

Table S1 Possible pairs of parents for a random individual in the hybrid population H at generation g , and their probabilities. Note that at generation 0, $h_0 = 0$ because the hybrid population is not yet formed. The indices i and j represent distinct populations.

Populations of origin of the parents of a random individual in population H at generation $g \geq 1$	Probability
S_i and S_i	$s_{i,g-1}^2$
S_i and H (or H and S_i)	$2s_{i,g-1}h_{g-1}$
S_i and S_j (or S_j and S_i)	$2s_{i,g-1}s_{j,g-1}$
H and H	h_{g-1}^2
S_j and H (or H and S_j)	$2s_{j,g-1}h_{g-1}$
S_j and S_j	$s_{j,g-1}^2$