

Table S2 Potential scale reduction factor (PSRF) mean, variance and range for each of 200 coalescence times in ARGweaver, the multivariate PSRF (Plummer *et al.* 2006) and the number of coalescence times for each the effective sample size (N_{eff}) is smaller than 100. Unless otherwise noted, mutation rate (μ) and recombination rate (ρ) are 2×10^{-8} and sample sizes (n) are 8 haplotypes.

PSRF	$\mu = \rho$	$\rho = 2 \times 10^{-9}$	$\mu = 2 \times 10^{-7}$	n=4	n=16	n=32
Mean	1.055	1.069	1.211	1.028	1.242	244.152
Variance	0.005	0.010	1.053	0.001	0.233	11613699
Range	0.994 - 1.415	0.994 - 1.709	0.994 - 13.740	0.991 - 1.199	1.001 - 4.847	0.994 - 4.783×10^4
Multivariate Number of $N_{eff} < 100$ (out of 200)	4.92 4	4.29 16	21.2 14	2.78 0	24.9 32	110560 45