

**CLIVAR-SPAIN contributions: Time trends of daily maximum and minimum temperatures in Catalonia (NE Spain) for the period 1975-2004**

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Daily maximum and minimum temperatures, Tmax and Tmin, and diurnal temperature range, DTR, from 37 temperature stations in Catalonia (NE Spain) are analysed to detect significant daily time trends for the period 1975-2004. The homogeneity of the series is tested by the Standard Normal Homogeneity, the Buishand range and the Pettitt tests. The lack of randomness of the series, suggesting time trends, is also investigated by means of the Von Neumann ratio test. The significant daily time trends obtained and their spatial and temporal patterns are in agreement with overall time trends recently derived for the Northern Hemisphere. The results indicate generalised increasing annual trends of daily Tmax and Tmin (0.5 deg/dec), especially relevant in spring and summer, with values reaching 0.8-0.9 deg/dec, and also remarkable for Tmax in winter (0.7 deg/dec). In autumn, however, average trends point at a decrease of Tmax (-0.5 deg/dec). As a result, an average annual decreasing trend of DTR is found, particularly relevant in autumn (-0.9 deg/dec). Several periods with an outstanding number of stations showing significant positive trends for Tmax and Tmin are detected and analysed during the spring and summer seasons. The only period with a relevant number of significant negative trends is detected in February for Tmin. Keywords: CLIVAR-Spain, Climate variability and change, southwestern Europe