

# From forecast to fact: waking up to climate change

by Elisa Graf

As summer temperatures climb to sweltering heights around much of the northern hemisphere, it won't come as a surprise to many that 2018 is on track to be the fourth warmest year on record, surpassed only by 2015, 2016, and 2017. According to data from the US National Oceanic and Atmospheric Administration (NOAA), this period marks the warmest four-year span since measuring began, while June 2018 saw the 402nd consecutive month with temperatures above the 20th-century average, and in July, at least 118 all-time heat records were set or tied across the globe.

Pennsylvania State University climate scientist Michael Mann says it's clear that this summer's scorching heat is driven by human-caused climate change. "What we're seeing right now across the Northern Hemisphere is extreme weather in the form of unprecedented heat waves, droughts, floods, wildfires," he explained in a radio interview. "In isolation, it might seem like any one of these things could be dismissed as an anomaly, but it's the interconnectedness of all these events and their extreme nature that tells us that we are now seeing the face of climate change. The impacts of climate change are no longer subtle."

But are today's extreme weather events and their disastrous effects enough to finally wake us up to the reality of global warming? Noting a surprising nod to climate change in a recent article in Britain's biggest-selling daily newspaper, *The Sun*, author Michael McCarthy, one of Britain's leading writers on the environment, says he sees a *tipping point*. In an op-ed published in *The Guardian* he suggests that what we are witnessing now as temperatures soar: "... is a historic shift in the way that the threat of climate change is perceived by the world, from prediction to observation.... Seeing things happening around you cannot be gain-said like predictions can, and in this remarkable summer of 2018, events in the real world have been starting to catch up with the climate models' forecasts of an overheating globe."

Reminding us that up until today, the science warning us has relied on supercomputer models

of the climate system to predict what will happen, McCarthy says such predictions come with inherent uncertainties, and it's these which have enabled climate denial to "sprout and flourish". He notes that the time has come when people are finally realizing beyond doubt that something abnormal is happening to the global climate, and this may be the start of a process that will "... eventually throw the perverted ideology of climate denial into the dustbin of history – where it belongs".

As temperatures soar around the planet, the challenges global warming creates are now being thrown into sharp focus, and the limits of basic infrastructure – much of which was built on the assumption of a cooler cli-

mate – are being tested: roadways are melting, railroad tracks bending, airport runways are cracking and power plants from France to Finland have had to power down because water from local waterways used to cool them became too warm.

With rising temperatures, water in lakes and rivers evaporates more quickly, leading to drier soils and vegetation. Brenda Ekwurzel, senior climate scientist at the Union of Concerned Scientists, says this ultimately creates "... a tinderbox condition ... what we see in the Western US, that large wildfires are lasting longer, they're more severe, and they are burning more acres".

Since 1984 such conditions have enabled fires in the US to spread across 16,000 square miles *more* than they otherwise would have, equivalent to an area larger than the states of Massachusetts and Connecticut combined, notes a new study published in August in the *Proceedings of the National Academy of Sciences*. The results point to a near doubling of the forest-fire area in the western US over the past three decades. Measuring increasing temperatures, the  
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photo: peisempower.org

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# March for peace, planet and unity

Over 100,000 people gathered in London in July 2018, to show their opposition to President Trump during his visit to the UK.

In a determined but good-humoured demonstration, with many creative and colourful banners, young and old marched through London to Trafalgar Square where a rally was held.

Protester Louise Wilkstrom said: "I just think it's really important to show the UK, the US and the rest of the world we are against Trump's racism, misogyny and homophobia."

The protests spread to Belfast and then to Edinburgh and Glasgow, to coincide with Trump's visit to Scotland, with smaller demonstrations in cities across the UK.

For Diana James, 71, this was her first-

ever demonstration, but feels that "Mr Trump is so dangerous.... We are now in a position where we can destroy the planet. He has got to accept global warming and stop drilling in Antarctica. It is the greed that is killing the planet. It is the power of multinationals, the banks, the hedge funds. Trump has got them in his government. He is doing deals with them."

Many activists and politicians spoke at the event, celebrating the diversity of the UK and the right to free speech. Among them was the leader of the Labour Party, Jeremy Corbyn, who began his inspiring speech by referring to a banner in the crowd: "Build bridges, not walls" and told the attendees "we are united in hope". He touched upon the UN Declaration of Human Rights, the environment, and equality in this speech, stating: "I wish to live in a world of peace

not of war. I wish not to blame refugees for the wars that they themselves are victims of, and I wish that we pursue the politics of unity, the politics of togetherness, the politics of recognizing the strengths and the good that is in each of us, however poor, however marginalized, however put upon they might be."

Rapper and activist Lowkey stated that "Donald Trump represents the most grotesque face of corporate irresponsibility", and also called upon the US to immediately reunite immigrant children and their families separated through their immigration policy.

British MP David Lammy also spoke at the event, saying: "We march not because we hate the United States of America, we march because we love the United States of America." (Source: ITVnews; *The Independent*, UK; YouTube) ●

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study found an average increase of 2.5 degrees Fahrenheit since 1970 in forested areas among 11 western states. So far this year, fires have burned 4.9 million acres – a nearly 26 per cent increase over the past 10-year average. In California, the fire season now stretches to nearly year-round and devastating blazes have already scorched 378,429 acres – an area larger than the entire city of Los Angeles.

The frequency and intensity of fires is increasing in other parts of the world as well. 2018 marks Europe's most deadly wildfire season since 1900, according to the International Disaster Database run by the Centre for the Research on the Epidemiology of Disasters, Brussels. An average year sees about 1,500 square miles of the EU burn, but last year fires burned nearly three times that much, causing the deaths of 66 people across Portugal and Spain. The fiercest wildfires in a decade swept uncontrollably through towns outside Greece's capital, Athens, in July, killing 91 people. Sweden is battling more than 80 blazes this summer, including several north of the Arctic Circle. "Some of the biggest fires that we've seen

worldwide now are occurring in the subarctic and now even in the high Arctic areas," says Ed Struzik, environmental studies fellow at Queen's University, Ontario. But, he notes, Arctic fires are different. As climate change warms polar regions twice as fast as other parts of the world, boreal forests, tundra and peatlands are drying up. These northern landscapes are covered in peat moss, he explains, and it burns differently – the fire smoulders in the ground. He adds: "When it does, it could last the entire summer and then just ... hibernate for the winter months and then start up again the following year."

Where political will is failing to address the dire consequences of climate change, most inspiring of hope is that ordinary people around the world are taking up the challenge to turn the tide themselves. Concerted divestment campaigns are yielding results

On 8 September, tens of thousands around the world will be joining one of the Rise for Climate mobilizations, where communities will be calling on elected officials and decision-makers at all levels to take meaningful and immediate climate action for a fossil free world.

with over \$6 trillion in assets already committed to divest from fossil fuels. As of July, more than 1,000 climate change cases have been filed against governments, corporations and individuals in 24 countries, and 888 of these cases are in the United States, according to Columbia University's Sabin Center for Climate Change Law.

Even more importantly, the next generation is already mobilized to act: a group of young Americans aged 11 to 22 just secured a victory in their case against President Trump's administration, with the US Supreme Court's ruling that their lawsuit demanding that the federal government take stronger action against the climate crisis can proceed. Summing up her ardent determination to act, 13-year old plaintiff Zoe Foster explained: "I'm not going to sit by and watch my government do nothing. We don't have time to waste. I'm pushing my government to take real action on climate, and I won't stop until change is made."

For more information: [riseforclimate.org](http://riseforclimate.org)

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