

Climate change makes Siberian heat 600 times likelier

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EXFILE

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A heatwave in Siberia that saw temperature records tumble as the region sweltered in 38°C highs was "almost impossible" without the influence of manmade climate change, a new flash study says. Scientists found that the greenhouse effect multiplied the chance of the region's prolonged heat by at least 600 times. We take a look



MERCURY LEVELS UP



METHODOLOGY

As part of a growing area of climate research known as attribution science, the team ran computer simulations of temperatures with the climate as it is today — around 1°C hotter than the pre-industrial era baseline

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They then compared this to a model generating temperatures over Siberia this year without human influence — that is, without the additional manmade 1°C

RUSSIA BURNING AND MELTING

1.15 mn

hectares of forest are going up in flames releasing millions of tonnes of CO₂ into the atmosphere

At the same time, the wildfires and sustained heatwaves accelerated the region's permafrost melt

This caused an oil tank built on frozen soil to collapse in May, leading to one of the region's worst-ever oil spills

FINDINGS

The team of international scientists found that without climate change the type of prolonged heat that hit Siberia would happen once in **80,000 years**, effectively impossible without human influence

They also found that the record-breaking warm period was more than 2°C hotter than it would have been if humans had not warmed the planet



5,000

people are working to put off 197 fires across Russia in an area of over 40,000 hectares

HOTTEST YEAR ON RECORD

The five hottest years in history have occurred in the last five years and there's a better-than-even chance that 2020 will be the hottest ever recorded

NOT YET PUBLISHED

- This study, coordinated by World Weather Attribution, was done in two weeks and hasn't yet been put through the microscope of peer review and published in a major scientific journal
- World Weather Attribution's past work has found some weather extremes were not triggered by climate change, but 2020's Siberian heat wave stood out among the many studied

5°C HOTTER

Earth's poles are warming faster than the rest of the planet, and temperatures in Siberia — home to much of the world's carbon-rich permafrost — were more than 5°C hotter than average between January and June