

Seasonal trends of number of the days with unusual temperatures in Zagreb

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The present paper discusses the distribution of seasonal trends of number of days with unusual temperatures in Zagreb for the period 1862-2005. The days with unusual temperature are days above 90th percentile (days estimated as very warm and extremely warm if compared with the average 1961-1990) and days below 10th percentile (days estimated as very cold and extremely cold while compared with the average). Secular trends at the station Zagreb-Grič of the annual number of days above 90th percentile indicate a positive significant trend of 12.0 days/100 years, while for days below 10th percentile, a significant negative trend of 16.6 days/100 years could be observed. The significance of linear trends is tested by means of Mann-Kendall rank test. Seasonal trend of number of days above 90th percentile were in winter 4.7 days/100 years, in spring 3.7 days/100 years, in summer 2.8 days/100 years and in autumn 0.8 days/100 years. Trend of number of days below 10th percentile were -7.5 days/100 years in winter, 3.9 days/100 years in spring, 1.6 days/100 years in summer and 3.6 days/100 years in autumn. The most prominent was the trend manifesting a decrease in the number of very cold and extremely cold days if compared to the average in winter season.