

Observed Heterozygosity

The observed fraction of individuals that have at least two alleles per locus.



$$Ho = \frac{N_{xy}}{N}$$

The expected fraction of individuals in the sample that are not homozygous.

$$H_E = 1 - \sum_{i=1}^{\ell} p_i^2$$

The expected fraction of individuals in a sample of several populations that are not homozygous.

$$H_S = \frac{\tilde{N}}{\tilde{N} - 1} \left(1 - \sum_{i=1}^{\ell} p_{k,i}^2 - \frac{H_O}{2\tilde{N}} \right) \quad \tilde{N} = \frac{1}{\sum_{i=1}^K \frac{1}{n_i}}$$

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Genetic Distance