

○ Tent Caterpillars

From: Yoo, Rosa <Rosa.Yoo@dep.nj.gov>
To: deagle1776 <deagle1776@aol.com>
Cc: khoffman <khoffman@southamptonnj.org>
Subject: Eastern Tent Caterpillar
Date: Mon, May 4, 2015 12:03 pm

Hi Doug,

As per our phone conversation today, here are my recommendations to handle the eastern tent caterpillar issue in your town:

1. hand removing the tents (either clipping the branches the tent is in or use a stick to remove the tent), then placing the tent in a black garbage bag or bucket of soapy water. If you place the tent on the ground, the caterpillars will just crawl back up the tree.
2. placing a sticky band around the trunk to catch the caterpillars as they crawl up and down the tree. The sticky band will have to be replaced once it gets full of caterpillars.
3. pesticides can be applied to control the caterpillars, but I recommend you contact a Certified Tree Expert (CTE) with a certified pesticide applicator for assistance, as some pesticides can effect non-target, beneficial insects if applied incorrectly. A list of CTE's can be found at:

<http://www.state.nj.us/dep/parksandforests/forest/community/cte.html>

Also, I found NY state had a helpful website, if you would like to read more information on tent caterpillars: <http://www.dec.ny.gov/animals/7111.html>

Please feel free to contact me should you have any additional questions.
Thank you.

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Tent Caterpillars

Forest Tent Caterpillar and Eastern Tent Caterpillar



eastern tent caterpillars on tent

Forest tent caterpillars (FTC) (*Malacosoma disstria*) and eastern tent caterpillars (ETC) (*Malacosoma americanum*) are native to New York State. Population numbers vary over the years from very few and not noticeable to many and very noticeable defoliation of trees. The ETC is not a major forest threat, as it prefers fruit trees including ornamental crabapples and pears; it is more of a pest in urban and suburban areas and orchards.



Some of the most common

Important Links

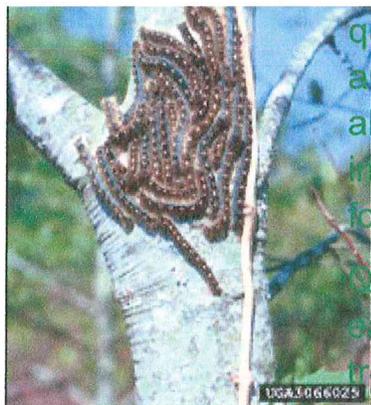
[Friendly Flies](#)[Forest Health Protection](#)[Invasive Insects](#)[NYS DEC Forest Tent Caterpillar Defoliator Report 2005 \(pdf, 517kb\)](#)[Field Protocol for Sampling Forest Tent Caterpillar Egg Masses \(pdf, 218kb\)](#)[Forest Tent Caterpillar Egg Mass Sampling Protocol Presentation \(pdf, 773 kb\)](#)[Forest Tent Caterpillar Presentation \(pdf, 647 kb\)](#)[Certified Aerial Pesticide Applicators](#)

Links Leaving DEC's Website

[U.S. Forest Service Pest Alert for the Eastern Tent Caterpillar](#)

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questions and answers about these insect pests follow:

Q: What is eating my tree?

forest tent caterpillars on trunk
James Solomon
USDA Forest Service,
<http://www.forestryimages.org/>

A: If you notice dark hairy caterpillars eating the

leaves on your trees, you may have forest tent caterpillars, eastern tent caterpillars or gypsy moths. See the question, "How do I know which type of caterpillar is eating my tree?" below and the link to the [Comparison Chart](#) for Forest Tent Caterpillar, Eastern Tent Caterpillar and [Gypsy Moth](#) for distinguishing characteristics.

Q: Will they hurt or kill my tree?

A: Tent caterpillars and gypsy moths eat leaves in the spring. Deciduous trees (trees that lose their leaves each fall) can regrow a new set of leaves by July and can usually withstand 2-3 successive years of defoliation (removal of leaves) without being killed. However, defoliation does reduce the vigor and resistance of the tree; it becomes more susceptible to pests and diseases. Mortality can occur when other stresses such as disease or other insect outbreaks attack trees in the same year. Evergreens are eaten when populations of gypsy moths are very high. Evergreens do not regrow leaves as easily as deciduous trees and can die as

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625 Broadway
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a result of complete defoliation.

Q: My tree has no leaves. Is it dead?

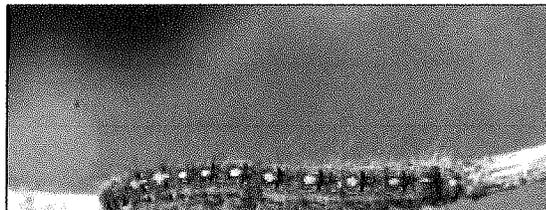


*tree defoliated by forest tent caterpillars
James Solomon, USDA Forest Service,
<http://www.forestryimages.org/>*

A: Not necessarily. Healthy deciduous trees can survive 2-3 successive years of defoliation without mortality (dying). Trees defoliated early in the season often grow a new, smaller set of leaves in July once tent caterpillars and gypsy moths stop feeding.

Q: How do I know which type of caterpillar is eating my tree?

A: The easiest way to tell them apart is by the patterns on the caterpillars. The gypsy moth caterpillar has five pairs of blue spots followed by six pairs of red spots along its back. The eastern tent caterpillar has a white line down its back with light blue and black spots on its sides. The forest tent caterpillar has white footprint-shaped marks down its back and light blue stripes on its sides.





forest tent caterpillar
Whitney Cranshaw, Colorado State University,
<http://www.forestryimages.org/>



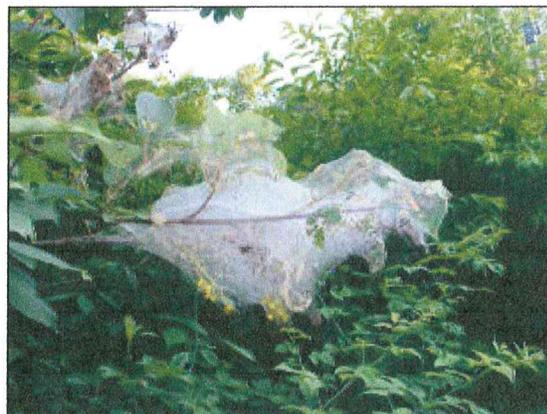
eastern tent caterpillar
Lacy L. Hyche, Auburn University,
<http://www.forestryimages.org/>

Another caterpillar that is sometimes confused with the eastern tent caterpillar because it also makes tents in trees and eats leaves is the fall webworm. The fall webworm differs from the eastern tent caterpillar in several ways: its tent always begins at the tips of branches and gradually extends down the branch toward the trunk; fall webworms feed on foliage inside the tent (eastern tent caterpillars make their tents in the forks of branches

and feeds on leaves outside the tent); the fall webworm is hairy, pale green or yellow, and has black or reddish spots along its back and there is usually more than one generation each year. Fall webworms make their tents in July and August, while eastern tent caterpillars make their tents in spring. Fall webworms are usually not considered harmful to trees, except for the aesthetic quality of the tents. Fall webworms are harmful when they feed on the regrowth of trees that were defoliated earlier in the season by other caterpillars.



gypsy moth
Minnesota Department of Natural Resources
Archives,
<http://www.forestryimages.org/>



fall webworm tent on end of tree branch

Q: I have caterpillars and tents in my trees in July. Are they eastern tent caterpillars?

A: They are most likely fall webworms.

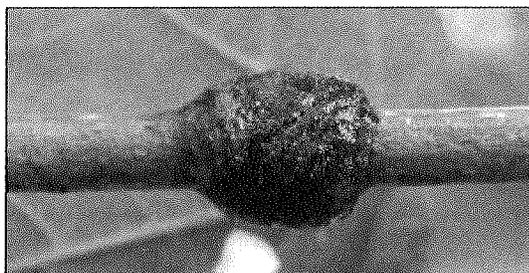
See the previous question, answer and photo.

Q: Are they harmful to children or pets?

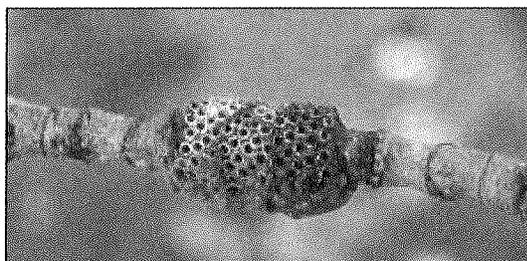
A: Contact with these insects is generally not harmful with a few exceptions. Some individuals may develop skin rashes or irritations from contact with gypsy moth hairs, including those on the outside of egg masses. Researchers have found that ingestion of eastern tent caterpillars only by pregnant horses can cause them to miscarry (mare reproductive loss syndrome). There is no evidence that ingestion of eastern tent caterpillars is harmful to humans or other animals.

Q: Is there a state program or is there state funding to help get rid of these caterpillars?

A: There is currently no State program in New York to spray for tent caterpillars or gypsy moths on State or private property. There are no State funds available to property owners for managing tent caterpillars or gypsy moths.



forest tent caterpillar new egg mass





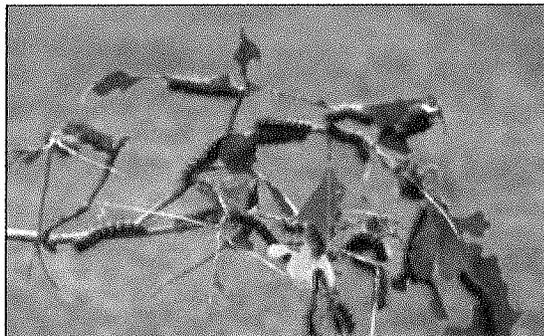
forest tent caterpillar old egg mass

Q: How can I control these caterpillars?

A: For homeowners, the first option to consider is to do nothing. Healthy deciduous trees usually survive defoliation and grow back a second set of leaves in July. Manual control on individual trees includes hand removal of egg masses, inhabited tents and pupa, and installation of sticky tree wraps on trunks to capture caterpillars as they move up and down trees. Do not leave egg masses on the ground; drop them in a container of detergent. Do not attempt to burn tents while they are on trees. This is hazardous to the health of the tree.

Q: Should I spray my trees?

A: Maybe. Remember, tent caterpillars are native and a natural part of our ecosystem, and gypsy moths have "naturalized" in our forest communities. These caterpillars will always be around, sometimes in small, unnoticeable numbers. If dense concentrations of tent or gypsy moth caterpillars cause a decline in the trees' health or threaten an economic resource such as a sugar bush, spraying may be an option.





gypsy moth feeding on branch
Tim Tigner, Virginia Department of Forestry,
<http://www.forestryimages.org/>

Various insecticides for tent caterpillars and gypsy moths are available at garden centers. Insecticides are divided into two general groups: microbial/biological and chemical. Microbial and biological pesticides contain living organisms that must be consumed (eaten) by the pest. They are most effective on small, young caterpillars. As they mature, caterpillars become more resistant to microbial pesticides. The most common microbial and biological insecticide is *Bacillus thuringiensis* (Bt). Bt occurs naturally in soil and on plants. It is harmless to people, animals, and plants, but does affect young moth and butterfly larvae. When Bt is eaten, the caterpillar becomes paralyzed, stops feeding, and dies of starvation or disease.

Chemical insecticides are contact poisons. These chemicals can have a potential impact on a variety of beneficial insects (such as honeybees), so they should be used wisely.

Professional pesticide applicators can be found in the yellow pages under Tree Service. In order to use restricted insecticides, applicators must be certified. For a list, see the link to NYS certified pesticide applicators.

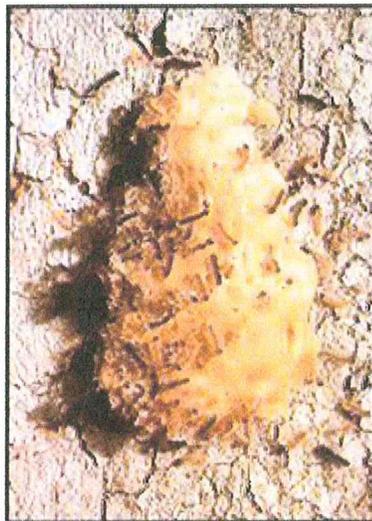
In certain cases it may be economically feasible to spray large areas. Maple syrup producers may be interested in aerial spraying since severe defoliations

can reduce maple syrup production.



gypsy moth adults and eggs

Spraying is not effective against pupae or egg masses, and is less effective once caterpillars reach 1 inch long.



newly hatched gypsy moth larvae on egg mass

Nesting birds, beneficial

insects, and other animals could be endangered by use of chemical insecticides.

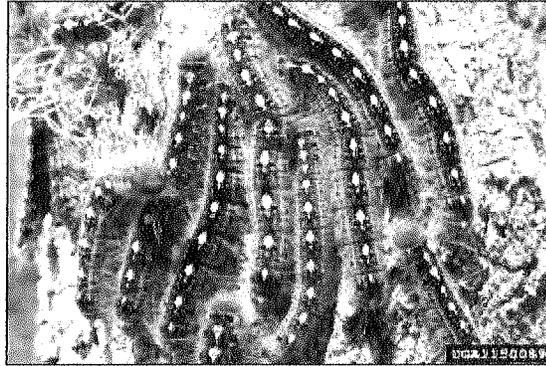
Q: Will these caterpillars ever go away?

A: The short answer is no. FTC and ETC are a natural part of our forest ecosystem. The good news is that their populations fluctuate and after a few years of high numbers, their populations usually drop. Populations of tent caterpillars reaching highly noticeable levels run approximately on 10-year

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cycles and usually last 2-3 years. Natural Control: Caterpillars are attacked by birds, rodents, parasites, and diseases. Extremes in temperature can also reduce population numbers.

Q: I have a woodlot. Should I harvest my trees?



Forest tent caterpillar larvae on trunk
Herbert A. "Joe" Pase III, Texas Forest Service,
<http://www.forestryimages.org/>

A: We recommend delaying timber harvests in defoliated areas for two or three years after an outbreak to minimize additional stress on trees. Time will also allow you to see which trees remain healthy and alter harvesting plans if necessary. (See link to NYS DEC Forest Tent Caterpillar Defoliator Report 2005.)

Q: I have a sugar bush. Will my tapping harvest be affected?

A: Defoliated trees have decreased food storage. Sugar maple sap flow and sugar content may decrease in the year following defoliation.

Q: Is there a way to predict next year's defoliation?

A: Yes. If you are interested in sampling your woodlot or forest to determine the likelihood of defoliation by FTC for the

following growing season, sampling protocol is provided. (See important links.) If you do sample your woodlot or forest, your data is valuable to us for tracking annual populations. We would appreciate if you mail or email you sampling data to:

NYSDEC
Division of Lands and Forests, Forest Health section
625 Broadway
Albany, NY 12233-4253
Telephone: 518-402-9425 Fax: 518-402-9028
[Email the Division of Lands and Forests](#)

More about Tent Caterpillars:

[Caterpillar Comparison Chart](#) - A chart comparing the characteristics of Forest tent caterpillars, Eastern tent caterpillars and Gypsy moths

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Tent Caterpillars

Wizzie Brown and John A. Jackman
Extension Program Specialist—IPM; Professor and Extension Entomologist,
The Texas A&M University System

Tent caterpillars attack several kinds of broad-leaf trees and shrubs and produce unsightly webs, or tents, which can detract from the



Figure 1. Eggs of the tent caterpillar



Figure 2. Tent caterpillar larvae

home landscape. These caterpillars can defoliate trees, stunting their growth and making them less vigorous. They can also be very common and thus a nuisance as they move around the exterior of a home.

The keys to eliminating tent caterpillar problems are early detection, proper identification, and understanding of the life cycle and the use of appropriate cultural or chemical control measures.

Four species of tent caterpillars can be troublesome: the eastern tent caterpillar, *Malacosoma americanum*; the western tent caterpillar, *Malacosoma californicum*; the Sonoran tent caterpillar, *Malacosoma tigris*; and the forest tent caterpillar, *Malacosoma disstria*. These species are closely related and have very similar life histories.

Life Cycle

In late spring or early summer, female moths deposit egg masses on tree trunks or encircling small twigs (Fig. 1). These egg masses remain on the trees during most of the summer, fall and winter.

The adult moth uses a sticky, frothy substance called spumaline to glue its eggs to bark or twigs. Spumaline also is used as a hard protective covering around the egg mass in all Texas species except the Sonoran tent caterpillar.

Caterpillars, or larvae (Fig. 2), hatch from the eggs in the early spring about the time that the leaves on their host plants emerge. Eastern and western tent caterpillars feed on new leaves. They form small webs within a few days after hatching, and they enlarge the webs as they grow. The web or tent is most often in a crotch of small limbs and serves as a refuge for the larvae at night and during rainy spells.

Because the larvae move from their tents to feed on leaves, damage can be found for some distance around the web. Tent caterpillars feed in groups, and thus concentrate their defoliation.

Both eastern and western tent caterpillars form conspicuous, large webs (Fig. 3) that are easily recognized. This is not true of the other two species. The Sonoran tent caterpillar spins a small web when it molts. Molting, or skin shedding, occurs several times as the larvae grow. The larvae do not live in these small webs at other times.

One of the most common of the tent caterpillars is the forest tent caterpillar. It does not build a tent but instead spins a loosely woven resting mat on trunks and larger branches. Dozens of caterpillars may congregate on these mats between feedings.

As forest tent caterpillars complete their development in late spring, the larvae wander for several meters and may feed on a variety of trees, shrubs and even herbs before finding a site on which to spin a cocoon for pupation. Cocoons are formed in the web, under bark, in dead plant material on the ground, inside a rolled leaf, under the eaves of houses or other protected places. Forest tent caterpillars often draw leaves together to form a cocoon site.

Cocoons are loosely constructed of silk and have a white or yellowish crystalline substance scattered throughout the mass. Do not handle the cocoons because the crystalline substance may irritate your skin.

Adult tent caterpillars are brown and yellowish moths (Fig. 4) with two diagonal markings on the front wings. Wingspreads are about 1 inch.

These moths are attracted to lights and are sometimes very abundant. Tent caterpillars moths live for only a few days, during which they mate and lay eggs. Adults do not feed. Each species of tent caterpillar has only one generation per year.



Figure 3. A tent caterpillar web in a tree.

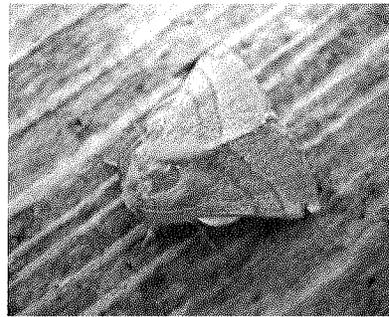


Figure 4. A tent caterpillar adult.

Removal of Tent Caterpillars

Recommendations:

1. Hand remove the tents (either clipping the branches the tent is in or use a stick to remove the tent)
2. Place the tent in a black garbage bag or bucket of soapy water.
 - a. If you place the tent on the ground, the caterpillars will just crawl back up the tree.
3. Place a sticky band around the trunk to catch the caterpillars as they crawl up and down the tree.
 - a. The sticky band will have to be replaced once it gets full of caterpillars.
4. Pesticides can be applied to control the caterpillars
5. Or contact a Certified Tree Expert (CTE) with a certified pesticide applicator for assistance, as some pesticides can effect non-target, beneficial insects if applied incorrectly.
 - a. A list of CTE's can be found at:
<http://www.state.nj.us/dep/parksandforests/forest/community/cte.html>