



Figure S5 Mean square error (MSE) of the LD estimates for D (A), D' (B) and r^2 (C) for a fixed sequencing effort of 600 reads when $p_{A_1} = 0.9$, $p_{A_2} = 0.9$, $\varepsilon = 0.01$ and the true values of D were $-0.01, 0.03, 0.06$, and 0.09 . The upper and lower bound for D are -0.01 and 0.09 respectively. The dashed lines represents MSE for GUS-LD whereas the solid lines represents MSE for the standard likelihood approach. The number of individuals in the simulated data sets were 300, 150, 100, 75, 60, 40, 30 and 20 at mean read depths of 1, 2, 3, 4, 5, 7.5, 10 and 15 respectively. The MSE of the standard approach for r^2 when $D = 0.09$ is not shown in (C) since the MSE was very large (> 0.25).