Fall Webworm - a late bloomer

By Douglas C. Allen

This native defoliator is one of our most conspicuous forest and shade tree pests, in part because of the large silk nest constructed by each colony, and partly because the damage appears late in the growing season after most leaf feeders have disappeared. A widespread insect, it feeds on more than 200 different plants in the United States, including 88 species of broadleaved trees. Favored foods vary with geographic location. In New York, black cherry is the most frequently attacked host, but tents may occur commonly on alder, apple, beech, birch and oak.

Description

The webbing (Fig. 1) frequently is mistaken for nests of eastern tent caterpillar. However, the appearance and habits of these two species are quite different. Fall webworm nests appear in late summer and early fall, they encompass extensive foliated portions of a branch, and the caterpillars rarely leave the nest. Eastern tent caterpillars, on the other hand, initiate feeding early in the growing season during or shortly after budbreak, the webbing occurs in branch crotches devoid of foliage (see article in the Sept./Oct. 1992 issue of Forest Owner), and larvae regularly leave the nest to feed.

Fig. 1. Fall webworm nest (black arrow.

Webworm caterpillars vary from yellowish brown to dark grey and possess several tufts of long whitish hairs arising from orange-yellow to black wart-like tubercles. When fully grown, the larva is 1.5-2.0 inches long (*Fig. 2*).

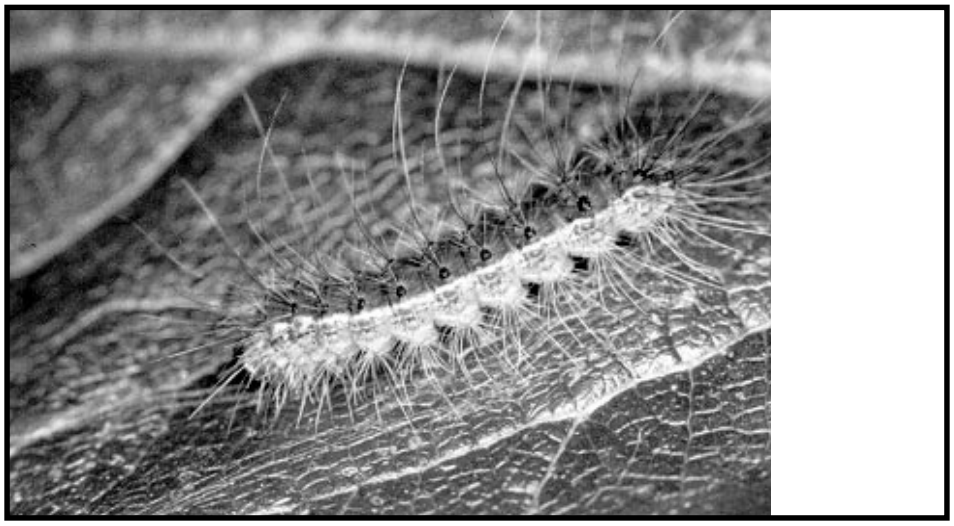

Figure 2. Fall webworm larva.

Land Use And Occurrence of Outbreaks

Fall webworm, known by the scientific name *Hyphantria cunea* (Hi-fan-tria coonia), is a sun-loving species. Population density is highest in cleared lands where vegetation patterns provide both vertical and lateral exposure of colonies to sunlight. Further evidence indicating that the species thrives in openings is the fact that webs are most likely to occur on roadside trees, and they are rare in the interior of forest stands.

Biology

The female moth deposits eggs in a mass on the underside of a leaf during June and July, usually near the tip of an exposed branch. The egg mass is covered with white scales from the body of the moth. Young larvae feed only on the upper surface of leaves (called "window feeding" because after the insects have fed a brownish, thin, translucent layer of leaf tissue remains), but with age larvae may become "whole leaf feeders" (i.e., all parts of the leaf blade are eaten). As the caterpillars feed, the webbing is continually enlarged to encompass new foliage. During heavy infestations an entire tree may be enshrouded by the webbing activities of several colonies. Even when populations are sparse, however, the insect is noticeable because just one to a few large webs per tree catch the eye. Each web involves a major portion of the infested branch and may attain a length of 4 to 6 feet. The main purpose of the web, which acts as a greenhouse, is to provide an environment of high humidity. Larvae develop faster and suffer less mortality when the ambient relative humidity is near 100 percent. Larvae complete feeding in October, drop to the ground and overwinter in the soil beneath the host. There is one generation each year in the northeastern United States and eastern Canada.

Damage

Rarely does the webworm kill trees. Even when populations are high, outbreaks usually do not last more than two or three years. Also, defoliation occurs late in the growing season, after the host has stored adequate food reserves. The principle impact in New York is unsightly damage to exposed cherry, such as along highways, edges of fields or on shade trees.

Population Management

Only infrequently are control measures necessary in New York. In areas where black cherry is of prime interest and chronic populations of webworm exist, a woodlot owner may wish to restrict cherry to the interior of stands and eliminate roadside or otherwise exposed individuals. Remember, however, that fall webworm is very unlikely to cause significant defoliation in our region. Also, late summer feeding by a few colonies will have minimal impact on a tree's health. The occurrence of many large nests along roadsides or forest edges usually is not indicative of population abundance within an adjacent stand. ▲

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