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Heat waves in Serbia during the summer season

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A general increase in warm extremes is found on a global and regional scale, although warming has not been uniform, either spatially or temporally. In Europe, the last few decades correspond to the period characterised by the steepest temperature increase since the beginning of the twentieth century. In this study, heat waves in Serbia are analysed using time series of daily maximum temperatures at ten meteorological stations distributed across Serbia during the period 1961–2016. Duration and severity of the heat waves are estimated applying the definition of the Warm Spell Duration Indicator (WSDI). The WSDI is defined as the number of at least 6 consecutive days for which the daily maximum temperature on a calendar day was higher than the corresponding 90th percentile. It is found that the duration and severity of heat waves have increased during the last three decades. The longest heat waves are registered in 2012 in central and southern Serbia, while in northern Serbia in 2015. However, they did not reach the severity of those in July 2007, when record values of the maximum temperatures were observed over almost the whole territory of Serbia.