Vocabulary/Ch. 6

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**population**: The individuals that belong to the same species and live in a given area at a given time

**community**: All of the populations of organisms within a given area

**population ecology**: The study of factors that cause populations to increase or decrease

**population size (N)**: The total number of individuals within a defined area at a given time

**population density**: The number of individuals per unit area at a given time

**population distribution**: A description of how individuals are distributed with respect to one another

**sex ratio**: The ratio of males to females

**age structure**: A description of how many individuals fir into particular age categories

**density-dependent factors**: A factor that influences an individual’s probability of survival and reproduction in a manner that depends on the size of the population

**limiting resource**: A resource that a population cannot live without and that occurs in quantities lower than the population would require to increase in size

**carrying capacity (K)**: The limit of how many individuals in a population the food supply can sustain

**density-independent factors**: A factor that influences an individual’s probability of survival and reproduction in a manner that depends on the size of the population

**growth rate**: The number of offspring an individual can produce in a given time period, minus the death of the individual or any of its offspring during the same period

**intrinsic growth rate (r)**: The maximum potential for growth of a population under ideal conditions with unlimited resources

**exponential growth model**: A growth model that estimates a population’s future size after a period of time based on the intrinsic growth rate and the number of reproducing individuals currently in the population (Nt =Noert)

**J-shaped curve**: The curve of the exponential growth model when graphed

**logistic growth model**: A growth model that describes a population whose growth is initially exponential, but slows as the population approaches the carrying capacity of the environment

**S-shaped curve**: The shape of the logistic growth model when graphed

**overshoot**: When a population becomes larger than the environment’s carrying capacity

**die-off**: A rapid decline in a population due to death

**k-selected species**: A species with a low intrinsic growth rate that causes the population to increase slowly until it reaches carrying capacity

**r-selected species**: A species that has a high intrinsic growth rate, which often leads to population overshoots and die-offs

**survivorship curves**: A graph that represents the distinct patterns of species survival as a function of age

**corridors**: A strip of natural habitat that connect separated populations

**metapopulation**: A group of spatially distinct populations that are connected by occasional movements of individuals between them

**community ecology**: The study of interactions between species

**competition**: The struggle of individuals to obtain a limiting resource

**competitive exclusion principle**: The principle stating that two species competing for the same limiting resource cannot coexist

**resource partitioning**: A situation in which two species divide a resource, based on differences in their behavior or morphology

**predation**: The use of one species as a resource by another species

**true predators**: A predator that typically kills its prey and consumes most of what it kills

**herbivores**: A predator that consumer plants as prey

**parasites**: A predator that lives on or in the organism it consumes

**pathogens**: An illness-causing bacterium, virus, or parasite

**mutualism**: An interaction between species that increases the chances of survival or reproduction for both species

**commensalism**: A relationship between species in which one species benefits and the other species is neither harmed nor helped

**symbiotic**: A relationship of two species that live in close association with each other

**keystone species**: A species that is far more important in its community than its relative abundance might suggest

**predator-mediated competition**: Competition in which a predator in instrumental in reducing the abundance of a superior competitor, allowing inferior competitors to persist

**ecosystem engineers**: A keystone species that creates or maintains habitat for other species

**ecological succession**: The replacement of one group of species by another group of species over time

**primary succession**: Ecological succession occurring on surfaces that are initially devoid of soil

**secondary succession**: The succession of plant life that occurs in areas that have been disturbed but have not lost their soil

**pioneer species**: A species that can colonize new areas rapidly

**theory of island biogeography**: A theory that demonstrates the dual importance of habitat size and distance in determining species richness