

Nature Bowl Glossary 2025

Abiotic	Non-living, or not derived from living organisms. Often referring to elements such as water, sun, air, rocks, etc.
Adapt	Living organisms change over time to become best suited, or adapted, to their environment. These adaptations can be structural , behavioral , or physiological
Adaptations	The structural, behavioral, or physiological changes that living organisms form over time to become best suited (or adapted) to their environment.
Agriculture	The human practice 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 that can live on land and in water. Adults breathe air with lungs and through moist skin.
Anadromous	Certain aquatic species, such as salmon and steelhead trout, that live in, and can breathe, both freshwater and saltwater
Annual	A plant that completes its lifecycle from seedling to mature plant in a single growing season.
Aquatic	Growing, living in and/or associated with water.
Arthropod	Organisms with a hard, jointed exoskeleton and paired, jointed legs
Autotroph	An organism that can produce its own food
Bacteria	Small, single-cell organisms that can be found in all natural environments
Basic Needs	Fundamental requirements that serve as the foundation for survival (ie food, water, shelter, space)
Biennial	A plant that lives for two growing seasons, producing leaves the first season and flowers/seeds the second season.
Bioaccumulation	The storage of chemicals in an organism in higher concentrations than are normally found in the environment.
Biodegradable	Materials that can decompose, or decay.
Biodiversity	The variety and abundance of different species of plants and animals. (Biological diversity) . California is one of the most biodiverse places in the world!
Biology	The scientific study of life. A biologist is someone who studies living organisms and their relationship to one another.
Biome	A large geographic area with somewhat uniform climate conditions, with a distinct type of vegetation. (ie grassland, woodland, forest etc.)
Biotic	Relating to life and/or living organisms. The living organisms in a given community, including all animal and plant life in that community.

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Botany	The scientific study of plants.
Browsing	Type of herbivory in which a herbivore feeds on leaves, soft shoots, or fruits of high-growing, generally woody plants such as shrubs. Over-browsing occurs when overpopulated or densely concentrated herbivores put extreme pressure on plants by eating too much of them or consuming them when they are in a vulnerable state.
Camouflage	An adaptation that enhances chances of survival for both predators and prey by allowing wildlife and plants to blend in with their environment.
Canopy	Layer formed by the leaves and branches of the tallest trees in a forest/wooded area.
Carbon Dioxide (CO2)	A gas that is essential to life on earth, but that can have negative impacts when released into the atmosphere in excess quantities. Plants, trees, and some bacteria convert CO2 into oxygen through photosynthesis.
Carnivore	A meat eater
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
Chrysalis	The pupa stage of a butterfly; the hard "skin" around the body of a butterfly when it is in the pupa stage of development.
Citizen Science	The involvement of the general public in scientific research
Clay	A soil type with the smallest particles. Clay is very compact.
Climate	Weather conditions in a particular area over an extended period of time. The average condition of the weather.
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 release of greenhouse gases, or carbon dioxide, in the Earth's atmosphere by the burning fossil fuels
Coal	Fossilized carbon that is used for energy
Coast/Coastal	The part of the land near the sea

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Cocoon	A silk web that encloses the pupae of many moths and other insects, but not butterflies.
Colony	Individual organisms of the same species living or breeding closely together usually for the benefit of all, such as for a stronger defense.
Commensalism	A relationship between two living organisms where one benefits and the other is neither harmed nor helped
Competition	The simultaneous demand, or struggle, between two or more plant or animal species for a common resource. For example: Plants compete for sunlight, animals compete for food, etc.
Composting	Collecting discarded organic matter to create a richer soil as it decomposes.
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 yet still allow a careful amount of managed public uses, like 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.
Crepuscular	An animal that appears or is active during twilight (dawn and dusk)
Crude Oil	The liquid fossil fuel that is extracted from the ground; a non renewable energy source
Deciduous	Plants that shed their leaves and go dormant at the end of the growing season or to survive extreme weather conditions.
Decomposers	Organisms (invertebrates, bacteria, fungi) that break down dead organisms into soil
Decomposition	The breaking down of dead organisms, so they can be used by plants.
Defense	Means of protecting something from attack
Deforestation	The action or process of clearing of forests or the state of having been cleared of forests
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, 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: Mohave, Sonora and high desert.
Development	When wild natural land is permanently converted to urban or agricultural land.
Digitigrade	term used to describe animals that walk or run on their toes, like cats and coyotes.

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Disease	Conditions that make people, animals, or plants unhealthy. Diseases fall into two major groups: infectious diseases and noninfectious diseases.
Diurnal	A wildlife species active during the day.
Domestic	Wild animals (and plants) that have been tamed and bred or adapted over time for human use. Many are now dependent on humans for survival.
Dormant	Not active; at rest
Drought	a prolonged period of abnormally low rainfall, leading to a shortage of water
Echolocation	a process for locating distant or invisible objects (such as prey) by sound waves reflected back to the emitter (such as a bat) from the objects
Ecology	the study of organisms and their environment
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.
Electricity	one form of energy that gets its power from the flow of electric charges
Emissions / Exhaust	Substances discharged into the air, such as gases from cars or smokestacks
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.
Endoskeleton	An internal skeleton, such as the bony or cartilaginous skeleton of vertebrates
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.
Estivation	State of animal dormancy, similar to hibernation. The animals are inactive and have a lowered metabolic rate. The state is entered in response to high temperatures and dry conditions.
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 water. In California, estuary water is more salty than fresh due to limited outflow.
Evaporation	When a substance changes from a liquid to a gas

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Evergreen	Plants that do not lose their leaves annually.
Evidence	information or observations that help determine what is true
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.
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.
Flood / Flooding	When land that is usually dry is submerged by an overflow of water
Flora	Plant life.
Flyway	Fly routes established by migratory birds. The Sacramento Valley is a part of the Pacific Flyway.
Food Chain	The transfer of food energy in which a hierarchical series of organisms is dependent on the next as a source of food.
Food Web	The transfer of food energy among plants and animals in an interconnected web-like manner. Different from a food chain .
Foothills	The lower hills of a mountain range, usually under 2000' elevation. Habitats include oak and pine woodland, grassland, savannah, riparian, and chaparral.
Forb	An herbaceous flowering plant with broad leaves, other than a grass
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.
Fragmentation	The process or state of breaking or being broken into small or separate parts
Fry	Young fish that have recently hatched
Fungus	A simple organism, that is neither a plant or animal. Fungi are decomposers, meaning they get their energy from breaking down dead and decaying matter. Includes mushrooms, mold, and mildew.
Gait	An animal's characteristic walking pattern, determined by the animals shape. (ie how a wolf walks vs. how a rabbit moves)
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)

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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.
Geothermal	Heat from the earth; a renewable energy source
Germination	Occurs when a spore or seed starts to grow
Global Warming	A rise in the annual temperature of the Earth's climate.
Grassland	A large open habitat covered with grasses and forbs. No trees. Can be flat or rolling.
Grazer	An animal that eats grass or forbs in a field
Green waste	Biological or biodegradable waste that decomposes with time
Greenhouse Effect	A natural occurrence in which heat from the sun is trapped in the atmosphere by clouds and certain gases such as carbon dioxide
Greenhouse Gases	Gases that contribute to the greenhouse effect, such as carbon dioxide and methane
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.
Hatchery	A facility that raises fish, usually from eggs.
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.
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.
Herbaceous	A plant that does not have much wood and its stems are green and soft. These plants grow fast and produce flowers and many seeds in a short period of time
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.
Host	An organism that houses another organism through a symbiotic relationship.
Hydroelectric (Hydro or hydropower)	Electric power converted from water flows. Dams generate hydroelectric power

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Impact	An effect or influence
Indicator Species	An organism whose presence, absence, or abundance acts as a signal, showing whether an ecosystem is healthy or not.
Inorganic	Not composed of organic, or living, matter
Insect	A small invertebrate animal
Insecticide	A chemical substance used for killing insects
Interdependence	When different species within an ecosystem depend on each other for survival
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
Keystone Species	A species that plays a crucial role in an ecosystem, where many organisms are impacted by its presence
Larva	An immature form of an insect, at the stage between egg and metamorphosis
Lichen	A simple, slow growing plant-like organism made up of an alga and a fungus that grow together in a symbiotic relationship.
Lifecycle	A series of growth stages in the lifespan of every living organism.
Light pollution	Brightening of the night sky caused by man made light (street lights, buildings, etc.), which has a disruptive effect on natural cycles and wildlife.
Limiting Factors	Environmental factors that influences or restricts the population growth of a species (i.e. disease, food availability, shelter, space, etc.)
Loam	A soil mixture of clay and sand.
Logging	Process of harvesting trees, sawing them into appropriate lengths (bucking), and transporting them (skidding) to a sawmill.
Macroinvertebrate	An invertebrate large enough to be seen without a microscope.
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.
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.
Methane	An organic compound often found as the main part of natural gas

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Microhabitat	A smaller habitat within a larger one, in which environmental conditions differ from those in the larger one.
Microorganism	A very small life form that can be seen by humans only with the aid of a microscope. A Microinvertebrate is an invertebrate that can only be seen with 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.
Mining	The process of extracting (removing) useful materials from the earth, such as coal, gold, or iron ore.
Mitigate	To make up for; to substitute for losses occurred. For example, planting trees is a way to mitigate for a forest that has been logged.
Mutualism	An association between organisms in which each species benefits.
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.
Natural Selection	Survival of the fittest. A process in nature where organisms with traits better suited to their environment are more likely to survive, causing the species to change overtime.
Naturalist	A person who observes and studies plants and animals in nature.
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.
Nuclear energy	The energy found the nucleus (core) of atoms – tiny particles that make up every object in the universe. A nuclear reactor , or power plant , is a series of machines that can control nuclear fission to produce electricity. A renewable energy source.
Nutrient	A substance or ingredient that promotes growth, provides energy, and maintains life.
Observation	The act of viewing or noting something for a scientific purpose
Omnivore	A wild animal with a varied diet of both plants and animals.
Ore	A rock that contains minerals like iron, gold, or lead.
Organic	Composed of matter from plants and/or animals.

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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.
Parasitism	A relationship between two species in which one species benefits to the detriment of the other species.
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.
Petroleum	A crude oil; a naturally occurring liquid that can be refined to make gasoline, diesel fuel, jet fuel, home heating oil, lubricating oil, wax, asphalt, and many other valuable products; a nonrenewable energy source.
Phenology	The timing of nature's cycles, such as the leaves changing color in the fall or the migration of a butterfly species.
Photosynthesis	The process by which green plants make simple sugars, or food, out of sunlight, water and carbon dioxide. Plants are the only organisms directly utilizing the energy of the sun to make their own food.
Pioneer Species	The first species to inhabit a previously destroyed site; often hardy.
Plant	A tree, vine, shrub, or herb that uses the energy of the sun to make their food, called photosynthesis.
Plantigrade	Term used to describe animals that walk on the soles of their feet (i.e. racoons, bears)
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.
Pollution	Harmful substances deposited on the landscape, leading to a state of dirtiness, impurity, unhealthiness, hazards and/or toxins.
Population	The number of a particular species in a defined area.
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.
Proboscis	A butterfly's tongue
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.
Pupa	An insect in its inactive, immature form. The stage between larva and adult, also known as a chrysalis or cocoon

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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.
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.
Resilience	The ability of an ecosystem to deal with outside stressors.
Restoration	The process of returning an area to its historic natural condition, using native plants and habitats to attract and hold native wildlife.
Reusable	An item which can be used again or more than once
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.
Sacramento Valley	the area of the Central Valley of California that lies north of the Sacramento–San Joaquin River Delta and is drained by the Sacramento River. It encompasses all or parts of ten Northern California counties.
Sand	Soil type with the largest particles. Easy for water to pass through
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.
Science	The fact-based approach to discovering, and figuring out, what things are--on earth and in the universe--and how they work.
Scientific Method	The systematic procedure by which scientists observe, measure, experiment, formulate, test, modify and validate their discoveries.
Scrub	Midsized bushes and trees. Also, the middle layer of riparian habitat. Highly valuable to birds and wildlife.
Serotinous	Refers to cones that remain on a tree after maturity and open to release seeds only after exposure to certain conditions, especially heat from a fire.
Shelter	Cover or protection from weather
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.

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Silt	A soil type with particle size between sand and clay. Can also refer to the sediment that suspends in stagnant water or that is carried in moving water.
Soil Horizon	Levels of soil in regards to depth of the ground. Different horizons have different organisms, levels of decomposition, and fertility.
Solar energy	Power obtained by harnessing the energy of the sun's rays; a renewable energy source.
Solar	Of, or related to, the sun.
Space	The habitat area an organism needs to survive.
Spawn	When aquatic animals (such as fish or oysters) lay many small eggs. Can also be called spawning . For example, salmon spawn in the fall.
Specialist	A species that can only survive in the certain habitats it has already adapted to. (Examples: fairy shrimp and monarch butterflies)
Species	A category or group of organisms that can reproduce and has similar characteristics.
Stewardship	The job of taking care of a natural place, responsibly.
Sustainable	Able to be maintained or kept going. Sustainability is the act of maintaining resources in a way that they are able to renew overtime or continue existing without significant impacts.
Symbiotic	Involving interaction, or a relationship, between two different organisms living in close physical association.
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.
Threatened	In wildlife terms, a species present in its range but in danger because of a decline in numbers.
Torpor	A state of suspended movement or feeling, as in a dormant animal.
Track	(noun) An animal footprint. (verb) To determine an animals movement and location by following its trail.
Unguligrade	Term used to describe animals that walk on their toenails or hooves (ie deer and elk)
Valley	A low area of land between hills or mountains, typically with a river or stream flowing through it.
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.
Vulnerable	Species that are especially susceptible to becoming endangered.
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.

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Water diversion	Water diversion: irrigation canals, or any other manmade structure that modifies the natural flow of a waterway.
Waterbirds	Bird species that frequent lakes, rivers, oceans, and other wetlands to feed, roost, and breed.
Weather	A specific event—like a rainstorm or hot day—that happens over a few hours, days, or weeks.
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.
Wild	Not tamed or domesticated. A wild animal provides for its own food, shelter, and other needs in their environment.
Wildlife	Animals and other life forms that are not tamed or domesticated by humans and are fully adapted for life in the wild.
Wind energy/power	Electrical energy obtained from harnessing the wind with windmills or wind turbines; a renewable energy source.
Woodland	A multi-layered habitat of closed canopy trees, shrub, vines, and grasses. Supports a complex community of plants and animals. Also called forest.