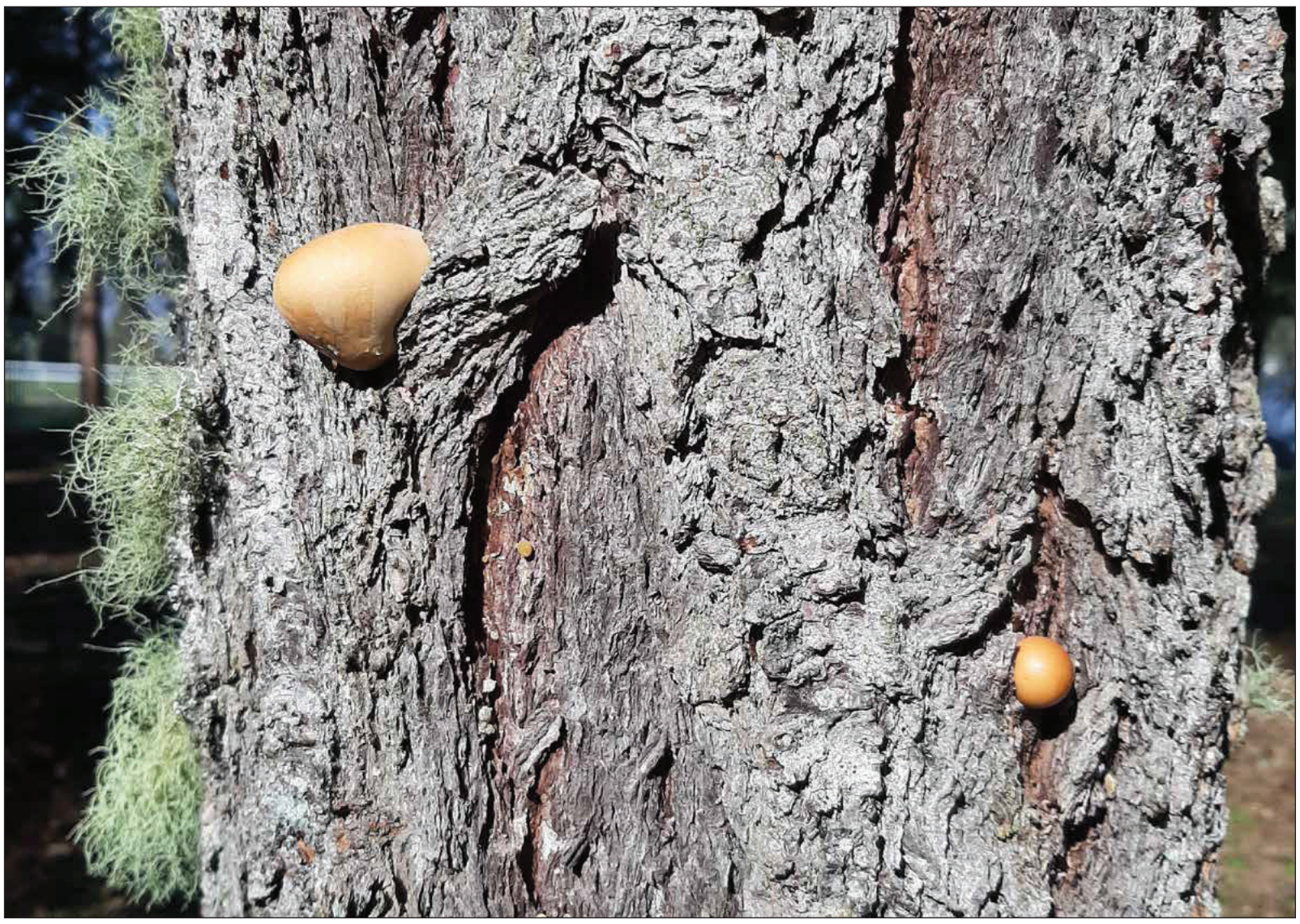
Tree conks: Beginning of the end

Debby Finley
Ask a Master Gardener



PHOTOS BY DEBBY FINLEY

Pouch fungus is a small, cream-colored to tan leathery fruiting body. It is found on Ponderosa pine, Douglas fir and other conifers.

Question: We have property with forest trees and have found unusual growths on the trees this year. Some growths are hard and fan-like, while some are squishy pouches on the tree trunk. Are they mushrooms?

Answer: The polypore species are part of a large group of diverse mushrooms in the family Polyporaceae, known primarily as wood decomposers. They can be attractive and interesting, but unfortunately, they also probably signify the beginning of the end for the tree.

Polypores are a group of fungi that form large fruiting bodies with pores or tubes on the underside. Polypores are also called bracket fungi, and their woody fruiting bodies are called conks. Most inhabit dying or dead tree trunks, branches, or stumps consuming the wood.

They play a significant role in nutrient cycling and carbon dioxide production of forest ecosystems. However, several species are serious pathogens and the major cause of timber spoilage. Polypores are generally restricted to either deciduous (angiosperm) or conifer (gymnosperm) host trees.

Trametes versicolor, meaning "of several colors," is a striking bracket fungus, commonly known as Turkey tail. It is commonly found in Oregon where there are dead hardwood logs and stumps decomposing.

Bracket fungi, or shelf fungi, produce semi-circular shapes that look like trees or wood, and can range from a single row of a few caps to dozens of rows that can weigh several hundred pounds. These fungi have sharply contrasting concentric zones of color, and the surface of the cap is finely fuzzy or velvety.

Pouch fungus, Cryptoporus volvatus, is a small, cream-colored to tan leathery fruiting body. It is found on Ponderosa pine, Douglas fir and other conifers. This fungus causes extensive and rapid sapwood decay that results in substantial timber volume losses.

Pouch fungus is intimately associated with bark beetles and wood borers. It is not a heart-rot fungus, but causes a grayish white rot of the sapwood of recently killed trees. Insects bore holes through the bark of trees and either carry the fungus into the cambial layer on their bodies or create openings for spores to initiate the decay process in the moist sapwood. Often, several hundred conks appear on the tree trunk the year after bark beetles attack a tree.

Polypores and other decomposer fungi provide the first step in food chains that feed on decomposed plant material. Contemporary research is actively studying applications of some polypores for the treatment of human illnesses related to the immune system and cancer recovery.

Polypores have also been used by scientists as indicators of the health of natural forests and invertebrate diversity. Unfortunately, with the continuing drought and widespread beetle infestation, the Pacific Northwest will probably see more polypore indications of forest instability and tree loss.

Do you have a gardening question? Contact the Douglas County Master Gardeners at ask.extension.org/ask. (Presently, the plant clinic is closed until further notice due to public safety orders.) Douglas County Master Gardeners are trained volunteers who help the OSU Extension Service serve the people of Douglas County.

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