Local Adaptation Model

ENV 1

Fitness

qg  Aq  AA

ENV 2

bb  Bb  BB

qg  Aq  AA

crosses lead to low fitness Aq Bb hybrids
Dobzhansky-Muller Model

Fitness

Starting pop: \( \text{aagbb} \)

Mutation: \( \text{Aabb} \) → \( \text{agBB} \)

Selection or drift: \( \text{AAbb} \) → Fixation of \( A \)

Hybrids: \( \text{AagBb} \), low fitness hybrids due to incompatibility between \( A \) & \( B \)

Starting point: \( \text{BB} \) & \( \text{Bb} \), \( B \) mutation fixes, \( A \) mutation fixes.
One population drifts across the valley. Hybrids between populations have low fitness.
From Coyne & Orr (1997)

Estimate how many more choice base in 1997.