

Dear Prof. Middelburg,

Thank you for your kind message and for the opportunity to revise our manuscript for *Biogeosciences*. We are very pleased to hear that the paper has been accepted pending technical corrections.

We have carefully addressed the two points you raised:

- (1) Line 410: The text incorrectly referred to NO_2 , and this has now been corrected to N_2O .
- (2) Figures 6 and 7: We have adjusted the colour scheme to improve clarity and accessibility. We selected a colour-blind friendly palette, using a vivid reddish-orange for N_2O (#F05039), a deep royal blue for CO_2 (#1F449C), and a soft desaturated blue-grey for CH_4 (#A8B6CC). This combination enhances contrast while maintaining clarity across print and digital formats.

We also greatly appreciated your personal remark regarding your experience with acoustic IR systems. Your observation about the magnitude of the correction factor for N_2O in low-emitting systems is particularly insightful. We have now added a new paragraph at the end of Section 2.6 (“Correcting for cross-sensitivities”) acknowledging that the correction introduces substantial uncertainty in N_2O measurements, especially in low-emission environments. We also highlighted this limitation in the conclusions (section 3.4 “Limitations and further work”), stating that “current sensors in the Ponds do not match the accuracy and precision of commercial analysers, especially for N_2O measurements in low-emitting systems”.

Finally, we addressed the editorial comments by (1) using numbers for the affiliation, (2) removing the yellow text in the references, and (3) ensuring there is a mandatory section on “author contribution” (see page 2).

Thank you again for your constructive input and support throughout the review process. We look forward to seeing the paper in print and hope it contributes meaningfully to the field.

Best regards

Martino E. Malerba (on behalf of all co-authors)