

## Got Adelgids? Maybe Get Beetles



**Question:** What is black, tiny, oval-shaped and can eat up to 50 Hemlock Woolly Adelgids nymphs in one week?

**Answer:** One St Beetle (*Sasajiscymnus tsugae* beetle).

If this sounds like Greek (or maybe Japanese) to you, you are probably in good company. But if you love hemlock trees (Easter Hemlocks in this area), and especially if you are lucky enough to have hemlocks on your property, learning about the St Beetles could help to keep your trees healthy.

### **What is the concern for hemlock trees?**

Unfortunately, a non-native pest, the Hemlock Woolly Adelgid (HWA) was unintentionally brought to Virginia from Japan in the early 1950s. Since then, the adelgids have spread to 20 eastern states, including Connecticut, where they now can be found throughout the state.

The adelgids produce two generations per year, laying eggs under a ball of protective waxy “wool” barrier which can be seen on the underside of the newest hemlock growth. The adelgid feeds along the stems and prevents the emergence of new growth. Heavily infested hemlocks die from loss of foliage needed for water uptake, respiration and food production. HWA populations can explode relatively quickly, where tree mortality can occur in a few years.

### **Are hemlocks worth saving?**

Aside from the aesthetics of hemlocks – their dark green color, their soft, leafy branches and the tiny cones which seem inconsistent with its majestic height – hemlocks are incredibly important to our ecosystems.

They tend to grow along streams where they stabilize stream beds; lower water temperatures in water courses, important to the species that live there including brook trout; trap and store carbon dioxide, helping to reduce those levels in the atmosphere; and provide food and year-round shelter for many mammals and bird species including many warblers, some of which nest nowhere else.

### **What has Connecticut done to save state hemlocks?**

Beginning in 1995, scientists at the Connecticut Agricultural Experiment Station have controlled major outbreaks of HWA in large tracts of state forests by introducing a natural predator to the HWA, the St Beetle. The success of this program is possible because St Beetles are specialized predators, consuming only HWA. The beetles are highly mobile, feeding on all life stages of HWA, and fortunately they overwinter in Connecticut, producing offspring for the following year.

The beetles do not consume all HWA – some are needed to support the beetle population – but they keep the level of adelgids at a level which allows the tree to return to a healthy state. It is a natural and sustainable control method

### **Can homeowners use St Beetles to protect their hemlocks?**

Yes. Homeowners can consult with a trusted tree or landscape professional, or homeowners can order beetles directly from the only supplier in the northeast, Tree-Savers in Pennsylvania ([treesaverspa.com](http://treesaverspa.com)). Spring is the perfect time of year to order and disperse beetles.

**Are there other adelgid control methods?**

Yes. Smaller trees and trees for which there is no access problem, spraying trees with horticultural oil or insecticidal soap, usually twice a year, can help. This method is most effective if the adelgids are thoroughly covered. Another method involves the use of a toxic and systemic pesticide which must be applied by a licensed applicator. Please note that using the St Beetles is a sustainable method (does not need to be repeated) and poses no threat to other species.

**A release of beetles is being planned in Newtown.**

Protect Our Pollinators is planning a St Beetle release event sometime in late May or early June. The event will likely be near the dog park. Please check future issues of the Bee for a story about this event.

Photo credit, with her permission, goes to [Jayme Cabrera](#) from [TreeSavers](#).