

Identifying loci under selective pressure using a PPP-value classifier

Toby Dylan Hocking

September 17, 2009

1 Introduction

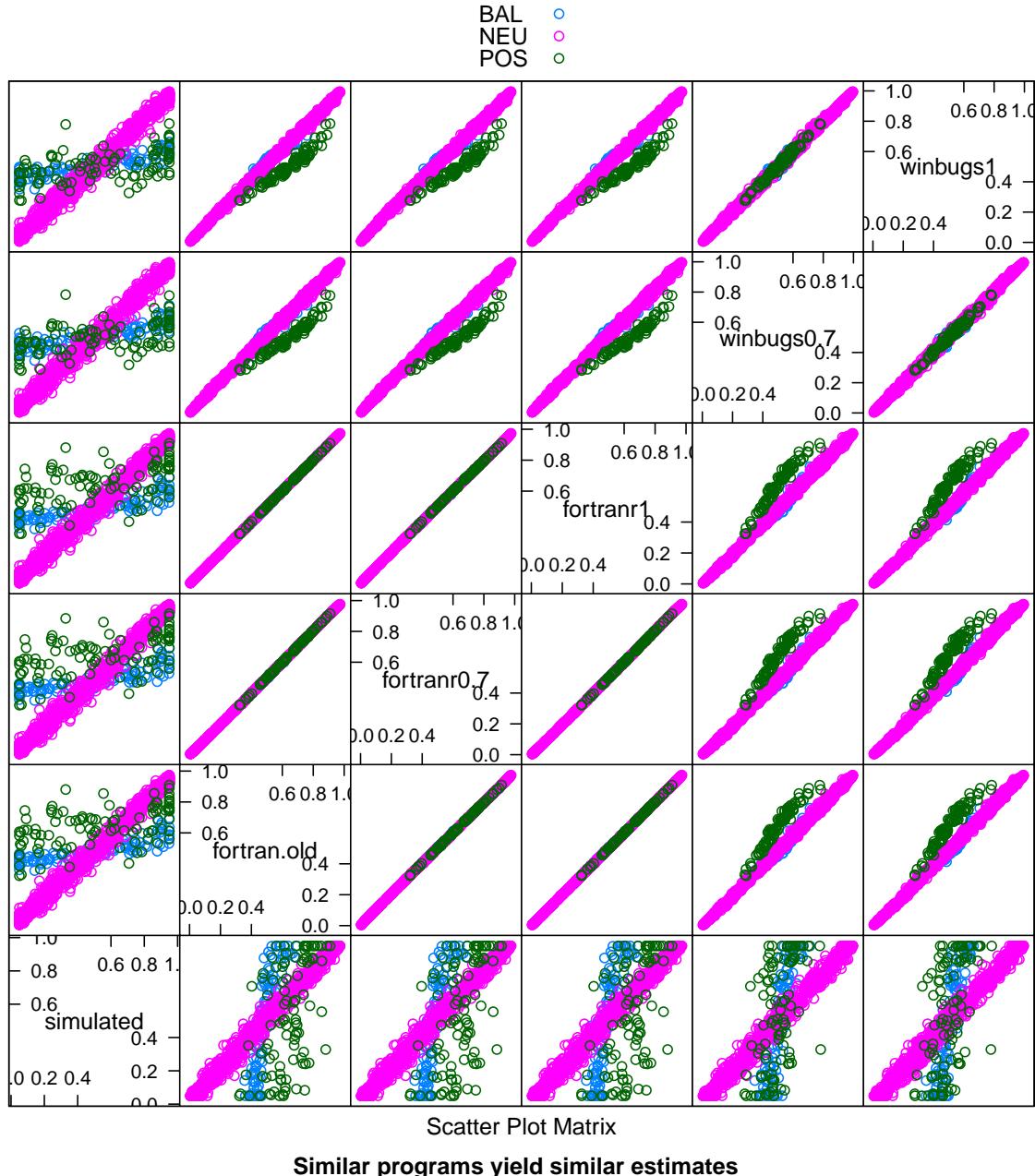
2 Methods

3 Results

4 Conclusions



Beta parameters do not explain discrepancy between estimates



Allele frequency estimates vary with selection type

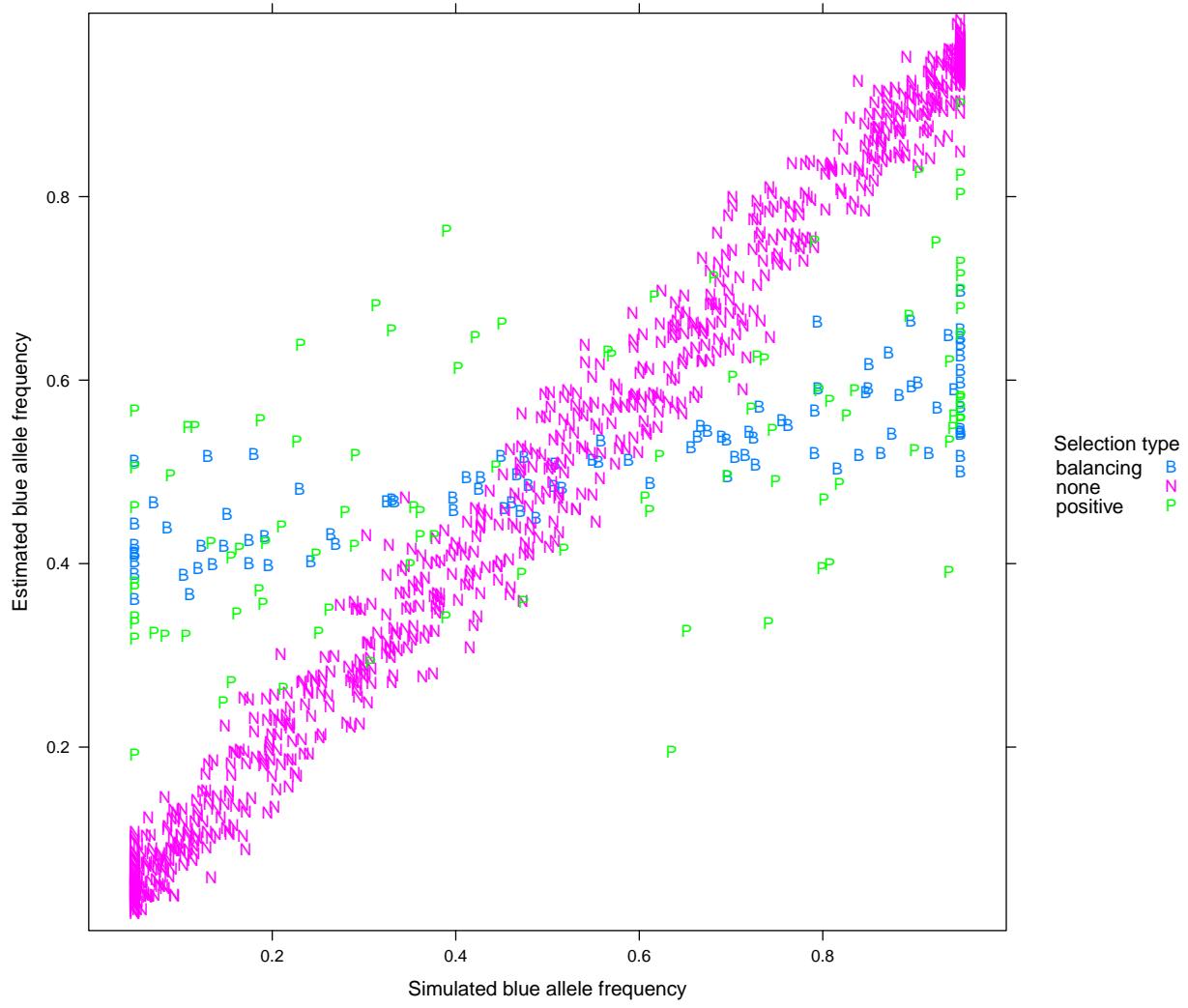


Figure 2: foo

$\beta(0.7, 0.7)$ probabilities
1500 simulated values of allele frequency

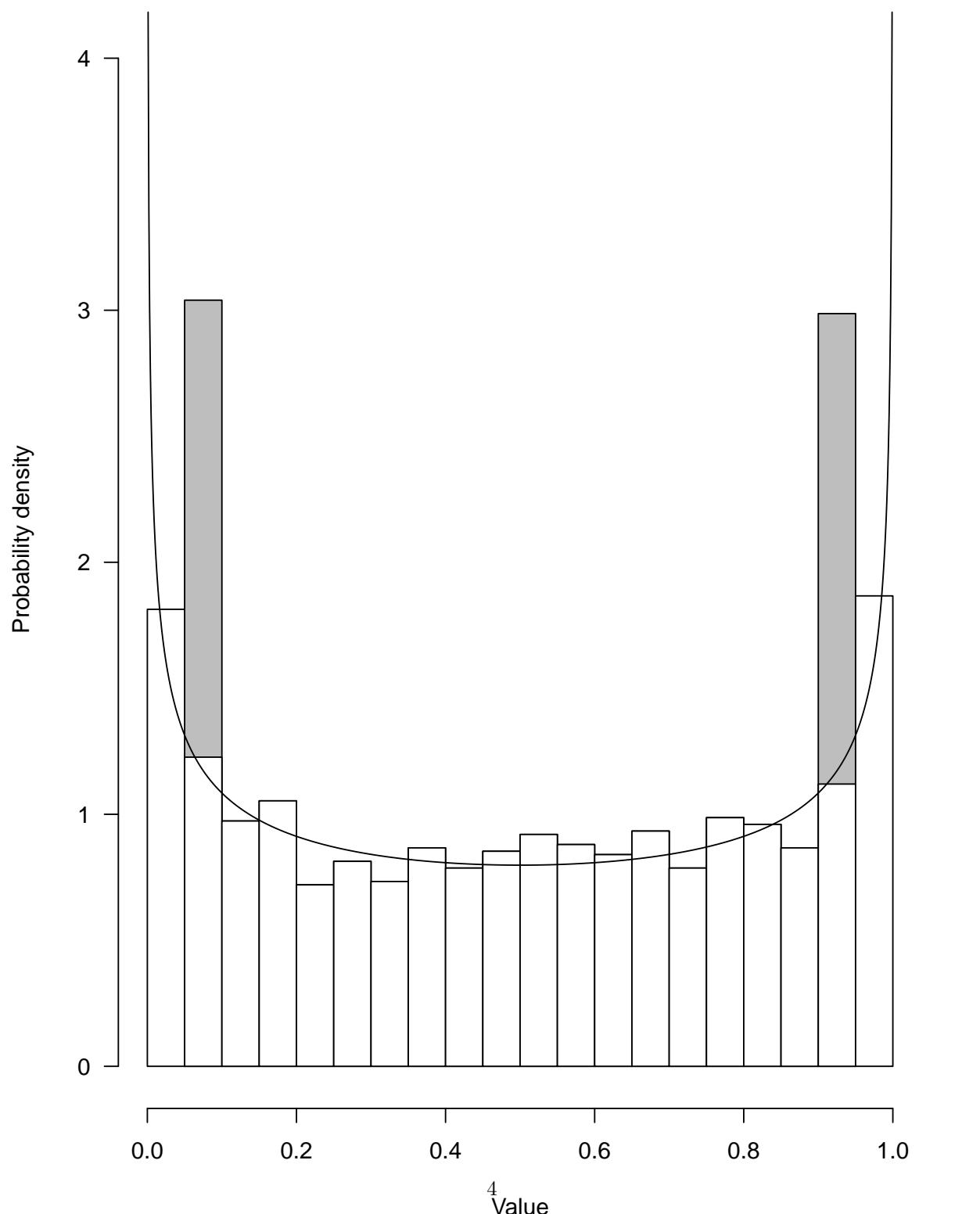


Figure 3: foo

Differentiation parameter c depends on population size and time

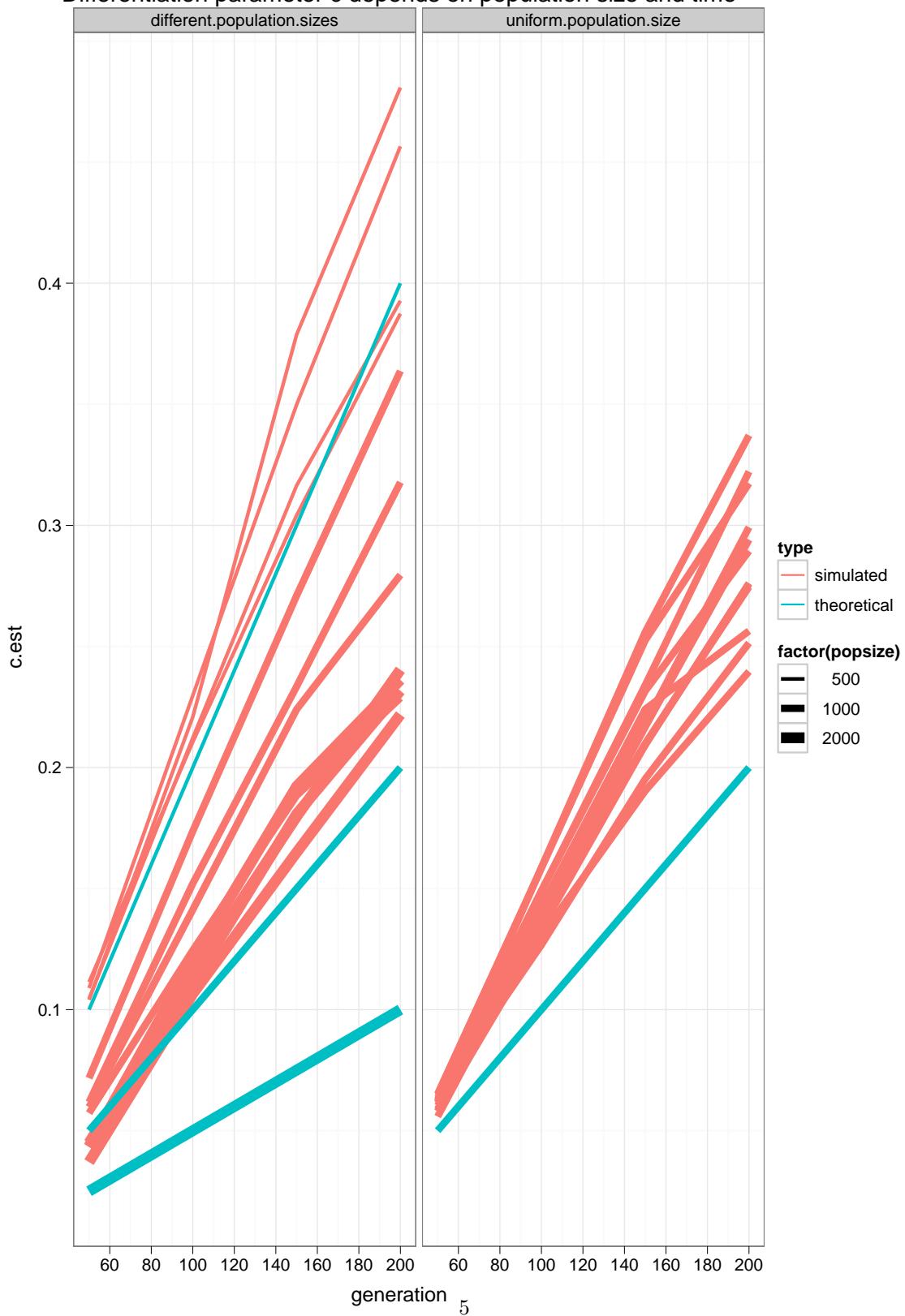


Figure 4: foo

Differentiation parameter c depends on population size

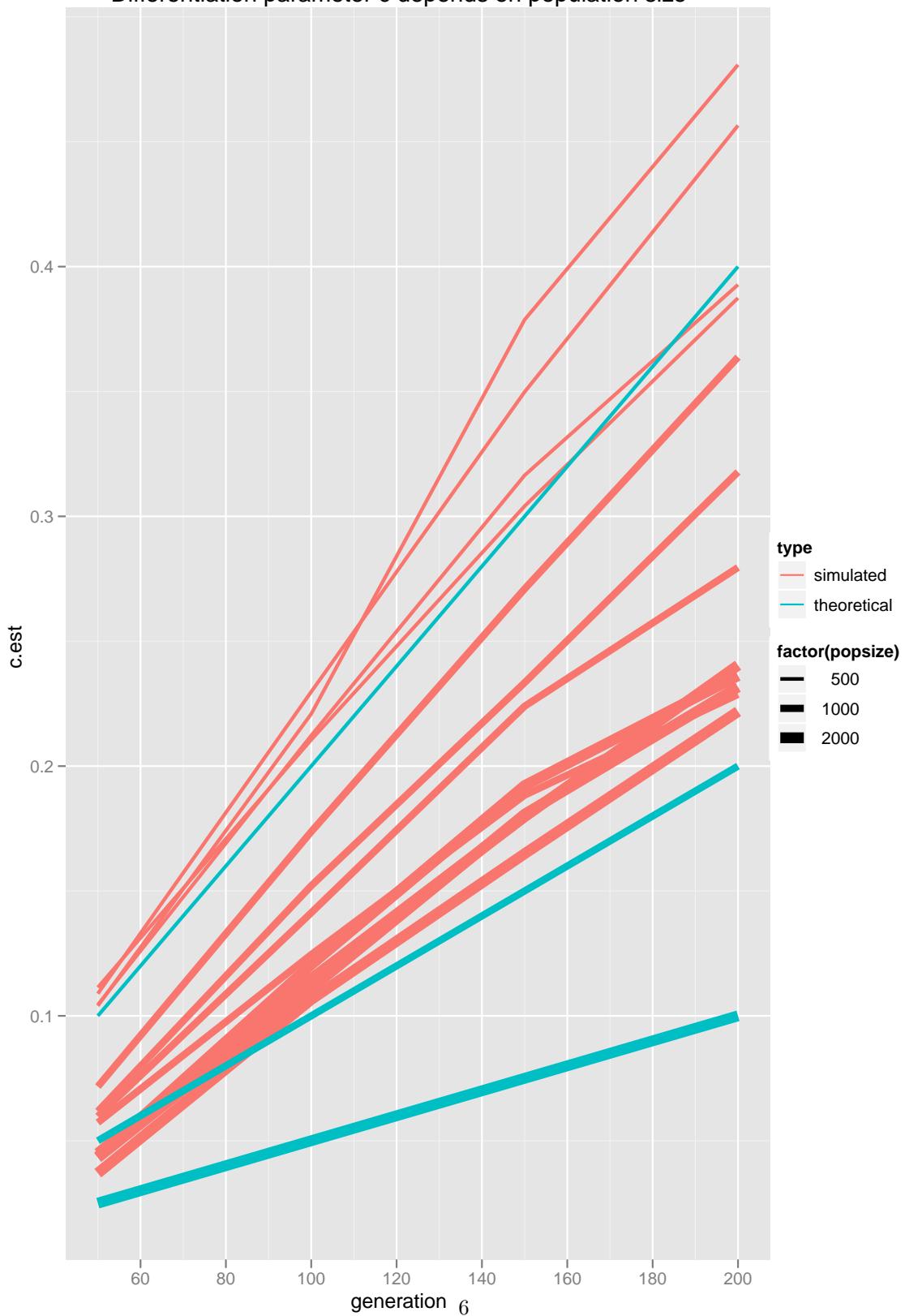


Figure 5: foo

Differentiation parameter c increases linearly over time

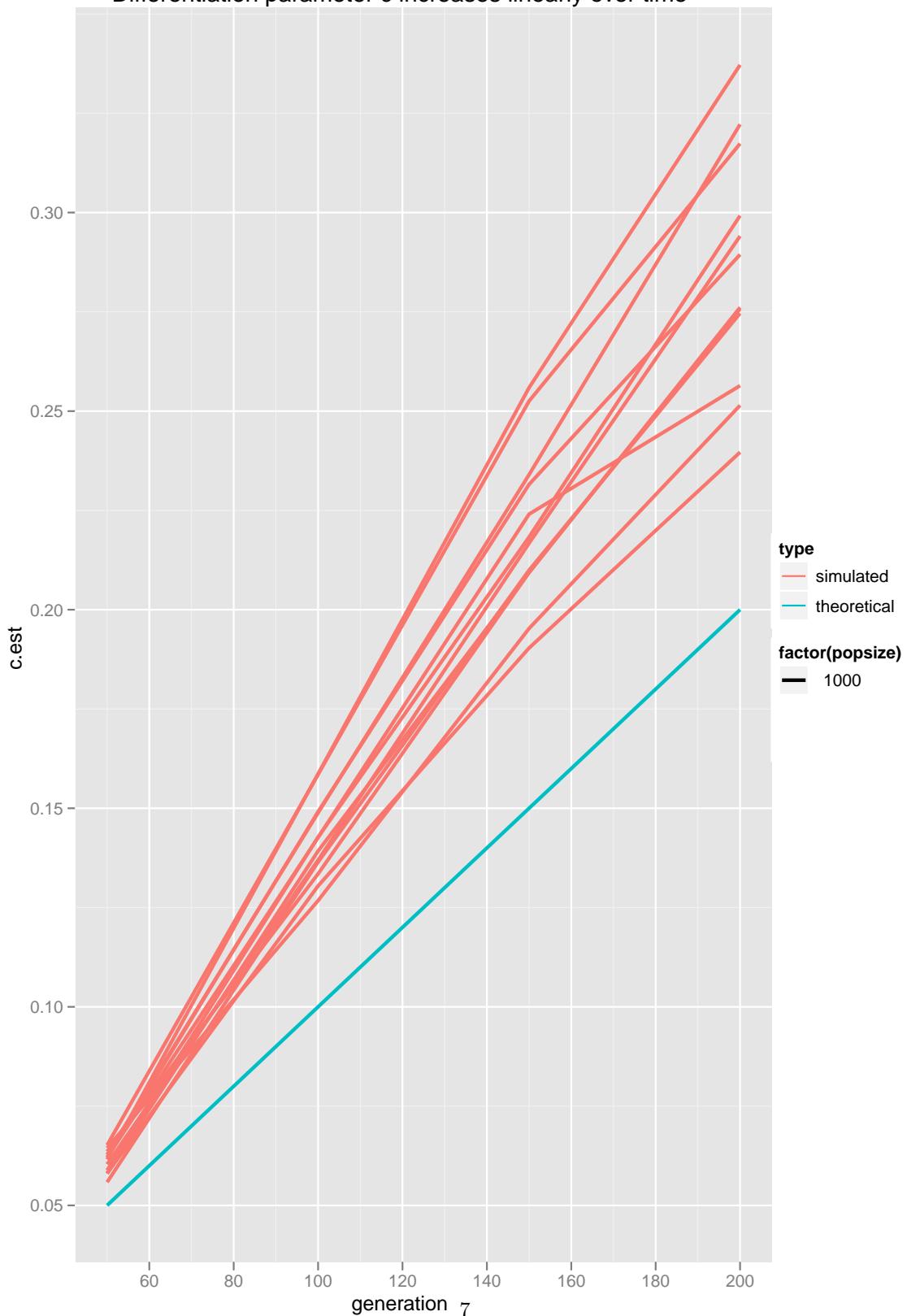
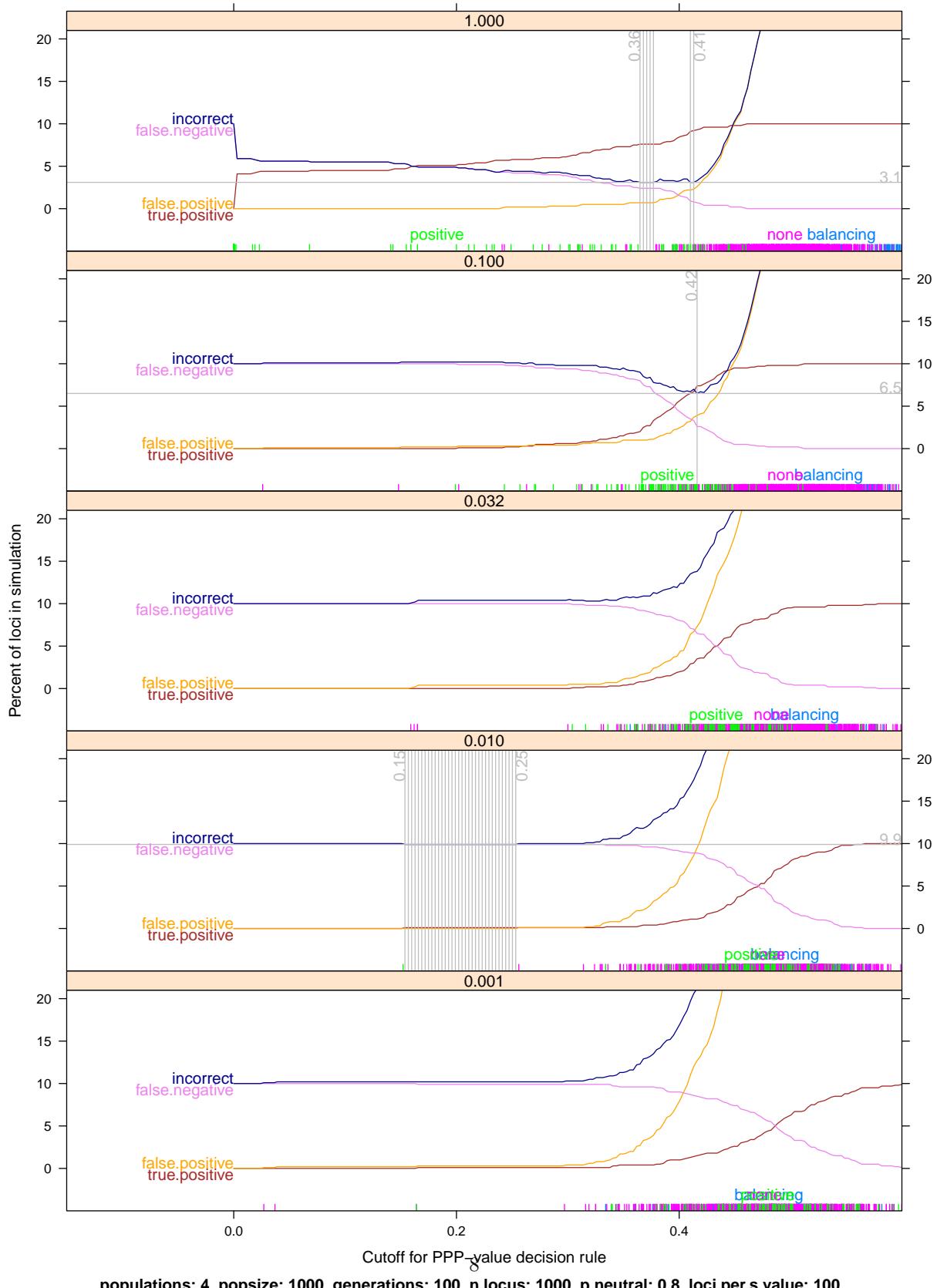


Figure 6: foo

Prediction rates change with PPP-value cutoffs



populations: 4 popsize: 1000 generations: 100 n.locus: 1000 p.neutral: 0.8 loci.per.s.value: 100

Figure 7: foo

Prediction rates change with PPP–value cutoffs

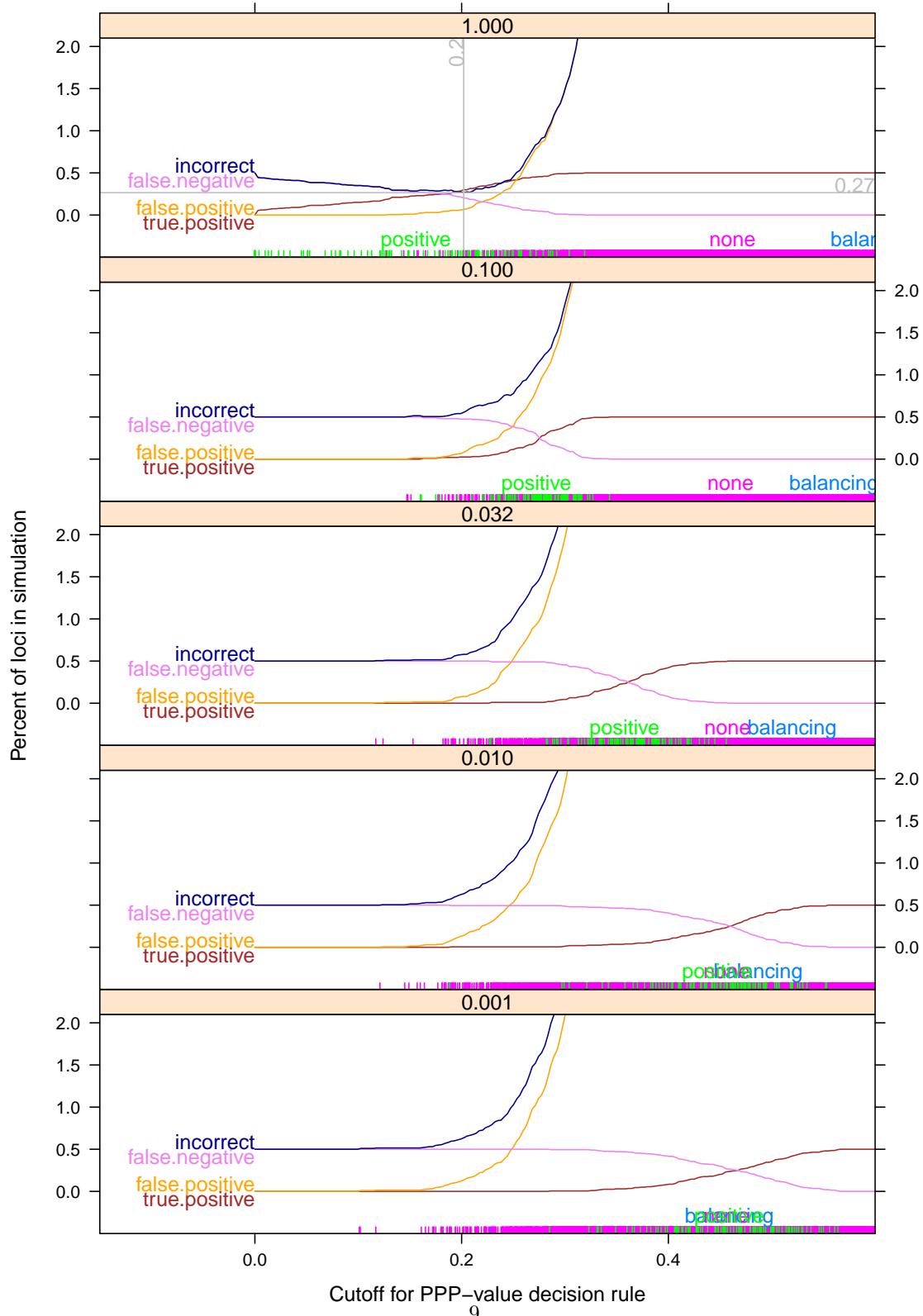
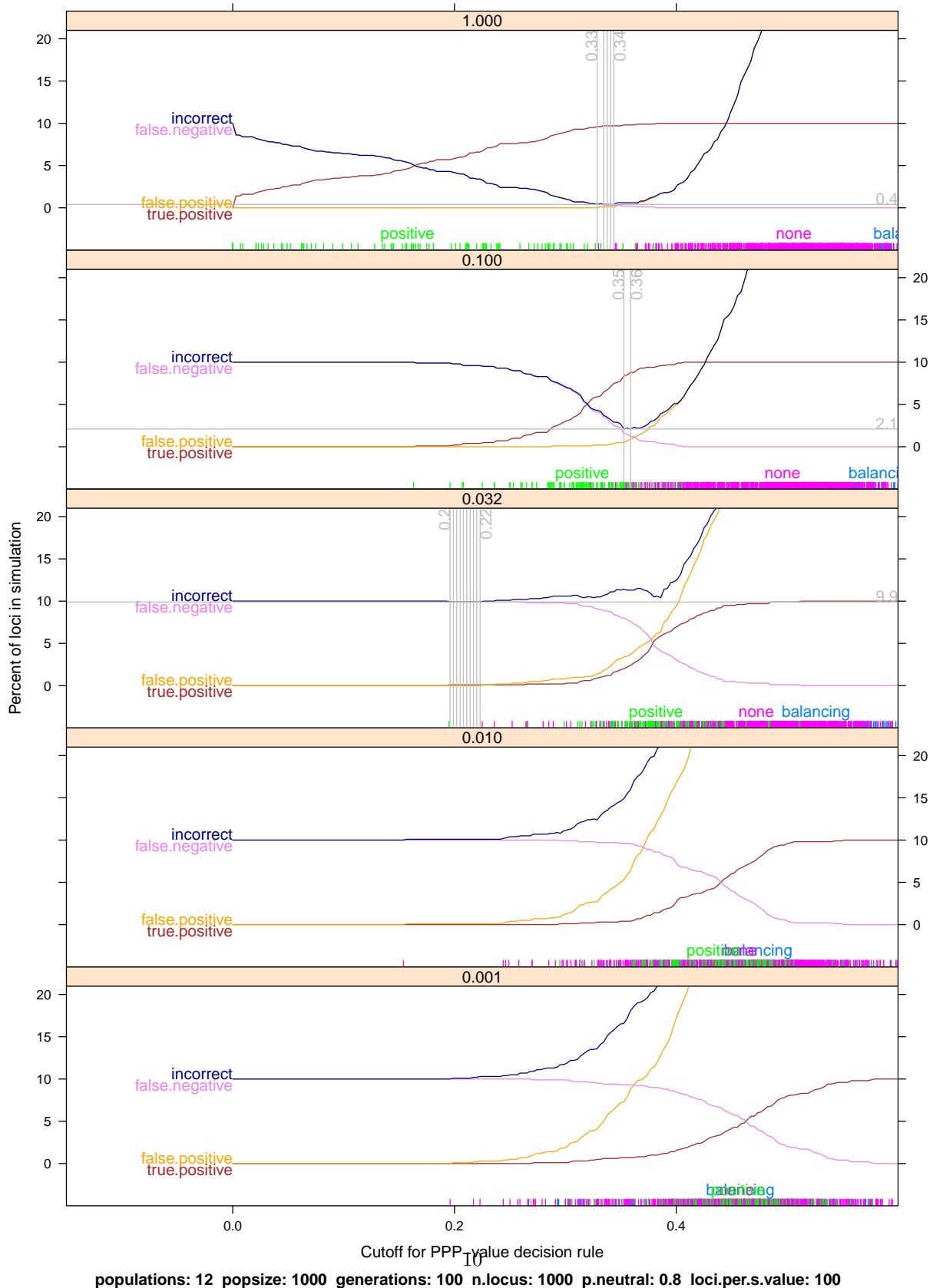


Figure 8: foo

Prediction rates change with PPP-value cutoffs



populations: 12 popsize: 1000 generations: 100 n.locus: 1000 p.neutral: 0.8 loci.per.s.value: 100

Figure 9: foo

Small PPP-values indicate strong positive selection

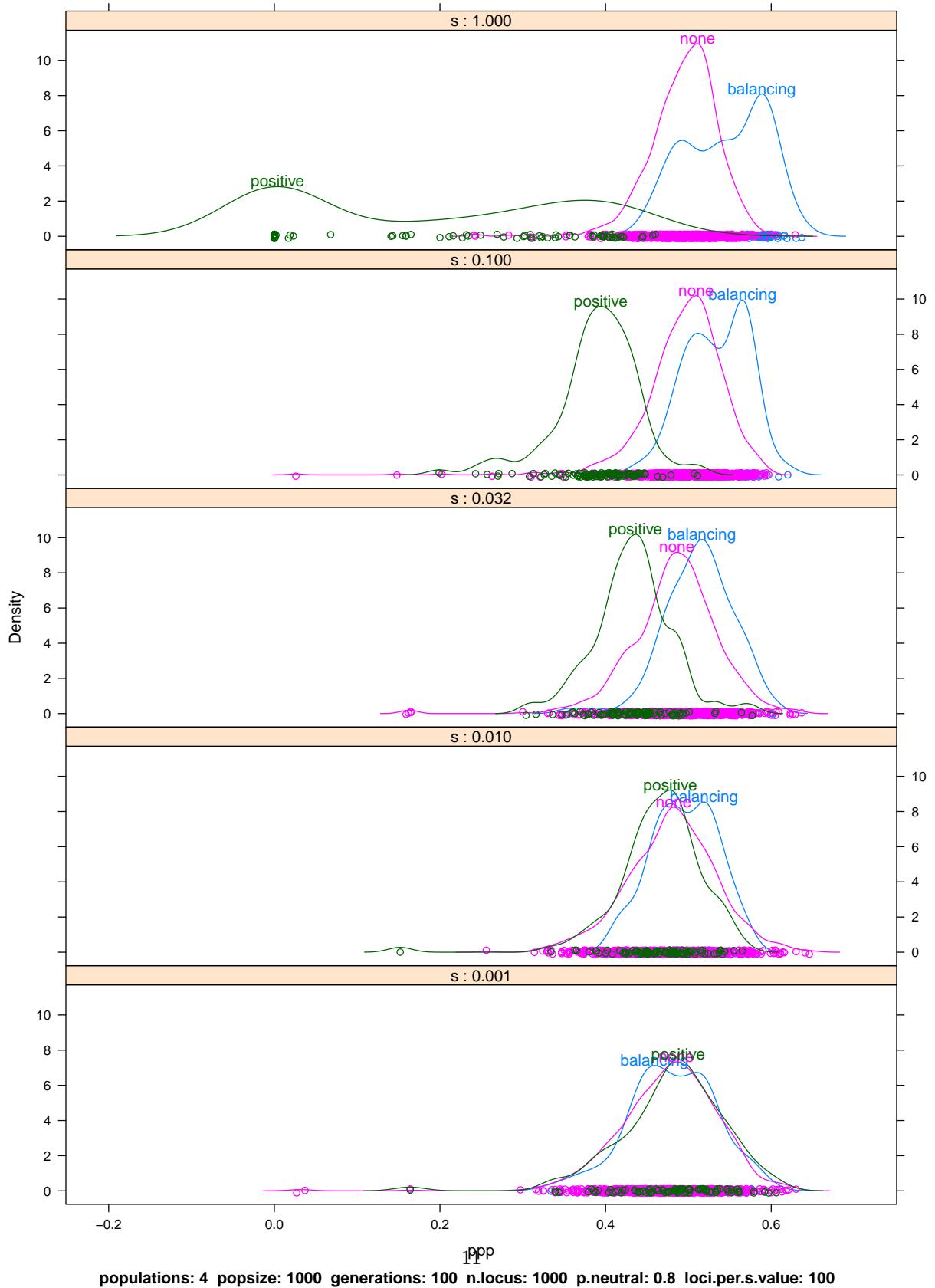


Figure 10: foo

Small PPP-values indicate strong positive selection

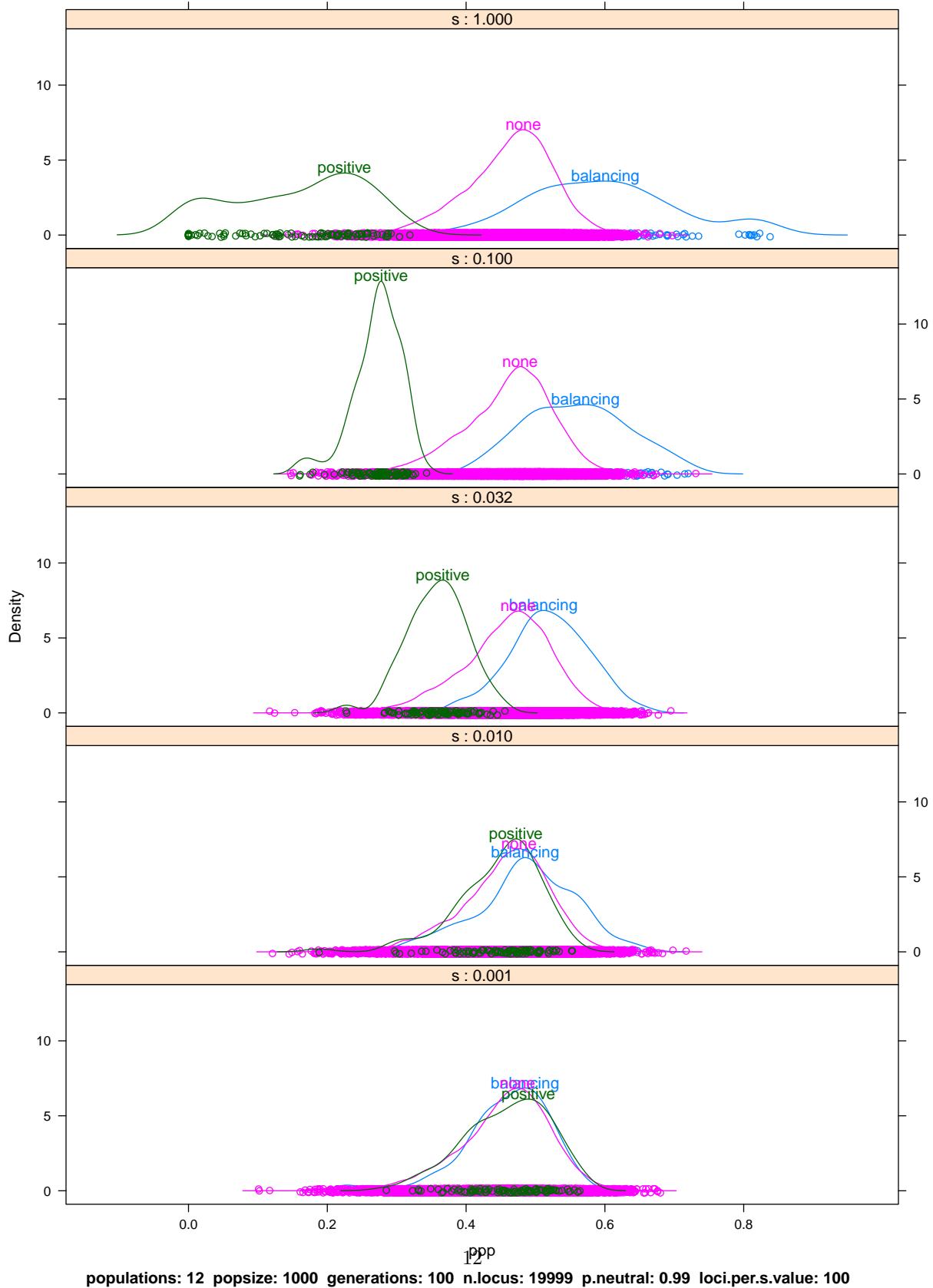


Figure 11: foo

Small PPP-values indicate strong positive selection

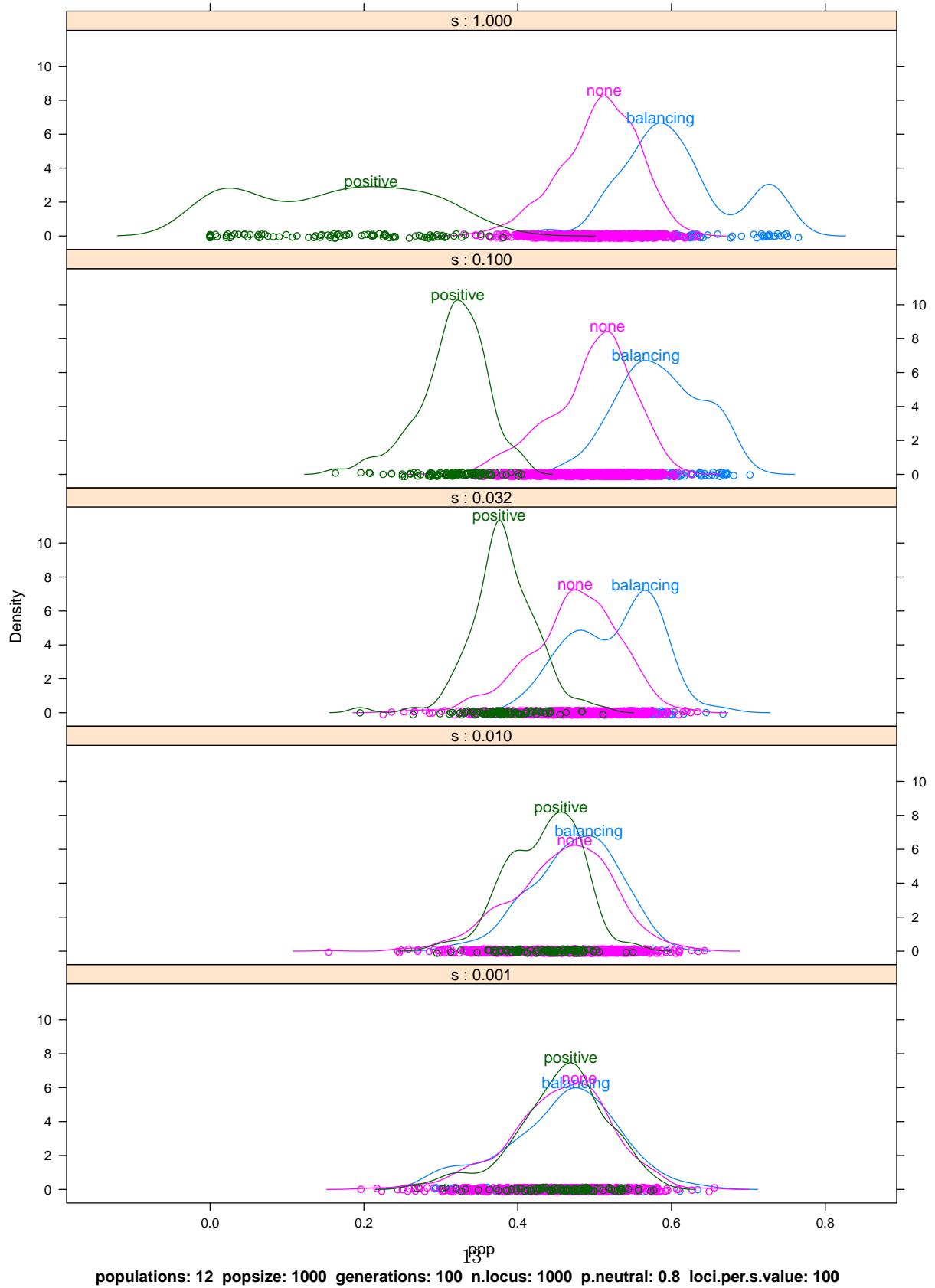


Figure 12: foo

Loci fixation depends on selection type and population color

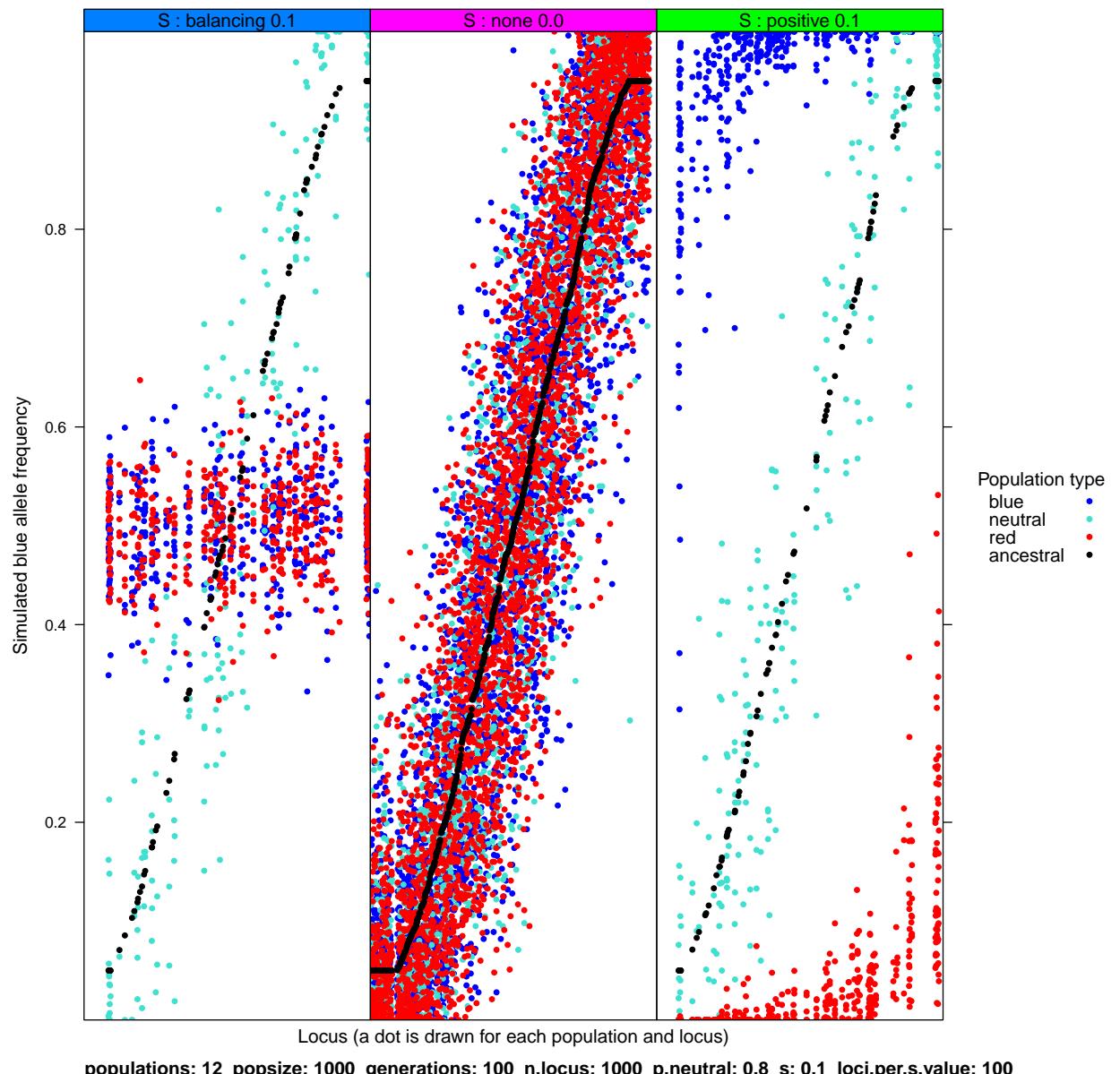


Figure 13: foo

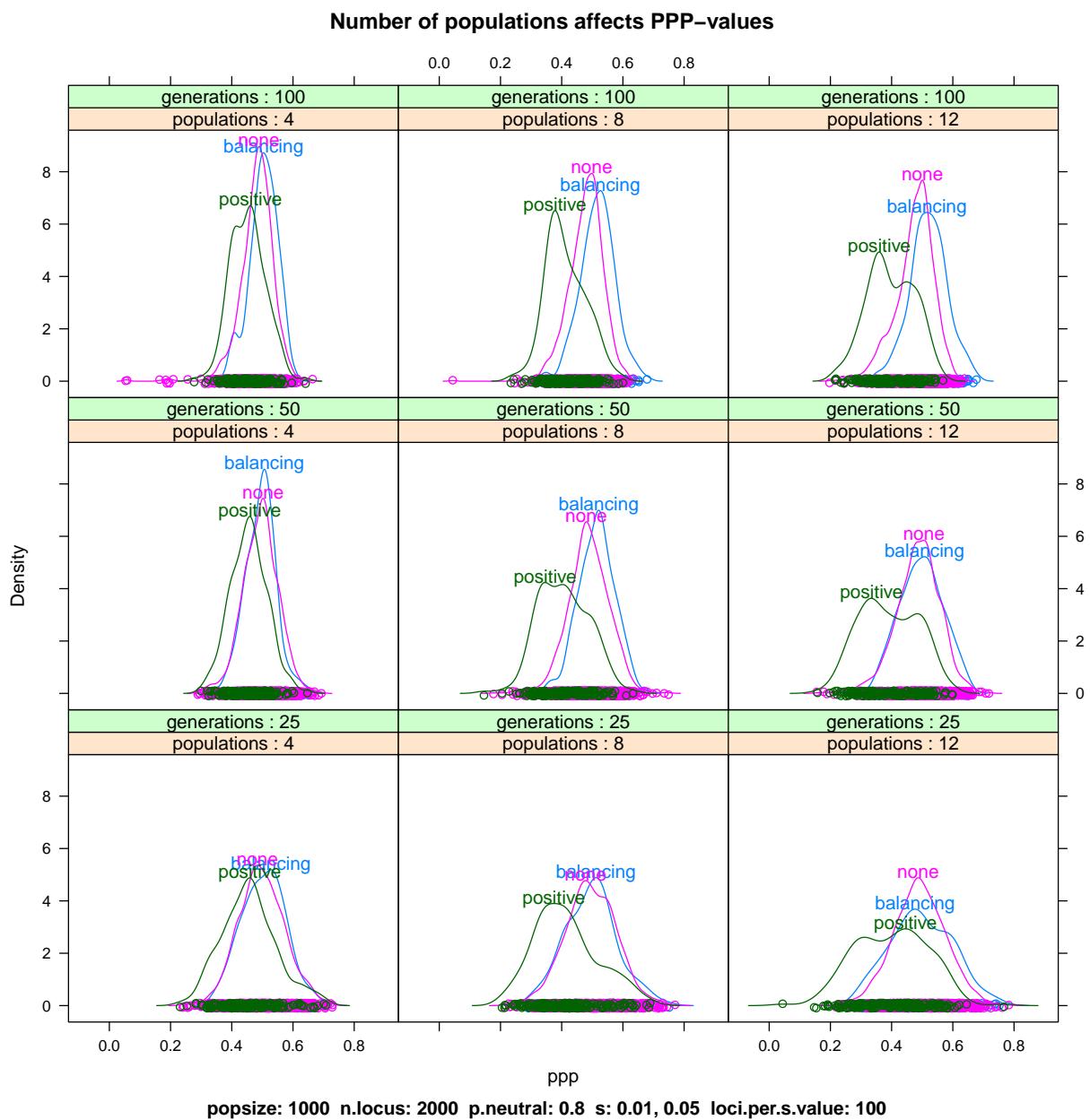


Figure 14: foo

More generations and fewer populations increases estimate variability

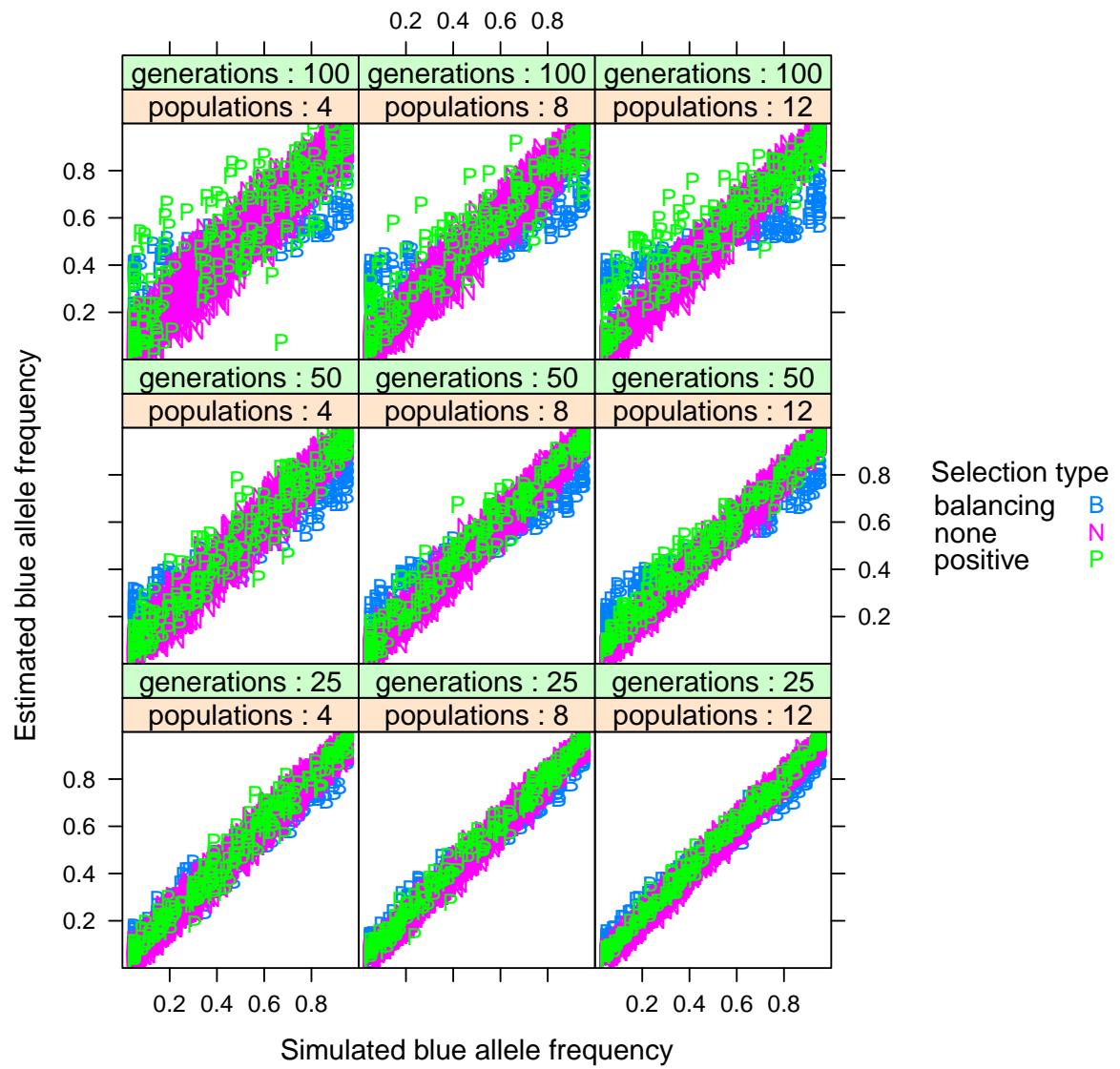


Figure 15: foo

PPP–value classifier depends on populations and generations

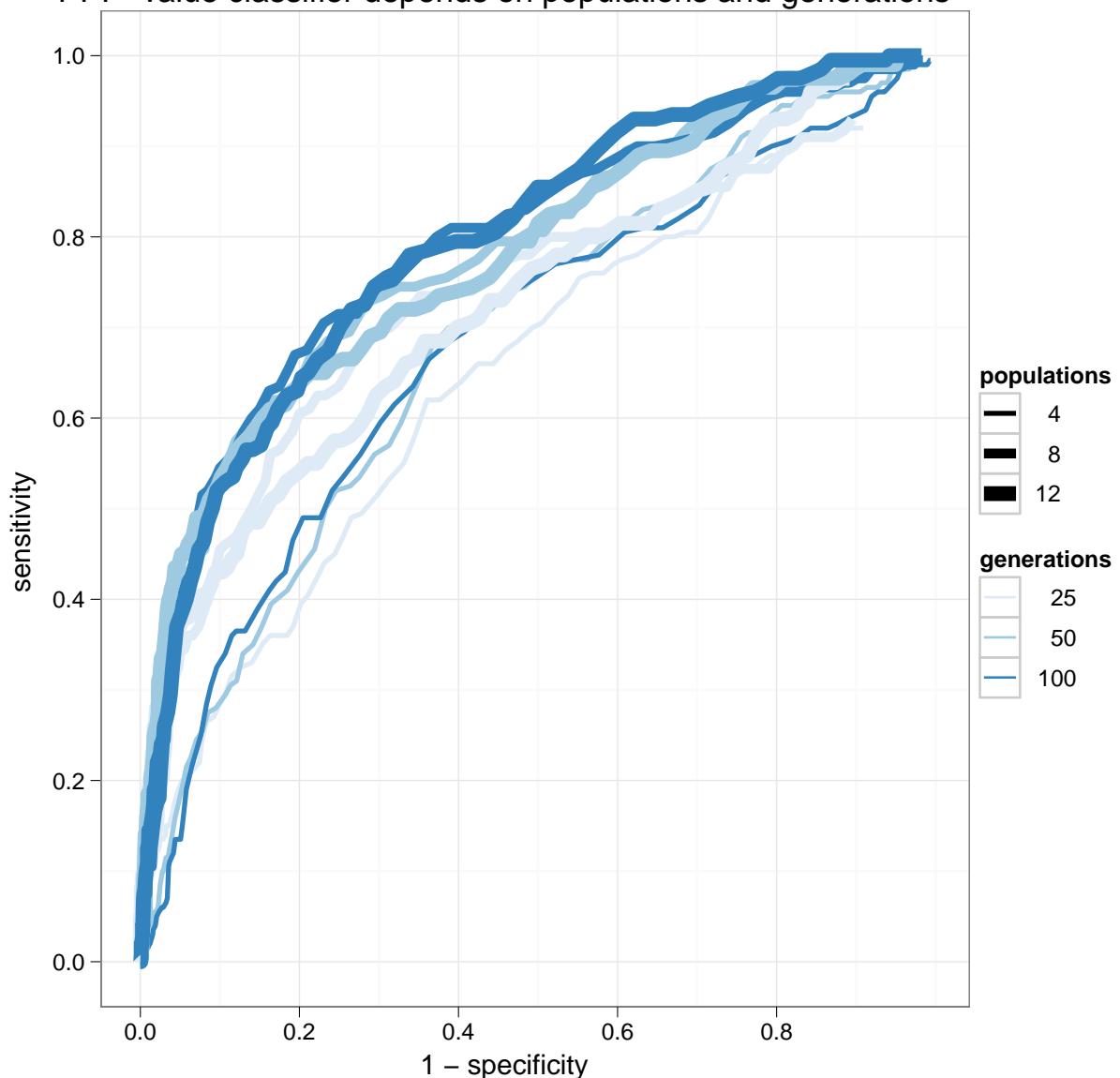


Figure 16: foo

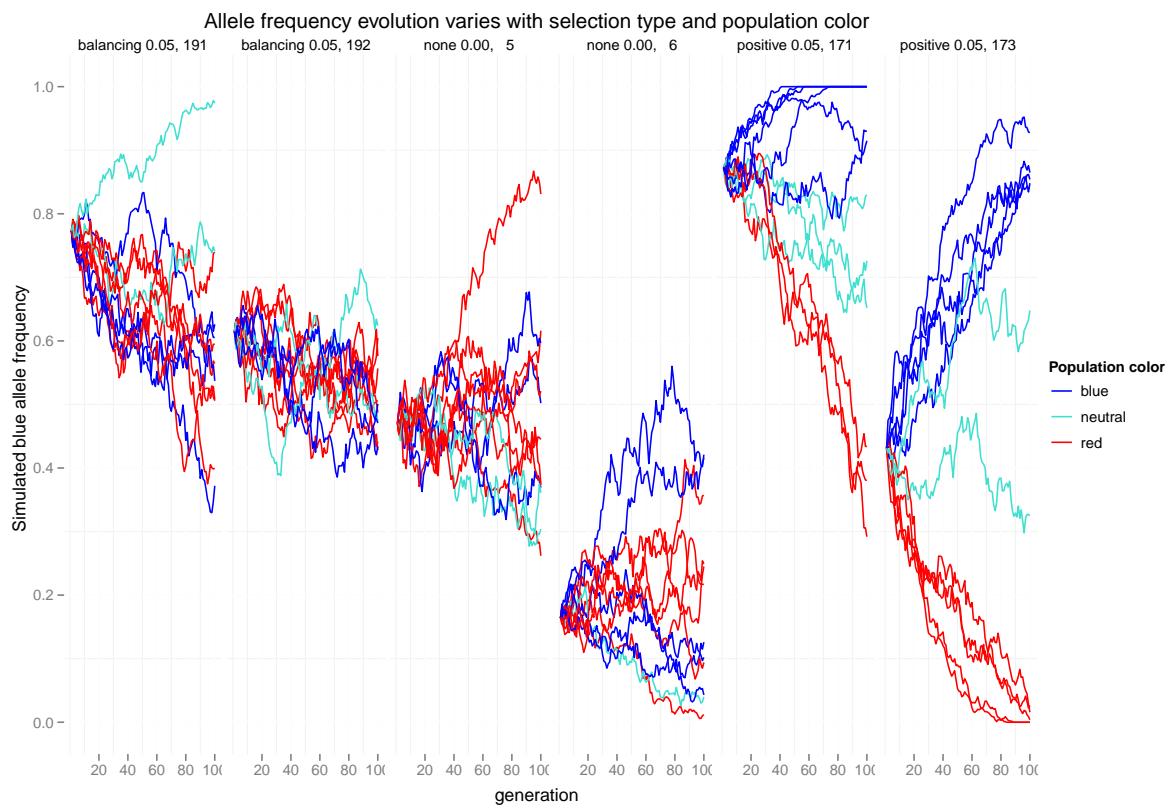


Figure 17: Allele frequency evolution of 6 loci in 12 populations over 100 generations.

ROCs vary with selection strength

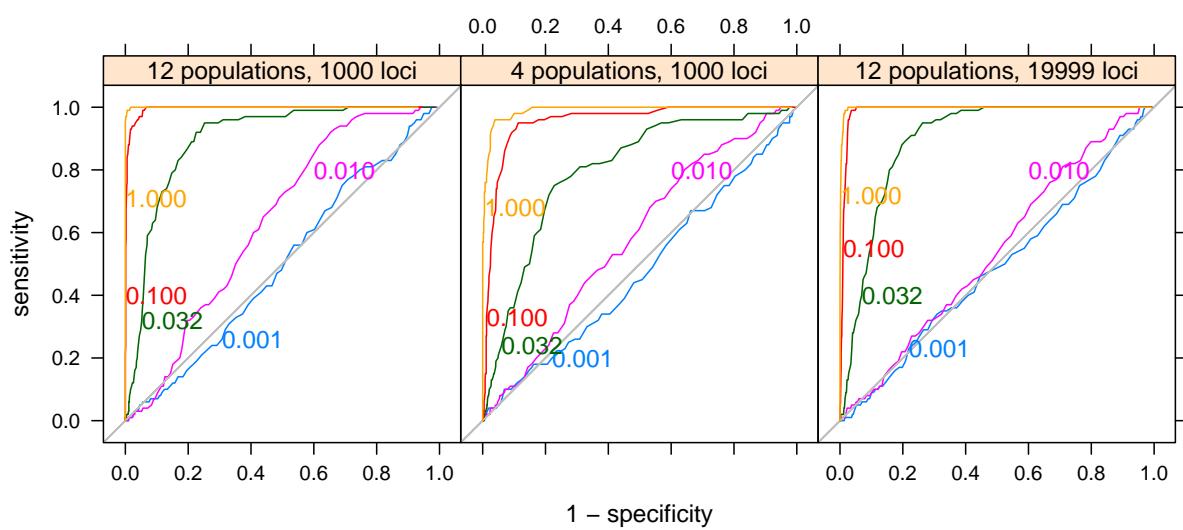


Figure 18: foo