

FOSS Populations and Ecosystems Course Glossary (10.5.04)

Abiotic: Nonliving.

Adaptation: Any trait of an organism that increases its chances of surviving and reproducing.

Alkaline lake: A salty lake where the pH is greater than 7.

Allele: Variations of genes that determine traits in organisms; the two corresponding alleles on two paired chromosomes constitute a gene.

Aquatic: Of the water.

Autotroph: Organisms that make their own food.

Biomass: The total organic matter in an ecosystem.

Biotic: Living organisms and products of organisms.

Carbohydrate: Food in the form of sugar or starch.

Carrying capacity: The maximum size of a population that can be supported by a given environment.

Chromosome: A structure that transfers hereditary information to the next generation.

Community: All the interacting populations in a specified area.

Consumer: An organism that eats other organisms.

Decomposer: An organism that consumes parts of dead organisms and transfers all the biomass into simple chemicals.

Detritivore: An organism that eats detritus, breaking the organic material into smaller parts that a decomposer could use for food.

Detritus: Small parts of organic material.

Dominant allele: A form of a gene that is expressed as the trait when a dominant allele is present.

Ecosystem: A system of interacting organisms and nonliving factors in a specified area.

Environment: The surroundings of an organism including the living and nonliving factors.

Exoskeleton: A tough, outer covering that insects and other organisms have for protection.

Feature: A structure, characteristic, or behavior of an organism, such as eye color, fur pattern, or timing of migration.

Food chain: A sequence of organisms that eat one another in an ecosystem.

Food pyramid: A kind of trophic-level diagram in the shape of a pyramid in which the largest layer at the base is the producers with the first-level, second-level, and third-level consumers in the layers above.

Food web: All the feeding relationships in an ecosystem.

Gene: The basic unit of heredity carried by the chromosomes; code for features of organisms.

Genotype: An organism's particular combination of paired alleles.

Herbivore: An organism that eats only plants.

Heterotroph: An organism that cannot make its own food and must eat other organisms.

Heterozygous gene: A gene composed of two different alleles (a dominant and a recessive).

Homozygous gene: A gene composed of two identical alleles (e.g., both dominant).

Incomplete metamorphosis: A process of gradual maturing of an insect (egg, nymphal stages or instars, adult).

Individual: One single organism.

Instar: An immature nymphal stage of an insect as it grows into an adult form.

Limiting factor: Any biotic or abiotic component of the ecosystem that controls the size of the population.

Molting: The process of shedding exoskeleton in order to grow.

Morph: A form in a species that occurs in one or more forms (such as colors).

Natural selection: The process by which the individuals best adapted to their environment tend to survive and pass their traits to subsequent generations.

Omnivore: A consumer that eat both plants and animals.

Organism: A living thing.

Phenotype: The traits produced by the genotype; the expression of the genes.

Photosynthesis: The process by which producers make energy-rich molecules (food) from water and carbon dioxide in the presence of light.

Phytoplankton: A huge array of photosynthetic microorganisms, mostly single-celled protists, that are free-floating in water.

Population: All the individuals of one kind (one species) in a specified area at one time.

Proboscis: A tubelike beak for sucking fluids from plants. True bugs have this structure.

Producer: An organism that is able to produce its own food through photosynthesis.

Recessive allele: A form of a gene that is expressed as the trait only when a dominant allele is not present.

Reproductive potential: The theoretical unlimited growth of a population over time.

Species: A kind of organism; members of a species are all the same kind of organism and are different from all other kinds of organisms.

Terrestrial: Of the land.

Tertiary: Third level.

Trait: The specific way a feature is expressed in an individual organism.

Trophic levels: Functional role in a feeding relationship through which energy flows.

Tufa tower: A naturally occurring, gray, lumpy structure that forms under water in a salt lake because of a chemical reaction between calcium and salt in the water.

Variation: The range of expression of a trait within a population.

Zooplankton: Microscopic adult animals and larval forms of animals found free-floating in fresh water and seawater.