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Supplement of

Experiments of the efficacy of tree ring blue intensity as a climate proxy in central and western China

Yonghong Zheng et al.

Correspondence to: Rob Wilson (rjsw@st-andrews.ac.uk)

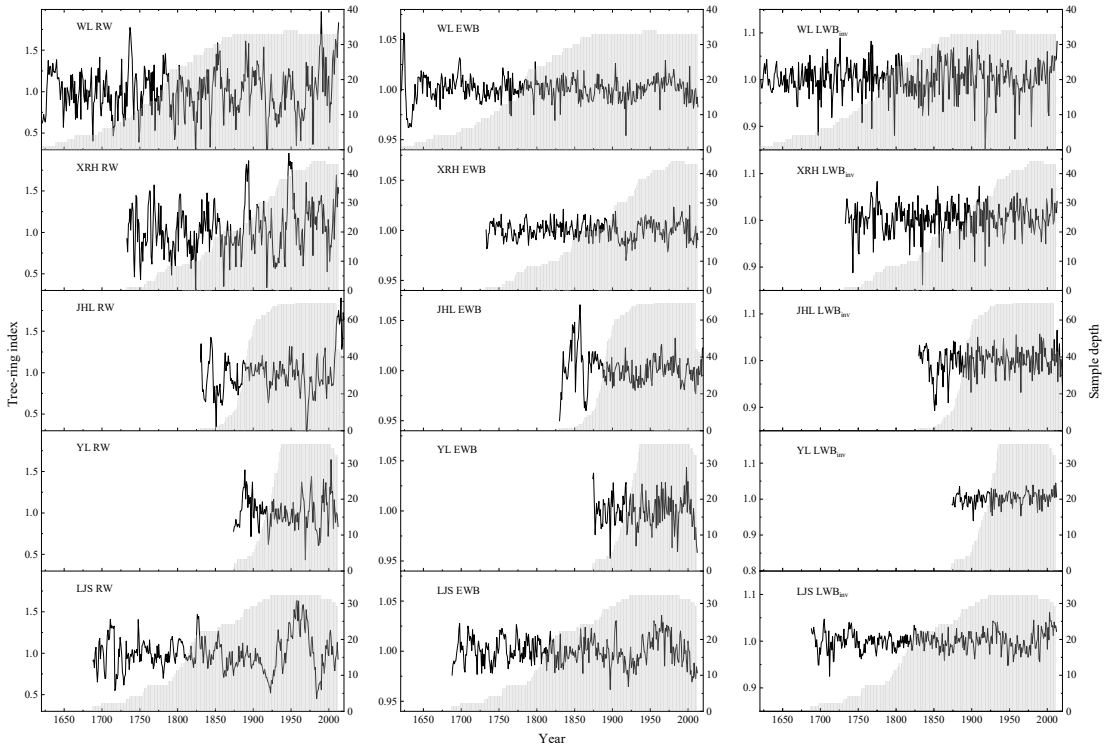

Fig.S1 ADS detrended chronologies of RW, EWB, and LWB_{inv}. Shading indicates sample depth.

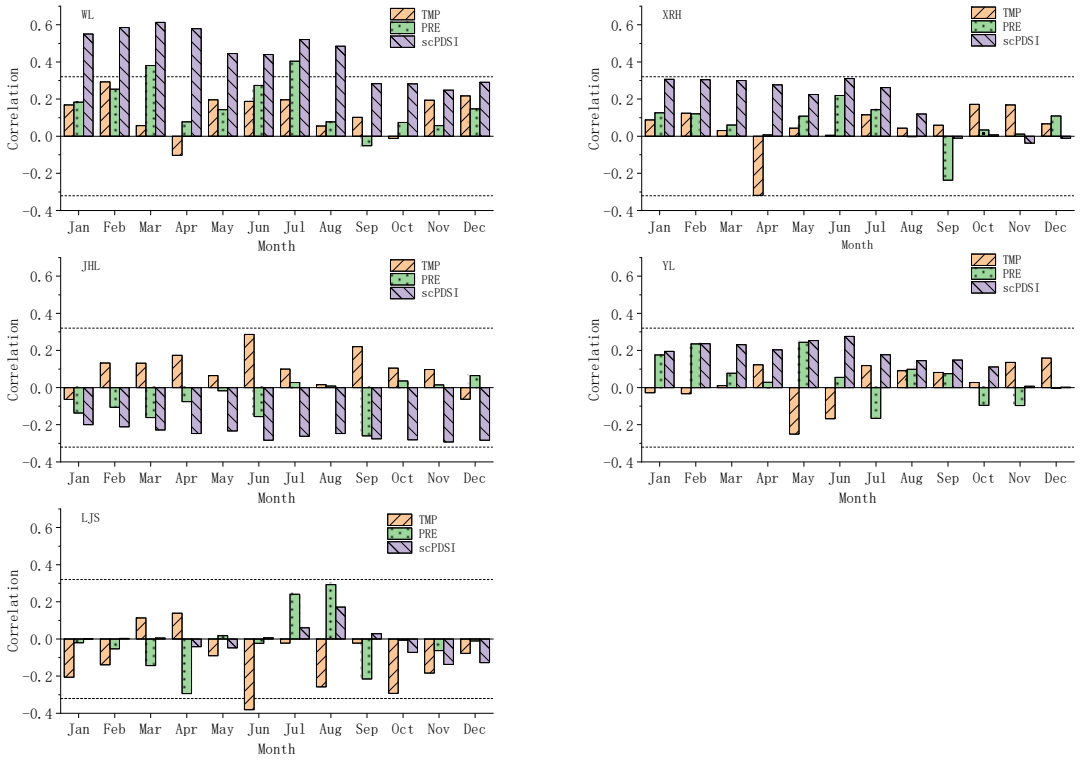

Fig.S2 Correlation response function analysis (1951-2012) using RW chronologies with CRU TS4.05 mean temperatures, precipitation, and PDSI

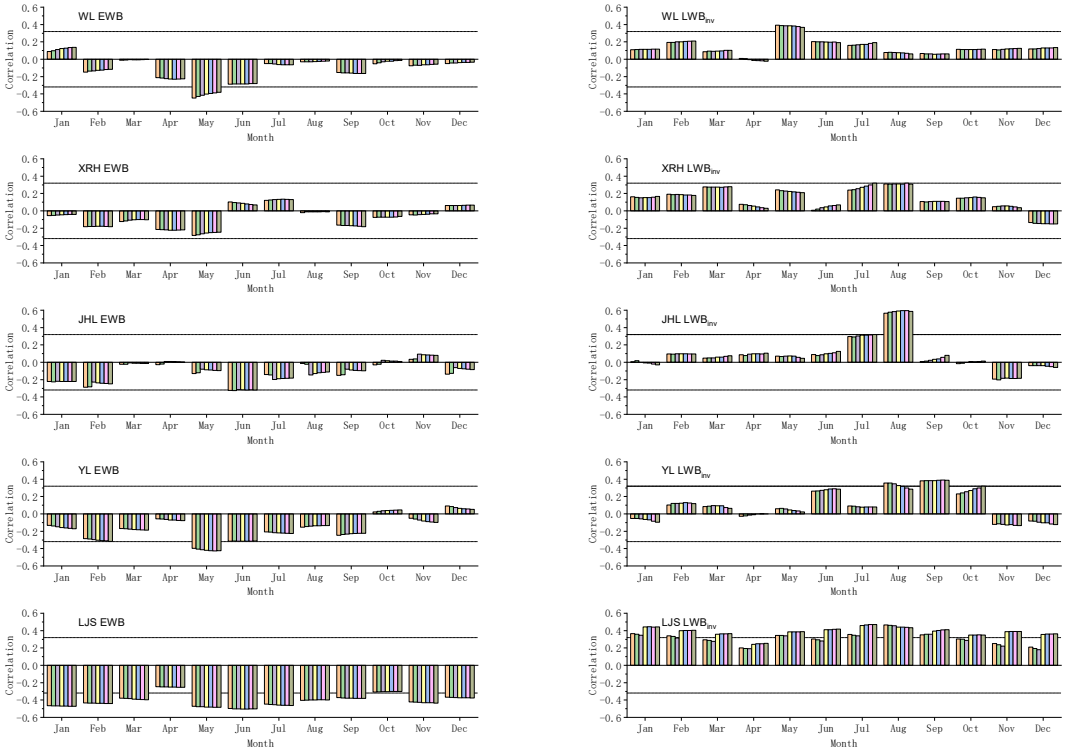

Fig.S3 Correlation response function analysis (1951-2012) using monthly TMP with EWB and LWB$_{inv}$. The bars in each monthly group represent different percentile extraction ADS chronology variants, specifically P50:50, P60:40, P70:30, P80:20, P85:15, P90:10, and P95:5, respectively.

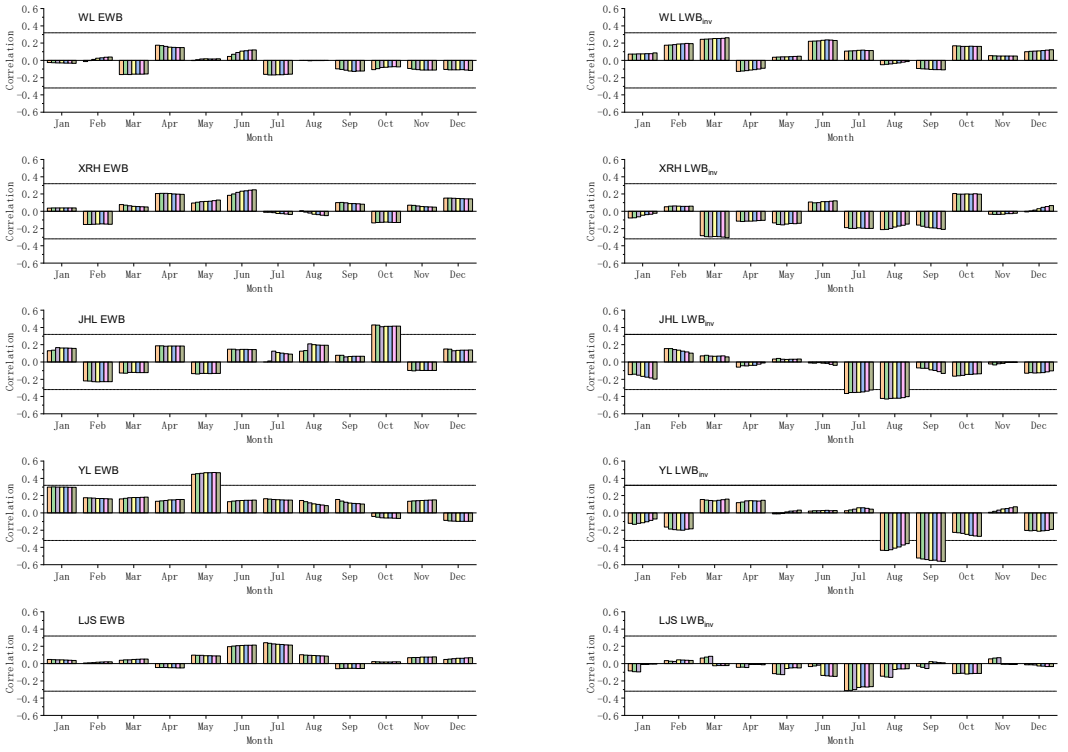

Fig.S4 as Fig.S3, but correlations for PRE with EWB and LWB$_{inv}$

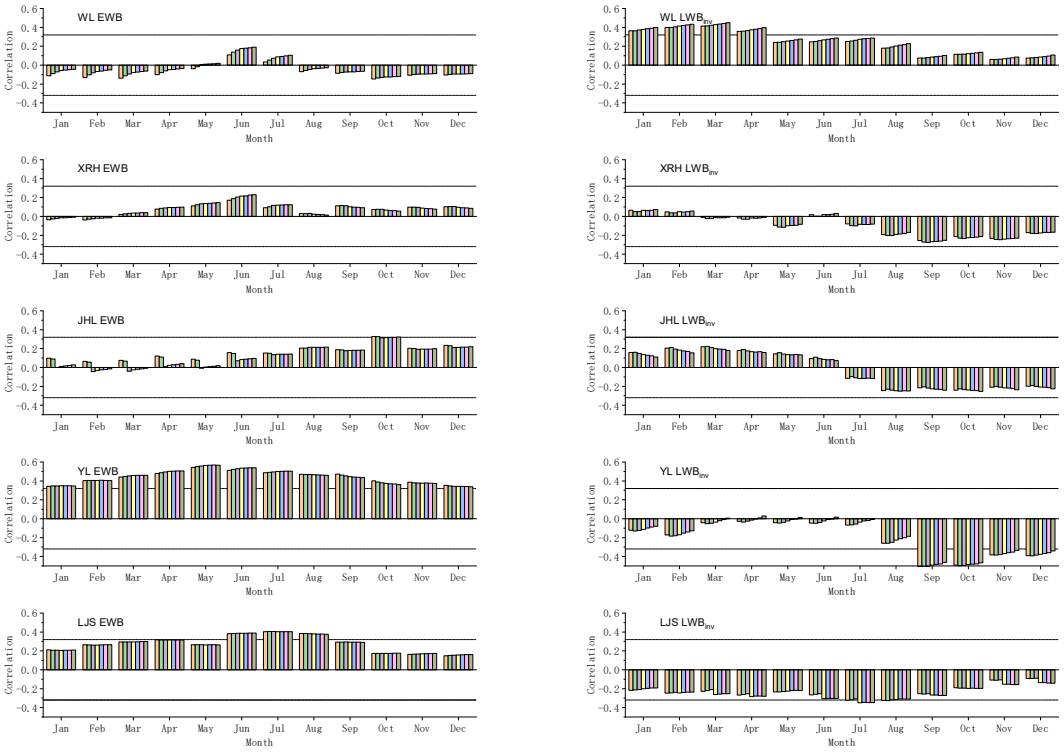

Fig.S5 as Fig.S3, but correlations for scPDSI with EWB and LWB$_{inv}$

Table S1 CV, AC1, and Rbar for each ADS detrended chronology

Site	Extraction	Parameter	CV	AC1	Rbar
WL	RW	RW	0.536	0.642	0.516
XRH	RW	RW	0.429	0.707	0.42
JHL	RW	RW	0.636	0.7	0.376
YL	RW	RW	0.470	0.606	0.241
LJS	RW	RW	0.578	0.814	0.235
WL	P50:50	EWB	0.056	0.425	0.161
WL	P60:40	EWB	0.055	0.429	0.159
WL	P70:30	EWB	0.054	0.435	0.156
WL	P80:20	EWB	0.053	0.442	0.154
WL	P85:15	EWB	0.053	0.447	0.154
WL	P90:10	EWB	0.052	0.449	0.154
WL	P95:5	EWB	0.052	0.451	0.154
XRH	P50:50	EWB	0.070	0.329	0.09
XRH	P60:40	EWB	0.069	0.330	0.089
XRH	P70:30	EWB	0.068	0.334	0.088
XRH	P80:20	EWB	0.067	0.332	0.088
XRH	P85:15	EWB	0.067	0.331	0.089
XRH	P90:10	EWB	0.066	0.329	0.088
XRH	P95:5	EWB	0.066	0.327	0.089
JHL	P50:50	EWB	0.055	0.628	0.088
JHL	P60:40	EWB	0.056	0.625	0.089

JHL	P70:30	EWB	0.062	0.574	0.097
JHL	P80:20	EWB	0.061	0.589	0.096
JHL	P85:15	EWB	0.060	0.592	0.096
JHL	P90:10	EWB	0.060	0.596	0.095
JHL	P95:5	EWB	0.059	0.597	0.095
YL	P50:50	EWB	0.058	0.186	0.136
YL	P60:40	EWB	0.058	0.190	0.137
YL	P70:30	EWB	0.057	0.192	0.138
YL	P80:20	EWB	0.057	0.198	0.139
YL	P85:15	EWB	0.057	0.200	0.139
YL	P90:10	EWB	0.057	0.202	0.139
YL	P95:5	EWB	0.056	0.203	0.14
LJS	P50:50	EWB	0.084	0.522	0.099
LJS	P60:40	EWB	0.083	0.530	0.098
LJS	P70:30	EWB	0.083	0.531	0.098
LJS	P80:20	EWB	0.082	0.531	0.098
LJS	P85:15	EWB	0.081	0.532	0.098
LJS	P90:10	EWB	0.081	0.532	0.099
LJS	P95:5	EWB	0.080	0.534	0.099
WL	P50:50	LWB_{inv}	0.082	0.336	0.301
WL	P60:40	LWB_{inv}	0.081	0.336	0.303
WL	P70:30	LWB_{inv}	0.081	0.337	0.306
WL	P80:20	LWB_{inv}	0.080	0.339	0.308
WL	P85:15	LWB_{inv}	0.080	0.34	0.308
WL	P90:10	LWB_{inv}	0.079	0.342	0.307
WL	P95:5	LWB_{inv}	0.077	0.345	0.304
XRH	P50:50	LWB_{inv}	0.070	0.448	0.097
XRH	P60:40	LWB_{inv}	0.070	0.444	0.096
XRH	P70:30	LWB_{inv}	0.070	0.441	0.094
XRH	P80:20	LWB_{inv}	0.069	0.44	0.091
XRH	P85:15	LWB_{inv}	0.068	0.44	0.089
XRH	P90:10	LWB_{inv}	0.068	0.438	0.087
XRH	P95:5	LWB_{inv}	0.067	0.435	0.085
JHL	P50:50	LWB_{inv}	0.058	0.367	0.185
JHL	P60:40	LWB_{inv}	0.058	0.364	0.186
JHL	P70:30	LWB_{inv}	0.057	0.362	0.188
JHL	P80:20	LWB_{inv}	0.056	0.359	0.188
JHL	P85:15	LWB_{inv}	0.055	0.359	0.188
JHL	P90:10	LWB_{inv}	0.055	0.357	0.187
JHL	P95:5	LWB_{inv}	0.054	0.355	0.186
YL	P50:50	LWB_{inv}	0.044	0.328	0.191
YL	P60:40	LWB_{inv}	0.043	0.34	0.188
YL	P70:30	LWB_{inv}	0.043	0.333	0.191
YL	P80:20	LWB_{inv}	0.042	0.326	0.193
YL	P85:15	LWB_{inv}	0.041	0.32	0.194
YL	P90:10	LWB_{inv}	0.041	0.316	0.193
YL	P95:5	LWB_{inv}	0.040	0.306	0.189

LJS	P50:50	LWB_{inv}	0.059	0.492	0.113
LJS	P60:40	LWB_{inv}	0.058	0.488	0.113
LJS	P70:30	LWB_{inv}	0.057	0.486	0.113
LJS	P80:20	LWB_{inv}	0.066	0.583	0.095
LJS	P85:15	LWB_{inv}	0.067	0.586	0.094
LJS	P90:10	LWB_{inv}	0.067	0.588	0.092
LJS	P95:5	LWB_{inv}	0.067	0.589	0.091

Note: Highest values highlighted using yellow shadow.