Interactive comment on “Relevance of aboveground litter for soil organic matter formation – a soil profile perspective” by Patrick Liebmann et al.

Anonymous Referee #2

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This is an interesting analysis estimating the contribution of leaf litter on soil organic matter formation of each soil layers. Generally, this is a well performed field study on a relevant subject. The manuscript is quite interesting and decently written, although some descriptions and conclusions are inaccurate. I suggest revisions to address some of the issues I raise below.

Lines 23-26: This description is inaccurate. 0-10-cm soil sequestrated 0.99 g C m⁻² yr⁻¹ from labeled litter, 0.37 g C m⁻² yr⁻¹ in the 10-50-cm soil layers. It is not surprising, compared to the considerably large contribution of 0-10 cm soil C pools. 48% of the SOC stocks (0-180 cm) were sequestrated in the top 10 cm soil layer (Table 2).

Lines 34-36: The concepts of "topsoil" and "subsoil" are confusing throughout the text. According to my understanding, the authors described the soils in the 10-to-180-cm layers as "subsoil" involving their own results. But the topsoil described here is obviously not 0-10 cm only.


Line 217: SOC content in 0-10 cm soil (8.2% here) is largely different (> 5 times) from that given in Table 1 (1.5%, the same forest plot or stand, their previous study). Is there any special on the location of the soil sampling in this study?