

Extreme wildfires along the US West Coast generating their own weather

August Quill
21 July 2021

In the wake of the hottest days on record with temperatures reaching far into the triple digits this month, California and the western United States are in the throes of a worsening fire season.

Extreme heat throughout the region as well as in western Canada, has sparked a growing wave of wildfires and tens of thousands of evacuations. The National Interagency Fire Center reports that, as of Wednesday, 78 large fires are burning in 13 states and have so far destroyed 1,346,736 acres.

The growing wildfires are just one expression of the intensifying effects of climate change around the world. Many areas of the country and beyond, including in Siberia, are suffering from record heat and raging fires. Meanwhile, historic flooding has overwhelmed Detroit, Michigan and much of Louisiana, displaced more than 1 million people in central China, and washed away entire towns in western Germany where the official death toll is approaching 200 and some 700 are still missing.

The Dixie Fire continues to rage north of California's state capital Sacramento. The fire broke out on July 14, only 10 miles east of the town of Paradise in Butte County, California. Paradise was threatened by the North Complex Fire last year after it had been destroyed during the 2018 Camp Fire only two years prior. The Camp Fire has been called the deadliest and most destructive wildfire in California history, having claimed 153,336 acres, 18,804 buildings and 85 lives, according to the California Department of Forestry and Fire Protection.

The Dixie Fire in comparison has scorched 59,984 acres and has led to no loss of life and no major destruction of property at the time of this writing. The formation of a pyrocumulonimbus cloud generating high winds and lightning combined with the fact that the fire is only 15 percent contained is a worrying sign, however. Pyrocumulonimbus clouds are formed when heat forces air to rapidly rise to high altitudes, where any moisture evaporated by the inferno quickly cools and condenses creating thunderstorms.

"It's very crazy" Cory Mueller, a National Weather Service meteorologist with the Sacramento Region, told CNN. "You don't want to see lightning strikes coming off a fire—it's obviously dangerous for anyone fighting the fire, but when you see it, it means you're likely having very intense fire growth."

Both the 2018 Camp Fire and the currently raging Dixie Fire are believed to have been caused by the poorly maintained equipment of the Pacific Gas & Electric Company (PG&E). During the containment process in 2018, investigators discovered that above-ground power transmission lines owned by PG&E had been knocked over by high winds causing many of the initial conflagrations. Disaster could have been mitigated or averted entirely had PG&E shut off electricity in grids likely to have downed lines in the wake of high winds, but company policy drafted in the aftermath of a wave of customer complaints over unplanned outages during the 2017 North Bay fires precluded such action.

The *Los Angeles Times* noted that regarding the currently blazing Dixie Fire, "Pacific Gas & Electric said its utility equipment may have sparked the fire after an electric worker found two blown fuses and a tree leaning onto a power line conductor in the area near the ignition point of the blaze." PG&E was not only allowed to continue operating even after pleading guilty to 84 counts of involuntary manslaughter in 2019, but was then allowed to cease filing a bankruptcy claim in 2020 in order to qualify for access to a fraction of the \$21 billion offered up by the California Wildfire Insurance Fund. This is beyond criminal in light of the Dixie Fire's developments.

However, PG&E's greed-driven neglect of infrastructure maintenance is only partially responsible for California's much broader trend of wildfires and other extreme weather events, which in the final analysis are brought on and exacerbated by manmade climate change.

Three other large fires raging throughout the state are believed to be the result of naturally occurring lightning strikes: the Lava Fire in Siskiyou County, the Beckwourth

Complex Fire in Plumas County and the Tamarack Fire in Alpine County. These fires, which began on June 25, July 3 and July 4 respectively, have consumed a grand total of 170,709 acres and 163 structures and have led to the evacuation of over 70 communities in northern California.

The unusually early start to this year's fire season, combined with a near statewide drought have made fighting these fires harder than in previous years. Six of the seven firefighters injured this season have been hurt fighting the Lava Fire. Even with 117 fire engines, 29 hand crews, 17 helicopters, 24 dozers, 22 water tenders and over 1,420 personnel on scene, it has taken Cal Fire over three weeks to reach 77 percent containment of the Lava Fire. The lengthy process is largely due to limited road access and few nearby sources of water.

Without frequent air drops of water, firefighters have had to turn to using hand tools, clearing away dry vegetation and digging firebreaks under backbreaking mountainous conditions in daytime temperatures that have averaged 91 degrees Fahrenheit (33 degrees Celsius) over the past month. Due to the annual nature of the fires—and their intensification in recent years—it is criminal that nothing has been done to establish access to water sources in fire prone areas.

To the north, the Bootleg Fire in Oregon, which has been burning in the Fremont-Winema National Forest since July 6, is the largest fire currently raging in the United States and is the third largest in the state's history. It has consumed 388,350 acres and destroyed 67 homes along with 117 minor structures and has led to the evacuation of over 2,000 people from their homes in Klamath County. The Bootleg Fire has, like the Dixie Fire, created a pyrocumulonimbus cloud. This is the second consecutive year major pyrocumulonimbus clouds have generated on the North American continent, with the Creek Fire, which burned from September through December last year near Shaver Lake, California, having formed one.

In addition to the Dixie and Bootleg, there was an earlier pyrocumulonimbus storm in Canada around the northwestern border between Alberta and British Columbia. A total of 710,117 lightning strikes were observed by the North American Lightning Detection Network in the 15 hours between 3 p.m. June 30 and 6 a.m. July 1, and at least two individuals died when a burning utility pole fell on them as they were taking shelter in a pit near their home in Lytton, British Columbia, according to the *Vancouver Sun*.

Man-made climate change was first theorized in 1896 by the Swedish scientist Svante Arrhenius. A Canadian steam engineer and amateur climatologist, Guy Stewart Callendar, would go on to expand on Arrhenius's theories, inadvertently proving in 1938 that the Earth's average land temperature had risen steadily over the course of the

previous five decades. Spurred on by Callendar's discoveries, another Canadian scientist, Gilbert Plass, developed computer models aimed at exploring how infrared radiation and increased atmospheric carbon dioxide would affect global temperatures, before presenting his discoveries to *Time* in 1953.

In 1959, at a symposium held to commemorate the centennial of the American oil industry by the American Petroleum Institute and the Columbia Graduate School of Business, Edward Teller, whose work as a theoretical physicist on the Manhattan Project made him something of an expert on global catastrophes, shared his concern that the increased greenhouse effect created by the unmitigated use of fossil fuels would lead to the melting of the polar ice caps and subsequent flooding of coastal cities across the country. In short, scientists have been sounding alarm bells for years, alarm bells which the capitalist governments of the world have been unwilling and unable to heed.

More than six decades after Teller gave his speech in New York City, twenty-seven years after the United Nations Framework Convention on Climate Change went into effect, sixteen years after the Kyoto Protocol expanded on the former, six years after the Paris Climate Agreement was signed to replace its "unfair" predecessor, the only historically significant decline in global pollution was the result, not of a deliberate, rational plan by any government to phase out fossil fuels in favor of clean renewables, but of a pandemic that has claimed millions of lives the world over and temporarily impacted the output of major corporations and global polluters.

Climate change cannot be halted and its effects mitigated by the current socio-political system of capitalism. For humanity to have a future free of annually recurring firestorms, droughts and floods, the workers of the world must take revolutionary action in the fight for socialism. The future of the globe depends upon a rationally organized society where the international working class controls the means of production in rational and scientifically planned manner to guarantee the planet is inhabitable for future generations.



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