

《今年热浪不断，入冬不冷，科学家好像发现了原因》

Scientists have discovered a new link between a pattern of fluctuations in jet stream air currents and crippling heatwaves that strike in multiple regions of the world at the same time.

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Rossby waves are an atmospheric and oceanic phenomenon where giant meanders warp the flow of currents in a wave-like pattern. They don't only occur on Earth, but when they do, they're known to influence our planet's weather.

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Now, the extent of that influence is becoming clearer. In a new study, researchers have found that when certain amplified wavelengths take shape in jet streams – fast-flowing air currents that course through the sky at high altitudes – the phenomenon is linked to the emergence of concurrent heatwaves that devastate food-producing regions.

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"We found a 20-fold increase in the risk of simultaneous heatwaves in major crop-producing regions when these global-scale wind patterns are in place," says Earth systems researcher Kai Kornhuber from Columbia University."

??20??"?????????????????·????(Kai Kornhuber)???

Kornhuber and his team analysed climate data from 1979 to 2018 and found that when two particular wavelengths of circumglobal Rossby waves – called wave-5 and wave-7 – occurred in the Northern Hemisphere jet stream, they channel hot subtropical air into regions in North America, Europe, and Asia.

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The hot air produces temperature spikes that can persist for weeks: extreme weather events that kill people, and threaten global food security through the widespread impact they have on crops.

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