Locus	Chromosomal Location	Repeat Length of	Annealing	Repeat motif	Primer sequences 5' to 3'	EMBI Accession
		PCR product	temperature (⁰ C)			number
UNH 207	U	138	58	(CA)n	F:ACA CAA CAA GCA GAT GGA GAC	G12358
					R:CAG GTG TGC AAG CAG AAG C	
UNH 145	lg 8	162	55	(CA)n	F:CAT GCT GAA AGC TGA TTT	G12297
					R:ACC CAC ACC TAA AAT TAG AGA TA	
UNH 146	lg 4	122	55	(CA)n	F:CCA CTC TGC CCC TCT AT	G12298
					R:AGC TGC GTC AAA CTC AAA G	
UNH 172	lg 4	180	55	(CA)n	F:AAT GCC TTT AAA TGC CTT CA	G12324
					R:CTT TTA TAG TCG CCC TTT GTT A	
UNH 166	lg 9	190	55	(CA)n	F:CCC TCA CAC ACA CTC TT	G12318
					R:GAT AAC GAC ACG ACA GTA C	
UNH 190	lg 21	167	55	(CA)n	F:CGC GAT CGA GCA TTC TAA	G12342
					R:TGT CTG CAC GCG CTT TTG T	
UNH 214	lg 10	165	50	(CA)n	F:TTC CAT AAT TGC TTT CTG	G12365
					GCA CGT TTT CCA TCA CTT CAA	
UNH 216	lg 23	124	55	(CA)n	F:GGG AAA CTA AAG CTG AAA TA	G12367
					R:TGC AAG GAA TAT CAG CA	
UNH 231	lg 6	176	50	(CA)n	F:GCC TAT TAG TCA AAG GCG T	G12382
					R:ATT TCT GCA AAA GTT TTC C	
UNH 194	lg 22	195	56	(CA)n	F:ACT TAA TTT TTC AGC ATG ACA	G12345
					R:ACA CAG CCT GAA CTC TG	
UNH 173	lg 13	174	56	(CA)n	F:CGT GAG AAA ACA ATG GT	G12325
					R:TAT TGA TTT TAT AGC TGT CGT G	
UNH 149	lg 5	156	56	(CA)n	F:TTA AAA CCA GGC CTA CC	G12364
					R:GTT CTG AGC TCA TGC AT	

Appendix 1: The Primer pairs from Gene bank database

Locus	Chromosomal Location	Repeat Length of	Annealing	Repeat motif	Primer sequences 5' to 3'	EMBI Accession
		PCR product	temperature (⁰ C)			number
UNH 213	lg 1	194	56	(CA)n	F:ACT GCT CCT CTT GTT TT	G12364
					R:TGT GAT AAG GTT AAT TAA AGT TAG G	
UNH 211	lg 30	112	55	(CA)n	F:GGG AGG TGC TAG TCA TA	G12362
					R:CAA GGA AAA CAA TGG TGA TA	
UNH 162	lg 19	195	55	(CA)n	F:CAG ACA CAG CAG AGG AT	G12314
					R:TGA TAA GTA ATT CAT CTG TTT G	
UNH 120	lg 18	160	55	(CA)n	F:TAA GGC TCT ATG TGG TC	G12273
					R:TTA AAG GGG AAG AAA GA	
UNH 104	lg 1	138	55	(CA)n	F:GCA GTT ATT TGT GGT CAC TA	G12257
					R:GGT ATA TGT CTA ACT GAA ATC C	
UNH 111	lg 7	192	56	(CA)n	F:TGC TGT TCT TAT TTT CGC	G12264
					R:ATA AGA GTG TAT GCA TTA CTG G	
UNH 172	lg 8	180	55	(CA)n	F:AAT GCC TTT AAA TGC CTT CA	G12324
					R:CTT TTA TAG TCG CCC TTT GTT A	
UNH 233	U	173	55	(CA)n	F:TGC CGC CAT CTA TCT AT	G12384
					R:AAA CAC AAA GTG TGA GAC AGA TA	

UNH 104				
GT	PS	BN	EG	NS
202/146(1)	210/200(5)	175/172(1)	200/180(8)	200/180(4)
212/135(4)	210/210(2)	180/177(1)	180/180(2)	200/160(1)
209/185(2)	209/177(1)	200/200(1)	178/156(1)	200/159(1)
188/135(3)	160/162(2)	198/180(2)	180/155(1)	199/160(1)
180/180(3)	158/155(1)	200/177(1)	160/160(4)	198/157(1)
135/140(1)	160/158(1)	199/175(1)	200/158(1)	200/157(1)
140/140(1)	159/159(1)	200/180(3)	200/160(4)	197/171(1)
210/180(2)	197/139(2)	180/180(2)	180/160(5)	198/171(1)
206/158(1)	175/134(2)	176/174(1)	198/157(1)	200/179(1)
199/158(1)	178/140(2)	180/175(1)	199/159(1)	191/170(1)
200/161(6)	160/140(1)	177/176(1)	200/159(1)	206/181(1)
177/158(2)	180/140(3)	179/175(2)		200/162(1)
200/200(2)	175/140(1)	180/179(1)		191/152(1)
160/140(1)	180/180(2)	176/176(2)		200/200(2)
	171/132(1)	180/160(1)		202/181(1)
	188/140(1)	180/140(3)		200/157(1)
	179/141(2)	140/140(2)		192/185(1)
		138/149(1)		190/180(2)
		140/137(1)		201/160(1)
		136/134(1)		195/155(1)
		140/125(1)		200/165(1)
				209/180(1)
				180/180(3)

Appendix 2: The observed genotypes for the 20 polymorphic loci, tested in the 5 populations

UNH 172				
GT	PS	BN	EG	NS
200/180(5)	210/200(11)	140/140(4)	210/180(4)	210/180(10)
191/172(1)	210/180(5)	181/139(1)	200/180(12)	208/171(1)
190/180(2)	200/200(3)	180/142(1)	209/180(1)	200/182(1)
192/184(1)	180/180(3)	208/171(1)	210/200(10)	197/175(1)
190/181(1)	200/180(2)	180/180(3)	200/200(3)	200/200(3)
206/171(1)	200/181(1)	175/169(1)		200/180(9)
180/180(2)	209/172(1)	212/175(1)		210/200(5)
200/200(6)	161/140(2)	210/180(1)		
178/170(1)	182/180(1)	200/160(1)		
195/175(1)	212/185(1)	140/140(2)		
190/170(3)		162/145(1)		
175/171(1)		160/142(1)		
179/180(1)		158/139(1)		
210/180(1)		162/140(1)		
205/176(1)		171/152(1)		
209/191(1)		139/140(1)		
200/195(1)		163/150(1)		
		182/142(1)		
		206/175(1)		
		149/143(1)		
		160/160(4)		

Appendix 2: The observed genotypes for the 20 polymorphic loci, tested in the 5 populations (Continued)

UNH 146					
GT	PS	BN	EG	NS	
210/180(3)	140/120(4)	140/120(5)	200/180(5)	200/180(8)	
181/163(1)	150/126(2)	160/140(3)	180/180(3)	180/180(3)	
180/160(1)	120/120(3)	158/140(1)	210/200(2)	216/200(1)	
160/160(3)	180/140(2)	158/136(1)	212/175(1)	200/200(2)	
140/140(4)	177/140(1)	180/160(3)	180/160(2)	210/160(2)	
161/132(1)	180/142(1)	160/160(2)	176/162(1)	209/161(1)	
160/140(2)	176/139(1)	176/160(1)	172/160(1)	194/158(1)	
158/136(1)	160/140(3)	192/178(1)	182/160(1)	192/164(1)	
200/180(4)	200/180(2)	196/180(1)	191/161(1)	191/152(1)	
162/141(1)	190/180(1)	165/177(1)	178/159(1)	199/158(1)	
160/135(1)	188/165(1)	200/180(3)	171/132(1)	200/157(1)	
159/157(1)	200/160(4)	178/165(1)	180/166(1)	206/182(1)	
210/160(2)	212/136(1)	162/145(1)	182/180(1)	208/176(1)	
177/158(1)	210/145(1)	177/159(1)	200/177(1)	198/157(1)	
206/161(1)	141/121(1)	140/140(5)	160/160(4)	210/180(5)	
200/140(3)	140/140(2)		200/200(4)		

Appendix 2: The observed genotypes for the 20 polymorphic loci, tested in the 5 populations (Continued)

UNH 207					
GT	PS	BN	EG	NS	
180/160(4)	210/200(2)	200/140(4)	180/160(4)	200/160(10)	
180/140(2)	140/140(5)	140/140(2)	210/180(3)	180/160(6)	
160/160(3)	200/200(5)	180/142(1)	210/182(1)	180/140(7)	
140/138(1)	210/140(1)	200/152(1)	180/180(2)	210/180(7)	
140/140(6)	200/180(5)	195/160(1)	200/180(3)		
200/160(1)	180/140(4)	182/175(1)	195/171(1)		
209/161(1)	210/172(1)	200/160(2)	206/180(1)		
180/180(5)	190/161(1)	207/158(1)	180/163(1)		
210/180(3)	180/180(2)	210/180(2)	191/180(1)		
200/180(2)	207/158(1)	171/142(1)	210/195(1)		
200/200(2)	181/140(1)	160/160(2)	200/162(1)		
		191/160(1)	197/160(1)		
		210/192(1)	200/160(6)		
		210/200(2)	200/200(4)		
		179/180(1)			
		181/132(1)			
		200/200(3)			
		160/140(3)			

Appendix 2: The observed genotypes for the 20 polymorphic loci, tested in the 5 populations (Continued)

UNH 166					
	PS	BN	EG	NS	
200/180(8)	210/180(6)	200/180(5)	200/180(4)	180/160(3)	
200/161(1)	200/180(4)	180/180(4)	200/200(3)	200/180(5)	
180/160(7)	180/180(4)	210/190(1)	200/190(2)	211/180(1)	
180/180(2)	197/171(1)	210/185(1)	210/180(2)	182/160(1)	
210/160(3)	210/191(1)	190/162(1)	210/189(1)	190/190(2)	
200/160(3)	186/164(1)	181/153(1)	191/160(1)	200/160(3)	
210/171(1)	200/200(3)	181/159(1)	180/180(8)	192/167(1)	
192/165(1)	187/160(1)	207/159(1)	190/180(2)	200/200(4)	
207/182(1)	192/170(1)	180/140(3)	200/162(1)	171/160(1)	
	210/190(2)	190/160(2)	210/199(1)	195/170(1)	
	200/160(3)	187/162(1)	198/157(1)	190/170(2)	
	210/200(1)	190/180(1)	190/190(4)	210/190(3)	
	213/180(1)	200/191(1)			
	190/170(1)	179/160(1)			
		210/200(6)			

Appendix 2: The observed genotypes for the 20 polymorphic loci, tested in the 5 populations (Continued)

UNH 190					
GT	PS	BN	EG	NS	
210/160(3)	180/180(5)	200/200(4)	180/160(12)	190/160(9)	
200/160(4)	180/160(5)	212/200(1)	200/163(1)	200/180(4)	
210/181(1)	210/182(1)	210/200(3)	200/160(5)	200/190(1)	
210/180(3)	210/180(3)	200/160(7)	200/180(3)	180/180(3)	
160/160(4)	210/193(1)	190/160(2)	210/160(1)	200/160(2)	
210/200(6)	200/184(1)	160/160(2)	210/170(2)	213/190(1)	
200/200(2)	208/187(1)	160/140(1)	215/180(2)	210/180(2)	
210/210(1)	198/187(1)	200/140(2)	210/190(2)	190/176(1)	
180/160(3)	210/190(1)	210/180(4)	200/175(1)	215/180(1)	
	206/182(1)	180/180(2)	190/176(1)	187/161(1)	
	195/170(1)	211/187(1)		210/170(1)	
	200/160(4)	200/170(1)		200/170(3)	
	160/160(3)				
	190/170(2)				

UNH 111				
GT 212/200(5) 200/200(5) 210/190(2) 200/180(3) 200/170(4) 210/191(1) 215/191(1) 190/170(2) 212/187(1) 220/200(3) 210/210(1) 190/170(2)	PS 180/160(1) 200/160(5) 180/180(1) 210/180(4) 210/200(3) 210/190(3) 185/160(1) 190/170(2) 215/172(1) 200/180(2) 160/150(2) 170/160(1) 200/170(1) 210/160(3)	BN 210/200(6) 200/180(11) 180/180(1) 210/180(4) 210/190(4) 204/170(1) 200/170(1) 195/170(2)	EG 200/160(13) 200/200(3) 220/200(5) 210/190(1) 190/170(2) 215/170(3)	NS 200/160(4) 210/180(5) 215/180(1) 220/200(3) 210/190(1) 200/200(6) 210/160(7) 200/170(3)

UNH 173				
GT	PS	BN	EG	NS
210/200(5)	200/160(10)	180/180(4)	210/180(3)	200/180(6)
220/200(3)	190/160(3)	200/180(2)	180/180(8)	200/160(7)
200/200(7)	180/180(4)	210/120(9)	200/180(11)	180/180(3)
210/190(12)	210/180(5)	200/200(3)	210/190(4)	215/180(2)
210/180(1)	200/120(5)	180/120(4)	200/171(1)	200/200(3)
200/180(1)	160/120(3)	200/120(3)	182/160(1)	190/180(1)
190/190(1)		210/180(4)	190/190(2)	190/170(4)
		210/190(1)		220/180(4)
UNH 189				
GT	PS	BN	EG	NS
210/200(5)	200/160(7)	210/180(3)	200/160(1)	190/170(11)
210/210(2)	200/180(8)	180/180(8)	200/159(1)	210/190(4)
200/160(7)	180/180(2)	200/180(11)	199/160(1)	190/150(2)
210/180(8)	190/170(4)	200/160(7)	200/180(2)	210/190(3)
190/170(8)	180/140(3)		160/150(2)	200/160(8)
	180/150(3)		170/160(1)	210/200(1)
	160/140(3)		200/170(1)	180/160(1)
			210/160(3)	
			170/150(5)	
			210/180(7)	
			210/190(4)	
			180/180(2)	

UNH 214					
GT	PS	BN	EG	NS	
180/160(3)	170/150(5)	220/200(6)	180/160(4)	210/180(4)	
160/160(2)	210/180(7)	191/160(1)	180/140(2)	190/160(12)	
176/160(1)	200/160(8)	210/192(1)	160/160(3)	190/190(1)	
160/140(8)	210/172(1)	210/200(2)	190/170(15)	220/200(3)	
210/180(8)	190/161(1)	160/160(2)	210/210(1)	200/170(5)	
190/170(8)	191/159(1)	195/170(2)	210/190(5)	193/170(1)	
	204/170(1)	190/170(5)		190/180(4)	
	210/190(4)	180/160(10)			
	220/200(1)	191/150(1)			
UNH 216					
GT	PS	BN	EG	NS	
223/200(1)	210/180(6)	210/180(13)	180/160(8)	210/190(4)	
210/190(5)	180/140(8)	190/180(5)	200/180(15)	214/170(1)	
200/160(16)	190/140(4)	200/170(8)	210/190(4)	220/190(6)	
210/200(3)	193/150(1)	192/170(1)	200/171(1)	195/170(2)	
182/160(1)	200/160(5)	211/194(1)	190/170(2)	170/150(5)	
191/160(1)	220/210(1)	205/180(1)		180/160(4)	
190/170(3)	220/185(1)	210/190(1)		187/180(1)	
	190/170(4)			190/160(4)	
				220/200(3)	

UNH 149	<u> </u>	· · ·	· · · ·		
GT	PS	BN	EG	NS	
210/200(5)	200/170(1)	212/175(1)	200/180(11)	200/180(6)	
200/200(3)	210/160(3)	210/180(1)	210/190(4)	200/160(7)	
200/160(7)	210/200(11)	200/160(1)	215/180(2)	180/180(3)	
215/180(1)	210/180(5)	200/180(2)	200/160(13)	213/190(1)	
210/180(4)	200/200(3)	210/120(9)		210/180(2)	
190/160(9)	200/160(7)	200/200(3)		190/170(11)	
190/190(1)		210/190(4)			
		204/170(1)			
		200/170(1)			
		195/170(2)			
		170/150(5)			

Appendix 2: The observed genotypes for the 20 polymorphic loci, tested in the 5 populations (Continued)

UNH 231					
<u>CT</u>	DC	DN	50	NC	
GT 200/190(12)	PS 200/140/0)	BN 100/170/5)	EG 160(140(6)	NS 170/160(6)	
200/100(12)	200/140(9)	190/170(5)	160/140(6)	170/150(5)	
200/161(1)	140/140(2)	180/160(10)	210/160(10)	180/160(4)	
180/160(7)	180/142(1)	220/200(4)	190/190(2)	210/190(4)	
180/180(2)	200/152(1)	200/200(3)	221/200(1)	220/200(3)	
210/160(3)	195/160(1)	220/190(2)	190/180(5)	190/180(5)	
190/170(2)	200/160(3)	200/191(1)	200/170(2)	193/150(1)	
210/200(2)	200/170(3)	190/190(1)	212/180(1)	210/180(5)	
	170/140(5)	210/200(4)	190/170(1)		
			210/210(2)		

UNH 233					
GT	PS	BN	EG	NS	
210/160(13)	210/190(1)	160/160(4)	200/159(1)	190/150(10)	
170/150(5)	206/182(1)	200/170(3)	199/160(1)	193/160(1)	
210/180(7)	195/170(1)	200/192(1)	193/157(1)	200/180(6)	
210/190(5)	200/160(4)	210/190(3)	200/157(1)	190/170(3)	
	160/160(3)	190/170(9)	197/171(1)	170/150(5)	
	190/170(2)	192/150(1)	196/171(1)	180/160(4)	
	200/200(4)	205/180(1)	200/179(1)	197/150(1)	
	171/160(1)	210/180(8)	191/170(1)		
	195/170(1)		200/181(1)		
	220/200(8)		210/200(6)		
	190/160(3)		190/160(5)		
	200/200(1)		200/200(3)		
			198/170(1)		
			170/170(6)		

UNH 213	r genotypes for the 20 polying	orphic loci, lested in the 5 po	pulations (Continued)	
GT 200/200(5) 210/190(2) 200/180(3) 200/170(4) 210/191(1) 190/170(9)	PS 210/180(3) 210/193(1) 200/184(1) 208/187(1) 190/177(1) 210/190(1)	BN 180/180(5) 180/160(5) 210/182(1) 210/180(3) 210/193(1) 200/184(1)	EG 192/170(1) 211/194(1) 205/180(1) 210/190(1) 160/160(4) 200/170(3)	NS 180/160(1) 200/160(5) 180/180(1) 210/180(4) 210/200(3) 210/190(3)
180/160(6)	190/150(5) 200/170(8) 180/160(3) 172/150(1) 202/190(1) 210/200(7)	190/180(4) 160/140(9)	220/200(8) 190/160(3) 200/200(1) 210/180(7)	190/150(10) 200/160(3)
GT 210/180(6) 200/180(4) 180/180(4) 190/180(4) 160/140(9)	PS 210/190(5) 200/160(16) 210/200(3) 180/160(6)	BN 200/160(2) 209/150(1) 210/180(2) 171/152(1) 160/160(2) 191/160(1) 210/192(1) 210/200(2) 211/194(1) 200/180(1) 210/190(1) 190/150(10)	EG 200/180(5) 180/180(3) 210/200(2) 200/160(8) 190/180(2) 190/170(4) 212/180(1) 220/210(5)	NS 200/200(2) 160/140(1) 210/180(4) 210/200(3) 210/190(3) 180/140(10) 220/180(7)

Appendix 2: The observed genotypes for the 20 polymorphic loci, tested in the 5 populations (Continued)

UNH 162				1	
GT	PS	BN	EG	NS	
200/180(2)	210/180(12)	196/160(1)	220/200(15)	170/140(6)	
210/120(9)	190/170(5)	193/158(1)	200/200(4)	200/170(5)	
200/200(3)	192/170(1)	200/157(1)	180/180(2)	180/160(10)	
210/190(4)	200/200(3)	190/171(1)	210/190(7)	210/210(3)	
200/170(1)	180/160(9)	196/171(1)	200/180(2)	172/146(1)	
190/180(1)		200/170(10)		190/170(5)	
170/150(6)		200/180(5)			
200/160(4)		209/180(1)			
		210/190(4)			
		180/160(5)			

Annendix 2. The observed (aenotypes for the 20 i	nolymornhic loci	tested in the 5 n	opulations (Continued)
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UNH 194				
GT	PS	BN	EG	NS
210/180(3)	140/120(4)	140/120(5)	200/180(5)	200/180(8)
180/163(1)	150/126(2)	160/140(3)	180/180(3)	180/180(3)
180/160(1)	120/120(3)	158/140(1)	210/200(2)	216/200(1)
160/160(3)	180/140(2)	160/136(1)	212/170(1)	200/200(2)
140/140(4)	170/140(1)	180/160(3)	180/160(2)	210/160(2)
161/140(1)	180/142(1)	160/160(2)	176/150(1)	209/161(1)
160/140(2)	176/140(1)	176/160(1)	172/160(1)	194/160(1)
150/136(1)	160/140(3)	190/170(1)	182/160(1)	190/170(1)
200/180(4)	200/180(2)	196/180(1)	191/161(1)	190/160(1)
165/140(1)	190/180(1)	165/140(1)	188/160(1)	200/160(1)
160/135(1)	180/165(1)	200/180(3)	171/132(1)	200/157(1)
160/157(1)	200/160(4)	178/165(1)	180/166(1)	206/182(1)
210/160(2)	212/136(1)	166/140(1)	182/180(1)	208/176(1)
177/158(1)	210/145(1)	177/159(1)	200/177(1)	210/180(1)
206/161(1)	141/121(1)	140/140(5)	160/160(4)	210/180(5)
200/140(3)	140/140(2)		200/200(4)	
UNH 211				
GT	PS	BN	FG	NS
212/200(5)	180/160(1)	210/200(6)	200/160(13)	200/160(4)
200/200(5)	200/160(5)	200/180(11)	200/150(13)	210/180(5)
210/190(2)	180/180(1)	180/180(1)	200/200(3)	215/180(1)
200/180(3)	210/180(4)	210/180(4)	220/200(5)	220/200(3)
194/170(4)	210/200(3)	210/190(4)	210/190(1)	210/190(1)
210/190(1)	210/190(3)	204/170(1)	190/170(2)	200/200(6)
215/190(1)	180/164(1)	200/170(1)	210/170(3)	210/160(7)
190/160(2)	190/170(2)	190/170(2)		200/170(3)
212/187(1)	215/170(1)			
220/200(3)	200/180(2)			
210/210(1)	160/150(2)			
190/180(2)	170/160(1)			
	200/170(1)			
	210/160(3)			

UNH 120					
GT 210/160(6) 200/160(4) 210/181(1) 210/180(3) 160/160(4) 210/200(6) 200/200(2) 210/210(1)	PS 180/180(5) 180/160(5) 210/182(1) 215/180(3) 210/193(1) 201/184(1) 208/187(1) 198/187(1) 210/190(1)	BN 200/200(4) 212/200(1) 210/200(3) 200/160(7) 190/160(2) 160/160(2) 160/140(1) 200/140(2) 210/180(4)	EG 180/160(12) 200/163(1) 200/160(5) 200/180(3) 210/160(1) 210/170(2) 215/180(2) 210/190(2) 200/175(1)	NS 190/160(9) 200/180(4) 200/190(1) 180/180(3) 200/160(2) 213/190(1) 210/180(2) 190/170(1) 215/180(1)	
	206/180(1) 195/170(1) 200/160(4) 160/160(2)	180/180(2) 211/180(1) 200/170(1)	190/176(1)	180/160(1) 210/170(1) 200/170(3)	

Appendix 3: Genetic distance measures of five populations.

=====		======	======	======	======
pop ID	GT	PS	BN	EG	NS
GT	****				
PS	0.2187	****			
BN	0.4990	0.3709	****		
EG	0.3401	0.2940	0.4210	****	
NS	0.3036	0.3304	0.4115	0.0734	****

Nei's genetic distance (1972).

Genetic distance based on 20 microsatellite loci

pop ID	GT	PS	BN	EG	NS	
GT	****					
PS	0.2065	****				
BN	0.4873	0.3577	****			
EG	0.3287	0.2813	0.4087	****		
NS	0.2918	0.3173	0.3988	0.0611	****	

Nei's genetic distance (1978). Genetic distance based on 20 microsatellite loci

Allele \ Locus	UNH104	UNH172	UNH146	UNH207	UNH166	UNH190	UNH111	UNH173
Allele A Allele B Allele C Allele D Allele E Allele F	0.0376 0.2932 0.3045 0.2030 0.1617	0.1769 0.3269 0.3423 0.0154 0.0923 0.0462	0.0214 0.1429 0.2893 0.1714 0.2750 0.1000	0.0148 0.1556 0.4444 0.2185 0.1667	0.0269 0.4038 0.4385 0.1231 0.0077	0.0560 0.2910 0.3134 0.3321 0.0075 0.0303	0.1836 0.4844 0.2227 0.1016 0.0078	0.1326 0.4205 0.3220 0.0682 0.0265

Appendix 4: Overall Allele Frequency for 20 microsatellite loci among 5 populations

Allele \ Locus	UNH149	UNH189	UNH214	UNH216	UNH231	UNH233	UNH213	UNH145
Allele A Allele B	0.3188	0.0599 0.1901	0.1224 0.4965	0.0652 0.1993	0.0931 0.4103	0.1241 0.4793	0.1678 0.6154	0.0034 0.3699
Allele C Allele D	0.4819 0.1993	0.4190 0.3310	0.3042 0.0769	$0.5471 \\ 0.1884$	0.3966 0.1000	0.2966 0.1000	$0.1888 \\ 0.0280$	0.3596 0.2671
Allele F								

Allele \ Locus	UNH162	UNH194	UNH211	UNH120
Allele A Allele B Allele C Allele D Allele E Allele F	0.3830 0.4539 0.1596 0.0035	0.2148 0.2958 0.4225 0.0669	0.5833 0.4167	0.1232 0.3592 0.3275 0.1901

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