

TENT CATERPILLARS

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The Tents are Coming—No Cause for Alarm

Caterpillars signify new, rejuvenating life

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Perhaps it is our fatigue, our weariness with the darkness of winter. Or maybe it's our eagerness to see the lush new green of spring bursting forth that fuels our distress and disappointment over the early spring appearance of caterpillar tents in our trees.

Do not despair. Those tents are a sign of another type of life bursting forth: one that will replenish soil over-watered by winter rains and feed many species who have suffered from hunger during the winter. Those tents indicate the under-appreciated



Egg case. Photo © Virgene Link-New

western tent caterpillar, *Malacosoma californicum*. There is also a forest tent caterpillar that is less common, *Malacosoma disstria*. The first is our most common tent maker in this region. Others are called webworms or tussock moths.



Left: Hawthorne with early tent caterpillar damage. **Right:** Hawthorne recovered from tent caterpillar infestation. Photos © Virgene Link-New

Their egg cases were deposited on deciduous trees and shrubs last year in the late summer and early fall. An egg case is many eggs “glued” together to form a “mass.” In the case of the tent caterpillar, it looks like a silvery Styrofoam mass when fresh. As the temperature warms, the eggs begin to hatch. The newly emerged hatching caterpillars spin a silken web to provide themselves with some protection from predators and weather. At first, they feed inside the tent, then they enlarge their tent as they grow. Since these caterpillars feed in early spring, the young leaves they consume are essentially recycled into compost that rains down to replenish the soil. The host tree has enough time to grow new leaves after the caterpillars have departed. Often, you see caterpillar tents in trees that later fail to develop. This is probably due to weather or other factors like disease or fungus.



Left: Early tent caterpillar damage on apple tree. **Right:** Apple tree two weeks after tent caterpillars dispersed. Photos © Virgene Link-New

As they grow, the caterpillars eventually leave the tent and wander about, searching for more leaves to eat and a place to spin a cocoon. They undergo complete metamorphosis, the process of changing from an immature form to an adult form. At this time, they are more easily preyed upon by other insects, spiders, birds, small mammals, reptiles, and amphibians. Even their cocoons can be food for other species. Once they have emerged as moths to mate, they are more easily consumed by birds and bats. They are also vulnerable to viruses, diseases, and fungi.

Now, if you are in business and your livelihood depends upon fruit production or tree production, then action is necessary as energy is spent on producing more leaves. Also, the tents can interfere with setting of fruit. Orchardists act in the winter to remove the egg cases by peeling them off or pruning them out of the branches. The removed egg cases can be harmlessly dropped directly on the ground, which makes them available to predators like ground beetles and centipedes and allows any natural enemies whose parasitized eggs have been deposited in the egg case to exit!

If you have a small, just-planted tree, you should do the same action as the orchardist since unestablished trees are more vulnerable to stress. Or an ornamental tree by your front door would be aesthetically displeasing with tents, and you might want to take some action in that case. If you've missed the window for removing the egg cases, the web with caterpillars inside can be pulled off or pinched when cool or in the evening if pruning would distort your desired shape. These mechanical removal methods are more environmentally friendly than the use of pesticides and do not result in chemical run off during rainfall that eventually reaches Puget Sound. As a reminder, please do not use a torch to burn the tents, as fire is more damaging to the plant than defoliation.



Tent caterpillar egg sack on fence © Pascale Michel

Larger trees will put out new leaves and should be less vulnerable to attack the following year as they seem to develop some resistance. Weakened trees are partially killed only when severe infestations (total defoliation) are combined with drought or other stressors (like disease). In forests where trees are too overcrowded for nutrients and moisture, this is a form of natural thinning.

These past several years, the Pacific NW has been impacted by drought. Although tent caterpillars do not impact conifers (evergreens), their obvious dead tops in our landscape indicate that our trees suffer from a lack of water.

To protect the trees in your landscape, ensure they receive at least one inch of water per week out to the drip line. This is one reason the WSU Extension Master Gardener program recommends not having grass or plantings directly under your tree. You can use a moisture meter to read the depth to which water (rainfall or supplied) is reaching.



Left: Parasitized tent caterpillars. **Right:** Proper mulching helps trees withstand drought because water can reach the entire root system. Photos © Virgene Link-New.

Our native trees have evolved with our native insects and thus have a symbiotic relationship that benefits the entire food web. Particularly, the tent caterpillar seeks out red alder in the native forest. Other host plants are those in the rose, birch, and willow families, to name a few.

Later in the year, we hardly notice the trees that hosted tent caterpillars, as we've forgotten which trees were defoliated in the abundance of new leaves. Please be tolerant of some damage because this species plays an important role in the ecosystem.

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