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population bottleneck  
DEFINITION

## population bottleneck

A population bottleneck is an event that drastically reduces the size of a population. The bottleneck may be caused by various events, such as an environmental disaster, the hunting of a species to the point of extinction, or habitat destruction that results in the deaths of organisms. The population bottleneck produces a decrease in the gene pool of the population because many alleles, or gene variants, that were present in the original population are lost. Due to the event, the remaining population has a very low level of genetic diversity, which means that the population as a whole has few genetic characteristics.

Following a population bottleneck, the remaining population faces a higher level of genetic drift, which describes random fluctuations in the presence of alleles in a population. In small populations, infrequently occurring alleles face a greater chance of being lost, which can further decrease the gene pool. Due to the loss of genetic variation, the new population can become genetically distinct from the original population, which has led to the hypothesis that population bottlenecks can lead to the evolution of new species.

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