

# Tree Farmers and Teachers

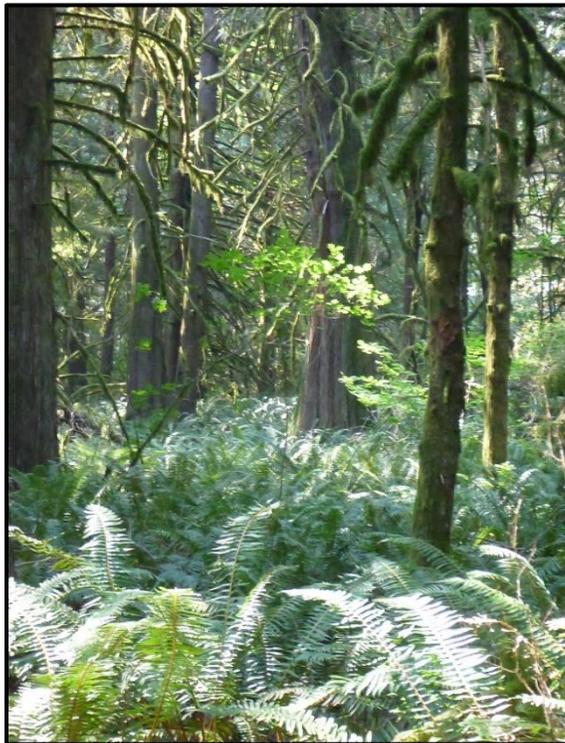
By Eleanor Steinhagen

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**O**n a warm August day, 20 elementary and middle school teachers gathered in the shade beside a pair of Douglas fir trees infected with laminated root rot on Wildcat Creek Tree Farm three miles northwest of McCleary, Washington. They asked questions and jotted down notes in their tree farm journals as Andrea Watts, Forest Manager and third generation caretaker of the 70-acre property, explained the challenges she faces as she decides what to do with the diseased trees. After several minutes of discussion, the teachers ambled down the path to the farm's 20-acre stand of old growth cedar. As they chatted about the tree farm and the day's activities, a hawk sailed silently overhead.

The group was there as part of a day-long workshop titled "Tree Farmers and Teachers: Using Family Forests for Student Field Experiences" a Project Learning Tree workshop facilitated by the Pacific Education Institute (PEI) and supported by a grant from

the American Forest Foundation through the Albert I. Pierce Foundation. Designed to help teachers increase their proficiency in taking students outside to learn hands-on, field-based science, and offer tree farmers the opportunity to learn how to host field experiences



that meet educational standards, the day began and ended in the McCleary School gym with a two-hour field experience at the tree farm in between. Pat Otto, PEI Education Manager and Statewide Coordinator for Project Learning Tree, and Denise Buck, PEI Program Director, facilitated the workshop, while Andrea and her father, Andy Watts, guided the group through their family tree farm.

The educators came from as far as North Beach School District in Grays Harbor County and Willapa Valley School District in Pacific County.

Stacey Deal, 3<sup>rd</sup> grade teacher at Cosmopolis Elementary in Aberdeen, first heard about PEI in May and has since attended four workshops. She was especially excited about learning how to more

effectively use the outdoors as a classroom, a practice she believes is critical to students' learning experiences. Matt Bannish, 6<sup>th</sup> and 7<sup>th</sup> grade math and science teacher at Willapa Valley Middle and High School, owns a tree farm within a five-minute walk of his classroom and hoped to discover activities that would enable him to use his tree farm as a place for students to learn real-world math and science.



At McCleary School, educators learned methods for teaching tree identification and about the variety of products and environmental benefits that forests provide. They also hiked through the Project Learning Tree guides and learned about resources such as Oregon Forest Resources Institute's programs and publications.

At the tree farm, Denise and Pat guided the group through a variety of hands-on learning experiences. "Every Tree for Itself" was a favorite. Denise asked the group to gather and informed them that they each represented a tree in a forest. Next, she scattered poker chips at their feet. The blue chips represented water, white represented nutrients and red represented sunlight. The "trees" were to grab as



many of the poker chips as they could while remaining rooted to the ground. The activity demonstrated the challenges that trees and forests can experience when they receive too much or too little of the elements essential to their survival. The group then

discussed ways to use the activity to teach bar graphing and, for higher grades, to explore issues such as drought, wildfire and carbon-oxygen exchange in the atmosphere.

Other hands-on learning experiences included a search for organisms in rotting logs; an interactive song about decomposition; "hide-and-seek" with everyday products that include timber by-products (sunglasses and sunscreen were a surprise!); tree diameter measurement and estimation (in percentage) of lichen coverage on the trees.

As she guided the group through the forest, Andrea gave an in-depth look into forest management practices on the tree farm, sharing her wealth of knowledge about sustainable management as well as strategies she's implementing as the climate in the Pacific Northwest



becomes warmer and dryer. When the group arrived at the cedar grove, they assembled in the path as Andrea

and Pat introduced the next activity, measuring tree diameters. Pat outlined methods and Andrea explained the purpose of the exercise as well as ways that the resulting data would be used in real-world applications.

Andrea answered questions and clarified instructions and then, ready to get to work, turned toward the forest and motioned for the teachers to follow. The group hesitated. Andrea looked back to see what was wrong. One of the teachers expressed the collective pause. "You mean you want us to go off the path?" Andrea didn't miss a beat. "Yeah! That's what scientists do!" The moment perfectly captured the essence of PEI's mission. Later on in the classroom, the teachers would enter the data they gathered into the National Tree Benefit Calculator at [treebenefits.org](http://treebenefits.org) and learn the monetary value that

the trees provide in storm water interception, carbon sequestration, energy savings, property value and improved air quality.

It's difficult to imagine a more perfect day for being in



the forest. Shade from the canopy protected the group from the 95-degree temperature, and a breeze drifted through the understory. Despite the heat, everyone was happy to be there.

While the professional learning opportunity offers many benefits to teachers, less apparent are the tree farmers' motivations for participating. Asked why he chose to invite the group to his tree farm, Andy replied, "I just want to share it with people. I love it. I grew up on this property. I spent my childhood in this



forest. I love it and I want others to have the opportunity to experience it." He also expressed concern about up and coming generations, their lack of connection to the outdoors in general and their alarming absence in the tree farming trade. "I'm 60 years old and when I attend forestry seminars, I'm the youngster. I keep hearing that there's no next generation coming up that's going to take care of the forests."

As the day came to a close back at McCleary School, and the teachers shared their experience of the workshop, Matt Bannish, the middle school teacher from Willapa Valley, expressed the realization he'd come to throughout the course of the day of how important it is to get kids outside "a lot more." He said, "It's really hard—they are 6<sup>th</sup> graders after all. But I just need to do it." A kindergarten teacher nearby replied, "And we need to help you by getting them out starting in kindergarten so they are ready when you get them!" It was the type of team spirit and collective "ah-ha" that demonstrates that, educator by educator and workshop by workshop, with each bridge that PEI helps to build between classrooms and community partners, the organization is making headway on accomplishing its mission. And it is this same progress that PEI aims to achieve in the work of ensuring that students today understand the critical role forest land plays, along with its economic, social and environmental value. All around, the day was a huge success.

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The Pacific Education Institute (PEI) is a statewide 501(c)(3) professional learning organization that helps educators take students outdoors to learn integrated, real-world science. To learn more about us please visit [www.pacifieducationinstitute.org](http://www.pacifieducationinstitute.org)