Supplemental information for

Maximum Gross Primary Productivity Dominates the Trend of Gross Primary Productivity in China's Deciduous Forest Ecosystems

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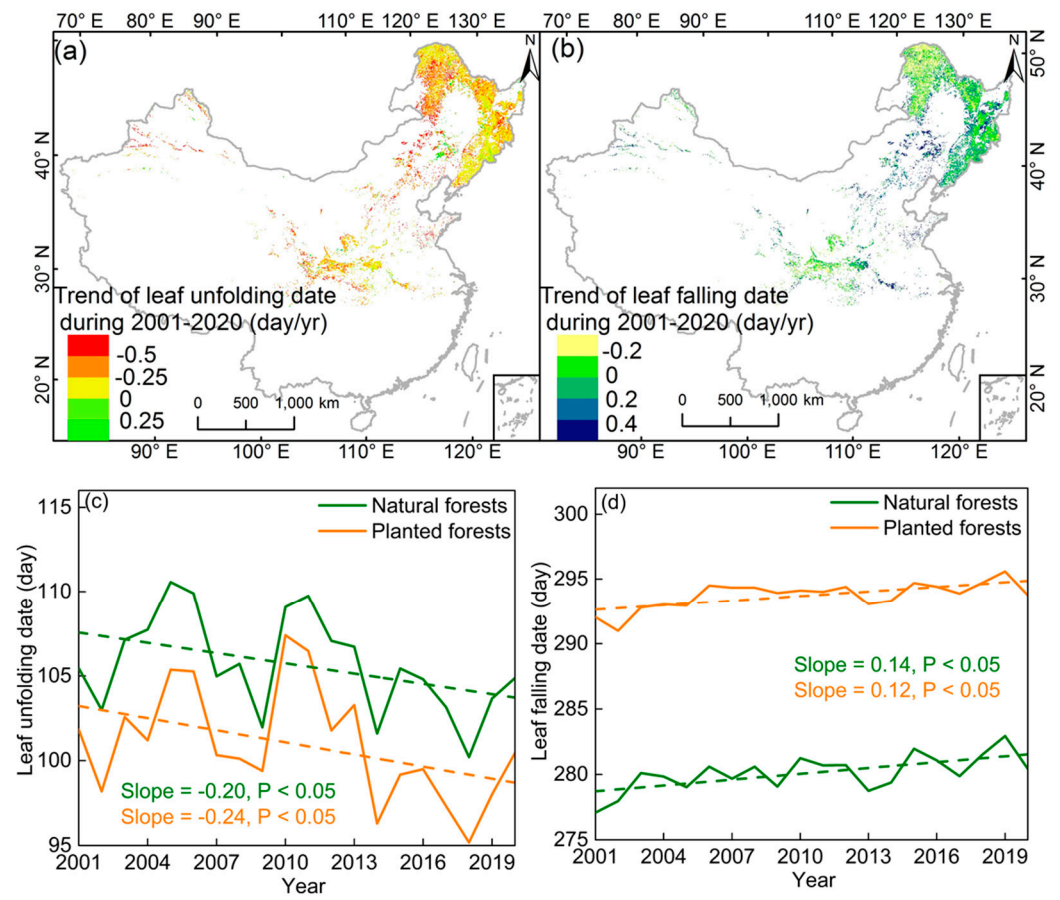[*] Correspondence: cwf@imufe.edu.cn

Figure S1. Spatial patterns of the leaf unfolding and leaf falling dates trends during 2001-2020 in China's deciduous forest ecosystems. Spatial patterns of leaf unfolding and leaf falling dates trends during 2001-2020 (a-b). Temporal variations of leaf unfolding and leaf falling dates trends during 2001-2020 in natural forests and planted forests (c-d).
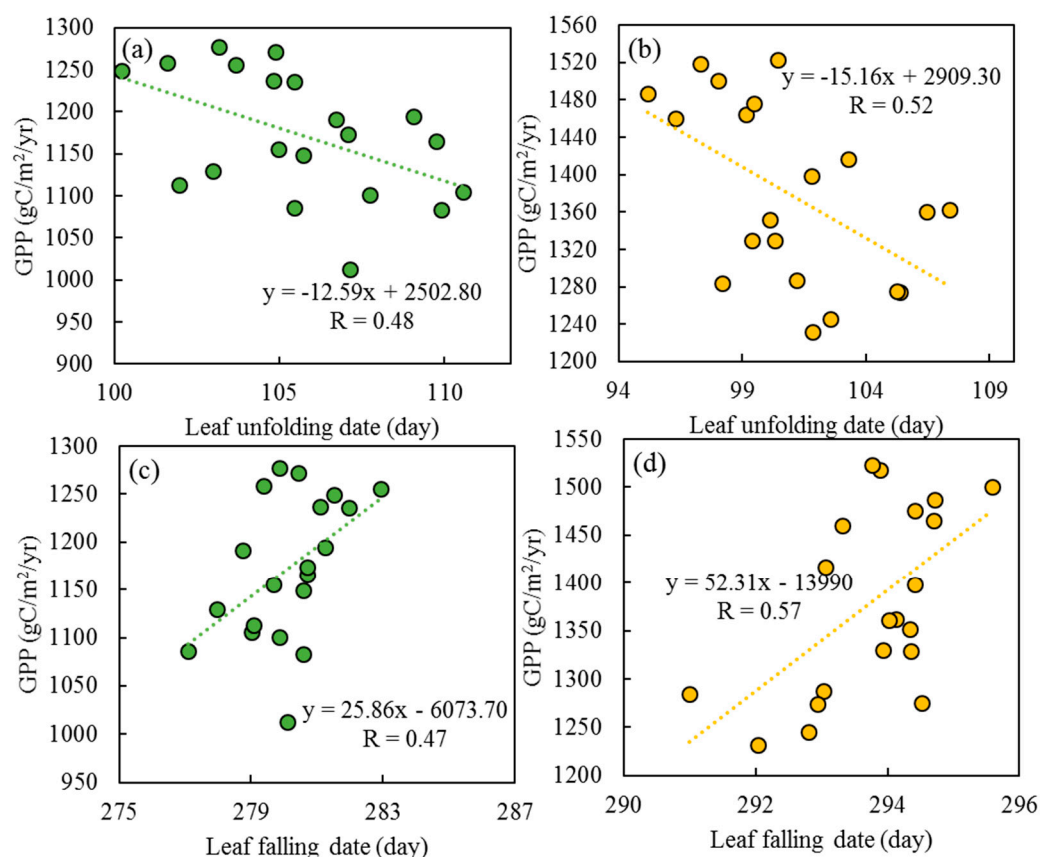
Figure S2. The relationships of the trend in the annual gross primary productivity (GPP) with the leaf unfolding and leaf falling dates across the natural forests (a-b), and the planted forests (c-d), during 2001-2020.

Table S1. The sensitivity of the annual gross primary productivity (GPP), growing season length (GSL), and maximum gross primary productivity (GPPmax) to the annual mean temperature (TEM), annual sum precipitation (PRE), and annual sum global radiation (RAD) across the natural and planted forests during 2001–2020.

GPP	Natural forests	Planted forests
TEM	51.41*	75.18*
PRE	0.14	0.07
RAD	0.01	-0.02
Growing season length	Natural forests	Planted forests
TEM	2.56*	4.17*
PRE	0.01	-0.01
RAD	0.04	0.15
GPP maximum	Natural forests	Planted forests
TEM	2.71	2.54
PRE	-0.02	0.01
RAD	0.01	0.01

Note: * means $P < 0.05$.

Table S2. The sensitivity of the annual gross primary productivity (GPP), growing season length (GSL), and maximum gross primary productivity (GPPmax) to the annual mean temperature (TEM), annual sum precipitation (PRE), and annual sum global radiation (RAD) in different seasons across the natural and planted forests during 2001–2020.

R	Spring		Summer		Autumn		Winter	
GPP	Natural forests	Planted forests	Natural forests	Planted forests	Natural forests	Planted forests	Natural forests	Planted forests
TEM	24.38	42.48	91.34*	131.34*	-2.04	-10.64	11.55	16.03
PRE	0.16	-0.49	0.07	0.02	1.03	1.64	-2.32	-2.10
RAD	0.21	0.33	-0.14	-0.37	-0.40	-0.74	0.97	0.90
Growing season length	Natural forests	Planted forests	Natural forests	Planted forests	Natural forests	Planted forests	Natural forests	Planted forests
TEM	2.40*	3.59*	0.14	1.32	-1.06	-0.82	0.74	1.01
PRE	-0.05	-0.03	0.01	-0.03	0.04	0.01	-0.04	-0.02
RAD	0.03*	0.03*	-0.01	0.01	-0.02	-0.01	0.06*	0.05*
GPP maximum	Natural forests	Planted forests	Natural forests	Planted forests	Natural forests	Planted forests	Natural forests	Planted forests
TEM	-0.18	1.07	16.34*	18.00*	1.10	-0.08	-0.02	-0.03
PRE	0.13	-0.06	-0.05	0.02	0.03	0.17	-0.33	-0.35
RAD	0.01	0.03	0.01	-0.05	-0.03	-0.08	0.05	0.07

Note: * means P < 0.05.