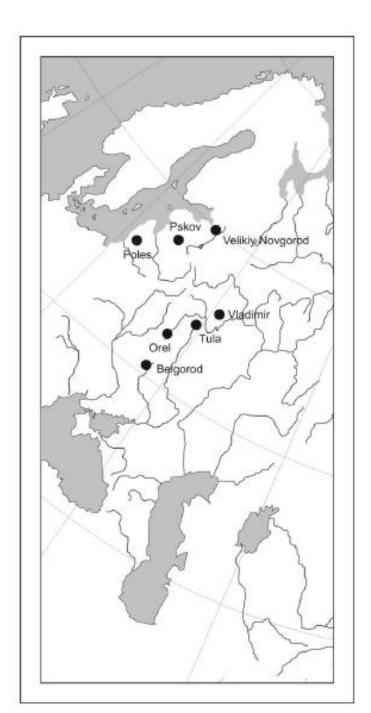
Mitogenic diversity in Russians and Poles

Natalia Morozova



476 samples (376 Russian and 100 Polish)

Whole mtDNA instead of HVS

Table 1

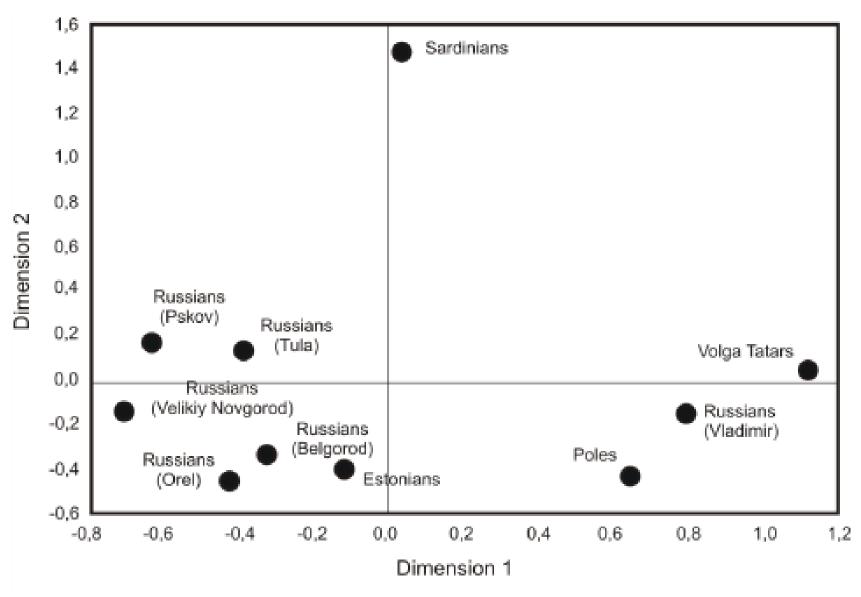
Summary statistics for Russians, Poles, Estonians, Volga Tatars and Sardinians based on complete mitogenome sequences

Population	N	k	s	Haplotype	Nucleotide	MPD	Tajima's D (p
				diversity	diversity		value)
Russians:	376	361	1097	1 ± 0	0.0018 ± 0.0001	29.02	-2.57 (< 0.001)
Belgorod	64	64	437	1 ± 0.003	0.0018 ± 0.0001	30.18	-2.39 (< 0.01)
Orel	48	48	310	1 ± 0.004	0.0017 ± 0.0001	28.4	-2.18 (< 0.01)
Tula	59	59	418	1 ± 0.003	0.0018 ± 0.0002	29.38	-2.42 (< 0.01)
Vladimir	73	71	433	0.999 ± 0.002	0.0019 ± 0.0001	31.38	-2.27 (< 0.01)
Pskov	68	66	368	0.999 ± 0.003	0.0016 ± 0.0001	26.88	-2.29 (< 0.01)
Velikiy	64	63	404	1 ± 0.003	0.0017 ± 0.0001	27.99	-2.39 (< 0.01)
Novgorod							
Poles	100	97	582	0.999 ± 0.002	0.002 ± 0.0001	32.48	-2.43 (< 0.01)
Estonians	119	106	481	0.999 ± 0.001	0.0017 ± 0.0001	27.93	-2.33 (< 0.01)
Volga Tatars	73	68	507	0.998 ± 0.003	0.0021 ± 0.0001	35.2	-2.33 (< 0.01)
Sardinians	63	50	234	0.992 ± 0.004	0.0015 ± 0.0001	24.31	-1.8 (< 0.05)

N – number of individuals in each population; k – number of haplotypes; s – number of polymorphic sites; MPD – mean of pairwise differences between mtDNA sequences.

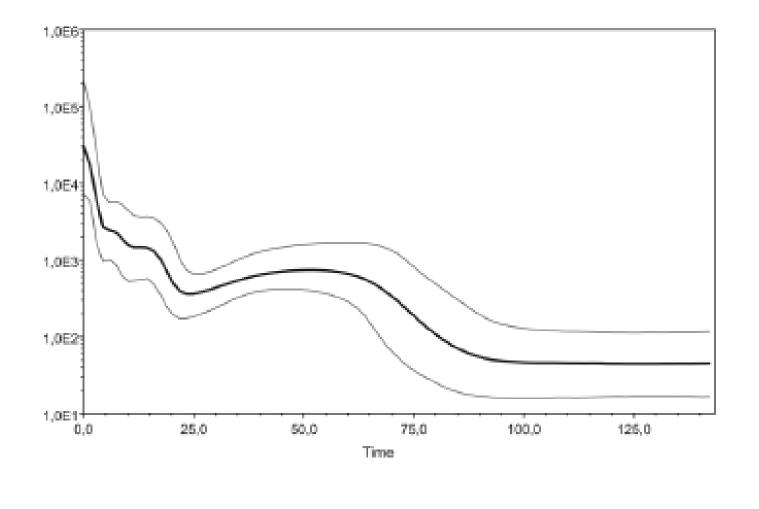
High diversity but low difference between subregions
Contradicts previous studies that show that northern Russians make a separate group that is more closely related to Estonians (possibly large sample sizes and data from more northern regions should be added)
Tajima's D more than -2 point to recent population expansion

DOI: 10.1016/j.fsigen.2017.06.003



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- Episode of rapid population growth starting from ~4.3 kya (95% CI: 2.9-5.8 kya), i.e. in the Bronze Age (Kurgan model)
- Corded Ware culture (also known as the Battle-Axe culture), which flourished 5.2-3.8 kya in eastern and central Europe



Another proof of recent post-Glacial expansion on European territory