

Title: Carbon, nitrogen, and phosphorus stoichiometry of organic matter in Swedish forest soils and its relationship with climate, tree species, and soil texture

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General comments:

The revised manuscript now appears in a much-improved state. Errors and mistakes have been corrected and unclarities have been clarified. The authors have followed recommendations from the different reviewers as conscientiously as could be expected. I will, however, maintain my initial remark that increase productivity due to climatic factors, growing season, the balance between decomposition and addition of organic matter is the main reason for positive correlation between N stocks and MAT, not increase in N<sub>2</sub> fixation as the authors maintain. This set aside, I still recommend that the manuscript should be published. Some revision is needed before publishing, see comments below.

L203-204 “the C:N ratio of the mineral soil in **spruce** forests was on average 1.8 times higher than in deciduous forests and 1.2 times higher than in **pine** forests” Figure 3d does not show this it shows that pine>deciduous>spruce (spruce and pine should swap places in this sentence)

L208-209 “The C:P ratio of the organic layer in **spruce** forests was on average 1.3 times higher than in both deciduous and **pine** forests (Fig. 3e).” Again figure 3 e does not show this it shows pine>deciduous>spruce, - spruce and pine should swap places in this sentence as well.

L387-388 “thin organic layers that consist largely of relatively young organic matter have a higher K concentration than massive organic layers that mostly consist of old, K-poor organic matter.” There is no reason to assume that a thin organic layer consists largely of relatively young organic matter. A thin organic layer may reflect 1) low input or 2) high decomposition rate and may span from low to high productive forest system - only in the high productive systems would a thin organic layer mostly consist of relatively young organic matter. If your data distinguishes between O<sub>i</sub>, O<sub>e</sub> or O<sub>a</sub> then age could be more relevant to include in the discussion.

L390 (Figs. 4 and b) correct to (Figs 5a and b)

L390 -391 “--agreement with the relationship reported by Stendahl et al. (2017) between the C stock of the organic layer and both its K and Mn concentration” The discussion of K could be more comprehensive - If it is in agreement with Stendahl et al 2017 why not also use their discussion. K can be related to better conditions for decomposition, or it could be related to water balance -and productivity? Trees in drought prone areas have lower K content than trees in areas with ample access to water - see e.g. Sardans J et al 2012.

L600 - 605, Table 1 and 2 I agree the p values should be included but I think the tables would be easier to read if only the p values that differ from the most prevalent are included.