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Interactive comment on "Seasonal changes of the soil hydrological and erosive response in contrasted Mediterranean eco-geomorphological conditions at patch scale" *by* M. A. Gabarrón-Galeote et al.

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According to the suggestion made by Professor Artemi Cerdà, the following improvements were done in the manuscript:

1. The suggestions of the referee concerning to the abstract were followed and hence it was shortened and displayed in one paragraph.

2. The expression "hydrological behavior" was removed when it appeared in the manuscript and it was substituted by "runoff generation"

3. The last objective: "iv) to assess the influence of SWR on the soil hydrological and erosive response", was deleted and it was incorporated to the first one.

4. Regarding the references suggested by the referee, most of them have been included. In some case it was not possible to find the combination of authors and date proposed (e.g. Granged et al., 2013; Bodí et al., 2011b), but in this case another reference of the same author has been added.

5. A third season, called "dry season", was added to the analysis. During this season no runoff was detected so only in results regarding soil water repellency some modifications were done. However, the values corresponding to this season were added to the tables and figures when it was possible. Moreover, some lines were added to the text in order to highlight that this season was taken into account and an explanation for the absence of runoff was added. Six times along the text, in the point 5.2, the referee suggested to change transition into dry season. In my opinion, the sentences effectively refer to the transition season, so no change was added.

6. In the table 3 the values of rainfall, Intensity and maximum intensity has been changed. In the previous version only the events that generated runoff were taken into account. In the new version the total values for all the events in the season were displayed.

7. The figures were modified and colors were added. The scale of the y-axis of Fig 3 was changed to linear. The new manuscript is attached. Unfortunately I am not acquainted with Latex, so a doc version has been added.

Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/5/C562/2013/sed-5-C562-2013-supplement.pdf

Interactive comment on Solid Earth Discuss., 5, 1423, 2013.

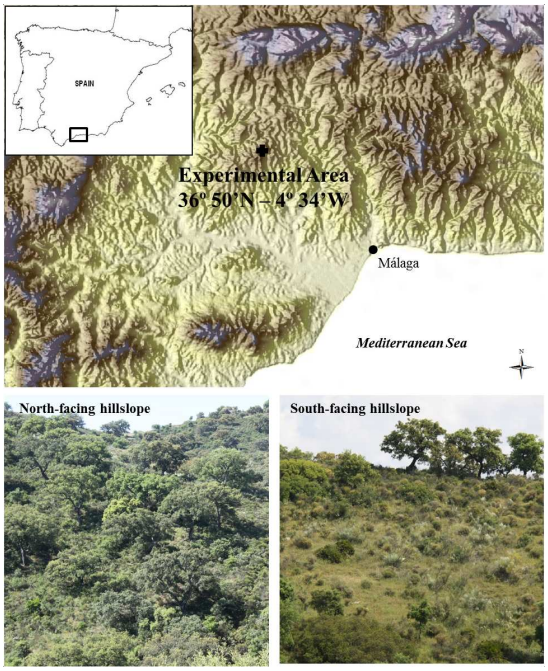

Fig. 1. Fig 1. Location of the experimental area and general view of both north and south-facing hillslopes

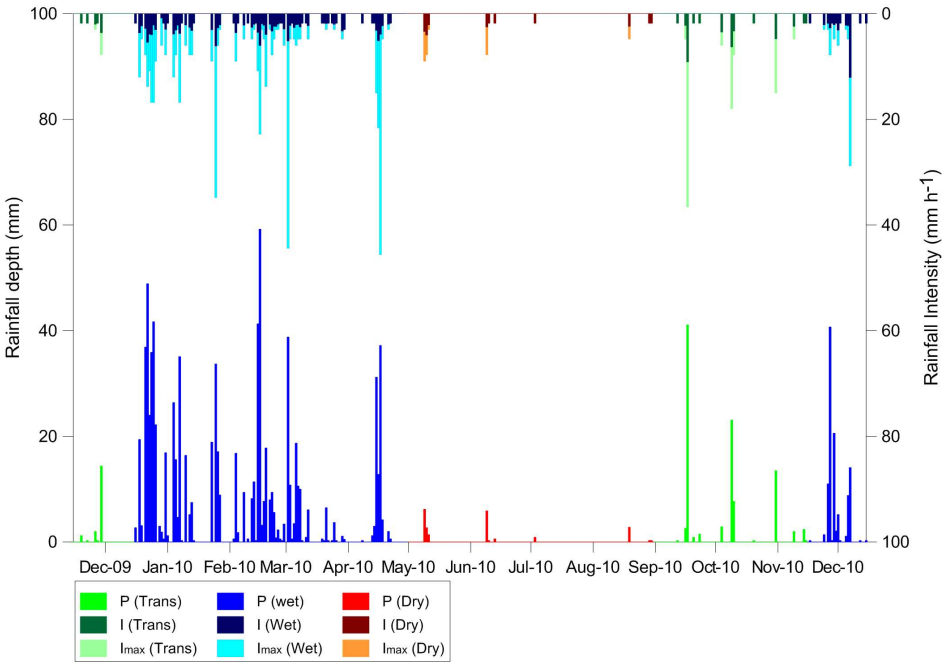

Fig. 2. Fig 2. Daily precipitation (P), mean intensity (I) and maximum intensity (Imax) during the study period.

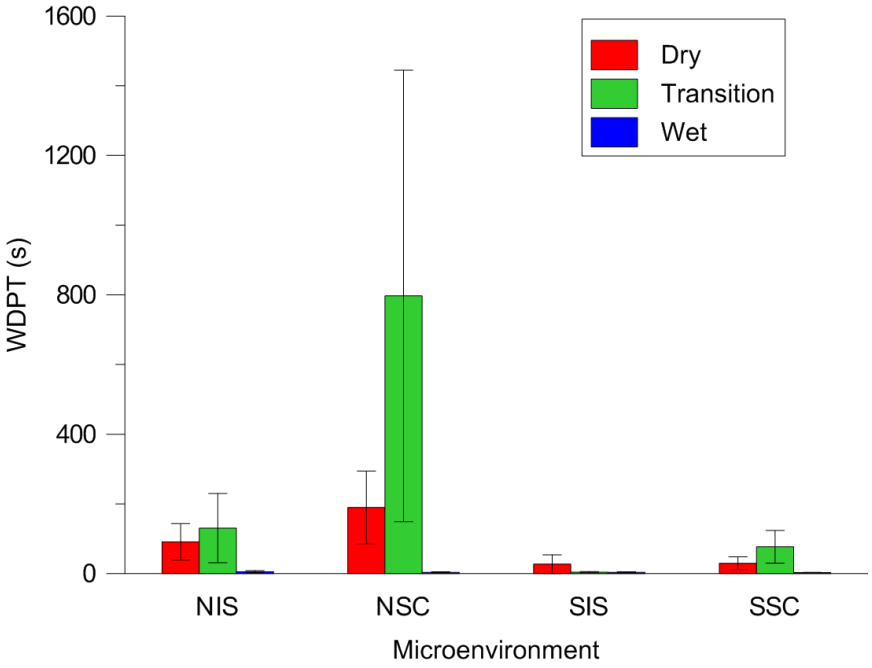

Fig. 3. Fig 3. SWR measured on every microenvironment and season. Error bars represent standard deviation. NIS: North-facing inter-shrub; NSC: North-facing shrub-covered; SIS: South-facing inter-shrub; SSC: S

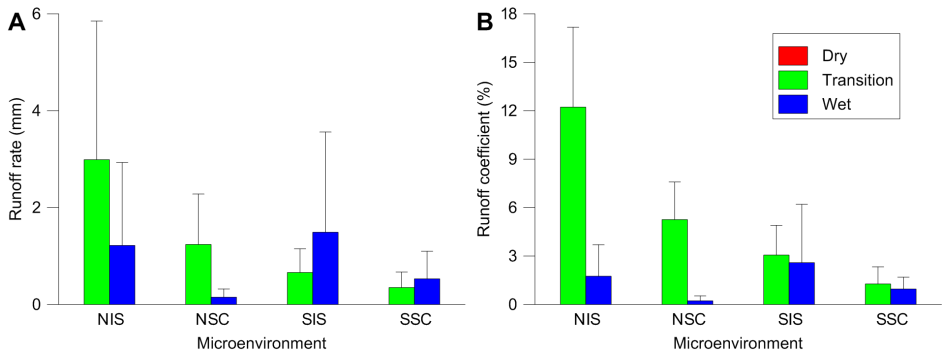

Fig. 4. Fig 4. Mean values of runoff rate and coefficient in every microenvironment and season. Error bars represent standard deviation. NIS: North-facing inter-shrub; NSC: North-facing shrub-covered; SIS: So

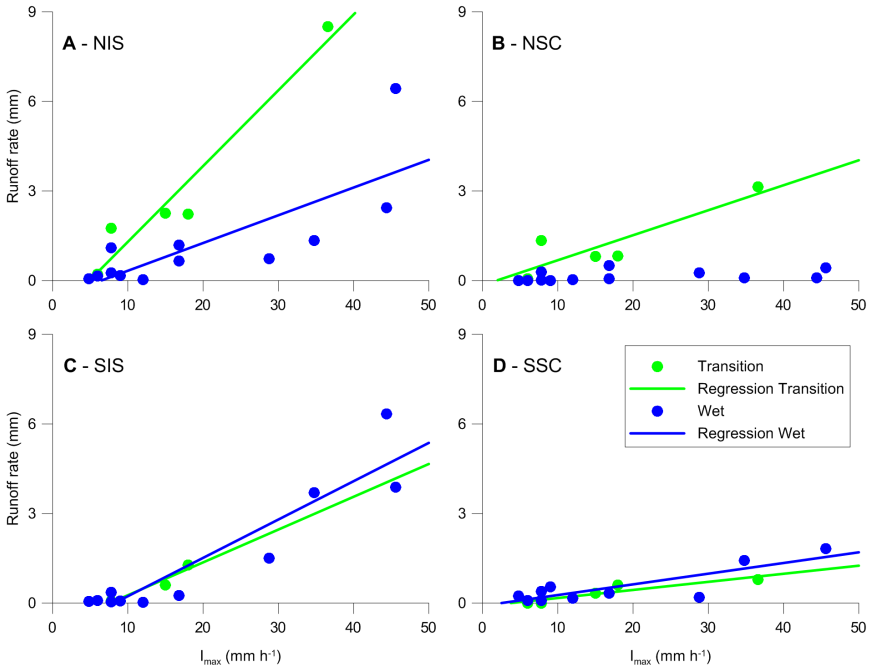

Fig. 5. Fig 5. Relation between Imax and runoff rate in every microenvironment. NIS: North-facing inter-shrub; NSC: North-facing shrub-covered; SIS: South-facing inter-shrub; SSC: South-facing shrub-covered.

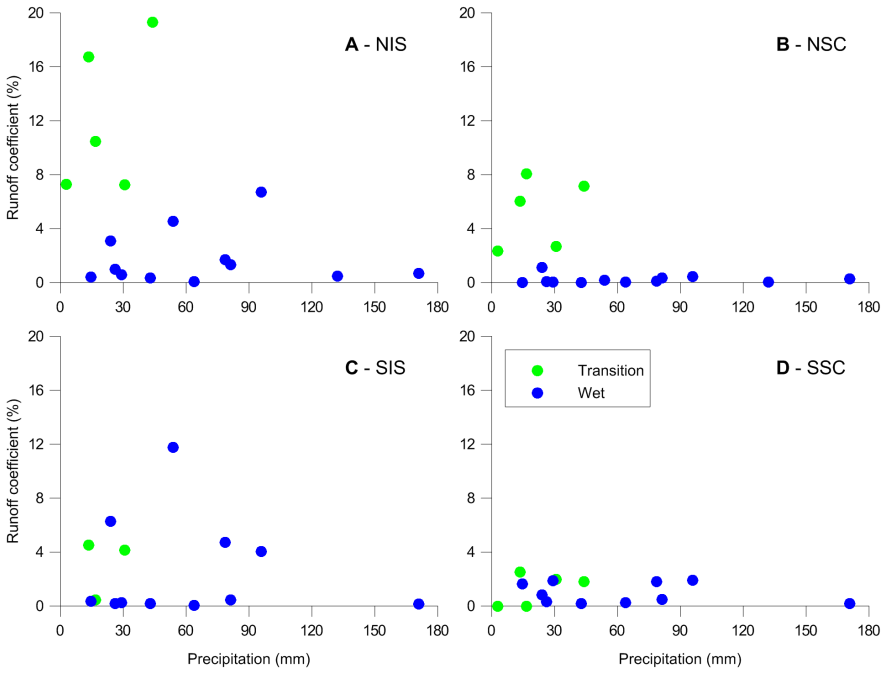

Fig. 6. Fig 6. Relation between runoff coefficient and precipitation. NIS: North-facing inter-shrub; NSC: North-facing shrub-covered; SIS: South-facing inter-shrub; SSC: South-facing shrub-covered.

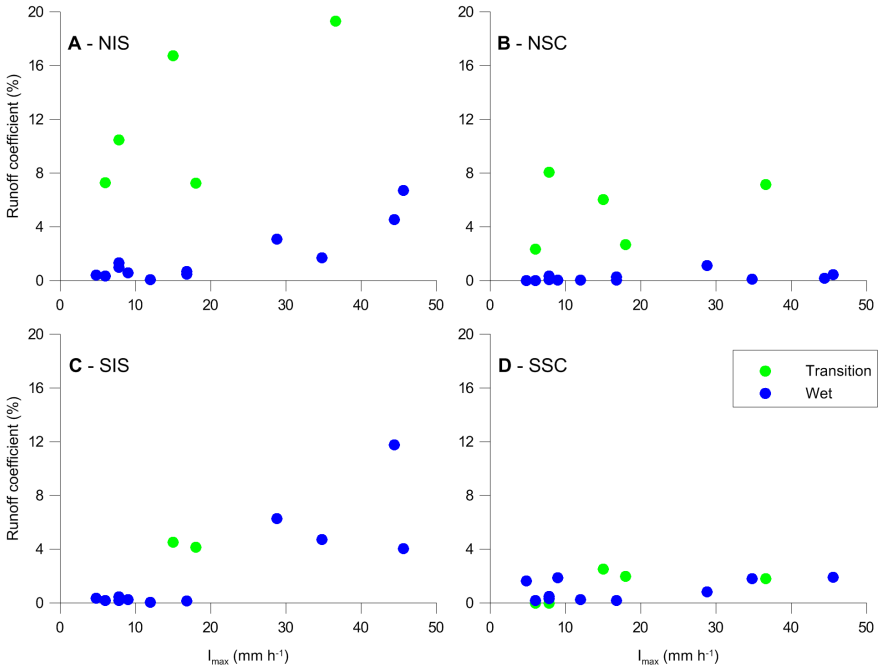

Fig. 7. Fig 7. Relation between runoff coefficient and Imax. NIS: North-facing inter-shrub; NSC: North-facing shrub-covered; SIS: South-facing inter-shrub; SSC: South-facing shrub-covered.

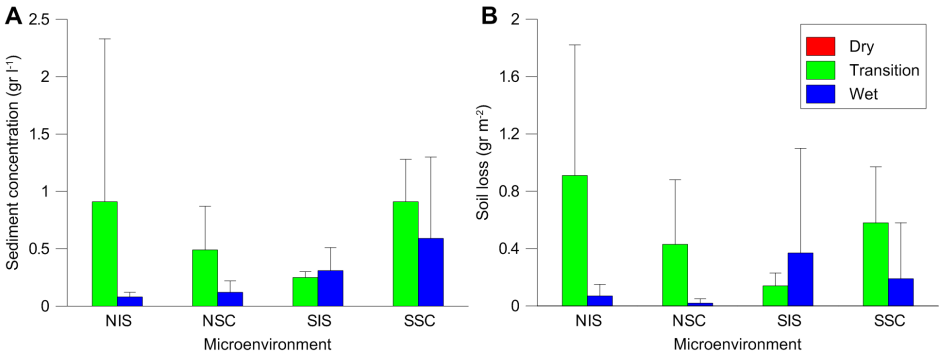

Fig. 8. Fig 8. Mean values of sediment concentration and soil loss in every microenvironment and season. Error bars represent standard deviation. NIS: North-facing inter-shrub; NSC: North-facing shrub-covered