

**Table S1** Relative frequency of  $\hat{p}$  over 250 simulations that  $\hat{p} > 0.25$  by Jackknifing and 90% subsampling.

No. of best QTL Effects	1	2	3	4	5	6	7	8
Jackknife	0.052	0.056	0.040	0.052	0.056	0.048	0.052	0.044
90% Subsampling	0.060	0.060	0.056	0.048	0.052	0.052	0.052	0.060
No. of best QTL Effects	9	10	11	12	13	14	15	16
Jackknife	0.048	0.052	0.056	0.064	0.060	0.064	0.060	0.060
90% Subsampling	0.056	0.048	0.044	0.036	0.032	0.032	0.032	0.032