

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC2  
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## Comment on nhess-2021-319

Anonymous Referee #2

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Referee comment on "Full-scale experiments to examine the role of deadwood in rockfall dynamics in forests" by Adrian Ringenbach et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2021-319-RC2>, 2022

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The manuscript "Full scale experiments to examine the role of deadwood on rockfall dynamics in forests" is dealing with a relevant topic for mountain forest management. Protection forests are increasingly affected by natural disturbances and understanding the role of deadwood (both standing and lying) generated by such events is therefore essential. I agree with almost all the comment produced by Bourrier, so I will not be repetitive. The key point he arised was concerning the small rock you used, this point should be definitely more stressed in the discussion (generally protection forests are considered effective up to 5 m<sup>3</sup> rocks). One of the main issue is the use of terms that sound quite strange or not commonly used in forestry related papers. I would prefer other term rather than "forest state", "logging job",...

Several typo are present, some of them are in the remarks list. Some sentences are not clear.

Some point in the conclusion are quite speculative (you did not tested the size or height of logs related to the rock size).

Line 13. "rockfall energies": use magnitude or refer to kinetic energy of a single rock

Line 32. Use uprooted trees instead of overturned trees

Line 36. You are not referring to protection "effect" here, but to protective function or role. In order to clarify the terms to be used all over the manuscript: protection forest are forest with a protective role/function, even if they are not providing protection (not protective)

Line 40-43. Delete the part of the sentence related to the wood decay since is not applying to this work

Line 51-54. The species should be written not with the first letter uppercase in vernacular (rowan, whitebeam, beech, mountain pine, silver fir) unless is a Country name (Norway spruce, European larch). Furthermore, for the scientific name you have to provide the authority name to all the species, not only for Norway spruce and rowan.

Line 56. Logging operations

Line 65-67. This details are not needed as well as line 68-69

Line 67. Delete "in" after measured

Line 85-86. Please rephrase the sentence

Line 88-89. Not clear to me "we took for all deadwood-logs a maximal diameter of 40 cm"

Line 137. Slightly and considerably values are switched?

Line 144. Avoid using "tremendous".....

Line 146-148. Please rephrase

Line 233. Rephrase the concept "natural disturbances with piled deadwood"