

Synoptic characteristics of extreme heat episodes in the Basque Country

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Extreme heat episodes, in our region, can be produced between May and September, and especially in the months of June, July and August. In such a severe weather situation economic damages and even personal casualties could be higher than those related with rainfall or strong winds severe weather situations, as in the 2003 summer case over South Europe.

In this work a preliminary study on heat episodes in the last years in the Basque Country is made. So, temperature data from the AWS network of the Basque Country are used to carry out this study. To define the extreme temperature episodes temperature thresholds are used. These thresholds are chosen taking into account the geographical situation of each station and dividing the Basque Country into four zones.

Synoptic patterns are associated to the temperature extreme episodes by means of a subjective classification. The main characteristics of the events are detailed, with the analysis of the main fields in the levels of 500 hPa, 850 hPa and surface.