

Claim: Global Warming has increased U.S. Wildfires

REBUTTAL

In the U.S., wildfires are in the news almost every late summer and fall. The National Interagency Fire Center has recorded the number of fires and acreage affected since 1985. These data show that the trend in the number of fires is actually down while the trend in the acreage burned has increased.

The NWS tracks the number of days where weather (not forest) conditions are conducive to wildfires such that they issue red-flag warnings. The number of red-flag days has not trended upward due to “Global Warming.”

90% of the fires are caused by humans though natural seasonal weather variations create conditions that are conducive to fires and the rapid spread of these fires west to increasingly populated areas.

In the past, lightning and campfires caused most forest fires; today most are the result of power lines igniting trees. The power lines have increased proportionately with the population, so it can be reasoned that most of the damage from large wildfires in California is partially a result of increased population not Global Warming. The increased danger is also greatly aggravated by [poor government forest management choices](#).

“In the United States, wildfires are also due in part to a failure to thin forests or remove dead and diseased trees”. In 2014, forestry professor David B. South of Auburn University testified to the U.S. Senate Environment and Public Works Committee that “data suggest that extremely large megafires were four-times more common before 1940,” adding that “we cannot reasonably say that anthropogenic global warming causes extremely large wildfires.” As he explained, “To attribute this human-caused increase in fire risk to carbon dioxide emissions is simply unscientific.”

To summarize, any increase in the frequency and/or severity of the impacts of annual end of dry season forest fires are a forest management

and environmental and governmental policy induced issue, not a Global Warming induced one.

In the U.S., the 2016/17 winter was a very wet one, and in the mountains in the west, a snowy one (in parts of the northern Sierra, the wettest, snowiest on record). Wet winters cause more spring growth that will dry up in the dry summer heat season and become tinder for late summer and early fall fires before the seasonal rains return.

2017 FIRE SEASON

2017 was an active fire season in the U.S. but by no means a record. The U.S. had 64,610 fires, the 7th most in 11 years and the most since 2012. The 9,574, 533 acres burned was the 4th most in the past 11 years and most since 2015. The fires burned in the Northwest including Montana with a very dry summer then the action shifted south seasonally with the seasonal start of the wind events like Diablo in northern California and Santa Ana to the south.

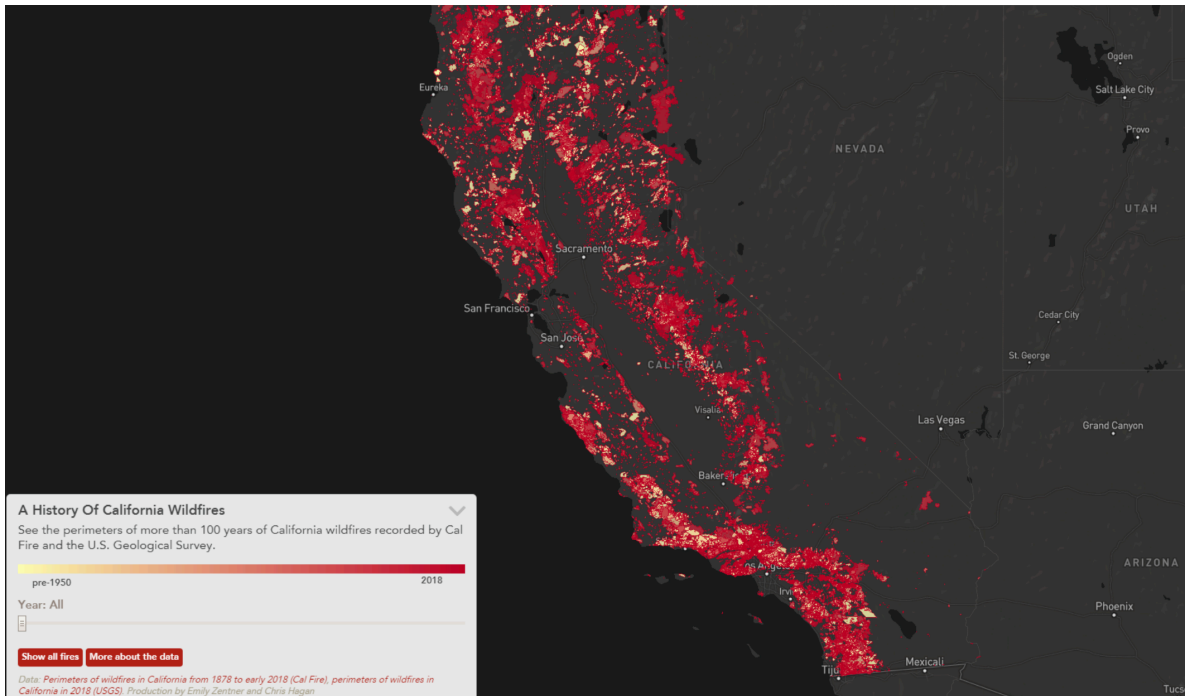
Fires spread to northern California in October with an episode of the dry Diablo wind that blows from the east and then in December as strong and persistent Santa Ana winds and dry air triggered a round of large fires in Ventura County.

According to the California Department of Forestry and Fire Protection the 2017 California wildfire season was the most destructive one on record with a total of 8,987 fires that burned 1,241,158 acres. It included five of the 20 most destructive wildland-urban interface fires in the state's history.



When it comes to considering the number of deaths and structures destroyed, the seven-fold increase in population in California from 1930 to 2017 must be noted. This increase in population means more people and home structures are in in the path of fires.

The map below shows all the cumulative wildfires from 1878 to 2018 recorded by Cal Fire and the U.S. Geological Survey. It seems as if there is very little of California that has not been touched by wildfire. Large areas of desert in the southeast are mostly untouched due to lack of vegetation.



2018 FIRE SEASON

Fires were in the news again this past summer especially in California coming after a wet March and April.

Major fires broke out in November as the seasonal Santa Ana winds developed. Tragically the fires were deadly, with one whole town, Paradise, lost. The Camp Fire burning near Chico, California is now the single most destructive fire in state history. And it's just one of three major infernos raging in the Golden State this weekend as late-season winds pick up and spread walls of flames.

The Woolsey Fire and Hill Fire in southern California are also threatening lives and property, and poised to spread further. Already more than 250,000 people have been forced to evacuate statewide.

The Camp Fire torched more than 153,000 acres and thousands of buildings. At one point, it was growing at a rate of one football field per second. The fire has killed at least 87 people with hundreds still missing as of November 23 and incinerated more than 18,600 structures. Paradise, home to 26,000, was almost entirely laid to waste by the fire.

“The town is devastated, everything is destroyed,” California Department of Forestry and Fire Protection (Cal Fire) spokesperson Scott Maclean told Reuters. “There’s nothing much left standing.”



NASA's Landsat 8 satellite captured this first image of the Camp Fire on the morning of November 8, just a few hours after the blaze had broken out. That fire grew quickly, engulfing 20,000 acres in less than 14 hours. It grew by an average of more than one football field every three seconds at one time.

But the reality is the number of fires ranked 9^h most in the last 11 years (as of November 21, 2018). The fires have burnt the 4th most acres in that period.

Year-to-date statistics		
2018 (1/1/18 - 11/21/18)	Fires: 52,260	Acres: 8,325,288
2017 (1/1/17 - 11/21/17)	Fires: 54,962	Acres: 8,915,962
2016 (1/1/16 - 11/21/16)	Fires: 58,306	Acres: 5,183,758
2015 (1/1/15 - 11/21/15)	Fires: 55,717	Acres: 9,811,264
2014 (1/1/14 - 11/21/14)	Fires: 50,681	Acres: 3,443,157
2013 (1/1/13 - 11/21/13)	Fires: 43,473	Acres: 4,129,318
2012 (1/1/12 - 11/21/12)	Fires: 54,298	Acres: 9,102,832
2011 (1/1/11 - 11/21/11)	Fires: 66,024	Acres: 8,293,142
2010 (1/1/10 - 11/21/10)	Fires: 65,688	Acres: 3,300,925
2009 (1/1/09 - 11/21/09)	Fires: 77,023	Acres: 5,836,336
2008 (1/1/08 - 11/21/08)	Fires: 76,610	Acres: 5,239,895
10-year average Year-to-Date		
2008-2017	Fires: 60,190	Acres: 6,322,374

ROLE OF DEVELOPMENT AND GOVERNMENT POLICIES

California’s catastrophic wildfire season last year and again this November illuminated the years’ long stalemate between those who want to cut back the overgrown, beetle-infested national forests and environmentalists who have axed efforts to fell more trees, blaming the destructive fires on climate change. See more in the [Washington Times](#).

In December, 2017, the U.S. Forest Service announced that California had set a record with 129 million dead trees on 8.9 million acres, the result of a five-year drought and beetle-kill, but that its tree mortality task force had removed only about 1 million.

Meanwhile, the logging industry has continued its free fall, with timber harvesting dropping by 80 percent in the past 40 years, as projects in the national forests are killed or delayed by “frivolous litigation from radical environmentalists who would rather see forests and communities burn than see a logger in the woods,” according to our prior Interior Secretary Ryan Zinke.

When a bi-partisan bill was passed in 2017 in California to help fund PGE tree cutting near power lines to lessen fire danger, it was [vetoed](#) by Governor Brown.

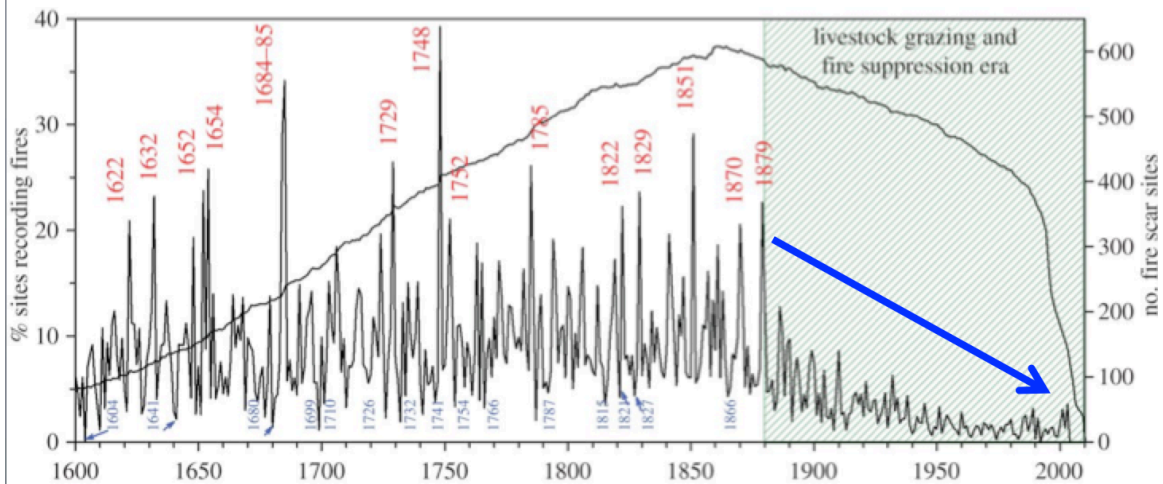
The [LA Times](#) in October, 2017 reported The explosive failure of power lines and other electrical equipment has regularly ranked among the top three singular sources of California wildfires for the last several years. In 2015, the last year of reported data, electrical power problems sparked the burning of 149,241 acres — more than twice the amount from any other cause.

Tree cuttings near power lines, burying the power lines where possible would help though it would not prevent fires from careless campers or arsonists. Smokey Bear PSAs need to be revived.

These same radical environmentalists hold growers, farmers and ranchers in the same level of contempt they have for foresters. Their actions have led to the diversion of water to rivers and the Pacific Ocean, threatening agriculture in the #1 agricultural state for produce.

University of Washington Professor of Atmospheric Sciences Cliff Mass pointed out in a recent interview with the Daily Caller: Wildfire area could well be increasing because of previous fire suppression, mismanagement of our forests, and a huge influx of people into the west, lightning fires and providing lots of fuel for them.

University of Alabama-Huntsville's Distinguished Professor of Atmospheric Science John Christy says human mismanagement is the more important cause of the huge fires: *If you don't let the low-intensity fires burn, that fuel builds up year after year. Now once a fire gets going and it gets going enough, it has so much fuel that we can't put it out. In that sense, you could say that fires today are more intense, but it's because of human management practices, not because mother-nature has done something.*



Incidence in wildfires in North America 1600-2000

Sweetnam et al. 2016 Phil Trans B

Interior Secretary Ryan Zinke promoted a change to forest management policies, calling for a more aggressive approach to reduce the excess vegetation that has made the fires worse. See more.

In this Wall Street Journal opinion piece [Only Good Management Can Prevent Forest Fires](#) - There's nothing new about catastrophic blazes. It's how nature has always dealt with overgrowth. The author, Tom McClintock writes:

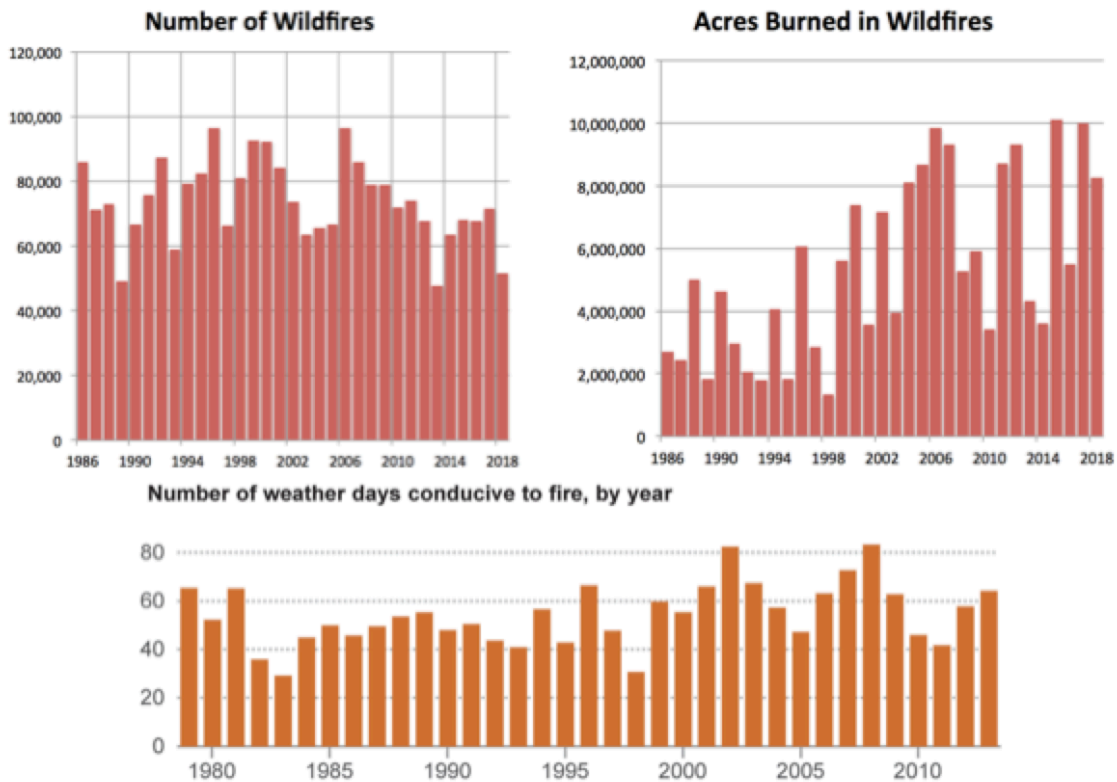
"There's nothing new about catastrophic blazes. It's how nature has always dealt with overgrowth."

"Excess timber comes out of a forest in two ways—it gets carried out or burned out. For much of the 20th century, harvesting excess timber produced thriving forests by matching tree density to the ability of the land to support it. Foresters designated surplus trees, and loggers bid for the right to remove them at auction, with the proceeds going to the U.S."

Treasury. These revenues were then put back into forest management and shared with local communities.

What went wrong? In the 1970s, Congress passed a series of laws subjecting federal land management to time-consuming and cost-prohibitive environmental regulations. Instead of generating revenues, forest management now costs the government money. As a result, timber harvested from federal lands has declined 80%, while acreage destroyed by fire has increased proportionally."

Indeed the number of fires and acreage affected since 1985 show the trend in the number of fires is actually down while the trend in the acreage burned has increased. The NWS tracks the number of days where weather conditions are deemed conducive to wildfires such that they issued red-flag warnings. This data shows little, if any, "Global Warming" impact.



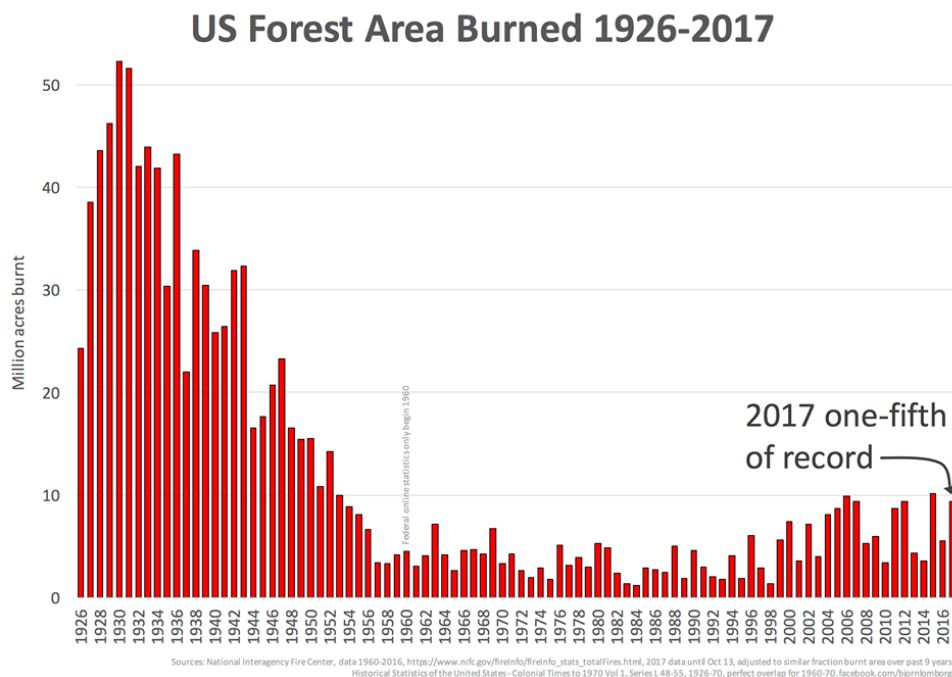
Source: Matt Jolly, U.S. Forest Service

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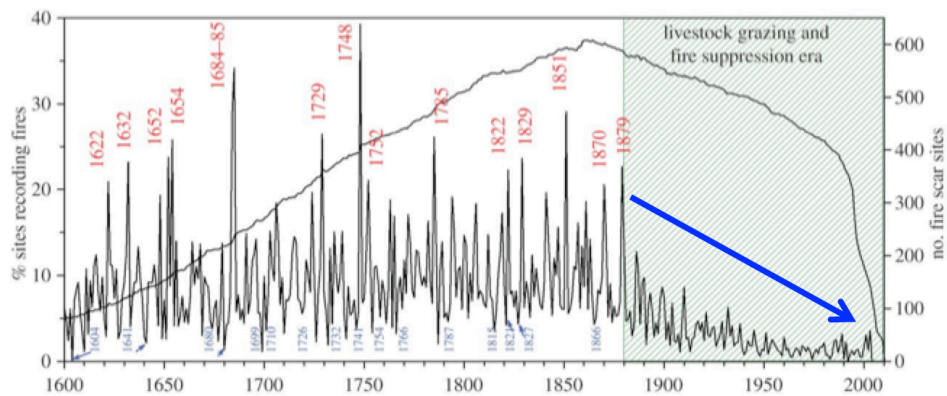
Note: 2018 Fire data as of November 9.

Finally, it should be noted that large-scale deadly fires are not unique to the nation's recent past

Bjorn Lomborg overlapped NIFC data with the Historical Statistics of the United States – Colonial Times to 1970. There we have statistics for area burnt since 1926 and up to 1970. Reassuringly, the data for 1960-1970 ‘completely overlap.’ This is the same data series.” Professor Lomborg said. It shows recent forest fire activity is one-fifth the record since 1926 even with the recent increases in acreage burnt.



We can see longer term wildfires were more common. Sweetnam looked at long-term incidence of wildfires in North America and found they have declined the last century.



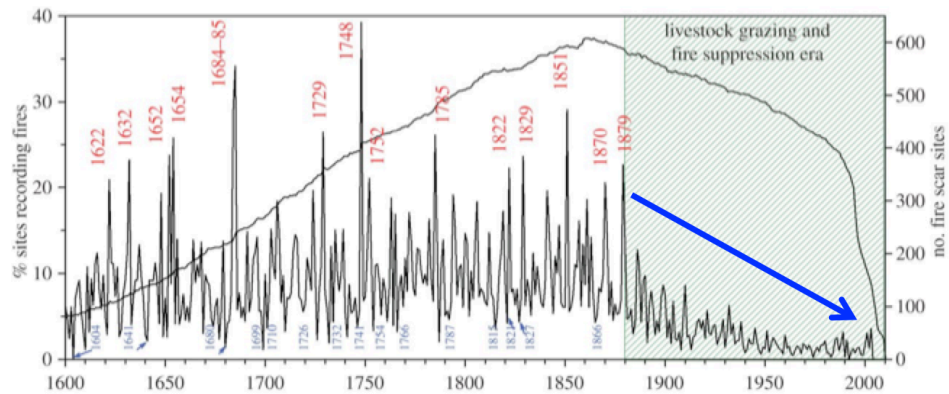
Incidence in wildfires in North America 1600-2000

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In 1871, during the week of Oct. 8-14, it must have seemed like the whole world was ablaze for residents of the Upper Midwest. Four of the worst fires in U.S. history all broke out in the same week across the region. The Great Chicago Fire, which destroyed about a third of the city's valuation at the time and left more than 100,000 residents homeless, stole the headlines.

But at the same time, three other fires also scorched the region. Blazes leveled the Michigan cities of Holland and Manistee in what has been referred to as the Great Michigan Fire, while across the state another fire destroyed the city of Port Huron. The worst fire of them all, however, might have been the Great Peshtigo Fire, a firestorm that ravaged the Wisconsin countryside, leaving more than 1,500 dead — the most fatalities by fire in U.S. history.”

We can see longer term wildfires were more common. The spike is in recent decades



Incidence in wildfires in North America 1600-2000

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Bottom Line

In summary, any increased impacts of annual end of dry season forest fires are a forest management and environmental and governmental policy induced issue, not a “Global Warming” induced one.

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