Beginning later this month and continuing through December, our local mountain highways will become crowded with cars and trucks covered by trees precariously attached with various ropes, straps, bungee cords, and even duct tape. While these cars and trucks often appear more like trees with wheels than vehicles, they are not camouflaged for military operations or part of overzealous hunting parties, but belong to families making their annual trek into the woods to cut Christmas trees. These soon-to-be decorated trees consist of one or several species of our native conifers.

Conifers, or cone-bearing seed plants, are a group of over 600 species of trees and a few shrubs occurring worldwide. Conifers are members of the Pinaceae, or pine family, and in California that includes the true firs, spruces, pines, firs, and hemlocks. Conifers dominate our local forests and northern California is well known for having many conifer species. The Klamath Mountains to our northwest are particularly well renowned for conifers; one area known as the “Miracle Mile” in the Russian Wilderness contains 18 species within a square mile, and is now considered the richest assemblage of conifers per unit area in any temperate region on Earth. Many native conifers are used for Christmas trees, and with the rise of commercial Christmas tree farms, many non-native conifer species are also used. Locally, most native conifers cut from the forest for Christmas trees include Douglas-fir, white fir, and red fir.
Douglas-fir is the common name of a genus of trees containing six species, two of which are native to North America and found in California. Because of its similarity to other conifers, Douglas-fir has frustrated botanists for years; over time, it has been called a pine, spruce, hemlock, and true fir. Because of its distinctive cones, Douglas-fir is given its own genus, *Pseudotsuga*, which means false hemlock. The hyphen in the common name lets us know that Douglas-fir is not a “true” fir, or a member of the genus *Abies*.

Douglas-fir, *Pseudotsuga menziesii*, is the major timber-producing species in western North America. Douglas-fir forests are low- to mid-elevation forests and home to many plant and wildlife species. In California, Douglas-fir occurs throughout the forest regions of northern California, south to Santa Barbara County in the Coast Ranges, and to Fresno County in the Sierra Nevada. Douglas-fir has single needles with blunt tips arranged spirally around its branches. The 3 to 4 inch seed cones hang from the branches and are oblong with distinct pitchfork-shaped bracts extending beyond the seed scales (a seed scale is the part of a conifer cone that supports the seeds). Douglas-fir is a popular Christmas tree and a good choice for those who like a dense, bushy look. Commercially grown Douglas-fir trees are even more bushy and dense than those cut from the forest, as tree farms typically trim their trees to achieve that full appearance.

True firs are aptly named to distinguish them from Douglas-firs and other similar species. Sometimes they’re called “balsam firs” because of tiny pockets of resin, or balsam (most of us call the stuff “pitch”) that occur in their bark. True firs have cones that perch like little owls on the upper branches and often glisten with drops of fragrant, sticky resin. True fir cones do not fall intact like other conifer cones; during the autumn, their scales tumble off one by one as the seeds ripen —kind of like a stack of Pringles® potato chips falling apart from the top down. True firs also leave a tiny, circular scars on the twig where the needles were attached. While the cones are only present during portions of the year, one can pull a needle away from the twig and notice the scar, making it easy to recognize a true fir year-round.

Our most common local true firs are white fir and red fir. These species are also important in the timber industry, particularly white fir, and true fir forests are also home to many plant and wildlife species. White and red fir forests are mid- to high-elevation forests and are well adapted to snowy environments because their short, stiff branches and pointed tops shed snow without breaking. Both species make great Christmas trees and are well suited for those who prefer an open-looking tree.

White fir, *Abies concolor*, occurs from southern Oregon to southern California, and in the Rocky Mountains. The needles are 1 to 2 inches long and arranged on greenish twigs in flat or V-shaped sprays. The needles have a white bloom (or coating) on the upper and lower surfaces that may be in distinct lines or uniformly distributed over the entire surface. The cones are upright, 3 to 5 inches long, and the seed bracts are shorter than the scales (therefore, you can’t see them unless the cone falls apart). White fir is a popular Christmas tree and has an attractive shape and wonderful aroma. Most folks heading into the woods to cut Christmas trees in our area return with a white fir.

The other local true fir commonly used for Christmas trees is red fir, *Abies magnifica*, which grows in the Sierra Nevada, southern Cascade Range, Klamath Mountains, and northern Coast Ranges. Red
fir has needles that are about 1 inch long and arranged on the upper surface of reddish-brown twigs. The needles are shaped like hockey sticks, and have a tiny ridge that runs the length of the upper side. The large cones are upright and 6 to 9 inches long. Two red fir varieties grow in northern California—red fir, *Abies magnifica* var. *magnifica*, and Shasta red fir, *Abies magnifica* var. *shastensis*—and can be distinguished by the cones. The seed bracts are shorter than the seed scales on red fir and longer than the scales on Shasta red fir (so you can see them on an intact cone).

Red fir is the famous “silver tip” Christmas tree, a name given due to the distinctive silvery cast present on the ends of the newer branches—the needles on the newer branches are covered with a waxy coating, giving them a blue-green color that contrasts with the darker green interior needles and leaves the appearance of a silver tip. Red fir grows at higher elevations than white fir and often requires a trek into the snow if you want one for a Christmas tree. The tight, upright needles of red fir, silvery color, conical shape, and open look make it a very attractive Christmas tree. Considered by many to be the best Christmas tree, red fir will fetch a premium price at commercial tree lots.

Enjoy the annual Christmas tree hunting trip to our local forests with your family, and remember to obtain proper permits or landowner permission. Also bring safety items in case of emergency, extra bungee cords and duct tape, and as tempting as it may be, don’t “forget” the mother-in-law when you leave the woods…

Red fir is the famous “silver tip” Christmas tree, a name given due to the distinctive silvery cast present on the ends of the newer branches. Photo by Len Lindstrand III.