



LEARN 10 Conifers of the Wenatchee Watershed

Wenatchee Naturalist Course

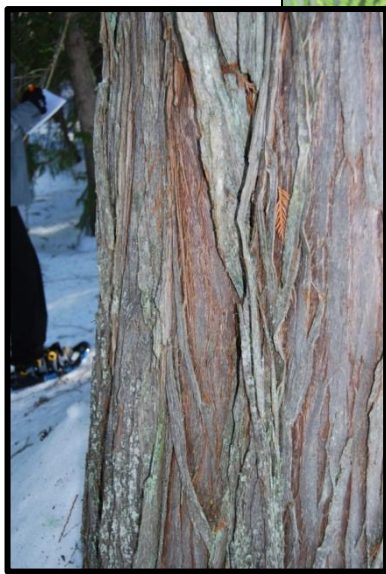
Text and photos by Susan Ballinger



western redcedar *Thuja plicata*

Needles: scale-like, lying flat against the twig, opposite in 4 rows, rounded on back & sharp pointed.

Branches are spray-like, spreading down & outward



Bark: thin, ridged, & fissured, grayish to reddish. Mature tree bark can be peeled off in long thin strips





western redcedar *Thuja plicata*

Cones: woody, egg-shaped, less than ½-inch thick. Scales are egg-shaped and attached at base.



KEY ID TRAITS: Stringy bark, clustered, upright cones, underside has a white butterfly-shaped stomatal bloom

ponderosa pine *Pinus ponderosa*

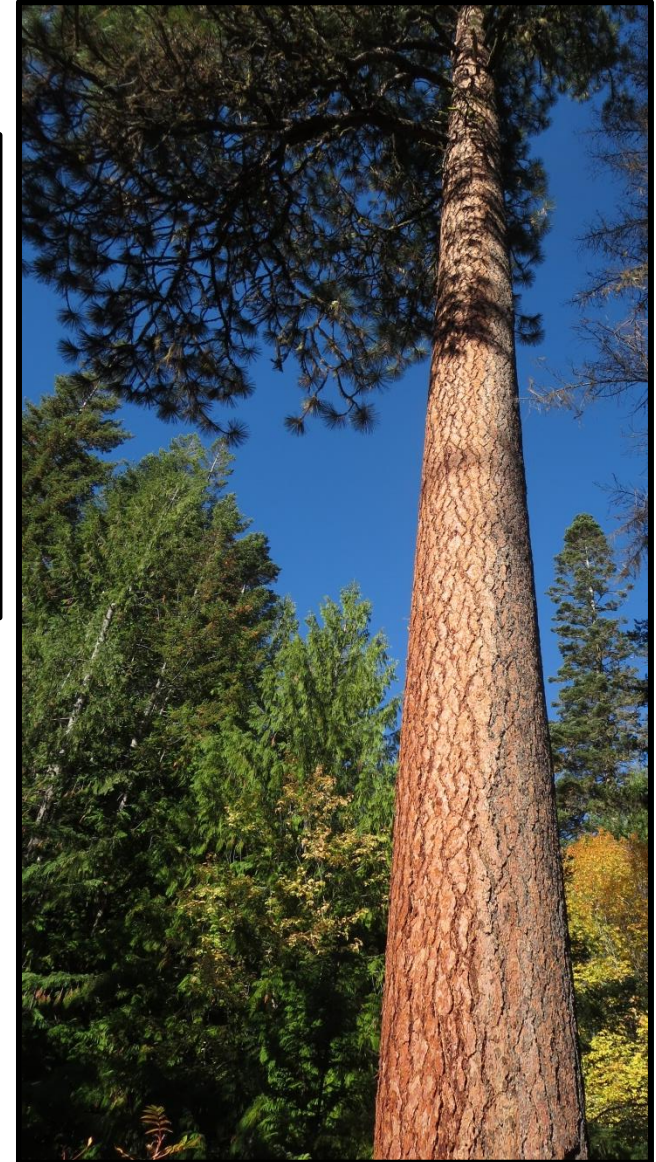


Needles: Clusters of 3 (sometimes 2), dark green, 5-10 in.



Mature trees have broad crowns of regular whorls of long limbs.

As a young tree grows, the lower branches are shed.



ponderosa pine *Pinus ponderosa*



Bark: gray-brown, becoming red-brown and deeply furrowed. Large trees shed jigsaw puzzle bark plates.



ponderosa pine *Pinus ponderosa*



Cones: egg-shaped and symmetrical, 3-5 inches. Prominent prickly armed scales

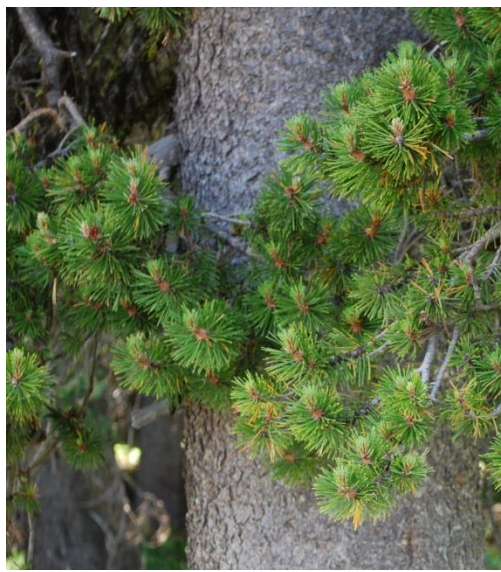
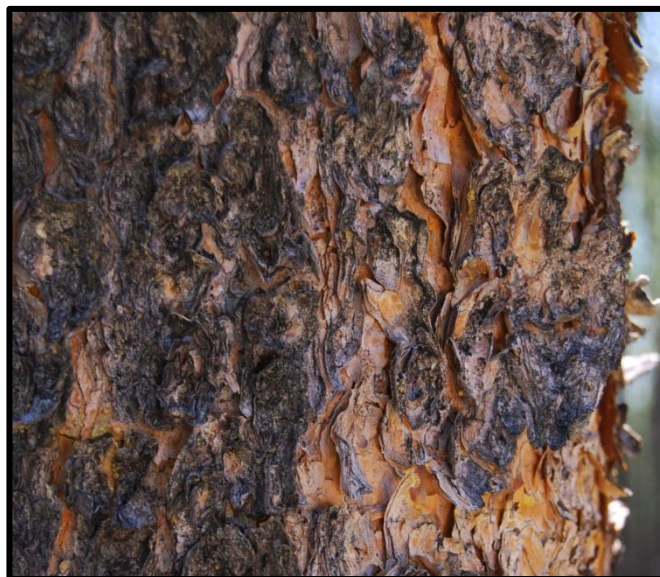


Male strobili in May- developing pollen will be wind dispersed

lodgepole pine *Pinus contorta*

Cones: usually bent and narrowly egg-shaped. 1-1/2-2 inches. Sharp prickle on back of cone scale. Can remain on tree unopened for several years.

Bark: thin, gray-red/brown, scaly and pitchy





lodgepole pine *Pinus contorta*

Needles: bundles of 2, yellow-green, 2 inches long.

Trees are relatively short-lived & have a small and slender form in forested habitats, rounded crown in open habitats.

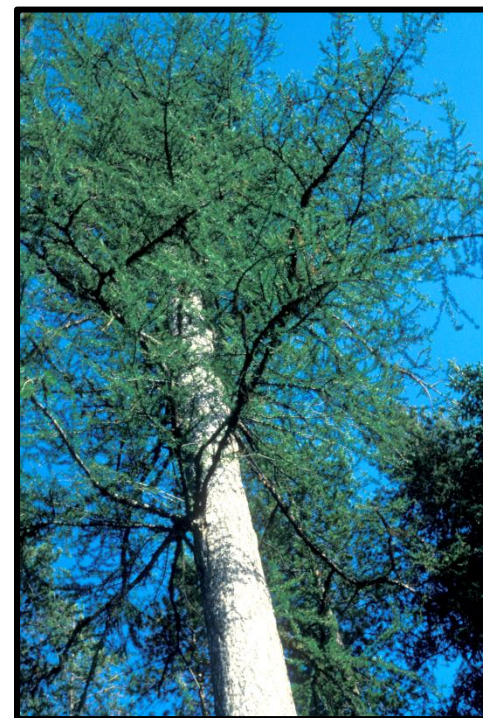
Adapted to stand-replacement wildfires: some cones open only when heated by fire. Seeds then spread & grow in full sun





western larch *Larix occidentalis*

- **Needles:** deciduous, soft, clusters of 25-40 on woody spurs, triangular, bright yellow-green, fine
- Tall, narrow pointed crown





western larch *Larix occidentalis*

Cones: long bracts extend beyond scales; 1- ½ inches; grow on all sides of branch

Bark: thick, deeply furrowed, flakes into orange-brown plates. At base, thick & corky
Rapidly grows tall into a high open canopy.



KEY ID TRAITS: No wooly cluster of hairs at base of new growth on branch; cones growing out of all sides of branch. Typically found at elevations below 5000' in Cascade eastside. Cones extend out in all directions from branch.



Douglas-fir *Pseudotsuga menziesii*



Needles: dark to pale green, spreading around the twig, pointed but not sharp. Length varies- about 1 inch.



KEY ID TRAITS: Look for the *hind feet and tail of a mouse*, ducking inside each cone scale.

Douglas-fir *Pseudotsuga menziesii*



Bark: dark brown to black, deeply furrowed & thick



Douglas-fir *Pseudotsuga menziesii*



Cones: cylindrical, 2-4 inches. 3-pointed bracts extend out from cone scales—looks like a mouse's tail.



KEY ID TRAIT: spear-like tip to every branch – touch the tip to feel a poke (true firs have rounded tip). Needles grow all around branch

Engelmann spruce *Picea engelmannii*



Needles: Think s's: sharp & square-can't roll between your fingers.
Blue-green with similar whitish bands on all 4 sides, extend from all sides of twig; 1 inch



Engelmann spruce *Picea engelmannii*



Cones: 1-2-1/2 inches scales diamond-shaped & ragged at tips

Bark: thin, dark purple/reddish tinge, loose scales flake off easily.



KEY ID TRAITS: Sharp (pointed tips), short, square, needles. Leave a woody base on the twig when fall off.





grand fir *Abies grandis*

- **Needles:** flat, blunt, dark shine green above & whitish (2 bands) on underside. >1 inch. Spread in two regular comb-like rows from opposite sides of twig
“two-ranked” array
- Seeds can sprout in shade, so will out-compete other conifers whose seeds require more sunlight to sprout (i.e. ponderosa pine, Douglas-fir)



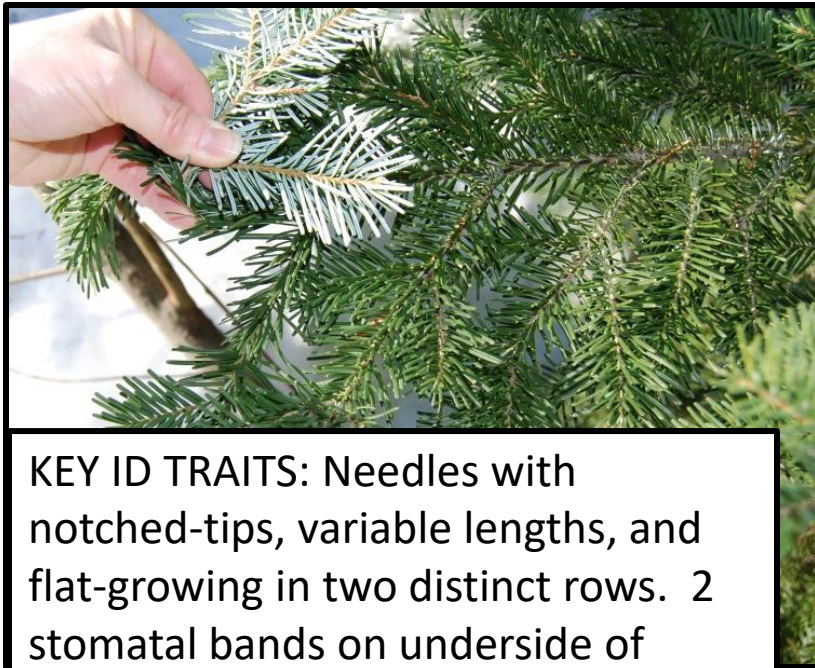
Key field ID mark: looking down, brown stem shows – not hidden by needles



grand fir *Abies grandis*



- **Cones:** 3-5 inches, greenish. Sit upright, but sometimes tip sideways due to weight.
- **Bark:** thick, furrowed, divided into narrow flat plates. In young trees-dark, gray, & thin.
- Fire-ladder, due to low branches



KEY ID TRAITS: Needles with notched-tips, variable lengths, and flat-growing in two distinct rows. 2 stomatal bands on underside of needle; none on top.

