

Glossary

Abiotic: Not alive, or not derived from living organisms.

Adapted: Living organisms change over time to become best suited, or adapted, to their environment. These adaptations can be **structural, behavioral, or physiological.**

Agriculture: Human practices of raising crops and/or livestock mainly for consumption by people or livestock. Many types of agricultural practices also provide habitat for wildlife, especially in areas where native habitats are missing.

Amphibian: Cold-blooded vertebrates. Adults breathe air with lungs and through moist skin and live on land and in water.

Anadromous: Certain aquatic species, such as salmon and steelhead trout, that live in, and can breathe, both freshwater and saltwater.

Aquatic: Growing, living in and/or associated with water.

Biodegradable: Materials that can decompose, or decay.

Bird: A warm-blooded vertebrate covered with feathers and having wings.

Biodiversity: The variety and abundance of different species of plants and animals. (Biological diversity)

Biology: The scientific study of life.

Biotic: Of, relating to life and/or by living organisms

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Biotic Zone: Specific location of a specific community, or ecosystem, of inter-related life forms. Also called **Floralistic Province.** California has the most of any state.

Camouflage: An adaptation that enhances chances of survival for both predators and prey by allowing wildlife and plants to blend stealthy in their environment.

Carnivore: A meat eating wild animal.

Carrion: The body and flesh of a dead animal.

Carrying capacity: The maximum number of plants and animals that can be supported by a habitat or environment. The healthier the habitat, the higher number of species it can support. Healthy habitats occur when native plants and animals have all the food, water, shelter, and space they need to survive.

Central Valley: Also called the Great Central Valley, it is the second largest valley on earth! Its low elevation between mountain ranges serves as the major drainage for most of California's rivers. This landscape includes a mosaic of native habitats as well as agriculture.

Chaparral: An unusual foothill habitat, or biotic zone, of the Sierra Nevada and Coastal Range. Mostly covered by scrub of entangled evergreen bushes and few trees. With long dry summers and wet winters, plants here are adapted to fire and drought.

Climate Change: Refers to any significant change or pattern of change in the measures of Earth's climate. Climate includes temperature, precipitation, wind patterns, among others. The leading cause of climate change is the increased

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release of greenhouse gases, or **carbon dioxide**, in the Earth's atmosphere by the burning fossil fuels.

Colony: Individual organisms of the same species living or breeding closely together, usually for the benefit of all, such as for a stronger defense.

Competition: The struggle between two or more plant or wildlife species for a specific common resource. Plants compete for sunlight, while animals compete for food.

Coniferous: Evergreen trees bearing cones full of seeds to reproduce.

Conservation: The responsible stewardship of lands to protect, preserve and enhance natural ecosystems—while at the same time considering human needs and impacts. Land can be conserved while still allowing a careful managed amount of harvesting, including hunting, fishing, hiking and/or livestock grazing.

Consumers: Organisms that eat other organisms to get their energy. There are three types: Primary (herbivores), Secondary (omnivores) and Tertiary (carnivores).

Consumption: The using up of a natural resource, or the amount of resource used up.

Deciduous: Plants that shed their leaves and go dormant to survive extreme weather conditions.

Decomposition: The breaking down of dead organisms, so they can be used by plants. **Decomposers** are those invertebrates that help with this process.

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Delta: An area where rivers meet and join. In California, the Sacramento-San Joaquin Delta is where the Sacramento and San Joaquin Rivers meet to eventually drain into the Pacific Ocean through San Francisco Bay. This region hosts a mix of permanent habitats—riparian, marsh, river, grassland, agriculture, and estuary, as well as several towns.

Desert: A geographical area of land with low precipitation, poor soil and adapted flora and fauna. In California, we have three types of desert: High desert, Sonora and Mohave.

Development: When wild land is permanently converted to urban and agricultural land uses.

Diurnal: A wildlife species active during the day.

Domestic: Wild animals (and plants) tamed and bred over time for human use. They are now dependent on humans for survival.

Ecosystem: A biological community of interacting, interdependent organisms and their physical environment.

Ecotone: The edge, or transitional zone, between two habitat types. Ecotones are highly frequented by wildlife.

Endangered: A species of plant or animal in immediate danger of extinction throughout all, or a significant portion of, its current range. Other at-risk classifications are **Threatened** and **Species of Concern**.

Endemic: A plant or wild animal occurring only in a certain geographic location on Earth.

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Energy: The matter that drives all life processes, and the capacity of all life forms. Animals make energy from food and water. Plants use photosynthesis and root systems. Energy in the form of heat and electricity is created from power sources like solar, wind, biomass, hydro, geothermal and by burning fossil fuels, like coal. Energy sources are either **renewable** or **nonrenewable**.

Environment: The air, water, minerals, organisms, and all other external factors surrounding and affecting a given organism at any time.

Erosion: The wearing away of soil or rock by water, wind or other natural and unnatural forces or processes.

Estuary: The calm, marshy bays where rivers flow into the sea. An essential and rich habitat for fish and wildlife. Here there is a mixing of saltwater and freshwater, called **brackish**. In California, estuary water is more salty than fresh due to limited outflow.

Evergreen: Plants that do not lose their leaves annually.

Exoskeleton: Any hard, external supporting body structure of an invertebrate.

Extinction: The condition of having been removed from existence. An animal or plant is extinct when it has vanished permanently from Earth.

Fauna: Animal life.

Feral: Refers to a domesticated animal or plant that escapes, or is released, into the wild. These domesticated animals try to survive but often do not survive long.

Fertilizer: A chemical or natural substance added to soil to improve its quality for plants' growth and yield. Natural fertilizers are made from composted manures and plants, from dying animals like salmon and/or extracted from minerals in the earth.

Flora: Plant life.

Food Web: The transfer of food energy among plants and animals in an interconnected web-like manner.

Foothills: The lower hills of a mountain range, usually under 2000' elevation. Habitats include oak and pine woodland, grassland, savannah, riparian, and chaparral.

Fossil Fuel: Fuel such as coal, oil or natural gas formed in the earth millions of years ago from plant and animal remains. Non-renewable energy resource.

Fungus: A plant-like organism, such as a mushroom, that gets energy and matter primarily from other dead organisms.

Game species: The legal designation for animals managed and hunted under the regulation of a government agency.

Generalist: A species that lives in, and can adapt to, many types of habitats. (Examples: American crow, coyote)

Geography: The study of the physical features of earth and its atmosphere, and of human activity there on.

Geology: The study of earth's physical structure and substance, its history and processes.

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Grassland: A large open habitat covered with grasses and forbs. No trees. Can be flat or rolling.

Groundwater: Freshwater held underground in the soil, or in pores and crevices of rock. Humans pump it out by wells to supply water. Natural springs bring up and hold freshwater on the surface. Geological formations called **aquifers** also hold and contain groundwater.

Habitat: A defined place, or type of place, where an organism lives. Meets plants and wildlife essential needs by providing suitable **food, water, shelter, and space**.

Harvest: The process of catching and killing fish and wildlife for human food.

Hatchery: A facility that raises fish, usually from eggs.

Hazardous Waste: A waste product that's potentially dangerous or harmful to human health, wildlife and/or the environment. **Toxic wastes** are harmful or fatal when ingested or absorbed.

Hazard (Wildlife)—Any item or obstacle that can injure or kill wildlife through physical contact, or through absorption and ingestion. An example is power lines.

Herbicide: A toxic chemical substance used to kill plants.

Herbivore: A plant-eating wild animal.

Hibernation: The act of passing the winter (or a portion of it) in a deep sleep or resting state. A physiological adaptation for survival.

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Hydroelectric (Hydro): Electric power converted from water flows. Dams generate hydroelectric power.

Inorganic: Not composed of organic, or living, matter.

Insect: A small invertebrate animal.

Invasive species: An introduced, non-native plant or animal whose population growth threatens to cause harm to native plant and animal populations, the environment, the economy and/or human health.

Invertebrate: An animal with no true backbone.

Lichen: A simple, slow growing plant-like organism made up of an alga and a fungus that grow in **sympiotic** association on a solid surface.

Lifecycle: A series of growth stages in the lifespan of every living organism.

Mammal: A warm-blooded vertebrate animal with hair or fur, has live birth, and milk for young.

Marine: Of, or relating to, the sea or ocean.

Marsh: A permanent freshwater wetland with few trees and many aquatic plants, like tule.

Metamorphosis: A series of changes in shape and function that certain wildlife go through: egg, larva, pupa, adult. Caterpillars become butterflies; tadpoles become frogs.

Microhabitat: A smaller habitat within a larger one, in which environmental conditions differ from those in the larger one.

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Microorganism: A very small life form that can be seen by humans only with the aid of a microscope.

Migration: The seasonal journey of groups of wildlife from one region to another--for food, water, shelter, space, or for breeding. Most of California's migrating birds travel up and down the **Pacific Flyway**, a continental highway in the sky for birds. Other species seasonally travel up and down the mountains to different elevations, called **altitudinal migration**. Some fish migrate back to their native rivers and streams to **spawn**, or breed.

Native: Refers to wildlife and plants that naturally occur in an area. Native species are fully adapted to their environment.

Natural Resource: An area appreciated for its beauty and recreational value, like a river, lake, or mountain. Also used to describe materials, such as water, gold, energy, wildlife, and topsoil--that humans use from our natural systems.

Niche: The exact ecological role of an organism within a community of organisms. Each species is adapted to a specific niche, so that there is no direct competition with other species within the same habitat.

Nocturnal: Wild animals active during the night.

Non-native: A species originally from somewhere else, but now resides in California. Many non-native species are invasive and harmful to native species.

Organic: Composed of matter from plants and/or animals.

Omnivore: A wild animal with a varied diet of both plants and animals.

Organism: A living thing, such as a plant, animal or other life form that can grow and reproduce.

Parasite: An organism which feeds upon the tissues or fluids of another animal, or host. It is harmful to the host, but generally does not kill host, as that would destroy its food supply.

Pesticide: A chemical agent used to kill any organism people do not want around—insects and rodents, for example. Toxic to pests and to the environment.

Photosynthesis: The amazing process by which green plants make simple sugars, or food, in the presence of sunlight, water and carbon dioxide. Plants are the only organisms directly utilizing the energy of the sun to make their own food.

Plant: A tree, vine, shrub, or herb that uses the energy of the sun to make their food, called photosynthesis.

Poaching: The act of unlawfully and recklessly killing wildlife and/or destroying nature. **Poacher** is the person breaking the law by not being in compliance with state hunting, fishing and/or ecological regulations.

Pollination: The transfer of pollen within a flower, or between flowers. This fertilizes the flower, necessary to make a seed. Pollen is carried by wind, water, insects, hummingbirds, and bats.

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Pollution: Harmful substances deposited on the landscape, leading to a state of dirtiness, impurity, unhealthiness, hazards and/or toxins.

Population Density: The actual, or estimated, number of a particular type of organism living in a defined area.

Predator: An animal that seeks, kills and eats other animals. The act of seeking and killing live prey is **predation**.

Prey: Wild animals killed and eaten by other wild animals.

Preservation: When nature is protected and maintained in its original natural form. Its natural resources and processes are not interrupted. Any public use is passive.

Producers: Green plants that make their own food using the sun's energy and photosynthesis.

Product: Something made from natural resources. Can be renewable or nonrenewable.

Raptor: A bird of prey with sharp bills and talons. Adapted for hunting and/or scavenging prey animals.

Recycle: The process of transforming waste materials back to products suitable for reuse.

Refuge: An area of land, or of land and water, set aside to preserve and protect native plant and wildlife species, both common and rare.

Reptile: A cold-blooded, air-breathing vertebrate with scales or bony plates covering the skin and true claws on the toes. Reproduces by laying soft-shelled, leathery eggs.

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Renewable Resource: A plant, animal, or substance that can renew and sustain itself over time, like trees and soil.

Reproduction: The process by which plants or animals create offspring, or new organisms of themselves.

Restoration: The process of returning an area to its historic natural condition, using native plants and habitats to attract and hold native wildlife.

Riparian: Of, pertaining to, along, or associated with freshwater rivers and streams.

Runoff: Waterflow, from rain or snow, that is draining on the surface of the land.

Savanna: A habitat with widely spaced mature trees, usually adjacent to grassland. Prized by nesting raptors and all sorts of wildlife.

Scat: Scientific word for feces, or poop.

Scavenger: An animal that sustains itself by eating dead organisms or stealing caught prey from others. Most carnivores and omnivores are opportunist scavengers, while turkey vultures are full-time scavengers.

Scrub: Midsized bushes and trees. Also, the middle layer of riparian habitat. Highly valuable to birds and wildlife.

Science: The fact-based approach to discovering, and figuring out, what things are--on earth and in the universe--and how they work.

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Scientific Method: The systematic procedure by which scientists observe, measure, experiment, formulate, test, modify and validate their discoveries.

Sierra Nevada Mountains: The big granite mountain range in northern and central California. The range boasts many habitat types, changing as elevation and precipitation rises.

Silt: The dirty sediment that suspends in stagnant water, and/or is carried in moving water. Too much is harmful to aquatic life.

Solar: Of, or related to, the sun.

Specialist: A species that can only survive in the certain habitats it has already adapted to. (Examples: sandhill crane, western meadowlark)

Stewardship: The job of taking care of a natural place, responsibly.

Terrestrial: Of, or referring to, living or growing on dry land.

Territory: The certain geographical area belonging to, and defended by, an animal or a group of animals against others of the same sex or species.

Vernal Pool: A rare seasonal wetland habitat occurring on grassland, where an impenetrable layer of soil ponds rainwater in winter and spring. Highly adapted plant and animal species live here.

Vertebrate: An animal with a backbone.

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Water: The liquid that descends from clouds and forms rivers, streams, lakes, and seas. Essential to life and to all living things.

Water cycle: Earth's continuous circulation of water from oceans to air to land and back to oceans. The cycle involves **condensation, evaporation, run-off, precipitation, and transpiration.**

Waterbirds: Bird species that frequent lakes, rivers, oceans and other wetlands to feed, roost, and breed.

Weathering: The process by which weather breaks down rocks into smaller and smaller pieces that stay in the same location.

Wetland: Areas that are flooded or saturated by surface water for a sufficient time. Supports vegetation adapted for life in wet soil conditions. Wetlands generally include marshes, vernal pools, rivers, streams, and similar areas.

Wildlife: Animals and other life forms that are not tamed or domesticated by humans and are fully adapted for life in the wild.

Woodland: A multi-layered habitat of closed canopy trees, shrub, vines, and grasses. Supports a complex community of plants and animals. Also called **forest.**