

Supplement 1. Differences in the parameters of genetic diversity between initial population or natural population and new plantations (A - total number of alleles, An - number of alleles per locus, P -% of polymorphic loci, He - expected heterozygosity, Ho - observed heterozygosity).

Species		Parameters of heterozygosity					Sample size	Source
		A	An	P	He	Ho		
<i>Albizia julibrissin</i> Durazz.	NP		2.01	58.4	0.232	0.170	Isozyme	Huh and Huh 2000
	PL		1.88	54.2	0.197	0.148		
<i>Araucaria angustifolia</i> (Bertol.) Kuntze	Nonmanaged			82.0		0.26	RAPD	Medri et al. 2003
	Managed			72.5		0.26		
	Progeny			59.7		0.22		
	NP	69	7.49		0.665		Microsatellites (n)	320
	PL	85	8.81		0.737			
	NP		1.862	100	0.291		AFLP	320
	PL		1.738	97.6	0.240			
	PF Canoinhas (Adults)		2		0.10	0.08	Allozyme	53
	PF Anita Garibaldi (Adults)		2		0.09	0.06		
	PF Curitibaanos (Adults)		2		0.13	0.10		42
	NF (Adults)		2		0.11	0.09		51
	PF Canoinhas (Juveniles)		1.9		0.11	0.11		48
	PF Anita Garibaldi (Juveniles)		1.8		0.10	0.08		48
PF Curitibaanos (Juveniles)		2		0.11	0.10		55	
NF (Juveniles)		1.7		0.10	0.09		50	
PF Canoinhas Offspring)		2.3		0.13	0.13		246	
PF Anita Garibaldi (Offspring)		2.3		0.12	0.12		269	
NF (Offspring)		2.2		0.12	0.13		290	
<i>Cedrus atlantica</i> Manetti	NP (Morocco)			50.6	0.232		RAPD	52
	PL (Spain)			51.0	0.239			
<i>Chamaecyparis obtusa</i> Siebold & Zucc.) Endl.	NP		1.34	55.5	0.203		Allozyme	1201
	Plus-tree group			56.7	0.183			
<i>Cryptomeria japonica</i> (L.f.) D.Don	NP (5)		2.38	47.4		0.153	Allozyme	Tomaru et al. 1992
	PF (14)		0.47	48.4		0.180		
	NP (14)		2.56	47.6		0.186		
<i>Cupressus sempervirens</i> L. var. <i>horizontalis</i>	NP			77.8	0.244		RAPD	Al-Hawijaet al. 2014
	PL			79.3	0.241			
<i>Cyclobalanopsis glauca</i> (Thunb.) Oerst.	PL			73	0.294		RAPD	Zhang et al. 2006
	Maternal population of PL			75.7	0.312			
	NP			77	0.327			
	NP			78.4	0.323			

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<i>Dalbergia sissoo</i> Roxb.	NP	3 ⁺		0.255		Isozymes	10	Pandey et al. 2004
	PL	1		0			10	
<i>Fagus sylvatica</i> L.	NP	16.8	7.4	0.847	0.633	Microsatellite (cp)		Buiteveld et al. 2007
	Shelter-wood	16.1	7.1	0.845	0.721			
	NP	12.7	5.6	0.809	0.635			
	Colonisation	13.7	4.6	0.749	0.649			
	Semi-natural	13.1	5.8	0.820	0.560			
	Shelter-wood	13.7	5.6	0.819	0.598			
	Semi-natural	16.9	7.7	0.868	0.682			
	Shelter-wood	18.2	6.5	0.843	0.659			
	Semi-natural	14.2	6.7	0.839	0.646			
PL	13.3	7.3	0.851	0.676				
<i>Metasequoia glyptostroboides</i> Hu and W.C.Cheng	NP			87.9	0.317	RAPD	81	Li et al. 2005
	PL			81.0	0.298		64	
<i>Picea abies</i> (L.) Karst.	Virgin F			77	0.325 0.322	Isozyme		Gomory 1992
	NR			85	0.380 0.350			
	AR			81	0.306 0.275			
	Autochthonous				0.253		RAPD	
	Autochthonous				0.266	30		
	Autochthonous				0.257	30		
	Planted				0.243	30		
	Autochthonous				0.254	31		
	Autochthonous				0.234	30		
	Autochthonous				0.245	31		
	SO				0.247	32		
	Initial		3		0.169 0.183	Isozymes		Pacalaj et al. 2011
	Progeny from 10		2.95		0.190 0.189			
	Progeny from 20		2.95		0.182 0.182			
Progeny from 30		3		0.181 0.184				
Progeny from 40		2.91		0.183 0.182				
<i>Picea asperata</i> Mast.	Intact mature	1.52	52.4	0.153		ISSR	30	Wang et al. 2010
	NR mature	1.44	42	0.13			30	
	PL mature	1.43	42	0.12			30	
	NR progeny	1.46	47	0.135			30	
	Pl progeny	1.47	46.5	0.132			30	
	PL pooled	1.50	50.6	0.142			30	
	NR pooled	1.48	49.7	0.139			30	
	Intact progeny	1.33	32.5	0.105			30	

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<i>Picea glauca</i> (Moench) Voss	Old natural	1.89	88.7	0.381		RAPD		Rajora 1999	
	Natural regeneration	1.84	83.8	0.349					
	Plantation	1.72	72.2	0.297					
	Progeny from ph. selection	1.67	66.5	0.259					
	Natural old	109	10.9	0.637	0.492	Microsatellites (EST and genomic)	30	Fageria and Rajora 2014	
	Natural regeneration	108	10.8	0.643	0.500		30		
	Plantation	102	10.1	0.632	0.479		30		
	Progeny from phenotypic selection	100	10	0.634	0.788		30		
<i>Picea mariana</i> Mill.	Natural regeneration	2.56	77.3	0.320	0.237	Isozymes		Rajora and Pluhar 2003	
	Artificial regeneration	2.51	72.7	0.315	0.230				
<i>Pinus brutia</i> Ten. subsp. <i>brutia</i>	NP		83.7	0.248		RAPD		Al-Hawija et al. 2014	
	PL		78.7	0.234					
<i>Pinus canariensis</i> C.Sm.	NP			0.971		Microsatellites (ch)	97	Navascues and Emerson 2007	
	PF			0.948			91		
	NP	17.735		0.753		Microsatellites (n)	97		
	PF	19.125		0.729			91		
<i>Pinus concorta</i> var ' <i>latifolia</i> '	Unmanaged			0.44+		RAPD	30	Thomas et al. 1999	
	Natural regeneration			0.39+			30		
	Plantation			0.43+			30		
	Seedlings			0.47			30		
	Unmanaged	12.2		0.73+	0.46+	SSR	30		
	Natural regeneration	11.5		0.72+	0.47+		30		
	Plantation	11.5		0.74+	0.46+		30		
	Natural regeneration	1.83	32.6	0.160	0.137		Isozymes		
Plantation	1.83	35	0.149	0.138					
<i>Pinus pallasiana</i> D. Don	NP	2.54	79	0.198		Isozyme	55	Korshikov et al. 2004	
	PL (Azov)	2.45	75	0.171			50		
	PL Krivorozhje)	2.72	82.5	0.222		50			
<i>Pinus roxburghii</i> Sarg.	Natural	5	0.52	0.5		Microsatellites	40	Gauli et al. 2009	
	Plantation	4.93	0.52	0.5			40		
<i>Pinus sylvestris</i> L.	Natural			0.419+0.359+		Isozymes	10	Muona et al. 1987	
	Plantation			0.423+0.408+			40-100		
	Initial Krotoszyn	77	3.08	92	0.254	0.254	Isozymes	82	Kosinska et al. 2007
	Plantation Krotoszyn	78	3.12	92	0.242	0.231		98	
	Initial Gubin	69	2.76	80	0.257	0.256		55	
	Plantation Gubin 1975	74	2.96	96	0.234	0.233		82	
	Plantation Gubin 1982	65	2.56	80	0.244	0.237		71	
	Unmanaged	15.4		0.79	0.72		Microsatellites (n)		Garcia Gill et al. 2015
Seed tree system	16.3		0.75	0.69					

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	PL (from SO)	16.2		0.79	0.73			
<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>	NP	2.77	78	0.205	0.195	Isozyme	120	Shimizu and Adams 1993
	PL	3	84	0.225	0.205		120	
	NR (3)	2.76	83.5	0.191		Allozyme		Adams et al. 1998
	AR (7)	2.89	97	0.202				
<i>Quercus ilex</i> L.	NP	10	8.79	0.653		Microsatellites (n)		Burgarella et al. 2007
	Plantation	6	5.97	0.518				
<i>Quercus petraea</i> (Matt.) Liebl.	PL	13	8.13	0.89	0.87	Microsatellites (n)	26	Cottrell et al. 2003
	Natural coppiced	26.67	10.85	0.91	0.78		214	
	NP	18.67	8.14	0.88	0.82		166	
	NP unmanaged	14.1		0.82	0.78	Microsatellites		Pospiskova and Dostalek 2009
	NP managed	14.4		0.84	0.86			
	PF	15.6		0.83	0.80			
	NP	18		0.873	0.821	Microsatellites (n)	100	Dostalek et al. 2011
Coppice	18.2		0.866	0.812		100		
<i>Quercus robur</i> L.	PL	19.2		0.880	0.799		100	
	PL	19.83	8.2	0.87	0.81	Microsatellites (n)	388	Cottrell et al. 2003
	Natural coppiced	21.33	9.9	0.92	0.77		58	
	NP							

+Arithmetic mean of replications separately reported in original study