

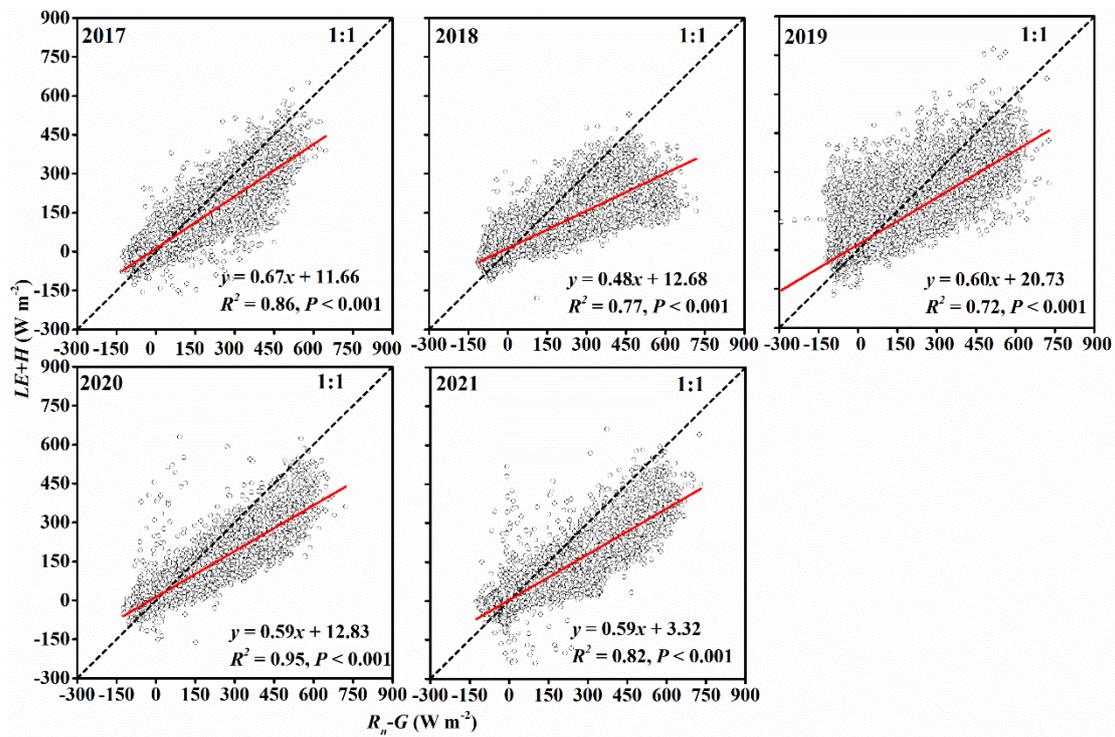
1 *Supplemental material*

2 **Variations of carbon flux at different time scales in a semi-fixed sandy**
3 **land ecosystem in Horqin Sandy Land, China**

4 Yayi Niu et al.

5 *Correspondence to:* Yuqiang Li (liyq@lzb.ac.cn)

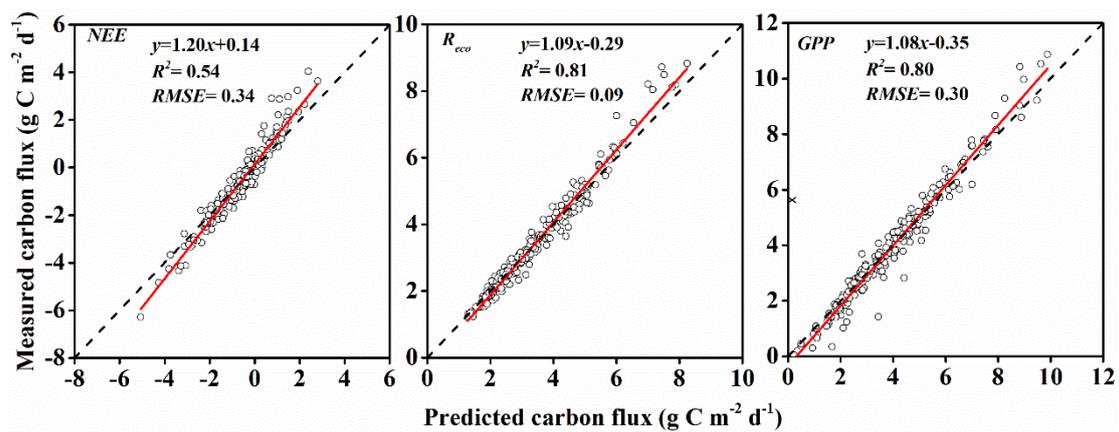
6 **Fig. S1.** Relationships between the 30-min turbulent heat flux, which equaled the latent
7 heat flux (LE) + the sensible heat flux (H), and the available energy, which equaled net
8 radiation (R_n) – the soil heat flux (G). The red lines represent the regression equation.



9

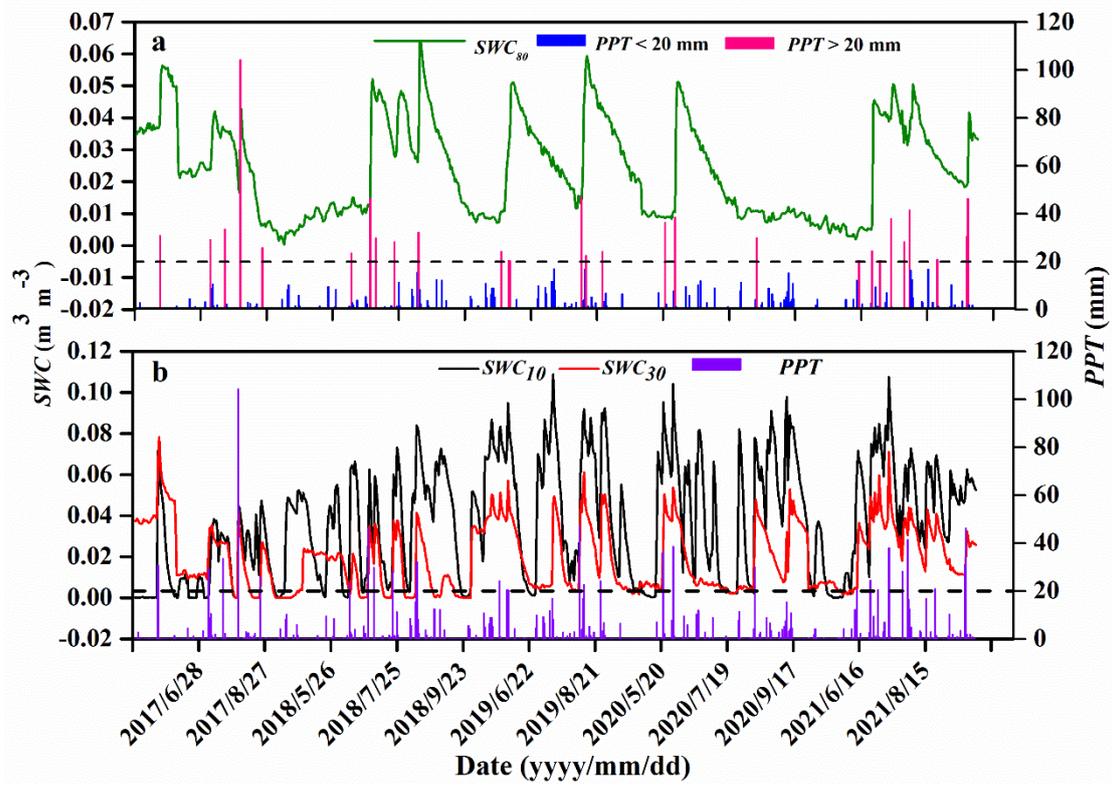
10

11 **Fig. S2.** Plots of the observed carbon fluxes (*NEE*, net ecosystem exchange of CO₂;
12 *R_{eco}*, ecosystem respiration; *GPP*, gross primary productivity) and the carbon fluxes
13 predicted by the Random Forest model during the growing season on a daily basis from
14 2017 to 2021. The black dashed line is the $y=x$ line and the red line is the regression
15 line.



16
17

18 **Fig. S3.** Changes in (a) the deep soil water content (SWC_{80}) at a depth of 80 cm and (b)
19 the shallow SWC at depths of 10 cm (SWC_{10}) and 30 cm (SWC_{30}) that resulted from
20 precipitation events during the growing seasons from 2017 to 2021.



21

22