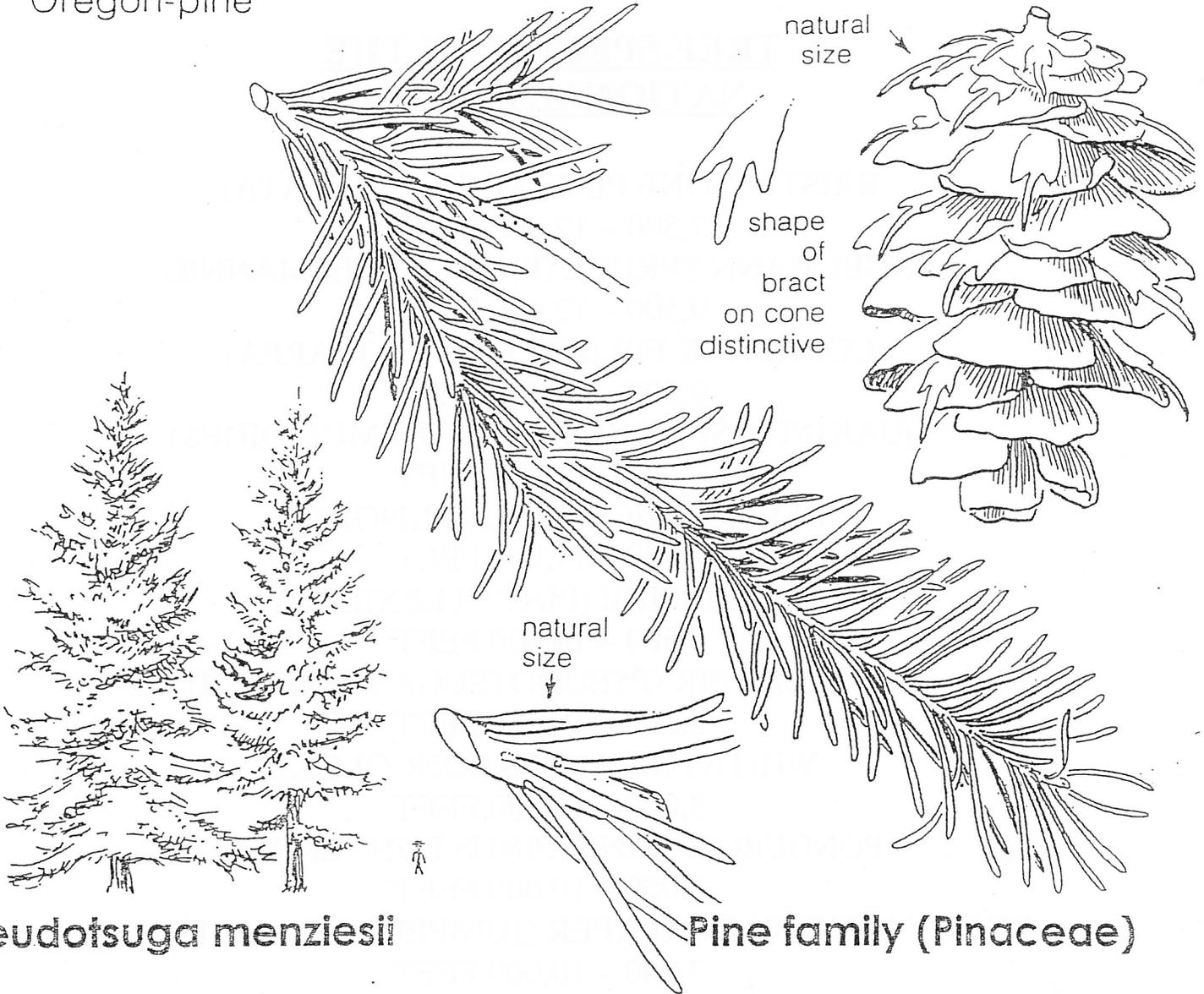


TREE SPECIES ON THE NATIONAL FOREST

- BRISTLECONE PINE (PINUS ARISTATA)
7,500 – 12,000 FEET
- ENGELMANN SPRUCE (PICEA ENGELMANNII)
9,500 – 12,000 FEET
- CORKBARK FIR (ABLES LASIOCARPA)
9,500 – 11,500 FEET
- QUAKING ASPEN (POPULUS TREMULIOIDES)
8,000 – 11,000 FEET
- BLUE SPRUCE (PICEA PUNGENS)
8,500 – 11,000 FEET
- LIMBER PINE (PINUS FLEXILLIS)
8,500 – 10,000 FEET
- DOUGLAS FIR (PSEUDOTSUGA MENZIESII)
8,000 – 10,500 FEET
- WHITE FIR (ABLES CONCOLOR)
8,000 – 10,500 FEET
- PONDEROSA PINE (PINUS PONDEROSA)
7,000 – 10,000 FEET
- ROCKY MOUNTAIN JUNIPER (JUNIPERUS SCOPULONUM)
7,000 – 10,000 FEET
- PINYON PINE (PINUS EDULIS)
6,000 – 9,000 FEET
- ONE SEED JUNIPER
6,000 – 8,000 FEET
- UTAH JUNIPER
6,000 – 8,000 FEET
- RIO GRANDE COTTONWOOD
6,000 – 9,000 FEET

There several other species alder, willow, maple, etc. associated with special conditions, i.e.: riparian or in a shrub form.

Douglas-, yellow, red or false spruce; yellow or red fir; Douglastree, "Oregon-pine"



DOUGLAS-FIR
Pseudotsuga menziesii

Pine family (Pinaceae)

Range: Our whole range: W to CA; N to AK; S to MEX. Deep soils, 4,000–11,000.

Douglas-fir is not a true fir, nor is it a hemlock, although its scientific name translates "false hemlock".

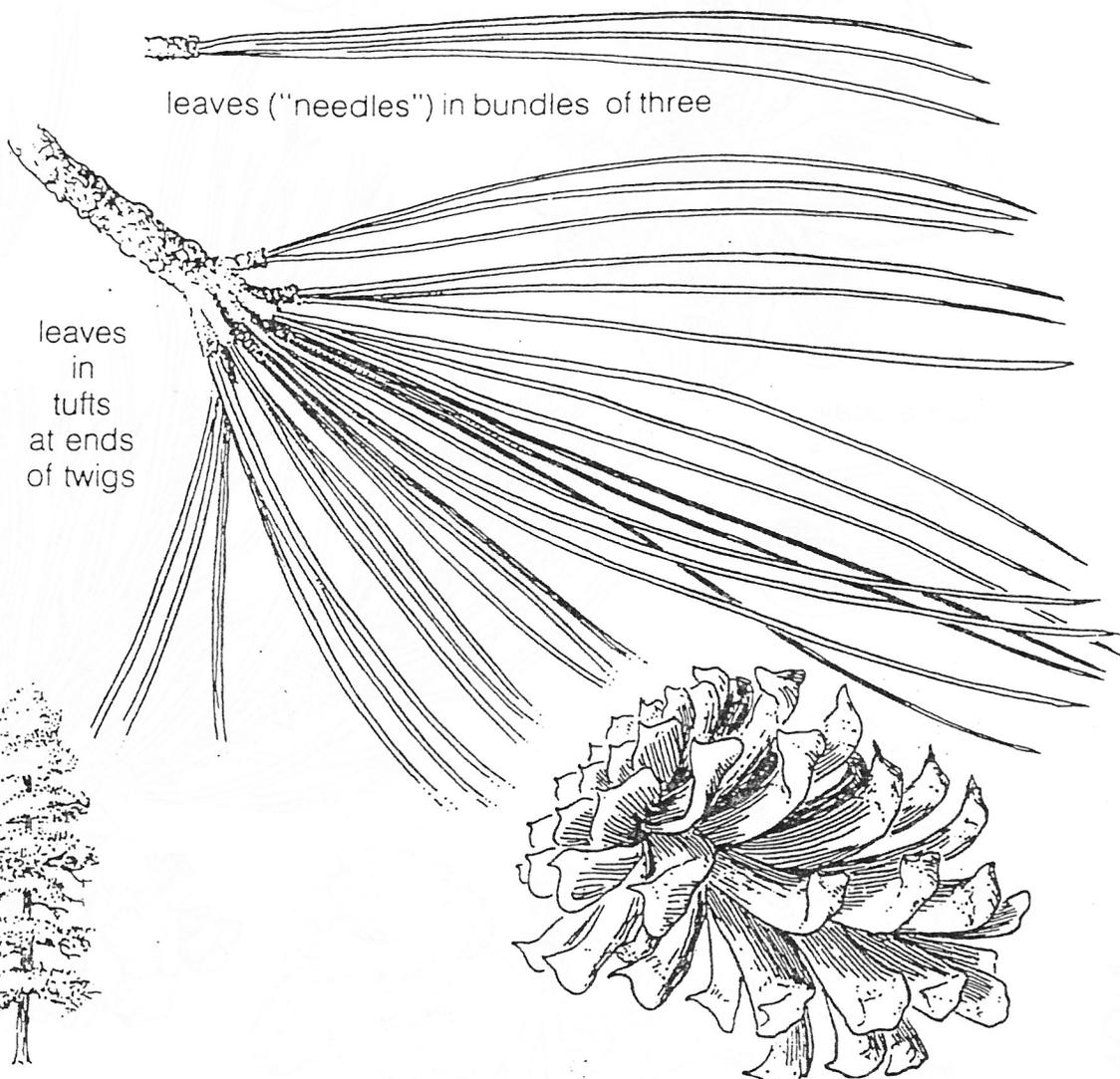
"Mouse-tails" sticking out from between the cone scales give its cones a distinctive fringed appearance entirely different from any other cone. It is also distinguished from the true firs because its cones hang down and fall off whole, in contrast to the firs whose cones are upright and disintegrate when mature. Its needles are blunt, flat, flexible and grooved above.

In our area it grows to about 130 feet, but on the coast it reaches a height of over 300 feet.

It is highly regarded for lumber and is prized for Christmas trees. The twigs and needles of this tree were once used as a coffee substitute.

It is the State Tree of Oregon.

western yellow pine, "black jack" pine, pino real [true pine], pinabete



leaves ("needles") in bundles of three

leaves
in
tufts
at ends
of twigs

PONDEROSA PINE



Pinus ponderosa

Pine family (Pinaceae)

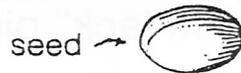
Range: Our whole range; W to CA, N to Canada; E to NB & the Dakotas; S to Mexico. Dry hillsides & mesas, 3,500' – 9,000'. Arizona variety SE AZ, SW NM; S to Mexico 6,000' – 9,000'.

Its 3 long needles and yellowish bark easily identify this, the State tree of Montana. It is a valuable forest tree and furnishes more lumber than any other American tree. It grows about 150 feet tall and 3 to 4 feet in diameter, larger trees living for 300 to 500 years. Young trees have a dark, almost black, bark, which prompts the local name of "black jack".

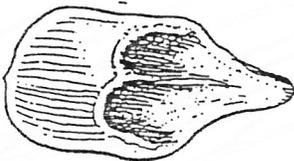
Children (and adults too!) have fun peeling scales from the tree trunks; the scales resembling all sorts of things; dolphins, rabbits, dogs, birds – and more! Indians ate the seeds either raw or made into bread; squirrels and chipmunks as well as birds also enjoy eating them.

The Arizona pine, with shorter cones and more slender needles in bundles of 5, is a variety of ponderosa pine (variety *arizonica*).

pinyon pine, nut pine, piñón



cone scale



"needles" (leaves) in two's



PINON

Pinus edulis

pine family (pinaceae)

Range: Our whole range; n. to WY; s. to Mexico. Dry, rocky places, 4,000' to 8,000' elevation

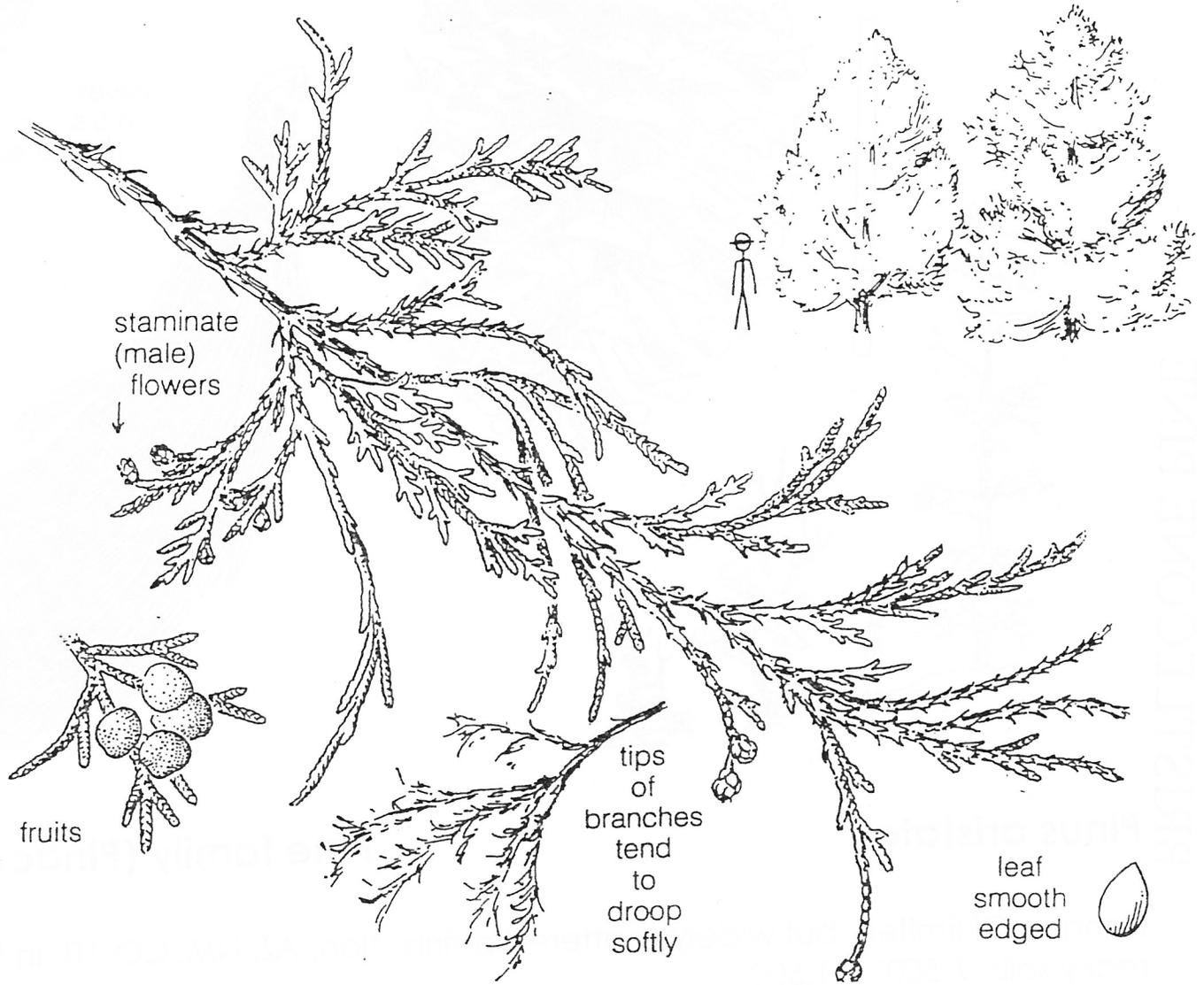
Piñon, (pinyon) New Mexico's picturesque state tree, often has a crooked trunk with reddish bark, and grows, at most, 35 feet tall. It occurs in either pure stands or intermixed with Utah Juniper. Growth is very slow, and trees 6 to 10 inches in diameter may be 100 to 150 years old.

The chunky little cones produce the well-known tasty piñon nuts. They are some of the largest nuts produced by any of our pines and are sold throughout the country as piñon or pine nuts, Indian nuts, or Christmas nuts. Periodically bumper crops of these delicious seed are produced and avidly gathered by the natives—if the small animals and birds don't get there first! Occasionally woodrats' nests are robbed for their stored nuts, sometimes yielding up to 30 pounds.

The tree is highly prized for providing pitchy, fragrant firewood.

western juniper, Rocky Mountain or western "red cedar," "scop" (horticulture), cedro rojo [red "cedar"]

ROCKY MOUNTAIN JUNIPER



Juniperus scopulorum

Cypress family (Cupressaceae)

Range: Our whole range; W to NV; N to Canada. E to the Dakotas & OK. Low, rocky, mountain slopes, and dry mesas, 5,000' to 9,000' elevation.

This juniper is very similar to both Utah and one-seed junipers, but its needles are smaller, it grows more upright and has 2 or (sometimes 3) seeds in its berries. Scale-like foliage and stringy bark are also characteristic of this species. It is the most widespread and treelike of the junipers, although it rarely exceeds 30 to 40 feet in height and 2 feet in diameter. Its bark is reddish to gray brown and scaly, becoming stringy and ridged on older limbs.

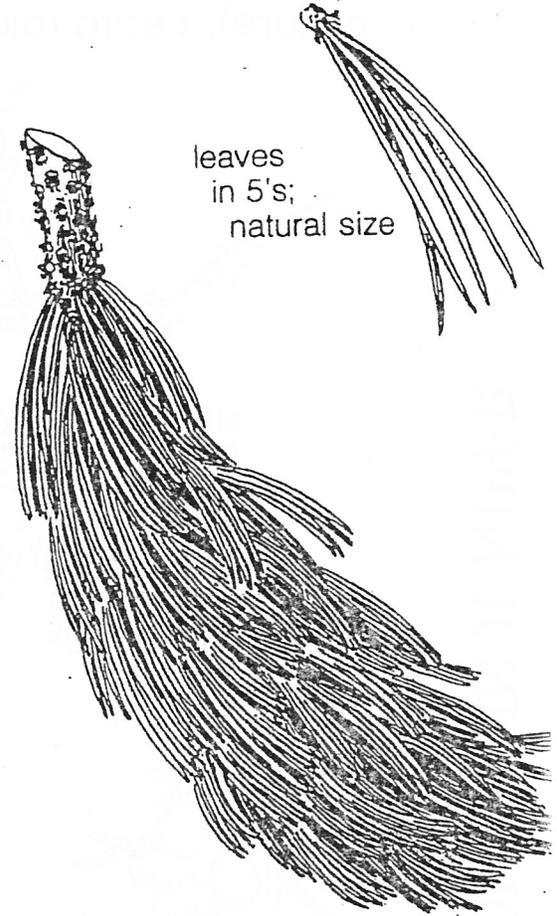
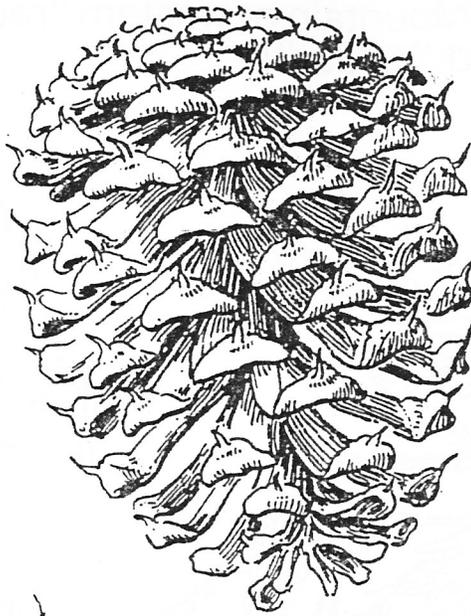
The pea-size, blue berries are juicy and edible. The Indians ate the berries raw or cooked, or dried them for winter use. They are also an important source of food for birds and small animals.

Its wood is used for long-lasting fence posts, fragrant fuel, lumber (especially "cedar" chests), pencils and novelties.

BRISTLECONE PINE

foxtail pine

2 in.



Pinus aristata

Pine family (Pinaceae)

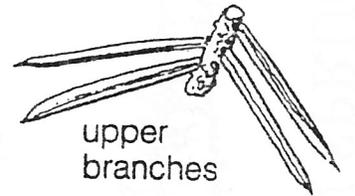
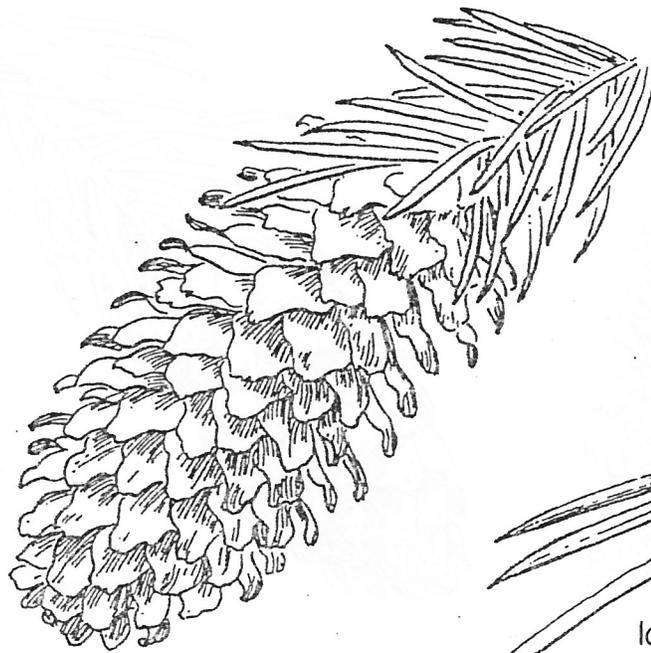
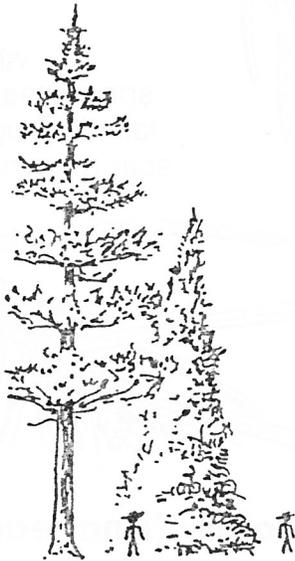
Range: Of limited, but widely scattered distribution, AZ, NM, CO, UT. In thin, rocky soils, 7,500' -11,500.

One of our 5-needled pines, sharing with limber pine the highest windswept ridges, and often confused with it. It can be distinguished from the limber pine by its smaller cones with incurved prickles or bristles on the tips of the cone scales, which give the tree its name. The name "foxtail" is derived from the fact that the twigs are densely clothed with needles and resemble a fox's bushy tail. Because it grows in high, windy places, old trees are often twisted into very picturesque shapes. Weather-beaten dead trunks are even more gnarled, and weathered to a silvery sheen.

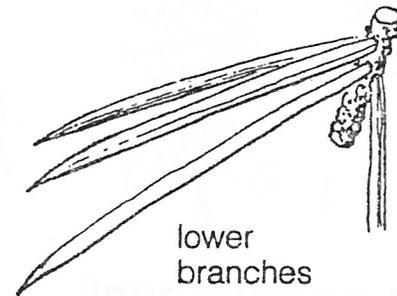
Bristlecone pines have a life span, measured not in hundreds of years, but in thousands! Annual rings have been counted to 4,600, which mean that some were already over 2,600 years old at the time of the birth of Christ. They were even over 1,100 years old when the Egyptians were building the pyramids, making them the oldest living things on earth!

The Bristlecone pine of California is now considered to be a separate species.

BLUE SPRUCE



leaves-
natural size



Pine Family (Pinaceae)

Picea pungens

Range: Our whole range; N to MT & ID. Moist soils, 8,000'-11,500'.

This spruce and Engelmann spruce are hard to tell apart; however, blue spruce cones are usually over 3 inches long, those of the Engelmann, usually about 2 inches long. If there are no cones on the trees, look at their barks—on mature blue it is pale to dark gray and furrowed; on Engelmann it is cinnamon red to purple brown and scaly.

The needles of blue spruce are generally longer, stiffer, sharper and more silvery than those of Engelmann spruce. It's easy to tell spruces from firs because their cones, which mature in August, are pendant and their needles sharp (firs have erect cones and "furry" needles).

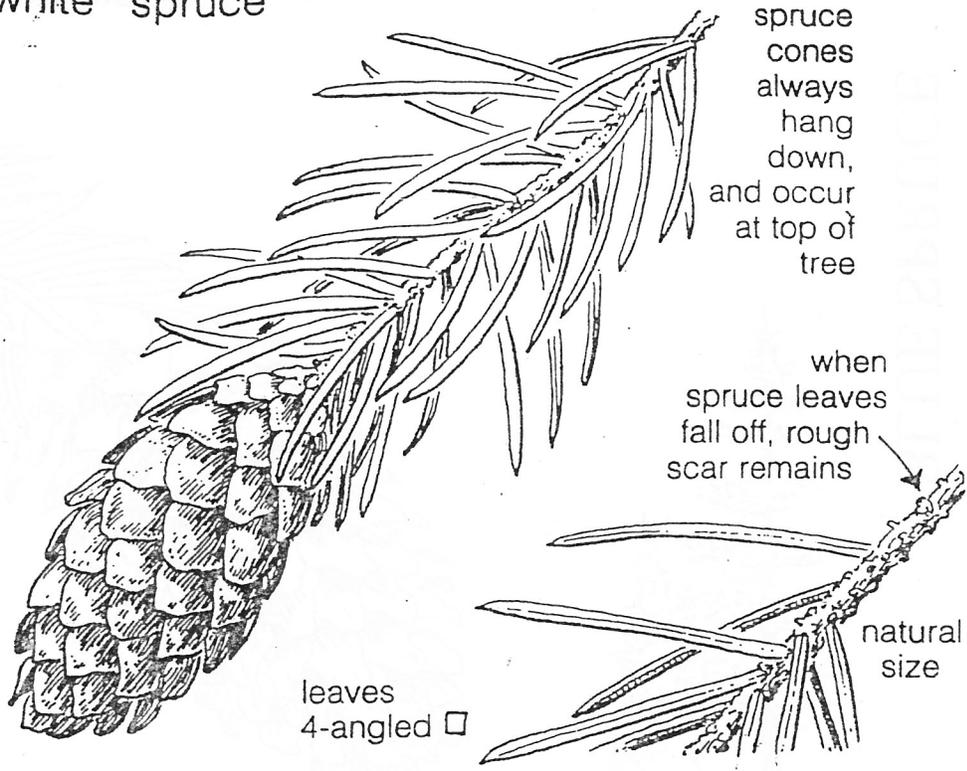
Blue spruce has been called the most beautiful of all the evergreens, especially in its silvery form, and for this reason it is a highly prized ornamental and probably the most widely known of all the conifers. (A dozen horticultural varieties have been developed).

Blue spruce is the State tree of both Colorado and Utah, and is much in demand for Christmas trees.

"Turnbackers" from the "Pikes Peak or Bust" gold rush returned home with "silver" spruce instead of gold, transplanting it throughout the Midwest where it is still much in evidence.

mountain, silver or "white" spruce

ENGELMANN SPRUCE



Picea engelmannii

Pine family (Pinaceae)

Range: AZ, NM, CO, UT; W to CA; N to Canada; Deep, moist soils, 8,000–11,500.

Any time that you see this tree, together with subalpine fir, you are probably in the spruce-fir belt between 9,500 and 11,500 feet in elevation. These two trees are indicators of a climax forest – a stable and self-perpetuating forest community. The Engelmann spruce, as well as the subalpine fir, however, grow lower in the fir-aspen belt, too, especially on moist north-facing slopes and in canyons.

This species of spruce grows to be a well-formed tree up to 100 feet tall and with a diameter of about 3 feet. It has a dense, narrow, spire-like crown, often bearing masses of pendant cones on the topmost branches (in contrast to the upright cones of the fir). Another distinguishing feature of the cones is their rather small, flexible, papery cone scales. Because the cones do not fall apart like those of the subalpine fir, they may be found carpeting the ground beneath the trees.

At tree line, Engelmann spruce may become matted or bannerlike. Engelmann spruce is much in demand for Christmas trees. Spruce beer was sometimes made from its needles and twigs and taken to prevent scurvy. It was first allowed to ferment. It is one of the Navajos' favorite trees for ceremonial purposes, and is used for hoops, collars, bows, etc. It was used in their sweathouses much as we use oil of eucalyptus in our saunas. Its wood is soft and weak and of limited usefulness as lumber.