

Kelly van Frankenhuyzen: Social media intern with U.S Forest Service Northern Research Station narrates the story

Barbara McGuinness: Environmental Literacy Coordinator for Northern Research Station

Leila Pinchot: Research Ecologist with Northern Research Station located in Delaware, Ohio

Andrew Waugaman: Science teacher at the Tidioute Community Charter School

Audio: Shovel digging, students laughing

Narrator: I'm Kelly van Frankenhuyzen with the U.S. Forest Service Northern Research Station. High school students at the Tidioute Community Charter School in Pennsylvania, dug into forest research by volunteering to plant hybrid American chestnut seedlings and seeds on the Allegheny National Forest. Their work will help Northern Research Station scientist Leila Pinchot and her colleagues better understand the conditions necessary for reintroducing an iconic tree back into the landscape. Barbara McGuinness, Northern Research Station Environmental Literacy Coordinator went into the field to talk to students, teachers, scientists, and foresters about the event.

Leila Pinchot: I'm Leila Pinchot and I'm a research ecologist with Northern Research Station based in Delaware, Ohio

Barbara McGuinness: Hi, Leila, can you tell me what we're doing out here today?

Leila Pinchot: Sure! We have a group of high school students from the Tidioute Charter School and we are planting about 30 bare root chestnut seedlings. They are hybrids so they should have increased resistance to the chestnut blight.

Barbara McGuinness: Okay, and is this part of a larger research project that you are doing on the forest?

Leila Pinchot: Yes. We are planting about 1,400 chestnuts and we are looking at three silvicultural treatments: the removal, shelterwood, and prep cut.

We're looking at how chestnuts do in each of those sites, and the two big factors that will determine how well they do is the amount of light and amount of competition. The more light you have the more competition, the less light you have the less competition. So finding that sweet spot for chestnut will be important to understand how to reintroduce it back into the forest.

Barbara McGuinness: Okay, great. And why do we want to reintroduce chestnut here?

Leila Pinchot: Here, well it was once a component of the forest. Not as large of a component as it was in the eastern part of the state, but it was important. It's important for wildlife because it produces reliable crops of mast and we just want to increase diversity in an era where we see more and more native trees being decimated by various pest and pathogens. We need everything we've got. We need all the diversity we can get.

Barbara McGuinness: Great. And why did you want to involve students in this process?

Leila Pinchot: We need more people in natural resources! We want to get people involved and get them excited about being in the woods, teach them a little bit about all the management, the forest health issues, help them become aware of what we're doing as an agency, and because it's fun!

Barbara McGuinness: Can you just describe some of the challenges they are having in planting the seedlings today?

Leila Pinchot: Well, this is a particularly rocky site which makes both planting and putting up the tree shelters difficult. They're doing a really good job, we're moving faster than I expected. I hear a lot of laughter, so I think they are having an okay time.

(Students laughing)

Barbara McGuinness: If you could just introduce yourself?

Andrew Waugaman: My name is Andrew Waugaman, I teach science classes at the Tidioute Community Charter School. I handle mainly middle school, but we have some upper level electives with wildlife and forestry at the school.

Barbara McGuinness : Okay, super. And how many students do you have with you today?

Andrew Waugaman: We have 14 students with us today. Eventually we'll have – when we come back on Tuesday – we'll have 17 with us on Tuesday.

Barbara McGuinness: Could you just tell me a little bit about why you chose to come out with us today and how this benefits your students?

Andrew Waugaman: This benefits our students in a lot of different ways. They get a chance to see that what we learn in the classroom can actually be applied out in the actual forest itself. So it's practical application. It's hands-on learning which is what this school is all about, called experiential learning. So this is an end result of things we have been discussing for years.

Barbara McGuinness: And I wonder if you could talk a little bit about how this benefits students who might have other interests? Just the environmental hands-on learning?

Andrew Waugaman: Getting students outside of the classroom allows them to see that there is things outside of the classroom that you are just learning in textbooks, looking on videos or whatever. Its hands-on learning so that they can broaden their minds and actually think about "Wow, I could actually do this for a living," be outside. And they actually see the trees for what they are not just a building that has, you know, built by lumber.

Narrator: The 10-year study will evaluate the growth and survival of 1,400 chestnut seeds and seedlings planted under varying controlled conditions commonly used to regenerate oaks in the Allegheny plateau region. Merging chestnut reintroduction with other forest management goals will help National Forests make the most use of their limited resources, which will ultimately lead to increased efforts for chestnut restoration. One of the U.S Forest Service, Northern Research Station's environmental literacy goals is to foster personal, long-term relationships with schools, districts, and educational agencies and organizations in order to contribute to the improved, science-based understanding of ecosystems and ecosystem processes in educational programming.

For more information about this study visit www.nrs.fs.fed.us/chestnut-anf