

## **WORDS TO KNOW**

**Abiotic** – refers to non-living components of ecological systems.

**Adaptation** - characteristics/behaviors acquired by organisms in response to external changes (stimuli) in their environment).

**Algae** – a primitive, usually aquatic organism that converts solar energy to food through photosynthesis. Can grow singly, in mats, as filaments, balls, or “slime” on rocks.

**Alpine** - ecological life zone associated with higher elevations, cold temperatures, relatively high levels of precipitation (snow), short growing season.

**Altitude** - physical elevation above sea level; as distance measured above and expressed in reference to mean sea level (MSL).

**Anoxia** – the absence of oxygen; the total deprivation of oxygen, as in bodies of water, lake sediments, or sewage.

**Aspect** - the physical direction a landform faces; example: the south-facing slope of a mountain.

**Biome** - large scale climatic regions of the biosphere with unique vegetation, plant and animal characteristics.

**Biota** - a term used to refer to the living components of an ecosystem (see also abiotic).

**Biotic** – an adjective referring to “living” or life.

**Browser** - an animal with a preference for fibrous/woody forbs, shrubs, trees.

**Canopy** - the highest overlaying vegetation layer in a forest.

**Carnivore** - a consumer which primarily consumes meat/flesh as a source of food.

**Chapparral** - dense, woody, shrub/brush- land type ecosystem.

**Chlorophyll** - green pigment found in plants which allows for the conversion of solar energy to chemical energy. Green plants/producers

**Ciénega** – Southwestern U.S. or Spanish term referring to a swamp or marsh, especially one fed by springs.

**Climate** - long-term meteorological qualities characteristic of a region. What you expect or want, weather is what you are getting.

**Community** - an ecological group consisting of different populations of organisms and which excludes non-living components.

**Competition** - species and/or populations of living things designed to provide advantage in reproduction, space, food, etc.

**Consumer** - an organism which is dependent on other organisms for their source of energy (food).

**Cyanobacteria** – similar to algae these primitive, single-celled organisms convert energy through photosynthesis; also called blue-green algae. Occasionally found in aquatic populations large enough to be toxic to humans, livestock and wildlife.

**Ecology** - the study of living things (biotic) as they interact with each other and their environment (abiotic).

**Ecosystem** - an ecological unit, with distinct, identifiable and unique characteristics consisting of different, interacting, individuals and/or populations (biotic communities), including the non-living environment.

**Ecological Site** - an ecological site describes a combination of biotic and abiotic characteristics in a particular location.

**Effluent** – the state-regulated treated outfall from wastewater treatment plants that includes mostly water, but also some of the residual chemicals and contaminants from treatment.

**Effluent-dominated stream** – a stream where effluent is the main source of surface flows.

**Endemic** – a unique organism (species) found no where else but in one specific location. Example of common usage: this plant species is *endemic* to the Huachuca Mountains.

**Equilibrium** – balance or status of balance between different parts of a system.

**Eutrophication** – the process of nutrient enrichment leading to dense plant growth, especially algae.

**Evapotranspiration** - the water loss by plants due to transpiration and evaporation.

**Extinction** – process of losing species through their failure to successfully function and/or to reproduce.

**Extirpation** – permanently removing a species from its normal area.

**Food Web** - a complex collection of interconnected/related food chains with multiple producers and consumers involved.

**Forbs** - broad-leaf (non-grass), green plants used as food by grazers/browsers.

**Genus** - a very distinct and critically descriptive taxonomical unit; the binomial systems “first” name of an organism; genetically a very similar grouping.

**Grassland** - a large ecosystem /biome dominated by the presence of grasses and grass dependent organisms.

**Habitat** - the ecological surroundings required by an organism.

**Herbivore** - an organism who primarily prefers plant material as a food source.

**Impervious surface** – A surface that has been covered with a material that water cannot normally penetrate.

**Infiltration** - The entry of water into the soil.

**Invasive** - any organism species which tends to displace and replace native species within an ecosystem.

**Invertebrate** - an animal lacking an internal skeleton; may or may not possess an exoskeleton.

**Macroinvertebrate** – organisms without backbones, but that are large enough to be visible to the naked eye. Examples include amphipods, shrimp, snails, spiders, insects.

**Microhabitat** – the smallest locations in a landscape that provide specific conditions for an organism to survive.

**Montane** - reference to ecosystem variations and characteristics related to the influence of mountains and/or elevation.

**Niche** - the specific role an organism plays in the environment; dealing with function.

**Perennial** – year-round; also refers to a plant which can live and reproduce repeatedly over several years.

**Photosynthesis** – A complex chemical process powered by solar energy whereby plants produce sugars and other organic matter by combining different nutrients.

**Pollution** - any substance, condition or degradation capable of diminishing the quality and function of an ecosystem.

**Population** - an identifiable number of the same species within a given area and time.

**Producer** - an organism capable of producing its own food (energy) and not dependent on other organisms as a source of food; green, photosynthetic, plant.

**Range** - the distance/extent of the area of movement by individuals within their ecosystem; a term used by livestock operators to describe the area where animals are grazed.

**Riparian** - a term used to describe the area adjacent to flowing water; enhance bio-diversity associated with vegetative areas along flowing rivers and streams.

**Scavenger** - an organism which seeks out the remains of dead plant and animal life for its source of food

**Scouring** – the act of a stream clearing, digging or removing sediment, organic matter, and other light materials by a powerful current of water.

**Sediment** - Material deposited by wind, water or glaciers.

**Silt** - fine grained particulate carried by water; particles between .002 and 0.05 mm in diameter.

**Slope** - the change in elevation of terrain; expressed as a percentage of elevation increase or decrease.

**Species** - a subdivision of a **genus**; considered the most basic biological classification; individuals closely resemble one another; interbreed and successfully produce fertile offspring; individuals share similar ecological and biological traits, offspring, in nature.

**Succession** - a process where plant and animal populations demonstrate a series of natural changes leading to a relatively stable ecosystem. Example: bare ground and rocks to a mature forest.

**Symbiosis** - an extreme example of mutualism; two individuals become so dependent upon each other neither would survive if separated.

**Transpiration** - the physical release of water vapor from photosynthetic plants.

**Wetland** – an area which is frequently subjected to persistent flooding or has an elevated water table.

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