



## **Effects in the ecogeomorphological system of the inter-annual rainfall variability at long term abandoned hillslope.(South of Spain)**

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The induced changes by the pluviometric variability on the vegetation pattern and physico-hydrological soil properties at abandoned hillslope under semiarid climate conditions was analysed since 2002 till 2005, comparing both different situations, one humid (November'02) and another dry (November'05). The vegetation pattern was intensely disturbed and the biomass reduce by the lack of soil water available which caused the death of numerous vegetation individuals and the increase on bare soil patches and the surface wash. Those changes affected the soil properties: the texture became slightly sandier, the organic matter content fell and aggregate stability dropped. The soil water properties changed as a consequence of the variability of the pluviometry and they became more water-transferring. Moreover, the increase in surface stoniness reduced evaporation and the scarcer vegetation in lower transpiration; and as a consequence more water available on the soil profile. This will encourage vegetation recovery, which is a good example of how fast semiarid ecosystems are adapted to the dry periods.