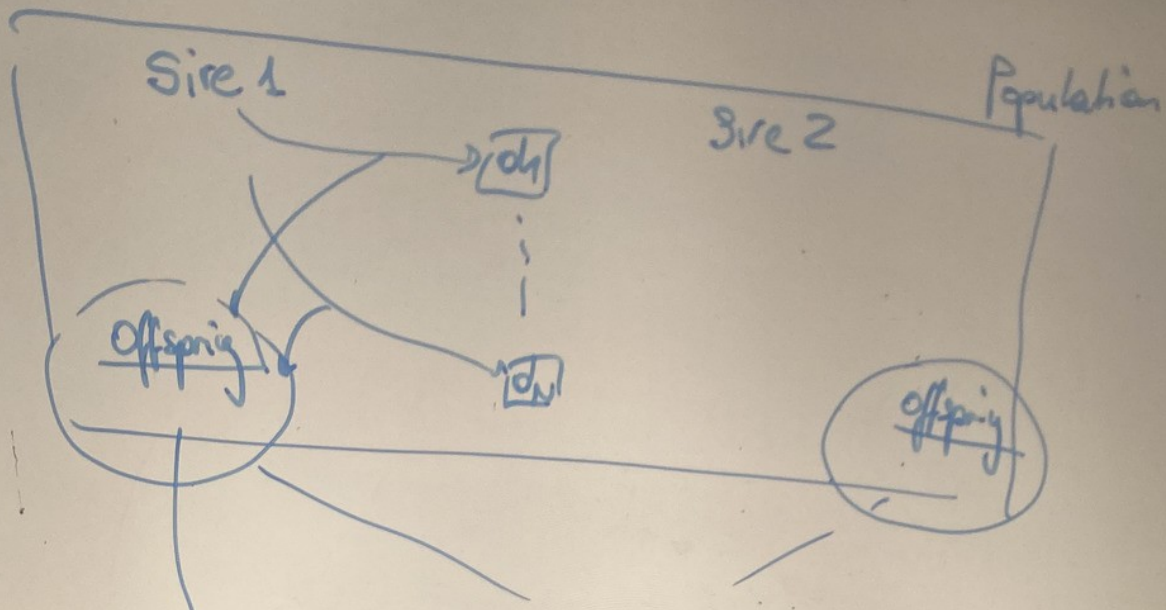


Definition of Breeding Value



$$BV_{\text{Sire 1}} = 2(\mu_{\text{off}} - \mu)$$

Influence on quality of BV

□ New Model: $y = \mu + u + e$

□ Properties of components

u : - Sum of a large number of single-locus breeding values. Each single-locus breeding value is expected to have a small effect on u . \Rightarrow Central Limit Theorem

- From one-locus model: $E[BV] = 0$
 $\Rightarrow E(u) = E[BV_A] + E[BV_B] + \dots = 0$