Interactive comment on “Plant n-alkane production from litterfall altered the diversity and community structure of alkane degrading bacteria in litter layer in lowland subtropical rainforest in Taiwan” by Tung-Yi Huang et al.

Anonymous Referee #1

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Huang et al. studied the relationship between the plant derived long chain n-alkane contribution and the composition of the microbial community, specifically alkB degrading bacteria in three habitats of a subtropical rainforest. Their results show that the composition of the microbial community and the relative abundance of the alkB degrading bacteria are controlled by the n-alkane input of higher plants with higher amounts of alkB degrading bacteria in habitats with higher amount of litterfall, i.e. higher n-alkane contribution of plants.

I think the results are very interesting and a valuable contribution to the BG community. However, some improvements need to be done before the final publication of the manuscript.

General comments:
- the language needs further improvement. I am not a native speaker, but I would encourage the authors to consider that an expert may revise this manuscript, I think it would benefit a lot
- The “n” in n-alkanes should be italic
- The plural of n-alkane is n-alkanes

Specific comments
- page 1, line 10: its n-Alkanes, the ‘n’ should be italic, adapt it in the whole manuscript
- p1, L12: I don’t think levels is the right word, change it to ‘concentrations’ or ‘amounts’ or something more suitable
- p1, L15: I would advise you to stay in present tense when writing about your results, they still show or demonstrate or . . .
- p1, L30: please add long chain n-alkanes with odd/even predominance
- p2, L3: change ‘inactive’ to ‘stable’ or ‘inert’
- p2, L7: Maybe you can add what the end-product of the degradation is. Especially for researchers using n-alkanes as geochemical fossils it would be interesting to know which compounds were built from the n-alkanes.
- p2, L13 studies have shown. This occurs quite often in this manuscript, adapt it
- p2, L18: Giebeler et al. (2013)
- p2, L20 skip the citation here
- p2, L20: alkane degrading bacteria
might be
the relationship is more
it was shown
change 'researches' to 'studies'
Please rephrase
change 'applicable' to 'possible' or something else
change 'employed' to 'used'
So basically, your quantification and identification based on external standards? If so, then state it here
What was the recovery of the cholestane? Also, if you did not plan to correct your results for the recovery of the standards, why did you use them at all?
annual should be written in small letters
odd/even occurs two times, delete one of them
at the beginning of a sentence the ‘n’ in n-alkanes is written in small letters and the ‘A’ is written in upper case letters (n-Alkane)
which environmental parameters? Give some examples
reference?
why?
skip the last sentence. There is no further statement that hadn’t been said before.
Delete the first two sentences
change 'traces' to 'chromatograms'. Also, why do you show the solvent peak?
delete 'dynamic', change 'changes' to 'concentrations’