

The Eastern Tent Caterpillar (ETC), *Malacosoma americanum*, is a native insect that rarely occurs in large enough numbers to cause tree death in Toronto. However, their tents can be unsightly and disturbing to many homeowners. Populations peak every 10 - 12 years, and then quickly return to tolerable levels. They are similar to Forest Tent Caterpillar (FTC), *Malacosoma disstria*, also a native insect, which is commonly found in large, deciduous forest trees.

The ETC over-winters in the egg stage and hatch in early to late May. The caterpillars gather at a major branch, where they form a silken tent. The fully-grown larva is black, with a white stripe along the middle of its back and a series of bright blue spots between yellow lines along both sides. FTC has a series of white keyhole shaped spots, instead of a solid white line. In June, ETC larvae descend to the ground to pupate in white cocoons, on tree trunks, fences or other similar structures. Adults emerge in July as white tan moths. After mating, females lay 150 - 350 eggs in oval clusters up to 20 mm in length. These egg masses encircle the outer crown twigs and are covered with a protective varnish-like black coating. There is only one generation per year in Toronto.



Egg mass on a twig



Caterpillars on the tent



Cocoons on the ground

Hosts and Damage

The preferred hosts are native wild and ornamental cherry, apple and crab apple species. They will also occasionally feed on, peach and plum.

Feeding starts early in the spring, at the tops of trees. Young larvae spin fine silk strands wherever they travel to feed during the warmth of the day, returning to the tents at night. The tents enlarge in size over the 6 week period of feeding. Tents become unsightly as black droppings build up inside. Tree damage is usually patchy but entire leaves are consumed in the areas of tents. In severe infestations, smaller trees are covered with webbing and stripped of their leaves.



Tents on a crab apple tree

Specific Management Practices for Control of the Eastern Tent Caterpillar:

- Prune out the egg masses that you find on the outer crown branches of host trees. They are more visible after leaf drop. This can be done during the winter when most fruit tree pruning is performed.
- Tents may also be removed by pruning underlying branches when tents are first noticed. This may not be possible in severe infestations when they become too numerous.
- Remove and destroy cocoons, by scraping them off from any accessible surfaces as soon as you notice them.
- Attract birds and other beneficial organisms to your yard by planting appropriate plants (herbs, flowers, ground covers and shrubs) in your garden.
- Release parasitic wasps (e.g. *Trichogramma* wasps) when moths are first seen to keep the population of Tent caterpillar at a tolerable level. Check with your local Garden Centre or Hardware store for Parasitic wasp availability.
- In severe infestation apply *Bacillus thuringiensis var. kurstaki (Btk)*, when the host leaves first start unfurling. This bacterial insecticide affects only actively feeding moth and butterfly caterpillars. Check with your local Garden Centre for *Btk* availability.

General Management Practices to Improve Plant Health:

- Water your trees during dry spells. Infrequent, but deep soaking preferably during the early morning hours is recommended. Water absorbing roots are located in the upper 25 cm of the soil and extend outward well beyond the canopy drip line.
- Place organic mulch, (e.g. wood chips), or living mulch, (e.g. ground cover plants) around tree bases to keep the soil moist for longer periods and encourage healthier roots.
- Avoid unnecessary excavating, grade changes, soil compaction, root cutting or hard surfacing around trees. These activities destroy vital roots, which may lead to the decline or death of trees.
- Refrain from using salt or herbicides around trees.

Forest Health Care is a holistic approach to tree care that focuses on improving the health of trees in an urban environment. Our objective is a healthy, sustainable urban forest. Trees in urban forests are often stressed by compacted soil, drought, poor planting and pruning techniques, air pollution, road salt, damage from construction and much more. Trees planted in the right sites and properly maintained are less likely to suffer and are more resistant to pest problems.

Pest problems are managed using a decision making process that considers the following:

- Identification of the host and the pest.
- Monitoring of the host and the pest.
- Selection of the appropriate management strategy.
- Evaluation of the management plan.

Our focus is on pest management programs that are environmentally, socially and economically sound.