Whitebark pine seedlings planted atop peak in effort to save species

Beetles, climate change contributed to decline

By MICHAEL KOHN
The Bulletin

Dean Guernsey/The Bulletin

U.S. Forest Service silviculturist Michael Dominguez plants whitebark pine seedlings Thursday on top of Paulina Peak south of Bend.

On a windswept promontory in central Oregon, the embattled whitebark pine is being given a second chance to thrive.

Around 100 seedlings of the threatened tree were carefully planted Thursday on Paulina Peak as part of a project to bring back the species, which has succumbed to blister rust disease at an alarming rate. Bark beetles and climate change have also contributed to their decline.

U.S. Forest Service employees planted the 6-inch tall whitebark pine trees near rocks and logs, which will provide shade for the trees and a better chance to grow. The seedlings are the offspring of whitebark pines that were found to be genetically resistant to the white pine blister rust, a nonnative fungus that slowly kills the pines.

The planting work was the final stage in a two-year project that has seen thousands of whitebark pine seedlings planted on Paulina Peak. The planting of the current round of seeds was funded by San Francisco-based tech firm Salesforce.

Thousands more seedlings resistant to blister rust have been planted in recent years across the Deschutes National Forest.

As of 2016, half of all standing whitebark pine trees were dead, according to the Forest Service. They are now being considered for an Endangered Species Act listing by the U.S. Fish and Wildlife Service, which oversees such protections.

The Forest Service hopes that the whitebark pine seedlings will one day grow to be the photogenic trees known for their gnarled appearance.

"It's one of these species that you see in these really iconic western spaces. Crater Lake, Banff, the High Sierra, Glacier National Park are in part iconic because of their whitebark pine," said Elizabeth Pansing, a forest and restoration scientist with American Forests, the oldest conservation group in the U.S.

Pansing has traveled widely across North America, visiting whitebark pine forests that have been decimated by the fungus and beetles, as well as forests that still thrive. Dead areas are just silent, she says. By contrast, forests that have survived are bustling and full of life.

"You hear nutcrackers all over the place. It's alive with energy. You have squirrels that are harvesting the cones from the trees. You have bears that are rummaging around. It's this living embodiment of energy," said Pansing.

A plan to restore whitebark pine forests, spearheaded by the Forest Service and American Forests, covers seven states. In the Pacific Northwest, restoration is happening in 16 national forests, as well as Bureau of Land Management land and national parks. Restoration work is also underway in parts of Canada.

The work to restore whitebark pine forests dates back to the late 1990s. The projects rely on foresters searching for healthy whitebark pines that thrive amid dying pines affected by the blister rust. Seeds from these healthy trees, known as "plus trees," are collected and grown at nurseries.

The nursery trees are exposed to blister rust and those with high levels of resistance are called "elite trees." Seeds from elite trees can be grown and planted in areas slated for restoration.

The process is essentially speeding up natural selection.

"If seedlings from a given tree do well in the trials, we collect more seed from those trees in the field and use that seed to produce seedlings for reforestation," said Matt Horning, a geneticist with the Deschutes National Forest.

The agency takes advantage of the naturally occurring resistance found in some trees to replant in areas where whitebark pine has been lost due to fire or disease.

Andrew Bower, also a Forest Service geneticist, said it's too soon to start breeding the resistant trees because whitebark pines grow very slowly and will not start producing seeds until they are 50 or 70 years old.

"Our best option is to identify those individuals that have resistance and return back to them to collect the seeds that they produce naturally every few years to build an inventory of seeds," said Bower.

Around 80% of the seedlings are expected to survive, said Bower.

"The majority of them will be able to withstand the rust disease and grow and become the new forests," he said. "I feel like these rust-resistant seedlings are our best hope for perpetuating whitebark pine on the landscape."

While some of the results are expected in a few years, Bower notes it will take several hundred years for the seedlings to grow into new forests. And humans will need some help from birds to make it work, specifically Clark's nutcracker.

The nutcracker — a gray bird with black wings — has co-evolved with the whitebark pine. The tree provides a food source for the bird, and in return, the nutcracker disperses and buries the tree's seeds. Whitebark pines are almost completely reliant on the nutcracker because their cones do not open when the seeds are ripe — they need the nutcracker to extract and bury the seeds.

The Forest Service is taking advantage of this relationship by planting the seedlings in concentrated core areas that can serve as dissemination centers for nutcrackers to collect and disperse seeds into surrounding areas.

Bower said the survival of the trees will have widespread benefits and will help to support entire ecosystems, providing food and shelter for wildlife. The trees are also good for the earth — their roots hold the soil in place, preventing erosion, and their canopy provides shading for snowpack, slowing melting.

"It has a number of cascading effects," said Bower. "Whitebark pine is a keystone species where it is found."

Gary Kazanjian/AP Photo

Thousands of sequoias have been killed by wildfires in recent years.

US solicits help as it defines old growth and mature forests

Associated Press

BILLINGS, Mont. — U.S. officials have solicited outside help as they craft definitions of old growth and mature forests under an executive order from President Joe Biden.

The U.S. Forest Service and Bureau of Land Management issued a notice seeking public input for a universal definition framework to identify older forests needing protection.

Biden in April directed his administration to devise ways to preserve older forests as part of the government's efforts to combat climate change. Older trees release large volumes of global warming carbon when they burn.

Biden's order called for the Forest Service and Bureau of Land Management over the next year to define and inventory all mature and old growth forests on federal land. After that, the agencies must identify the biggest threats those forests face and come up with ways to save them.

There's disagreement over which trees to count. Environmentalists have said millions of acres of public lands should qualify. The timber industry and its allies have cautioned against a broad definition over concerns that could put new areas off limits to logging.

The Forest Service manages 209,000 square miles of forested land, including about 87,500 square miles where trees are older than 100 years.

The Bureau of Land Management oversees about 90,600 square miles of forests.

Johnson: Campaign told Willamette Week that Gallentine was paid $43,000

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JOHNSON SAID SHE WAS COMMUTING TO THE CAPITOL AT THE TIME, AND AFTER GALLENTINE SUED JOHNSON FOR PERSONAL INJURY IN MARCH 2015, JOHNSON'S LAWYERS ARGUED THAT AS A REPRESENTATIVE OF STATE GOVERNMENT SHE HAD IMMUNITY FROM BEING SUED UNDER OREGON'S TORT CLAIMS ACT.

On Johnson's campaign website, her to-do list includes "hold government accountable to deliver for the rest of us." She recently released a campaign ad focused on homelessness in Oregon, showing Johnson driving past people and tents in Portland. "We should expect personal responsibility," Johnson says.

On the day of the crash in April 2013, Gallentine was driving south on U.S. Highway 30 in Scappoose and slowing to a stop behind other drivers who were lined up at a red light. It was around 7 a.m., according to a news report.

"While applying her brakes, Gallentine viewed Johnson's sport utility vehicle bearing down on her in her rear-view mirror," according to the lawsuit Gallentine later filed against Johnson. Earlier, Gallentine had noticed a child moving in the backseat of a small Geo Metro car in front of her and she said the thought flashed through her mind that the child might not be wearing a seatbelt. "That was one of the very first things I thought, 'Oh my God, that kid's going to die in a Geo Metro," Gallentine said this month. Gallentine steered her Audi sedan into a neighboring lane; Johnson drove her Chevrolet Trail Blazer into the same lane and smashed into the back of Gallentine's car, according to the lawsuit.

When Johnson's SUV hit the Audi sedan, "it exploded the gas tank and took all of the doors in through the trunk and broke my seat," Gallentine said.

Johnson said she was commuting to the Capitol at the time, and after Gallentine sued Johnson for personal injury in March 2015, Johnson's lawyers argued that as a representative of state government she had immunity from being sued under Oregon's Tort Claims Act. "At the time of the accident, defendant was in the performance of duty and/or acting within the course and scope of her public employment as an Oregon state legislator," lawyers Jeremy R. James and Paul A. C. Berg wrote.

Johnson's lawyers also argued that due to a clause in the Oregon Constitution that prohibits anyone from suing lawmakers during legislative sessions, the Columbia County Circuit Court had no jurisdiction over Johnson until the 2015 legislative session concluded. At the same time, Johnson's lawyers argued that Gallentine would miss the two-year statute of limitations if she filed her lawsuit any later.

Gallentine's attorneys, Mario Nicholas and Jan Sokol, countered, "The legislative immunity granted under the Oregon Constitution is not carte blanche for legislators to act with impunity," in a court filing in May 2015.

A Columbia County judge ultimately allowed Gallentine to refile her lawsuit against Johnson after the legislative session, and she did so in fall 2015, naming both Johnson and the state as defendants. It was during that lawsuit that Johnson's lawyers argued that the judge should drop Johnson as a defendant in the lawsuit and leave the state as the sole defendant. Gallentine, Johnson and the state ultimately settled the lawsuit, according to court records, and Johnson's campaign told Willamette Week that Gallentine was paid $43,000.

Gallentine said she felt the physical effects of the crash for years. "My neck and my back were pretty messed up for years" and she also suffered mild traumatic brain injury, according to the lawsuit. Gallentine said that reduced her ability to multitask at a high level as required for her job as an executive-level sales representative and it took her years to return to the performance level she had attained prior to the crash. "I was almost fired because my numbers went down so drastically," said Gallentine, who now runs an equestrian center in the Portland area.

Nearly a decade later, Gallentine said she does not feel anger over the incident. She feels that Johnson "should own up to the responsibility aspect," but Gallentine said she does not want to disparage the former longtime Democratic lawmaker. Gallentine said she signed an agreement not to do so.