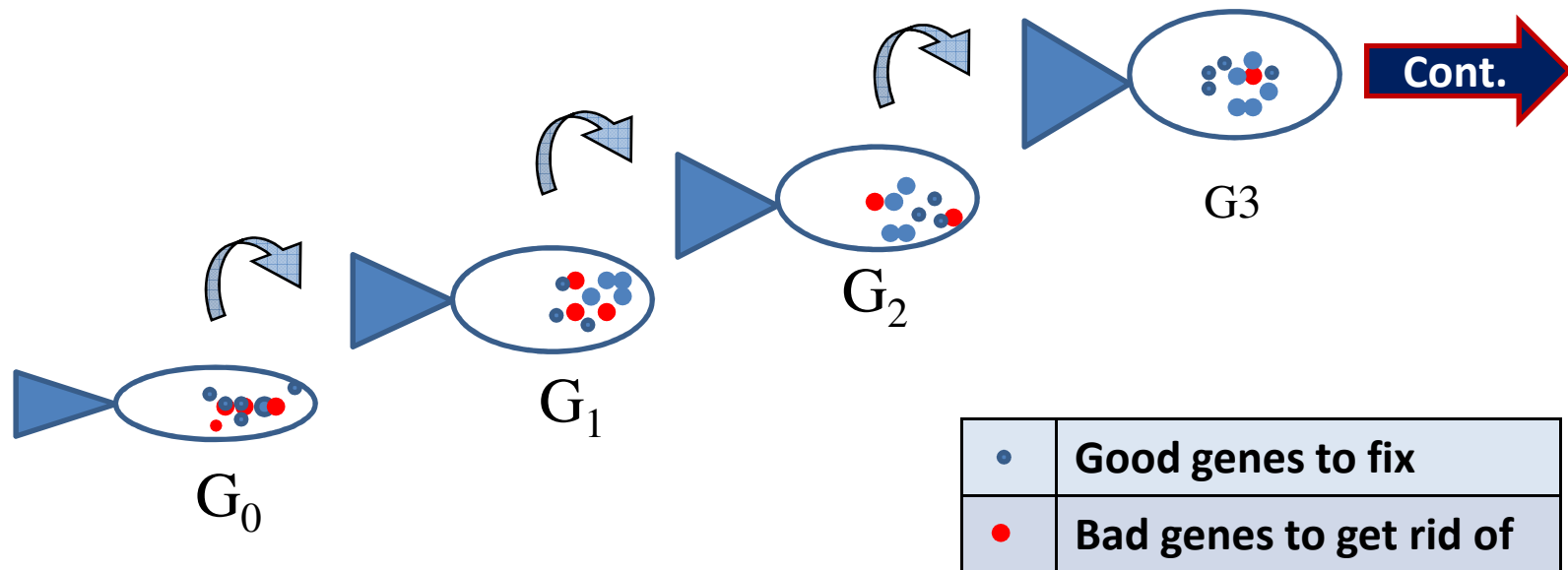


# Selective breeding in fish

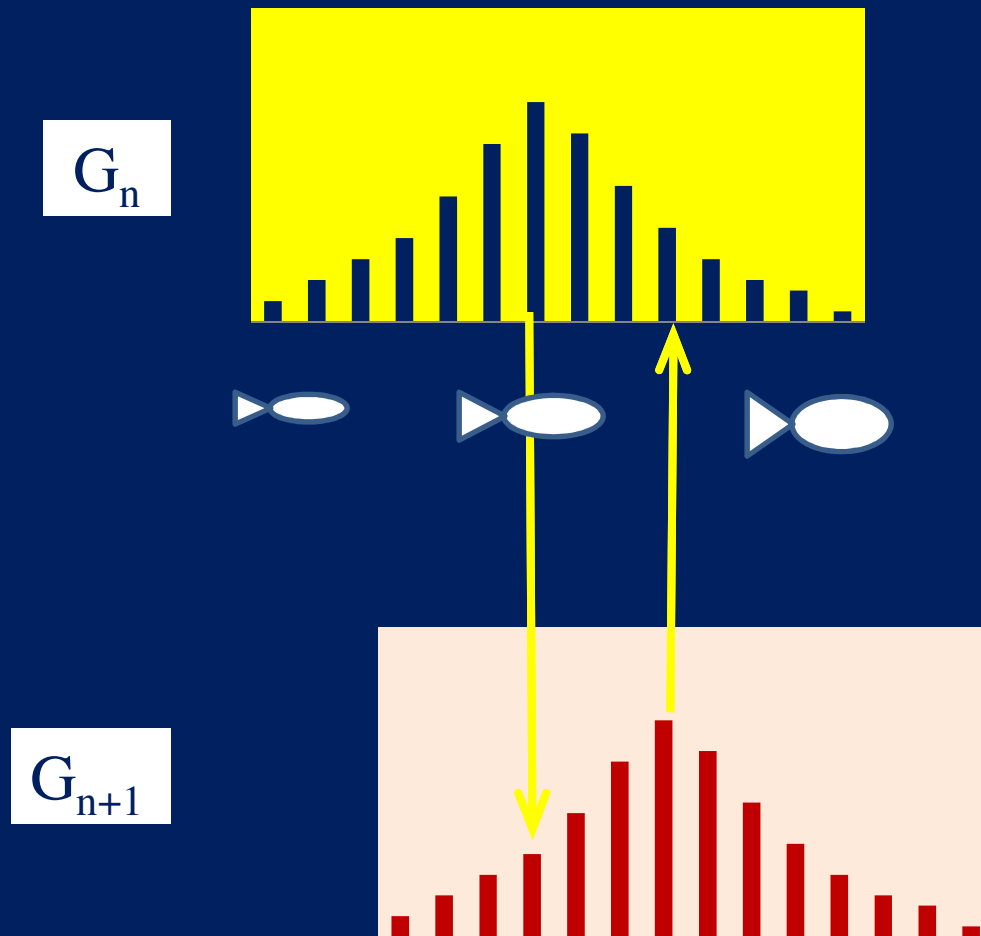
- The oldest approach for genetic improvement
- It is simply a choosing the parents of coming generations (positive selection) and through culling (negative selection)
- As long as  $V_A$  exists, progress due to selection accumulates over generations = response to selection as long as the raw material is there (variation)
- Selection plateau is reached when genetic variation  $V_A$  is consumed – **No more progress**. In such case, an external interventions will be needed to create variations (e.g. mutation)

# Selection (Selective breeding)

**The concept:** Choosing the “best” individuals to be the breeders



# Selection - moving rightward



The bell-shape curve remains

**But**  
Population mean moves rightward