

“Table 3: Statistical comparison of pre- and post-rewetting nutrient concentrations and GHG fluxes. For pre- and post-phases, summer and autumn seasons were used (June to November 2019 and 2020, respectively). Nutrient concentrations are compared for the inner bay and GHG fluxes for the peatland site. *** and "n.s" indicate $p < 0.001$ and not significant, respectively.”

| variable | pre-rewetting | | post-rewetting | | p |
|---|-----------------|-----|----------------|-----|------|
| | mean \pm sd | n | mean \pm sd | n | |
| NH ₄ ⁺ ($\mu\text{mol L}^{-1}$) | 2.6 \pm 1.6 | 9 | 9.6 \pm 17.7 | 17 | n.s. |
| NO ₃ ⁻ ($\mu\text{mol L}^{-1}$) | 1.9 \pm 2.5 | 8 | 2.7 \pm 3.3 | 8 | n.s. |
| NO ₂ ⁻ ($\mu\text{mol L}^{-1}$) | 0.2 \pm 0.1 | 10 | 0.7 \pm 1.1 | 16 | n.s. |
| PO ₄ ³⁻ ($\mu\text{mol L}^{-1}$) | 0.9 \pm 1.6 | 6 | 0.4 \pm 0.3 | 11 | n.s. |
| CO ₂ flux (transect + area, g m ⁻² h ⁻¹) | 0.3 \pm 0.8 | 330 | 0.3 \pm 0.3 | 450 | n.s. |
| CO ₂ flux (ditch, g m ⁻² h ⁻¹) | 0.3 \pm 0.1 | 87 | 0.3 \pm 0.3 | 92 | n.s. |
| CH ₄ flux (transect + area, mg m ⁻² h ⁻¹) | 0.1 \pm 1.0 | 97 | 1.7 \pm 7.6 | 320 | *** |
| CH ₄ flux (ditch, mg m ⁻² h ⁻¹) | 11.4 \pm 37.5 | 85 | 8.5 \pm 26.9 | 92 | *** |

“Uncertainty ranges for the seasonal NNTs (u_{NNT} , as 95 % confidence level) were calculated as standard errors (SE) by using an error propagation according to Eq. (6):

$$u_{NNT} = \sqrt{(c_{bay} dt u_{Qin})^2 + (c_{peat} dt u_{Qout})^2 + (Q_{out} dt u_{cpeat})^2 + (Q_{in} dt u_{cbay})^2}$$

where terms with “u” denote the respective SE as 95 % confidence level. To gain the annual SE of the NNT, all seasonal SE were added up.”