Supplement material to the manuscript titled "Carbon dioxide and methane fluxes from different surface types in a created urban wetland"
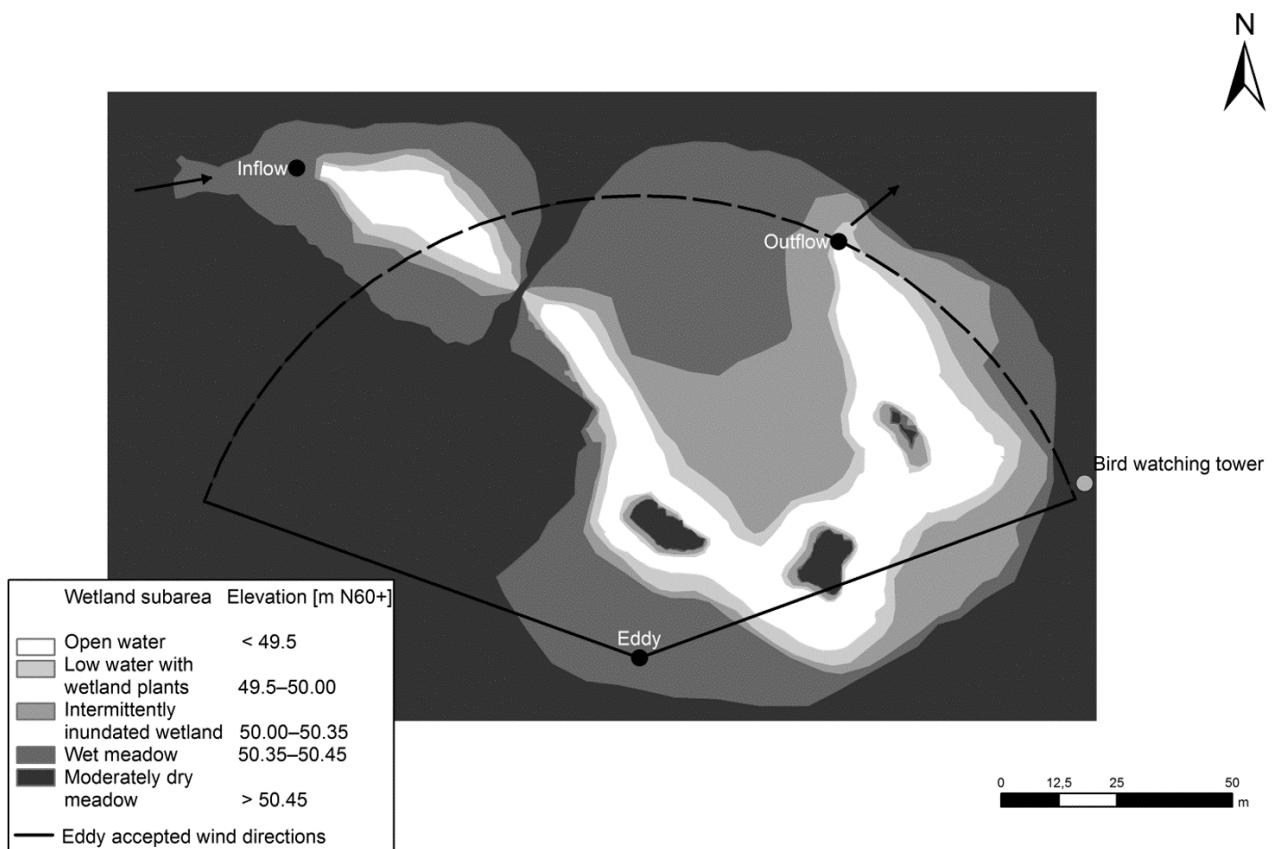
Figure S1: The landscape classification of Nummela wetland. Wetland subareas specified according to mean water level are shown with different colors. The arrows indicate the direction of water flow. The black dots indicate the inflow and outflow measuring station and the location of eddy covariance tower.
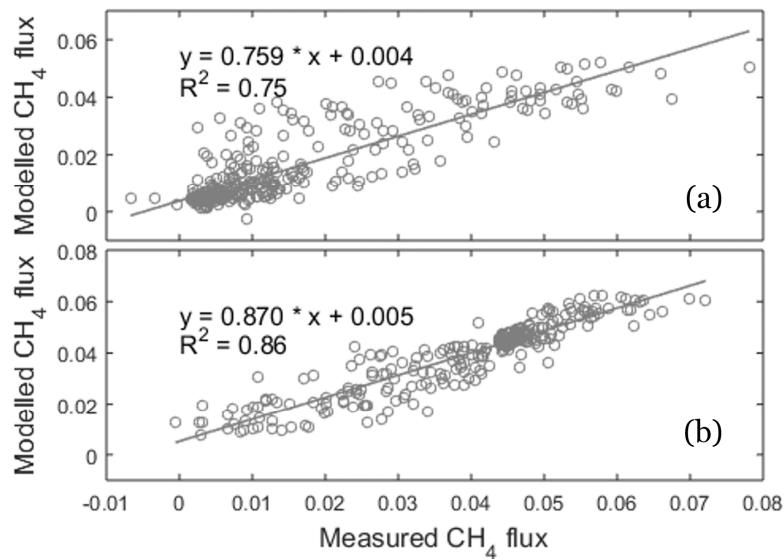
Figure S2: Comparing the modelled and measured ecosystem flux (using CH₄ as example) (a) without or (b) with dissolved gas concentration in open water ([CH₄] in this case) in artificial neural network architecture.
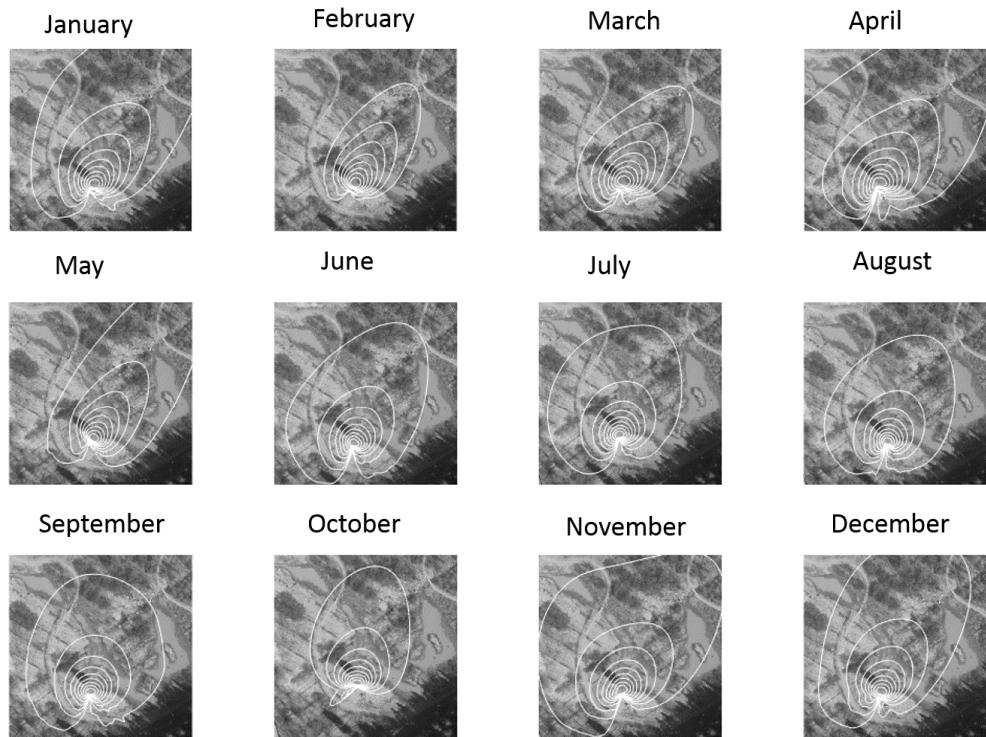
Figure S3: The aggregated footprint climatology of Nummela wetland during each month in year 2013. White contour lines show 10 % - 90 % flux footprint climatology.
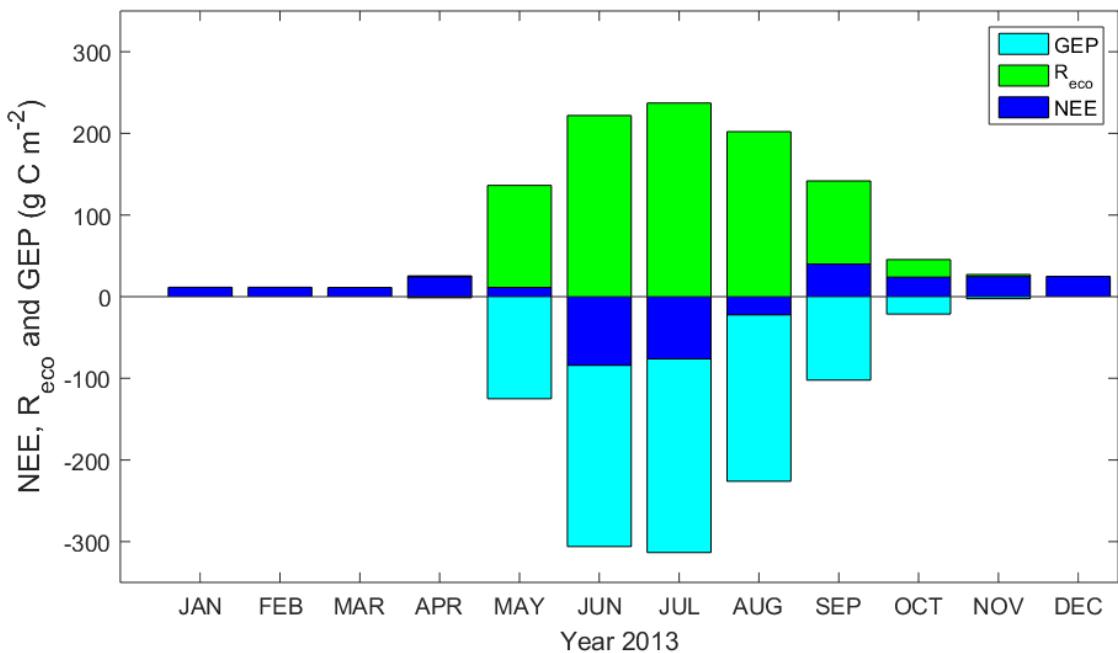
Figure S4: Partitioned monthly-sum of net ecosystem exchange of CO_2 (NEE, g C m^{-2}) as gross ecosystem production (GEP, g C m^{-2}) and ecosystem respiration (R$_{eco}$, g C m^{-2}) in year 2013. The data shown was gap-filled with the median of the 20 ANN models.
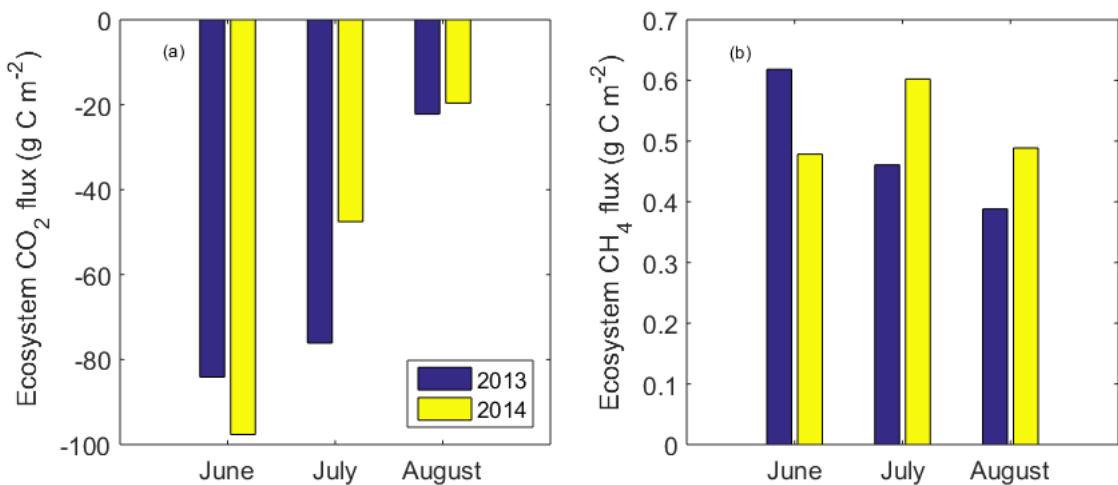
Figure S5: The monthly-sum of (a) ecosystem CO_2 flux (g C m^{-2}) and (b) ecosystem CH_4 flux (g C m^{-2}) measured by eddy covariance tower during the peak growing season in year 2013 and 2014. The data shown was gap-filled with the median of the 20 ANN models.
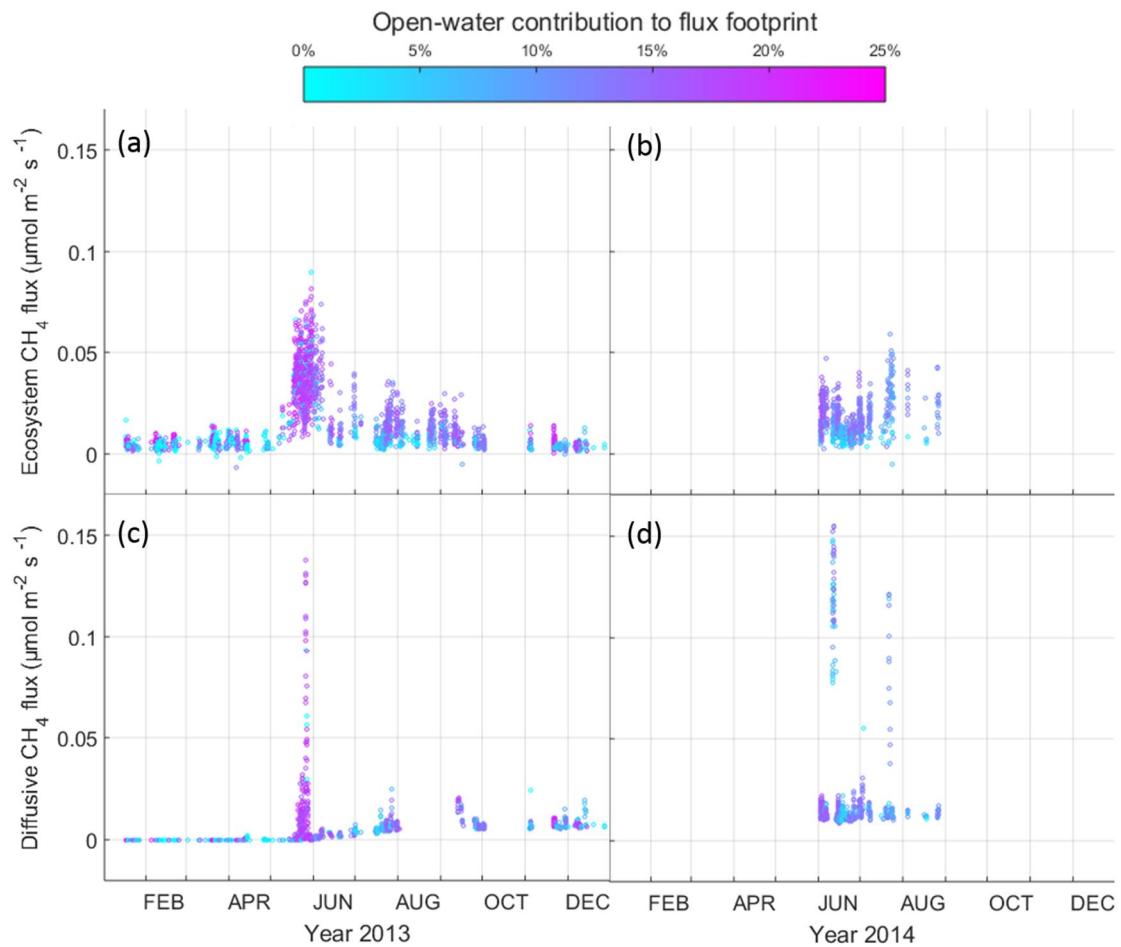
Figure S6: Ecosystem CH₄ flux measured by eddy covariance tower ((a) and (b)) and diffusive CH₄ flux modelled from open water ((c) and (d)). The colour bar indicates the footprint-weighted spatial contribution from the open water.