

Supplementary information

Table S1. Geographic locations and sample size (*N*) of the six Japanese *Cryptomeria* populations.

Population					
Prefecture	Location	Longitude(E)	Latitude(N)	Altitude(m)	<i>N</i>
Aomori	Ajigasawa (AJG)	140.2053	40.6757	319	13
Akita	Nibetsu (NBT)	140.2600	39.8061	315	15
Kyoto	Ashu (ASH)	135.7739	35.3078	802	18
Shimane	Oki (OKI)	133.3292	36.2683	363	9
Wakayama	Shingu (SNG)	135.7100	33.8900	592	15
Kagoshima	Yakushima (YKU)	130.5731	30.3035	1071	5
Total					83

Table S2. Genetic diversity indices of the six populations of *C. japonica* and seven populations of *C. japonica* var. *sinensis* based on 183 loci

Pop	<i>N</i>	<i>Na</i>	<i>Ne</i>	<i>Ho</i>	<i>He</i>	<i>F</i>
AJG	12.366	1.847	1.390	0.254	0.243	-0.047
ASH	17.918	1.934	1.413	0.279	0.257	-0.067
OKI	8.940	1.858	1.391	0.278	0.248	-0.101
KWZ	7.967	1.787	1.406	0.277	0.248	-0.101
SNG	14.503	1.902	1.404	0.274	0.253	-0.087
YKU	5.874	1.721	1.355	0.239	0.221	-0.088
mean	11.261	1.842	1.393	0.267	0.245	-0.082
LS	13.836	1.891	1.379	0.233	0.240	0.015
WT	10.623	1.240	1.128	0.076	0.073	0.056
TBY	14.393	1.623	1.241	0.155	0.152	-0.014
YTG	7.705	1.355	1.213	0.147	0.126	-0.131
WYS	11.120	1.530	1.244	0.163	0.152	-0.070
TT	16.787	1.464	1.202	0.128	0.125	-0.021
XTM	13.377	1.470	1.219	0.149	0.134	-0.092
mean	12.549	1.511	1.232	0.150	0.143	-0.037

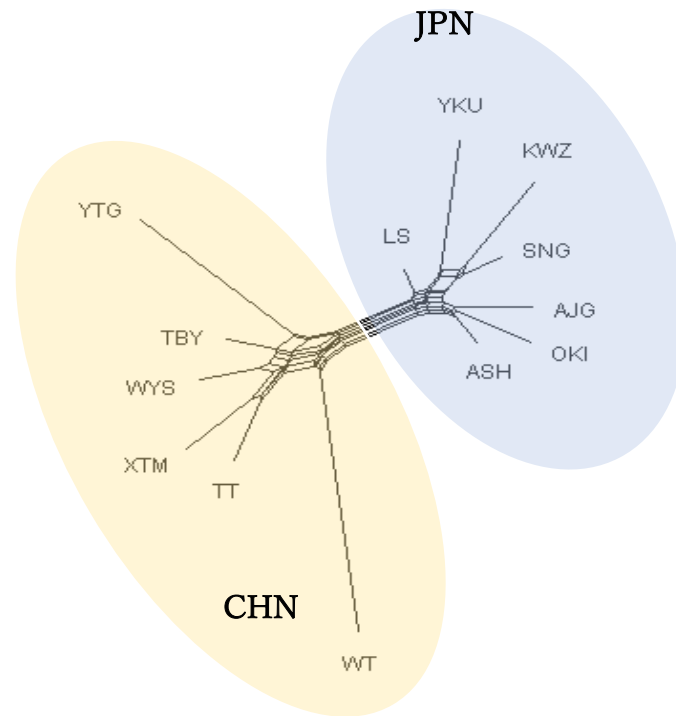


Figure S1. Neighbor-Net results based on the pairwise F_{ST} matrix of Chinese and Japanese populations

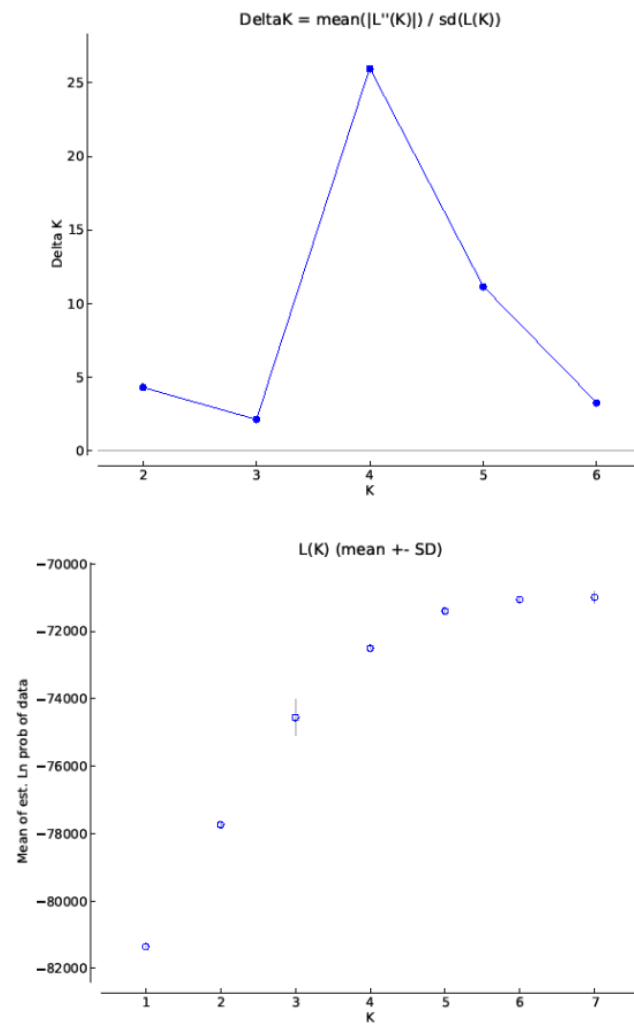


Figure S2. The number of inferred clusters, K , based on ΔK and mean $\text{LnP}(K)$ obtained from Structure Harvester.

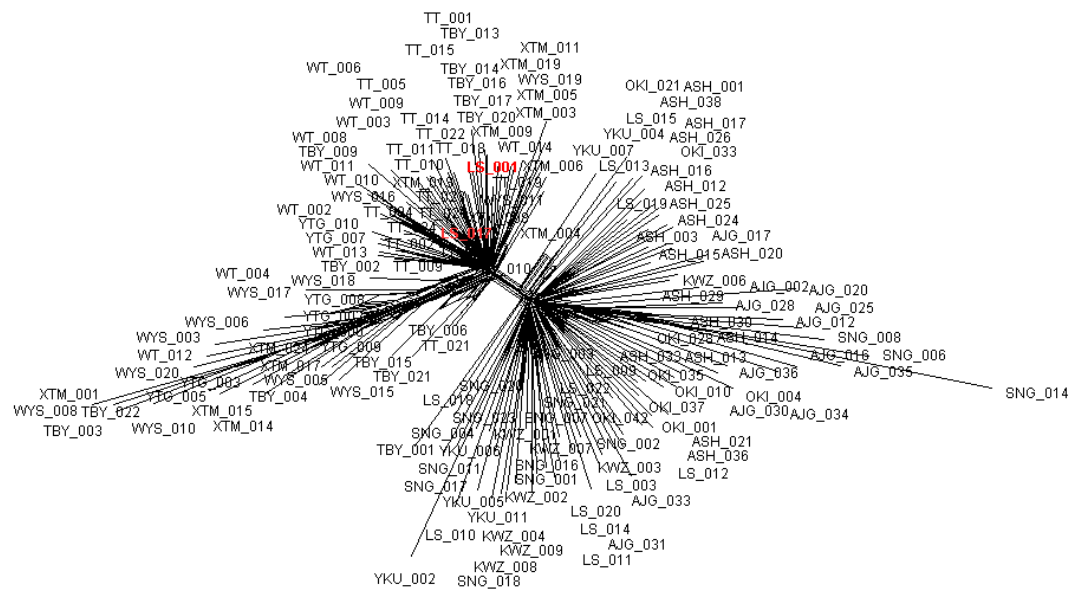


Figure S3. Neighbor-Net results based on the pairwise F_{ST} matrix of all individuals. Individuals in red are two trees in population LS that belong to the Chinese group



Figure S4 An ancient tree growing on Lushan mountain, coded LS001 in this study, was estimated to be more than 600 years old.

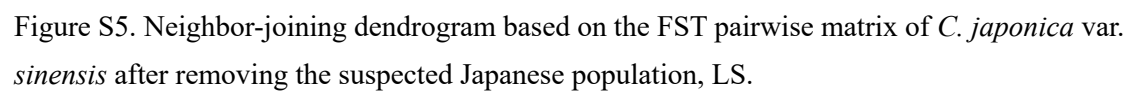


Figure S5. Neighbor-joining dendrogram based on the FST pairwise matrix of *C. japonica* var. *sinensis* after removing the suspected Japanese population, LS.

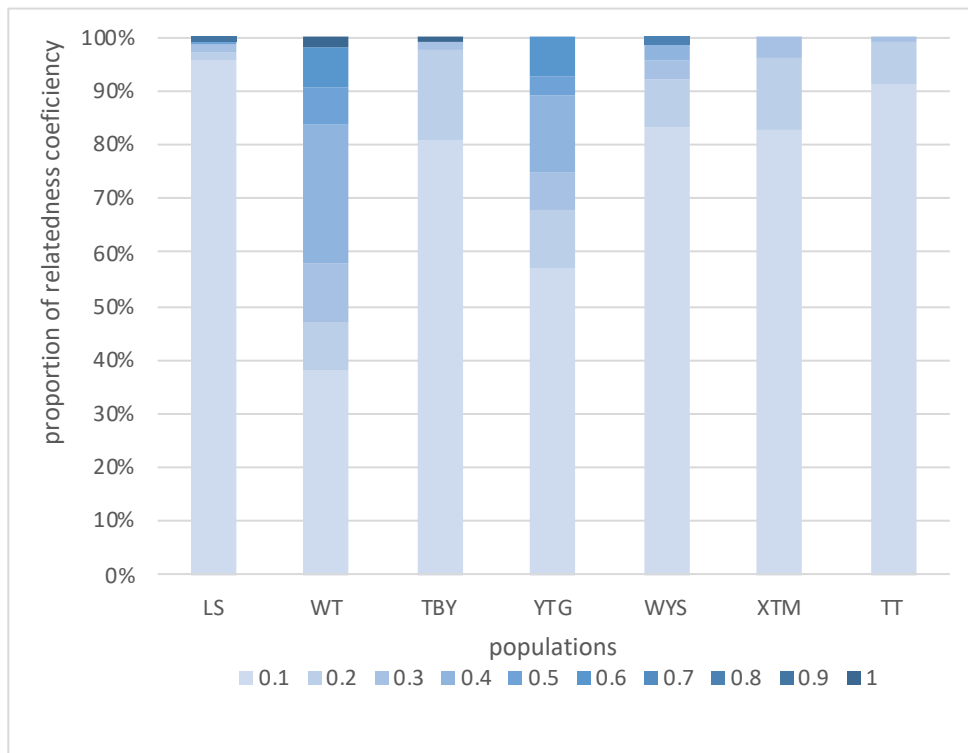


Figure S6: The result of Relatedness analysis of 7 populations, the darker blue indicated the higher relatedness efficiency

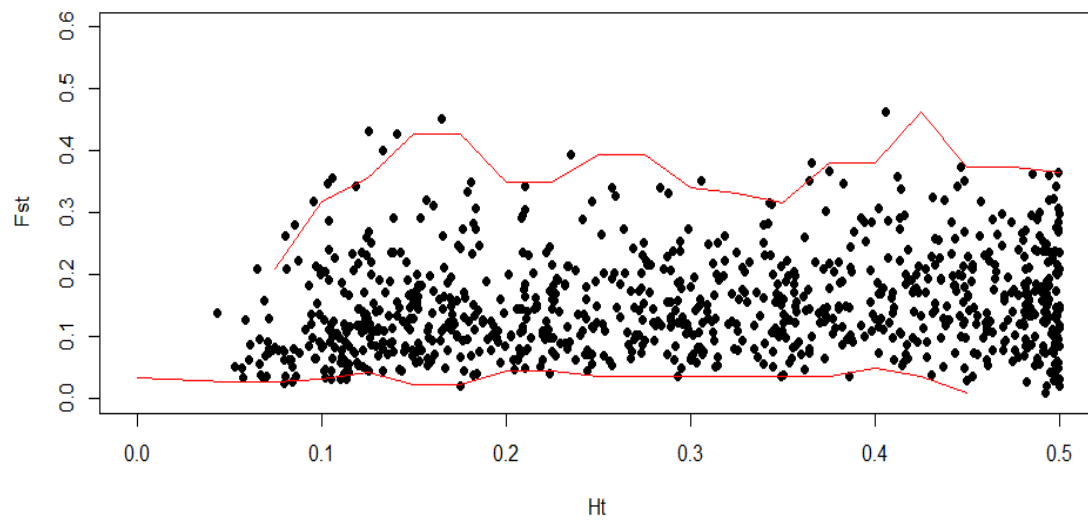


Figure S7. Distribution of the F_{ST} - H_t (expected heterozygosity) relationship based on 922 loci in *C. japonica* var *sinensis*. The two red lines indicate the confidence interval. In total 20 outliers were detected among the 922 loci.

