

# Around Town

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## Efforts to protect Gilmer's hemlocks continue

by Whitney Crouch

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The stately hemlock trees of Gilmer County are under attack from a sap sucking, aphid-like insect called the hemlock wooly adelgid. Native to Japan, these pests were accidentally introduced to Virginia in the 1950s and have since spread up and down the Appalachians.

Local County Extension Agent Michael Wheeler described this threat as "probably the biggest issue we've had affect the eastern ecosystem since the 1930s chestnut blight."

Indeed, massive stands of hemlock trees in the Shenandoah Valley of Virginia, Joyce Kilmer-Slickrock Wilderness and many other beautiful forests have been reduced to groves of matchsticks

"[We] just don't need for that to be the case in Georgia," said Donna

Shearer of the nonprofit organization Save Georgia's Hemlocks ([www.savegeorgiashemlocks.org](http://www.savegeorgiashemlocks.org)).

The adelgids were first discovered in Georgia in 2003 near Ellicot Rock in Rabun County and have since arrived in Gilmer County.

"It doesn't matter if it's the east or west side of the county — it's here," Wheeler observed.

The insects attach to a tree at the base of its needles and then proceed to suck all of the water and nutrients out of the hemlock as if it were a giant straw. Since the adelgids are roughly the size of a period in a book, it is easy for birds, mammals and humans to unconsciously spread them from one area to another.

From November to June, infested trees are easily recognized because their branches are covered in small bundles of waxy sacs. The rest of the year, the



Photo courtesy Michael Montgomery, USDA Forest Service, Bugwood.org

Trees infested by hemlock wooly adelgids are easily recognized from November to June by white, waxy sacs. If no steps are taken to treat the tree, it will die.

adelgids are in their nymph stage and are harder to recognize. Sick trees can still be identified, however, by their dull green or brown coloration.

Unless treated, infected

trees will die within three or four years, and unfortunately, by the time you see evidence of the adelgid, it has probably been on the tree a year.

"The hemlocks are a key-

stone species that are important to a lot of other plants and animals," observed Shearer.

Ecologically, these trees

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It soon became apparent that a lot of other volunteers were giving of their time too. There already were 100 or more cars parked when I arrived shortly after 8 a.m. And, they kept coming, even past the noon deadline.

By the time we started the judging process, there were more than 250 cars on display.

Smitty asked me what I felt most comfortable judging. I asked to evaluate the production cars, those that are supposed to be straight from the showroom, even if it was 40 or 50 years ago.

Before the team of judges spread out, we were each assigned students from the high school to be our runners. They would take the scoring sheets back to the registration area for processing. Ken Martin, auto shop teacher at GHS, had brought plenty of helpers, which was greatly appreciated. Two beautiful young girls roamed the grounds collecting \$1 donations for a 50-50 drawing. They collected more than \$700, which was split between the winning ticket holder and the car club treasury.

The car club, by the way, donates a scholarship to a stu-

## Hemlocks ————— from 1D

play a vital role because they help to keep streams cold, clean and oxygenated, prevent soil erosion and provide an ideal environment for several endangered shade-loving plants.

"The danger that they are in is very, very serious," Shearer continued. "Hemlocks are in trouble, [but they] can be treated both easily and economically."

At a recent question and answer session, Wheeler made several suggestions for how to control these pests using an integrated approach.

### Cultural Controls

- Don't place birdfeeders near or in hemlock because birds can easily be carriers. Likewise, do not encourage deer to visit your property.
- Maintain your trees' health by supplying water during droughts, but do not fertilize hemlocks because the added nutrients can enhance adelgid growth.
- Mechanically remove the adelgid by pruning out heavily infested limbs or spraying them with high-pressure water.
- Do not bring home a problem. Inspect new landscaping plants before purchasing them and use care when moving firewood or plants from infested areas.

- Plan for the future and choose to plant other evergreens.

### Chemical Controls

- For smaller trees, consider insecticidal soaps or horticultural oils that essentially suffocate the pests. Do not use these during warmer weather, however, because they tend to burn green tissue.
  - Imidacloprid applications are the most common form of chemical control. Types of applications range from trunk sprays to soil injections, and the appropriate method to use on your trees may depend on their proximity to water sources. The tree absorbs the chemicals through its bark or roots and then the adelgids ingest them while feeding off the tree.
  - Some larger or more heavily infested trees may require a more potent chemical called Safari 20 SG. This product can be a bit tricky to use if you are not accustomed to mixing and dosing chemicals, so homeowners are advised to seek advice from a licensed professional.
- Using either imidacloprid or Safari is "not indiscriminate application of chemicals and hoping you get the pest," emphasized Wheeler. Instead the chemicals are distributed in a targeted and contained manner to the infested trees.

"We don't know how this will play out," he admitted. "Five years from now, the treated [trees] may be the only ones left."

Thus far, the mortality rate of infested trees has been 100 percent, except for those that have been treated. Thankfully, the chemicals have proven to be highly effective in protecting the trees. A University of Georgia research project has been monitoring treated trees for the past six years, and as of yet, the trees have not had to be retreated.

Treating the hemlocks is time critical, and Shearer compared it to "putting trees on a life support system."

When treating hemlocks, Wheeler recommends prioritizing them based on aesthetics, stream ecosystem issues, logistics and the risk a dead tree poses to property.

As you consider the cost of removing dead trees and the benefit of keeping healthy, shade producing trees, he observed, "A chemical treatment is pretty cheap in the long run."

### Biological Control

- Scientists are developing and releasing three species of lady beetles that only eat adelgids, so if and when the adelgid population crashes, theirs will crash too. While experts have high hopes for these insects, it takes time to prepare the bee-

bles, and they can be expensive to raise.

While these predatory beetles are ultimately our greatest hope for the survival of the hemlocks, Wheeler emphasized, "This is more long-term control. It's still too early in the game to know where this will take us ... [It's] adding a tool to our toolbox."

All in all, the adelgid infestation presents a serious ecological threat to local hemlocks, and it is important for individuals to take an active role in protecting these beautiful trees.

Local extension agents are forming a cooperative group to help provide accurate information about this issue. They especially encourage homeowners to work with licensed professionals as they seek help in treating their trees.

"There are lots of fly-by-night people trying to make a buck ... selling false promises to homeowners," Wheeler explained.

For more information about the hemlock wooly adelgids and what you can do to address this problem, contact Gilmer's UGA Cooperative Extension office at 706-635-4426 or call the Hemlock Help Line (706-429-8010), which is run by Save Georgia's Hemlocks volunteers. This hotline has helped about 900 people since July 2009 and is great way to learn more about available

chemicals or to obtain a list of insured professionals who are licensed to treat hemlocks.

If you want to get involved in or learn more about the efforts of Save Georgia's Hemlocks, come to a hemlock camp meeting Oct. 30, at Anderson Creek Retreat off Old Bucktown Road. This casual, family style event will include a potluck, bluegrass music and a hemlock hike led by Walt Cook, a longtime member of the Benton MacKaye Trail Association and a retired UGA forestry professor.

Shearer explained that the meeting is designed to raise awareness and "bring together individuals and groups with similar interests in the environment." Bring a covered dish and come learn more about how you can help with the hemlock crisis.

For more information or to register for this event, call the Hemlock Help Line.