

Climate: Monthly heat records have increased fivefold

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Global warming has caused monthly records for heat to increase fivefold in frequency, according to a study by scientists in Germany and Spain, published on Monday.

In parts of Europe, Africa and [southern Asia](#), the frequency of months with record-breaking heat has surged tenfold, it said.

The evidence comes from an analysis of 131 years of monthly [temperature data](#), monitored at 12,000 points around the world, which are stored in a [NASA](#) database.

If man-made warming is stripped out of the equation, 80 percent of the records for hottest-ever months would not have occurred, it said.

"The last decade brought unprecedented [heatwaves](#), for instance in the US in 2012, in Russia in 2010, in Australia in 2009 and in Europe in 2003," said Dim Coumou of the Potsdam Institute for Climate Impact Research near Berlin.

On current trends for global warming, the number of new monthly heat records will be 12 times higher in 30 years than today, the researchers said.

"This doesn't mean there will be 12 times more hot summers in Europe than today—it actually is worse," Coumou said in a press release issued by PIK.

"To count as new records, they actually have to beat heat records set in the 2020s and 2030s, which will already be hotter than anything we have experienced to date."

The study, which was co-authored by scientists at the Complutense University of Madrid, appears in the journal [Climatic Change](#).

More information: Coumou, D., Robinson, A., Rahmstorf, S. (2013): Global increase in record-breaking monthly-mean temperatures . Climatic Change (online) [doi:10.1007/s10584-012-0668-1] link.springer.com/article/10.1007/s10584-012-0668-1

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