



Supplement of

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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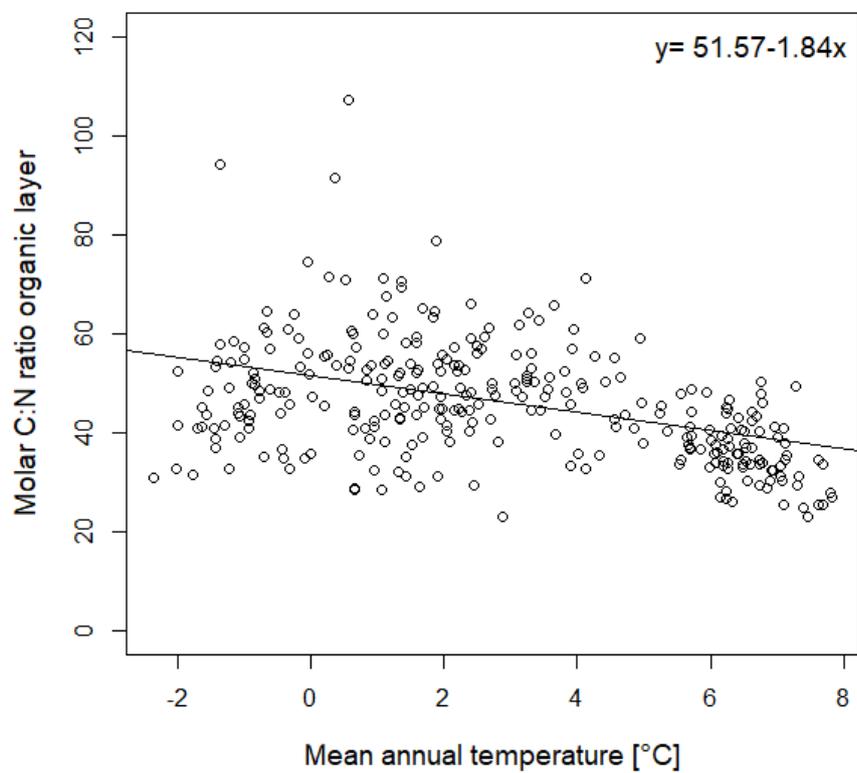


Figure S1: The carbon-to-nitrogen (C:N) ratio of the organic layer as a function of the mean annual temperature in 309 Swedish forests.

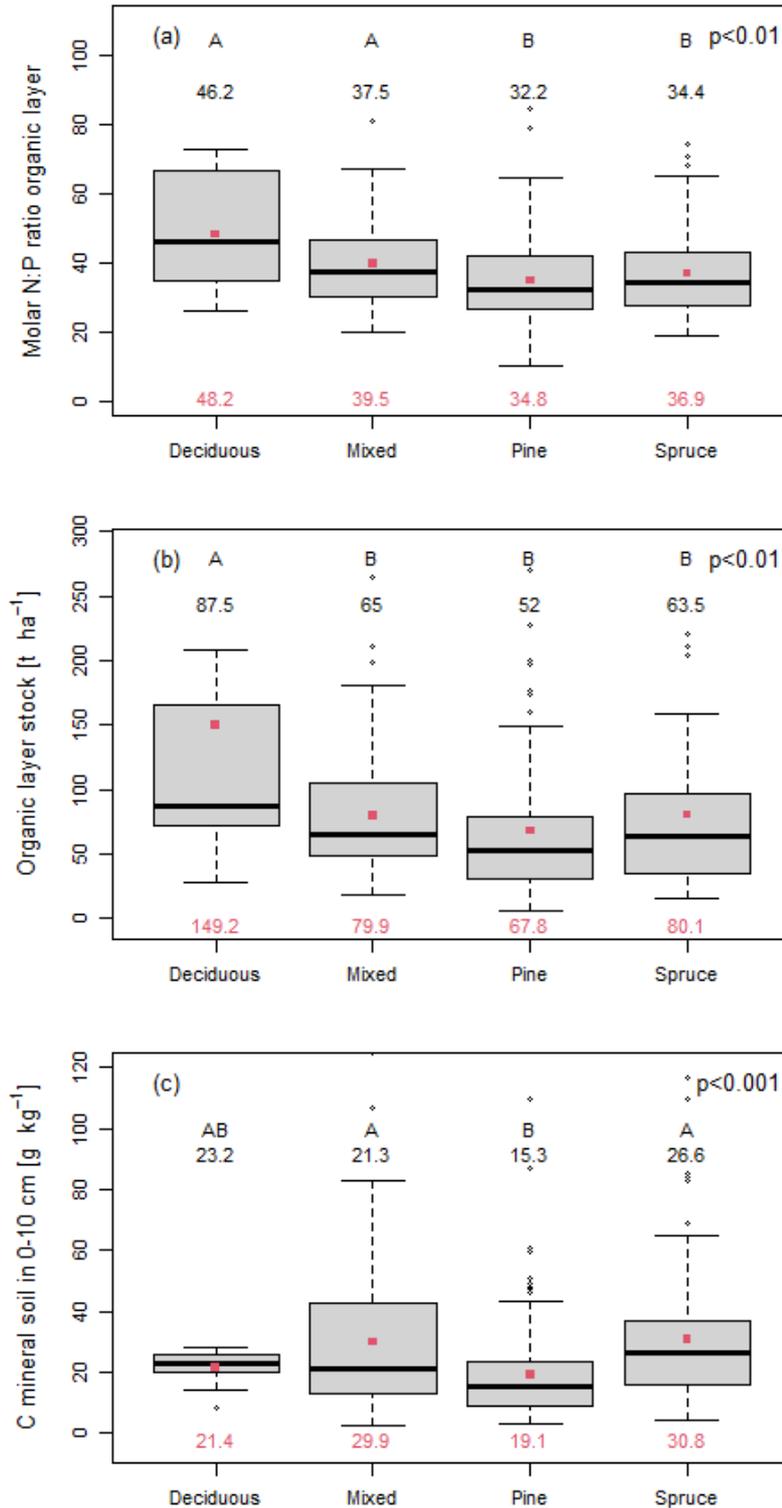


Figure S2: The molar nitrogen-to-phosphorus (N:P) ratio of the organic layer (a), the organic layer stock (b), and the carbon (C) concentration of the mineral soil (0-10 cm depth) (c) in 309 Swedish forest soils depending on the dominant tree species (deciduous n=10, mixed n=67, pine n=144, and spruce n=88). Black numbers give the median, red dots and red numbers depict the arithmetic mean. Different capital letters indicate statistically significant differences ($p < 0.05$) between plots with different dominant tree species, while the p value of the ANOVA is indicated in the right corner of each panel.

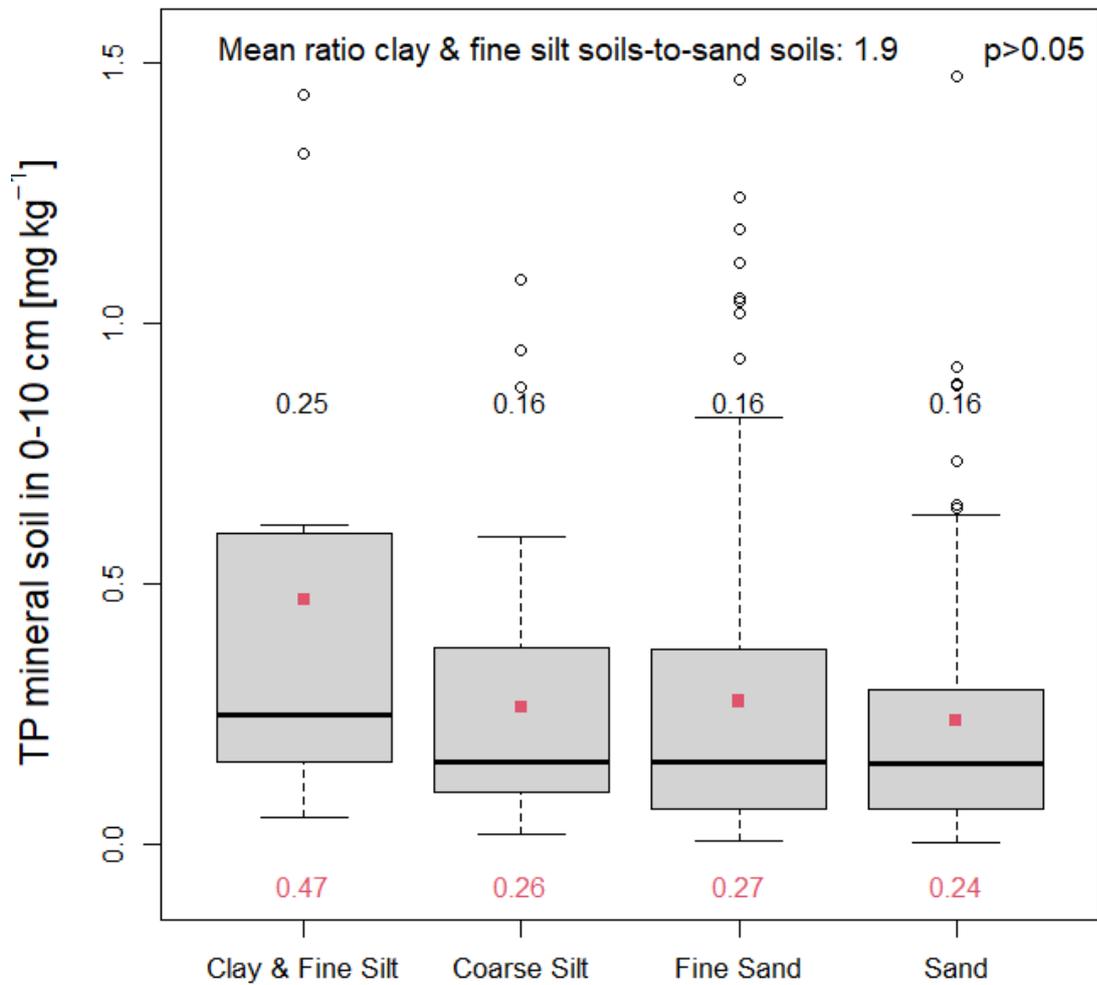


Figure S3: The total phosphorus concentration in the mineral soil in a depth of 0-10 cm depending on the soil texture (clay and fine silt n=11, coarse silt n=52, fine sand n=136, and sand n=110) in 309 Swedish forest soils with a stand age >60 years. The texture class called sand encompasses sand and coarse sand. Black numbers give the median, red dots and red numbers depict the arithmetic mean. The p value of the ANOVA is indicated in the right corner.

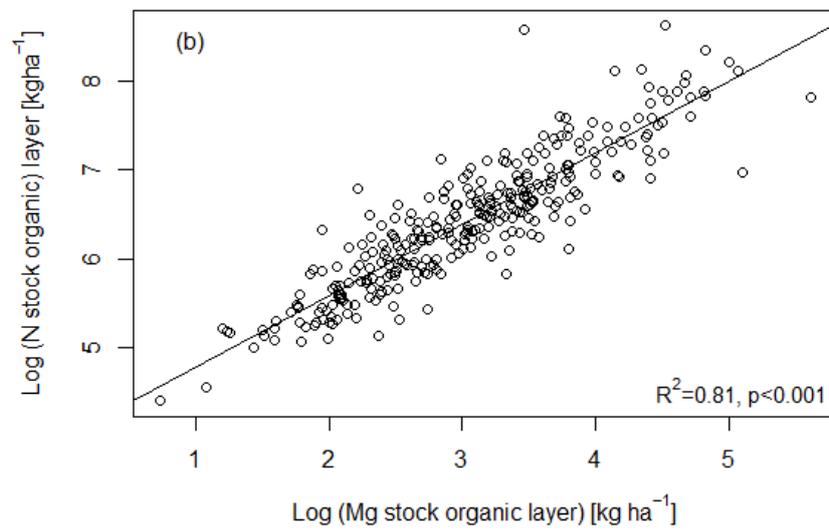
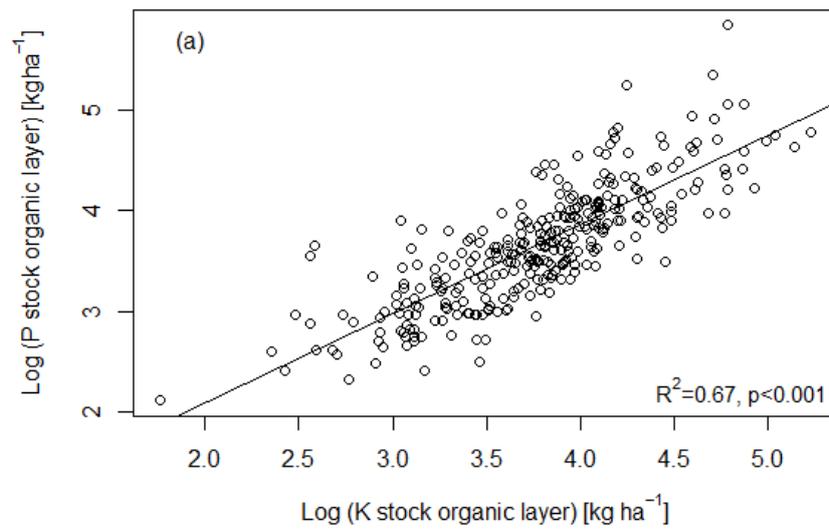


Figure S4: Regressions of the log-transformed P and K stocks (a) and the log-transformed N and Mg stocks (b) of the organic layer in 309 Swedish forests.

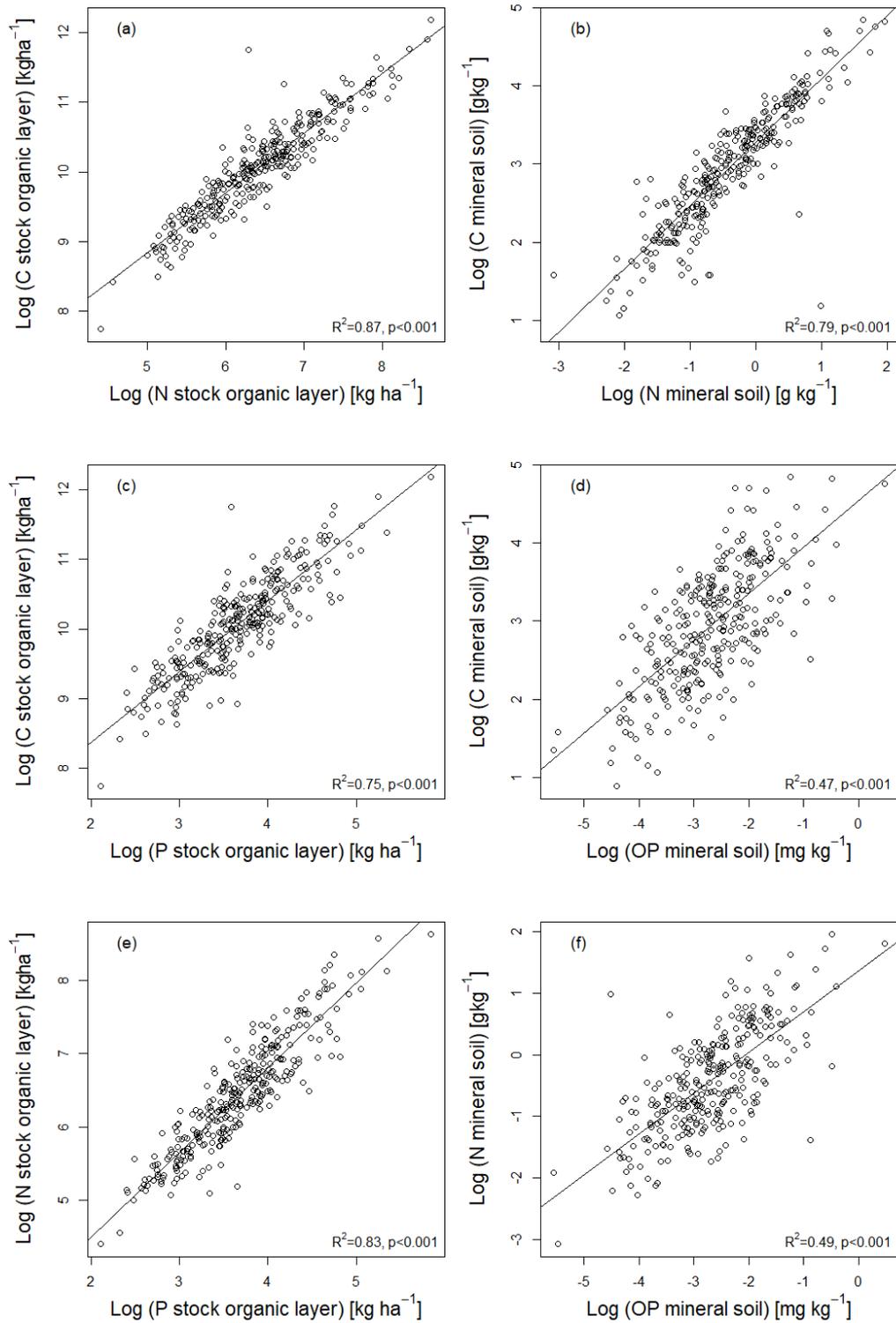


Figure S5: Regressions of the log-transformed carbon (C) and nitrogen (N) stocks of the organic layer (a) and the C and N concentrations in the mineral soil in 0-10 cm (b) as well as the C and phosphorus (P) stocks of the organic layer (c) and the C and organic P (OP) concentrations of the mineral soil (d) together with the N and P stocks of the organic layer (e) and the N and OP concentrations in the mineral soil in 0-10 cm depth ($n=309$).

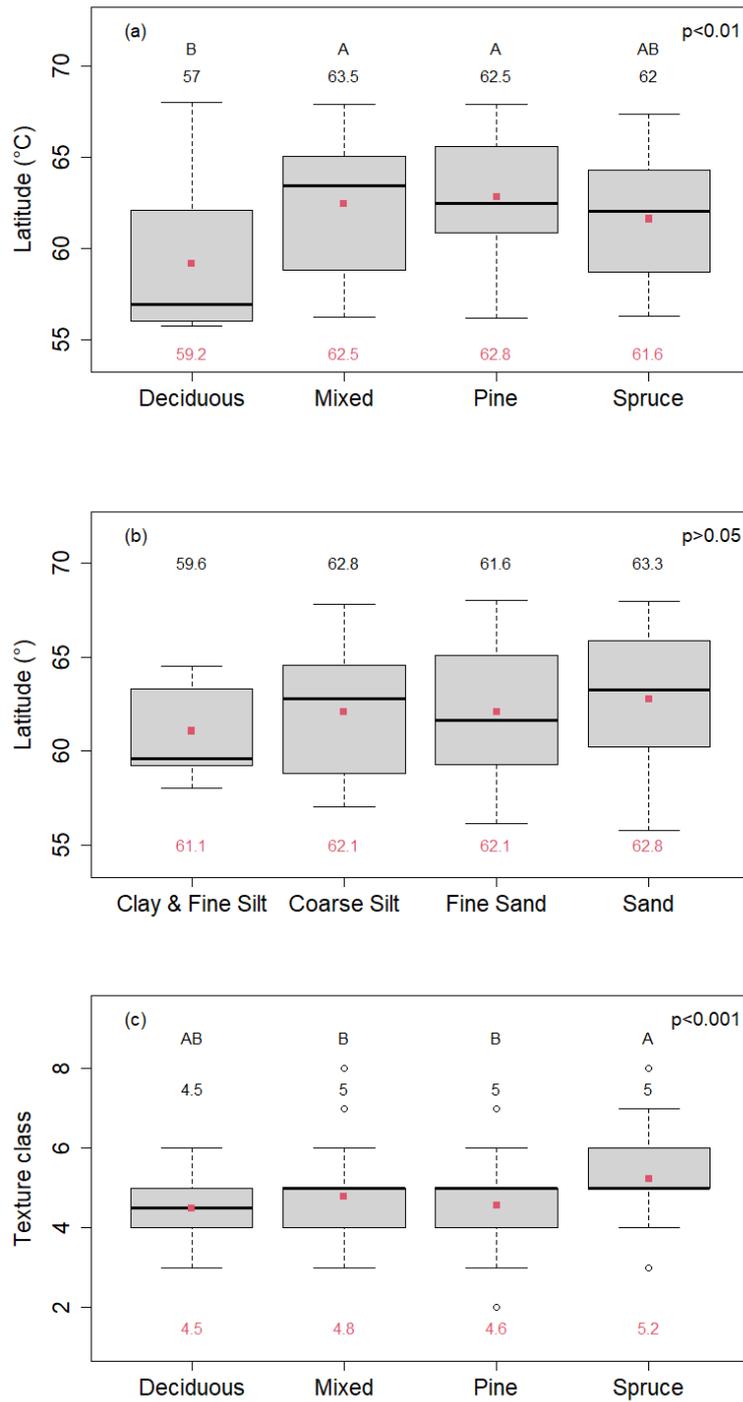


Figure S6: Latitude of forests with different dominant tree species (a; deciduous n= 10, mixed n=67, pine n=144, and spruce n=88), latitude of forests with different soil texture (b; clay and fine silt n=11, coarse silt n=52, fine sand n=136, and sand n=110), and texture class of forests with different dominant tree species (c). The texture classes are; clay (8), fine silt (7), coarse silt (6), fine sand (5), sand (4), and coarse sand (3). Different capital letters indicate statistically significant differences (p<0.05), while the p value of the ANOVA is indicated in the right corner of each panel.