

Climate Thresholds: an easy way to explore future climate extremes

Tuesday 19 February 2019, 2.30-3.30 pm (AEDT)

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Last year, much of Australia was impacted by heatwaves and drought – and these have continued into the New Year. In a warming climate, we expect these to become increasingly frequent and severe.

A simple way to describe extremes of heat is to look at the number of days per year where the daily maximum exceeds a particular temperature. For example, you might be interested in the number of days per year where the daily temperature exceeds 35°C. By looking at daily minimum temperature instead of maximum, the same approach can be used to look at cold or hot nights. Rainfall can also be investigated using a similar approach. For example, how many wet days or dry months per year do we expect on average? Such climate statistics are readily available for the past from the Bureau of Meteorology – but what about the future?

The Thresholds Calculator tool within the *Climate Change in Australia* website provides an easy way to estimate these statistics for the climate of the future. The tool allows you to investigate these extremes at four future time periods and under two different emissions scenarios.

The Earth Systems and Climate Change Hub is supporting the long term sustainability of the *Climate Change in Australia* website and its various tools, including the Thresholds Calculator tool. Researchers from the Hub are ensuring climate change projections information and data are communicated effectively to a wide range of stakeholders including other researchers, businesses, governments and local planners and managers. The Thresholds Calculator tool is useful as a climate change 'conversation starter' or as the first step in a detailed analysis of the impacts of the changing climate.

In this webinar, John Clarke will provide a demonstration of how to use the newly released Thresholds Calculator v2.0 to estimate the frequency of future hot, cold, wet and dry extremes under different emissions scenarios.



Mr John Clarke leads the Outreach Component of the Earth Systems and Climate Change Hub Project 2.6 *Regional climate projection science, information and services.* He has close to a decade of experience developing and delivering climate projections tailored to the needs of practitioners and researchers in the climate impacts and adaptation field. John and the Regional Projections Team previously led the development of the Climate Change in Australia website and its 14 webtools, including the Thresholds Calculator tool.

The Earth Systems and Climate Change Hub science webinars are open to anyone interested in finding out more about the Hub's research (noting that the content may assume some understanding of climate change science and the fields being discussed).