

Help Save Georgia's Hemlocks

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Think of the most beautiful place you know in the north Georgia mountains – richly forested with evergreens, freshly scented, cool and quiet, punctuated with warbler songs – a place for relaxation, recreation, or retreat for you and your family, perhaps also a place of solace for your soul. What a gift such places are!

Now envision that same place a few years hence – the woods gray with the standing ghosts, trails cluttered with fallen hulks, streams silted and clogged with debris, no longer as cool but deathly quiet. Is this what paradise lost looks like?



This tragic transition is neither far-fetched nor far-off if we lose our Hemlocks, those graceful giants that for centuries have characterized the Appalachian Mountains, contributed to their health and beauty, and created the special sense of place that residents and visitors alike have long treasured. One has only to drive into parts of North Carolina or Tennessee to see what may be in store for us in the very near future.



What's happening to our Hemlocks? The Eastern Hemlock and the Carolina Hemlock (*Tsuga caroliniana*), a closely related species limited to the slopes of the Appalachians from Virginia and West Virginia into Georgia, are being devastated by a tiny aphid-like insect (*Adelges tsugae*) called the Hemlock woolly adelgid (HWA). This pest was accidentally imported from Asia in the 1950s and has now spread to almost the entire Hemlock range from Maine to Georgia, leaving a great swath of dead and dying Hemlocks along the way. Without active intervention, scientists predict that 80 to 90% of these trees will be dead within five to ten years.

What are the signs of infestation? In the spring (and again in the fall to a lesser extent), the most easily recognizable sign is white woolly egg sacs about the size of a peppercorn on the underside of the branches. Infested trees show an increasingly grayish tint to the foliage, a gradual decline in needle density, and finally, if left untreated, complete defoliation and death.



How do adelgids kill the tree? Smaller than a grain of pepper, the adelgid is a prolific breeder, producing thousands of offspring a year. It begins its journey as a tiny reddish-brown egg inside a white cottony egg sac. Upon hatching, the crawler travels along the branch, inserts its long slender mouth-part into the tissue, and begins consuming the starches that are essential to new growth.



Why should we care? Aesthetically, these beautiful trees contribute greatly to the enjoyment of those who live, work, and play among them, as well as the many people who come to north Georgia for tourism and recreation. Environmentally, Hemlocks are vital in providing food and habitat for about 120 species of vertebrates and over 90 species of birds, shade for native plants, cool temperatures for trout streams, and protection for watersheds and water quality. And economically, healthy mature trees such as Hemlocks can add 7-10% to homeowners' property values, provide the net cooling effect of 10 room-sized air conditioners running 20 hours a day, and perform as much as \$4,000 dollars worth of water purification per mature tree along our waterways -- all while they're filtering CO₂ from the air and producing oxygen for us to breathe.

Can anything be done? Absolutely! The U. S. Forest Service, Georgia Forestry Commission, and National Park Service are working on ways to combat the HWA on public lands, but given the thousands of acres and millions of Hemlocks involved, the task is daunting. Homeowners, however, are in a unique position to save as many Hemlocks on their own property as they choose. The good news is that it's neither difficult nor expensive to do, and – even better news – help is available! **To learn more, visit www.savegeorgiashemlocks.org, and please share this message with your family and friends while there's still time to make a difference.**