

**Table S1.** Geographic information including five regions and statistics of nuclear microsatellite (nSSR) genetic diversity for each population of *Populus koreana*. Populations with asterisks are these that were also applied to our previous study (Sang et al., 2022).

Region/Pop	Code	accession number	Long.	Lat.	Alt (m)	$N_{SSR}$	$N_a$	$N_e$	$H_o$	$H_e$	$F_{IS}$	$A_r$	$P_{ar}$
The Greater Khingan													
1*	ZHY-37	SZ02076093	52.9	122	469	15	5.545	3.201	0.576	0.612	0.073	2.760	0.03
2*	ZHY-35	SZ02076094	52.8	123	545	13	4.273	2.810	0.427	0.580	0.272	2.600	0.02
3*	ZHY-34	SZ02076095	52.7	124	549	10	2.818	2.090	0.427	0.407	0.043	2.070	0.00
4*	ZHY-33	SZ02076096	52.3	125	356	10	4.364	2.849	0.473	0.578	0.195	2.660	0.06
5*	ZHY-41	SZ02076097	50.6	123	576	10	4.000	2.434	0.552	0.525	-0.060	2.440	0.02
6*	ZHY-31	SZ02076098	50.9	124	431	10	4.455	2.591	0.509	0.548	0.038	2.540	0.04
7	MZL-362	N/A	50.4	124	410.37	5	3.364	2.401	0.418	0.524	0.190	2.560	0.19
8	ZHY-30	SZ02076099	49.8	125	369	4	3.455	2.460	0.523	0.528	0.002	2.700	0.09
9*	ZHY-44	SZ02076100	49.5	124	385	10	4.636	2.842	0.576	0.593	0.022	2.690	0.05
Southern Heilongjiang													
10	MZL-323	N/A	46.9	129	529.57	18	5.727	3.176	0.572	0.592	0.087	2.700	0.07
11	MZL-319	N/A	46.5	129	149.13	5	3.182	2.409	0.545	0.533	0.026	2.530	0.01
12	MZL-324	N/A	46.7	130	129.66	3	2.818	2.438	0.485	0.530	0.054	2.640	0.02
13	MZL-303	N/A	45.5	131	407	7	4.091	2.973	0.558	0.550	-0.015	2.670	0.13
14*	ZHY-21	SZ02076101	44.5	131	543	10	4.091	2.716	0.482	0.506	0.042	2.440	0.01
15*	ZHY-17	SZ02076102	43.5	130	502	10	5.000	3.237	0.500	0.647	0.226	2.870	0.06
16	MZL-297	N/A	43.9	129	570.18	10	4.545	3.049	0.583	0.556	-0.075	2.640	0.09
17*	ZHY-22	SZ02076103	44.4	129	420	10	4.273	3.058	0.513	0.579	0.104	2.650	0.07
18*	ZHY-25	SZ02076104	44.8	128	519	10	4.455	3.209	0.627	0.581	-0.084	2.700	0.06
19*	ZHY-26	SZ02076105	45.5	128	300	10	5.455	3.582	0.525	0.634	0.173	2.930	0.14
20	MZL-328	N/A	45.4	127	248.38	5	3.818	3.250	0.545	0.591	0.136	2.870	0.12
The Changbai Mountains													
21*	ZHY-16	SZ02076106	43.8	128	405	10	4.818	3.568	0.482	0.623	0.313	2.820	0.03
22	MZL-277	N/A	43.2	127	461.07	7	4.182	2.995	0.532	0.605	0.116	2.800	0.17
23*	ZHY-14	SZ02076107	42.9	128	574	10	4.727	3.083	0.473	0.561	0.145	2.630	0.03
24	MZL-283	N/A	42.5	129	546.87	15	5.727	3.545	0.486	0.583	0.140	2.740	0.08
25*	ZHY-19	SZ02076108	42.9	131	345	10	4.545	2.884	0.536	0.582	0.064	2.680	0.06

26*	ZHY-18	SZ02076109	43.2	130	484	10	5.818	3.199	0.582	0.614	0.053	2.880	0.17
27	MZL-262	N/A	41.6	128	643.96	13	5.545	3.568	0.545	0.610	0.129	2.810	0.08
28	MZL-267	N/A	42.1	128	880.93	10	5.273	3.291	0.497	0.623	0.238	2.870	0.10
29	MZL-254	N/A	41.5	127	446.65	15	5.364	3.405	0.588	0.590	0.014	2.760	0.10
30	MZL-249	N/A	41.9	127	702.36	12	6.000	3.521	0.533	0.636	0.166	2.950	0.20
31*	ZHY-10	SZ02076110	41.1	125	289	10	4.727	3.275	0.591	0.573	-0.063	2.710	0.07
32*	ZHY-09	SZ02076111	40.9	125	691	10	5.182	3.588	0.573	0.609	0.084	2.900	0.08
33	ZHY-08	SZ02076112	40.5	125	32	10	3.455	2.250	0.545	0.440	-0.115	2.230	0.11
Hebei Province													
34*	ZHY-03	SZ02076113	41.5	118	969	15	4.455	2.880	0.582	0.614	0.062	2.640	0.03
The Korean Peninsula													
35	Inje	N/A	37.8	127.2	400	7	4.000	2.971	0.435	0.597	0.323	2.740	0.20
36	Yangyang	N/A	38	128.5	376	15	4.273	2.813	0.497	0.566	0.141	2.600	0.04
37	Gangneung	N/A	37.8	128.7	436	15	4.364	2.463	0.448	0.502	0.159	2.390	0.10
38	Pyeongchang	N/A	37.7	128.5	400	15	4.636	2.643	0.400	0.523	0.221	2.480	0.03
39	Yongpyeong	N/A	37.4	128.5	400	15	4.636	2.750	0.426	0.575	0.234	2.580	0.08
40	Hongcheon	N/A	37.4	128	400	15	4.364	2.622	0.406	0.549	0.241	2.500	0.01
Mean	-	N/A	-	-	-	10.6	4.511	2.952	0.514	0.569	0.103	2.659	0.08

*Abbreviations:* Code refers to 40 populations. Long., longitude; Lat., latitude; Alt., altitude;  $N_{SSR}$ , sample size analyzed for nuclear microsatellites and cpDNA, respectively;  $N_a$ , the total number of alleles;  $N_e$ , no. of effective alleles;  $H_o$ , observed heterozygosity;  $H_e$ , expected heterozygosity;  $F_{IS}$ , inbreeding coefficient;  $A_r$  and  $P_{ar}$ , rarefied allelic richness and private allelic richness, respectively.