

Table S1

Sample Name	Site name	Library Conc. (pM)	Total reads	Mapped reads (<i>hg19</i>)	Mapped %	C>T %
IK001	Ikawazu	12,229	410053	594	0.14	NA
IK002	Ikawazu	5,990	333597	8324	2.50	>10
HB234	Hobi	22,815	167190	19	0.01	NA
HB1123	Hobi	26,802	371468	247	0.07	NA
HB40	Hobi	22,174	387621	75	0.02	NA
HB828	Hobi	27,450	429742	558	0.13	NA
HB952	Hobi	29,380	236487	117	0.05	NA
HB1284	Hobi	22,069	288319	662	0.23	NA
HG02	Hegi	17,796	408947	6536	1.60	<0.5
HG16	Hegi	28,746	520340	962	0.18	NA
HG29	Hegi	21,433	355466	181	0.05	NA
HG55	Hegi	8,935	468529	2471	0.53	NA

Table S2

Sample	Lib	TotalLibReads	TrimLibReads	MappedLibReads	Duplicates	FinalLibReads	Duplicates%	Endogenous%	Efficiency%	Position	Library construction	Institute name of NGS data output			
Jomon	Lib01	397,457,388	205,417,156	3,575,342	2,897,329	678,013	81.04	1.74	0.17						
Jomon	Lib02	483,234,318	249,273,335	4,405,539	3,713,232	692,307	84.29	1.77	0.14						
Jomon	Lib03	529,297,850	269,845,196	3,460,131	2,115,060	1,345,071	61.13	1.28	0.25	Tooth dentine	NEBNext Ultra DNA library kit	NIG, Mishima, 4~25 Mar., 2016			
Jomon	Lib04	240,478,394	124,698,389	2,126,996	1,831,771	295,225	86.12	1.71	0.12						
Jomon	Lib05	236,015,856	122,502,006	2,104,751	1,810,212	294,539	86.01	1.72	0.12						
Jomon	Lib6	433,647,102	221,339,926	2,817,039	1,580,164	1,236,875	56.09	1.27	0.29						
Jomon	104	237,971,558	122,881,163	7,385,634	5,524,508	1,861,126	74.80	6.01	0.78						
Jomon	105	227,075,442	117,476,528	7,330,363	5,426,615	1,903,748	74.03	6.24	0.84						
Jomon	106	231,544,700	121,574,515	6,851,193	4,664,805	2,186,388	68.09	5.64	0.94						
Jomon	107	215,787,182	113,748,656	6,303,999	4,553,925	1,750,074	72.24	5.54	0.81						
Jomon	109	237,651,346	115,421,561	3,336,984	212,551	3,124,433	6.37	2.89	1.31						
Jomon	110	237,907,508	119,164,747	19,111,803	2,447,870	16,663,933	12.81	16.04	7.00						
Jomon	113	234,657,460	120,814,912	7,476,311	5,404,946	2,071,365	72.29	6.19	0.88						
Jomon	114	235,799,456	117,649,335	8,331,258	6,443,033	1,888,225	77.34	7.08	0.80	Petrous bone	NEBNext Ultra DNA library kit	NIG, Mishima, 20 Feb., 2017			
Jomon	115	235,981,678	116,175,678	8,661,251	6,764,525	1,896,726	78.10	7.46	0.80						
Jomon	116	233,981,444	117,490,393	2,162,154	1,918,880	243,274	88.75	1.84	0.10						
Jomon	118	235,630,834	121,236,313	1,973,621	1,741,222	232,399	88.22	1.63	0.10						
Jomon	119	232,848,604	119,348,059	1,981,256	1,744,192	237,064	88.03	1.66	0.10						
Jomon	120	230,906,338	118,884,804	1,942,120	1,681,914	260,206	86.60	1.63	0.11						
Jomon	121	234,290,444	119,349,954	2,017,349	1,757,562	259,787	87.12	1.69	0.11						
Jomon	122	230,406,198	119,300,898	1,962,062	1,694,754	267,308	86.38	1.64	0.12						
Jomon	123	232,333,464	118,067,281	2,026,813	1,785,558	241,255	88.10	1.72	0.10						
Jomon	125	241,895,316	125,060,174	23,871,213	7,864,240	16,006,973	32.94	19.09	6.62						
Jomon	127	241,450,064	126,487,721	22,510,933	6,543,998	15,966,935	29.07	17.80	6.61						
Jomon	19	10,988,506	5,355,997	163,147	607	162,540	0.37	3.05	1.48				Petrous bone	NEBNext Ultra DNA library kit	Kyushu University, 24 Aug., 2016
Jomon	110	11,869,178	6,063,566	992,308	8,761	983,547	0.88	16.37	8.29						
Jomon	Jomon_1	52,887,549	50,856,175	582,006	6,196	575,810	1.06	1.14	1.09						
Jomon	Jomon_2	36,617,606	34,413,362	1,173,038	15,946	1,157,092	1.36	3.41	3.16						
Jomon	Jomon_3	48,563,648	47,834,030	5,590,451	113,727	5,476,724	2.03	11.69	11.28	Petrous bone	Allentoft et al. 2015	CGG, Copenhagen, Oct., 2016			
Jomon	Jomon_4	58,511,078	56,245,786	4,845,321	88,276	4,757,045	1.82	8.61	8.13						
Jomon	Jomon_5	43,866,323	42,562,678	2,946,263	386,321	2,559,942	13.11	6.92	5.84						

Table S3

Target	Ref 1	Ref 2	Amplitude			Decay		
			Estimate	SE	Z	Estimate	SE	Z
Japanese	IK002	Han	0.00037	0.00006	6.3	49.8	7.6	6.6
Ulchi	IK002	Han	0.00014	0.00005	2.7	20.8	12.6	1.7
Ainu	IK002	Japanese	0.00018	0.00003	5.8	3.3	1.1	3.0

Table S4

W	X	Y	Z	D_score	D_sd	D_2sd	Z_score	SNPs
Mbuti	MA1	Atayal	Ami	0.0033	0.0050	0.0100	0.662	1285783
Mbuti	MA1	Burmese	Ami	-0.0012	0.0040	0.0081	-0.287	1352503
Mbuti	MA1	Cambodian	Ami	0.0021	0.0040	0.0081	0.528	1355903
Mbuti	MA1	Dai	Ami	-0.0008	0.0037	0.0074	-0.209	1360951
Mbuti	MA1	Daur	Ami	-0.0070	0.0048	0.0095	-1.467	1290590
Mbuti	MA1	Dusun	Ami	0.0081	0.0041	0.0083	1.962	1354965
Mbuti	MA1	Han	Ami	-0.0010	0.0039	0.0078	-0.252	1355943
Mbuti	MA1	Hezhen	Ami	-0.0009	0.0041	0.0083	-0.210	1356366
Mbuti	MA1	Igorot	Ami	0.0033	0.0038	0.0077	0.862	1354278
Mbuti	MA1	Japanese	Ami	0.0008	0.0037	0.0073	0.225	1360859
Mbuti	MA1	Kinh	Ami	-0.0001	0.0040	0.0080	-0.013	1355428
Mbuti	MA1	Korean	Ami	-0.0009	0.0041	0.0082	-0.211	1353161
Mbuti	MA1	Lahu	Ami	-0.0007	0.0041	0.0082	-0.174	1356419
Mbuti	MA1	Miao	Ami	0.0024	0.0040	0.0080	0.590	1352492
Mbuti	MA1	Mongola	Ami	-0.0042	0.0040	0.0079	-1.059	1353167
Mbuti	MA1	Naxi	Ami	-0.0013	0.0038	0.0075	-0.346	1360569
Mbuti	MA1	Oroqen	Ami	-0.0136	0.0041	0.0082	-3.311	1355451
Mbuti	MA1	She	Ami	-0.0009	0.0041	0.0083	-0.211	1349530
Mbuti	MA1	Thai	Ami	0.0017	0.0039	0.0078	0.439	1353479
Mbuti	MA1	Tu	Ami	-0.0039	0.0041	0.0083	-0.952	1354164
Mbuti	MA1	Tujia	Ami	0.0001	0.0040	0.0080	0.034	1350557
Mbuti	MA1	Xibo	Ami	-0.0003	0.0039	0.0079	-0.065	1351587
Mbuti	MA1	Yi	Ami	0.0001	0.0039	0.0079	0.029	1344798
Mbuti	MA1	Buryat	Ami	-0.0197	0.0043	0.0086	-4.564	1339868
Mbuti	MA1	Chaplin	Ami	-0.0466	0.0052	0.0104	-8.922	1302308
Mbuti	MA1	Naukan	Ami	-0.0500	0.0044	0.0088	-11.332	1351888
Mbuti	MA1	Sireniki	Ami	-0.0484	0.0044	0.0088	-10.961	1362400
Mbuti	MA1	Yupik	Ami	-0.0552	0.0048	0.0097	-11.404	1020542
Mbuti	MA1	Even	Ami	-0.0194	0.0036	0.0073	-5.323	1360314
Mbuti	MA1	Evenk	Ami	-0.0260	0.0048	0.0096	-5.428	1305016
Mbuti	MA1	Itelman	Ami	-0.0498	0.0050	0.0099	-10.047	1283108
Mbuti	MA1	Ket	Ami	-0.0550	0.0045	0.0091	-12.116	1304859
Mbuti	MA1	Khanty	Ami	-0.0545	0.0040	0.0080	-13.656	1361167
Mbuti	MA1	KomiIzhma	Ami	-0.0474	0.0046	0.0093	-10.241	1358004
Mbuti	MA1	KomiObyachevo	Ami	-0.0520	0.0047	0.0094	-11.120	1353998
Mbuti	MA1	Koryak	Ami	-0.0453	0.0045	0.0090	-10.010	1339133
Mbuti	MA1	Ulchi	Ami	-0.0132	0.0042	0.0084	-3.144	1354218
Mbuti	MA1	Nivkh	Ami	-0.0163	0.0043	0.0087	-3.754	1343844
Mbuti	MA1	Chukchi	Ami	-0.0437	0.0049	0.0098	-8.948	1300660
Mbuti	MA1	Chokhopani	Ami	-0.0037	0.0051	0.0102	-0.724	1353283
Mbuti	MA1	Devilscave	Ami	0.0091	0.0041	0.0082	2.213	1362226
Mbuti	MA1	IK002	Ami	-0.0009	0.0054	0.0109	-0.157	1124703

Table S5

W	X	Y	Z	D_score	D_sd	D_2sd	Z_score	SNPs
Mbuti	Atayal	MA1	Ami	0.1851	0.0053	0.0106	35.069	1285783
Mbuti	Burmese	MA1	Ami	0.1230	0.0045	0.0090	27.428	1352503
Mbuti	Cambodian	MA1	Ami	0.1304	0.0044	0.0088	29.484	1355903
Mbuti	Dai	MA1	Ami	0.1527	0.0043	0.0086	35.418	1360951
Mbuti	Daur	MA1	Ami	0.1247	0.0054	0.0107	23.267	1290590
Mbuti	Dusun	MA1	Ami	0.1732	0.0046	0.0091	37.992	1354965
Mbuti	Han	MA1	Ami	0.1528	0.0047	0.0094	32.468	1355943
Mbuti	Hezhen	MA1	Ami	0.1286	0.0045	0.0090	28.494	1356366
Mbuti	Igorot	MA1	Ami	0.1859	0.0047	0.0094	39.746	1354278
Mbuti	Japanese	MA1	Ami	0.1428	0.0043	0.0086	33.163	1360859
Mbuti	Kinh	MA1	Ami	0.1530	0.0045	0.0090	33.950	1355428
Mbuti	Korean	MA1	Ami	0.1436	0.0046	0.0091	31.505	1353161
Mbuti	Lahu	MA1	Ami	0.1440	0.0045	0.0090	31.830	1356419
Mbuti	Miao	MA1	Ami	0.1533	0.0045	0.0090	34.003	1352492
Mbuti	Mongola	MA1	Ami	0.1289	0.0047	0.0093	27.675	1353167
Mbuti	Naxi	MA1	Ami	0.1361	0.0045	0.0089	30.539	1360569
Mbuti	Oroqen	MA1	Ami	0.1147	0.0047	0.0095	24.187	1355451
Mbuti	She	MA1	Ami	0.1576	0.0047	0.0093	33.826	1349530
Mbuti	Thai	MA1	Ami	0.1391	0.0045	0.0090	31.067	1353479
Mbuti	Tu	MA1	Ami	0.1229	0.0046	0.0091	26.929	1354164
Mbuti	Tujia	MA1	Ami	0.1537	0.0046	0.0092	33.380	1350557
Mbuti	Xibo	MA1	Ami	0.1303	0.0044	0.0087	29.833	1351587
Mbuti	Yi	MA1	Ami	0.1401	0.0044	0.0089	31.499	1344798
Mbuti	Buryat	MA1	Ami	0.0969	0.0047	0.0094	20.631	1339868
Mbuti	Eskimo_Chaplin	MA1	Ami	0.0635	0.0056	0.0113	11.291	1302308
Mbuti	Eskimo_Naukan	MA1	Ami	0.0532	0.0048	0.0095	11.176	1351888
Mbuti	Eskimo_Sireniki	MA1	Ami	0.0569	0.0045	0.0090	12.602	1362400
Mbuti	Eskimo_Yupik	MA1	Ami	0.0568	0.0052	0.0104	10.890	1020542
Mbuti	Even	MA1	Ami	0.0926	0.0044	0.0088	20.995	1360314
Mbuti	Evenk	MA1	Ami	0.1046	0.0054	0.0109	19.224	1305016
Mbuti	Itelman	MA1	Ami	0.0652	0.0057	0.0114	11.467	1283108
Mbuti	Ket	MA1	Ami	0.0259	0.0048	0.0097	5.358	1304859
Mbuti	Khanty	MA1	Ami	0.0108	0.0043	0.0086	2.511	1361167
Mbuti	KomiIzhma	MA1	Ami	-0.0334	0.0046	0.0091	-7.311	1358004
Mbuti	KomiObyachevo	MA1	Ami	-0.0336	0.0047	0.0094	-7.128	1353998
Mbuti	Koryak	MA1	Ami	0.0780	0.0051	0.0101	15.395	1339133
Mbuti	Ulchi	MA1	Ami	0.1169	0.0045	0.0090	25.907	1354218
Mbuti	Nivkh	MA1	Ami	0.1230	0.0050	0.0100	24.560	1343844
Mbuti	Chukchi	MA1	Ami	0.0099	0.0053	0.0106	1.861	1300660
Mbuti	Chokhopani	MA1	Ami	0.1137	0.0054	0.0108	21.098	1353283
Mbuti	Devilscave	MA1	Ami	0.1369	0.0046	0.0092	29.867	1362226
Mbuti	IK002	MA1	Ami	0.1021	0.0059	0.0117	17.388	1124703

Table S6

W	X	Y	Z	D_score	D_sd	D_2sig	Z_score	SNPs
Mbuti	Ami	Atayal	MA1	-0.1819	0.0052	0.0104	-34.962	1285783
Mbuti	Ami	Burmese	MA1	-0.1241	0.0045	0.0089	-27.738	1352503
Mbuti	Ami	Cambodian	MA1	-0.1283	0.0048	0.0095	-26.966	1355903
Mbuti	Ami	Dai	MA1	-0.1534	0.0044	0.0088	-34.851	1360951
Mbuti	Ami	Daur	MA1	-0.1316	0.0052	0.0104	-25.420	1290590
Mbuti	Ami	Dusun	MA1	-0.1654	0.0045	0.0091	-36.444	1354965
Mbuti	Ami	Han	MA1	-0.1537	0.0046	0.0093	-33.161	1355943
Mbuti	Ami	Hezhen	MA1	-0.1295	0.0048	0.0095	-27.205	1356366
Mbuti	Ami	Igorot	MA1	-0.1827	0.0045	0.0089	-40.967	1354278
Mbuti	Ami	Japanese	MA1	-0.1420	0.0045	0.0090	-31.558	1360859
Mbuti	Ami	Kinh	MA1	-0.1531	0.0046	0.0092	-33.256	1355428
Mbuti	Ami	Korean	MA1	-0.1445	0.0047	0.0093	-30.972	1353161
Mbuti	Ami	Lahu	MA1	-0.1447	0.0045	0.0090	-32.191	1356419
Mbuti	Ami	Miao	MA1	-0.1510	0.0045	0.0090	-33.408	1352492
Mbuti	Ami	Mongola	MA1	-0.1330	0.0046	0.0092	-29.041	1353167
Mbuti	Ami	Naxi	MA1	-0.1373	0.0046	0.0091	-30.171	1360569
Mbuti	Ami	Oroqen	MA1	-0.1282	0.0047	0.0093	-27.479	1355451
Mbuti	Ami	She	MA1	-0.1585	0.0046	0.0093	-34.224	1349530
Mbuti	Ami	Thai	MA1	-0.1374	0.0044	0.0088	-31.082	1353479
Mbuti	Ami	Tu	MA1	-0.1268	0.0048	0.0095	-26.567	1354164
Mbuti	Ami	Tujia	MA1	-0.1535	0.0046	0.0092	-33.208	1350557
Mbuti	Ami	Xibo	MA1	-0.1306	0.0046	0.0092	-28.527	1351587
Mbuti	Ami	Yi	MA1	-0.1400	0.0046	0.0091	-30.753	1344798
Mbuti	Ami	Buryat	MA1	-0.1164	0.0048	0.0096	-24.375	1339868
Mbuti	Ami	Chaplin	MA1	-0.1098	0.0053	0.0106	-20.766	1302308
Mbuti	Ami	Naukan	MA1	-0.1029	0.0048	0.0096	-21.541	1351888
Mbuti	Ami	Sireniki	MA1	-0.1051	0.0047	0.0094	-22.393	1362400
Mbuti	Ami	Yupik	MA1	-0.1117	0.0051	0.0103	-21.723	1020542
Mbuti	Ami	Even	MA1	-0.1118	0.0045	0.0090	-24.888	1360314
Mbuti	Ami	Evenk	MA1	-0.1302	0.0054	0.0108	-24.097	1305016
Mbuti	Ami	Itelman	MA1	-0.1146	0.0052	0.0104	-22.125	1283108
Mbuti	Ami	Ket	MA1	-0.0808	0.0048	0.0096	-16.885	1304859
Mbuti	Ami	Khanty	MA1	-0.0652	0.0043	0.0086	-15.090	1361167
Mbuti	Ami	KomiIzhma	MA1	-0.0140	0.0047	0.0093	-3.002	1358004
Mbuti	Ami	KomiObyachevo	MA1	-0.0185	0.0046	0.0092	-3.995	1353998
Mbuti	Ami	Koryak	MA1	-0.1228	0.0048	0.0097	-25.435	1339133
Mbuti	Ami	Ulchi	MA1	-0.1299	0.0047	0.0093	-27.806	1354218
Mbuti	Ami	Nivkh	MA1	-0.1390	0.0048	0.0095	-29.134	1343844
Mbuti	Ami	Chukuchi	MA1	-0.0536	0.0051	0.0102	-10.561	1300660
Mbuti	Ami	Chokhopani	MA1	-0.1174	0.0051	0.0103	-22.821	1353283
Mbuti	Ami	Devilscape	MA1	-0.1279	0.0047	0.0094	-27.119	1362226
Mbuti	Ami	IK002	MA1	-0.1030	0.0053	0.0106	-19.350	1124703

Fig. S1

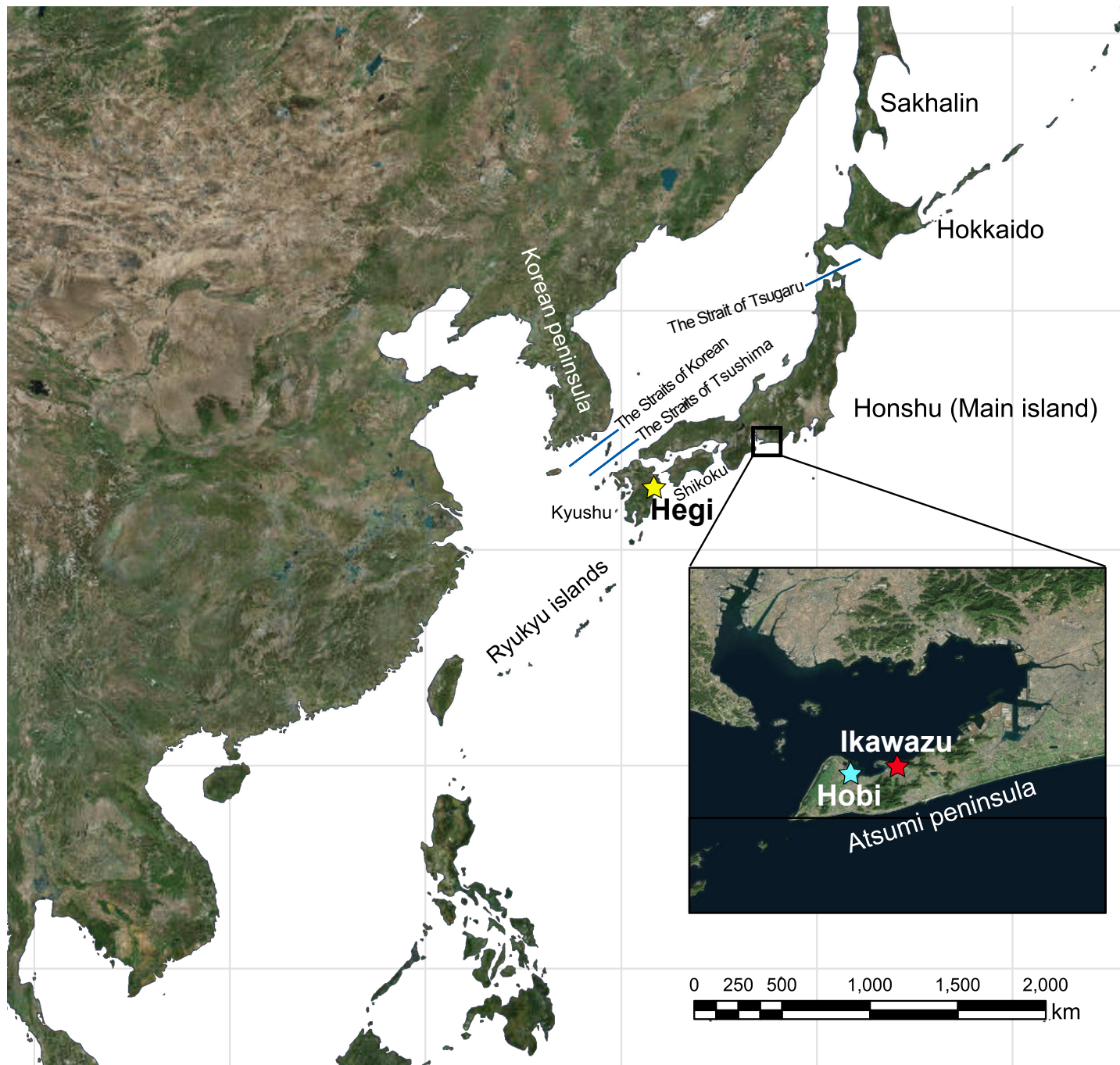
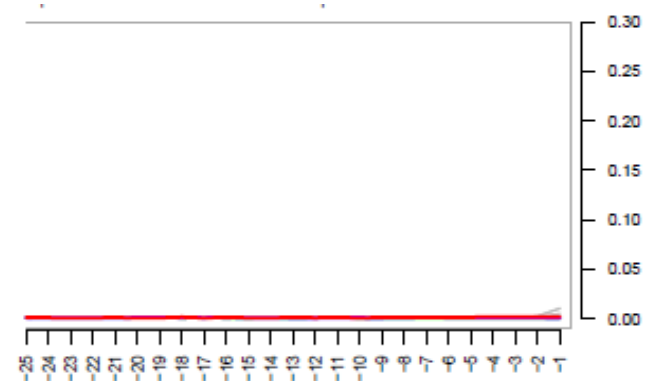
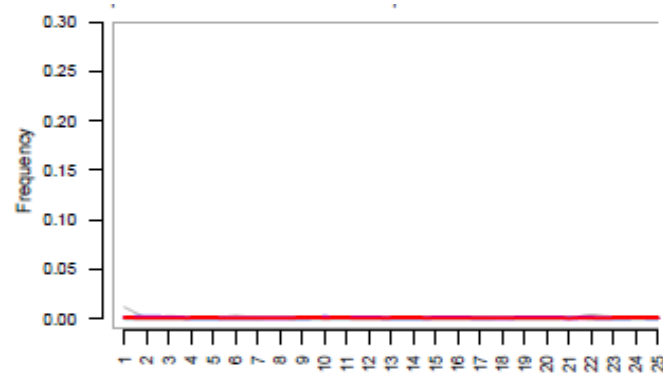
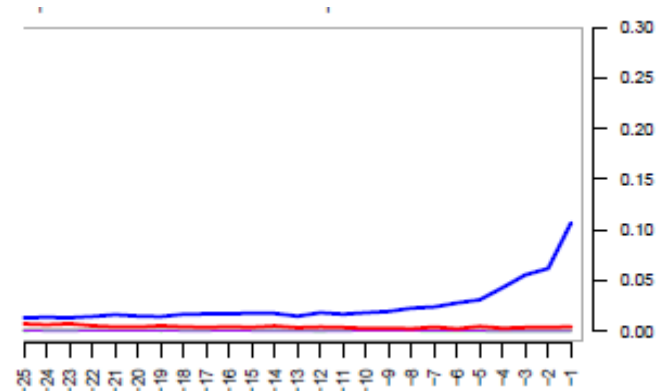
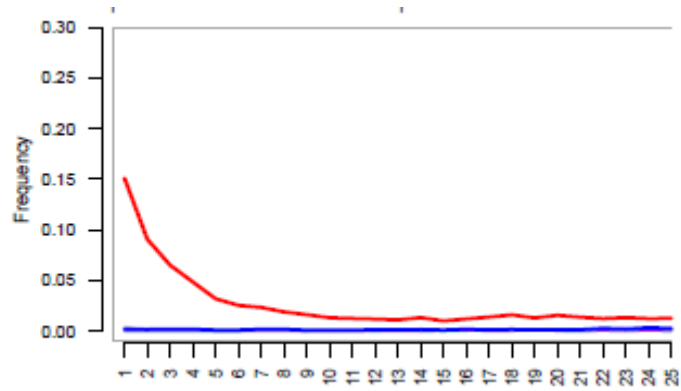


Fig. S2

Modern
Japanese



IK002



HG02

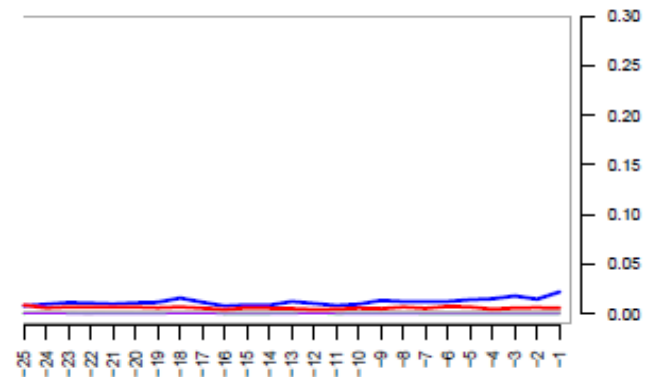
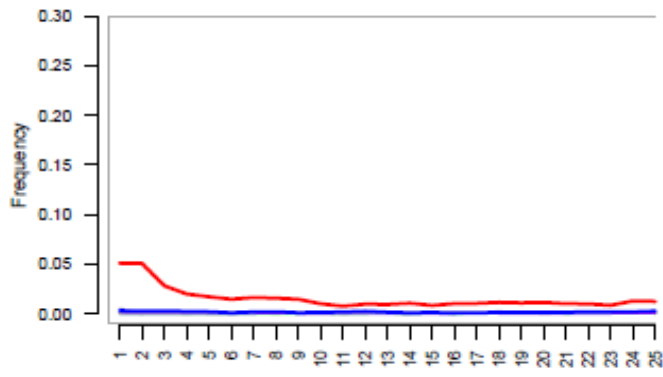


Fig. S3

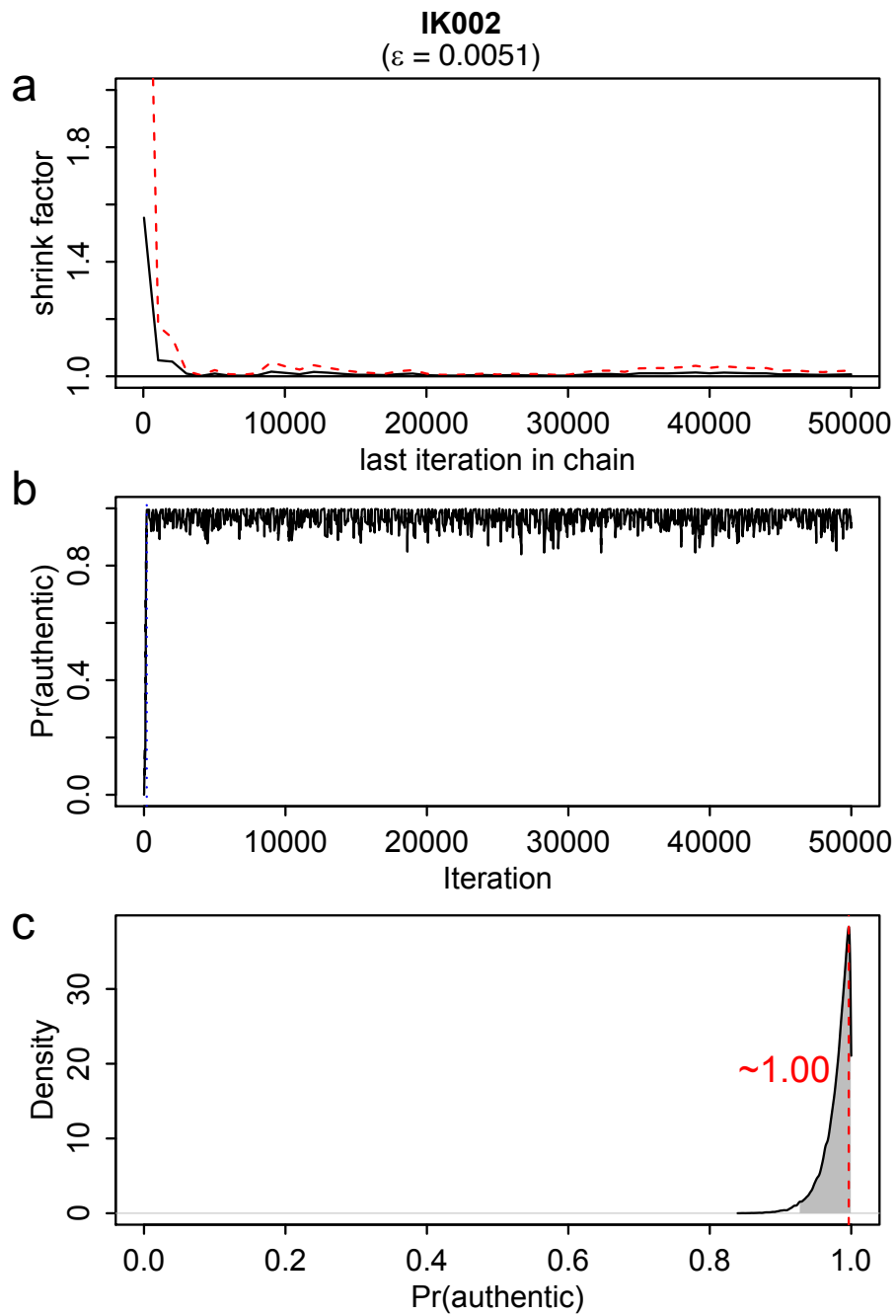


Fig. S4

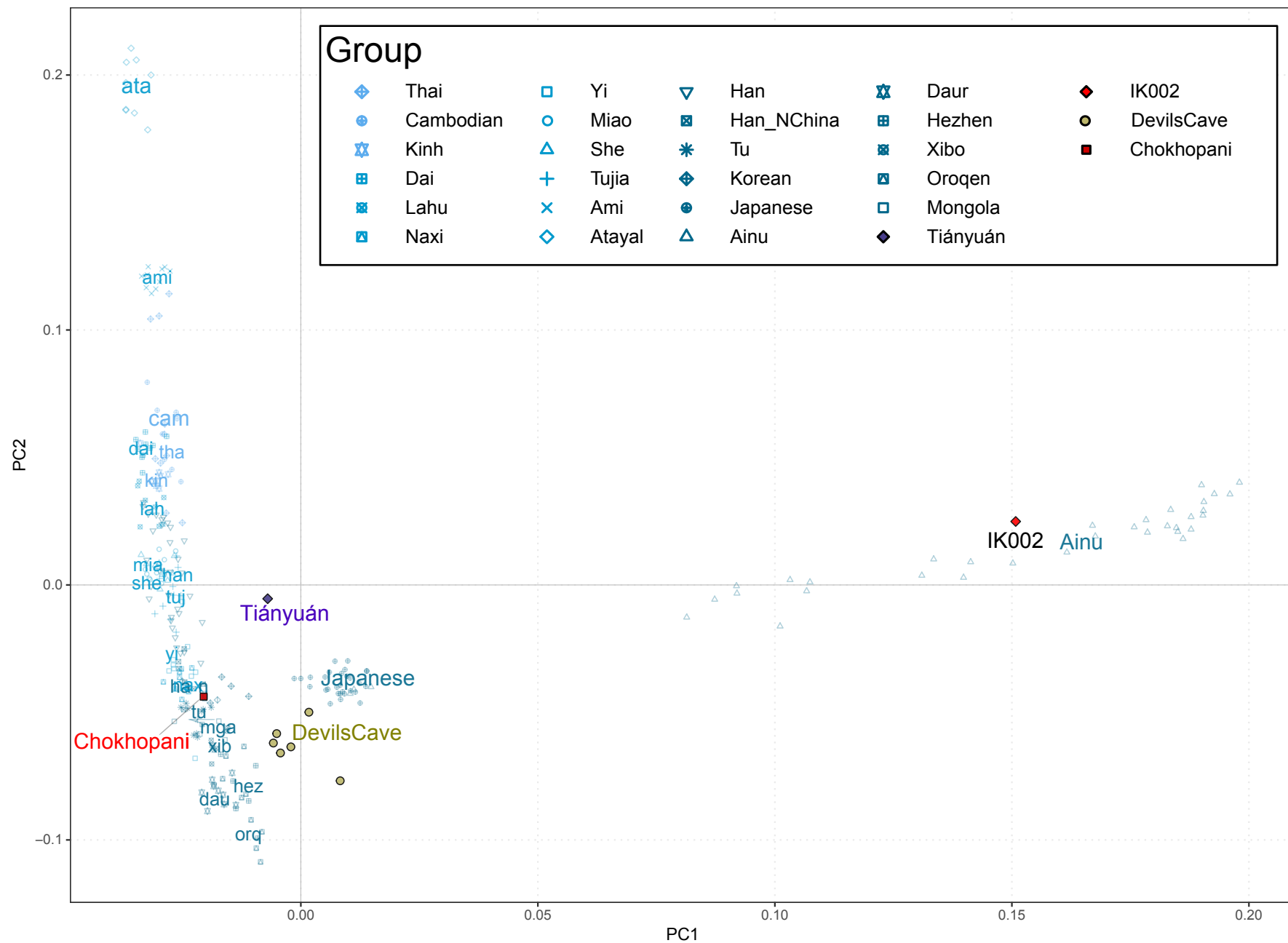


Fig. S5

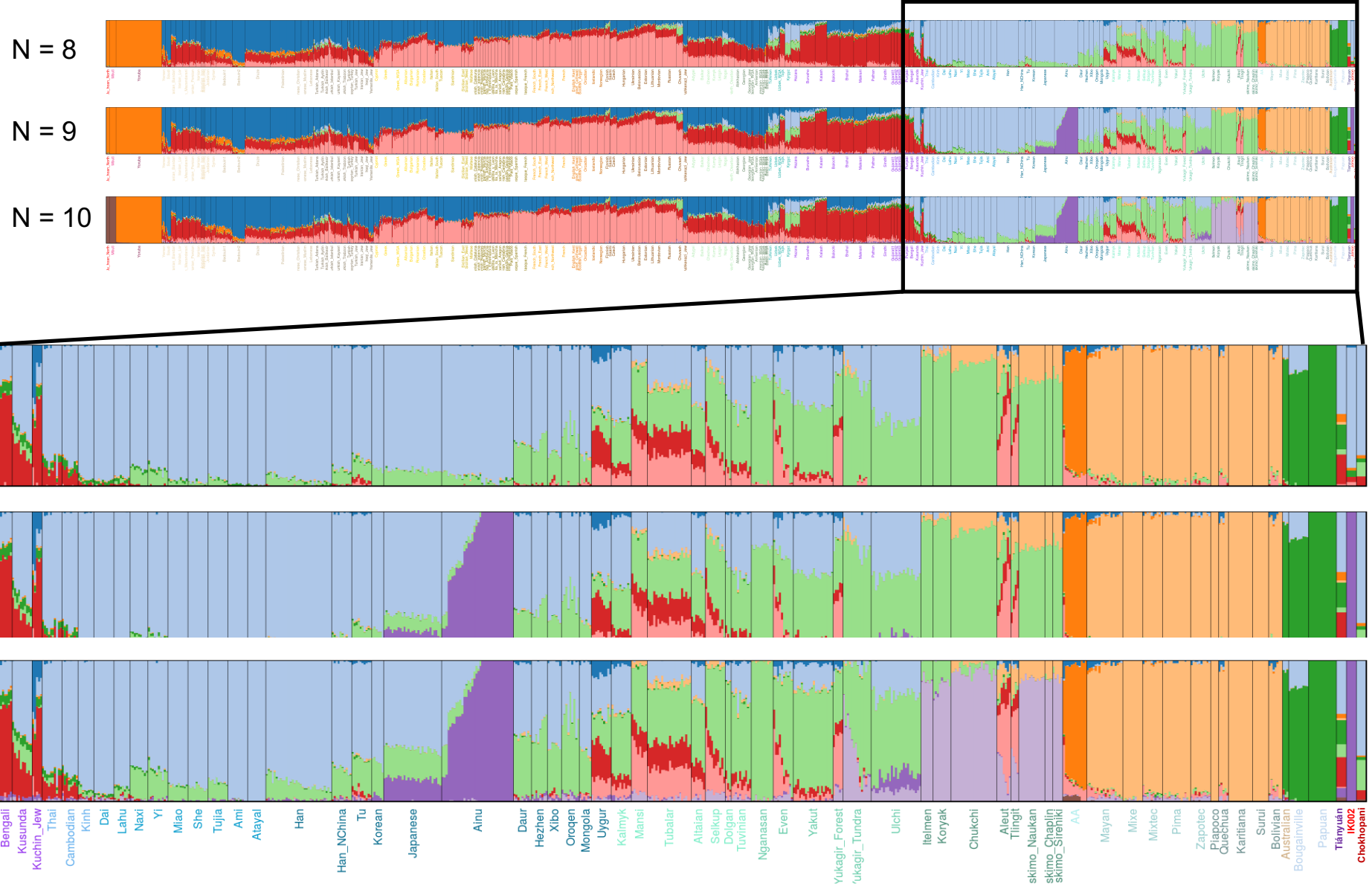


Fig. S6

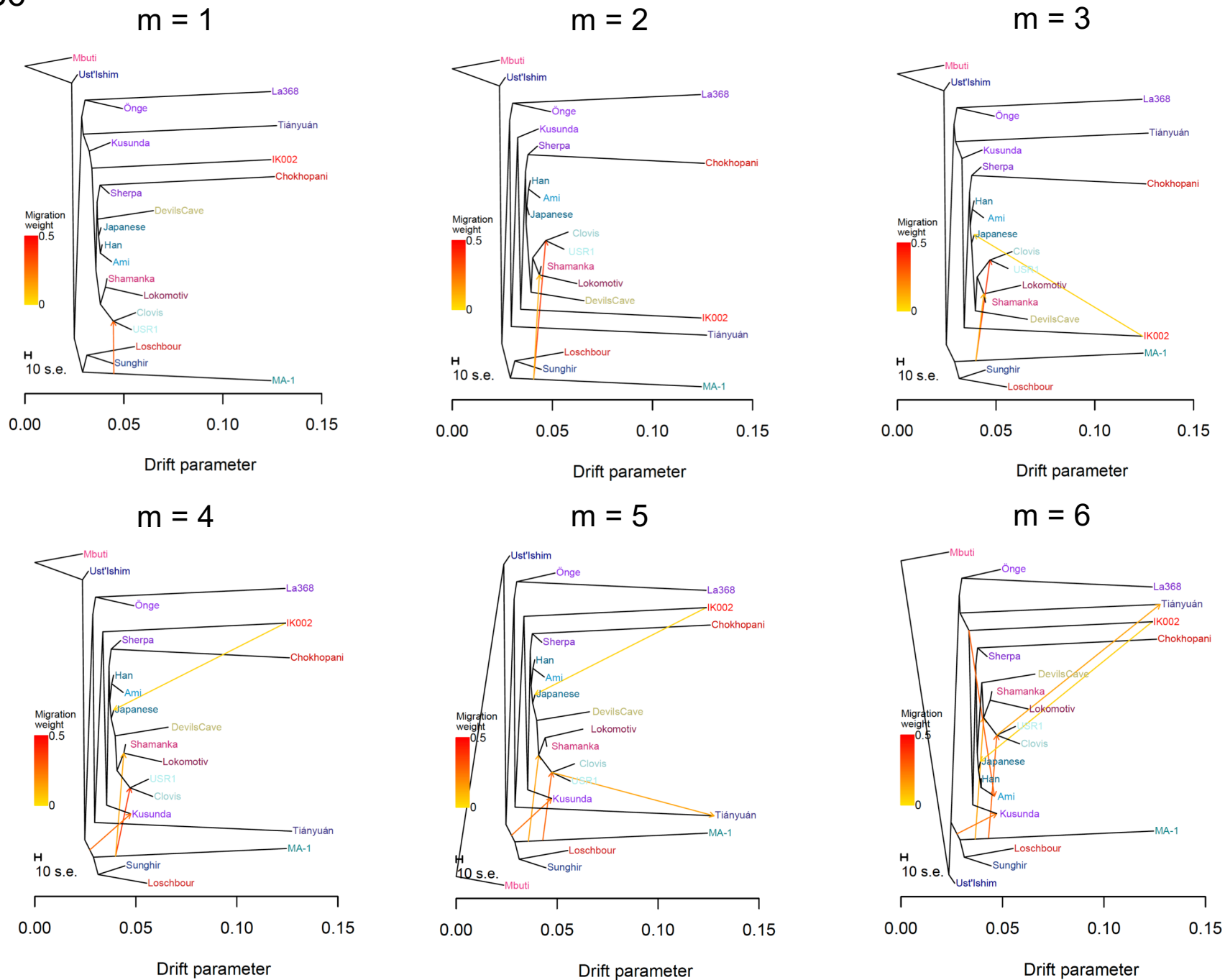


Fig. S7

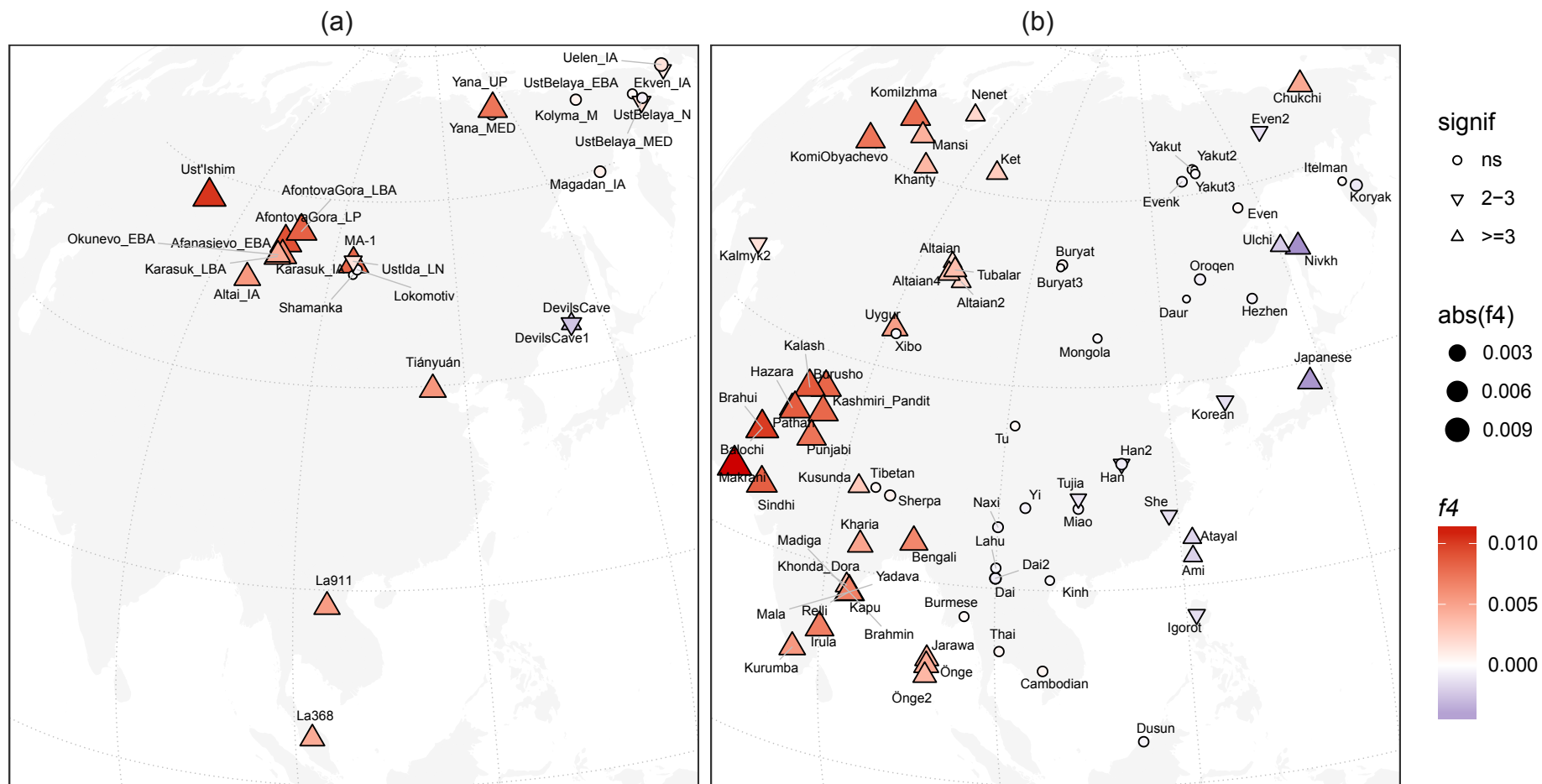


Fig. S8

