

Wildlife and Ecology Glossary

Abiotic – non-biological natural process such as fire. Floods, droughts, ambient nutrient levels, and similar processes.

Adaptation – the long term process of evolutionary change by a species.

Bioaccumulation – the additive accumulation of substances in the tissues of organisms in food chains (e.g. accumulation of mercury in fish, then in raccoons that eat many fish, then in panthers that eat many raccoons).

Biomass – the total mass of all biological organisms.

Buffer – a region of transition around a valuable habitat (e.g. a semi-natural area between a preserve and an urban area).

Carnivore – an animal or plant that eats animals.

Carriion – a dead body or dead decaying flesh.

Carrying capacity – the maximum number of species a given area of habitat will support at any given time (e.g. deer populations can exceed carrying capacity if not kept in check by natural predators or humans; when they exceed the carrying capacity the available food will be summed and there will be a large die-off of deer).

Commensal – a term to describe a species that lives in close association and gets some benefit from another species but does not return any benefit (e.g. gopher frogs live in gopher tortoise burrows but provide no benefit for the gopher tortoise).

Conservation easement – the development rights on a piece of property which will restrict the activity on that piece of property (e.g. owning a conservation easement on a ranch that says the ranch cannot be developed for citrus or subdivisions, but can continue ranching. We often use conservation easements to maintain a status quo on land).

Corridor – a term to describe habitat between reserves or other valuable habitat areas.

DDT – one of a family of organo-chloridine pesticides that was banned in the United States because of environmental concerns, particularly associated with bioaccumulation leading to egg-shell thinning and egg breakage in birds such as the Bald Eagle, Brown Pelican and Peregrine Falcon.

Domesticated – a plant or animal that has been selectively bred by humans to enhance certain characteristics. Domesticated organisms are called 'breeds' or 'varieties' and are roughly equivalent to human-created subspecies. Wild animals simply raised in captivity are not domesticated.

Ecosystem – a community of organisms and their physical environment interacting as an unit.

Endangered – species in danger of extinction or extirpation if the harmful factors affecting their populations continue to operate (compare with lesser risk categories of threatened or species of special concern).

Endangered Species Act of 1973 – a federal law that protects species that are endangered or threatened from disturbance, and also mandates recovery plans for these species.

Endemic – restricted to a particular region or locality; unique and native.

Estuary – a semi-enclosed water body that has free connection to the open seas and within which seawater is measurably diluted with freshwater.

Exotic – an organism that is not native in the area where it occurs; introduced.

Extirpate – elimination of a species from a given area; local extinction.

Feral – domesticated animals that have gone wild (e.g. hogs, dogs, cats).

Food chain – a sequence of feeding types, on successive levels within a community through which energy and biomass is transferred (e.g. plants are eaten by rodents that are eaten by snakes that are eaten by hawks).

Food web – the network of interconnected food chains of a community (in the food chain example, plants are eaten by many herbivores, who are eaten by many carnivores).

Forage – vegetation taken naturally by herbivorous animals(n); the act of searching for and eating vegetative materials(v).

Gene pool – the total genetic information that a population has; the sum of all genes.

Habitat succession – the natural progression of habitat types over time (e.g. the first community to replace a deforested area is a weedy grassland, then it grows to a shrub community, and eventually back to a forest). Different ecosystem types have different successional paths and endpoints depending on soils, climate, topography, ongoing disturbance, fire frequency and other factors.

Herbivore – an animal that feeds on plants or plant material.

Hibernation – the act of passing all or part of winter in a dormant state where body functions is greatly slowed.

Hydrologic cycle – the natural movement of water through the environment, including rain, runoff, and evapotranspiration.

Hydroperiod – the duration and timing that water is present in an area (e.g. different wetlands have standing water for different periods of time and the plants and animals present are adapted to this amount of time).

Inbreeding depression – caused by repeated mating of successive generations of closely related individuals. This occurs especially in small or isolated populations and becomes problematic when deleterious genes (e.g. birth defects) are present-they spread quickly through the remaining population and are a great extinction threat (e.g. the Florida Panther).

Invertebrate – animal lacking a spine or backbone.

Island biogeography theory – the theory that says smaller areas will have fewer species (e.g. a small park in the middle of an urban landscape is like an island and will lose more species over time than a larger park).

Keystone species – a species that other species depend upon for survival (e.g. gopher tortoise, alligator).

Landscape – large areas of connected ecosystems. (i.e. wetlands, forests, agricultural areas, and water bodies are all part of the landscape).

Migration – the movement of animals to and from feeding or reproductive and nesting areas.

Molt – to shed hair, feathers, shell, horns or an outer layer periodically.

Mortality – death rate.

Nutrient loading – the addition of nutrients from human activity to a water body, especially phosphorous and nitrogen.

Omnivore – an animal that feeds on both plants and animals.

Parasitic – a relationship in which one organism is dependent upon another living organism (the host) and which is typically detrimental to the host.

Prescribed burn – fires that are set by humans to restore a natural fire cycle to ecosystems.

Range – the geographic area or areas normally inhabited by a species.

Rare – species that are uncommon, and usually potentially at risk because of their restricted geographic area or habitat.

Ruminant – an even-toed hoofed mammal with a stomach of four chambers that swallows its food un-chewed, then regurgitates it, chews it thoroughly, and re-swallows it. Common ruminants are the camel, giraffe, deer, pronghorn, and cattle. Bacteria in the gut digest the cellulose in the food.

Scrub – a type of habitat dominated by woody vegetation composed principally of shrubs or shrub-like trees and having deep, very well drained, sandy soils.

Species of Special Concern – species that are considered vulnerable to large-scale population declines. This category is not as severe as endangered or threatened.

Taxonomy – the arrangement of plants and animals into groups based on their natural relationships. Standard classifications are into 7 groups listed below, but are subdivided for different taxa.

Kingdom – the two dominant kingdoms are plant and animal.

Phylum – vertebrates and invertebrates are the most recognized phyla.

Class – vertebrate classes include birds, mammals, fish, amphibians, and reptiles, there are multitudes of invertebrate classes, and fish often are broken into many classes).

Family – examples of families in the order carnivore include Canidae (dogs,wolves) Felidae (cats), Mustelidae (weasels, skunks, badger), and others.

Genus – the genus of dogs is *Canis* (genus names are always capitalized and either underlined or italicized).

Species – closely related individuals which actually or potentially interbreed, the domestic dog species is *familiaris*, the coyote is *latrans*, and the wolf is *rufus*, all in the genus *Canis*. Species names are underlined or italicized, but NOT capitalized.

Territory – the concept of dominance over a unit of habitat; an area defended by an animal against others of the same species, or sometimes other species; can be defended for breeding, feeding, courtship, or other reasons.

Threatened – a designation given to species that are likely to become endangered in the foreseeable future if current trends continue. This is the intermediate category between endangered and species of special concern.

Toxin – any of various poisonous substances produced by certain plant or animal cells.

Ultraviolet radiation – radiation from the sun that is normally blocked by the ozone layer in the atmosphere. This radiation is composed of photons in the “ultraviolet wavelength” and can be damaging to humans and animals.

Upland – elevated, well drained areas.

Vertebrates – an animal that has a backbone.

Wetland – land periodically flooded by water or where water is a dominant factor affecting the characteristics of soil; and supporting distinct plant and animal communities. The concept that wetlands are land that is often inundated separates them from lakes, that are continuously inundated.