

Interactive comment on “The hidden ecological resource of andic soils in mountain ecosystems: evidences from Italy” by Fabio Terribile et al.

Fabio Terribile et al.

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Dear reviewer, we addressed systematically all your requests. In the attached pdf files (as supplement) you will find the answer for each comment. We report the reviewer comments followed by our answers (in bold). As figure files you will find i) marked version of the manuscript (comprehensive of the corrections asked by the referee 2) ii) amended version of the manuscript. Thank you for your detailed work of revision that implemented the quality of the paper.

Kind regards Michela Iamarino

Please also note the supplement to this comment:

<https://www.solid-earth-discuss.net/se-2017-57/se-2017-57-AC1-supplement.pdf>

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2017-57>, 2017.

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Discussion paper



1 **The hidden ecological resource of andic soils in mountain ecosystems:**
2 **evidences from Italy**

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11

12 **Abstract**

13 Andic soils have unique morphological, physical and chemical properties that induce
14 both considerable soil fertility and great vulnerability to land degradation. Moreover
15 they are the most striking mineral soils in terms of large organic C storage and long C
16 residence time. This is especially related to the presence of poorly crystalline clay
17 minerals and metal-humus complexes. Recognition of andic soils is then very important.

18 Here we attempt to show, through ~~the a~~ combined analysis of 35 sampling points
19 chosen, ~~throughout the Italian non-volcanic mountain landscapes~~, in accordance to
20 specific physical and vegetation rules, that ~~some andic soils rich in poorly crystalline~~
21 ~~clay minerals~~ have an utmost ecological importance.

22 More specifically, in ~~Italian various~~ non-volcanic mountain ecosystems (> 700-600 m)
23 ~~combining and in~~ low slope ~~gradient locations~~ (< 21%±2%) and highly active green

1

Fig. 1. Author's changes in the manuscript

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2 **evidences from Italy**

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Fig. 2. Amended version of the manuscript