Geophysical Research Abstracts, Vol. 7, 04357, 2005
SRef-ID: 1607-7962/gra/EGU05-A-04357
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Seasonal rainfall variability in the Iberian Peninsula from the 16^{th} century: preliminary results from historical documentary sources.

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Anthropogenic influence on climate overlaps a background of natural climate variability that may diminish or increase it. Paleoclimatic studies are useful in understanding the nature and possible reasons for present climate variations, because they allow the analysis of changes in the relatively short instrumental period in longer-scale perspectives. In this work, a reconstruction of seasonal rainfall characteristics in the Iberian Peninsula from the 16^{th} century to the present is described. This reconstruction is based on the analysis of a wide variety of documentary data. Weather information was taken from original documentary sources in different Spanish localities, representative of the main pluviometric regions in the Iberian Peninsula (western area and Mediterranean coast). Documentary data were translated into numerical indices to elaborate time series of rainfall for each season of the year. These indices were calibrated with instrumental data corresponding to an overlapping period in the second half of the 19^{th} century. Preliminary results show time variations in the seasonal rainfall regime as anomalies from the reference period 1971-2000. Results are compared with other analyses reported in the literature. Scientific challenges for future research are outlined.