Gregarious Tree-Feeding Caterpillars

A number of caterpillar species are gregarious, that is they tend to live in groups, rather than alone. Large masses of caterpillars are often quite impressive, especially those that continue to feed gregariously even as mature caterpillars.



Mass of feeding walnut caterpillars Photo: Jerry A. Payne

Fortunately, healthy, well-established

trees typically have little difficulty recovering from damage caused by these masses. However, moderate to severe damage on a young nursery tree may reduce the plant's general health, making it more susceptible to winter damage, attacks by other pests, or unfavorable climate conditions.

Examples of gregarious caterpillars are presented below.

Considerations for Control

- As with most pest problems, early detection and treatment usually leads to better control.
- Over-use of broad-spectrum insecticides makes matters worse by killing the beneficial insects that naturally control caterpillars and other pests.
- Gregarious caterpillars can often be adequately controlled by simply removing leaves, small branches, or nests where caterpillars are concentrated.



Walnut caterpillars of varying ages Photo: Cliff Sadof

Consider using Bacillus thuringiensis var. kurstaki, a naturally occurring bacteria that kills several caterpillar pests. This bacterial strain (must be *kurstaki* strain) is specific to caterpillars and will not harm the beneficial insects in the nursery. See the article from Colorado State University for more information.

Walnut Caterpillar

Walnut caterpillars feed in groups of 100 or more and can defoliate much of an entire tree limb or even a small tree if multiple groups are present. Common hosts of

walnut caterpillar include butternut, hickory, pecan, and walnut. Young walnut caterpillars are somewhat reddish and glossy with stripes. Mature caterpillars are stout and black with white hair. There are two generations each year, and the majority of damage is caused by the second generation in late July or August.

Yellow-Necked Caterpillar

Yellow-necked caterpillar is closely related to walnut caterpillar mentioned above. It gets its name from the orange plate on the thorax directly behind the head. This species is black with distinct vellow stripes and long silky white hairs. When it is disturbed, it raises its head and abdomen to create a U-shaped form.



Hosts include a number of trees and shrubs including **apple**, **oak**, **blueberry**, **birch**, and **willow**. This species is apparently declining in the eastern United States possibly due to attacks by a parasitic wasp introduced for gypsy moth control. Larvae are typically found July through September.

Yellow-necked caterpillar Photo: Gerald J. Lenhard





Photos: Lacy L. Hyche

Spiny Oakworm

This caterpillar's coloration is highly variable ranging from orange to yellow-brown to black, but all individuals have heavy white speckling. They also have two long black protrusions on the thorax (behind the head) with smaller protrusions along the body, giving them a "spiny" appearance. The dominant host is oak. Spiny oakworm has declined in much of the northeastern United States and hopefully will not suffer similar declines in Kentucky. This species feeds in clusters than other smaller common oakworms. Damage is typically noticed July through September.

Orange-Striped Oakworm

This caterpillar is black with orange or yelloworange stripes with long protrusions on the thorax, similar to spiny oakworm, and very short spines along its body. Primary hosts are chestnut and oak, especially red oak. Other hosts include birch, hazel, hickory, and maple. Mature caterpillars can travel long distances just before pupation; they can sometimes even be found crossing roads! Orange-striped oakworms are typically found July through September.



Orange-striped oakworm Photo: Clemson University



Pink-striped oakworm larvae

Pink-Striped Oakworm

This caterpillar is very closely related to the other two oakworms mentioned above. It also has two long black protrusions on the thorax and spines along the body. It has pink and black stripes with heavy white speckling.



Photo: Lacy L. Hache

Hosts are various species of oak. Pink-striped oakworm caterpillars are also most commonly found July through September.

The photo to the right shows how beautiful the adults of these oakworms and mapleworm (see below) can be.

Green-Striped Mapleworm

The green-striped mapleworm is closely related to the oakworms mentioned above.

It also has the two long and numerous short black protrusions. It is striped dark and pale green with a red to orange-brown head and red patches on the sides near the end of the abdomen. Hosts are maple and box elder primarily, but also include oak.



Green-striped mapleworm larvae Photo: John R. Meyer

Eastern Tent Caterpillar

Eastern tent caterpillar nests are easy to spot. They are located in crotches between two or more branches and can become rather large. They are somewhat unique because they are not built to include foliage.



Eastern tent caterpillar Photo: William H. Hoffard



Pink-striped oakworm adult Photo: Stephanie Sanchez

Caterpillars are most commonly found June through September.

Adults of this caterpillar are very beautiful and have gained much public interest. An interesting note about the adults: they know how to "play dead" when they are bothered.



Eastern tent caterpillar nest Photo: William H. Hoffard

Eastern tent caterpillars feed outside their nest then use the nest as a place of safety while digesting their food. The nest also serves as a greenhouse to provide warmth on cool days.

Eastern tent caterpillar is found on numerous woody plants, but the preferred hosts are apple, cherry, and hawthorn. Caterpillars are active from March until early June.

Forest Tent Caterpillar

Forest tent caterpillars have a unique blue color with white "footprints" along the

back leading toward the head. They feed on a number of trees including birch, elm,



Forest tent caterpillar Photo: James B. Hanson



Mimosa webworm damage Photo: Brian Kunkel

Fall Webworm

Fall webworm is possibly the most well known nest-forming caterpillar due to the highly visible nests formed at the ends of tree branches. These nests can sometimes engulf entire branches and serve as a home to hundreds of fall webworm larvae.

linden, maple, especially sugar maple, oak, poplar, and many more.

Unlike eastern tent caterpillar, forest tent caterpillar does not create a nest. When the caterpillars are not feeding, they gather on tree trunks in masses of 100 or more. Caterpillars are active April through July.

Mimosa Webworm

Mimosa webworm creates nests made of silk These nests become very and foliage. unsightly as the larvae feed on and kill the foliage within the nest. Hosts are There are two honeylocust and mimosa. generations of this caterpillar. The first appears in June, but the majority of damage is caused by the second generation in August.



Fall webworm nest Photo: Ronald F. Billings



Photo: Penn State



Photo: Keith Douce



Photo: James B. Hanson



Photo: Tom Murray

Fall webworm has hundreds of hosts. It is commonly found on apple, cherry, elm, hickory, maple, walnut, willow and many others.

These caterpillars vary greatly in appearance (see photos to the left). Some have a black head and are typically yellow to pale green with white hair. Others have a red head and are typically darker with reddish-brown hair. All have remarkably long hairs (half the length of the body or longer), paired dark **spots** on each segment of the back, and reach a length of about one inch.

There are two generations of fall webworm in Kentucky, and the majority of damage is caused by the second generation in August or September.

