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Natural Hazards and Earth System Sciences
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Interactive comment on "Rainfall thresholds for shallow landslides occurrence in Calabria, southern Italy" *by* C. Vennari et al.

Anonymous Referee #2

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General comments:

This paper analyzed cumulated event – rainfall duration thresholds using a statistical method for Calabria, Italy. The authors segmented the regional catalogue of rainfall events with landslides on lithology, soil regions, rainfall zones, and seasonal periods. They concluded that the role of these environmental factors on the rainfall conditions responsible for shallow landslides in Calabria. This topic should be of considerable interest to the society in terms of landslide risk management, and it is well suited for publication in NHESS. In spite of the interesting results, however, the reviewer has some comments that need to be addressed before this manuscript can be accepted for publication.

Specific comments:

1. P.5144, L.7: Reichenbach et al. (1998) was not found in the references.

2. Section 5.2 Role of environmental factors:

The authors repeated that the number of events in each subdivision was insufficient to determine reliable thresholds. The reviewer was concerned that the reason was not mentioned until P. 5158. The reviewer would recommend that the authors explain the minimum number of empirical data points necessary to determine reliable rainfall thresholds in this section.

3. Section 5.2.1 Lithological domains:

The authors showed two different lithological maps in Figs. 1b and 6a. It would be better to describe the difference.

4. Section 5.2.3 Rainfall regions:

It would be better to describe a brief explanation of characteristics of three rainfall regions.

5. P.5154, L.6: Is it Fig. 6c?

6. Section 5.2.4 Dry and wet season period:

"The majority of rainfall events with landslides in the A–O period are characterized by durations D < 10 h, while in the N–M period in most of the triggering conditions D > 10 h." The authors defined the "start time" of the rainfall event based on a dry period of two days between April and October, and of four days between November and March. Did this definition influence the rainfall duration for each season?

7. P.5156, L.23: Is it Fig. 7d?

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 1, 5141, 2013.