



Figure S9: The mean and the variance of an estimator of the population size vs. n . This figure is as Figure S8, except that here the mean (A) and standard deviation (B) of the estimator \hat{N} are plotted vs. the number of individuals n and the population size is fixed, $N = 10000$. For each n , the total sharing between all pairs in a subset of n individuals from each population was averaged to obtain \bar{f} , and then \hat{N} was calculated according to Eq. (38) in the main text. Panel (A) also shows a horizontal line at $\langle \hat{N} \rangle = N$, demonstrating that N is overestimated, but only for small n . Panel (B) also shows the theoretical standard deviation from the main text Eq. (39).