## Supplementary information for bg-2011-28

"Annual emissions of  $CH_4$  and  $N_2O$ , and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture" by S.O. Petersen et al.



Fig. A1. Distribution of monitoring sites in three regions across Western Denmark. Regions I, II and III correspond to regions W, N and E in the paper. Key to symbols: Black – Arable (AR); Light green – Rotational grass (RG); Dark green – Permanent grassland (PG). For geographical coordinates, please refer to the paper.

## Supplementary information for bg-2011-28

"Annual emissions of CH<sub>4</sub> and N<sub>2</sub>O, and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture" by S.O. Petersen et al.



Fig. A2. Monthly values of temperature and precipitation from August 2008 to September 2009 (dark blue), and 20-year monthly means (light blue). Annual GHG emissions were calculated for the period 21 Sept 2008 – 20 Sept 2009, i.e. climate data from a few weeks prior to this period are shown.

## Supplementary information for bg-2011-28

"Annual emissions of  $CH_4$  and  $N_2O$ , and ecosystem respiration, from eight organic soils in Western Denmark managed by agriculture" by S.O. Petersen et al.

## Groundwater pH



Fig. A3. Seasonal variations in groundwater pH at the eight monitoring sites; fresh groundwater was sampled from piezometers at the paired sampling points during gas flux measurement campaigns (n = 3; the data shown represent mean  $\pm$  standard error). The data set was incomplete due to resource limitations.



Groundwater electrical conductivity (μS cm<sup>-1</sup>)

Fig. A4. Seasonal variations in groundwater electrical conductivity at the eight monitoring sites; Fresh groundwater was sampled from piezometers at the paired sampling points during gas flux measurement campaigns (n = 3; the data shown represent mean  $\pm$  standard error). The data set was incomplete due to resource limitations.