

Understanding Names of Oregon Trees

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Why do we call white fir a true fir? Is Douglas-fir a true fir? Is bull pine the same as ponderosa pine, or is it a separate species? Is juniper a cedar? Is incense-cedar really a cedar?

It's little wonder that people are confused by tree names. Foresters and lay people often name trees based on physical appearance. The wood products industry may name trees based on characteristics of the wood. And botanists name trees based on anatomical characteristics and evolutionary relationships to other trees.

To avoid confusion, scientists use the Latin scientific names, for example *Pinus contorta* (lodgepole pine). The first word in the scientific name refers to the genus, and the second word refers to the species. Trees in the same genus are closely related and have similar characteristics. Trees in the same species are capable of interbreeding. To put it simply, if you want to know whether a tree is a fir, pine, cedar, or other type of tree, check the genus name.

For example, unless a tree is in the genus *Abies*, it is not a true fir, and unless a tree is in the genus *Cedrus*, it is not a true cedar.

Another technique botanists use to distinguish the false species is to hyphenate or run together their common names. For example, white fir is a true fir, but Douglas-fir is not. And Atlas cedar is a true cedar, but western redcedar is not. This trick is not always reliable, however, because people often misspell common names (for example, by using red cedar instead of redcedar or leaving out the hyphen in Douglas-fir).

Let's answer some common questions about Oregon's tree species.



Fir?
Pine?
Hemlock?
Cedar?

The answer is
on page 5!

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Softwoods

True Firs

Oregon has six native true firs:

- White fir (*Abies concolor*; often called concolor fir by nurseries because of its scientific name)
- California red fir (*Abies magnifica*; also called Shasta fir or silvertip fir)
- Grand fir (*Abies grandis*)
- Pacific silver fir (*Abies amabilis*)
- Noble fir (*Abies procera*)
- Subalpine fir (*Abies lasiocarpa*; also called alpine fir)

True firs often hybridize between species. Thus, Shasta red fir, in addition to being a common name often used to refer to California red fir, is also the name for a recognized hybrid of California red fir and noble fir.

Hem-fir

Having trouble locating a Hem-fir tree? That is because there is no such tree. How is it then that you'll hear people in the wood products industry talk about Hem-fir and you can find lumber with HEMFIR stamped on it (figure 1)?

Hem-fir is a species grouping. The wood products industry uses groupings to denote species with similar properties, in this case hemlock and fir. There are six separate species in the Hem-fir grouping, including western hemlock and five true firs (California red fir, grand fir, noble fir, Pacific silver fir, and white fir). Wood from these trees is graded and sold together under the Hem-fir species grouping.



Figure 1. Don't be fooled by a Hem-fir label. Hem-fir actually is a species grouping that includes both hemlock and fir.

Image courtesy of the Western Wood Products Association.

Douglas-fir

Douglas-fir is *not* a true fir, but what *is* it? We could devote several pages to this tree alone. Douglas-fir is a unique species that has given botanists fits. Over the years, botanists have called Douglas-fir a pine, a spruce, a hemlock, and a true fir. The wood products industry often calls the wood of young trees red fir and the wood of older trees yellow fir. The Japanese call it Oregon pine.

Douglas-fir's scientific name is *Pseudotsuga menziesii*. *Pseudotsuga* (pronounced soo-doe soo-ga) means "false hemlock," so at least we know it's not a hemlock!

The needles of Douglas-fir and true firs look similar, so in some ways, Douglas-fir resembles true firs. Botanically speaking, one reason Douglas-fir cannot be classified as a true fir is the difference in its cones. True fir cones stand upright on their twigs and disintegrate in the wind rather than falling to the ground. By comparison, Douglas-fir cones are unique in appearance (figure 2), hang down from the branches, and usually fall to the ground intact.

In summary, Douglas-fir is not a pine, not a spruce, not a hemlock, and not a true fir—it's in a class by itself!

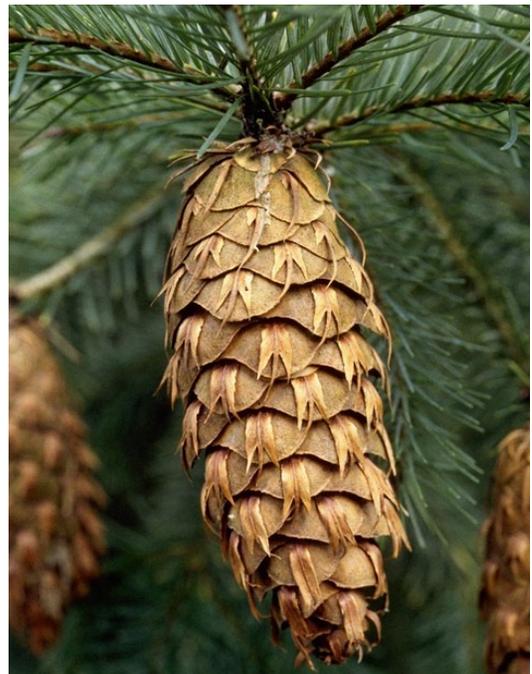


Figure 2. Douglas-fir cones have pitchfork-shaped bracts that are longer than the scales.



Figure 3. Port-Orford-cedar (*Chamaecyparis lawsoniana*).



Figure 4. Ponderosa pine (*Pinus ponderosa*).

Cedar

Oregon has four native “cedars,” but not one of them is a true cedar. In fact, there are no true cedars native to North America. True cedars are native to the Mediterranean and Himalayan regions and are in the genus *Cedrus*. Oregon’s false cedars are:

- Incense-cedar (*Calocedrus decurrens*; also called pencil-cedar)
- Western redcedar (*Thuja plicata*)
- Port-Orford-cedar (*Chamaecyparis lawsoniana*; figure 3)
- Alaska-cedar (*Chamaecyparis nootkatensis*; known in Canada as yellow-cypress)

Why do we call these imposters cedars? It’s hard to know for sure. The best guess is that they all have aromatic properties. The true cedars of the world, Atlas cedar (*Cedrus atlantica*) and Deodar cedar (*Cedrus deodara*), also have aromatic wood.

Western Juniper

Is western juniper (*Juniperus occidentalis*) a cedar? Some people call it a cedar because of its aromatic wood and because its foliage is similar to Oregon’s false cedars. Juniper, however, is definitely not a cedar.

Interestingly, the scientific name of eastern redcedar (also called aromatic redcedar or Tennessee redcedar), which often is used for cedar chests and animal bedding, is *Juniperus virginiana*. In other words, eastern redcedar is really a juniper just like western juniper!

Pine

What about Oregon’s dozens of species of pine? Actually, there are only eight species of pine native to Oregon. But because each species often goes by multiple names, it seems that we have dozens of pine species.

For example, the names blackbark pine, red pine, redbark pine, buckskin pine, yellow pine, bull pine, and yellow-belly pine often refer to a single species—ponderosa pine (*Pinus ponderosa*; figure 4). Many of these names have to do with the tree’s appearance. Like many tree species, ponderosa pine’s appearance varies with age. Young trees often have black bark (hence the name blackbark pine). Bark on older trees becomes cinnamon red (hence the names red pine

and redbark pine). If a tree has been dead a long time and the bark has fallen off, leaving a smooth, weathered surface, it may be called a buckskin pine.

Another native Oregon pine that goes by many names is lodgepole pine (*Pinus contorta*). Along the coast, lodgepole pine is called shore pine. In eastern Oregon, lodgepole pine is called jack pine, which in fact is another species of pine. Jack pine (*Pinus banksiana*) is native to the Great Lakes region of the United States and Canada. Jack pine looks very similar to lodgepole pine, so it's possible that Northwest settlers who were familiar with jack pine gave lodgepole pine its other common name.

Other native Oregon pines are Jeffrey pine (*Pinus jeffreyi*), knobcone pine (*Pinus attenuata*), western white pine (*Pinus monticola*; often called Idaho white pine in the wood products industry), sugar pine (*Pinus lambertiana*), limber pine (*Pinus flexilis*), and whitebark pine (*Pinus albicaulis*).

Western Larch

One unique tree species in northeastern Oregon goes by a couple of names. This species is a conifer (commonly called evergreens), yet it is not evergreen. It is Oregon's only native conifer that sheds its needles every year.

The tree's proper name is western larch (*Larix occidentalis*), but it is commonly called tamarack. Tamarack actually is another species of larch, eastern larch (*Larix laricina*), that is native to the Great Lakes, New England, and Canada. Again, it is likely that early settlers called this tree tamarack because it was similar to a tree they were accustomed to seeing in the eastern United States.

Hardwoods

Mountain-mahogany

Mountain-mahoganies are native to eastern Oregon. Notice the hyphen, a dead giveaway for an imposter. True American mahoganies are in the genus *Swietenia*, and African mahoganies are in the genus *Khaya*. West Indies mahogany (*Swietenia mahagoni*) is native (and rare) to extreme southern Florida and is the only true mahogany native to North America.



Figure 5. Tanoak acorn (*Lithocarpus densiflorus*).

There are two mountain-mahoganies in eastern Oregon: curlleaf mountain-mahogany (*Cercocarpus ledifolius*) and birchleaf mountain-mahogany (*Cercocarpus betuloides*). The wood of mountain-mahogany is very hard and dark reddish-brown like true mahogany wood. This may be why we call these trees "mahoganies."

Tanoak

Is tanoak an oak? No. It's another imposter. Notice how the name is run together. True oaks are in the genus *Quercus*, and three of them are native to Oregon: Oregon white oak (*Quercus garryana*), California black oak (*Quercus kelloggii*), and canyon live oak (*Quercus chrysolepis*).

Tanoak's scientific name is *Lithocarpus densiflorus*. It has fruit (acorns) similar to oaks, although the acorns have spiny caps like chestnut acorns (figure 5). The wood of tanoak resembles that of true oaks. This oak-like wood, in addition to the acorns, may be why we call it an "oak."

Poisonoak

Is poisonoak a true oak? No, and that's why we run the name together. Poisonoak's scientific name is *Toxicodendron diversilobum*. Its leaves look a bit like oak leaves, which may be why we call it an "oak."

Poplar

What's a poplar? Several species of poplar are called cottonwood, and several are called aspen. And some trees have the word poplar in their common name, such as Lombardy poplar. Will the real poplar please come forward?

Actually, poplar is a term often used to refer to any tree in the genus *Populus*. Four of these trees are native to Oregon:

- Black cottonwood (*Populus trichocarpa*)
- Quaking aspen (*Populus tremuloides*)
- Narrowleaf cottonwood (*Populus angustifolia*; rare in Oregon)
- Eastern cottonwood (*Populus deltoides*; recognized as native to Oregon)

Adding to the confusion is all the attention that hybrid poplars (also called hybrid cottonwoods) have received in recent years. Hybrid poplars are trees produced from cross-fertilization of two species in the genus *Populus*. Hybrid poplars may be a cross of cottonwoods, a cottonwood and a poplar (Lombardy poplar, for example), a cottonwood and an aspen, etc.

Myrtlewood

Last, but not least, there's myrtlewood (figure 6). Here's yet another tree that goes by many names: myrtlewood, Oregon-myrtle, and California-laurel. Notice the hyphens. This tree is not a myrtle (not in the genus *Myrtus*) and not a laurel (not in the genus *Laurus*). Oregon-myrtle's scientific name is *Umbellularia californica*, and it is the only tree in this genus. Like Douglas-fir, it's in a class by itself!



Figure 6. Myrtlewood (*Umbellularia californica*).

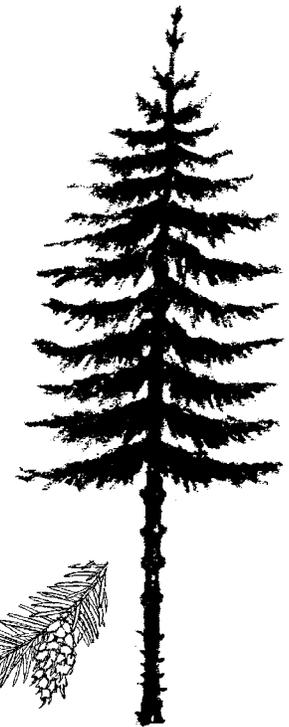
Why does it matter?

Is there any harm in using common names for trees? Usually not, but problems occasionally arise. For example, you might call your local Extension office to ask for advice about a diseased cedar tree in your yard. To identify a disease, we often begin by looking at common diseases for the genus. The question is, is this "cedar" a *Cedrus* (a true cedar such as Atlas cedar), a *Thuja* (such as western redcedar), a *Calocedrus* (incense-cedar), or maybe even a *Juniperus* (such as western juniper)? Unless we know the genus, the disease may be misidentified and control recommendations may be incorrect.

For Further Reading

Trees to Know in Oregon (EC 1450). Corvallis, OR: Oregon State University Extension Service.

For more information and ordering instructions, visit the OSU Extension Catalog:
<http://extension.oregonstate.edu/catalog>



What is it?

The tree on page 1 is a Douglas-fir. Notice how the cone hangs down from the branch and has pitchfork-shaped bracts.

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