



ACROSS

- 2 _____ evolution is the independent evolution of similar traits, starting from a similar ancestral condition due to similar environments or other evolutionary pressures.
- 3 A _____ tree, also called an evolutionary tree, is a tree showing the evolutionary relationships among various biological species or other entities that are believed to have a common ancestor.
- 6 _____ speciation is a form of speciation in which new species are formed in isolated peripheral populations.
- 8 _____ is the occurrence of small-scale changes in allele frequencies in a population, over a few generations, also known as change at or below the species level.
- 11 _____, also known as mimetism, describes a situation where one organism, the mimic, has evolved to share common outward characteristics with another organism, the model, through the selective action of a signal-receiver or dupe.
- 12 _____ selection is the selective removal of alleles that are deleterious.
- 15 A population _____ is an evolutionary event in which a significant percentage of a population or species is killed or

otherwise prevented from reproducing, and the population is reduced by 50% or more.

- 17 Charles Robert _____ (1809 - 1882) was an English naturalist who proposed and provided scientific evidence that all species of life have evolved over time from one or a few common ancestors through the process of natural selection.
- 18 _____ is the genus that includes modern humans and their close relatives.
- 19 A _____ is a taxonomic group of organisms comprising a single common ancestor and all the descendants of that ancestor.
- 21 The _____ effect is defined as the effect of establishing a new population by a small number of individuals, carrying only a small fraction of the original population's genetic variation.
- 22 _____ Speciation is the genetic divergence of multiple populations inhabiting the same geographic region from a single parent species, such that those populations become different species.
- 23 Heterozygote _____ describes the case in which the heterozygote genotype has a higher relative fitness than either the homozygote dominant or homozygote recessive genotype.
- 24 _____ selection refers to forms of natural selection which work to maintain genetic polymorphisms within a population.

25 _____ evolution occurs when two or more biological characteristics have a common evolutionary origin but have diverged over evolutionary time.

- 26 A _____ is one of the basic units of biological classification, often defined as a group of organisms capable of interbreeding and producing fertile offspring.
- 33 A group of organisms is said to have common _____ if they have a common ancestor.
- 34 A gene _____ is the complete set of unique alleles in a species or population.
- 35 Genetic _____ is the statistical effect that results from the influence that chance has on the survival of alleles, which may cause an allele, and the biological traits that it confers, to become more common or rare over successive generations.
- 36 The _____ principle states that the occurrence of a genotype, perhaps one associated with a disease, stays constant unless matings are non-random or inappropriate, or mutations accumulate.
- 37 _____ evolution is the process whereby organisms not closely related, not monophyletic, independently evolve similar traits as a result of having to adapt to similar environments or ecological niches.
- 38 _____ speciation, also known as

geographic speciation, is the phenomenon where large biological populations are physically isolated by an extrinsic barrier and evolve intrinsic reproductive isolation.

- 39 Adaptive _____ describes the rapid speciation of a single or a few species to fill many ecological niches.

DOWN

- 1 _____ is the evolutionary process by which new biological species arise.
- 2 _____ genetics is the study of allele frequency distribution and change under the influence of the four evolutionary forces: natural selection, genetic drift, mutation and gene flow.
- 4 Jean-Baptiste _____ (1744 - 1829) was a French soldier, naturalist, academic and an early proponent of the idea that evolution occurred and proceeded in accordance with natural laws.
- 5 _____ is the cessation of existence of a species or group of taxa, reducing biodiversity.
- 7 Under _____, individuals with advantageous or adaptive traits tend to be more successful than their peers reproductively.
- 9 _____ selection occurs when natural selection favors a single allele and therefore allele frequency continuously shifts in one direction.
- 10 _____ selection is a descriptive term used to describe changes in population genetics that simultaneously favor individuals at both extremes of the distribution.
- 13 Natural _____ is the process by which favorable traits that are heritable become more common in successive generations of a population of reproducing organisms, and unfavorable traits less common.
- 14 _____ is a philosophy of classification that arranges organisms only by their order of branching in an evolutionary tree and not by their morphological similarity.
- 16 Allele _____ is a measure of the relative proportion of an allele on a genetic locus.
- 20 Habitat _____ describes the emergence of discontinuities in an organism's preferred environment.
- 27 _____ speciation is a form of speciation that occurs due to variations in mating frequency of a population within a continuous geographical area.
- 28 _____ selection, also referred to as purifying selection, is a type of natural selection in which genetic diversity decreases as the population stabilizes on a particular trait value.
- 29 The genotype _____ is the proportion of genotypes in a population.
- 30 _____ is the change in the inherited traits of a population from generation to generation.
- 31 _____ evolution is the process of evolution at the scale of DNA, RNA, and proteins.
- 32 Reproductive _____ is a category of mechanisms that prevent two or more populations from exchanging genes.