

'Government agencies on government land are still very hesitant to do prescribed fire, and we need to change that.'

— David Harrelson, Confederated Tribes of the Grand Ronde

PHOTO: EVAN BARRIENTOS

A Human Connection

Historically speaking, most fires in the Willamette Valley did not spark from natural causes. Before the pioneers arrived, Native Americans used fire to manage the land, both to increase their harvests and to be effective stewards of the land.

Stamper says the tribes, especially in the Kalapuya language family, used fires to facilitate acorn production from oak trees and to enhance important prairie and savanna plants used for food, medicine and other cultural purposes. "They recognized that acorn and camas production were dependent on fires."

The savanna itself was biodiverse and held much more useful material for crafting and consumption than a forest. Now much of the historic area that was oak savanna is farmland or forest.

David Harrelson is a seasoned firefighter and the cultural resources department manager for the Confederated Tribes of the Grand Ronde, which includes 27 different tribes, including the Kalapuya. Harrelson is of Kalapuya descent, and he describes fire not just as a means of producing food, but as a "lifeway" that goes back thousands of years.

"It was far more pervasive to the entire life way of the Kalapuya than just one crop or plant," Harrelson says.

Harrelson says that intentionally prescribed fire was "what kept the valley a valley — that's what made the land an area that early settlers called a Garden of Eden."

When it comes to indigenous knowledge of fire, Harrelson says "it was as nuanced as knowing that for a hazel patch, if you want a hazel plant to produce good weaving material you burn it every three years, but if you want it to produce hazelnuts you burn it every 10 years."

Harrelson points out that indigenous knowledge isn't often considered valid by the scientific community due to a lack of empirical evidence and scientific-sounding terms. But thousands of years of trial and error means that indigenous knowledge should have significant weight.

The Kalapuya knew that burning would protect the land 100 years ago when ecologists decided that suppression was the only way to protect forests, and they continue to promote the practices now from the reservation.

Harrelson says the Kalapuya set fires to gather tarweed, acorns and weaving materials, and that fires would create better grazing and attract more game. "Fire is the greatest tool that mankind has ever experienced, so you can use it in different ways."

Harrelson describes the difference between "hot fire," which is destructive and "sanitized the land," versus low-intensity "cold fire," which the Kalapuya used to manage the savanna.

"The value of these low intensity fires is that you don't sterilize a place but you clear out the old debris," Harrelson explains. Though the terms are different, this knowledge describes the prescribed fires used by those at TNC.

Prescribed fires are usually that kind of low-intensity understory burn, while wildfires can range in intensity from that same sort of low-grade fire to the destructive, canopy torching burns that can wipe out an ecosystem and leave a blank slate.

Every fire has a unique story, and each burn has a different effect on the land based on innumerable conditions.

Ever since the settlers came, Harrelson says, the landscape has "become more homogenous. We've gone from a landscape that used to host grizzly bears and packs of wolves to farmland."

Harrelson says the Grand Ronde tribe is hoping to use

prescribed fires to restore some land to its previous state. "In the past five years we've acquired roughly 1,000 acres of land in the Willamette Valley for the purpose of restoration," he says.

But there's a lot more land that needs fire to get back to health. The Willamette Valley is edged with federal and state forestlands.

Harrelson says the success of Smokey Bear has been a big challenge for shifting the paradigm around fire. "There's something about fire that's tragic, and tragedy scares people away from making rational decisions," he says.

The vision of scorched earth and matchstick trees is dramatic and traumatizing to the general public, but not every fire creates that landscape.

"Government agencies on government land are still very hesitant to do prescribed fire, and we need to change that," Harrelson says. "The scale of prescribed fire use is at 1 to 2 percent of what is needed."

Stewards of Forest, Stewards of Fire

Some organizations and activists argue that the Oregon Department of Forestry (ODF) and the U.S. Forest Service aren't doing enough prescribed burns — that they continue to adhere to the idea that fire is there to be fought, not used as a tool.

Tim Ingalsbee is executive director of Firefighters United for Safety, Ethics and Ecology (FUSEE). "We're promoting a paradigm shift in firefighting," he says.

Ingalsbee thinks both the Forest Service and the ODF should burn more, but he says the agencies are shifting in their thinking. "We're on the brink of shifting our philosophy on how we relate to fire, how we manage fire. But on the other hand our whole society is amped up for war."

Ingalsbee adds that unplanned wildfire may have a place in the toolbox of land management. "With careful planning we can steer fire into places we know need a burn, take care of some of the dead stuff on the ground, stimulate regeneration. That's where the future is."

Traci Weaver with the Forest Service says that such use of wildfire is already in practice. She points out a recent understory burn that started in the Malheur National Forest. Firefighters in that case built fire lines in a large box around the area and "punched a hole in that canopy," she says. "That was an area that they had hoped to do a prescribed fire on."

Weaver says it's necessary to use wildfires in this way because "by just using prescribed fire we'll never catch up to the backlog on fires that need burning to return to health."

But using wildfire to give much-needed burns to forest can be unpredictable. ODF's Nick Yonker says, "Wildfire can be quite variable, but generally speaking since wildfire occurs in the summer and is uncontrolled, it can be anywhere from a ground fire to totally decimating the trees and decimating thousands of acres of trees."

Yonker adds, "I've seen places where you're seeing basically matchsticks for thousands of acres." Fires of that kind are tragic, he says.

Invasive species can move into the sanitized land and it can take years, even decades, for the forest to recover. Prescribed burning in forests can prevent this kind of utter destruction, he says, while keeping disease and pests at bay that could have similarly disastrous effects on a forest.

But Yonker says there are limitations to stewardship through prescribed burning. Between human health hazards

with smoke, financial costs with fuel, labor and travel, and even weather considerations, it can be difficult to find the perfect time to set the forest alight. "The federal folks do more of that because they're more remote," he adds.

Much of ODF's 16 million acres of land is closer to human settlements, making burns more dangerous to private property and smoke an obnoxious political obstacle.

"They're wanting to burn a lot more under controlled conditions than they're getting to burn right now," he says. If ODF could burn at the rate that some hope they will, he says, "We would probably take 40-50 years before we could get back to the conditions we had before the pioneers." But they're still not burning at that higher rate.

Sen. Ron Wyden weighed in on the issue of resource constraints in a June 15 hearing before the Senate Energy and Natural Resources Committee, arguing for an increased budget for the Forest Service.

"This is a broken, common-sense-defying system of fighting fire, where you borrow from prevention to put the fires out and the problem just gets worse. This is not some abstract thing," Wyden says. "The costs of inaction are extraordinary. The bottom line is the Congress cannot let another fire year go by, with lives and communities at stake, without fixing wildfire budgeting for good."

Intense fire seasons can limit the ability to prescribe burns due to limited fire fighting resources, Stamper says. Prescribed fires require their own resources, and back-up fire crews need to be available in case the blaze gets out of control.

As for the intensity we can expect this season, she says, "It's hard to say. Everything depends on ignitions. We've had years that are incredibly dry and very dangerous in terms of risk but we didn't have a lot of ignitions."

This winter was cold and wet, meaning that grasses have grown significantly and contributed to the fuel bed, Stamper says. At the same time, heavier fuels are wetter, and may not ignite easily.

She adds that ignitions may be higher this year because "lightning does tend to occur more frequently when we have a heavy snow pack."

Researchers at OSU, the Forest Service and TNC expect a below-average fire season west of the Cascades, with an average to above-average fire season in much of the eastern side of the state.

The Forest Service manages 17,410,861 acres in Oregon. Last year, 54,727 acres were burned across Oregon and Washington in prescribed burns (about 0.1 percent of the 4.2 million acres in need of intervention), while 48,379 acres burned in wildfires across the two states.

Jason Nuckols at TNC says, "There's very few regions in Oregon that don't need fire."

The situation may look bleak but, Stamper says, "There's a lot of work going on behind the scenes that I think will lead to a different future in fire management." TNC works with the Forest Service on risk assessments to decide whether to let wildfires burn or not.

"We're in a phase of transition," she says. "I think that we all need to work together, and I don't think it's fair to blame any one land management agency. It's everyone's problem, and the more that we own it together and work together, the more we'll become fire adapted in our communities and our culture."

The future of forest stewardship lies in the political rebranding of fire itself. Agencies and experts are working through that paradigm shift now: fire is a tool, not an enemy. The public will need to come to a similar realization. ■