

**S7 Figure. Correlations between yearly NPP and impact factors.** For low-NPP categories which reach their peaks in 2010, C1 and C2 have positive correlation between NPP and impact factors, while for high-NPP categories which reach their peaks in 2009, NPP of C7-9 shows weak or negative correlation with precipitation and temperature but exhibits positive correlation with NDVI and FPAR. For C4-6, NPP shows weak or negative correlation with impact factors, which may attribute to the relative slight annual variance. The dispersed distributions from 50°N to 50°S of C4-6 may conceal the regional variation patterns through the average process. Forests of C3 mainly distribute in the transition area of C1-2 and C4-6, and its NPP shows positive correlation with precipitation and weak correlation with other impact factors.

