



## Variability in a replicated plot experiment on erosion of intensively managed grassland soils

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Spatial predictions of soil erosion at the catchment level are usually made by combining erosion rates of sub-elements of the watershed (e.g. hillslopes and plots) that are treated homogeneously. For these sub-elements, erosion might have been measured locally and extrapolated to the entire area, or it might have been modelled based on literature or calibration against local measurements. Although treated as being homogeneous, one would expect variability of behaviour within each sub-element of the landscape. Such variability became apparent in a replicated 1ha grassland plot experiment conducted on the Rowden Experimental Research Platform at the Institute of Grassland and Environmental Research in Devon (UK) over the 2005-2006 hydrological season. Although apparently similar in terms of climate, soil, slope and management, the plots displayed a variability of hydrological behaviour and erosion rates within events that may be indicative for landscape units usually treated homogeneously in a spatial prediction context. We would, therefore, argue that reliable spatial predictions of soil erosion at the catchment level require a thorough quantification of the variability at sub-element level.