

- Those alleles that give rise to organisms with favourable phenotypes are more likely to increase in frequency over subsequent generations

Founder Effect

- The effect of a small number of organisms that have a limited variety of alleles forming a new isolated population
- This population will have allele frequency's that do not reflect the population from which they arise
- This produces organisms with different phenotype ratios to the original population

Population Bottle Necks

An evolutionary event occurs in which a significant number of the population are killed or are otherwise not able to reproduce. This reduction in the variety of alleles present in the population persists as

Allele Frequencies

Allele frequencies can change over time in a population for a variety of reasons

- Example
 - Changing selection pressures
 - Competition
 - Genetic drift
 - Bottlenecks

The Hardy Weinberg equilibrium (or principle can be used to monitor changes in a population)

If you monitor the allele frequencies in a population over time you can establish if the allele frequency is changing and how fast it is changing if the change is rapid then you can start to focus on changing selection pressures that may be causing this.

For example, if you have been recording the allele frequency of a specific coral species in the great barrier reef for a long period of time and breeding begins nearby. If there is a sudden change in allele frequencies at the same time as a change in the environment then you have very solid data to support the argument that a specific selection pressure is directly impacting on studied species in the area / ecosystem.

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