

Supplementary Table S1. Locality of *C. chekiangoleosa* populations sampled

Codes	Population	Latitude	Longitude	Elevation (m)	Status	Sample
GTS	Gutianshan.Z	118°05'	29°17'	530-780	Natural	50
HS	Hengshan. H	112°38'	27°14'	600-670	Natural	36
WYS	Wuyishan.F	117°38'	27°44'	660-1250	Natural	50
SQS	Sanqingshan.J	118°03'	28°56'	850-1000	Natural	50
LS	Lingshan.J	118°06'	29°24'	580-820	Natural	48
JRS	Jinraoshan.F	116°57'	26°46'	1110-1240	Natural	48
ZR	Zherong.F	119°57'	27°19'	680-720	Natural	30
FA	Fuan.F	119°27'	27°09'	480-700	Natural	32
WLY	Wuyaling.Z	119°40'	27°43'	740-1040	Natural	40
RLX	Ruoliaoian.Z	119°17'	28°17'	990-1120	Natural	48
XP	Xiapu.F	120°01'	27°03'	690	Semi-wild old tree	48
DMS	Damaoshan.J	117°47'	28°51'	450-500	Natural	48

Supplementary Table S2. Characteristics of 20 polymorphic microsatellite loci developed for *C. chekiangoleosa*

Primer	Primer sequence (5'~3')	Repeat motif	T <sub>m</sub> (°C)	Fragment Size (bp)	GenBank Accession no.
CC_eSSR0 3	F:GTGGCGTCTTTCTTTACT R:ATTGACAAGCCTCATCGT	(CCT) <sub>10</sub>	56	129	JO845339
CC_eSSR1 5	F:TCTCATTGCCTGACATTC R:AGTCCTTTCCCTCTTGCT	(TA) <sub>3</sub> (TC) 6	55	189	JO845341
CC_eSSR1 6	F:CGGTTAGGACCACCACAG R:TGCCGCATCTTCTCAATT	(CAAGA G) <sub>3</sub>	55	240	JO845342
CC_eSSR2 9	F:AATGACGACTGGGAGAAT R:CGGAGACTATGGAGGAAT	(ATTCAT ) <sub>4</sub>	55	284	JO845343

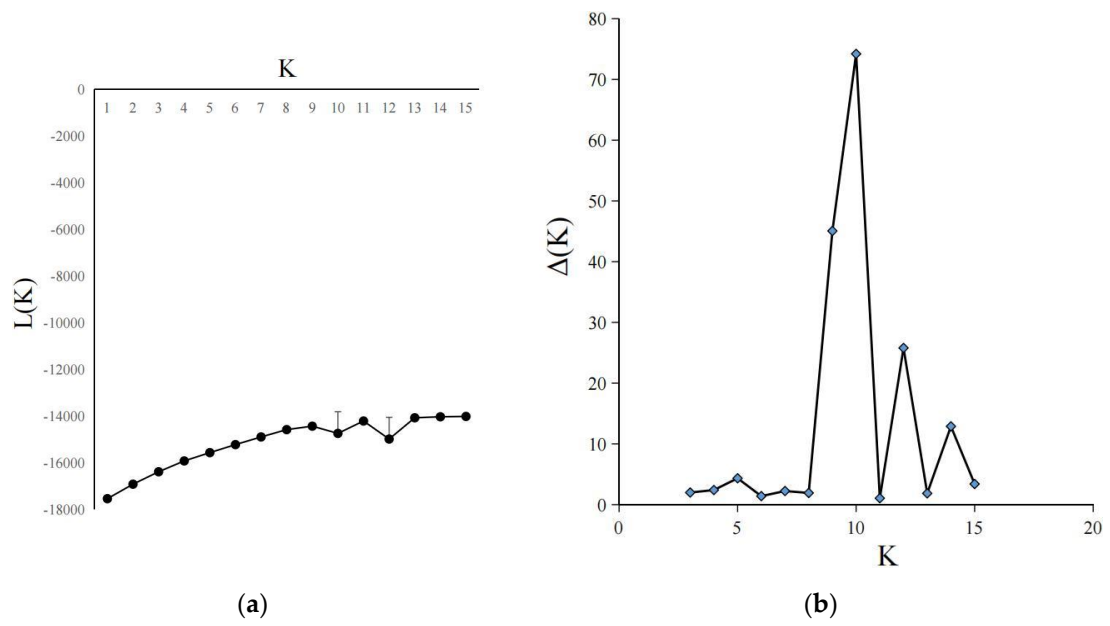
CC_eSSR3 7	F:TACCAATCACGGTCAATACA R:TCTTCTCAACACCCACAAC	(GA) <sub>9</sub>	55	234	JO845344
CC_eSSR4 1	F:CCCCATCCTTCCTCTGTT R:AGGCGATTGAGAAGTGTTGC	(CT) <sub>11</sub>	55	156	JO845345
CC_eSSR4 8	F:GCTCCGACGAAGTCTCCA R:GTCCAGGTAACCCTCATT	(GCGAG A) <sub>4</sub>	55	280	JO845346
CC_eSSR4 9	F:TGACCCTGCCAATTCTAT R:AAACAGCCAGTTCACCTT	(GAGGC T) <sub>4</sub>	55	215	JO845347
CC_eSSR5 5	F:TGAACCAGTAGCGTAGACC R:TGCAAAGCATCCCACATT	(AG) <sub>10</sub>	55	196	JO845348
CC_eSSR8 3	F:GCCACTTCTTCTTTCTCC R:CCTCCATAATCCTAACCC	(GA) <sub>11</sub>	59	177	JO845351
CC_eSSR8 5	F:GGGATTTGATTATGGTGG R:ACGAGTCCGATGAGTAGG	(TAC) <sub>8</sub>	55	298	JO845352
CC_eSSR8 7	F:CTTTACCCACCTATTCC R:GACGACGATTGCTTCTC	(AGAAG ) <sub>4</sub> (AG) <sub>2</sub>	58	265	JO845353
CC_eSSR8 9	F:TGCCTTTGACCAACTCTA R:TTCCGACCTCCAACACTC	(CCGAT G) <sub>5</sub>	55	252	JO845354
CC_eSSR9 2	F:ACAAACACCACCAATGCA R:ACGGCGTCTTCTGTCTCA	(TAA) <sub>7</sub>	55	136	JO845355
CC_eSSR9 5	F:CAAGCGAACCAGAATACC R:AGACCACGAAACAAACATAG	(TGCCC G) <sub>5</sub>	60	150	JO845356
CC_eSSR1 01	F:CATGGCTTCTGTTTCTTCC R:TCTCGACCCTTTCTGCTT	(CGCCT C) <sub>3</sub>	60	226	JO845358

Supplementary Table S3. Genetic differentiation in *C. chekiangoleosa* populations by Nei's

	Ht	Hs	G <sub>ST</sub>	*Nm
Species	0.607	0.453	0.255	0.731
ST. Dev	0.098	0.095		

Supplementary Table S4. Pair-wise  $F_{ST}$  value and spatial distance matrix of *C. chekiangoleosa*

CODE	GTS	HS	WYS	SQS	LS	JRS	ZR	FA	WYL	RLX	XP	DMS
GTS	****	581.09	177.29	38.92	13.03	300.23	284.68	271.82	232.76	161.27	311.97	56.2
HS	0.498	****	497.33	564.79	587.48	431.7	724.54	675.54	697.23	665.83	732.24	537.2
WYS	0.133	0.571	****	139.08	190.21	126.65	233.48	190.86	200.51	173.33	247.6	124.58
SQS	0.109	0.613	0.209	****	51.94	263.32	258.76	240.83	208.13	140.49	284.61	27.59
LS	0.12	0.416	0.219	0.219	****	312.83	293.62	282.34	241.47	169.26	321.31	68.29
JRS	0.229	0.863	0.281	0.343	0.214	****	303.8	251.79	288.88	285.2	306.22	244.94
ZR	0.321	0.799	0.423	0.279	0.275	0.347	****	52.88	52.45	125.71	30.3	272.45
FA	0.407	0.636	0.45	0.368	0.365	0.639	0.323	****	66.37	126.7	57.31	249.71
WYL	0.335	0.817	0.403	0.249	0.426	0.498	0.197	0.226	****	73.27	81.63	223.4
RLX	0.196	0.667	0.226	0.184	0.279	0.325	0.381	0.381	0.318	****	154.71	159.62
XP	0.384	0.724	0.472	0.329	0.429	0.568	0.451	0.375	0.339	0.343	****	196.81
DMS	0.099	0.425	0.151	0.09	0.149	0.199	0.213	0.311	0.251	0.171	0.218	****



Supplementary Figure S1. **a**: The mean log-likelihood value of the data was based on ten repetitions for each K value. **b**: The delta K value was changed with each K value.