

ORANGE COUNTY REGISTER

California can't end wildfires, but it can weaken them

Patrick J. Michaels

October 20, 2017

California has a fire problem that long predates its European colonization. When Spanish explorers first encountered what is now the Los Angeles basin, they called it “the bay of the smokes.” In the late summer of most any year, jetliner passengers can often spot a big smoke plume or even a fire.

The climate and geography of the Golden State makes it the largest firepit in the continental U.S. With or without its 40 million people to intervene, it will burn, but there are some sensible actions that can reduce the strength of fires before they start.

Big fires, like the disastrous ones in Northern California, require a lot of fuel. Oftentimes, they are confined to the lower layers and the forest floor, and don't burn ferociously enough to engulf whole trees in what are called crown fires. A crown fire is a terrifying sheet of flame extending from the ground to far above the treetops, and they often create their own weather that can speed their movement across the land. That recently happened in Santa Rosa.

The more fuel there is on the ground, the more likely is a crown fire. Fuel can accumulate slowly, as old trees fall or branches come down in storms. Active fire suppression and policies that discourage logging, common until recently, also add more fuel.

California's climate is called Mediterranean, mimicking the concentration of rain in the winter and the hot, dry summers that characterizes that region. In certain years, like 2017, a huge slug of new fuel suddenly appears, thanks to the tail end of an El Niño event, which enhances the normal winter greening that makes California so beautiful. In the next summer, the increased vegetation dries to the state's semidesert fragrance, caused by the evaporation of the natural aromatic (and flammable) compounds that characterize Mediterranean climate vegetation.

As a result, summers after an El Niño leave California especially prone to crown fires.

It's notable that California ecosystems are adapted to El Niño. The seeds of many desert plants will only germinate if tumbled through the broad floods that occur in the massive playas that cover much of southern California. The seeds of many forest trees won't germinate unless fire-scarred. Without people around, a “dry” thunderstorm, common in upland California in the summer, could incite a crown fire after an El Niño that would be a part of the “natural” cycle of forest life.

Unfortunately, many of those trees now exist in the less natural form of California houses, and up in flames they go, too.

The key to minimizing the likelihood of a crown fire is often to burn the low level fuel in what is called a “prescribed burn.” Another way to limit fuel is to log out fallen trees and branches, and thin out some living trees. Previous Forest Service policies that impeded road building and logging created the western tinderboxes. Sensible management will remove enough fuel to reduce the frequency of hellish fires. The Department of Interior is now calling for enhanced fuel removal.

Unless El Niño goes away (it won’t), and along with it the beauty of a verdant California winter, there’s going to be big fires. But a wise management policy will reduce their frequency and magnitude. A return to the fire-suppression of previous decade — putting out fires as they happen but leaving brush and other combustible material untouched in the interim — will only place even more fuel on the forest floor. The wiser course is to clean up the massive amounts of fuel that were left by earlier policies. “Let it burn”, indeed, but remove the fuel that can turn nasty fires into horrible disasters.

Patrick J. Michaels is the director of the Cato Institute’s Center for the Study of Science and former president of the American Association of State Climatologists.