

After decades of fire suppression, U.S. forests were ready to burn, specialist says

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With wildfires causing widespread destruction in California, Montana and other western states, it's understandable why officials have been investing in fire suppression efforts for decades. However, nature eventually must run its course—which contributed to record-breaking fires this year, according to a firefighter and wildfire consulting specialist.

The fires in the western states were inevitable, said Stephen Creech, who responded to three firefighting assignments in Montana this summer for a total of 48 days.

"What people don't know is that these ecosystems are [fire](#)-adapted," said Creech, who teaches firefighting certification courses at Purdue University. "Fire is a natural part of the system out here."

And after nearly 100 years of fire suppression across the United States, Montana, California and other western states were susceptible to fires, according to Creech.

"Fuel feeds the flames," he said. "The past two years have been very wet for Montana and it's built up a whole lot of brush. Couple that with the unusually hot, dry conditions of this year and all that vegetation is parched and flammable. It was only a matter of time before it started to burn."

The wildfire that recently raged across the Montana landscape gobbled

up more than 438,000 acres of the dry rangeland and forced hundreds of people to evacuate. The fires in the western portion of Montana, like Rice Ridge and Lolo Peak, had reached 160,187 and 53,902 acres in size respectively. Creech ran the operations on the Lolo Peak fire.

The Northern California fires that contributed to at least 43 deaths and the destruction of 14,000 homes recently have been described as among the deadliest in the state's history. Wildfires also broke out in Utah, Oregon, Washington and Idaho this year.

"As for the California fires, there are three main factors at play here," Creech said. "First, California consists of numerous fire-dependent ecosystems. Second, the west slopes of the various mountain ranges in California all have what are called "foehn" winds. These are hot, dry, and very strong winds that blow down the slopes to the west. The third issue is the wildland urban interface. People have elected to build homes in fire prone areas."

Creech is all too familiar with flames. During the spring and fall, the Purdue grad works as a wildfire consulting specialist with his company in Bloomington, Ind. The business was originally started for fire training, but Creech also writes prescribed fire burn plans for The Nature Conservancy and the U. S. Fish and Wildlife Service, among others. That leaves his summers open to fight fire with the U.S. Forest Service.

"Every fire is different," Creech said. "I went back to Lolo Peak after a short break and it was completely different. Fire changes minute by minute."

Fire suppression has led to a great deal of build-up in not only Montana, but other states as well. Many ecosystems, such as a prairies and grasslands, depend on fire to persist. Otherwise, woody vegetation like shrubs and trees would take over the grassy plains and the landscape

would slowly turn into a forest. Out west, consistent, low-burning fires keep the Great Plains from building up too much fuel and allowing for greater diversity of plant species. Wildflowers, in particular, depend on fire to open up space for the faster-growing, more aggressive grasses.

"Fire occurs naturally in almost all ecosystems," Creech said. "Ponderosa Pine, [a common tree species in Montana], has a three- to five-year fire return interval. For prescribed burns, you run fire below the trees – it's a natural part of their cycle. It's the woodlands and grasslands that don't get burned that burn out of control, very hot, and there's nothing we can do."

Prescribed fire reduces fuel and promotes the natural cycles of fire. By having controlled burns, it greatly reduces the risk of massive wildfires breaking out because there is less material to fuel them.

"It's extremely dry out there," Creech said. "To give you an idea of how dry, a two-by-four at a lumber yard has 24 percent moisture content. A board out there has 5 percent. Any fire brand that lands on a receptive fuel bed – 95 percent of those will start a new fire. Then you have to go fight that fire on top of the one you're already fighting."

Without the prescribed burns, the outcome could be even worse, Creech said.

"The best thing those states could do is manage forestland and prairielands. By harvesting timber and doing prescribed fire, you reduce the risk dramatically," Creech said, who has 43 years of fire experience. "For example, on Lolo Peak, we went into a polygon and burned 1,000 acres. This robbed the main fire of fuel, so when it got there it just went out. We fight fire with fire."

But current prescribed fire efforts are not enough, according to Creech.

"The federal agency, namely the U. S. Forest Service, runs out of money every year," Creech said. "They have to spend down their budget, the entire thing, not just the budget for fire suppression. In bad fire years, this drains the funds for recreation, trail management, and other projects; fuels management pays the price here. They typically run out of money right in the middle of the fire season."

Once the funds are gone, there's nothing left over to try to prevent the fires in the first place.

"There's a bill afoot to fund fire suppression separately and would not require the U.S. Forest Service to break into the rest of their budget," Creech said. "But this has been tied up for years. The fires are getting bigger and harder to suppress every year, it's only going to get worse."

Provided by Purdue University

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