BIO1130 Keywords

Modern Theory

adaptive radiation: a cluster of closely related species that are each adaptively specialized to a specific habitat or food source. Example: finches of Galapagos

allele: one of two or more variations of a gene. Example: hair color, eye color

allele frequency: the abundance of one allele relative to others at the same gene locus in individuals of a population. percent/fraction of population with gene

allopolyploidy: the genetic condition of having two or more complete sets of chromosomes from different parent species. Example: Horse + Donkey = infertile Mule

autopolyploidy: the genetic condition of having more than two sets of chromosomes from the same parent species. Example: parent chromatids not seperating during meiosis.

beneficial mutation: mutations that cause the organism with it to be more suited to survival in its environment. Example: antibiotic-resistant bacteria.

bottleneck effect: a population's size is decreased for at least one generation due to genetic drift and causing a reduce in genetic variation. Example: Cheetas.

chromosomal inversion: chromosomal alteration that occurs if a broken segment reattaches to the same chromosome from which it was lost, but in reverse order, so the orientation of genes in the segment is reversed with respect to the other genes of the chromosome.

chromosomal mutation: a spontaneous and heritable change in DNA, could be caused by a missing, extra, or irregular portion of DNA from the number of chromosomes, and the structure.

chromosomal translocation: a chromosomal alteration that occurs if a broken segment is attatched to a different, nonhomologous chromosome. gene fusion can also occur in this process.

crossing over: the recombination process in meiosis in which chromatids exchange segments.

deleterious mutation: chromosomal alteration that occurs if a broken segment is lost from a chromosome.

diploid: an organism or cell with two copies of each type of chromosome in its nucleus.

directional selection: a type of selection in which individuals near one end of the phenotype spectrum have the highest relative fitness. Example: Peppered moths.

disruptive selection: a type of natural selection in which extreme phenotypes have higher relative fitness that intermediate phenotypes. Example: Peppered moths

female choice: sexual selection through female's choice of who to mate with based off of attractiveness of phenotypic traits. Example: birds (peacocks)