

Management

Forest tent caterpillar populations are controlled by a variety of natural factors:

- high population levels and late spring frosts (which destroy foliage) can cause mass starvation.
- excessively high temperatures during the moth stage of the life cycle can cause substantial adult mortality and reduce egg viability.
- numerous parasites also play an important role in population control. The most effective parasite is the flesh fly. Adult flies lay live maggots on forest tent caterpillar cocoons. The maggots burrow through the silken case to feed on the pupa.

The chemical insecticides carbaryl, dylox, malathion, and orthene are registered for tent caterpillar control. A number of pyrethroid insecticides and *Bacillus thuringiensis* subspecies *kurstaki*, a bacterial insecticide, are also registered for tent caterpillars. Insecticide spraying should be carried out in late May or early June when the larva are in the second or third instar. Removing twigs with egg bands in late summer also provides control.



Severe Defoliation



Forest Tent Caterpillar

Damaging Forest Pest



For more information on forest tent caterpillar call:

The Tree Line

204-945-7866
or Toll Free 1-800-214-6497

or write:

Manitoba Conservation

Forestry Branch
200 Saulteaux Crescent
Winnipeg, Manitoba R3J 3W3

manitoba.ca/conservation/forestry



Resting caterpillars

Description of Life Stages

The adult moth has a wingspan of 30 to 45 millimeters (1 ¼ to 1 ¾ inches). It is light brown coloured with two darker bands across the forewings. Females are stout-bodied while males are more slender.

One hundred and fifty to 200 grey-coloured eggs are laid in bands that are 5 to 15 millimeters (¼ to ½ inch) wide. The bands encircle twigs and are often covered with a shiny protective substance called spumaline.



Egg mass and moth

Young larvae are uniformly black with dark hair. Mature larvae are dark brown with a broad band of blue along each side. There is a row of white to cream coloured keyhole-shaped spots down the center of the back. Four very fine orange lines extend the length of the body. There are five larval stages.

Light yellow silken cocoons are spun between leaves of host trees or other vegetation or in any sheltered location. Fully developed pupae (the transition stage from larva to moth) are brownish

brownish to black in colour and about 20 millimeters (¾ inch) long.



Larva



Severe Defoliation

Life Cycle

Eggs are laid from July to early August. They develop into larvae within three weeks. These larvae over winter in the eggs and emerge in spring. Emergence coincides with bud development on the trees. The tiny caterpillars feed openly in colonies on the unfolding leaves. Contrary to their name, they do not construct tents of webbing. Instead, they spin silken threads along which they travel. The larvae often cluster together while resting or during molting to the next larval stage.

Most feeding occurs in the fifth larval stage when a single caterpillar may consume up to seven leaves. In this stage, the larvae migrate in search of new food supplies or suitable cocooning sites. After five to eight weeks of feeding starting in June to mid-July, the caterpillars spin silken cocoons. The pupal stage is normally 10 days. Adults emerge in mid to late July, mate and lay eggs. The adult moths are active fliers and can be carried for several hundred kilometres (several hundred miles) on air currents. The adult stage lives for five to 10 days and there is one generation per year.

Damage

Widespread forest tent caterpillar outbreaks occur approximately every 10 years, usually lasting three to six years. Feeding damage ranges from a light thinning of the tree top to trees completely stripped of their leaves. Usually the trees don't die, and the leaves grow back later in the season.

Following two or more years of severe feeding, there is a general decline in tree health, including twig and branch dieback. After three or four consecutive years of being stripping of their leaves, trees become weakened and are more susceptible to insects, such as wood borers and stem disease. Following forest tent caterpillar infestations, the incidence of hypoxylon canker (a stem disease) may increase and cause extensive mortality in aspen forests.



Migrating larvae

Forest tent caterpillars, *Malacosoma disstria*, are a serious threat to deciduous trees across Canada and the United States. During severe outbreaks, these destructive insects can eat all the leaves on hundreds of thousands of hectares on broadleaf trees and shrubs.

The caterpillars (larvae) prefer trembling aspen but also feed on various other broad-leaved trees and shrubs. When starvation threatens they may also feed on conifers.