



Observed Variability and Trends In Winter Extreme Minimum in Turkey, From 1966-2014

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Knowledge of extreme temperature events is consequential physical effects. Cold and hot events have delimited activity of human and quality of life. In this study, winter temperature extremes and their spatiotemporal variability are investigated at 156 meteorological stations in Turkey. We have chosen the following two indices of extremes; frequency of days with minimum temperature below the 1966-2014 mean 1st (extreme cold nights) and 5th (cold nights) percentiles.

Trends in extreme minimum temperature have been analyzed from 1966 to 2014 in winter season. In order to detect possible trends in extreme temperature over the Turkey, the Mann-Kendall test has applied to the annual percentile series.

The lowest minimum temperature extreme values are observed in the east of Turkey. The most extreme cold events have been experienced in 1972. The Central and eastern regions of Turkey, be effective in the continental climate, there are increasing numbers of extreme cold night events. Extreme cold events are less observed in coastal stations. The number of extreme cold events has been observed a downward trend since 1990. The decreasing trends are not statistically significant. This situation displays cold events have fewer experienced from year to year.

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