

Interactive comment on “Understory vegetation plays a key role in sustaining soil microbial biomass and extracellular enzyme activities” by Yang Yang et al.

Anonymous Referee #1

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The authors Yang et al., present timely results of microbial abundance and activity in fir planted soil with and without understory removal

Strength of MS:

Hot topic Broad indicator Setup

Weakness of MS:

Hypotheses lack on novelty and a concise discussion Discussion shows serious flaws such as Content and style of writing, which should be strongly improved The content of discussion should be improved, as the authors showing really interesting

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data(Suggestions are attached) Nevertheless, I think this study is worth for publication in BG after a careful improvement of the MS

Suggestions:

1. Please use the right terminology throughout the MS. eg. Content not conc. or organic C not soil C and many more (find in the attached PDF)
2. Hypothesis should be more attractive to the reader (example attached)
3. Results should be clarified eg. MBC vs. PLFA
4. Inferences should be drawn newly and in accordance to the literature eg. NAG is also in bacterial cells or AP activity is higher compared to others does not mean automatically that there is a P Limitation.
5. Suggest to calculate different Indices to improve your inferences accordingly e.g. Specific Enzyme activity or Enzyme Indices (Moorhead et al., 2013; Loepmann et al., 2016)
6. M & M Section: Should be strongly improved - more details (See my comments attached)
7. It is not clear why just some data was analyzed with time? Suggest to show all data throughout the whole samplings

Please also note the supplement to this comment:

<https://www.biogeosciences-discuss.net/bg-2017-545/bg-2017-545-RC1-supplement.pdf>

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2017-545>, 2018.

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