

## ***Interactive comment on “Rainfall patterns after fire differentially affect the recruitment of three Mediterranean shrubs” by J. M. Moreno et al.***

**J. M. Moreno et al.**

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This paper presents an in depth study of the variability of germination and recruitment after fire relative to rainfall. It presents important data with respect to one of the primary drivers of germination and recruitment success after fire and so gives insight into community dynamics.

C4.1: I agree with the other reviewers that it has strong merit but that clarity is a problem and the manuscript could benefit from revision.

R4.1: OK. Text has been revised and clarified.

C4.2: The manuscript should explicitly show were the precipitation over the course of the study falls with respect to long term variability in precipitation. As mentioned by

C3096

referee #1, the authors reference Figure 1(a) to say that the precipitation reflects the long term variability but include only the long-term mean.

R4.2: See comment above. A new figure has been added to account for this.

C4.3: It would be informative to know if some of the variability in germination is compensated for by density dependence in recruitment although it is not clear that the authors have sufficient data to address this.

R4.3: We have reasons to believe that, in the early stages after fire, density dependence effects were not important since it would be difficult to find a mechanism by which these could occur provided ample resources during this time and the fact that mortality occurs early on in the process. Densities are never so high, and seedling growth is reduced during the early stages as to fear such effects early on in the establishment process.

Minor comments –

C4.4: 1: A figure depicting the experimental layout would help clarify the experimental design.

R4.4: OK, see comment above. A figure will be included.

C4.5: 2: Recommend changing the last sentence in the legend of figure 5 to say, “Each point is the mean of the three plots in each year-by-season treatment.”

R4.5: Agree.

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