



Supplementary Material

Genetic Diversity and Population Structure of Seven Tibet Yak Ecotype Populations using Microsatellite Markers

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Supplementary Table I.- Primer information for the 21 genome microsatellites in Yak

Marker	Primer sequence (5'-3')	Tm (°C)	FL(bp)	LM
BM2113	F: GCTGCCTTCTACCAAATACCC R: CTTAGACAACAGGGGTTTGG	57	123-151	FAM
SPS113	F: AAAGTGACACAACAGCTTCTCCAG R: AACGAGTGTCCCTAGTTTGGCTGTG	55	123-151	ROX
TGLA122	F: CCCTCCTCCAGGTAAATCAGC R: AATCACATGGCAAATAAGTACATAAC	54	143-175	FAM
TGLA126	F: CTAATTTAGAATGAGAGAGGCTTCT R: TTGGTCTCTATTCTCTGAATATTCC	55	107-121	FAM
ETH152	F: TACTCGTAGGGCAGGCTGCCTG R: GAGACCTCAGGGTTGGTGATCAG	56	194-212	ROX
ILSTS008	F: GAATCATGGATTTCTGGGG R: TAGCAGTGAGTGAGGTTGGC	58	175-187	FAM
ILSTS013	F: CTTGATCCTTATAGAACTGG R: ACACAAAATCAGATCAGTGG	58	121-135	FAM
ILSTS050	F: AAATCAGACACCCAGTTTCC R: GTTTTTCTACACGAGTTGGC	55	161-183	ROX
BM1824	F: GAGCAAGGTGTTTTTCCAATC R: CATTCTCCAACCTGCTTCCTTG	57	180-194	FAM
ETH225	F: GATCACCTTGCCACTATTTCCT R: ACATGACAGCCAGCTGCTACT	64	144-162	FAM

MGTG7	F: TTCATTGCAGCAACTATTTACAATAG R: TAAGTTCCTGTATCATTTTTGAA	55	278-312	FAM
SPS115	F: AAAGTGACACAACAGCTTCTCCAG R: AACGAGTGTCTAGTTTGGCTGTG	64	234-254	ROX
BGR3001	F: CTGGAGAAGGAAATGGCAAC R: AAGAGAAGCAGATGGCAGC	54	200-300	FAM
BGR3004	F: GGTGGGTTTACATCACTGGT R: CACTGGAGAAGGAAATGGCAAC	57	200-300	ROX
BGR3005	F: CGACTTCACTTTCCTTTCT R: TCCTCAATCTTTCTCCTCT	52	200-300	FAM
BGR3011	F: TGTTTTGGTTCTTTGGTCTC R: CTTCACTTTCGCTTTTCACT	54	200-300	ROX
BGR3012	F: GACAGGAAGTAGGATGATGGTT R: TGGGAGATGGTGAAGGACAGGG	52	200-300	FAM
BGR3013	F: TCACTTTTCACTTTCCTGC R: GTAAGGGGAAAAAGATGTG	53	200-300	ROX
BGR3019	F: CAGTTTGAAGGAGAAGCATG R: GTGCCAACTTCTCTTTTTCT	55	200-300	FAM
BGR3020	F: GACTTCCCTTTCACTTTTTCAC R: AGAGGAACGCAACAGGGGAAT	51	200-300	ROX
TGLA53	F: GCTTTCAGAAATAGTTTGCATTCA R: ATCTTACATGATATTACAGCAGA	55	143-191	FAM
ILSTS013	F: ACACAAAATCAGATCAGTGG R: CTTGATCCTTATAGAAGTGG	58	121-135	FAM
TGLA73	F: GAGAATCACCTAGAGAGAGGCA R: CTTTCTCTTTAAATTCTATATGGT	55	111-143	ROX
AGLA293	F: GAAACTCAACCCAAGACAACCTCAAG R: ATGACTTTATTCTCCACCTAGCAGA	55	210-240	FAM

F, forward primer; R, reverse primer; T_m, annealing temperature; FL, fragment length and LM, means label marker.

Supplementary Table II.- Genetic diversity statistics for loci across the even yak populations

Locus	H _o	H _e	PIC	Na
BGR3012	0.0304	0.034	0.0323	4
BM2113	0.6605	0.4273	0.3393	9
SPS115	0.729	0.7986	0.7542	18
BGR3001	0.1429	0.0952	0.0536	2
ETH152	0.7021	0.7943	0.7387	7
TGLA122	0.6754	0.7511	0.7072	11
BGR3004	0.555	0.6235	0.5365	10
ETH225	0.7043	0.7102	0.6512	9
MGTG7	0.5856	0.8441	0.8008	16
TGLA73	0.8152	0.8411	0.8091	16
AGLA293	0.2204	0.5423	0.4738	14
BGR3020	0.5091	0.4848	0.3753	5
ILSTSO50	0.6664	0.6827	0.6261	11
TGLA53	0.7505	0.7556	0.7112	21

BGR3005	0.0173	0.0172	0.0164	5
BGR3013	0.5015	0.5317	0.414	4
TGLA126	0.6854	0.6927	0.629	7
BGR3011	0.2656	0.3005	0.2481	3
BM1824	0.6983	0.704	0.6456	8
BGR3019	0.3983	0.46	0.4021	5
ILSTS008	0.6887	0.5745	0.4708	8
Mean	0.5239	0.5555	0.4969	9.2

Na, the total number alleles of each marker in all populations.