



Supplementary Figure 1: Simulation work under constant population size models. X-axes represent the simulation work under different given ratios of recombination to mutation; y-axes represent the ratio of recombination to mutation ( $\rho/\theta$ ). The four plots represent the results under constant population size models. True values are shown as dotted horizontal broken lines, dots are our estimations, triangles are the average for the seven estimates from loci, and plus signs were calculated from Feil et al.'s method.