

## Supplementary Material

### Review of emissions from smouldering peat fires and their contribution to regional haze episodes

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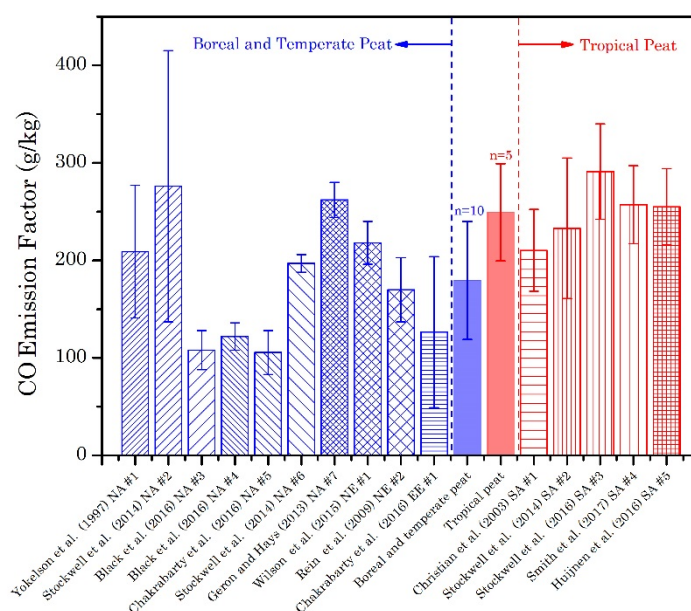
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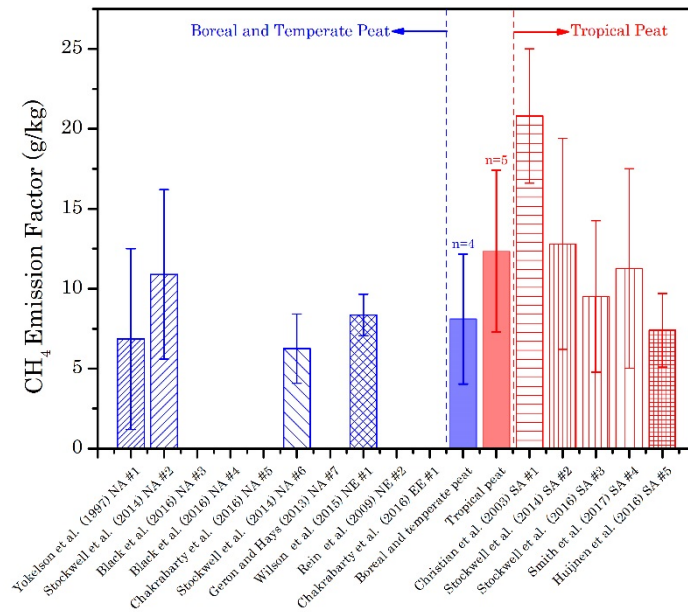
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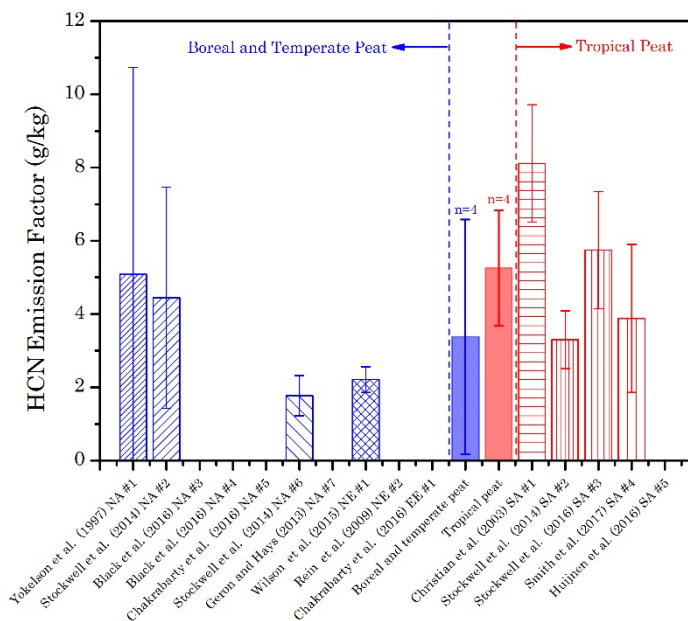
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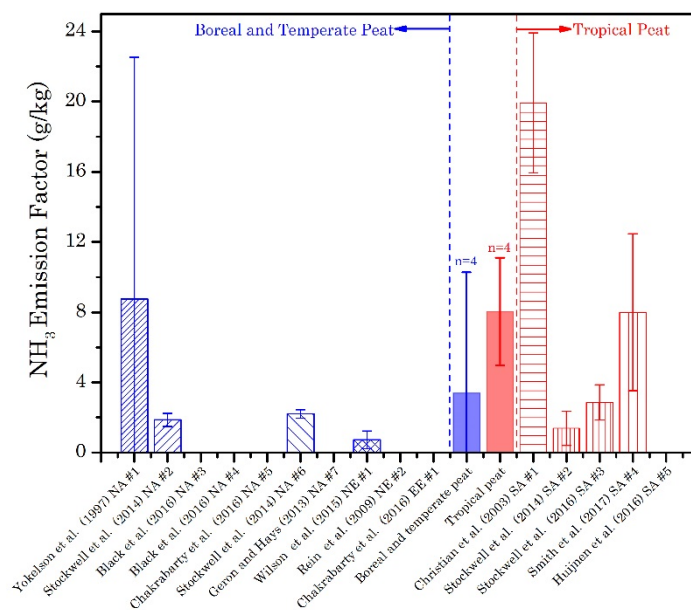
**Fig S1.** CO EFs from different peat burning emission studies. Peat samples used in literature are classified into two categories: boreal and temperate peat, and tropical peat. According to United Nations geo-scheme, 'NA' refers to Northern America; 'NE' refers to Northern Europe; 'EE' refers to Eastern Europe; 'SA' refers to Southeastern Asia; '#1-6' represents different sampling locations (detailed peat sampling location information is omitted here).



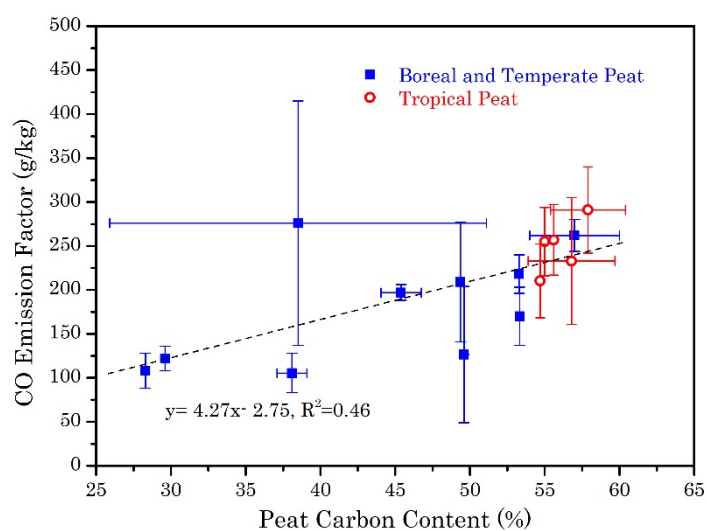
**Fig S2.** CH<sub>4</sub> EFs from different peat burning emission studies.



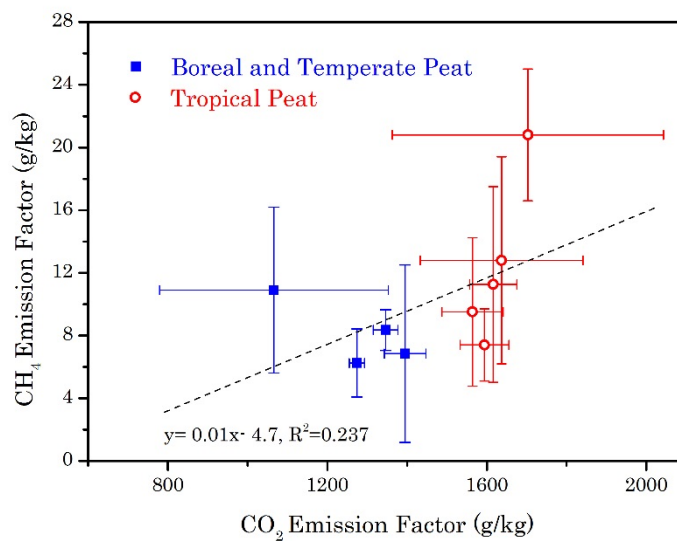
**Fig S3.** HCN EFs from different peat burning emission studies.



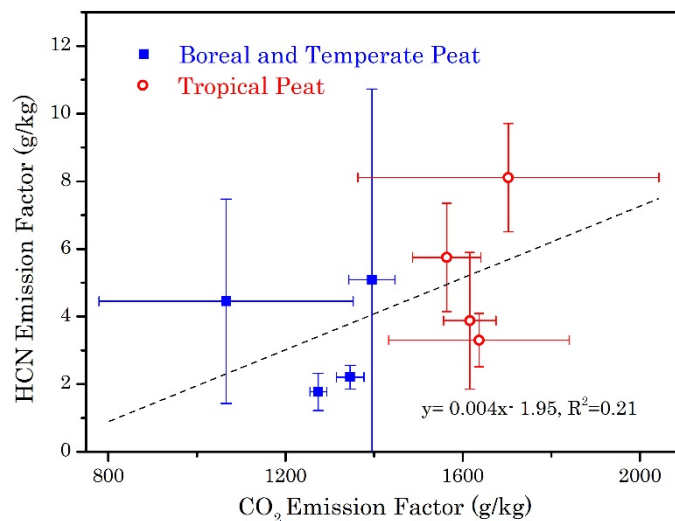
**Fig S4.** NH<sub>3</sub> EFs from different peat burning emission studies.



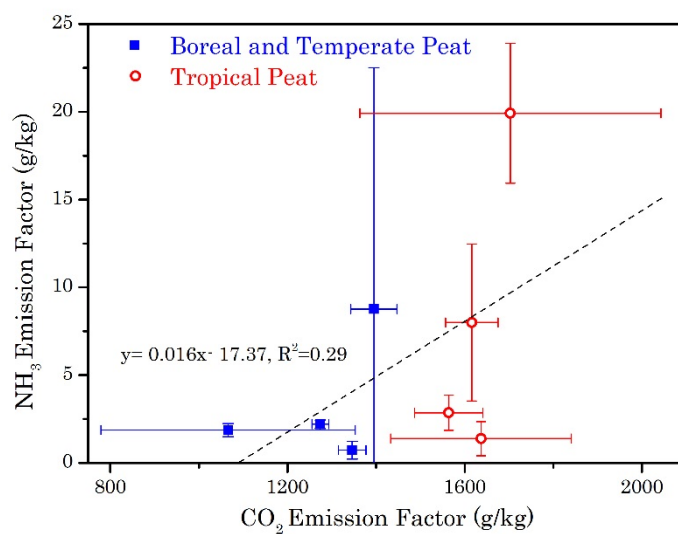
**Fig S5.** CO EFs as a function of peat carbon content. With the increase of peat carbon content, CO EFs show an increasing trend. Tropical peat has averagely higher carbon content (56.0%) than boreal and temperate peat (44.2%), thus emits averagely higher CO.



**Fig S6.** CO<sub>2</sub> EFs as a function of CH<sub>4</sub> EFs. CO<sub>2</sub> and CH<sub>4</sub> EFs of peat fire are poorly correlated ( $R^2 = 0.237$ ).



**Fig S7.** CO<sub>2</sub> EFs as a function of HCN EFs. Information regarding the EFs of HCN from both boreal and temperate peat and tropical peat are limited to handful studies. CO<sub>2</sub> and HCN EFs of peat fire are poorly correlated ( $R^2 = 0.21$ ).



**Fig S8.** CO<sub>2</sub> EFs as a function of NH<sub>3</sub> EFs. Information regarding the EFs of NH<sub>3</sub> from both boreal and temperate peat and tropical peat are limited to handful studies. CO<sub>2</sub> and NH<sub>3</sub> EFs of peat fire are poorly correlated ( $R^2 = 0.29$ ).