

Phoenix School YCC Helps Protect White Pines from Blister Rust Disease

A group of trees known as five-needle pines are under attack from an invasive fungus called blister rust. It was probably introduced from Europe around 1910, and it has killed up to about 90% of affected tree species west of the Cascade Mountains.

As their name implies, the needles of these trees are clustered into bunches of five; the group includes high-elevation species such as white, sugar, and whitebark pines. They provide an important food source for many seed-eating animals such as bears and Clark's nutcrackers (birds related to jays and crows). Their wood properties also make them a valuable timber source for making furniture and cabinets.



Marina O'Boyle of the Umpqua NF gives a presentation on blister rust to the Phoenix YCC.

Blister rust can also be partly controlled through techniques such as pruning. The lower branches are the most vulnerable to the disease because its fungal spores tend to drift in the air close to the ground. Pruning them helps protect the pines from contracting the fungus, and can also prevent it from spreading from the infected limbs to the rest of the tree.

Nicole Hudson of the Phoenix YCC prunes the lower branches from a white pine to protect it from blister rust.



Adam Merker of the Phoenix YCC demonstrates blister rust on a white pine.

The Phoenix School takes its name from the mythical fire-bird that is reborn from its own ashes. It symbolizes the academic goals of its students, many of whom experienced failure and frustration in mainstream schools. In their own way, they are also trying to rise from the ashes of their past academic lives.

Student Adam Merker exemplifies what the Phoenix School is all about. He began training for a leadership role in its YCC program with the white pine pruning project, motivating his team to work hard on the steep and rugged hillside. Adam's future is now looking bright, but his school life was not always so sunny.

"I used to go to Glide High School, but things weren't working out for me there," he explained. "For two years I wasn't passing my classes, and I didn't think I would

Recently a large crew of about 20 students from the Phoenix School Youth Conservation Corps arrived at a stand of white pines to do just that. Under the guidance of Silviculture Forester Marina O'Boyle, they used large shears to prune branches from the lower two-thirds of the trees, leaving enough small branches near the tops for the pines to survive while still protecting them from blister rust.

The stand is located on a steep hillside off Mowich Loop (Forest Road 4780) in the Umpqua's Diamond Lake Ranger District. Its location is quite remote, so the crew camped nearby to reduce travel time to the job site.



The Phoenix School YCC sets up camp near their job site.

The Phoenix School is an alternative high school for students who prefer a hands-on approach to education. It features a casual learning environment and small class sizes that allow students to work closely with their instructors. Its Youth Conservation Corps program teaches job skills and positive work ethics while providing paying jobs for students and a needed service to government agencies.

The Phoenix School YCC is partly funded by Title II of the Secure Rural Schools and Community Self-Determination Act, which seeks to improve regional economies by hiring local workers for projects that improve public lands. It demonstrates the type of project that Title II supports because it simultaneously improves both public lands and the lives of youth.

even graduate. Those were really dark days for me. I felt like I couldn't do anything right; it was very frustrating."

Finally Adam transferred to the Phoenix School. "Everything's different now," he said. "I'm achieving goals I never thought I'd be able to. I want to be a crew leader for the YCC, and I want to go to college and study forestry. Hopefully I can start at Umpqua Community College and then transfer to Oregon State's program."

Adam now has a strongly positive attitude that is matched by his improved grades. "The first time I brought home a report card with all A's and B's, my mom teared up," he said. "And then she told me how proud she was of me. It was the greatest feeling ever."

With enthusiasm, Adam expressed how much the Phoenix School and its YCC program have helped him and his classmates. "It's great because it teaches useful job skills," said Adam, "and the team members bond like a family or tribe. It's a lot of work, but it's a lot of fun too."

The administrative and labor costs of the white pine pruning project were funded under separate Title II accounts, as shown in the charts below.

Project Stats: Phoenix School
Restoration Partnership

Title II funding: \$22,222
Employs: Phoenix School YCC
Project: Forest Health Improvement
Partner: Oregon Youth
Conservation Corps
Year awarded: 2009

Project Stats: Pine Health and
Young Stand Density Management

Title II funding: \$40,000
Employs: Phoenix School YCC
Project: Forest Health
Improvement
Year awarded: 2011



Secure Rural Schools
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