

Winter Climate Extremes in the USA

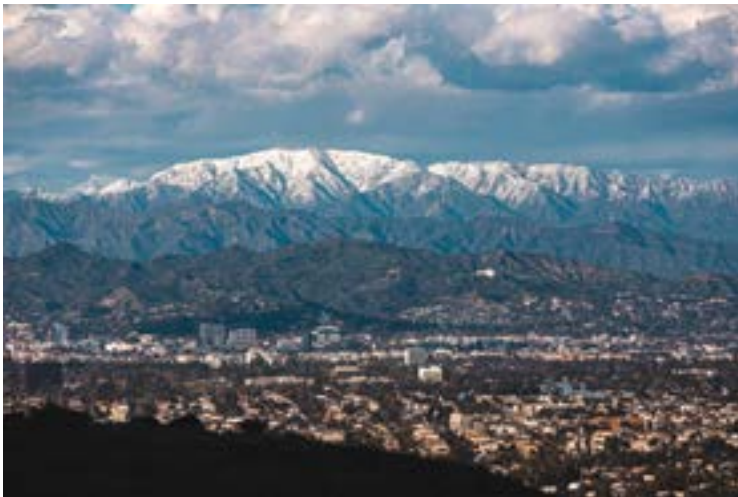


Dr. Alan K. Betts

The winter climate extremes across the U.S. have been striking. We know that we are responsible for them, but we listen to the webs of lies and pretend we do not know. Back in 1978, James Black, the chief scientist of the current Exxon-Mobil did the global modeling and correctly concluded that doubling atmospheric CO2 would be a disaster for the global climate and for life on Earth. He told management they had five years to change their business plan. Their response was simple: "Be quiet. We have trillions of dollars to bribe politicians and fund webs of lies and advertising to confuse the public for decades." This is exactly what they have done for 45 years. Hundreds of politicians have accepted large bribes to deny climate change. This criminal behavior of the fossil fuel empire, who are consciously and deliberately killing life on earth to maximize their profits, is staggering. The recent COP 27 meeting in Egypt in November 2022 is typical. There were a record number of 636 paid fossil fuel lobbyists to make sure their companies' profits remain protected. Yet we refuse to hold them responsible and bill them for the damages caused, so we are collaborators.

California has had some remarkable weather extremes this winter as the Pacific El Nina circulation has enhanced the west coast storms. Southern California had blizzard warnings for the first time with five feet of snow to the east of Los Angeles. Some towns in Los Angeles County had temperatures as low as 18oF, which were record lows. Atmospheric rivers of moisture coming in across the Pacific brought heavy rain and flooding on other occasions. San Francisco saw more rain over a two-week period than at any other time in 150 years. Some communities were washed out, powerlines were destroyed and dozens were killed. The heavy rains and heavy mountain snows may partly balance the earlier drought conditions, and may also help with moisture and reservoir supplies in spring. Time will tell.

With 10 feet of snow in the mountains, emergency workers scrambled to help scores of residents and tourists who were unaccustomed to the sheer amount of precipitation. Snow berms trapped people in cabins and cars in driveways, preventing them from leaving Lake Arrowhead and Big Bear Mountain. Day-tripping skiers and snowboarders from Southern California were simply unprepared, and many had insufficient supplies of food and prescription medicines. Natural gas lines were fractured, sparking five fires in two days. When firefighters arrived to extinguish the flames, they found hydrants encased in ice and feet of snow. The first week of March, Gov. Gavin Newsom declared a state of emergency in 13 counties affected by winter storms, as another 3ft of snow fell the first weekend in March and residents were trapped



Snowcapped San Gabriel Mountains from MacArthur Park, Los Angeles, CA after the historic snow storm of February 2023. (Adobe Stock/577249596)

behind walls of snow and concerned about their dwindling supplies. Yosemite National Park, which broke a 54-year-old daily snowfall record, was closed indefinitely. As I write another atmospheric river threatens heavy rain on deep snow and more flooding.

A winter ice storm hit Texas, Oklahoma and Arkansas, from January 31 to February 2, as an Arctic cold front made its way south to meet with warm, moist air from the Gulf of Mexico. Interstates were closed as accumulating ice led to more than 100 car accidents. Many in Texas lost power as ice brought down trees and power lines.

Other thunderstorms across the southern U.S. brought tornados. In January and

February there were more than 173 tornadoes affecting a remarkable list of states: Alabama, Arkansas, California, Florida, Georgia, Illinois, Iowa, Kentucky, Louisiana, North and South Carolina, Tennessee and Texas. The Houston Weather Service office declared a tornado emergency for the first time.

At the beginning of March winter weather advisories and warnings were issued for much of the Upper Midwest and Northeast. The first significant snowfall of what had been a mild winter fell overnight. Up to eight inches of snow blanketed some communities with much more in the mountains. Heavy snow fell across east central New York, western and central Massachusetts, southern New Hampshire and Vermont to western Maine. Road travel was difficult and there were many flight cancellations or delays.

A second much larger snowstorm driven by a powerful Nor'easter followed on March 13-15. New York as far south as Albany and all the New England states were blanketed in heavy, wet snow ranging from one to over four feet in higher terrain.

The weather service does a great job warning the public to prepare for unusual extremes, but it may not explain the ongoing climate situation. However as the public experiences so many unprecedented events, understanding the new climate extremes is spreading. Some of the mass media commented correctly that scientists say climate change, supercharged by humanity's burning of fossil fuels, is making storms more ferocious.

This winter an exceptional number of eleven atmospheric rivers brought heavy rain and snow to California and the west coast, and storms have covered the entire country. The central issue, discussed in the first paragraph, is that our society refuses to face the truth and bill the fossil fuel empire for the widespread damage that these climate extremes have caused this winter. The fossil fuel empire has been consciously destroying life on Earth, including our children and grand-children for decades to maximize their profits. This is clearly a crime against all life on Earth, which we should not accept. It is time to simply bill the fossil empire for all the ongoing damage and death they have caused.

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OUR MILD WINTER

- Cont'd from p.1



What will the consequences of our warm winters mean for sugaring seasons? (Flickr/Watershed Post)

hemlocks, or it might not have been long enough. Again, time will tell. That is one undoubted downside to warmer winters; the adelgid has been able to move north through Massachusetts, and into Vermont and New Hampshire, due to the absence of prolonged below-zero weather.

Warm winters can have an impact on farms and gardens by allowing insect pests to winter over in higher numbers. With a higher accumulation of warmer-than-normal days, notes Penn State Extension fruit and vegetable educator Timothy Elkner, growers can expect to see pests like allium leafminers, aphids, and thrips, emerge earlier, and reach damaging levels more quickly. This probably means more damage, as the insects will be munching on plants that are younger and more vulnerable. If this is happening in the garden and farm field, for sure it is happening in the wild. (We can hope, though, that more bugs will mean more food for birds to feed their young.)

There is some speculation that the warm winter may increase harmful algae blooms this summer, but it's important to note that spring did not actually start early. The warm winter weather was bookended by cold and snow. Therefore there will likely not be an increase in organic matter and nutrient flow. We'll have to wait and see.

Big picture; in a warm winter people use less heating fuel, which is good for the planet, and in an open winter they do less snowmobiling, also a net good until electric snowmobiles become widely used. The effect on wildlife is probably mixed. Deer had no need to yard up for most of the winter and probably fared well—but we have too many deer for ecological balance. Rodents like mice and voles lacked snowcover to hide under—bad for them, good for owls, who suffer when there is a heavy, crusted snow layer. As it was also a poor acorn year, the rodent population may take a hit, but that is all part of natural cycling.

There is a lot that we cannot know about the effects of the winter, because they are getting more wild and unpredictable than what used to be normal. We can expect them to be generally warmer, but we should not count on that. As the elder flowers and dandelions are coming out on schedule by the calendar, other new spring activity in nature has been pushed ahead, as we have seen. The times are very confusing.

And yet, there are things that we do know, and for those of us who have been working on reducing our carbon emissions, the path should be obvious. They mean a stronger effort to see that the use of fossil fuels is eliminated. We have the tools, and we know the strategies. We just have to do the work – and hope we can succeed.

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Jimmy Carter - Cont'd from p.22

oil, but the cost in dollars and human lives has been exorbitant. However, if you're invested in fossil fuels or munitions, the past forty years have been a boom time.

Despite 40 years of continued conflict, the war in the Ukraine and the recent rise in gas prices and the resulting inflation remind us we are just as vulnerable now to international effects on our energy supply as ever. And now we know about climate change.

As I think about President Carter, I can't help but wonder what our country would be like if we had made a different choice in November 1980. It's time we gave a serious look to our energy options and commit our nation to energy independence through sustainability. It is not too late for us to make the right choice.

Wes Golomb is a clean energy advocate and author of the recently published book and video series *Warm and Cool Homes, Building a Comfy, Healthy, Net-Zero Home You'll Want to Live in Forever*. ♻️



President Carter dedicates solar installation at the White House in Washington, D.C. June 20, 1979. (Energy.gov)