SCIENCE

July was the hottest month in history

Chelsea Harvey, E&E News reporter • Published: Tuesday, August 6, 2019

People cooling off in a pool in Rotterdam on July 23 as a heat wave blanketed the Netherlands and most of Europe. Robin Utrecht/Sipa USA/Newscom

In what may be the week's most unsurprising news, scientists have officially announced that this past July was the hottest month ever recorded on Earth.

According to **data** released yesterday by the Copernicus Climate Change Service, a program of the European Centre for Medium-Range Weather Forecasts, last month edged out July 2016, the previous record-holder, for the title.

Last month was 0.04 degree Celsius, or about 0.07 degree Fahrenheit, warmer than July 2016. And it was more than 1 F warmer than the average July between 1981 and 2010.

The news follows a spate of record-breaking temperatures across Europe and the Arctic, the product of a persistent heat wave that roasted European cities and spurred historic melting on the Greenland ice sheet (*Climatewire*, Aug. 2).

While these regions experienced some of the most striking extremes, many other parts of the world also saw above-average temperatures last month. Much of the United States, most of Africa and Australia, and parts of Central Asia were also hotter than normal. Even Antarctica was "less cold" than usual for July, the agency reported.

Scientists have already begun to link last month's extreme heat to the influence of climate change.

A **study** published last week by collaborative research group World Weather Attribution concluded that the influence of climate change probably made the most recent heat wave, which swept across Western Europe and Scandinavia during the last week of July, up to 3 C (5.4 F) hotter and 10 to 100 times more likely to occur, depending on the location.

It's a rapid study that has not yet been subject to peer review, although the research was conducted by some of the world's foremost experts in extreme event attribution science. It's also not the first such study they've released this summer.

A few weeks ago, the same research group conducted a rapid attribution **study** on an earlier heat wave, which struck parts of Europe at the end of June. Focusing on France, the study found that climate change has increased the probability of such an event by at least a factor of five, although it could be a factor of 100 or more.

The group also noted, "Every heatwave occurring in Europe today is made more likely and more intense by human-induced climate change." It's just the amount that differs from one event to the next.

Scientists have already pegged 2019 for one of the top three hottest years on record. NOAA last month **pointed out** that 2019 was so far tied with 2017 for the second-hottest year on record.

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