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Interactive Comment

Interactive comment on "The fate of N₂O consumed in soils" by B. Vieten et al.

B. Vieten et al.

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In previous experiments we had tested the organic layers of 3 forest sites for their potential N2O consumption. In contrast to mineral horizons and the investigated bog, we did not find any N2O consumption. The organic layers had low pH values and high C/N ratios (about 30) but were not water-saturated, not even periodically. The bog mentioned in the study is probably N limited as indicated by the sundew (*Drosera rotundifolia*) growing on it. The top 10 cm of its peat layer showed a relatively large N2O consumption rate in all our previous experiments. Due to this experience we had selected it for the technically more demanding treatment described in our study. We think that N limited, water saturated soils with high C/N ratios, like peat soils, may have a greater likelihood to assimilate N2O than other soils. So it would be interesting to repeat this study with other peat soils in future.

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