

Tent Caterpillars

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The habits of tent caterpillars have been studied by curious entomologists who wanted to unlock their secrets of predicting weather, and by applied entomologists who sought better means of controlling them. The 19th century French naturalist, Jean-Henri Fabre, found that tent caterpillars would predict adverse weather conditions by remaining in their tents when stormy weather was approaching. He also found that each caterpillar laid down a silken thread as it journeyed out to feed at night. At dawn, this pathway was followed back to the safety of the nest (tent) which afforded protection from birds and other predators.

The eastern tent caterpillar, *Malacosoma americana*, and the forest tent caterpillar, *M. disstria*, are the two most important, true tent caterpillars found in the Eastern United States; however, several closely-related species of importance are found in the West. The popular tent caterpillar, *Ichthyura inclusa*, is present in the Eastern states but is seldom of economic importance. Webworms, which generally occur later in the season, are often confused with tent caterpillars, but their hosts and feeding habits are markedly different.

Eastern Tent Caterpillars

Range, Host and Damage

The eastern tent caterpillar is found predominately in the Northeastern United States and Canada, but can be found in all states east of the Rocky Mountains.

Figure 1: Eastern tent caterpillars



Wild cherry and apple are preferred hosts, while peach, plum; rose, pear and a few other shade trees are occasional hosts.

The larvae, present in the early spring, build nests in the branch crotches of the host (Figure 1). The young larvae typically emerge from the tent at night and feed on young, tender leaves and return at dawn. Host trees are often completely defoliated by heavy attacks, but they usually refoliate and appear normal in a few weeks. Repeated defoliation for a period of several years will weaken trees and make them more susceptible to borers and disease-causing organisms.

Life Cycle

Tiny larvae or caterpillars hatch from egg masses in the early spring about the time the leaves begin to expand. The young caterpillars remain together for about two days before weaving a tent in a nearby tree crotch. As the caterpillars grow, the tents are enlarged in layers to accommodate their increasing size.

Figure 2: Eastern tent caterpillar egg mass



The fully-grown, two-inch-long, sparsely haired caterpillar reaches maturity in about six weeks after hatching. It is black with blue and purple markings and has a solid white stripe along the center of its back. Larvae often abandon the tent in search of additional food or, if fully-grown, in search of a place to pupate. Silken cocoons are spun on fence posts, tree trunks, dead leaves, etc. A reddish-brown moth emerges from the cocoon in early summer, mates, and deposits her eggs in masses on small branches of host species. The eggs, covered with a foamy secretion that dries to a very firm brown covering, gives the appearance of an enlarged branch (Figure 2). The larvae soon develop inside the eggs, but hatching is delayed until the following spring.

Control

A program of regularly scheduled inspections (IPM) is the most effective approach to tent caterpillar management. Natural predators and parasites often relegate insect populations to subeconomic levels, but control is necessary during years of high infestations. Please contact your Bartlett Arborist Representative for more detailed information on control of this pest.

Forest Tent Caterpillars

Range, Host and Damage

Forest tent caterpillars are found throughout the United States and Canada wherever the hardwood hosts are grown. The favored host varies with the region of the country; sugar maple and aspen are preferred in the Northeast; quaking aspen and oaks

in the Lake States; oak in the Central States; and oak, tupelogum, blackgum and sweetgum in the South. Damage and feeding habits are very similar to those of the eastern tent caterpillar.

Life Cycle

Newly hatched, uniformly black, hairy larvae about 1/8 inch long appear on the host when leaves begin to unfold in the spring. Following the first molt, however, bluish lines along the side of the body and a row of whitish spots develop and become more evident with successive molts (Figure 3).

Unlike the eastern tent caterpillar, these caterpillars do not spin a tent, but instead form a silken mat on the trunk and branches where they congregate when molting. Early instar larvae usually build these mats in the upper part of the tree and move lower for succeeding molts. The remainder of the life cycle is very similar to the eastern tent caterpillar.

Figure 3: Forest tent caterpillar



Control

The management of forest tent caterpillars is often necessary to prevent defoliation. Numerous natural predators, parasites, and occasional adverse weather conditions relegate this insect to the level of an occasional pest, except in a few localized areas where it is a perennial pest. When feasible, nests may be physically removed as a cultural control. Please, contact your Bartlett Arborist Representative for more detailed information on control of this pest.