

Supplemental data for

Svishcheva, G. R., Babayan, O. V., Sipko, T. P., Kashtanov, S. N., Kholodova, M. V., Stolpovsky, Y. A. (2022). Genetic differentiation between coexisting wild and domestic reindeer (*Rangifer tarandus* L. 1758) in Northern Eurasia. Genetic Resources 3 (6), 1–14. doi: [10.46265/genresj.UYML5006](https://doi.org/10.46265/genresj.UYML5006).

Contents:

Supplemental Table S1. Characteristics and geographic locations of the analyzed population samples of reindeer

Supplemental Table S2. Description of microsatellite markers

Supplemental Table S3. P-values of the Hardy–Weinberg equilibrium test with the FRD-based correction for each combination of sample and locus

Supplemental Table S4. P-values of the Hardy–Weinberg equilibrium test for each locus

Supplemental Table S5. The proportions of loci that are out of HWE for each population

Supplemental Table S6. Population parameters calculated for each locus and each population sample.

Supplemental Table S7. The polymorphism information content values for each combination of sample and locus

Supplemental Table S8. Nei's pairwise *F_{st}* values among samples.

Supplemental Table S9. The distribution of maximum-likelihood-based estimates of inbreeding coefficients

Table S1. Characteristics and geographic locations of the analysed population samples of reindeer

Population	Status	region	latitude	longitude	natural zone
<i>Nenets</i>	breed	Priuralsky District, Yamal-Nenets Autonomous Okrug, Tyumen region	66.68	66.32	tundra
		Naryan-Mar, Nenets Autonomous Okrug	67.65	53.07	tundra
		Beloyarsky District, Khanty-Mansi Autonomous Okrug, Yugra, Tyumen region	63.24	71.36	taiga
		Priuralsky District, Yamal-Nenets Autonomous Okrug, Tyumen region	65.72	72.23	tundra
<i>Chukchi</i>	breed	Olyutorsky District, Koryak Okrug, Kamchatka Krai	65.81	175.01	mountain forest
<i>Evenks</i>	breed	Zhigansky District, Yakutia (Sakha Republic)	69.97	117.00	taiga
<i>Evenki</i>	breed	Zeysky District, Amur region	54.35	128.74	taiga
<i>Todzha</i>	ecotype	Tandinsky District, Tuva Republic	51.05	95.22	mountain forest and mountain taiga
<i>Tofalar</i>	ecotype	Ust-Udinsky District, Irkutsk region	56.08	103.91	taiga
<i>Taymyr</i>	wild	Taymyrsky District	74.92	95.50	tundra
<i>Tura</i>	wild	Tura, Evenkiysky District, Krasnoyarsk Krai, Central Siberian Plateau	64.29	100.23	taiga
<i>Murmansk</i>	wild	Kolsky District, Murmansk region,	68.94	33.36	taiga
<i>Amur</i>	wild	Seryshevsky District, Amur region	51.08	129.31	mountain forest
<i>Magadan</i>	wild	Magadan, Magadan region	60.21	150.48	mountain forest
<i>Yakutia</i>	wild	Oymyakonsky District, Sakha Republic	64.65	140.32	mountain taiga
<i>Chukotka</i>	wild	Anadyr district, Chukotka Autonomous Okrug	68.24	169.52	tundra

Table S2. Description of microsatellite markers

Marker name	Primer sequence	Type	Species	Number of alleles per marker	Size range of amplified fragments (base pairs)
BMS1788	(AC) ₁₇	dinucleotide	caribou	28	(142-174)
BMS745	(AC) ₁₃	dinucleotide	caribou	13	(124-142)
C143	(ATGG) ₇	tetranucleotide	red deer	3	(176-184)
C217	CATC (CATG) ₅ (CATC) ₃	tetranucleotide	red deer	3	(215-219)
C276	(TCCA) ₅ TCCT TCCA TACG (TCCA) ₃ TCCT TCCA TCTG (TCCA) ₄ TCCG (TCCA) ₅ TCCT TCCA TCCG (TCCA) ₃ (TCCG) ₂ TGCA (TCCA) ₂ TCCG TCCA	tetranucleotide	red deer	8	(354-434)
C32	(ATCC) ₄ (ACCT) ₂ (ATCC) ₇	tetranucleotide	red deer	9	(298-330)
FCB193	(AC) ₁₃	dinucleotide	caribou	15	(120-150)
NVHRT16	(AC) ₅ AT (AC) ₄ AT(GC) ₂ (AC) ₁₂	dinucleotide	caribou	13	(184-226)
OheQ	(TATC) ₁₇ ATC TATC TATT TATC	tetranucleotide	caribou	30	(268-335)
Rt1	(AC) ₁₄ AT(AC) ₄	dinucleotide	caribou	17	(239-267)
Rt24	(AC) ₂₁	dinucleotide	caribou	17	(234-272)
Rt30	(AC) ₁₅	dinucleotide	caribou	15	(201-227)
Rt6	(CA) ₁₉	dinucleotide	caribou	17	(165-211)
Rt7	(AC) ₁₃	dinucleotide	caribou	14	(238-258)
Rt9	(AC) ₂₁	dinucleotide	caribou	14	(133-159)
T40	(ATCT) ₄ ACCT ATCT (ATCT) ₄ ACTG ACCT ATCT	tetranucleotide	red deer	20	(259-335)

Table S3. P-values of the Hardy–Weinberg equilibrium test with the FRD-based correction for each combination of sample and locus

<i>Chisq</i>	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
Nenets	0.7048	1	0.9698	0.2622	0.6954	1	1	1	0.1174	1	0.0344	0.7821	1	1	1	0.0344
Todzha	0.6953	1	0.7384	1	1	0.9699	1	1	1	1	1	0.9699	1	1	1	0.8874
Tofalar	1	0.7384	1	1	0.8050	0.0918	1	0.8259	1	1	1	1	1	1	1	1
Evens	1	0.9233	1	1	1	0.9233	1	1	1	1	1	1	0.9699	1	1	1
Evenki	1	0.0017	1	0.3539	0.8874	1	1	1	1	1	0.5172	1	1	0.6772	1	0.5435
Chukchi	0.9568	0.9233	1	1	0.3539	1	1	0.8874	0.7048	1	1	0.9699	0.6954	1	1	0.8874
W.Taym	1	1	1	1	1	0.9699	1	1	1	1	0.8874	1	0.8874	1	1	1
W.Tura	0.9698	1	1	0.9698	0.9698	1	0.7048	1	1	1	0.9233	0.4907	0.9698	0.1813	1	0.6954
W.Murm	0.3186	0.1093	1	0.1813	0.8874	1	1	0.7048	1	0.6954	1	1	1	1	1	1
W.Amur	1	0.9698	1	1	1	1	1	1	0.6954	0.8870	0.7821	1	0.6566	1	1	1
W.Magad	1	1	1	1	1	1	0.8874	1	0.9568	1	1	1	1	1	1	1
W.Yakut	1	0.0348	0.0918	1	1	0.0365	1	1	0.5353	1	0.6822	1.82E-12	1	0.8764	1	1.14E-10
W.Chuk	1	1	0.7048	1	1	0.5172	0.6034	0.0017	1	1	0.9698	1	1	1	1.80E-06	1
<i>MC</i>	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
Nenets	0.5488	0.9615	0.9279	0.6958	0.6148	1	1	0.8477	0.3751	1	0.1556	0.6148	0.7533	1	0.6957	0.1556
Todzha	0.6338	1	0.9279	1	0.9860	0.6405	1	0.9347	0.9049	1	0.9860	0.6148	1	1	0.8929	0.6425
Tofalar	1	0.7612	1	1	0.6426	0.3751	1	0.6148	1	0.8929	1	1	1	0.9862	1	1
Evens	1	0.6148	1	1	1	0.6148	0.6957	1	1	1	0.6148	0.9733	0.495	1	1	0.9860
Evenki	1	0.9279	1	0.2725	0.6148	1	0.6148	0.6425	1	1	0.6570	1	1	0.6640	0.8200	0.1556
Chukchi	0.7269	0.6640	1	1	0.266	0.9860	0.9279	0.6260	0.3751	1	1	0.7612	0.6148	1	0.6570	0.7236
W.Taym	0.9049	1	0.6148	1	1	0.9709	0.3751	1	1	1	0.3682	1	0.3751	1	0.9860	0.8929
W.Tura	0.6148	0.7181	1	0.9049	0.7607	1	0.3680	0.9279	1	1	0.5488	0.3670	0.7236	0.2720	1	0.3751
W.Murm	0.6148	0.3751	0.9862	0.2662	0.7955	0.8929	0.6405	0.6338	0.9279	0.7236	1	0.9200	1	1	0.9279	0.9279
W.Amur	0.9862	0.8477	1	0.8754	0.8477	1	1	1	0.8929	0.9049	0.6148	1	0.6148	0.906	1	1
W.Magad	1	1	0.8929	1	0.8929	1	0.2806	1	0.8929	1	0.9279	1	1	0.6405	1	1
W.Yakut	0.9860	0.6148	0.6957	0.8188	0.9860	0.6148	0.7265	0.6148	0.1650	1	0.6339	0.7236	0.8929	0.8188	0.9615	0.0499
W.Chuk	0.8929	0.6405	0.5681	0.9709	0.7681	0.3623	0.368	0.1556	0.8188	0.8188	1	1	0.4886	0.9860	0.6148	0.6338

Notation: *Chisq*: p-values calculated using the exact χ^2 -test, *MC*: p-values calculated using the Monte Carlo permutation test. P-values ≤ 0.05 are in bold, and cells with p-values < 0.05 for both HWE tests are boxed.

Table S4. P-values of the Hardy–Weinberg equilibrium test for each locus

<i>Locus</i>	<i>Chisq</i>	<i>MC</i>
<i>BMS1788</i>	0.00000	0.0000
<i>RT30</i>	0.00000	0.0000
<i>RT1</i>	0.00009	0.0000
<i>RT9</i>	0.00000	0.0000
<i>C143</i>	0.00000	0.0000
<i>RT7</i>	0.00008	0.0001
<i>OHEQ</i>	0.00028	0.0000
<i>FCB193</i>	0.00000	0.0000
<i>RT6</i>	0.00000	0.0000
<i>C217</i>	0.72024	0.5962
<i>RT24</i>	0.00000	0.0000
<i>C32</i>	0.00000	0.0008
<i>BMS745</i>	0.00005	0.1396
<i>NVHRT16</i>	0.00677	0.0264
<i>T40</i>	0.00000	0.0002
<i>C276</i>	0.00000	0.0000

Notation: Chisq: p-values calculated using the exact χ^2 -test, *MC:* p-values calculated using the Monte Carlo permutation test.

Table S5. The proportions of loci that are out of HWE for each population

<i>Population</i>	<i>Chisq</i>	<i>MC</i>	<i>Chisq.fdr</i>	<i>MC.fdr</i>
<i>Nenets</i>	0.2500	0.1875	0.0625	0.0000
<i>Todzha</i>	0.0000	0.0000	0.0000	0.0000
<i>Tofalar</i>	0.0625	0.0625	0.0000	0.0000
<i>Evens</i>	0.0000	0.0000	0.0000	0.0000
<i>Evenki</i>	0.1250	0.1250	0.0625	0.0000
<i>Chukchi</i>	0.0000	0.0625	0.0000	0.0000
<i>W.Taym</i>	0.0000	0.1250	0.0000	0.0000
<i>W.Tura</i>	0.1250	0.3125	0.0000	0.0000
<i>W.Murm</i>	0.1875	0.1250	0.0000	0.0000
<i>W.Amur</i>	0.0625	0.0625	0.0000	0.0000
<i>W.Magad</i>	0.0000	0.0625	0.0000	0.0000
<i>W.Yakut</i>	0.3125	0.1250	0.2500	0.0625
<i>W.Chuk</i>	0.1250	0.1875	0.1250	0.0000

Notation: Chisq: values calculated using the exact χ^2 -test; *MC:* values calculated using the Monte Carlo permutation test; *.fdr indicates testing with Benjamini-Hochberg correction.

Table S6. Population parameters calculated for each locus and each population sample. *N*: number of animals genotyped per marker; *A*: number of alleles per sample; %: average percentage of the total number of alleles observed per marker in each population; *Ar*: the mean allelic richness across markers; *Ho* and *He*: observed and expected heterozygosity, respectively.

Neuets	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	223	224	224	224	224	224	223	224	224	224	224	224	224	224	224	224
A	13	7	9	8	3	9	16	10	10	2	11	6	8	9	5	6
%	46.43	46.67	52.94	57.14	100	64.29	53.33	66.67	58.82	66.67	64.71	66.67	61.54	69.23	25	75
Ar	5.62	3.07	6.04	5.64	2.42	4.4	6.19	4.91	5.2	1.26	5.19	2.68	4.17	5.22	2.75	4.14
Ho	0.79	0.54	0.84	0.81	0.34	0.68	0.87	0.76	0.76	0.05	0.75	0.51	0.69	0.83	0.36	0.72
He	0.81	0.53	0.86	0.83	0.38	0.68	0.84	0.79	0.77	0.05	0.79	0.56	0.71	0.8	0.39	0.73
Todzha	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
A	7	7	6	7	3	6	7	8	8	3	6	3	5	5	3	5
%	25	46.67	35.29	50	100	42.86	23.33	53.33	47.06	100	35.29	33.33	38.46	38.46	15	62.5
Ar	3.96	4.63	3.64	4.84	2.85	4	4.46	4.97	4.19	2.12	4.55	2.44	4.26	3.25	2.06	4.1
Ho	0.69	0.74	0.6	0.76	0.6	0.74	0.76	0.74	0.67	0.43	0.76	0.33	0.79	0.55	0.24	0.79
He	0.68	0.77	0.54	0.79	0.61	0.69	0.74	0.71	0.59	0.41	0.75	0.39	0.76	0.6	0.28	0.67
Tofal	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	46
A	6	5	5	9	3	8	4	6	6	2	5	3	3	4	3	5
%	21.43	33.33	29.41	64.29	100	57.14	13.33	40	35.29	66.67	29.41	33.33	23.08	30.77	15	62.5
Ar	3.34	3.47	3.47	4.57	2.97	4.37	3.01	4.6	4.33	1.72	3.98	2.07	2.72	2.94	2.08	3.27
Ho	0.57	0.53	0.7	0.68	0.77	0.66	0.68	0.72	0.81	0.17	0.72	0.26	0.51	0.49	0.28	0.63
He	0.53	0.64	0.65	0.64	0.64	0.69	0.59	0.78	0.75	0.19	0.65	0.23	0.51	0.56	0.25	0.61
Evens	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	37
A	14	11	11	10	3	7	14	9	10	3	11	3	7	7	4	6
%	50	73.33	64.71	71.43	100	50	46.67	60	58.82	100	64.71	33.33	53.85	53.85	20	75
Ar	5.79	6.08	6.36	5.97	2.35	4.64	6.36	5.72	6.3	2.05	5.72	2.92	4.55	4.69	2.84	4.2
Ho	0.82	0.75	0.82	0.86	0.41	0.8	0.77	0.89	0.89	0.34	0.73	0.61	0.89	0.77	0.52	0.81
He	0.82	0.84	0.85	0.83	0.44	0.76	0.85	0.81	0.85	0.32	0.83	0.64	0.74	0.77	0.5	0.77

Evenki	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
A	9	7	10	9	3	8	14	7	7	2	9	4	6	6	7	5
%	32.14	46.67	58.82	64.29	100	57.14	46.67	46.67	41.18	66.67	52.94	44.44	46.15	46.15	35	62.5
Ar	5.87	4.09	5.21	5.42	2.5	5.08	7.09	4.48	3.78	1.75	5.55	3.1	3.52	4.53	3.31	3.06
Ho	0.78	0.7	0.82	0.9	0.38	0.86	0.88	0.68	0.8	0.2	0.74	0.72	0.7	0.74	0.42	0.42
He	0.85	0.69	0.78	0.81	0.47	0.81	0.89	0.76	0.66	0.18	0.83	0.67	0.65	0.72	0.47	0.61
Chukchi	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
A	13	9	12	9	3	9	15	7	11	2	11	3	5	9	8	5
%	46.43	60	70.59	64.29	100	64.29	50	46.67	64.71	66.67	64.71	33.33	38.46	69.23	40	62.5
Ar	5.37	4.8	5.84	5.31	2.1	4.73	5.93	4.33	5.53	1.95	5.75	2.87	3.91	4.71	3.28	4.46
Ho	0.79	0.69	0.86	0.83	0.37	0.82	0.9	0.71	0.79	0.34	0.87	0.55	0.57	0.81	0.47	0.79
He	0.79	0.74	0.82	0.79	0.51	0.77	0.83	0.7	0.81	0.33	0.82	0.62	0.64	0.76	0.56	0.78
W.Taym	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
A	17	10	11	11	3	9	13	10	9	3	10	4	7	8	10	7
%	60.71	66.67	64.71	78.57	100	64.29	43.33	66.67	52.94	100	58.82	44.44	53.85	61.54	50	87.5
Ar	8.13	6.49	6.31	6.47	2.79	6.12	6.68	6.39	6.04	1.68	6.34	2.73	4.19	5.57	4.63	4.92
Ho	0.95	0.95	0.71	1	0.62	0.86	0.76	0.95	0.9	0.14	0.81	0.62	0.71	0.81	0.71	0.86
He	0.92	0.87	0.87	0.86	0.58	0.85	0.88	0.86	0.84	0.13	0.87	0.54	0.7	0.82	0.66	0.79
W.Tura	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	12	11	12	12	12	12	12	12	12	12	12	12	12	12	12	10
A	11	8	9	9	3	9	12	9	8	2	7	4	5	8	6	5
%	39.29	53.33	52.94	64.29	100	64.29	40	60	47.06	66.67	41.18	44.44	38.46	61.54	30	62.5
Ar	6.54	5.42	6.34	6.1	2.91	6.24	6.95	6.49	5.82	1.83	5.23	3	4.25	5.91	3.8	3.35
Ho	0.83	0.82	0.92	0.92	0.42	0.92	0.75	1	1	0.25	0.67	0.33	0.92	0.83	0.67	0.4
He	0.84	0.83	0.86	0.86	0.66	0.86	0.89	0.86	0.84	0.22	0.83	0.51	0.74	0.85	0.57	0.7

W.Murm	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	28
A	14	9	8	9	3	6	15	10	9	3	11	3	4	7	8	5
%	50	60	47.06	64.29	100	42.86	50	66.67	52.94	100	64.71	33.33	30.77	53.85	40	62.5
Ar	6.59	5.24	6.08	5.63	2.9	4.28	7.24	5.82	5.5	1.92	6.37	2.28	3.81	5.24	4.2	4.23
Ho	0.79	0.69	0.93	0.72	0.62	0.76	0.83	0.76	0.83	0.17	0.93	0.38	0.69	0.9	0.59	0.64
He	0.87	0.8	0.85	0.83	0.61	0.69	0.89	0.83	0.8	0.19	0.85	0.34	0.74	0.81	0.57	0.72
W.Amur	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
A	9	6	9	9	2	8	11	8	10	3	9	4	5	7	6	5
%	32.14	40	52.94	64.29	66.67	57.14	36.67	53.33	58.82	100	52.94	44.44	38.46	53.85	30	62.5
Ar	5.68	4.98	5.22	5.61	1.98	5.02	6.21	5.16	4.97	2.76	5.31	3.19	4.16	5.3	3	3.92
Ho	0.85	0.85	0.85	0.85	0.35	0.8	0.85	0.8	0.75	0.65	0.65	0.65	0.6	0.8	0.45	0.65
He	0.77	0.8	0.76	0.82	0.44	0.74	0.82	0.79	0.76	0.49	0.8	0.53	0.77	0.82	0.38	0.67
W.Magad	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
A	8	6	8	8	3	7	7	6	6	1	8	4	4	5	3	5
%	28.57	40	47.06	57.14	100	50	23.33	40	35.29	33.33	47.06	44.44	30.77	38.46	15	62.5
Ar	5.82	5.05	6.05	6.3	2.84	5.44	5.15	5.3	4.57	1	6.03	3.32	3.53	3.94	2.3	4.45
Ho	0.83	1	0.83	1	0.5	0.83	0.5	1	0.67	0	0.83	0.83	0.83	0.5	0.33	0.83
He	0.82	0.79	0.86	0.86	0.57	0.82	0.82	0.82	0.69	0	0.85	0.58	0.65	0.69	0.29	0.76
W.Yakut	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	0
A	22	14	16	12	3	12	24	12	14	3	15	8	10	13	15	0
%	78.57	93.33	94.12	85.71	100	85.71	80	80	82.35	100	88.24	88.89	76.92	100	75	0
Ar	7.75	6.43	6.88	6.3	2.88	5.8	8.29	6.34	6.44	1.66	7.06	2.81	4.9	6.34	4.48	0
Ho	0.86	0.87	0.85	0.85	0.6	0.83	0.92	0.85	0.83	0.13	0.86	0.42	0.8	0.86	0.57	NaN
He	0.92	0.86	0.88	0.87	0.62	0.83	0.93	0.87	0.87	0.12	0.89	0.45	0.79	0.85	0.59	1

W.Chuk	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
N	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41
A	16	11	15	12	3	12	18	11	10	3	12	5	8	12	9	6
%	57.14	73.33	88.24	85.71	100	85.71	60	73.33	58.82	100	70.59	55.56	61.54	92.31	45	75
Ar	7.13	6.17	7.41	6.58	2.88	5.77	7.48	5.68	6.3	2.1	6.07	3.33	3.8	6.41	4.52	4.41
Ho	0.83	0.78	0.93	0.83	0.51	0.85	0.85	0.78	0.88	0.24	0.83	0.68	0.51	0.9	0.61	0.78
He	0.88	0.85	0.9	0.87	0.62	0.84	0.9	0.82	0.86	0.24	0.83	0.57	0.62	0.86	0.66	0.75

Table S7. The polymorphism information content values for each combination of sample and locus

	BMS1788	RT30	RT1	RT9	C143	RT7	OHEQ	FCB193	RT6	C217	RT24	C32	BMS745	NVHRT16	T40	C276
Nenets	0.788	0.470	0.561	0.812	0.338	0.644	0.828	0.755	0.741	0.051	0.767	0.464	0.668	0.778	0.362	0.692
Todzha	0.626	0.732	-0.334	0.755	0.540	0.650	0.702	0.684	0.565	0.338	0.715	0.352	0.716	0.527	0.256	0.634
Tofalar	0.491	0.581	-0.225	0.619	0.568	0.656	0.521	0.750	0.707	0.172	0.615	0.217	0.447	0.503	0.226	0.540
Evens	0.800	0.823	0.493	0.814	0.371	0.729	0.831	0.786	0.838	0.272	0.814	0.561	0.707	0.732	0.449	0.729
Evenki	0.835	0.650	0.331	0.786	0.407	0.783	0.882	0.716	0.602	0.164	0.806	0.594	0.587	0.695	0.450	0.547
Chukchi	0.763	0.709	0.447	0.765	0.386	0.734	0.810	0.665	0.790	0.278	0.795	0.542	0.600	0.730	0.511	0.740
W.Taym	0.915	0.853	0.617	0.842	0.502	0.836	0.871	0.847	0.827	0.129	0.861	0.458	0.663	0.800	0.642	0.765
W.Tura	0.823	0.815	0.628	0.846	0.582	0.845	0.883	0.850	0.820	0.195	0.807	0.476	0.694	0.829	0.537	0.656
W.Murm	0.859	0.776	0.553	0.808	0.534	0.652	0.881	0.807	0.777	0.180	0.838	0.302	0.694	0.784	0.550	0.681
W.Amur	0.754	0.770	0.439	0.794	0.342	0.711	0.807	0.766	0.730	0.437	0.773	0.486	0.729	0.796	0.368	0.621
W.Magad	0.801	0.763	0.404	0.845	0.505	0.796	0.796	0.793	0.665	0.000	0.830	0.530	0.599	0.644	0.273	0.726
W.Yakut	0.911	0.848	0.670	0.853	0.545	0.812	0.920	0.851	0.852	0.116	0.880	0.405	0.756	0.839	0.573	NA
W.Chuk	0.874	0.839	0.712	0.858	0.548	0.816	0.895	0.796	0.848	0.223	0.811	0.516	0.582	0.846	0.641	0.714
Overall	0.867	0.794	0.625	0.876	0.518	0.783	0.904	0.839	0.846	0.187	0.873	0.501	0.693	0.797	0.485	0.819

Table S8. Nei's pairwise *Fst* values among samples. * $p < 0.05$; ** $p < 0.01$; * $p < 0.001$.**

	Todzha	Tofalar	Nenets	Evens	Evenki	Chukchi	W.Taym	W.Tura	W.Murm	W.Amur	W.Magad	W.Yakut
Tofalar	0.0514***											
Nenets	0.0432***	0.0524***										
Evens	0.0632***	0.077***	0.0159**									
Evenki	0.0721***	0.0909***	0.0226**	0.0242**								
Chukchi	0.0533***	0.0748***	0.04***	0.0137*	0.0288***							
W.Taym	0.0558***	0.0555***	0.0145*	0.025***	0.036***	0.0179*						
W.Tura	0.0409***	0.0507***	0.0108*	0.0275**	0.0319**	0.0153*	0.0198*					
W.Murm	0.0721***	0.0733***	0.0229***	0.0388**	0.0552***	0.0286**	0.0251**	0.0288**				
W.Amur	0.0656***	0.0853***	0.0224**	0.0436***	0.0518***	0.0277**	0.0389***	0.0429***	0.0466***			
W.Magad	0.0328**	0.0356**	0.0062	0.0189*	0.0214*	0.0094	0.0213*	0.0345**	0.0269**	0.0414***		
W.Yakut	0.0186*	0.0196*	0.0251**	0.0048	0.0043	0.0201*	0	0	0	0	0	
W.Chuk	0.0608***	0.0699***	0.0286**	0.0355**	0.0438**	0.0313*	0.0158	0.0171	0.0263	0.0359*	0.0182	0

Table S9. The distribution of maximum-likelihood-based estimates of inbreeding coefficients using the adegenet R-package

	Nenets	Todzha	Tofalar	Evens	Evenki	Chukchi	W.Taym	W.Tura	W.Murm	W.Amur	W.Magad	W.Yakut	W.Chuk
Min	0.080	0.089	0.083	0.073	0.078	0.073	0.076	0.093	0.077	0.077	0.090	0.074	0.076
1st Qu	0.118	0.109	0.125	0.107	0.114	0.105	0.094	0.117	0.111	0.111	0.114	0.101	0.095
Median	0.147	0.154	0.173	0.133	0.140	0.141	0.117	0.128	0.134	0.145	0.128	0.129	0.136
Mean	0.167	0.170	0.182	0.152	0.165	0.155	0.131	0.137	0.163	0.157	0.134	0.149	0.155
3rd Qu	0.205	0.192	0.218	0.174	0.171	0.186	0.160	0.155	0.184	0.192	0.161	0.177	0.174
Max	0.485	0.380	0.409	0.444	0.502	0.351	0.224	0.191	0.463	0.358	0.178	0.554	0.389
Se	0.017	0.043	0.039	0.040	0.041	0.022	0.046	0.048	0.052	0.056	0.076	0.024	0.043