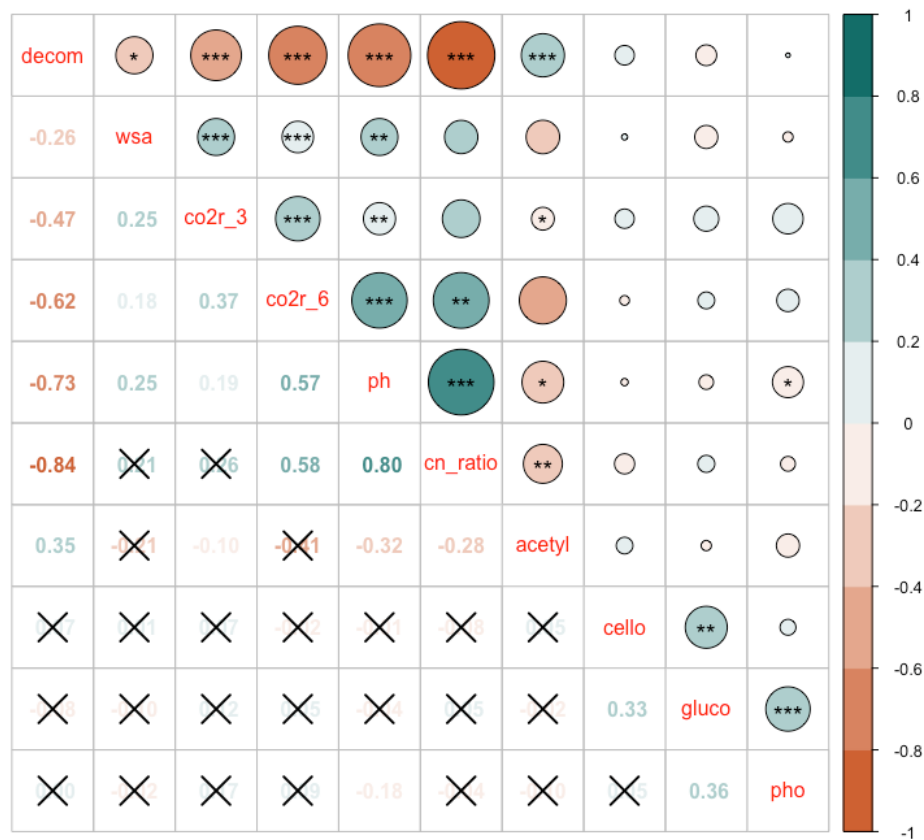
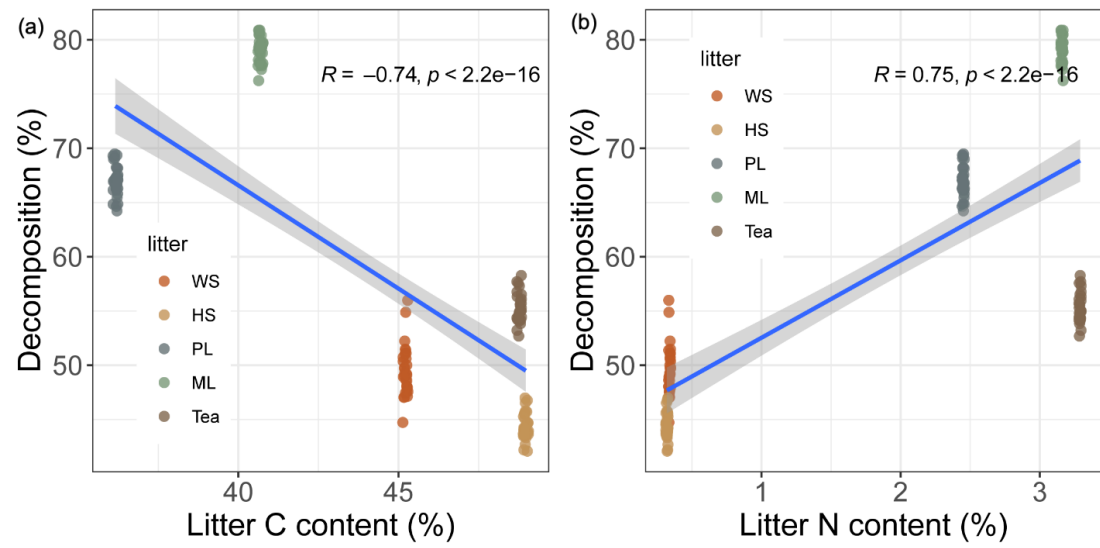


*Supporting Information for*

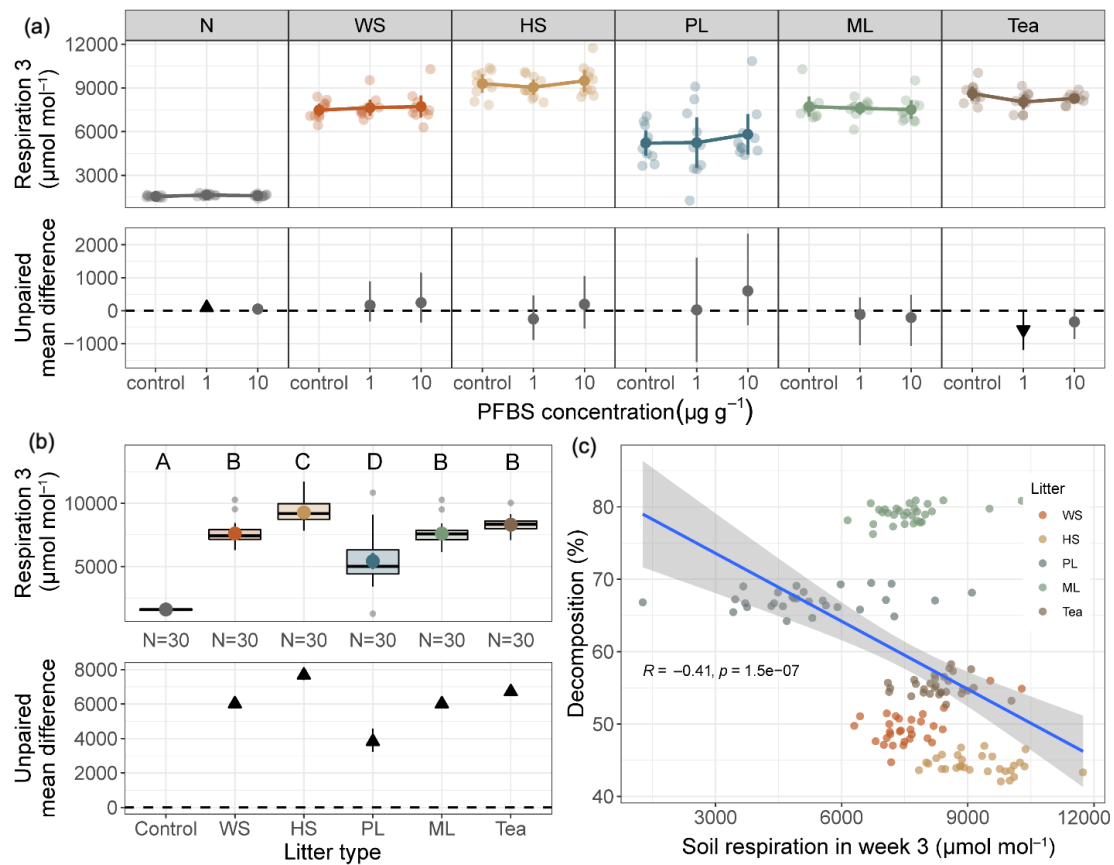
**Litter decomposition is not affected by perfluorobutane sulfonate (PFBS) in  
experimental soil microcosms**



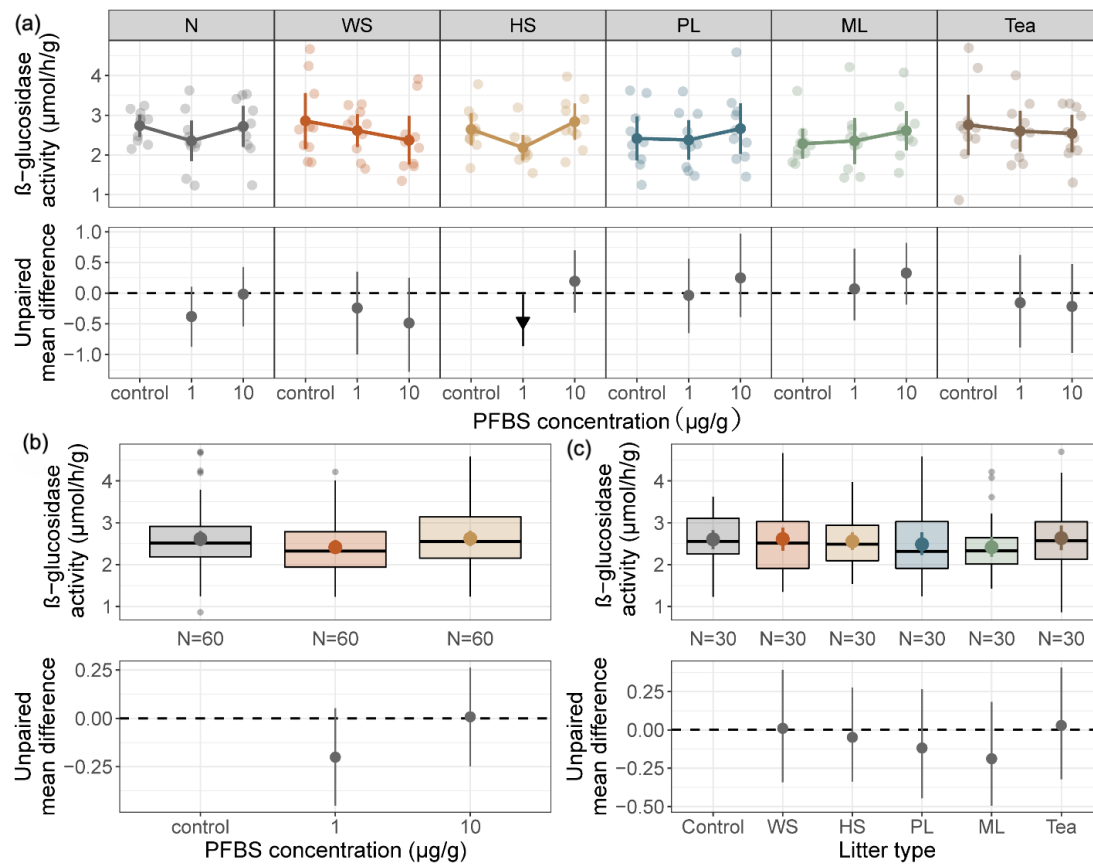
**Figure S1.** Spearman correlations among soil properties and functions. ‘decom’ = litter decomposition rate; ‘wsa’ = water soil aggregates; ‘co2r\_3’ = soil respiration week 3; ‘co2r\_6’ = soil respiration week 6; ‘ph’ = soil pH; ‘cn\_ratio’ = C:N ratio of soil after experiment; ‘acetyl’ =  $\beta$ -1,4-N-acetylglucosaminidase; ‘cello’ =  $\beta$ -D-1,4-cellobiosidase; ‘gluco’ =  $\beta$ -glucosidase; ‘pho’ = phosphatase. The positive  $r_s$  value (in green) illustrated a positive correlation between the two parameters, while the negative  $r_s$  value (in orange) showed a negative correlation. ‘\*\*\*’, ‘\*\*’, and ‘\*’ represented the significance levels of 0.001, 0.01, and 0.05 respectively.



**Figure S2.** (a) Correlation of litter C content and litter decomposition (b) Correlation of litter N content and litter decomposition



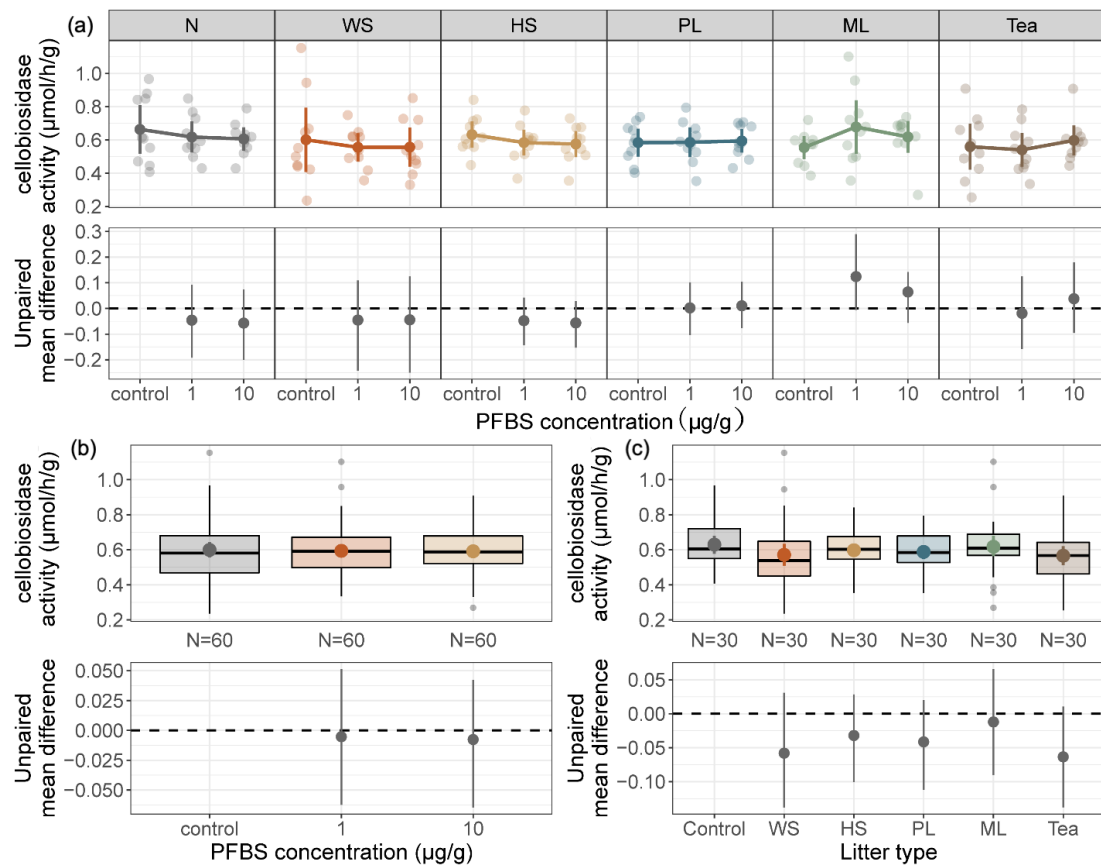
**Figure S3.** (a) Response of soil respiration (week 3) to PFBS concentrations within litter type. (b) Response of soil respiration (week 3) to litter type regardless of PFBS concentrations. (c) Correlation of soil respiration (week 3) and litter decomposition.



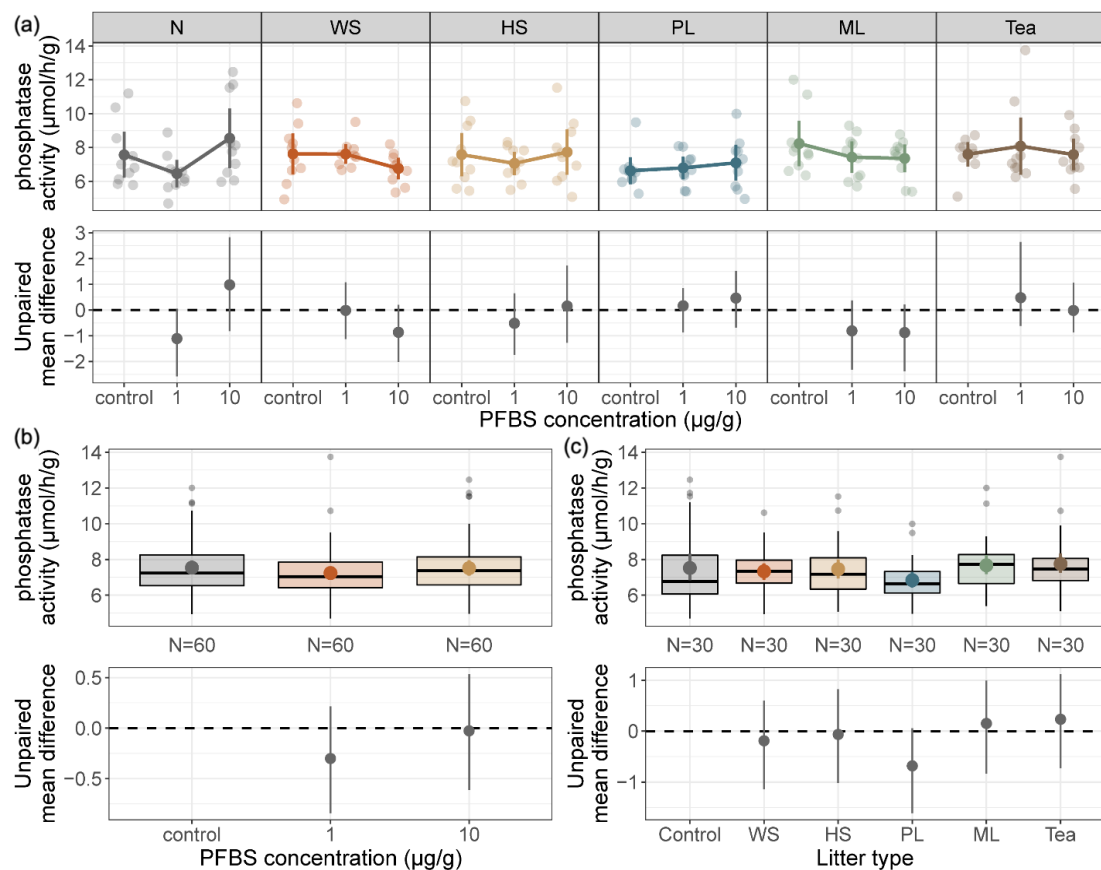
**Figure S4.** (a) Response of  $\beta$ -glucosidase activity to PFBS concentrations within litter type.

(b) Response of  $\beta$ -glucosidase activity to PFBS concentrations regardless of litter type. (c)

Response of  $\beta$ -glucosidase activity to litter type regardless of PFBS concentrations.



**Figure S5.** (a) Response of  $\beta$ -D-1,4-cellobiosidase activity to PFBS concentrations within litter type. (b) Response of  $\beta$ -D-1,4-cellobiosidase activity to PFBS concentrations regardless of litter type. (c) Response of  $\beta$ -D-1,4-cellobiosidase activity to litter type regardless of PFBS concentrations.



**Figure S6.** (a) Response of phosphatase activity to PFBS concentrations within litter type. (b) Response of phosphatase activity to PFBS concentrations regardless of litter type. (c) Response of phosphatase activity to litter type regardless of PFBS concentrations.