

Modern Synthesis

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- Populations evolve through changes in allele frequencies due to drift, gene flow, and especially, natural selection.

- The majority of genetic variants have a small phenotypic effect, so that the resulting phenotypic changes are gradual.

- Diversification occurs through speciation, which is mostly the result of reproductive isolation between allopatric populations.

- These processes, operating over long enough timescales, give rise to cumulative changes of such magnitude that the resulting species are grouped at higher taxonomic levels.

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