Luke Lion, left, waters a new tree he and Cody Schuttpelz, right, just planted Wednesday afternoon behind their school in Reedsport. As part of their ongoing project to pull out invasive plants, 45 fourth graders at Highland Elementary School spent Wednesday planting native trees in their place. Many days were spent behind the school pulling scotch broom before the new planting. It is also being used to reinforce some of their science lessons at the Reedsport school. Lou Sennick, The World

REEDSPORT -- The plant may not have any super powers like Marvel Comics's Green Goblin, but for now Scotch broom remains a nemesis of landowners on the Oregon coast.

With this in mind, Highland Elementary students are pouring vinegar, plus digging and pulling, to determine how to eradicate the pesky species when it flares up.

They've planted Western red cedar, Douglas fir and Sitka spruce to replace the plant.

Jim Grano serves as a Science Technology Engineering and Math mentor teacher for the Oregon STEM-Hub, which is part of the Oregon Department of Education. Essentially Grano works closely with Highland teachers, and the Hatfield Marine Science Center, which is operating the STEM-Hub. He's assisted in coordinating efforts between the district and other funding partners, namely the DIACK Foundation, Oregon Watershed
Enhancement Board, U.S. Forest Service and the Umpqua Soil and Water Conservation District. The DIACK Foundation is from Portland.

"Their goal is to have student-directed inquiry outdoors," Grano said of the DIACK Foundation.

**Melissa Meitle, standing on the left, helps two girls with their digging and area behind Highland Elementary School so they can plant a native tree Wednesday afternoon. Meitle is with the U.S. Forest Service out of Waldport. As part of their ongoing project to pull out invasive plants, 45 fourth graders at Highland Elementary School spent Wednesday planting native trees in their place. Many days were spent behind the school pulling scotch broom before the new planting. It is also being used to reinforce some of their science lessons at the Reedsport school. Lou Sennick, The World**

Students began the project last year along Ranch Road. Teacher Jen Wright and Grano started the project with an Oregon Department of Fish Wildlife specialist.

Grano said, "They're empowered with it and like that someone trusts them to use tools."

This recent May day, youth labored intensively, pulling out the invasive species.

Despite students' efforts from last year, Scotch broom returned and grew over 6 feet tall. Fourth-grade teacher Jennie Nelson and Highland colleague Paula Plotz took their students down to the playground.
Youth learned more not only about botany but about cooperation. They divided into four groups as based on the idea of student-based thinking: The Eradicators; The Decomposers; The Seed Challengers and The Plant Restoration Group.

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"The Eradicators were in charge of creating a plot and finding ways other than digging it up to get rid of," she said. "You can pull it out from the roots and then it will die, but we wanted to see if there was a quicker way to get rid of it. Some of them chose to cut into the roots and pour vinegar, some poured vinegar and salt and some put chalk from the softball field on it because there is lime in it."

By comparison, the Decomposers used various means "to get rid of the eradicated scotch broom that we dug out this year."

"We wanted to see if there were other ways besides burning the piles of it," the educator added. "Some groups chose to put their plot in the shade and some put theirs in the sun. Some chose to simply cover their pile with plastic and some wanted to pour bleach or vinegar on top of it and then cover it."
The Seed Challenge team researched the seeds themselves and what they look like.

"They also tried to dig and find where the seeds were and how far they had moved from the plants themselves," Nelson said. "They learned that the seed pods burst and the seeds can be pretty far from the plant itself. They also learned what the seed pods looked like and this helped them understand the process of its growth."

"This project has been (going on) for four months now," Nelson said, adding that the youth made their own plots.

Jim Grano shows a group of fourth graders how to plant the small trees behind their school Wednesday afternoon. As part of their ongoing project to pull out invasive plants, 45 fourth graders at Highland Elementary School spent Wednesday planting native trees in their place. Many days were spent behind the school pulling scotch broom before the new planting. It is also being used to reinforce some of their science lessons at the Reedsport school. Lou Sennick, The World

"The project for my fourth graders started this year, but Jennifer Wright, who is a fifth- and sixth-grade teacher, started eradicating the Scotch Broom last year with her fourth-grade class," Nelson said. "They got a lot of it dug up and then I began the project with our fourth-graders this year in January (and) February. The science project with the plots and experiments started with this year's fourth-graders. Jen's class started a great project, and our students this year have continued on and extended it."
Nelson said the effort has provided students science lessons throughout the process. For example, they tried a hypothesis. If one adds vinegar to the plant, will that kill the plant?

"So it truly is a science project," she said.

Taking a break from the work, fourth-grader Jeorgia Mast gave her own perspective. She was helping a friend dig a hole for a tree.

This marked her first year to help.

"The people here told us we're going to work on, all the way through sixth grade," Mast said.
She discussed just how tough it can be uprooting the tenacious plants.

"It depends on how big it is," Mast said. "If it's bigger, it's harder getting the weed wrench around it and if it's small, it's easier."

She said fortunately she doesn't have the plant at her home.

Mast praised Plotz. "She helps us a lot and she's really nice," Mast said.

Nelson and other adults followed students closely, answering questions and helping them when needed.

"I am very impressed with the students and the effort they put in," Nelson said in an interview afterwards. "They really took ownership of the activities and took pride in their work as well. They didn't like if they had to miss science class during the week and constantly would ask me when they could go work again. They also worked very hard on the digging project last week especially in such hot conditions. They really wanted to make it look nice and get as many trees planted as they could."

Speaking to the Reedsport School Board May 18, Principal Beckie Lupton said there are still free trees parents can come get at Highland.

Melissa Meitle was among those assisting students. She's a natural resource interpreter with the U.S. Forest Service.
Highland Tree Planters

Fourth graders at Reedsport’s Highland Elementary School plant native trees in a spot behind the school where they removed invasive scotch broom earlier.

As part of their ongoing project to pull out invasive plants, 45 fourth graders at Highland Elementary School spent Wednesday planting native trees in their place. Many days were spent behind the school pulling scotch broom before the new planting. It is also being used to reinforce some of their science lessons at the Reedsport school. Lou Sennick, The World

At times, the scene resembled a block-by-block battle zone, with children and adults pulling up the invasive species with weed tools.

"When you've got one, go 2 or 3 feet forward and pull up another one," Meitle said. "We're not going to get all of them, but we're going to put a dent in them."

In between taking some water and rest breaks, students continued.

Grano gathered a few volunteers together, teaching them how to get a Douglas Fir sapling stabilized in the ground.

Students wrapped some yellow plastic tubing, black mats to prevent weeds from growing, porous diamond-shaped tubing that eventually decomposes to plant the trees.
While having some fun in the sun, Grano also quizzed them periodically.

"Oh! State tree of Oregon, guys?" he asked.

"Douglas fir!" they responded.

"Excellent, excellent," he said.

"I'm looking forward to you guys planting anything from two to four trees in the time that we have. Quality job. Not quantity," he said.

Nelson praised STEM.

"My final thoughts would be that I want people to see the power of the STEM program," Nelson said. "Science is amazing and there are so many activities that involve science, technology, engineering and math and also incorporate reading and writing in the process. I love the hands-on activities and also love taking my students outside. There is much more to school than just sitting at a desk and doing work with paper and pencils. I also love the STEM program because it gets both boys and girls to understand the value of science and how it can tie into many other things."

"I hope Highland can get more activities going in the future among all grade levels," the educator emphasized. "This is a valuable program."

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