

Interactive comment on “The effects of topography and soil properties on radiocesium concentrations in forest soils in Fukushima, Japan” by Misa Yasumiishi et al.

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Dear Elena,

Thank you for your thorough review and feedback. I will revise my manuscripts based on your comments. Here, I reply to two of your comments.

1) Removal of roots and rocks: In the case of this study, soil samples were weighted after removing roots and rocks. It does make bulk density lower than the actual density it originally was. Looking back, soil weight and Cs-137 should have been measured twice before and after the removal. If I have an opportunity to repeat this study with

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less time constraint, I will definitely try it. For this article, I will add comments about this issue. Also, I will make it clear that those removals were mostly done in the top layer.

2) Sandy soil with low bulk density: That was a surprise for us too. In shallow soils, the removal of roots and rocks must have affected the bulk density calculation. Overall, the soil itself was sandy, however, the soil structure in many samples was loose, not packed densely. As you suggested, I will add a couple of photos of actual samples.

The percentage of organic matter was not measured, due to time constraint. However, I do have data from a couple of samples (approximately 10% in the top 0-2 cm samples).

Referee #1 pointed out the water content % in the table seemed to be incorrect. I made an error in describing the unit. I will fix it.

Regards, Misa

Interactive comment on Earth Surf. Dynam. Discuss., <https://doi.org/10.5194/esurf-2020-72>, 2020.

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