

## Supplementary materials

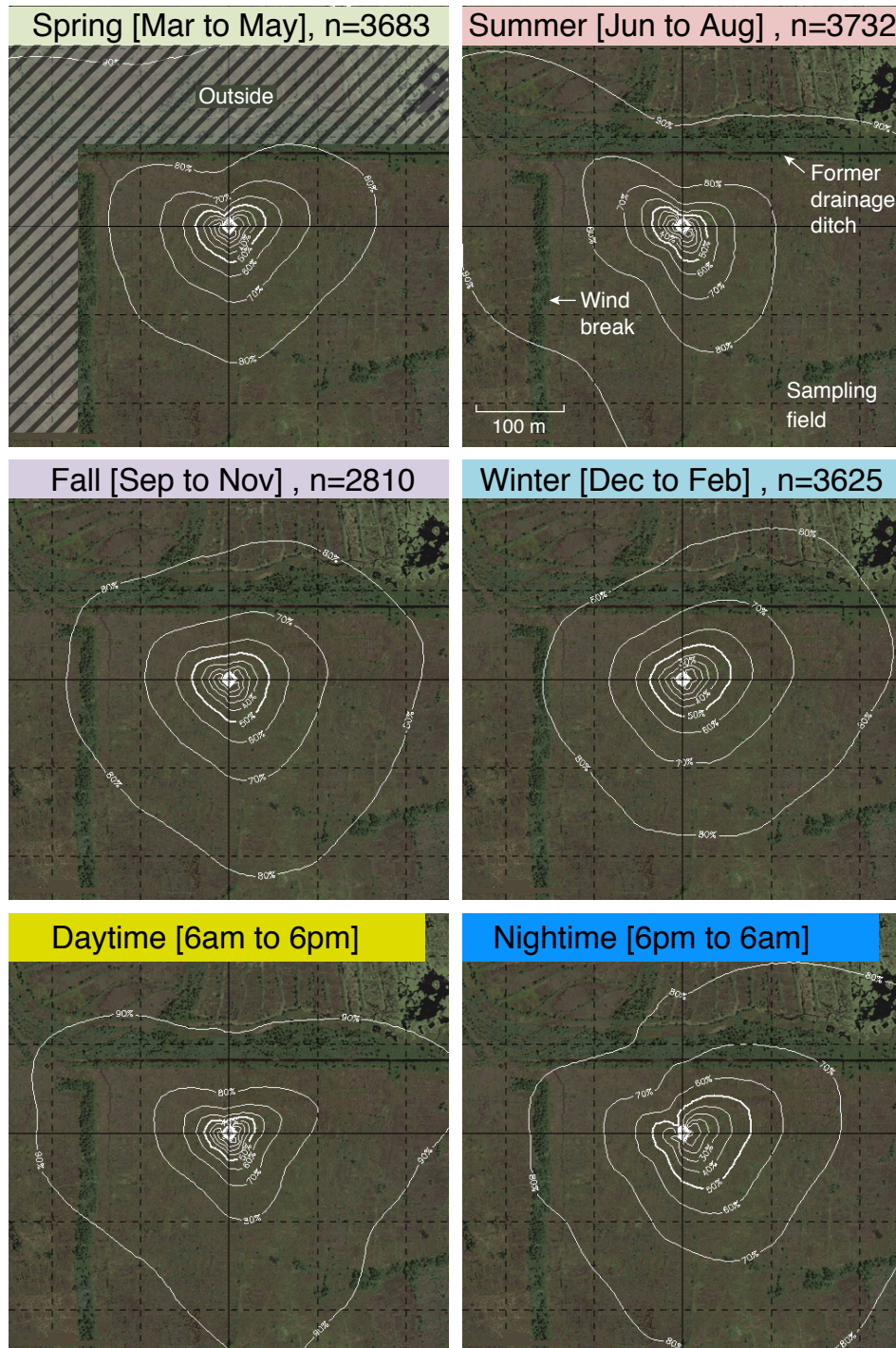


Figure S1: Cumulative flux footprint contours during the study period for each of seasons, and daytime and nighttime flux footprint contours during the study period. The background area was centered at the flux tower, and the area is 500 m x 500 m. The contour lines are in steps of 10% from 10 to 90% of the cumulative probability. The upper left bars in each sub plot explain which months/time were included and list the number of available half-hourly data ( $n$ ).



(b)

Spring [M,A,M]



Summer [J,J,A]



Fall [S,O,N]



Winter [D,J,F]



Figure S2: (a) Aerial photograph of the flux tower seen from the NW. To the left is the boardwalk (photo taken by Metro Vancouver by helicopter in July 2014). (b) Documentation of vegetation cover around the flux tower.

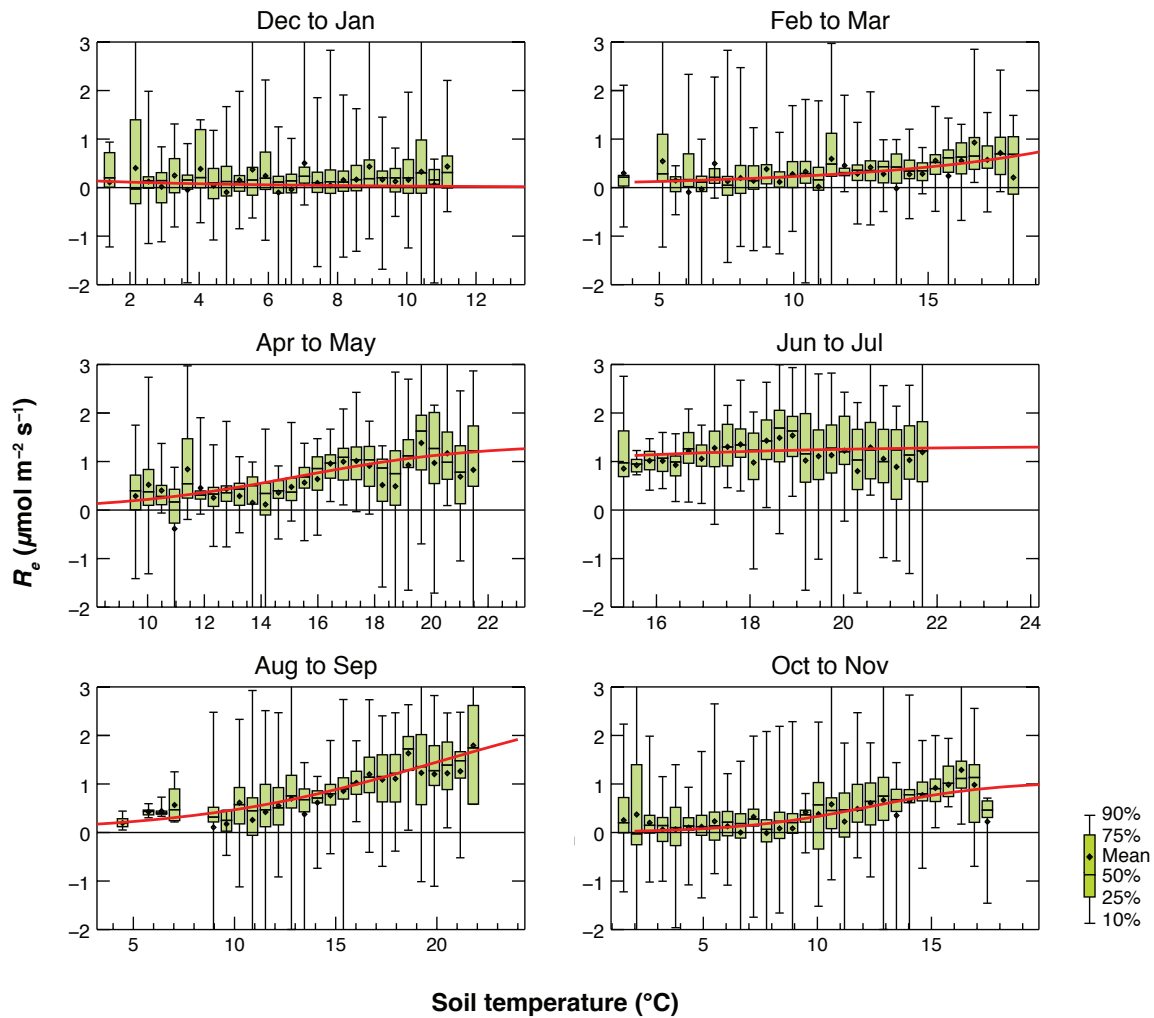


Figure S3:  $R_e$  curves on first day of every two months by using window size of 120 days.  $R_e$  was binned for 32 classes from minimum of  $T_{s,5cm}$  to maximum of  $T_{s,5cm}$  in each period. Note: Although y-axis is fixed, the x-axis is variable.

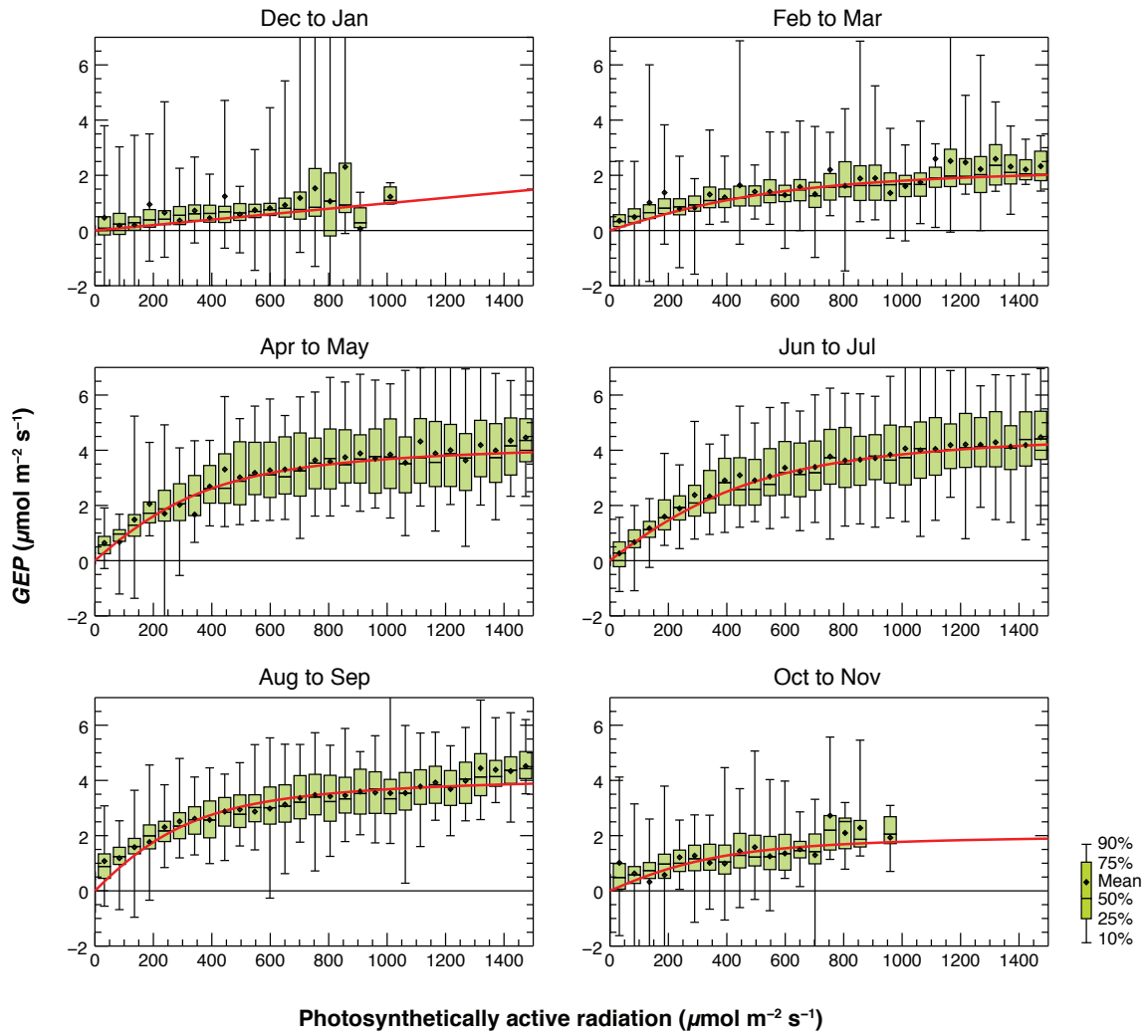


Figure S4: Light response curves on first day of every two months by using window size of 90 days. PPFD was binned for 30 classes from 0 to 1500  $\mu\text{mol m}^{-2} \text{s}^{-1}$ .