

# Beating the heat becoming more difficult, science says

August 5 2022

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An intense heatwave swept across Europe in July. The scorching heat fuelled fires in Spain, France and Portugal. With the thermometer topping 40 °C, the United Kingdom (UK) was the center of attention

after breaking temperature records. The murderous heat nearly paralyzed the country.

Since 1880, the average global temperature on Earth has increased by at least 1.1 °C. The culprit? Climate change, of course.

## Getting hotter, faster

According to findings released by the World Weather Attribution (WWA) initiative, a global collaboration between [climate scientists](#) and specialists, the record temperatures would have been up to 4 °C cooler without human-caused climate change. The hottest day ever (40.3 °C) in the UK was registered on 19 July. The WWA analysis also claims that climate change made this heatwave 10 times more likely.

"In Europe and other parts of the world we are seeing more and more record-breaking heatwaves causing [extreme temperatures](#) that have become hotter faster than in most climate models," commented Dr. Friederike Otto from the Grantham Institute for Climate Change at Imperial College London, who also headed the WWA project that carried out the analysis, on CNN. "It's a worrying finding that suggests that if [carbon emissions](#) are not rapidly cut, the consequences of climate change on [extreme heat](#) in Europe, which already is extremely deadly, could be even worse than we previously thought." She states that we would expect such record-breaking temperatures between once every 500 years and once every 1,500 years.

Dr. Radhika Khosla from the Oxford Smith School of Enterprise and the Environment applauded the WWA's efforts: "By carrying out rapid analysis based on established, peer-reviewed methods the WWA team are able to get evidence-based results into the [public domain](#) while we can all still remember the major disruptions from last week's extreme heat. This is the latest in a series of studies that all show the same result:

climate change makes heatwaves more likely and more intense."

## The heat is on

The scientists combined observations of temperature records over the years and [climate models](#), or simulations, to determine human impact on extreme heat. "Because we know very well how many [greenhouse gases](#) have been put into the atmosphere since the beginning of the industrial revolution, we can take these things out of the model and simulate a world that might have been without climate change," Dr. Otto explained to 'BBC'. "Every little bit of warming really makes these types of events more likely and even hotter. Heatwaves are much more deadly than other extreme weather like floods and [climate change](#) is a game-changer for heatwaves."

We don't need science to tell us that extreme heat events are becoming more frequent and last longer around the world. Nor do we need science to tell us who can reverse this dangerous trend.

**More information:** Findings: [www.worldweatherattribution.org/scientific-report.pdf](http://www.worldweatherattribution.org/scientific-report.pdf)

Provided by CORDIS

Citation: Beating the heat becoming more difficult, science says (2022, August 5) retrieved 20 June 2024 from <https://phys.org/news/2022-08-difficult-science.html>

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