

**Figure S1** Mechanisms of balancing selection, and their relative probabilities, for n = 5, and h = 0.25. For each parameter set  $(z_m, z_f, \rho_{sel}, \rho_{mut})$ , 100,000 balanced polymorphisms were randomly generated using the simulation approach described in the main text and in the Fig. 4 legend, but with small mutations using  $E[r] = 0.05n^{0.5}$  and large mutations using  $E[r] = 0.4n^{0.5}$  (these values correspond to male-specific scaled sizes of  $E[x_m] = 0.25$ , and  $E[x_m] = 2$ , respectively).