

Table S1. Anthropological, genetic and linguistic summary for the studied Siberian native groups.

| Group | Conventional anthropological genesis [64] | Dominant haplogroups [77-81] | Languages (from family to local dialect) [82] |
|-------------------------------|--|---|---|
| Altaians (Southern) | Turks and Siberian Mongols; ~ 1 st millennium BCE | Y-chromosome: R1a1 (60%), N (10%), O (6%), D (5%), Q (4%), C3 (2%) Mt DNA: C, U, D | Turkic → Common Turkic → Kipchak → East Kipchak → Southern Altai |
| Teleuts | Northern sub-ethnos of Altaians; ~ 4 th century CE | Y-chromosome: R1a1 (34%), R1b (31%), N1c1 (26%), C3d (5%) | Turkic → Common Turkic → Kipchak → East Kipchak → Southern Altai |
| Kazakhs (Altaian) | Turks, South-Siberian Mongoloid tribes, Middle Eastern Arabic; ~13–15 centuries CE | Y-chromosome: C2 (43%), G1 (12%), R1a (11%), R1b (6%), J2 (6%), O (5%), N1 (5%) | Turkic → Common Turkic → Kipchak → South Kipchak → Kazakh |
| Tuvans | Middle Eastern Turk tribes, Xiongnu (or Hunnic, ancient Chinese Mongoloid tribes); ~ 1 st millennium BCE | Y-chromosome: N1b (25%), N1c1 (19%), C3 (16%), Q (14%), R1a1 (12%), R1b (3%) | Turkic → Common Turkic → South Siberian Turkic → Sayan → Tuvinian |
| Khants | Ugric, circumpolar paleo-Mongoloids (ancient aborigines), ~ 4 th century BCE – 2 nd century CE | Y-chromosome: N1b (57%), Q1a3 (21%), R1a1 (14%), N1c1 (7%) | Uralic → Khantyic → West Khanty → Northern Khanty → Suryksarar Khanty |
| Komi | Finno-Ugric; ~ 1 st millennium BCE | Y-chromosome: R1a1 (60%), N1 (33%), R1b1 (5%), J2 (2%) Mt DNA: H, U, T | Uralic → Permian → Komi → Komi-Zyrian |
| Nenets | Samoyedic (Uralic Ugric), circumpolar paleo-Mongoloids (ancient aborigines), ~ 1 st –2 nd millennia CE (?) | Y-chromosome: N1b (56,8%), N1c (40,5%), R1a1 (5%), Q (1,4%) | Uralic → Samoyedic → Enets-Nenets → Nenets → Tundra Nenets |
| Selkups | Eastern Samoyedic (Ugric), ~ 6 th century CE | Y-chromosome: Q (66,4%), R1a1 (19%), N1b (6,9%), R1b (6,1%) | Uralic → Samoyedic → Kams-Selkup → Selkup |
| Kets | Yenisean (from Yenisei River) paleo-Mongoloids, Samoyedic (Ugric); ~ 1 st –2 nd millennia CE | Y-chromosome: Q1a3 (84%), N1c1 (8%), N1b (4%), R1a1 (4%) Mt DNA: U, M, C, H, A | Yenisean → Northern Yeniseian |
| Nganasans | Polar Samoyedic; ~ 18 th century CE | Y-chromosome: N1b (92%), C (5%), O (3%) | Uralic → Samoyedic → Nganasan |
| Dolgans | Northwestern sub-ethnos of Yakuts (see below); ~ 19 th century CE | Y-chromosome: C3c (35%), N3 (25%), E (5%) Mt DNA: C (55%), D (18%), F (5%) | Turkic → Common Turkic → North Siberian Turkic → Dolgan |
| Yakuts | Evenks (ancient Tungus and paleo-Mongoloid derived tribes), Turks; ~10 th –16 th centuries CE | Y-chromosome: N3a (89%), R1a1 (3,7%), N2 (2,75%), C3xV77 (1,8%), C3c (1,8%) Mt DNA: C, D | Turkic → Common Turkic → North Siberian Turkic → Sakha |
| Buryats | Northern Mongols (Xiongnu-derived peoples after later Uighur [Eastern Turkic] influence); ~6 th –12 th centuries CE | Y-chromosome: N1 (48%), C3 (40%), R1a1 (4%) Mt DNA: D, C | Mongolic → Eastern Mongolic → Oirat-Khalkha → Khalkha-Buriat → Buriat → Russia Buriat |
| Chukchi | Northeastern paleo-Mongoloids (likely share common ancestors with Native Americans); ~4 th –3 rd millennia BC | Y-chromosome: N1c1 (61%), Q (24%), C3 (15%) Mt DNA: A, C, D | Chukotko-Kamchatkan → Chukotian → Chukchi |