

Supplementary material

Genetic Variation and Structure of Endemic and Endangered Wild Celery (*Kelussia odoratissima* Mozaff.) Quantified Using Novel Microsatellite Markers Developed by Next-Generation Sequencing

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Table S1. Characteristics for microsatellite loci tested for amplification and introduced for *K. odoratissima*. Dash line (-) indicates no amplification was found for the locus

Locus name	Primer sequences (5'-3')	Motif	Tm (°C)	Number of alleles (Na)	Expected amplicon size (bp)	Polymorphic Information Content (PIC)	GenBank accession No.
K.odora2	F: ACGAAACCAAGAACACAGCC	(AC)8	53	-	97	-	-
	R: CCATGTGGTGTCAAGGAGTG						
K.odora3	F: TTCGAGTCTCGCCTTCCTAA	(AC)16	64	12	137	0.854	OQ992688
	R: CCAAAATAGGCCTTCCGTTT						
K.odora4	F: GGGTGGTTTGGTTCAAAATG	(AC)10	64	9	219	0.847	OQ992689
	R: CACTTCCACGGTACCATCACT						
K.odora5	F: ATGCTCGGTCCACTATCCAG	(CA)5	64	9	111	0.8	OQ992690
	R: CTGAGCCACAGCAGACAGAG						
K.odora6	F: CCAGAATTTTGGTGCCAGTT	(CA)11	64	7	191	0.669	OQ992691
	R: TACACCTGCCTGCTTTTGT						
K.odora7	F: TTCGGGGCATTGTCTCTATC	(CA)7	64	10	308	0.798	OQ992692
	R: AGCCCAGGTGCTGATTATG						
K.odora8	F: TTGCTGACAACAGACACAGTC	(TG)6	64	8	102	0.766	OQ992693
	R: TGTGAAACTCCACAGAAACCA						
K.odora9	F: CAACTTGGCTGAAGGAAGAAA	(TG)7	62	11	148	0.797	OQ992694
	R: TCAGATAAAATTCTCTTTTGCTGC						
K.odora10	F: GGAATATCAACTTGTTTTCCCA	(GT)9	64	8	171	0.772	OQ992695
	R: ACACATTCCAGTCTGGGGAG						
K.odora11	F: CACCGTGTATTCTACCTTCTTCAC	(TC)11	64	7	90	0.675	OQ992696
	R: AACCCAAATGAAGAAAGCCTG						
K.odora12	F: AGGTTGCCCCCTGTTTTACA	(TC)11	63	11	218	0.835	OQ992697
	R: GCATCATCCTCTCAAAAGGG						
K.odora13	F: TTCATTTGGAACCTTCTTATC	(CT)9	63	9	113	0.774	OQ992698
	R: GGTTTAAACGGTAGGGAGGC						
K.odora14	F: TGATTCTTGACTTGGCATTTG	(CT)10	62	10	168	0.834	OQ992699
	R: GGACAAAATGTGGCAAGGAT						
K.odora15	F: TTCGACGGGTTTATCAAGG	(AG)9	63	14	232	0.876	OQ992700
	R: CTCTCTCCTCCGTCTCTGTTCT						
K.odora16	F: TCGTTTGAGTATGGAAGAGTGAAG	(GA)11	63	7	102	0.793	OQ992701
	R: CCCGATCTATAGACACAATCTAACA						
K.odora17	F: CGTTCCAACAAAAATATGACCA	(TA)5	53	-	129	-	-
	R: CTCTTGCTGGACAATCCCTC						
K.odora18	F: TTGAATGTGCGGACTTAATCA	(TTC)6	63	11	145	0.831	OQ992702
	R: TGTGTCTAACTCTTTTCTACGTTTCA						

K.odora19	F: CGATATCATCATAACCATCATCTTC	(TTC)7	64	8	251	0.8	OQ992703
	R: TGCAACAAGAAGTCGTCCAC						
K.odora20	F: TGGTTGTTTTTCGTTCTGTCTG	(AAG)6	63	8	96	0.829	OQ992704
	R: TGGTCTATGGCACGATACCC						
K.odora21	F: TTTGAACTTCGGCGTCTCTT	(AAG)5	64	27	179	0.935	OQ992705
	R: TCATGTAATCAGAACCCGGA						
K.odora22	F: CCTTCAGCAACAACTTCCC	(AAC)10	64	12	150	0.846	OQ992706
	R: GATCCCTTGAACCTCTGGTGG						
K.odora23	F: CCAGAACCATGCCTCCTAAA	(CAA)6	56	15	262	0.874	OQ992707
	R: CTCCATTCTTTTCAGCCAGG						
K.odora24	F: CATCGGTATCGTCATCTTCCT	(TCT)10	64	10	122	0.792	OQ992708
	R: TCGAATTGTAAGAGATCAAAATAGTTG						
K.odora25	F: CATTTCTAAAGCTTCAAATGATCTAC	(AGG)5	64	7	193	0.801	OQ992709
	R: GCTCCTCTAGCCTGAGCAAA						
K.odora26	F: TCAAACCATTGACGAAAGCA	(GAT)5	63	20	317	0.918	OQ992710
	R: GATATTACACAGGAAATGTAGAACTCA						

Dash line (-) indicates no amplification was found for the locus.

Table S2. The frequency and distribution of di-, tri and tetra nucleotide repeats

Motif	Frequency of repetitive motif								Total	%
	5	6	7	8	9	10	11	>11		
Di-	45	17	23	13	15	6	6	8	133	68.21
Tri-	31	16	6	3	1	3	0	0	60	30.77
Tetra-	1	0	0	0	0	0	0	1	2	1.03
Total	77	33	29	16	16	9	6	9	195	100
%	39.49	16.92	14.87	8.21	8.21	4.62	3.08	4.62	100	

Table S3. Within-population genetic statistics of 23 microsatellite loci in *K. odoratissima*. Na, H_O, H_E, r, P, N_E, R_S, R_P, F_{IS} , and * denote the number of alleles, observed and expected heterozygosities, frequency of null alleles, *P*-value for the HW equilibrium test, effective number of alleles, private allelic richness, inbreeding coefficient, respectively.

Population	Parameter	K.odora03	K.odora04	K.odora05	K.odora06	K.odora07	K.odora08	K.odora09	K.odora10	K.odora11	K.odora12	K.odora13	K.odora14
Sras-I	Na	4.000	4.000	5.000	3.000	4.000	3.000	4.000	6.000	4.000	6.000	3.000	4.000
	H _O	1.000	1	0.5	0.13	1	0.38	0.88	1	1	1	0.75	0.86
	H _E	0.77	0.63	0.84	0.57	0.75	0.7	0.71	0.82	0.65	0.86	0.63	0.77
	<i>P</i>	0.0021	0.0025	0.0001	0.007	0.0571	0.007	0.9105	0.0158	0.1173	0.6793	0.0216	0.7016
	<i>r</i>	0.000	0.000	0.1476	0.2467	0.000	0.1556	0.000	0.000	0.3553	0.000	0.0298	0.000
	N _E												3.563
	R _S												3.7
	R _P												0.08
	F_{IS}												-0.105
Sras-II	Na	6.000	4.000	7.000	4.000	4.000	6.000	4.000	5.000	3.000	6.000	4.000	4.000
	H _O	1.000	1	1	0.38	0.33	0.63	0.88	1	1	1	0.88	0.88
	H _E	0.880	0.79	0.86	0.71	0.47	0.86	0.77	0.72	0.63	0.82	0.63	0.71
	<i>P</i>	0	0.0015	0.9439	0.0188	0.2727	0.0096	0.0712	0.242	0.0626	0.0174	0.0216	0.0335
	<i>r</i>	0.000	0.000	0.000	0.1556	0.000	0.1181	0.000	0.000	0.3232	0.000	0.000	0.000
	N _E												3.876
	R _S												4.05
	R _P												0.14
	F_{IS}												-0.099
Sras-III	Na	5.000	4.000	5.000	3.000	2.000	4.000	5.000	3.000	4.000	6.000	3.000	6.000
	H _O	0.875	1	1	0	0.33	0.88	1	1	1	1	0.75	1
	H _E	0.84	0.63	0.79	0.75	0.3	0.77	0.79	0.62	0.68	0.8	0.63	0.87
	<i>P</i>	0.0825	0.0025	0.1806	0.0003	1	0.0019	0.0703	0.0909	0.3038	0.0001	0.0216	0.071
	<i>r</i>	0.000	0.000	0.000	0.5643	0.000	0.000	0.000	0.000	0.3869	0.000	0.0298	0.000
	N _E												3.497

Brgn	R _S												3.67
	R _P												0.23
	F_{IS}												-0.126
	Na	4.000	6.000	4.000	4.000	3.000	2.000	3.000	5.000	3.000	5.000	3.000	4.000
	H _O	0.75	1	1	0.38	0.38	1	1	1	1	1	0	0.88
	H _E	0.75	0.83	0.72	0.77	0.52	0.5	0.63	0.82	0.63	0.8	0.61	0.71
	P	0.0027	0.0048	0.5823	0.0033	0.1282	0.0253	0.0626	0.0074	0.0626	0.0012	0.0014	0.2727
	r	0.000	0.000	0.000	0.2106	0.1132	0.000	0.000	0.000	0.3232	0.000	0.3553	0.000
	N _E												3.382
	R _S												3.57
	R _P												0.13
	F_{IS}												-0.147
	Na	5.000	2.000	5.000	2.000	4.000	4.000	6.000	5.000	5.000	6.000	5.000	4.000
Abdz	H _O	0.875	1	0.88	0	0.67	0.63	1	1	1	1	0.75	1
	H _E	0.8	0.5	0.8	0.54	0.8	0.8	0.84	0.73	0.78	0.86	0.66	0.79
	P	0	0.0253	0.0132	0.007	0.1688	0.0031	0.0115	0.0242	0.2307	0.0026	0.3786	0.0015
	r	0.125	0.000	0.000	0.3232	0.000	0.3869	0.000	0.000	0.2627	0.000	0.000	0.000
	N _E												3.712
	R _S												3.87
	R _P												0.14
	F_{IS}												-0.147
	Na	2.000	2.000	5.000	2.000	3.000	3.000	6.000	4.000	3.000	4.000	2.000	7.000
	H _O	1	1	1	0	0.6	1	1	1	1	1	0.38	1
	H _E	0.5	0.5	0.76	0.54	0.7	0.56	0.79	0.71	0.63	0.71	0.32	0.88
	P	0.0253	0.0253	0.0236	0.007	0.1111	0.0253	0.0428	0.0949	0.0626	0.0041	1	0.152
	r	0.000	0.000	0.000	0.3232	0.0719	0.000	0.000	0.000	0.3232	0.000	0.000	0.000
	N _E												3.361
Klse	R _S												3.51
	R _P												0.15

	F_{IS}													-0.264
Drsp	Na	5.000	2.000	5.000	3.000	7.000	4.000	6.000	3.000	4.000	6.000	5.000	7.000	
	H _O	0.75	1	0.86	0	0.5	0.38	1	1	0.88	1	0.5	0.88	
	H _E	0.84	0.5	0.8	0.68	0.88	0.61	0.8	0.56	0.73	0.84	0.75	0.86	
	P	0.0034	0.0253	0.9126	0.0008	0.0137	0.007	0.0213	0.0253	0.0151	0.0103	0.0625	0.2709	
	r	0.000	0.000	0.000	0.3748	0.2221	0.000	0.000	0.000	0.3748	0.000	0.0895	0.0659	
	N _E													3.546
	R _S													3.7
	R _P													0.1
	F_{IS}													-0.125
Vstg	Na	4.000	4.000	6.000	4.000	2.000	5.000	5.000	4.000	4.000	7.000	3.000	4.000	
	H _O	1	1	1	0.13	0.8	0.75	1	1	1	1	0.88	0.86	
	H _E	0.63	0.79	0.85	0.61	0.5	0.77	0.71	0.75	0.69	0.87	0.55	0.79	
	P	0.0025	0.0015	0.2157	0.0014	0.4286	0.0514	0.3092	0.0751	0.2541	0.0025	0.1385	0.0154	
	r	0.000	0.000	0.000	0.2646	0.000	0.000	0.000	0.000	0.3966	0.000	0.000	0.000	
	N _E													3.555
	R _S													3.75
	R _P													0.1
	F_{IS}													-0.193
Khgn	Na	7.000	4.000	5.000	3.000	2.000	4.000	4.000	2.000	4.000	4.000	2.000	5.000	
	H _O	1	1	1	0	0.29	0.88	1	1	1	1	0.75	0.83	
	H _E	0.88	0.74	0.81	0.61	0.26	0.71	0.76	0.5	0.71	0.79	0.48	0.82	
	P	0.1827	0.0043	0.012	0.0014	1	0.0141	0.1784	0.0253	0.0949	0.0015	0.4406	0.0822	
	r	0.000	0.000	0.000	0.3553	0.000	0.000	0.000	0.000	0.2696	0.000	0.000	0.000	
	N _E													3.681
	R _S													3.83
	R _P													0.12
	F_{IS}													-0.24
Durk	Na	4.000	2.000	4.000	4.000	0.000	2.000	5.000	5.000	6.000	6.000	4.000	4.000	

	H _O	0.875	1	0.38	0.13	-	0.38	1	1	1	1	0.57	1	
	H _E	0.77	0.5	0.63	0.73	-	0.32	0.76	0.73	0.84	0.84	0.71	0.77	
	<i>P</i>	0.0059	0.0253	0.0713	0.0008	-	1	0.0085	0.159	0.0441	0.0005	0.1096	0.0004	
	<i>r</i>	0.000	0.000	0.0926	0.3748	No information (No full genotype)	0.000	0.000	0.000	0.2043	0.000	0.0476	0.000	
	N _E													3.240
	R _S													4.33
	R _P													0.1
	<i>F</i> _{IS}													-0.118
Dlfz	Na	4.000	6.000	3.000	5.000	3.000	3.000	5.000	4.000	5.000	4.000	6.000	5.000	
	H _O	1	1	1	0.5	0.2	1	1	1	1	1	0.63	1	
	H _E	0.77	0.73	0.63	0.86	0.55	0.61	0.8	0.71	0.71	0.77	0.82	0.76	
	<i>P</i>	0.0004	0.0014	0.0626	0.0081	0.1111	0.0601	0.3678	0.0041	0.0202	0.0234	0.0175	0.0087	
	<i>r</i>	0.000	0.000	0.000	0.155	0.1983	0.000	0.000	0.000	0.2646	0.000	0.0345	0.000	
	N _E													3.798
	R _S													3.91
	R _P													0.18
	<i>F</i> _{IS}													-0.181
Ghrn	Na	6.000	4.000	5.000	4.000	1.000	2.000	4.000	3.000	6.000	8.000	5.000	3.000	
	H _O	1	1	0.88	0.13	0	0	1	1	1	1	0.63	1	
	H _E	0.77	0.63	0.84	0.73	0	0.54	0.74	0.56	0.84	0.89	0.77	0.63	
	<i>P</i>	0.1724	0.0025	0.0001	0.0005	-	0.007	0.0157	0.0253	0.048	0.0908	0.1098	0.0626	
	<i>r</i>	0.000	0.000	0.000	0.3155	No information (Less than 2 alleles)	0.3232	0.000	0.000	0.1858	0.000	0.0719	0.000	
	N _E													3.607
	R _S													3.74
	R _P													0.56
	<i>F</i> _{IS}													-0.119

Table S3. Continued

Population	Parameter	K.odora15	K.odora16	K.odora18	K.odora19	K.odora20	K.odora21	K.odora22	K.odora23	K.odora24	K.odora25	K.odora26
Sras-I	Na	3.000	2.000	5.000	3.000	3.000	7.000	4.000	6.000	5.000	7.000	5.000
	H _O	1	1	1	1	0	1	1	0.5	0.88	1	0.13
	H _E	0.64	0.5	0.8	0.64	0.73	0.87	0.79	0.8	0.8	0.87	0.84
	<i>P</i>	0.0552	0.0909	0.0014	0.0552	0.0043	0.1992	0.0015	0.0109	0.0702	0.0637	0
	<i>r</i>	0.000	0.000	0.000	0.000	0.3816	0.000	0.000	0.1058	0.000	0.000	0.354
	N _E											3.563
	R _S											3.7
	R _P											0.08
	<i>F</i> _{IS}											-0.079
Sras-II	Na	7.000	5.000	6.000	4.000	3.000	9.000	7.000	6.000	3.000	6.000	6.000
	H _O	1	1	1	0.88	0	1	0.5	1	1	1	0.29
	H _E	0.8	0.79	0.84	0.73	0.76	0.91	0.85	0.84	0.57	0.79	0.71
	<i>P</i>	0.0578	0.002	0.0423	0.1422	0.001	0.743	0.0104	0	0.049	0.0331	0.001
	<i>r</i>	0.000	0.000	0.000	0.000	0.3957	0.000	0.125	0.000	0.000	0.000	0.1921
	N _E											3.876
	R _S											4.05
	R _P											0.14
	<i>F</i> _{IS}											-0.073
Sras-III	Na	7.000	4.000	6.000	3.000	2.000	6.000	3.000	7.000	4.000	4.000	4.000
	H _O	1	1	1	0.88	0	1	0.13	0.88	0.88	1	0.25
	H _E	0.89	0.79	0.75	0.59	0.33	0.83	0.52	0.87	0.73	0.71	0.8
	<i>P</i>	0.0357	0.0015	0.1113	0.3287	0.0909	0.0076	0.0154	0.0036	0.0151	0.0041	0.0012
	<i>r</i>	0.000	0.000	0.000	0.000	0.2512	0.000	0.2427	0.000	0.0833	0.000	0.3869
	N _E											3.497
	R _S											3.67
	R _P											0.23
	<i>F</i> _{IS}											-0.073
Brgn	Na	7.000	5.000	4.000	3.000	2.000	6.000	3.000	6.000	4.000	4.000	5.000
	H _O	1	1	1	1	0	1	0.33	0.63	1	1	0.88
	H _E	0.88	0.81	0.77	0.56	0.43	0.77	0.57	0.89	0.79	0.71	0.77
	<i>P</i>	0.2019	0.0022	0.0004	0.0253	0.0154	0.0778	0.0303	0	0.0021	0.0041	0.0364
	<i>r</i>	0.000	0.000	0.000	0.000	0.2903	0.000	0.315	0.1181	0.000	0.000	0.1884
	N _E											3.382
	R _S											3.57
	R _P											0.13

	F_{IS}												-0.108
Abdz	Na	6.000	5.000	5.000	2.000	2.000	8.000	4.000	5.000	4.000	6.000	7.000	
	H _O	0.88	1	1	0.83	0	1	0.17	0.75	1	1	0.67	
	H _E	0.83	0.82	0.78	0.5	0.33	0.88	0.73	0.79	0.79	0.83	0.85	
	P	0.0815	0.0078	0.0722	0.3939	0.0909	0.8764	0.0043	0	0.0021	0.0823	0.1506	
	r	0.000	0.000	0.000	0.000	0.2512	0.000	0.2724	0.000	0.000	0.000	0.000	
	N _E												3.712
	R _S												3.87
	R _P												0.14
	F_{IS}												-0.044
Klse	Na	5.000	4.000	5.000	4.000	5.000	5.000	5.000	6.000	3.000	3.000	5.000	
	H _O	1	1	0.88	1	0.63	1	1	1	0.75	1	0.38	
	H _E	0.83	0.79	0.82	0.71	0.82	0.71	0.82	0.85	0.63	0.64	0.84	
	P	0.0754	0.0021	0.0432	0.0996	0.0005	0.3094	0.0052	0.0507	0.0216	0.0552	0.0007	
	r	0.000	0.000	0.000	0.000	0.1451	0.000	0.000	0.000	0.0298	0.000	0.2195	
	N _E												3.361
	R _S												3.51
	R _P												0.15
	F_{IS}												-0.244
Drsp	Na	5.000	6.000	4.000	4.000	2.000	6.000	4.000	7.000	2.000	3.000	4.000	
	H _O	1	1	1	0.75	1	1	0.63	0.88	0.86	0.71	0.88	
	H _E	0.77	0.84	0.63	0.75	0.5	0.8	0.77	0.89	0.5	0.64	0.73	
	P	0.1016	0.0001	0.0025	0.3606	0.0253	0.3061	0.029	0.0402	0.1608	0.0303	0.0151	
	r	0.000	0.000	0.000	0.000	0.000	0.000	0.0158	0.000	0.000	0.0384	0.000	
	N _E												3.546
	R _S												3.7
	R _P												0.1
	F_{IS}												-0.147
Vstg	Na	5.000	7.000	5.000	4.000	3.000	9.000	2.000	8.000	4.000	4.000	5.000	
	H _O	0.86	1	1	0.88	0.38	1	0.13	1	0.67	1	0.38	
	H _E	0.82	0.78	0.76	0.71	0.68	0.92	0.13	0.89	0.63	0.74	0.75	
	P	0.0116	0.0046	0.0077	0.2727	0.0054	0.2255	-	0	0.2121	0.0043	0.0113	
	r	0.000	0.000	0.000	0.000	0.3333	0.000	0.000	0.000	0.000	0.000	0.1982	
	N _E												3.555
	R _S												3.75
	R _P												0.1
	F_{IS}												-0.148
Khgn	Na	7.000	4.000	6.000	4.000	2.000	9.000	7.000	8.000	4.000	4.000	8.000	

Durk	H _O	1	1	1	1	0	1	1	1	1	1	0.75	
	H _E	0.85	0.77	0.79	0.69	0.43	0.88	0.86	0.88	0.64	0.71	0.89	
	<i>P</i>	0.1691	0.0004	0.0398	0.2541	0.0154	0.0423	0.0668	0.2551	0.007	0.0041	0.0037	
	<i>r</i>	0.000	0.000	0.000	0.000	0.2903	0.000	0.000	0.000	0.000	0.000	0.000	
	N _E												3.681
	R _S												3.83
	R _P												0.12
	<i>F</i> _{IS}												-0.177
	Na	7.000	4.000	5.000	3.000	2.000	7.000	2.000	8.000	4.000	5.000	4.000	
	H _O	0.88	1	1	1	0	1	0.25	1	0.75	1	0.63	
	H _E	0.86	0.63	0.79	0.63	0.57	0.84	0.23	0.88	0.77	0.8	0.66	
	<i>P</i>	0.0198	0.0025	0.0195	0.0626	0.0054	0.1123	1	0.0669	0.025	0.001	0.049	
	<i>r</i>	0.000	0.000	0.000	0.000	0.3333	0.000	0.000	0.000	0.000	0.000	0.000	
	N _E												3.240
	R _S												3.61
Difz	R _P												0.1
	<i>F</i> _{IS}												-0.104
	Na	8.000	4.000	4.000	3.000	3.000	10.000	5.000	8.000	5.000	4.000	4.000	
	H _O	1	1	1	1	0	1	0.5	1	1	1	0.29	
	H _E	0.93	0.63	0.71	0.61	0.52	0.93	0.8	0.91	0.76	0.77	0.73	
	<i>P</i>	0.0301	0.0025	0.1528	0.0601	0.007	1	0.0087	0.0741	0.0084	0.0004	0.0256	
	<i>r</i>	0.000	0.000	0.000	0.000	0.3276	0.000	0.1393	0.000	0.000	0.000	0.2209	
	N _E												3.798
	R _S												3.91
	R _P												0.18
	<i>F</i> _{IS}												-0.122
	Na	8.000	5.000	5.000	3.000	3.000	7.000	3.000	8.000	5.000	4.000	6.000	
	H _O	1	1	1	1	0	1	1	1	1	1	0.5	
	H _E	0.91	0.76	0.73	0.61	0.68	0.85	0.63	0.89	0.68	0.71	0.8	
Ghrn	<i>P</i>	0.2746	0.0053	0.0252	0.0601	0.0008	0.1196	0.0626	0.3367	0.01	0.0041	0.0572	
	<i>r</i>	0.000	0.000	0.000	0.000	0.3748	0.000	0.000	0.000	0.000	0.000	0.1058	
	N _E												3.607
	R _S												3.74
	R _P												0.56
	<i>F</i> _{IS}												-0.125

Table S4. Analysis of molecular variance (AMOVA) for natural populations of *K. odoratissima*

Source of variance	Degree of freedom (df)	Sum of squares (SS)	Variance components	Percentage of variation
Among Populations	11	238.984	0.93274 V _a	12.06
Within Populations	180	1224.375	6.80208 V _b	87.94
Total	191	1463.359	7.73482	

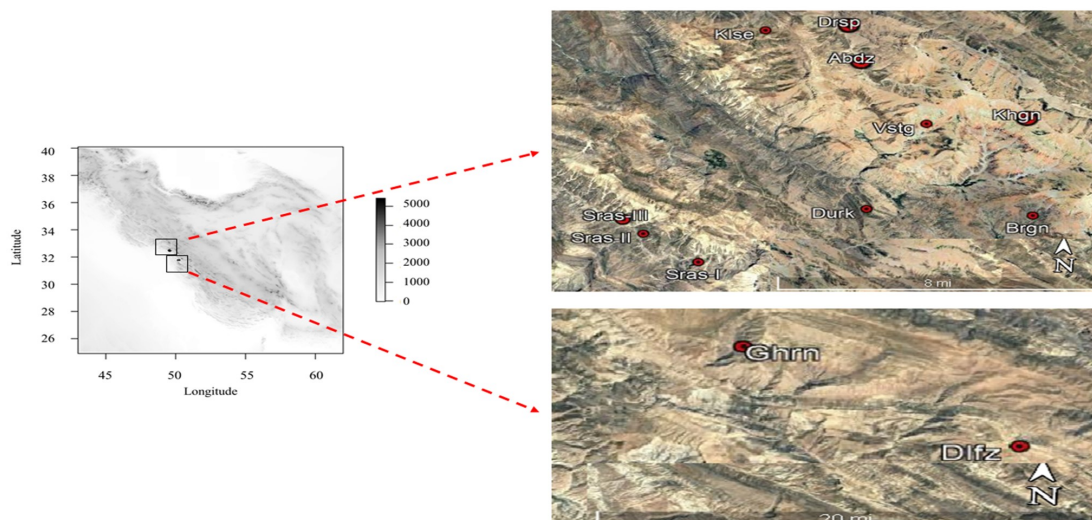


Fig. S1. The sampling sites of the natural populations of *Kelussia odoratissima* Mozaff.. Localities of sampling SarAghaSeyed-I (Sras-I), SarAghaSeyed-II (Sras-II), SarAghaSeyed-III (Sras-III), Birahgan (Brng), Abdoz (Abdz), Kelose (Klse), DareSepestan (Drsp), Vestegan (Vstg), Kahgan (Khgn), Durak (Durk), DelAfruz (Dlfz), and Gharun (Ghrn) are marked with circles.

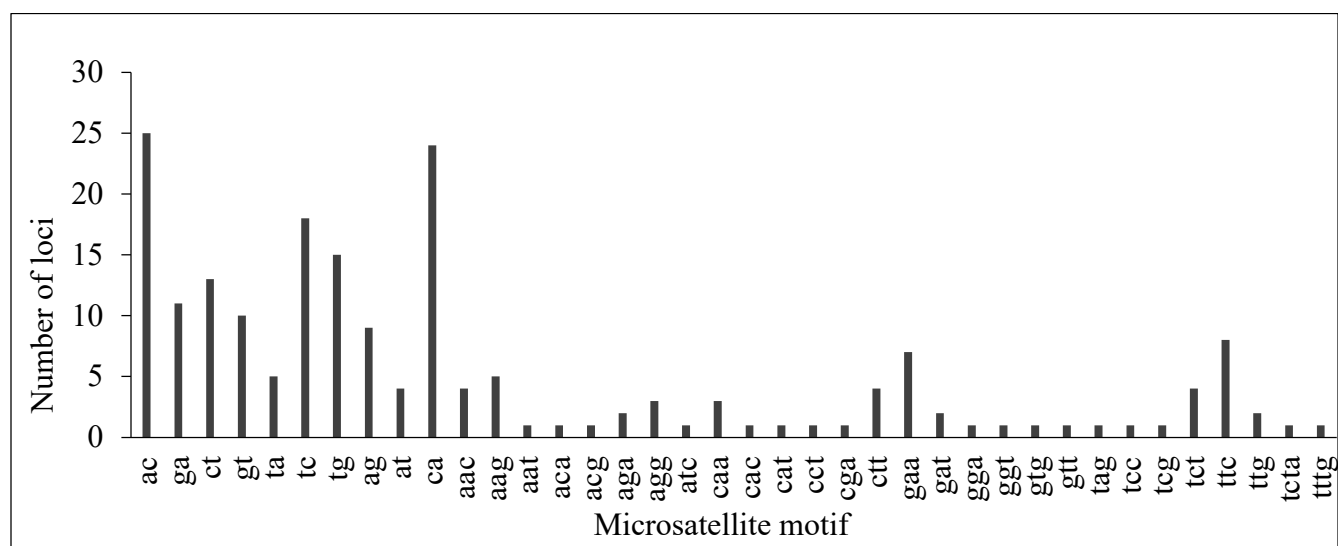


Fig S2. The nucleotide composition and the frequency of microsatellite motifs across the best bioinformatically confirmed loci.

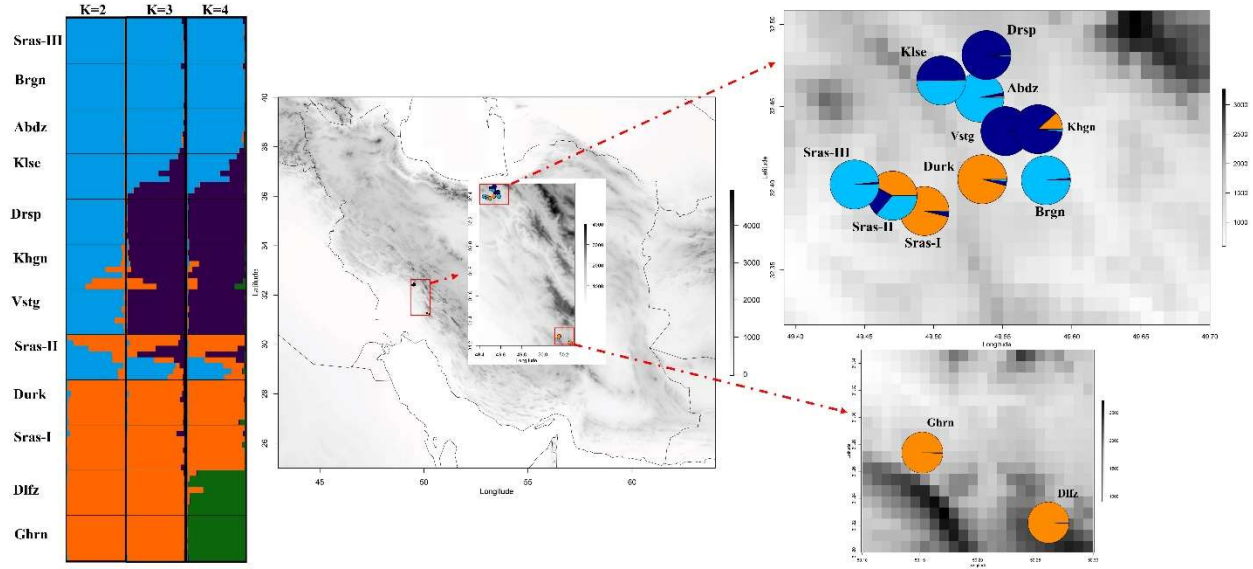


Fig. S3. The genetic structure of 96 individuals from natural populations of *Kelussia odoratissima* Mozaff.. The membership proportion of individuals (left) and populations (right) to each genetic cluster. The matrix of membership to each genetic cluster are obtained from summarizing the outputs of 16 separate runs with high similarity scores ($K_2=0.998$, and $K_3=0.995$).

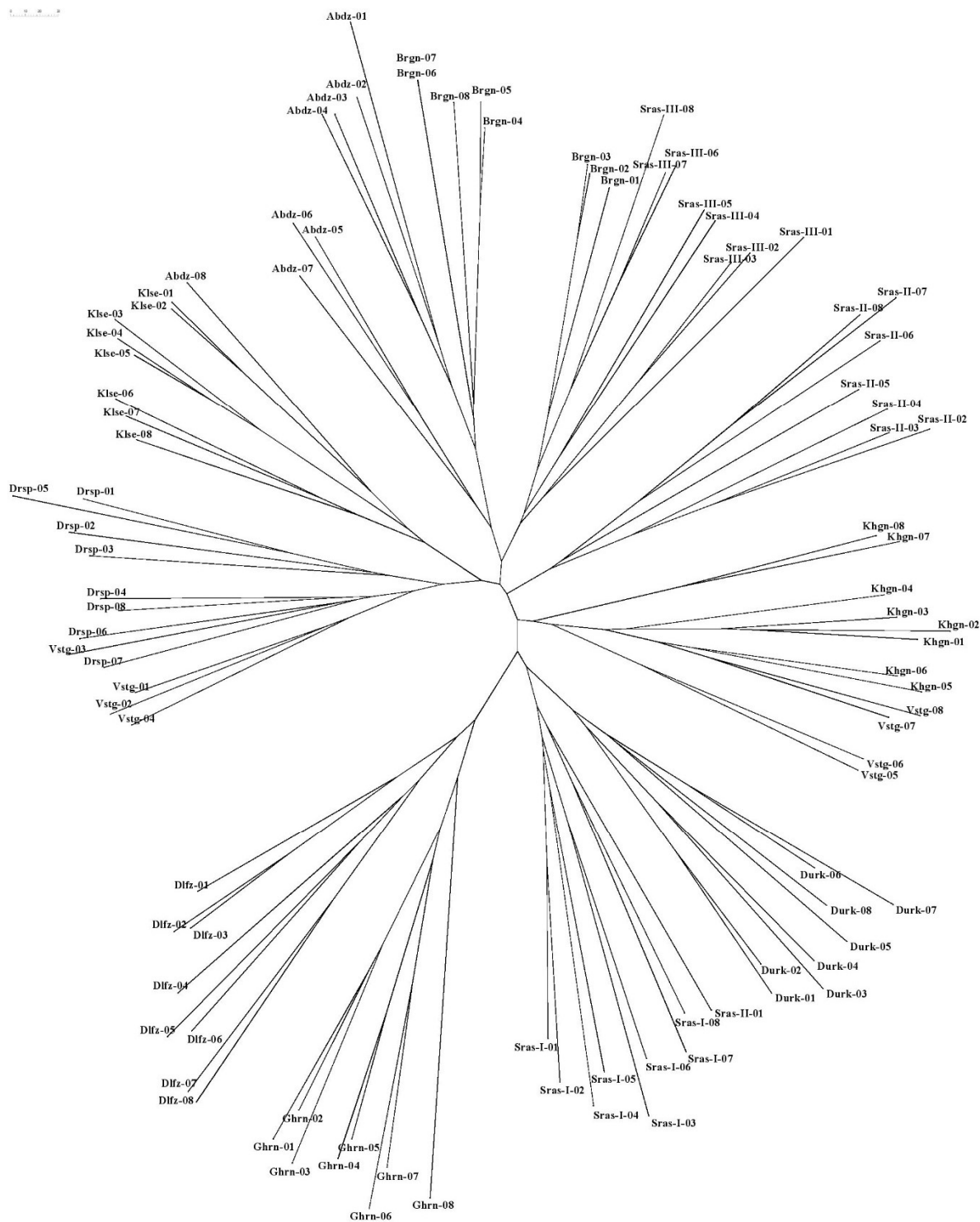


Fig. S4. Neighbor-net network representing the genetic relationships between 96 individuals from 12 wild populations of *Kelussia odoratissima*