

Forest Tent Caterpillar...

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In case you haven't noticed, those hordes of caterpillars that were eating up the poplar trees and crawling all over your house and sidewalks are now preparing to become moths. They are commonly known as Forest Tent Caterpillars or, more technically, *Malacosoma disstria*.

If you forced yourself to get close to these caterpillars, you would see that they are really quite pretty. Under all those bristles they are mostly blue with orange, black and yellow bands. Along the middle of their backs are whiteish spots that look like keyholes to some people. If the caterpillars are disturbed, they stand on their back 10 legs and sway their front end back and forth. Pretty scary to some creatures, perhaps even you. I am not sure, but their bristles may actually be a bit dangerous as many caterpillars have spines and chemicals that may irritate your skin and eyes. So only pick them up with a stick or piece of paper.

As most animals, these insects start out as eggs. The eggs are laid in dark, frothy bands on tree twigs by light brown, rather nondescript moths in July and early August. The larvae, or caterpillars, start developing in the eggs but do not emerge until next spring when the sap starts to flow and the buds emerge on their host tree.

The caterpillars start out feeding on the emerging leaves in communal groups but as they get older, they strike out on their own. Unlike most tent caterpillars that actually build silken tents to which they retreat during inclement weather, these caterpillars only spin some silk on which to travel around their nursery.

If food becomes scarce or they have reached their full size as larvae, the caterpillars leave their trees and start looking for more food or a place to pupate. If there are enough of them, they can make highways slippery. Pupation usually happens five to eight weeks after hatching, this year weeks earlier than usual. As with all moths, these caterpillars spin a cocoon in which they form a pupa that them

metamorphoses into an adult. The adults mate, the females lay their eggs, and then they die.

The caterpillars prefer to feed on Trembling Aspen (White Poplar), but when hungry, they will eat Balsam Poplar (Black Poplar), various birches, and nearly anything else that is green. Usually defoliation of such trees will not kill them because the trees have time to grow a new set of (stunted) leaves and acquire enough nutrients to allow a full set of leaves the next spring. (That last heavy rain will alleviate a lot of the damage done.) However, if the same trees are severely attacked for two or more years in a row, they will become susceptible to further injury or death from other parasites or diseases.

Though most of us think poplars are weeds, we usually don't like seeing naked trees in the summer. The prime impact of these insects is not that they attack valued food stores or important fiber resources but because they besmirch our sense of aesthetics. Whether death of trees brought on by caterpillar attack significantly increases the risk of forest fires, is a matter of debate and so much depends upon rain-fall.

Even healthy trees with full sets of leaves will burn. So compared to other pest insects that threaten our food, clothing and shelter, the damage done is much less.

Populations of caterpillars of this and other moths are usually kept in fairly low numbers by their natural enemies including predators such as birds, predacious beetles, and spiders; parasites such as certain flies and wasps; and diseases caused by fungi, bacteria, and viruses. Competition among themselves for food and adverse weather also cause high mortality.

However, when conditions are appropriate (such as when a large, uniform group of trees are just right for their palates, the weather is favorable, and the densities of their natural enemies are low) their numbers may increase to the point where you would like to exterminate these lovely creatures. If so, read on.

For a few small trees, such as favorite shade or fruit trees, you may wish to check the tips

of their branches in late fall or early spring for bands of eggs. If the eggs aren't those of forest tent caterpillars, they are probably one of their relatives. These egg masses should be clipped off and burnt. Eggs on main branches can be scraped off. For small or early infestations, the caterpillars can be picked off. Use gloves to protect yourself from any reaction to their bristles.

If you have many tall trees or an acreage, you will have to use high-pressure sprayers to reach to tops of the trees or go to aerial spraying - very expensive. If you can get it, I would recommend that you try using *Bacillus thuringiensis*, or B.T. for short. This is a bacteria that is especially good at killing lepidopterous larva (moths and butterflies). It is not dangerous to most other living things. The bacteria are usually sold as a powder that is mixed with water and sprayed like other insecticides.

Or you may wish to go all out and use chemical warfare. If so, please remember that:

Any insecticide which you use will kill not only the tent caterpillars but also the insects and spiders that normally feed on caterpillars - therefore, the agents that may be able to control the pest in future years, will be removed and you may get yourself into a situation where you will have to use insecticides year after year;

All insecticides are poisonous to some extent to fish, birds and mammals, including you and your children - thus any insecticide that comes in contact with them (e.g. birds that eat poisoned insects) may affect them in some adverse way;

To be effective you must spray a large area to prevent migration from adjacent areas or spray repeatedly when such migrations occur;

Repeated use of insecticides tends to lead to insecticided resistance in the pest;

Your neighbors may object (perhaps even legally) to poisons that may drift onto

their land and affect their bees, other livestock, or themselves - they should at least be forewarned of your actions; and

If you spray, your grounds for complaining about poisons, carcinogens, and mutagens that get into your food, water and air supplied by others who also wage chemical warfare, are very much diminished.

Recommended chemicals include malathion (organophosphate, moderately toxic to insects and mites,

Information and options

low toxicity for mammals), methoxychlor (in the same chemical group as DDT, highly toxic to insects and fish, low toxicity to birds and mammals) and carbaryl (nerve toxin, very toxic to insects - especially bees, low toxicity to mammals). These chemicals usually should be applied, using appropriate precautions, in early June when the young caterpillars are still feeding in groups.

To remove masses of larvae that may have moved onto the walls of your house, try washing them off with the garden hose or sucking them up with a shop vacuum. For

large masses, a shovel may have to be used. The bodies should make good compost but burning is usually used for disposal.

Aren't you glad they have only one generation per year? Maybe, just like winter, they have to be tolerated until they go away.

For further chemical information, contact Alberta Agriculture in Athabasca or Northern Forest Research Centre, Edmonton. Most of my information came from a "Pest Leaflet" put out by latter institution. The leaflet is available free from both agencies.