



Bagworm

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Plants Attacked: Juniper, arborvitae, other cedars, pine, hemlock, spruce, Chinese elm, honeylocust, primarily. Also on crabapple, maple, sycamore, box elder, willow, linden, poplar, and many others.

Description of Damage: Increasing degree of leaf damage from defoliation from June to late July and August. Stripping of leaves usually most noticeable in the uppermost parts of trees and shrubbery. Associated with presence of many spindle-shaped bags up to 1 1/2" in length from late summer to spring.



Figure 1: Bagworm attached to twig. *Photo by Eric Day, Virginia Tech.*

Identification: Larvae enclosed in cone-shaped bags consume foliage. Insect seldom seen, except head of larva protruding from the bag. The larva is mottled brown to black and encloses itself in a bag spun from silk strands. Bits of leaves and twigs from the host are incorporated in the bag during its creation. During June bags are difficult to see, since they start less than 1/4" in length. Bags increase to 1 1/2" by late summer. Adult males fly and are the only form occurring outside the bags. Females develop inside the pupal case within the bag where the eggs are laid. Lepidoptera: Psychidae, *Thyridopteryx ephemeraeformis*

Life History: Overwintering eggs begin hatching in early June. The tiny larva immediately begins to construct a tiny silken bag around itself and initiates feeding. Larvae and bags remain small (less than 1/4" long) for a few weeks and are not easily discovered. Feeding and molting continues until August when pupation occurs. Adults are active in late August and September. Only males leave the bag to mate with females which remain in the bags to lay overwintering eggs. Prior to molting and pupation, larvae attach the bag by silk strands to twigs and close the opening, protecting the larva.

Control: It is important to treat during mid-June. Small larvae are more susceptible to insecticides. Larger larvae and molting larvae are not easily killed. Insecticides with some residual are preferred. Picking off and burning bags from fall until spring will reduce populations, but is tedious. The presence of bags during winter is a good indication of which plants need to be treated the following year. One generation per year.

Remarks: Bagworm is a serious pest, capable of rapid buildup and extensive defoliation, although completely defoliated trees usually make a full recovery the next spring. Annual surveys during fall, winter, or early spring are important to detect infested plants before serious damage results.

Revised: Olivia C. McCraw, June 26, 2014