

<http://www.ents-bbs.org/viewtopic.php?f=106&t=1578>

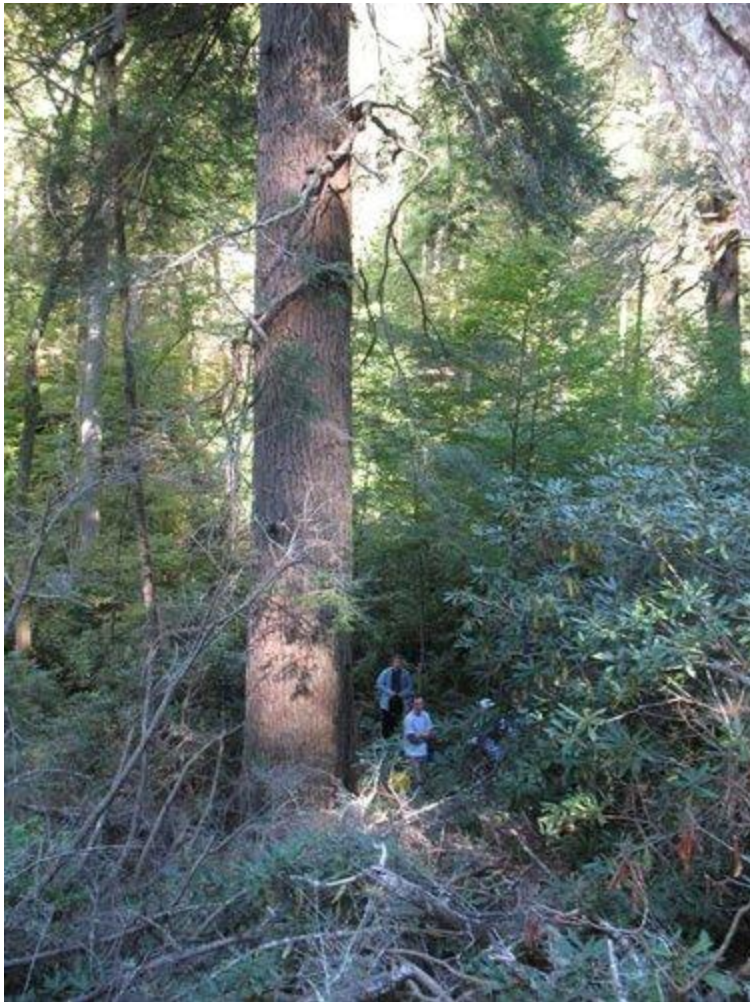


**Eastern Native Tree Society BBS**  
Exploration of Trees and Forests

**Cheoah Hemlock aerial treatment for HWA**  
by [Will Blozan](#) » Fri Oct 29, 2010 8:16 pm

As most of you know, the Cheoah Hemlock in Highlands, NC is currently the largest (1,564 ft3+) and tallest (158.7') eastern hemlock known. It has received lots of media attention and treatments for hemlock woolly adelgid. On

past climbs I have noted that the top of the tree was not responding to basal treatments of imidacloprid and dinotefuran, for which it has received two doses of each since 2006. The tree has generally recovered but stubborn, declining tops taunt our best efforts. It is fully reasonable to think that this tree is simply too massive to adequately dose with listed labeled rates of product.

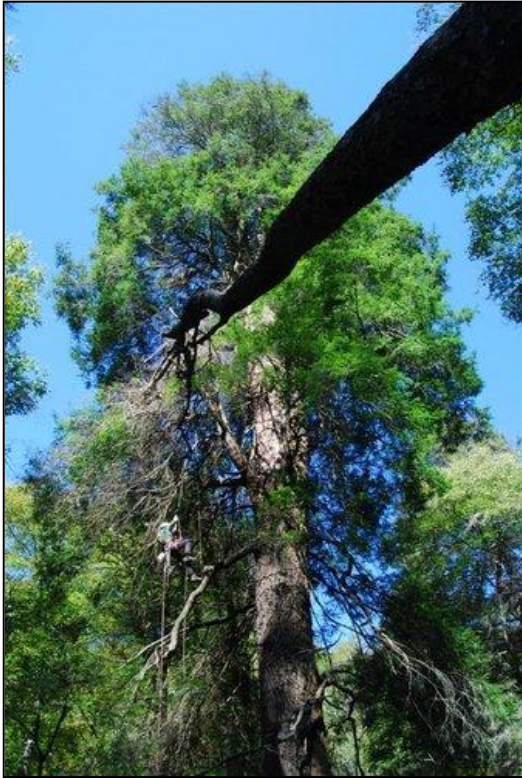


*Base of the Cheoah Hemlock*



*Stitch of whole tree October 2010*

One thought of experts and entomologists aware of the history and treatment of the tree suggests the lower crown was intercepting the dosage applied at the base. This indeed looked to be the case since the lower crown was full and clean of HWA. Not satisfied, we decided to try a never before attempted application technique. One of the products used, dinotefuran, is a highly systemic and soluble insecticide that is well known to penetrate through bark into the vascular system of the tree. Thus, we concluded we could theoretically bypass the lower crown and apply the product where needed- in the top!

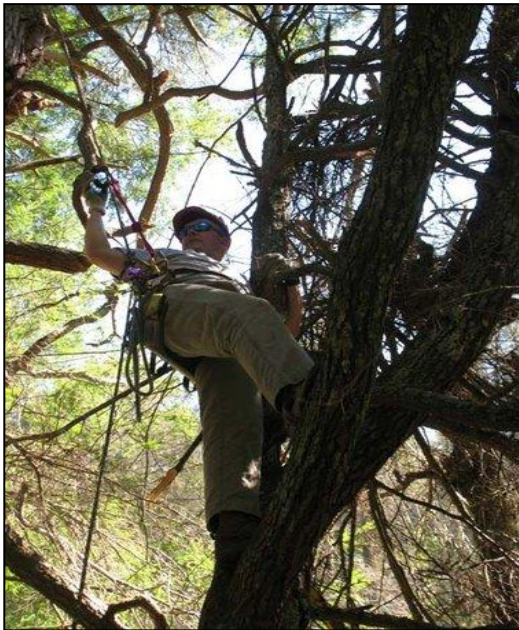


*Me ascending the Cheoah (Photo by J. Chamberlin)*

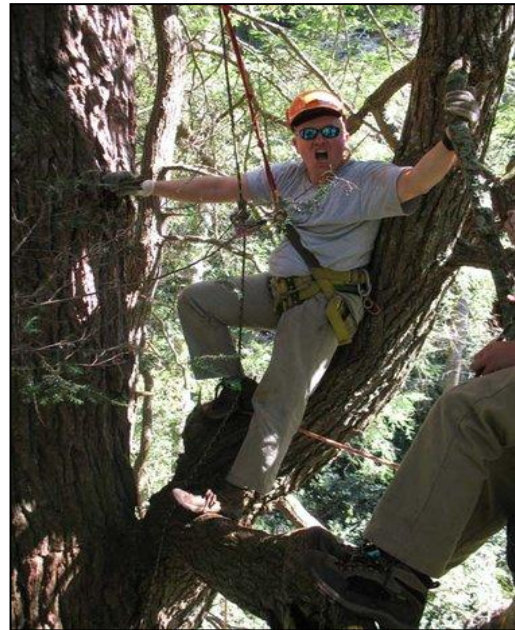


*Ana mixing the dosage for a bark paint (Photo by J. Chamberlin)*

Valent Corporation, who distributes dinotefuran, donated the material and I donated my time to climb the tree and perform the application. I was attended in the tree by Joe Chamberlin, an entomologist from Valent and my new employee, Ana Poirier, an excellent climber. Ana assisted Joe- who had NEVER climbed a tree- while I set ropes and photographed the ascent.

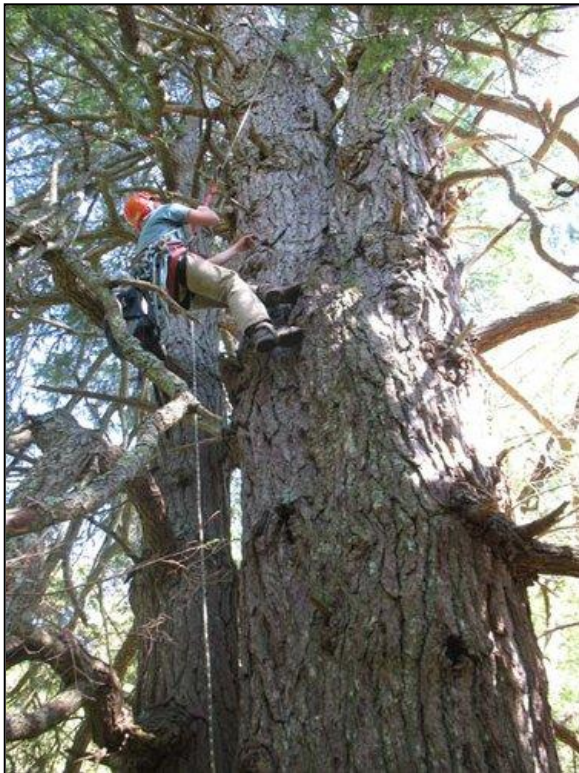


*Joe looking natural!*



*Joe howling with delight on reiteration!*

I noted that the declining tops were either above a large reiteration system or above an area of fusion- in other words above areas of "vascular confusion." I suspect two things; one, the tree has trouble translocating the dosage from below up so high and around the numerous branches and vascular messes and two, the concentration in the sap is so reduced it is not efficacious.



*Ana among vascular confusion*



*Me bark painting a fork @ ~120 feet (Photo by J. Chamberlin)*

Well, the climb and application were a success. We will have to wait and see how the treatment is received by the king of hemlocks. BTW, American Forests plans to do a story on the effort as well as crown the tree a new National Champion to replace the puny tree in Maryland.

Will Blozan