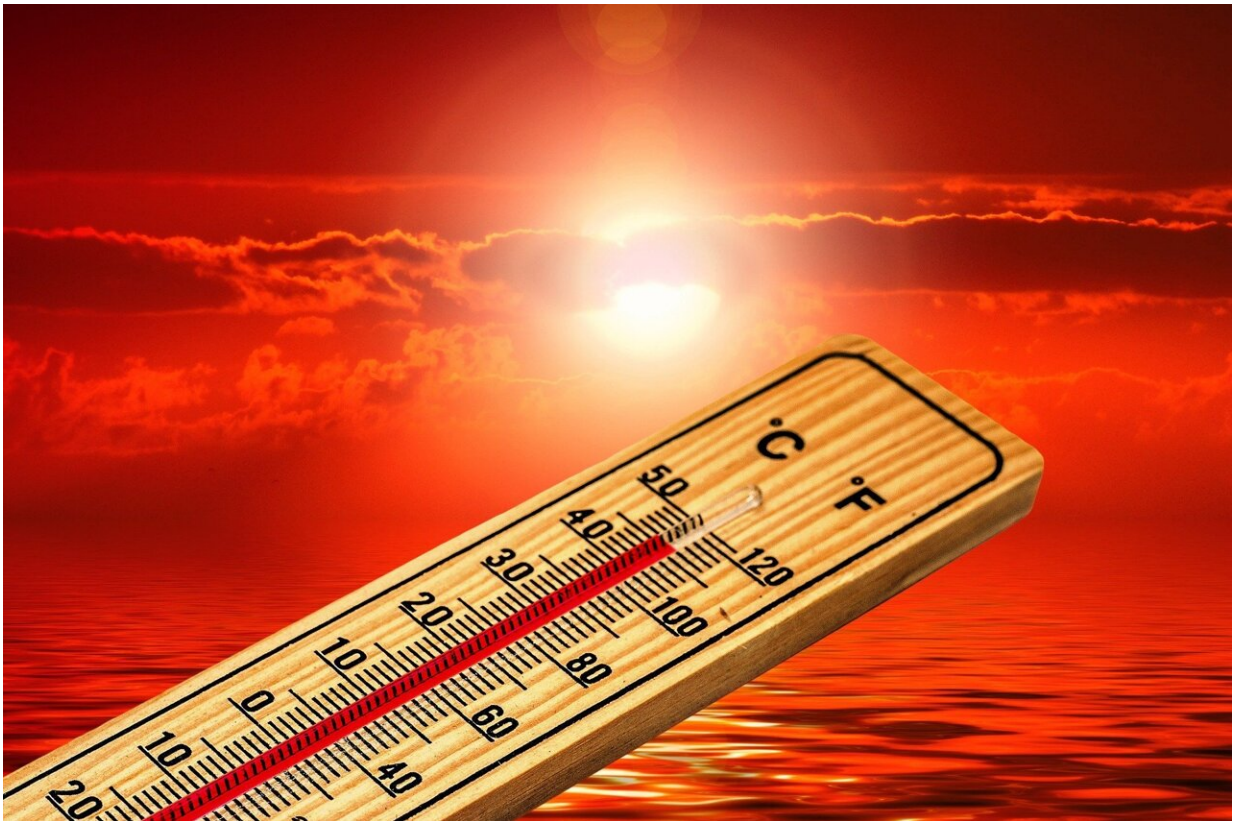


# Climate data product reveals humidity's role in temperature extremes

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The UK Met Office Hadley Centre, introduces an innovative data product, [HadISDH.extremes](#), offering invaluable insights into temperature extremes and their humidity characteristics. This globally

gridded monitoring product covers the period from January 1973 to December 2022. The findings, along with the dataset description, are published in [Advances in Atmospheric Sciences](#).

Dr. Kate Willett, who led this research, explains, "HadISDH.extremes is an annually updated product designed to monitor and analyze heat extremes worldwide. Our dataset places a strong emphasis on [data quality](#) and stability for reliable insights. We've used quality-controlled hourly data from [weather stations](#) and introduced a unique approach to minimize inhomogeneity at the monthly level. This approach balances temporal stability with spatial coverage to provide a globally consistent product."

One of the standout features of HadISDH.extremes is its provision of both wet and dry bulb extremes indices. This unique capability allows researchers and scientists to distinguish between various types of heat events, which may be hot and dry, hot and humid or warm and very humid. It is particularly valuable for the study of long-term trends in regional climate features.

Additionally, HadISDH.extremes allows exploration of what Dr. Willett refers to as "stealth heat events." These events are characterized by high humidity levels, which can impact productivity and health, even when the temperature remains moderate. Such events may not be traditionally identified as "heat events" by temperature-focused indices.

Over the study period from 1973 to 2022, HadISDH.extremes uncovers significant trends in humid and dry heat extremes. The [dataset](#) contributes to the understanding of exposure to different types of [heat](#) events and underscores the importance of considering both temperature and humidity in climate studies.

**More information:** Kate M. Willett, HadISDH.extremes Part I: A

Gridded Wet Bulb Temperature Extremes Index Product for Climate Monitoring, *Advances in Atmospheric Sciences* (2023). DOI: [10.1007/s00376-023-2347-8](https://doi.org/10.1007/s00376-023-2347-8)

Kate M. Willett, HadISDH•extremes Part II: Exploring Humid Heat Extremes Using Wet Bulb Temperature Indices, *Advances in Atmospheric Sciences* (2023). DOI: [10.1007/s00376-023-2348-7](https://doi.org/10.1007/s00376-023-2348-7)

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