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Observed changes in temperature extremes from a new gridded global dataset

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We have developed a new quasi-global gridded dataset using observed daily maximum and minimum temperatures for the period 1950-2000. Station anomalies were gridded onto a 2.5 by 3.75 degree grid using an angular-distance weighting technique. An assessment of the dataset quality will be presented, along with comparisons with existing datasets of lower temporal resolution.

Analysis of this dataset reveals that the proportion of extreme warm days and nights (based upon exceedance of the 10th and 90th percentiles) has shown an increase during the latter half of the twentieth century over most regions, with the proportion of cold days and nights displaying a decreasing trend.