



MID-WINTER IS A GREAT TIME TO BANISH BAGWORMS

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Despite winter being well underway, we've had a pretty mild season here so far in Connecticut. With the exception of a very cold Christmas week, temperatures have been generally tolerable and we haven't received much snow *knock on wood*, so I'm pleased to report that I've been able to take my dog on slightly longer and more frequent walks compared to this period last year.

Being a plant pathologist, I can't help but to look at the plants in my neighbors' yards as I walk past and consider what changes I would make (if any) if these plants were in my own yard. Sometimes I find a tree with a beautiful form and write a note to myself to consider planting one myself in the spring. Other times, I walk past and click my tongue after seeing a tree planted with the copious "volcano" mulching that leads it to be more susceptible to injury and disease. This winter however, the most common thought running through my head as I look at plants in my neighborhood is that my neighborhood must be a magnet for bagworms!



Bagworm casing on arborvitae. Photo by Pamm Cooper

Bagworms (Psychidae) are insects in the order Lepidoptera, which includes the moths and butterflies. The caterpillars of this family feed on their host plant and create a silk casing or "bag" that surrounds and protects them while they grow and pupate. Bits of plant material, such as needles or twigs, are incorporated by the caterpillar into this casing to be used as camouflage. The bag will grow in size until the caterpillar pupates. After pupation, males leave the casing and fly off to find a female with which to mate. Adult females remain in the casing indefinitely,

attracting males in flight to their location using pheromones. Adults mate in the fall, leaving hundreds of eggs inside the female casing to be protected over the winter.

Here in the Northeastern US, one species of bagworm you are likely to encounter (and likely the species terrorizing my neighborhood) is the "evergreen" or "common" bagworm, *Thyridopteryx ephemeraeformis*. Arborvitae, cedar, cypress, juniper, pine, and spruce trees are the preferred hosts of this species, but the bagworm larvae are known to damage many other species of common plants as well, including many of economic and aesthetic value.

Bagworm eggs typically hatch in spring (in Connecticut, this is usually late April through early June, depending on temperature) and the larval caterpillars emerge to feed. Larvae are occasionally blown to trees some distance from where they hatched, but they more commonly remain nearby and repeat their feeding and mating cycle. Heavy infestations can cause defoliation and decline in plants. Several seasons of heavy infestations may even lead to plant death. Thankfully however, bagworm infestations are usually easy to identify and manage, and rarely cause lasting damage to the host tree.

To manage a bagworm outbreak, pluck or prune away all of the observed casings in the late fall and winter. It is very important to remove the "bags" before the eggs begin to hatch in April. The casings may be buried, burned, composted, or disposed of in the trash. In May, fertilize the affected plant according to recommended guidelines for the particular plant's species and age. Consult the UConn Home & Garden Education Center at ladybug@uconn.edu, or your local extension office for more detailed information.

If you are facing a serious infestation where all casings are not able to be removed by hand, beneficial insects, such as the parasitoid wasp, *Toplectis conquisitor*, may be released in early May to help control bagworm populations. Additionally, organic control products such as *Bacillus thuringiensis* (Bt) and Spinosad are available, and chemical insecticides such as carbaryl may be sprayed by a licensed applicator in the most severe cases to control larvae.

For other bagworm questions or if you have any other gardening questions, contact the UConn Home & Garden Education at (877) 486-6271 or www.homegarden.cahnr.uconn.edu or your local Cooperative Extension Center.