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Heat waves in south-eastern europe - identification of synoptic patterns using COST733 catalogues

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Seven of the twelve years at the beginning of 21st Century are considered to be among the driest years of all the meteorological record for South-Eastern Europe, since 1961. The study of the main causes and effects of this particular situation and of the subsequent impacts focuses on the analysis of connections between large scale circulation patterns and the last decade's heat waves and drought above mentioned area. Daily maximum temperatures and the Angot index were correlated with circulation patterns identified using COST733 catalogues. The results reveal that persistence, over the South-Eastern Europe, of high pressure synoptic systems having a strong Southern circulation component represents the main cause of extreme temperatures and prolonged drought episodes.

keywords: heat wave, drought, circulation pattern, South-Eastern Europe, CLIMHYDEX