



Interactive comment on “Nitric oxide and nitrous oxide emission from Hungarian forest soils; link with atmospheric N-deposition” by L. Horváth et al.

Anonymous Referee #3

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The paper by Horvath et al. presents the Hungarian contribution to the NOFRTEETE project. Weekly measurements of NO and N₂O fluxes at two different forest sites are presented together with an estimation of the total N-turnover. The description of the experimental set-up and of the measured fluxes is satisfactory. In contrast to this the discussion and the interpretation is insufficient.

In the European context the Hungarian sites are characterized by cold and humid winters and dry and hot summers. From this perspective, it is somewhat surprising that the N₂O emissions are consistently about one order of magnitude higher than the NO emissions. I cannot see any attempt to explain or discuss this feature. Important drivers for the emissions are soil humidity and soil temperature. Obviously these parameters have been measured, but the data are not shown and are not discussed. The authors

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also speculate on a systematic 20% underestimation of the measurements with small static chambers. I cannot see in the results whether such a correction has been made or not. Whether such a correction is likely to be needed, could be tested by looking e.g. at the slope of the increase of the CO₂ concentration in the headspace of the chamber.

The discussion of the data is on a report level and is not yet a scientific discussion. I guess that the data could gain much in case they are embedded in a wider context within the NOFRETE project.

Interactive comment on Biogeosciences Discussions, 2, 703, 2005.

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