



Looking for the factors involved in the evolution of flood events in the Northeast of the Iberian Peninsula

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This contribution comprises the analysis of the evolution of flood events in the Northwestern Mediterranean area, their trends and the possible associated factors related with vulnerability and hazard changes, in basis to the information collected in the INUNGAMA and FLOODHYMEX databases, and in the present Spanish project HOPE. The contribution is also focused on the characterisation of the degree of the convective contribution to rainfall, introducing the β parameter as the ratio between convective precipitation versus total precipitation in any period, in the Northeastern part of the Iberian Peninsula, for which some precipitation series at subdaily resolution exist. The trend analysis shows a little increase in flood events although no trend has been detected in extreme values of precipitation at daily scale, neither in the associated ETCCDI index. This result could point to a vulnerability and exposure increase or changes in the land uses. This flood event increase is particularly important in summer, when this events are mainly flash-floods produced by short and local convective phenomena. A summer increase of the convective contribution concentrated in less torrential events has been found in some parts of the region that could explain, partially, this positive trend on flash flood events. Our contribution also explores the evolution of the floods impact and the role of the measures of resilience.