



Forest Insect & Disease Leaflet

Western Tent Caterpillar



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Western tent caterpillar:

In Utah, the western tent caterpillar, *Malacosoma californicum* (WTC), is more common but less destructive than the forest tent caterpillar *M. disstria* (FTC). Quaking aspen is the preferred host of the western tent caterpillar, but it will also feed on cottonwood, willow, birch, cherry, chokecherry, alder, and several other hosts.

Life cycle: Adults appear in midsummer (July-August). Eggs are deposited in clusters of 150 to 250 either encircling twigs or as flat masses on limbs and trunks (fig 1). Eggs are generally covered with a silvery or grey frothy substance produced by the female.



Figure 1. Female western tent caterpillar adult with an egg mass. Photo: Jerald E. Dewey, USDA Forest Service, Bugwood.org

These insects overwinter as young larvae inside the egg. Larvae emerge in May-June, about the same time as bud break, to feed and begin building tents in branch crotches. Tents serve as a base where the colony of caterpillars; rest between feeding periods, molt, and hide for protection during stormy weather.

Mature larvae are usually light brown hairy caterpillars with a mixture of powdery blue, orange and black markings. WTC have a dashed stripe down the middle of the back (fig 2). Mature larvae abandon the tent to feed on their own. Larvae reach maturity in about 30-45 days and pupate within silken cocoons; on branches, in leaves of the host or non-host, or on the ground in leaf litter. Adult moths will emerge from cocoons in about 10-20 days, typically late-June through early-August, depending on temperature, which varies by location. FTC does not spin tents, but form silken mats on trunks or branches in which they rest (fig 3). Mature larvae are dark brown with bluish heads and blue to blue/black sides, showing whitish or yellowish keyhole shaped spots down the center of the back



Figure 2. Western-tent-caterpillar on tent. Photo: Ryan-Davis-USDA-Forest-Health-Protection



Figure 3. Forest-tent-caterpillar. Photo: Ryan-Davis-USDA-Forest-Health-Protection

Damage: During outbreaks, western tent caterpillar may be one of many factors causing extensive aspen defoliation, along with other insects and diseases. While defoliated trees may look dead, reduced growth and minor branch death is the usual extent of damage. Defoliation for two or more years in a row may stress trees and make them more susceptible to other insects or diseases. Outbreak-level populations typically collapse within 1 to 5 years.

Control: It is usually not necessary or practical to control this insect, because it is mostly an aesthetic issue. High populations of western tent caterpillars typically collapse within 1 to 5 years, due to natural controls such as; predators, parasites, disease, bad weather conditions, or lack of food. If it is WTC you will see tents (fig 4.) Egg masses, within reach, may be removed by hand and destroyed between July and the following spring.

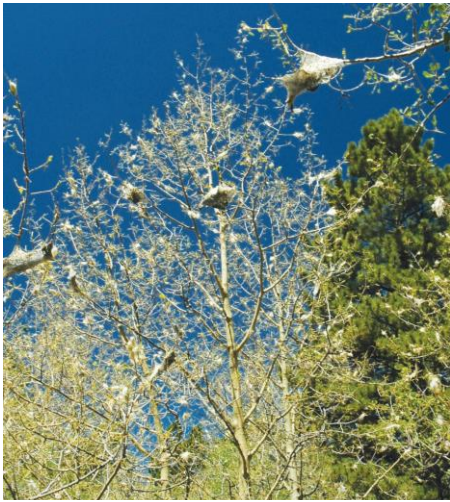


Figure 4. Tight spun tents in the trees are signs of western tent caterpillar. Photo: William M. Ciesla, Forest Health Management International, Bugwood.org.

If it is WTC you will see tents (fig 4.) Egg masses, within reach, may be removed by hand and destroyed between July and the following spring. If populations are low, and there are only a few tents on the host, destruction of tents, full of young larvae, by hand, broom or other instrument may help eliminate caterpillars from a particular tree.

If tents are inaccessible, but control is warranted, application of an appropriately labeled insecticide can provide control. One biological option, BTK (*Bacillus thuringiensis* var. *kurstaki*), can provide control when applied to leaves around the tents when larvae (caterpillars) are small. Larger larval stages are less susceptible to BTK and may not be killed. Some general insecticides (e.g., permethrin, carbaryl, spinosad, acephate*, may be registered for the control of tent caterpillars on ornamental, nursery or forest trees and will provide rapid kill of all larval stages.

*Mention of products or companies by name does not constitute endorsement by the Division of Forestry, Fire and State Lands, nor does it imply approval of a product to the exclusion of others that may also be suitable.

Always use EXTREME CAUTION when applying pesticides/insecticides. Always follow label instructions and safety recommendations.

For further information please contact:



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