

Table S1. Comparison between ground and remote sensing inventory

No	No of Monument of Nature	Remote Sensing Inventory	Ground inventory	Correspondence (%)
1.	1611	weak	high	75
2.	1602	dead	dead	100
3.	1635	dead	dead	100
4.	1444	dead	dead	100
5.	1441	dead	dead	100
6.	1596	dead	dead	100
7.	755	weak	very high	50
8.	804	dead	dead	100
9.	787	very high	very high	100
10.	728	high	very high	75
11.	774	dead	dead	100
12.	526	dead	weak	75
13.	1678	good	very high	75
14.	837	weak	very high	50
15.	792	dead	dead	100
16.	852	dead	dead	100
17.	820	dead	dead	100
18.	1655	dead	dead	100
19.	489	high	very high	75
20.	855	weak	very high	50

21.	1436	dead	dead	100
22.	1665	dead	dead	100
23.	1435	dead	dead	100

Mean: 88%

¹ Correspondence refers to the relationship between remote sensing vs. ground inventory results where any difference in scale (1-4) resulted in a 25% deduction in similarity.

Table S2. Genetic characteristics of eleven nSSR loci in eight Norway spruce populations (n = 328 individuals).

Locus	N_a	H_o	H_E	F_{is}	HWE
SPAGC1	17.375	0.701	0.746	0.077	**
SpAGC2	20.626	0.382	0.873	0.572	***
SpAC1H8	25.250	0.751	0.902	0.181	**
SpAG2	18.625	0.908	0.889	-0.004	*
SpAGG3	20.125	0.891	0.912	0.037	**
SpAGD1	32.875	0.714	0.944	0.260	**
EATC1B02	6.500	0.289	0.386	0.265	**
EATC2G05	17.250	0.743	0.882	0.170	**
EATC2B02	13.750	0.451	0.636	0.304	**
EATC1E3	4.625	0.283	0.291	0.040	*
EATC1G2	6.500	0.114	0.403	0.680	*
Mean / Total	16.682	0.566	0.714	0.217	***

N_a , H_o and H_E – means values per population; HWE, Hardy-Weinberg equilibrium, ns - not significant, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Data obtained from FSTAT programme [18].

Table S3. Estimated Ln probabilities and ΔK for 10 replicates from STRUCTURE Harvester calculation [27]. The highest values for mean LnP(K), $|\text{Ln}''(K)|$ and ΔK were highlighted.

K=	Mean LnP(K)	Stdev LnP(K)	$\text{Ln}'(K)$	$ \text{Ln}''(K) $	ΔK
1	-14184.1100	1.374732	NA	NA	NA
2	-14172.3400	90.3348	11.770000	111.380000	1.232969
3	-14049.1900	134.5986	123.150000	85.380000	0.634330
4	-14011.4200	125.1366	37.770000	51.840000	0.414267
5	-13921.8100	131.3666	89.610000	233.050000	1.774043
6	-14065.2500	223.9297	-143.440000	204.080000	0.911357
7	-14004.6100	254.3438	60.640000	149.700000	0.588573
8	-14093.6700	268.1541	-89.060000	NA	NA

NA – not available.

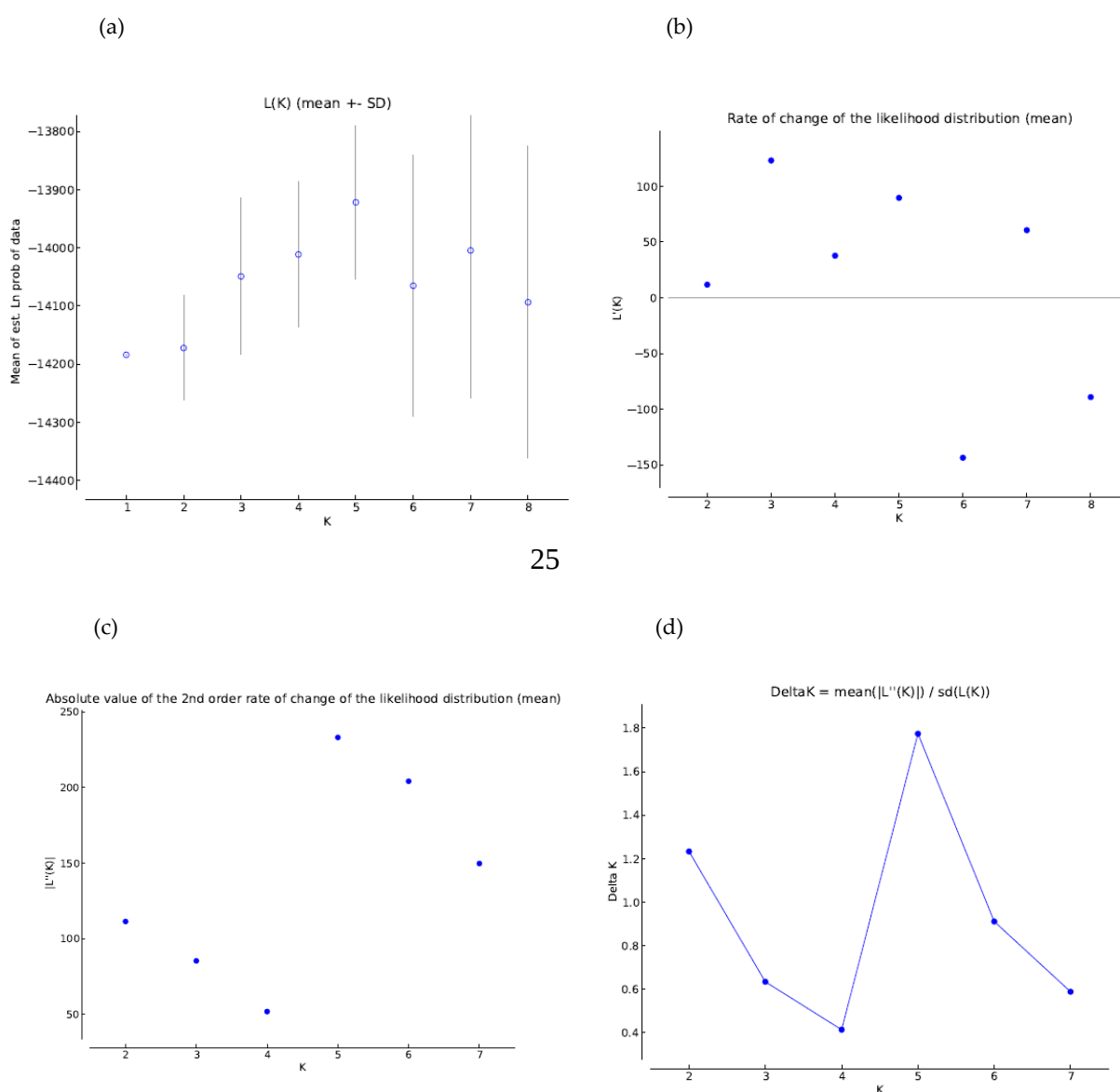


Figure S1. Determination of the K number of clusters best fitting the nSSR STRUCTURE-based data: (a) magnitude of ΔK as a function of K (mean $\pm$ SD over 10 replicates); (b) mean rate of change of the likelihood distribution for each K; (c) absolute value of $L_n K$ likelihood distribution; and (d) mean ΔK statistics.

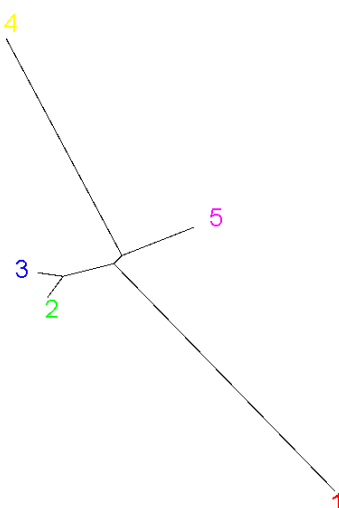


Figure S2. Dendrogram based on neighbor-joining algorithm for K = 5 partitions. Numbers refer to the different clusters.



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