

CEP student focuses on the forest's floor

Staff Writer

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When all is said and done, Chris Clement and Brian Kloeppele hope to tell the story of the understory.

How important are those leaves and twigs and bugs that fall to the forest floor? What can they tell us about the growth of the trees? What happens when we take away that life? What kinds of consequences will there be?

These are just some of the questions the duo will work toward answering during Clement's stay here in Highlands. A Chapel Hill intern working under the Carolina Environmental Program, Clement has been paired during his stay with Kloeppele, an assistant research scientist with the Coweeta Hydrologic Lab in Otto.

Clement is one of eight other Chapel Hill interns who have been connected with professionals in the area. In December, the students will offer their findings to the public.

Their project is fairly straightforward. Six plots of land are divided into two sections --the experiment and the control. The control is left alone. In the other section, the understory is removed from the ground, except for small saplings.

They're also setting several laundry baskets under the trees to catch all the falling "litter"--

leaves, twigs, insects, etc., that falls to the ground. Every year, the material they gather will be analyzed to calculate its

bio-mass and its nitrogen content. This will give them a sort of index for measuring the productivity of the forest. But this project isn't something that was just designed yesterday---it's been going on for quite a while. The numbers Clement and Kloeppele generate will be added to a more long-term database.

Coming up with good, solid answers, however, will take many years. The changes in these kinds of studies are extremely subtle, they say, and can sometimes take five, 10 and even 20 years to become evident.

That's why people need to pay attention to these kinds of research projects, they say. Because sometimes it's the things we don't know that can hurt us.

The data they generate will be valuable information for growing places like Highlands. As woodland areas decline in Highlands, town officials, homebuilders and other folks could benefit from better understanding the long-term effects of their actions.

Project data will also be useful in unraveling water quality problems, say Clement and Kloeppele, as the understory plays a major role in filtering water as it rushes downhill.

But neither man pretends to offer management advice on how to apply the information they come up with. Their part is purely scientific.

Any interpretation on how to use the data for outreach information will definitely have to come from other people, they say.



Chapel Hill intern Chris Clement, left, and assistant research scientist with the Coweeta Hydrologic Lab, Brian Kloeppele take a look at one of the trees included in their experiment. Metal straps around the tree's trunk help to monitor the forests' growth.