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.
terriblesci@gmail.com

Received and published: 1 November 2017

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) amended version of the manuscript. ii) marked version of the manuscript (comprehensive of the corrections asked by the referee 1)

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:

C1


The hidden ecological resource of andic soils in mountain ecosystems: evidence from Italy

Fabio Testdolo, Michela Imamura, Giacomo Langoni, Paolo Muccio, Florindo Antonio Milici, Simona Vignante, Angelo Basile, *Corresponding author: terribilesci@gmail.com

1 Department of Agricultural Sciences, University of Naples Federico II, Via Università 100, 80055 Portici (Napoli), Italy
2 Interdepartmental Research Centre CRISP, University of Naples Federico II, Via Università 100, 80055 Portici (Napoli), Italy
3 CRISP, Via Pontecorvo 91, 80138 Naples (Napoli), Italy
4 *Corresponding author: terribilesci@gmail.com

Abstract

Andic soils have unique morphological, physical and chemical properties that induce both considerable soil fertility and great vulnerability to land degradation. Moreover, they are the most striking natural soils in terms of large organic C storage and long residence time. This is especially related to the presence of poorly crystalline clay minerals and metaluminous complexes. Recognition of andic soils is then very important. Here we attempt to show, through combined analysis of 35 sampling points chosen in accordance to specific physical and vegetation rules, that andic soils have an utmost ecological importance. More specifically, in Italian non-volcanic mountain ecosystems (> 600 m), combining low slope (< 21%) and highly active green biomass (high NDVI values) and in agreement to recent findings, we found the widespread occurrence of andic soils having high NDVI values and in agreement to recent findings, we found the widespread occurrence of andic soils having high NDVI values and in agreement to recent findings, we found the widespread occurrence of andic soils having high NDVI values and in agreement to recent findings, we found the widespread occurrence of andic soils having high NDVI values.

Fig. 1. amended version of the manuscript

Fig. 2. author’s changes in the manuscript

C3
C4