

Table S1. Source populations of *P. virginica* seeds used in germination experiments.

Population name	Country	City	Province/State	Latitude (N)	Longitude	Annual mean temperature (°C)	Annual precipitation (mm)	Experiment time (Year)	Experiment place (Country)
CFA	China	Fuzhou	Fujian	26° 01' 42" N	119° 12' 25" E	19.95	1374	2012, 2013, 2014, 2015	China, USA
CFB	China	Fuzhou	Fujian	26° 03' 40" N	119° 11' 42" E	19.95	1374	2012, 2013	China, USA
CHB	China	Wuhan	Hubei	30° 32' 39" N	114° 24' 27" E	17.09	1257	2012, 2013	China, USA
CJB	China	Nanchang	Jiangxi	28° 41' 14" N	115° 56' 02" E	17.93	1560	2012, 2013, 2014, 2015	China, USA
CJD	China	Nanchang	Jiangxi	28° 41' 17" N	115° 55' 20" E	17.93	1560	2012, 2013, 2014, 2015	China, USA
CJE	China	Nanchang	Jiangxi	28° 39' 11" N	115° 47' 27" E	17.95	1564	2012, 2013	China, USA
CNA	China	Nanjing	Jiangsu	32° 03' 07" N	118° 49' 39" E	15.96	1044	2012, 2013, 2015	China, USA
CNB	China	Nanjing	Jiangsu	32° 02' 25" N	118° 52' 28" E	15.74	1037	2012, 2013, 2014	China, USA

CSA	China	Shanghai	Shanghai	31° 08' 46" N	121° 26' 12" E	16.40	1009	2012, 2013, 2014, 2015	China, USA
CZJ	China	Jinhua	Zhejiang	29° 08' 09" N	119° 38' 29" E	17.77	1465	2012, 2013, 2014, 2015	China, USA
UCA	USA	Palm Springs	California	33° 49' 23" N	116° 32' 13" W	16.02	421	2012, 2013	China, USA
UFA	USA	Gainesville	Florida	29° 38' 07" N	82° 20' 20" W	20.69	1351	2012, 2013, 2014, 2015	China, USA
UGA	USA	Statesboro	Georgia	32° 24' 08" N	81° 45' 18" W	18.69	1203	2012, 2013, 2014, 2015	China, USA
UGB	USA	Statesboro	Georgia	32° 25' 14" N	81° 47' 32" W	16.11	1204	2012, 2013	China, USA
UGC	USA	Twin city	Georgia	32°33'48.92" N	82° 02' 04" W	18.28	1190	2012, 2013, 2014, 2015	China, USA
UNB	USA	Greensboro	N. Carolina	36° 15' 10" N	79°45'24.74" W	14.45	1141	2012, 2013, 2014, 2015	China, USA
UNC	USA	Morehead city	N. Carolina	34° 43' 20" N	76° 45' 30" W	17.31	1437	2012, 2013, 2014, 2015	China, USA

UOA	USA	Logan County	Oklahoma	35° 43' 53" N	97° 17' 12" W	15.64	923	2012, 2013	China, USA
UOC	USA	Edmond	Oklahoma	35° 41' 46" N	97° 17' 12" W	15.64	923	2013	USA
USA	USA	Blackville town	S. Carolina	33° 19' 58" N	81° 17' 47" W	17.82	1206	2012, 2013	China, USA
USB	USA	Rock Hill	S. Carolina	34° 54' 43" N	80° 58' 27" W	15.99	1198	2015	China
UVA	USA	Charlottesville	Virginia	38° 05' 34" N	78° 05' 34" W	13.34	1119	2012, 2014	China
