

## Joe Kirby: Help the Hemlocks

by Joe Kirby, Columnist, The Marietta Daily Journal, August 08, 2010

Georgia has long been famous for its peach trees, but frankly, I think its hemlock trees are far more noteworthy and more beautiful. But while the number of peach trees - and roads named after them - continues to grow, Georgia's hemlocks are teetering on the brink of extinction. And if that happens, northeast Georgia's mountainsides and lush mountain coves will never be the same. Not in our lifetimes, anyway.

The culprit is a tiny insect known as the hemlock woolly adelgid. More on them in a moment.

First, let's talk about hemlocks. To some folks they probably just look like some kind of weird, short-needled pine trees, but in fact, they are one of the kings of the mountain in northeast Georgia and up the Appalachian chain. They're typically found at elevations of 2,000 feet or more, on the north and east sides of slopes and along cool, moist creek banks (think trout streams). They can survive on just 5 percent direct sunlight per day, making them the most shade-tolerant species of tree.

They also are among the biggest and tallest trees in such forests, with many of them easily too broad at the base for two adults to link their arms around. But their appearance is deceptive. They are among the slowest-growing of trees, due to their fondness for shade, especially in the early years of their life cycle. Thus, a sapling with just a two- or three-inch trunk might be 100 years old, and one with a foot-thick trunk several hundred years old. Hemlocks need 250 to 300 years to reach maturity, with the record age for one a reported 988 years.

If you've ever hiked the Northeast Georgia mountains or visited any of the famous waterfalls there, you most likely were walking under a canopy of hemlocks. They, more than any other tree, provide the distinctive, cathedral-like "feel" of such forests, much like the redwood does for California's forests.

And now, that feel is on the verge of disappearing.

Among the Kirby family's favorite places to visit are the waterfalls in the parks just outside of Helen, especially the cascading Duke's Creek Falls and Anna Ruby Falls, and we paid them a return visit late last month. The creeks were fuller than usual for this time of year, thanks to recent rains. But something was wrong. And it didn't take long to notice the problem: The verdant arches of interlocking hemlock branches that usually keep out most of the sun had an unwelcome look. In place of seeing deep green overhead, what one saw was a smudgy grayish brown - and a lot more sunlight, even on an overcast day.

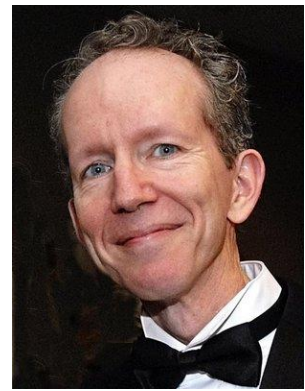
Closer examination showed that many branches had needles only here and there and others none at all.

The hemlocks are dying. More precisely, they're being killed, just as surely as if our public forests had been turned over to loggers.

And that brings us back to the woolly adelgid. It measures only 1/16th of an inch long, but can cover the branches and twigs and feed on the starch the tree produces. That not only inhibits the tree's ability to grow, but typically kills the tree within three to five years, according to the Georgia Forestry Commission.

The adelgids were accidentally introduced into Virginia from Japan in the 1950s and have already devastated much of the northern hemlock forests. Carried southward by wind, bird and human activity, they were first spotted in Georgia in 2003 in Rabun County and now have expanded into nearly all of Georgia's hemlock forests. (Although there might be a stray hemlock or two on the upper reaches of Kennesaw Mountain, Cobb County is outside the normal range of the species.)

So what can be done to stop the scourge? A variety of sprays and chemical treatments are being tried, and labs at several of the state's colleges are growing colonies of laricobious beetles, a natural predator of the adelgid. But such treatments are costly, have potential side effects (the spray cannot be used on trees along creek banks, for example) and, perhaps worst of



all, time-consuming. It's anybody's guess if some combination of the treatments can be developed and employed fast enough and widely enough to stop the deadly adelgid in its tracks. Otherwise, nearly all of Georgia's hemlocks will be dead by the middle of the decade.

Earlier generations of Americans watched helpless as other beloved tree species - the chestnut and the elm - fell victim to similar foreign predators, changing forever the look of our country's forests and streetscapes. Now we are the verge of losing another of our most majestic trees.

I hate to say it, but I suspect that by the time my children (now ages 14 and 9) are adults, there will be few if any living hemlock trees lining the mountains and glades of northeast Georgia's prettiest places. My children will have the memories of these mighty trees, but that's all. And that's a shame.

For more, go to the Georgia Forest Service site, [www.gfc.state.ga.us/forestmanagement/HemlockWoollyAdelgid.cfm](http://www.gfc.state.ga.us/forestmanagement/HemlockWoollyAdelgid.cfm). And the group Save Georgia's Hemlocks has set up a Hemlock Help Line, (706) 429-8010.

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