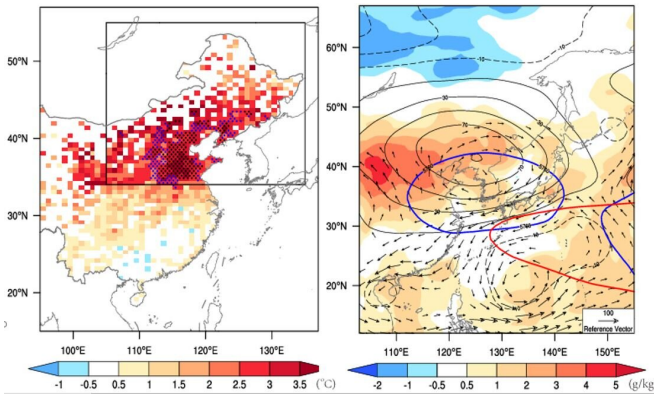


China health threats likely to increase due to heatwaves

28 January 2020



Observed heatwave characteristics in north-east China - 12 Jul to 10 Aug 2018. (L) Locations with record-breaking and second highest values since 1961 are shown with black and blue dots, respectively. (R) Circulation field from ERA-interim with specific humidity anomalies (shading, unit: g/kg) and 850-hPa moisture flux anomalies (vectors). The light black contours denote the 500-hPa geopotential height anomalies. 12th July - 10th August mean geopotential height (blue lines) and climatology (red lines) are also shown. Credit: University of Reading

Current health issues in China could be dwarfed by the future impacts of severe and frequent heatwaves caused by climate change, scientists are warning.

A study by the University of Reading, University of Edinburgh, the Met Office and several Chinese institutions, calculated that 30-day spells of deadly overnight heat, like the one that killed and hospitalised many people in north-east China in 2018, have already gone from being one-in-500-year events to one-in-60-year events since pre-industrial times.

They also found that extreme daytime heat, as well as extreme rainfall, is due to become more common in the country in future as humans

continue to emit greenhouse gases into the atmosphere.

Dr. Buwen Dong, co-author and [climate](#) scientist at the University of Reading and NCAS, said: "People are already suffering from more frequent extreme heat in China, and this will only get more common in future due to [climate change](#)."

"It is particularly concerning to see high night-time temperatures becoming a growing threat. This gives no respite to people struggling to cope with searing daytime heat and can lead to deadly heatstroke, particularly for vulnerable people. Better strategies for adapting and coping with rising temperatures are vital to save lives."

In two studies published by the American Meteorological Society, scientists looked at how common such hot conditions in north-east China and wet conditions in central western China have become, and will become in future, due to human-induced climate change.

They looked at almost 50 million daily temperature records captured at 2,400 weather stations across China between 1961 and 2018, along with data from other sources.

The scientists also found that climate change has made rainfall more likely to occur in severe bursts in central western China. Using [climate models](#), they calculated extreme downpours have become 1.5 times more likely since pre-industrial times, while the likelihood of persistent heavy rainfall has reduced by 47%.

Professor Elizabeth Robinson, an environmental economist at the University of Reading, who was not part of this study but addresses the vulnerability of people to climate change worldwide in the latest *Lancet Countdown* report, said: "The current [health](#) emergency in China is sadly causing many deaths and this report shows how climate change could

also cause serious health emergencies in the region in the future.

"A hotter climate will have a severe impact on global health, with the kinds of extreme temperatures that hospitalized record numbers of people in China in 2018 likely to become more frequent in the future. Outdoor workers, older and young people, and those with pre-existing health conditions are likely to be most at risk."

More information: Nick Watts et al. The 2019 report of The Lancet Countdown on health and climate change: ensuring that the health of a child born today is not defined by a changing climate, *The Lancet* (2019). DOI: [10.1016/S0140-6736\(19\)32596-6](https://doi.org/10.1016/S0140-6736(19)32596-6)

Provided by University of Reading

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