

# A Heavy Cost

*Wildfires cause massive wildlife death and pollution. By Zachary Gerber*

**W**ildfires are emitting billions of pounds of pollution and killing millions of animals each year. Unfortunately, they are on the rise and a reduction of fuels in forests and rangelands is the solution that will reverse this trend and protect wildlife and the environment.

## Wildfire Pollution

While at the University of Miami School of Law, I researched the amount of pollution that wildfires emit and wrote the article “Pollution: It’s Spreading Like Wildfire.” During the same period, I noted that a single Alaska wildfire emitted more carbon monoxide (CO) pollution than all of the human-caused CO pollution from “tailpipes and smokestacks in the United States.” In fact, that single fire emitted 6,600 times more CO during the three months it burned than all of the pollution ExxonMobil (one of the top five corporate polluters) emitted during an entire year.

The worst wildfire year on record in California was in 2017, with 1,266,224 acres burned. According to the EPA’s latest wildfire pollution statistics, and adjusting for acres burned, California’s wildfires emitted over one billion pounds of “PM 2.5” into the atmosphere. PM 2.5 are particles that are 2.5 micrometers in diameter or smaller that have a dangerous health impact. The EPA’s statistics, adjusted for population growth, show that during 2017 California drivers emitted 22 million pounds of PM 2.5—only two percent of the PM 2.5 pollution emitted by California wildfires during the same year. These statistics are shocking. It would take all Cali-

fornia’s drivers 50 years of driving to total one year of its wildfire pollution emissions!

## Animal Deaths

My father, Grant Gerber, was raised in northern Nevada, and advocated to reduce wildfires by creating the educational campaign, “Smoked Bear.” As he saw the size of wildfires steadily climb in the American West he also saw a decrease in wildlife. His observations are supported by the fact that the greatest threat to many species in the West, including sage grouse, is wildfire. My father began researching—by speaking with biologists, land managers, ranchers, and others—how

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many vertebrates exist per acre on rangeland. He concluded that a very conservative estimate is three vertebrates per acre with many more in forestlands.

He and my brother, Travis, visited the site of the Bear Wallow Fire in 2011, where the worst fire in Arizona history burned 538,049 acres. They found and documented the death of large game and other animals. Travis reported that not even flies or other bugs could be found or heard in its wake. Although the Bear Wallow Fire consumed a forest that contained many more animal species than rangeland, it is estimated that at least 1.5 million vertebrate animals were killed in that ferocious fire.

Using these same estimates, approximately 3.5 million animals were killed due to wildfires in California in 2017.

## Increased Fuel Levels Increase Wildfires

Fires are caused by a mix of oxygen, a spark, and fuel. Increased fuel loads are causing increased wildfires. The U.S. Forest Service’s mascot, Smokey Bear, states that “only you can prevent forest fires.” Many news outlets follow this mantra and cite that there are more human-caused wildfires than from other sources, ignoring lightning-caused wildfires that burn about 1.5 times more acres. Thus, the human spark is not the cause for most acres burned. Fuel, not the spark alone, is the cause of increased devastation.

Since the 1970s wildfires have increased while U.S. logging and grazing have drastically decreased. That decrease in productive use has increased fuel levels and wildfires. For instance, prior to the Bear Wallow Fire, logging was stopped in the forest to “protect” the endangered spotted owl. That allowed trees to become densely overcrowded, and fuel loads to increase to dangerous levels, which resulted in destructive wildfires that destroyed the spotted owl’s habitat.

## Change

The drastic pollution rates and animal deaths caused by wildfires have either not been reported or dramatically underreported. While I researched wildfire pollution in 2010 and 2011, I found few pertinent articles or studies. In writing this piece, I discovered that at least one of the articles I used in my 2011 story has been removed from the Internet.

Why are wildfire pollution rates underreported, while at the same time global warming is a hot topic?

My father's Smoked Bear is leading the charge to inform the public about the billions of pounds of pollution spewed and millions of animals killed by wildfires annually. Since Smoked Bear began in 2008, and as others have reported on fuel levels and pollution rates, the federal government has started addressing the need to reduce fuel loads on land it manages and increase coordination with land users.

In 2017, a number of news articles covered the problem. For instance, NBC reported that "California wildfires emitted a year's worth of car pollution in less than a week." This is a small but promising step towards educating U.S. citizens about the devastating pollution rates spewed from wildfires.

Since 2016, the U.S. government has begun making official statements and taking steps to reduce fuels on federal lands. In 2016, field supervisors from the U.S. Fish & Wildlife Service stated that grazing keeps ecosystems healthy. In 2017, the U.S. House of Representative's Committee on Energy and Commerce determined that fuel levels must be reduced to lessen wildfires and that government regulations have hindered the reduction of fuels. In 2018, the BLM and Secretary Zinke announced that it will be working with ranchers to demonstrate that grazing can be helpful in conservation efforts.

This offers some hope, especially since U.S. land ownership correlates directly with areas of severe fire risk, land management planning budgets have been drastically reduced, and fire-suppression budgets have swelled to \$2.9 billion in 2017.

You can make a difference by educating others that billions of pounds of pollution are being spewed and millions of animals are being killed by wildfires every year. The solution is to reduce the overgrown fuels in forests and on the range while increasing forest health. That will also benefit taxpayers and the U.S. Treasury. ■

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