

Tall, feathery leaved hemlock trees have long been an iconic part of the mountainous landscape of the Monongahela National Forest. Often associated with cool, moist drainages, hemlocks provide year round shade for campers and trout alike. Unfortunately there is a considerable threat to the health of these lovely trees in the form of very small, non-native insects called hemlock woolly adelgids. Rarely do people notice the infestations, except perhaps the white, cottony spots on the underside of the leaves, until the trees are so damaged they begin to die off.

First detected in West Virginia in 1992, the adelgid has quickly spread throughout the range of the hemlock in the Monongahela. Scientists estimate the insect has the potential to infest the entire range of eastern hemlock within 30 years. Tree mortality can begin within 5-6 years after a stand becomes heavily infested, with more than 90% mortality within 10-12 years.

Against that somber backdrop are also efforts to fight back, at least in targeted areas. There is no practical large scale method to save all the trees but there are methods to treat mature hemlocks deemed to have high ecological or social values. Examples of these high value areas include botanical areas, areas containing rare species habitats, old growth timber stands, brook trout streams, popular dispersed recreation areas, scenic areas, or travel routes. Since 2005, the Forest has treated developed recreation areas, so the newest effort represents an expansion to include the high value hemlock areas outside of developed recreation sites.

Because it is impossible to treat the entire Forest area, scientists with both the U.S. Forest Service's West Virginia office of State and Private Forestry in Morgantown, and with the Monongahela National Forest based out of Elkins, have spent months locating key stands of hemlock for possible treatment. To date 40 hemlock conservation areas (HCA) have been identified, and the Forest will soon begin to solicit comments from the public as part of an environmental analysis prior to any treatment.

The planned effort would employ two suppression strategies concurrently. First, specific hemlock stands would be treated with an insecticide injection either into the soil around the trees or into the trees themselves to conserve genetically viable hemlock trees over the short term. Second, predator beetles specific to adelgid, would be released to establish populations that over time have the potential to help control the pest and mitigate the overall impacts to hemlock throughout its range. Beetles have been released in WV since 1999, but are not yet spreading or reproducing at rates which could stave off the imminent demise of stands of hemlock. By chemically treating trees now, scientists and land managers are allowing the time

needed for the beetle populations to gain a foothold and help control hemlock woolly adelgid in the future. Both the site specific chemical treatments and the beetle releases are very low risk, with few if any potential impacts to people, animals, or plants.

While numerous field trips have been done to identify the current number of hemlock conservation areas considered for treatment, the Forest Service is encouraging people to identify additional areas. A listing of the locations on the Monongahela which are being considered may be obtained by writing to David Ede, Forest planner, at 200 Sycamore Street, Elkins, WV; by phone at 304-636-1800 extension 233; or by e-mail at dede@fs.fed.us . All sites must be on National Forest land. Additionally, those who would like to provide input on, or review the environmental analysis for the project may also contact Ede to participate.

Although many hemlock trees on the Monongahela are already dead, or are so damaged by the adelgid that they are unlikely to recover, hope does remain for at least some of those which can be protected while they are still healthy. The Forest Service aims to keep hemlocks in the landscape, so that these stately trees do not suffer the same fate as the once-common American chestnut.