

Home

Research

Special Reports

Gallery

Videos

States of Change

News Archive

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Wildfire Season Is Scorching the West

*By Andrea Thompson**Published: July 28th, 2017*

The West is ablaze as the summer wildfire season has gotten off to an intense start. More than 37,000 fires have burned more than 5.2 million acres nationally since the beginning of the year, with 47 large fires burning across nine states as of Friday.



Smoke rises from the Goodwin Fire, which burned more than 28,000 acres in Arizona through mid-July.

Credit: Prescott National Forest/flickr

The relatively early activity is quickly becoming the norm, with rising temperatures making the fire season longer than it used to be. The warming fueled by greenhouse gases is also helping to create more and larger fires as it dries out more vegetation that acts as fuel for fires.

This new fire situation means that western states need to begin to rethink how they prepare for and combat fires, as well as how fire-prone land is developed.

Five large fires (those of 1,000 acres or more) are currently raging across California, the largest of which is the [Detwiler fire](#) near Yosemite National Park, which has burned more than 80,000 acres since it ignited on July 16. That fire is now 75 percent contained, but it destroyed dozens of buildings, including 63 homes.

Today's Extreme Heat May Become Norm Within a Decade

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Montana currently has the most large fires of any state, with 14, including the massive [Lodgepole Complex fire](#) (a series of smaller fires that merged into one), which has burned more than 270,000 acres in the eastern portion of the state. That fire is also well-contained, but has burned through tens of thousands of acres of rangeland, displacing thousands of cattle and burning several structures. An intense drought there has rapidly cured the grasses that have fueled the fires.

Oregon has seven large fires burning, while Nevada has six and Idaho five.

Scorching temperatures and dry conditions in recent weeks have helped fuel these fires across the region, which have burned 2 million more acres than at this point in last year's wildfire season.

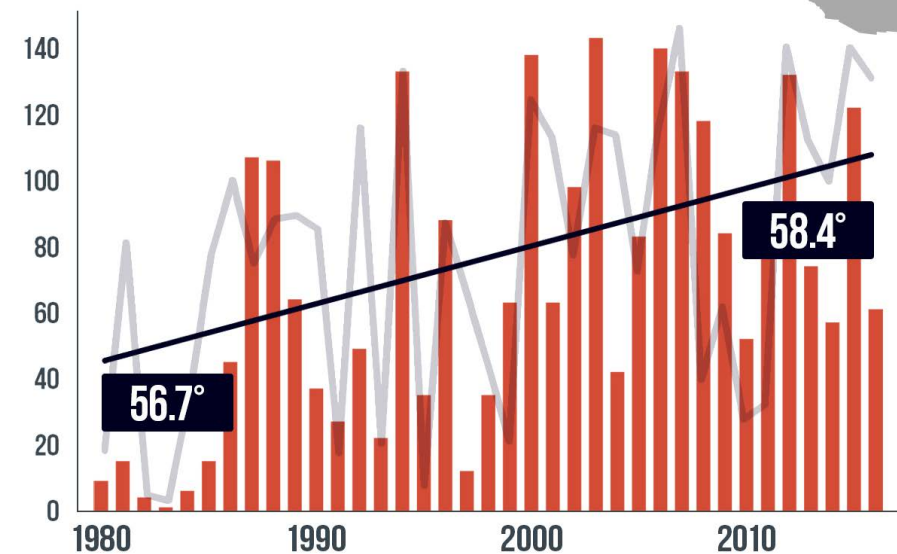
Compared to the 10-year average of wildfire activity, this year is below average for the number of fires, but above average for the total number of acres burned. A very active wildfire season in the Central Plains pushed up the acres burned; a wet winter meant grasslands were ripe with fuel, and once hot and dry weather came and fires ignited, they could take off more quickly than fires that burn through forested areas, Robin Broyles, a spokesperson for the [National Interagency Fire Center](#), said.

A [2016 Climate Central analysis](#) showed that the annual number of large fires has tripled since the 1970s and that the amount of land they burn is six times higher than it was four decades ago.

See your state's trend below: Western States

Hotter Years, More Fires

Number of Large Fires



Wildfires greater than 1,000 acres on USFS land. Excludes prescribed burns.
Source: USGS.gov

CLIMATE CENTRAL

Number of wildfires in these states

While multiple factors, including land use and tree disease, influence fire activity, climate change is playing a role in those trends. A study published in October found that rising temperatures accounted for [nearly half of the increase](#) in acres burned, as they helped to dry out forests and extend the length of the fire season.

The fire season is 105 days longer than it was in the 1970s, the Climate Central analysis found.

The lengthening of the fire season has become clear in California, which usually didn't see major fires until the Santa Ana winds kicked in in the fall and vegetation had dried out over several months.

Now bouts of hot, dry weather are coming earlier and earlier, setting the stage for prime fire conditions. Southern California already has a nearly year-round fire season, [Scott Stephens](#), a professor of fire science at the University of California, Berkeley, said.

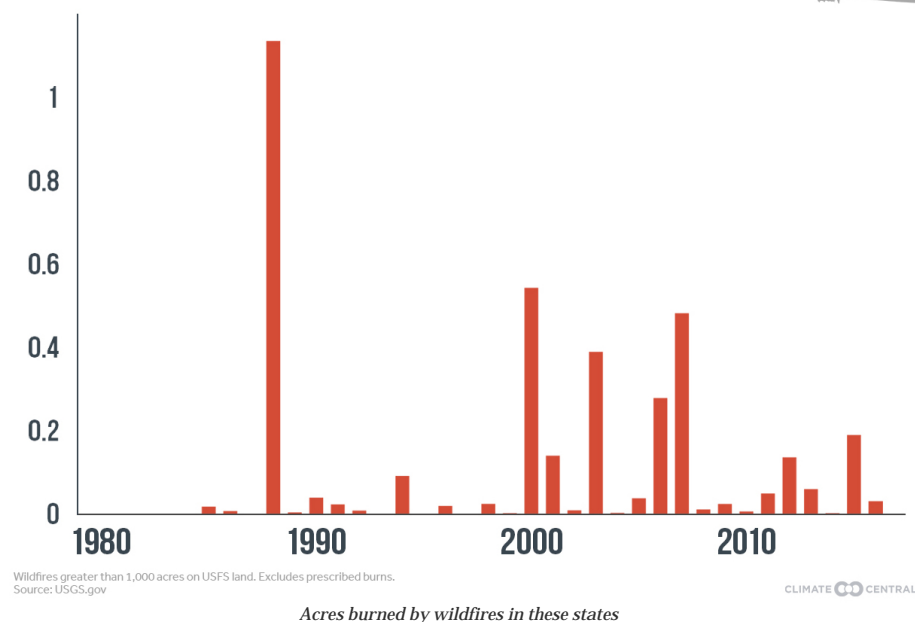
With those hot periods likely coming earlier and earlier in spring and summer as global temperatures continue to rise, “you’re going to have a longer period where fire can ignite and move,” Stephens said.

See your state's trend below: Arizona

Wildfires Are Burning More Acres

Millions of Acres Burned

Montana

While the past few years in California have seen [wildfires fueled by the record-setting drought](#) in the state that killed off swaths of trees, this fire season has been helped by the opposite conditions. Ample winter rains allowed grasslands to flourish, so when hot, dry conditions came in June, those grasses were quickly cured into perfect fire fuel, Stephens said.

With the shifts in the fire season, policymakers and fire managers may have to begin to rethink some of their strategies for preventing fires, particularly as the longer fire season eats into the time that managers have to conduct prescribed burns to burn up potential fuel, Stephens said. Areas may also have to do more prescribed burns during drought years, to reduce fuel loads, he said.

Funding for firefighting — the costs of which have topped \$1 billion in 12 of the past 15 years — may also have to be rethought. Instead of having a seasonal firefighting team, funding may have to be put in place for a year-round one, Stephens said.

Hot and dry conditions are expected to persist across the West over the next few days, which could help more fires start and spread. Areas in the path of next month’s solar eclipse, particularly drought-plagued Montana, are also concerned about the influx of eclipse watchers who may not be aware of the fire danger or the precautions they’ll need to take in order to avoid accidentally setting one.

“It’s really important that people recognize” that danger and are aware of the various fire restrictions in place, Broyles said.

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Comments

**By Lewis Cleverdon (Central Wales)
on July 31st, 2017**

Andrea - I'm afraid there are three rather obvious gaps in your article.

1/. - A 30% rise in 30yrs of the volume of necromass on the forest floor was shown by the 30-yr >500-site study of the Amazon Rainforest [Brennan et al, 2016] to be a direct consequence of the observed acceleration of the forest's metabolism due to elevated CO2. That scale of effect is not a local phenomenon, and no study I've seen has even attempted to show why US forests would not be similarly affected. A 30% increase in necromass has to be a large part of the rising intensity, extent and duration of US forest wildfire. Surely this information is a critical part of the reader's proper understanding of the worsening US predicament ?

2/. - The metric of change in wildfire occurrence that really matters, as well as being the most cogent, is the tonnage of CO2 and CO2-e emitted. It is readily calculable from the known tonnages of carbon in different densities of tree-cover, less observed remains of charred trunks or stumps (that will rot down with both CO2 and CH4 outputs). If scientists are not yet providing that information, then surely the proper role of a journalist like yourself is to criticize their failure until they do so ? You would naturally apply this technique to improving other professions' conduct - such as farmers, miners and politicians, so why not scientists ?

3/. - The absence of any consideration of the consequences of rising wildfire losses, with their huge carbon footprint added to the ~45% excess airborne anthro-CO2, is the most glaring gap in the article. With forests increasingly failing to regenerate after wildfire - due seed heating or combustion, &/or intensifying droughts, &/or colonization by invasive species, Forest Loss is one of the eight Major Interactive Feedbacks that are now reported to be accelerating worldwide. In addition to forests' increasing failure to regenerate (whose CO2 is thus not recovered) those forests that do regenerate will take up to a century to recover the carbon that was released, thus leaving many billions of tonnes of CO2 in the atmosphere during the regeneration period. Taking a conservative average of 40Ts of carbon per acre of forest, a 5m acre burn-year would release ~200MTC or ~730MTCO2 /yr, and that is just from US forests that form a small fraction of the global acreage, and that is before accounting the CO2e of the cocktail of high-potency GHGs released by forest fire alongside CO2. So why is Climate Central not addressing this and the other seven Major Interactive Feedbacks as issues of critical self-reinforcing importance ? Do you realize that it gives the impression that you may be accepting the editor's instruction not to mention them, which degrades both your reputation as a journalist and the site's credibility ?

I hope that you will take the time to respond to the constructive criticisms above, and that you will accept that their motivation arises directly out of our shared concern for the resolution of Climate Destabilization as swiftly as possible.

Regards,
Lewis

[Reply to this comment](#)

**By Dave (Basking Ridge, NJ 07920)
on July 31st, 2017**

Excellent comment Lewis. Thank you.

Unfortunately, there is very little open public discussion in general about climate change to begin with let alone any seriously attempted public drill down into such esoteric aspects of it as positive feedbacks with complex interactions, non linear responses, and discussions of that in relation to the results of analyses, reported studies and observations, and so on. In other words, those things that have to do with the actual mechanics of catastrophic climate tipping points. Of course, it is far beyond the scope and capability of US MSM.

In my experience, the CC reports are often interesting and many that I have read have been well written. That comment is deserved. But of course the climate is indeed changing. As such there is no such thing as a climate status quo. And we know that it is all happening so much faster than was envisioned even just ten years ago. We therefore clearly need to be paying close attention to, and discussing the current trajectory of this a lot more comprehensively and seriously than has been the case at any time before.

Unfortunately, Climate Central, an obvious candidate forum for such types of discussions is failing in this regard. Instead, CC stories are usually cropped and often ignore deeper contextual and often profound issues that are associated with them. And in that respect, CC seems to have a specific major blind spot to do with objectively describing the implications of the obvious high rate of current climate change and the correspondingly near inevitable track of that trajectory versus the common PC MSM versions. Such versions include the 'tried and trusted' "...so as to constrain to 2C or less" and similar - sad Pollyanna optimisms that are now clearly technically immature to the point of absurdity.

There used to be a children's TV show called "Lost in Space". It featured a space traveling family that was literally lost in space. The family had a robot protector that could sense imminent life threatening danger and alert the family. In almost every episode such an emergency would arise and it would cry out something like "Danger, danger Will Robinson" and wave its arms about. I liked that robot. I think we should have a climate emergency analog of that robot to warn "Earth's civilization". Not quite The Day the Earth Stood Still variety of robot, but we obviously need something attention grabbing. But until then...

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