



Newsletter
2015 — Summer

Hemlock Happenings

A Publication of
Save Georgia's Hemlocks

Hemlock Happenings is an e-newsletter for members, donors, and friends of Save Georgia's Hemlocks to share hemlock news, service and educational opportunities, technical updates, and announcements. If you'd like to submit an article or announcement, please send it to the e-mail address below. Your feedback is always appreciated.

News from the front

The woods are full of challenges, opportunities, and questions. As we saw last year, another very cold winter caused a good setback of the adelgids at high elevations; a late spring contributed to delaying the first generation of HWA a bit; and plentiful rainfall supported a lot of new growth on healthy trees — all good news.

But here's something different. While the adelgids made their usual comeback in many places, some areas showed *less* evidence of HWA, and it is thought to be due to the progressively poorer condition of untreated trees that cannot support a robust adelgid population.

In north central and northeast counties the difference between treated and untreated trees can readily be observed. Many more trees along waterways have died because of lack of treatment or a "double whammy" of HWA and *Rosellinia* needle blight (see page 2), which could lead to serious implications for the trout streams. In some areas severe storms have brought down so many large dead branches and trees that access to treatment areas is difficult. These trends are expected to occur in the northwest counties as the HWA problem worsens there.

On the bright side, treated hemlocks continue to thrive; more property owners are being proactive in taking care of their trees; more treatment options are becoming available (see pages 3 and 4); and we continue to raise awareness through our educational efforts. But **we need more volunteers** to meet the level of service currently needed, engage in more shared opportunities with other nonprofits and youth groups, and increase our capacity to undertake new initiatives, some of which are mentioned in this newsletter. **Please join us!**

HIKE & HELP THE HEMLOCKS - SEPT. 26

Save Georgia's Hemlocks and the Benton MacKaye Trail Association are teaming up again for our annual Hike and Help the Hemlocks event at Lake Winfield Scott Campground. It is accessed from Highway 180 / Wolf Pen Gap Rd., which runs off Highway 60 near Suches.

The morning will offer a choice of two activities. You can take an educational family-friendly hike led by BMTA members through some wonderful woods where you'll enjoy beautiful scenery and learn a bit about the efforts being made to save the hemlocks in the Chattahoochee National Forest. Or you can participate in a service project with SGH and the U.S. Forest Service to treat (or retreat) pre-tagged hemlocks in designated conservation sites within the campground.

Then we'll all come together for a picnic beside the lake, some interesting lunch-and-learn presentations, and plenty of time to get to know other good folks who love the outdoors. Participants must register in advance and let us know whether you want to hike or treat trees — either way it'll be great fun! See our [Schedule of Events](#) page for maps, driving directions, and other information.

So dust off your boots, pack a sack lunch, and invite a friend to come along. We'll provide drinks and dessert. Driving directions and other details are posted on the SGH and BMTA web sites. **Space may be limited, so please register early.** For registration and details:

- **Treating trees** — call 706-429-8010 or e-mail donna@savegeorgiashemlocks.org
- **Hiking** — call 706-636-3499 or e-mail rshbmta@gmail.com



Photo by Jack Anthony

HEMLOCK HELP PROGRAM EXPANDING

As of the end of 2014, SGH's Hemlock Help Program is active throughout the 19 north Georgia counties within the native hemlock range where HWA has been confirmed, and this year we've been offering Hemlock Help Clinics and Facilitator Training for all those counties, with extra emphasis on the more recently infested communities.



In addition, having received several reports of suspected HWA infestation in the Atlanta area, we began to reach out there, starting with a presentation at Fernbank Museum of Natural History this spring, and will be increasing our

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PARTNERSHIP WITH USFS GROWING

Since 2012, SGH has been working with the U.S. Forest Service as extra "boots on the ground" to treat hemlocks in designated hemlock conservation areas on the Chattahoochee National Forest. On the 15 projects we've completed so far under Jim Wentworth's leadership in the Blue Ridge District, 284 volunteers have contributed 1,785 hours and treated or retreated 3,026 hemlocks.



Sheffield family treating trees at Blackwell Creek

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CALENDAR CORNER

Here are the classes, festivals, hemlock projects, and other events currently scheduled for the remainder of FY 2015. Please see the [Schedule of Events](#) page of our web site for times, places, details for class registration or volunteer sign-up, and more activities that may be added to the schedule during the fall.

Sun., Sept. 6 – SGH exhibit and brief message at Lake Rabun Association meeting in Lakemont

Tues, Sept. 15 – Hemlock Help Clinic for Cherokee County Master Gardeners in Canton

Sat., Sept. 26 – SGH-BMTA Annual Hike & Help the Hemlocks, including a hemlock treatment project with the U.S. Forest Service in the Lake Winfield Scott Campground and a family friendly hike led by members of the Benton MacKaye Trail Association.



Sat., Oct. 3 – Marble Festival: HELPERS NEEDED to staff the SGH information booth in Jasper

Sat., Oct. 3 – Indian Summer Festival: HELPERS NEEDED to staff the SGH information booth in Suches

Sat., Oct. 3 – Foxfire Mountaineer Festival: HELPERS NEEDED to staff the SGH information booth in Clayton

Sat., Oct. 24 – Hemlock Help Clinic & Facilitator Training in Clarkesville

Sun., Oct. 25 – SGH Leadership Team fall meeting in Dahlonega

Sat., Nov. 7 – SGH presentation at Bent Tree's Lake & Wildlife meeting in Jasper, to include information on the hemlocks, pine beetles, and native plants

Sat., Nov. 14 – USFS-SGH hemlock project: HELPERS NEEDED to treat hemlocks at Rock Creek near Suches

Sat., Nov. 21 – USFS-SGH hemlock project: HELPERS NEEDED to treat hemlocks in a Chattooga River District hemlock conservation area in northeast Georgia

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Hemlock Help Program Expanding

awareness and education efforts in that direction going forward.

Besides geography, the scope of our program has expanded as well to include hemlock help for municipalities such as the treatment of almost 500 trees around the Whitepath Golf Course in Gilmer County, several sapling rescue and potting projects, increased support for DNR State Parks, and targeted outreach to groups such as Master Gardeners and real estate professionals. And next year we are planning several new categories of education and service that should be very exciting, so stay tuned for our fall newsletter. ☺

In the meantime, if you'd like to schedule a presentation for your group, participate in a hemlock treatment or sapling rescue project, request help for your hemlocks, or explore any of the dozens of ways to engage your interests and talents as a volunteer, please call the Hemlock Help Line 706-429-8010 to let us know of your interest. *Everyone* can help, and *all* help is greatly appreciated!

Citizen Scientists called to action

For the third year in a row, we're seeing a lot of hemlocks afflicted with a fungus called *Rosellinia* needle blight. Starting in early summer, it causes needle browning followed by defoliation of random patches to branches to whole trees. Most often found on smaller hemlocks or on the lower branches of larger ones, it favors moist conditions such as along waterways or in dense stands with reduced light and air circulation.



Symptoms include light chocolate brown needles matted together at crazy angles.

While *Rosellinia* alone doesn't normally kill large hemlocks, it can kill smaller ones and hasten the demise of hemlocks with adelgids.

To help us map the distribution and severity of this problem and follow the progress of various treatments (or lack thereof), **we're asking volunteers to serve as "citizen scientists"** to send us photos and locations. If you've already signed up, you'll be receiving an instruction email shortly; and if you haven't signed up but would like to or if you think you have this problem on your property, please let us know.

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Partnership with USFS Growing

Two more treatment projects are scheduled in the Blue Ridge District this year – Lake Winfield Scott Campground on September 26 and Rock Creek on November 14. And beginning this fall, we're pleased to announce that we'll also be serving the Chattooga River Ranger District in northeast Georgia, with our first project in that area planned for November 21.



We always need a good group of volunteers for these family-friendly outings, so if you're the kind of person who would enjoy spending some time in the woods with other nature lovers, sharing a picnic around a waterfall or other great scenery, and reaping the satisfaction of knowing you're helping to save some of the most important trees in the forest, call the Hemlock Help Line 706-429-8010 and come join us!

Hemlock needles falling

Did you notice a heavy fall of green needles from your hemlocks in late spring this year? If so, you're not alone.



Jim Reich shot this photo on their deck in June.

Quite a few people contacted us saying they had never seen this before and were very concerned. But not to worry. As long as the hemlocks are healthy (good needle density, dark green foliage with light green spring tip growth, and no adelgids or fungus), they should be fine.

We've been told that hemlock needles have a lifespan of a couple years, after which they are pushed off and replaced by new needles in a normal process that happens every spring and fall. It is thought that the heavier than usual drop this year may be due to a very wet winter that supported increased production of new needles.

Let us know what you observe this fall.

Hemlock Camp Meeting brings hopeful news

On June 7, 130 participants and guests gathered at the ETC Pavilion beside the beautiful Coosawattee River in Ellijay for this fun and educational event to celebrate and preserve the magnificent hemlock. Everyone enjoyed the great music by Downtown Roy and the good company of friends who care about the hemlocks.



Coosawattee River



Downtown Roy

In the morning there was time to stroll beside the river, make giant bubbles with Wynn Mott, and browse the information exhibits provided by participants in our Friends Circle. They included Gilmer County Beekeepers, Benton MacKaye Trail Association, Garden Club of Ellijay, Appalachian Trail Club, O2YS Corporation, Master Gardeners of Gilmer County, Georgia Department of Natural Resources, Leave No Trace Center for Outdoor Ethics, Trees Atlanta, Sierra Club, and U.S. Forest Service.



Lunch was delicious food catered by Poole's Barbecue plus wonderful potluck covered dishes.



Dr. Richard McDonald

After lunch our keynote speaker Dr. Richard McDonald, winner of many research awards and founder of Symbiont Biological Pest Management near Boone, NC, shared a very hopeful message about the growing impact of biological controls on HWA populations in the forest.

Dr. McDonald explained that the collection and laboratory-raising of several species of predator beetles native to Asia have been under way for more than a decade, but the process is labor-intensive and very expensive. He also stated that the Asian beetles' effectiveness and reproduction when released in the wild have not been as successful as was hoped.

Then he introduced us to a predator beetle called *Laricobius nigrinus*, or Lari, that has been confirmed to be native to the Pacific Northwest of the U.S. and appears to be at least partially responsible for the health of the hemlocks in that part of the country.



Photo courtesy of U.S. Forest Service

Laricobius nigrinus

Like the Asian beetles, Lari feeds only on adelgids but has the added benefits of easier access for collection, not requiring lab-raising, demonstrating good rates of reproduction and dispersal in the wild, and feeding voraciously from October to May, long after the early-feeding species have stopped.

Having made dozens of collection trips to the Seattle area and having released thousands of Lari beetles around the Boone, NC area, Dr. McDonald reported that, "Releases since 2003 and natural dispersion have established the *L. nigrinus* beetle in a 5,000 mile radius area; roughly 40 mile in every direction from Grandfather Mountain and spreading 2+ miles on all fronts each year."

And he had still more good news to share.

He told us about another predator beetle discovered in 2006 in the Pacific Northwest called *Scymnus coniferarum*, a summer predator that feeds on the second generation of adelgids. Approved by APHIS in 2012 for release on the forest, this beetle is a good complement to Lari since it does well on bluffs, rocky outcroppings, mountain ridges, along rocky creeks/ivers, and in windy areas where there is no needle duff (which Lari needs to pupate).



Photo by Nathan Havill—USFS

Scymnus coniferarum

Reflecting on the very encouraging progress report from Dr. McDonald, our good friend Ralph Heller captured our shared hopes beautifully: "Hopefully, the introduction of these two species of predatory insects, along with other efforts to control the populations of hemlock woolly adelgids, will result in the long-term solution for saving these majestic and ecologically valuable trees in our forests."

For more on the Hemlock Camp Meeting and Dr. McDonald's message, see SGH Articles and Other Articles on our [Resources](#) page.

Some thoughts for the future

During an informal gathering after HCM, Dr. McDonald suggested 3 ways SGH could play a larger role with the biological controls for HWA:

- Learn as much as we can about beetles and other non-chemical controls and include more information about them on our web site and in our printed materials than we currently do.
- Find ways to make predator beetles from reliable sources more available for appropriate release sites on non-federal and non-state properties in Georgia.
- Establish a few of our own field insectaries for predator beetles that don't require lab-raising and begin to supply them locally.

Our Board received these ideas with great interest and committed to do serious research to understand the varying levels of time, cost, manpower, expertise, and other requirements associated with each. If you'd like to share your thoughts on any of these initiatives or get involved with the research and/or implementation, **we invite you to attend our next Leadership meeting on October 25 or call us on the Hemlock Help Line 706-429-8010.**

FOCUS ON FACILITATORS

REQUIRED refresher training— only 2 more chances this year

Since we began our efforts to save the hemlocks 6 years ago, a lot has changed. Researchers have learned and shared a great deal of new information, new treatment products have become available, and recommendations for the most effective treatment protocols have been revised. As advisors and helpers to local communities, it is essential that our Facilitators keep their knowledge and skills up to date.

Earlier this year we sent out an invitation for all Facilitators who received their initial training in 2012 or before to sign up for the required refresher training. There will be **only two more classes this year**, so be sure to sign up for one of them. Contact the instructor listed on our [Schedule of Events](#) page to register.

Publicize injector repair service

It's been several years now since the last Kioritz injectors were made, and many of them, especially those that are frequently borrowed by the public, are in poor condition due to worn, broken, or missing parts and inadequate attention to cleaning and maintenance. As a result, they are not dispensing the proper dosage, and the trees are not receiving the amount of treatment material they need for the expected length and level of HWA protection.



But good news – SGH is still offering a repair and maintenance service at no charge for labor, just the cost of any parts required to restore the unit to good working condition. Over the past two years we've repaired or refurbished 57 injectors for the Georgia Forestry Commission, forestry departments in other states, professional pesticide applicators, property owner associations, and individuals, and so far we've only encountered one that couldn't be repaired.

So if you know anyone who has a Kioritz injector, or if you borrow one and find it isn't working properly (see below), please let the owner know of our service. It's to everyone's benefit, especially the hemlocks, to keep these valuable devices functioning as long as possible. Anyone interested in having an injector restored can call the Hemlock Help Line 706-429-8010.

Reminder: Test injector before use

Before loading chemical mixture into a soil injector and starting to use it, it's a good idea to test the calibration to ensure the unit is dispensing the proper amount of liquid per pump.

To do this, put several cups of plain water into the tank and pump the handle smartly to get the flow started. Verify that liquid is squirting out 4 to 6 feet in all four directions. If it's not, use a metal paper clip to clear the emitter jets.

Then put the injector tip into a sturdy measuring cup that won't puncture or break and pump the handle smartly 12 times. A Kioritz injector should put out 2 full ounces for 12 pumps, and a Nu-Arbor should put out 3 full ounces. If an injector is dispensing less than it should, please refer to the appropriate "Testing and Adjusting Calibration" document (Kioritz or Nu-Arbor) on our [Resources](#) page for instructions on adjusting the chemical concentration for the correct amount of active ingredient per pump, or call the Hemlock Help Line 706-429-8010.

Mix chemicals differently for Nu-Arbor injector

If you use a Nu-Arbor back-pack injector, be aware that the chemical mixing instructions for it are different from those used for a Kioritz.

The Nu-Arbor dispenses 1/4 ounce of liquid per pump instead of the 1/6 ounce dispensed by the Kioritz, so a different ratio of chemical to water is required to achieve the proper concentration of active ingredient per pump. However, once you've mixed the chemical for the Nu-Arbor, the dosing (pumping) instructions are the same as for the Kioritz. See our [Resources](#) page for Nu-Arbor application instructions.



New version of Dinotefuran found

A new version of Dinotefuran for treating HWA has come to our attention. Zylam Liquid, a concentrate containing 10% Dinotefuran, can be applied by all the same methods as Safari. See our [Resources](#) page for mixing and dosing instructions.



To make the best choice from a cost and coverage standpoint, consider these comparisons:

- 3 lbs. of Safari 20 SG costs \$370 (\$1.36 per gram active ingredient) and treats an average of 270 inches.
- 32 oz. of Zylam Liquid 10% costs \$130 (\$1.42 per gram active ingredient) and treats an average of 60 inches.
- 12 oz. of Safari 20 SG costs \$100 (\$1.47 per gram active ingredient) and treats an average of 45 inches.

LOOKING FOR A FEW GREAT PEOPLE!

SGH Board Member

We have one open position on our Board of Directors, and we're looking for someone special to join our Leadership Team. With Board meetings once a calendar quarter, the responsibilities of a Board Member include setting the policies and priorities of the organization, providing leadership and coordination of activities, ensuring financial responsibility and soundness, and working to build community support for the hemlock cause.

We are a working Board characterized by a proactive concern for environment, a culture of inquiry and independent thinking, respect and transparency in our interactions, creativity and results-oriented hands-on action, conservative financial practices, and high ethical standards.

So if YOU (or anyone you'd like to nominate) would be interested in working with a fine group of people to help guide and grow a well respected nonprofit engaged in practical education and meaningful service on behalf of the hemlocks, please let us know. See our [About Us](#) page for a link to the full job description.

SGH Treasurer

This Officer position is responsible for keeping the financial records of the organization, maintaining our checking account, sending thank-you letters for donations, and generating reports as needed. A good head for numbers and attention to detail are the most important qualifications, plus either experience or a willingness to learn QuickBooks.

Typically the Treasurer's activities can be handled as a once-a-month function. See our [About Us](#) page for a link to the full job description.

More SGH Lead Facilitators

Because SGH serves a large geographic area with diverse needs across north Georgia, we have developed a Lead Facilitator role in each county to enhance communication and enable us to deliver a higher level of service. Lead Facilitators carry out the vital functions of providing leadership and mentoring for other Facilitators in their county or area, helping coordinate volunteer activities, and identifying local needs, resources, and opportunities for education or service.

If you'd be interested in serving as a Lead for Banks, Cherokee, Dade, Dawson, Gordon, Hall, Lumpkin, Murray, or Stephens County, please let us know. See our [About Us](#) page for a link to the full job description.

WANTED

DEAD OR ALIVE



KIORITZ SOIL INJECTORS

Do you have a Kioritz Soil Injector? Whether it's new, used or abused, we would like to have it for use in our mission to treat the Southeast's Eastern Hemlocks against the invasive Hemlock Woolly Adelgid.

If you have a Kioritz Soil Injector that's no longer in use, let's talk. You can email: donna@SaveGeorgiasHemlocks.org or call our Hemlock HelplineSM at 706-429-8010.

Save Georgia's Hemlocks is a 100% volunteer, 501(c)(3) nonprofit organization of concerned citizens dedicated to saving endangered hemlocks through education and charitable service.

SAVE GEORGIA'S HEMLOCKS • 37 WOODY BEND • DAHLONEGA, GA 30533

