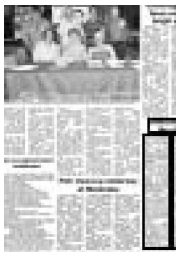

31 Jan 2019
Coonamble Times, Coonamble NSW

Section: General News • Article type : News Item • Classification : Regional
Audience : 1,222 • Page: 10 • Printed Size: 149.00cm² • Region: NSW
Market: Australia • ASR: AUD 166 • Words: 303 • Item ID: 1071437103

back

Sweltering in the city

AS IF the daytime heatwave temperatures weren't bad enough, Melbourne and Adelaide residents will also have to put up with nightly temperatures significantly higher than surrounding rural areas thanks to amplification caused by the 'urban heat island effect'.

While it's normal for cities to be warmer than surrounding rural areas at night researchers from the ARC Centre of Excellence for Climate Extremes at Monash University have found that heatwaves make this difference almost three times greater under some heatwave conditions.

"Our research shows that heatwaves in Melbourne and Adelaide amplify the difference in night time temperatures between urban and rural areas even more than usual," said study co-author Dr Ailie Gallant from the Monash School of Earth, Atmosphere and Environment.

"Under usual circumstances, Adelaide and Melbourne are up to 1.4˚C warmer than their rural neighbours but when a heatwave kicks in the nightly temperatures in these cities can be on average 1.2˚C – 3.3˚C warmer," she said.

The paper, published recently in the journal Theoretical and Applied Climatology looked at three Australian cities to see how night-time temperatures changed during heatwaves compared to surrounding areas.

Intriguingly, while Melbourne and Adelaide sweltered, Perth was actually cooler than surrounding rural areas.

The reason for this was not immediately apparent with wind speed and direction, sea breezes, and the locations of the weather stations ruled out as the likely cause of these differences.

Past research has shown the presence of vegetation, large water bodies and fewer concrete surfaces help reduce the urban heat island effect at night and even during the day during our warm summers.

"With increasing numbers of heat records being broken and longer heatwaves, likely the result of background climate change, research by climate scientists is pointing the way for city planners to reduce the impacts of overnight temperatures," Dr Gallant said.