

## ***Interactive comment on “The fate of seeds in the soil: a review of the influence of overland flow on seed removal and its consequences for the vegetation of arid and semiarid patchy ecosystems” by E. Bochet***

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Answer to Referee 3

I would like to thank you for your interest in the revision of my manuscript and for your helpful comments and suggestions that will serve to improve it.

Hereafter, I have copied the last paragraph of the Introduction that will replace the previous section between p.589, line 20 and p.590, line 5. This paragraph will include

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information about how important seeds are to fight against degradation and achieve the development. Some of the citations proposed that fit the new text included have been added.

"Because seed fate issues lie at the interface between plant, animal and soil sciences and because studies on secondary seed dispersal have seldom been published in soil science related journals (Fig. 3), this paper seeks to get readers, especially soil scientists, closer to the destiny of seeds in and on the soil. Understanding seed fate in the soil is not only a matter of the scientific community, but it is also crucial for the management of degraded ecosystems. Seeds are often one of the most important actors at the first stages of the restoration process, either through the influence of the soil seed bank which plays a fundamental role in the composition of the future vegetation (Peco et al., 1998), either through the use of seeding or hydroseeding revegetation techniques of disturbed areas (e.g. Tormo et al., 2006 for roadslopes; Fernández et al., 2012 for burnt areas; Porqueddu et al., 2013 for quarries). Our main goals are (1) to offer an updated conceptual model of seed fate with a special attention to seed destiny in and on the soil, (2) to review studies on secondary seed dispersal by runoff and the ecological implications this process has for the origin, spatial patterning and maintenance of patches in dryland ecosystems, and finally (3) to point out directions for future research. Our focus will be placed on drylands, because secondary dispersal has been recognized as a significant part of dispersal in environments with sparse vegetation (Nelson and Chew, 1977; Reichman, 1984; Chambers et al., 1991)".

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