



# California Ecosystems and Habitats

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A habitat can be the same as an ecosystem (an interacting system of all the living and nonliving components in a particular area), or it can be a smaller area within an ecosystem. Here are the definitions of ecosystem and habitat:

- 🐾 Ecosystem—the interaction of all the components in a particular area
- 🐾 Habitat—the place where one type of animal lives and finds the things it needs to live; a habitat must include food, water, light, air, and suitable breeding places

California has many different kinds of ecosystems and many, many different habitats. Here are some of the major ones to talk about:

**Woodland/forest:** Woodland is land that is covered with trees and/or shrubs. A forest is a particularly dense growth of trees, plants, and underbrush covering a large area. There are many different kinds of woodlands, depending on the kinds of plants that grow in them and the climate. Some of the main California woodland trees are:

- 🐾 Coast redwoods—the tallest trees in the world
- 🐾 Giant sequoias—the biggest trees in the world
- 🐾 Oak trees—various species

The animals who use each type of woodland for their habitat will be adapted to those particular plants. For example, the redwood forest is home to the Clouded Salamander, which lives high in the tree canopy (the only place it lives outside the tropics), the Peregrine Falcon, and the Northern Spotted Owl. Blue Oak woodlands can include woodpeckers, tree swallows, red-shouldered hawks, California ground squirrels, and many amphibian and reptile species.

**Hills:** California's hills are covered with grass or low shrubs (chaparral). Shrubs live for many years, but grasses grow and die off in the course of a year, giving the California hillsides their beautiful golden color. The hills that lead up to high mountains are known as foothills. Numerous wildlife species utilize annual grasslands for foraging, including the western fence lizard, common garter snake, western rattlesnake, black-tailed jackrabbit, western harvest mouse, giant kangaroo rat, coyote, and many birds of prey such as the American kestrel. Burrowing owls and the western meadowlark regularly use the grassland to breed.

**Wetlands:** Wetlands are intermediate between terrestrial and aquatic ecosystems; they are covered with water at least part of each year. Wetlands provide food, shelter, and water for numerous species of birds, amphibians, reptiles, and mammals, including river otters, ducks, beaver, fish, belted kingfishers, and the California black rail. Many migratory birds, such as snow geese and sandhill cranes, use wetlands as nesting areas or stopover places.



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## California Ecosystems and Habitats *(cont.)*

**Oceans:** Habitats within California's ocean ecosystem contain some of the most biologically diverse natural communities in the world. California has more than 1,100 miles of coastline, extending from sandy beaches and rocky shores to the ocean floor with its associated kelp beds and sandy and muddy bottoms. Animals living in the near inshore zone include many fish and shellfish species, such as abalone, spiny lobsters, California halibut, Pacific mackerel, rockfish, and several species of crab. Birds include sandpipers, gulls, and the endangered brown pelican. Harbor seals, sea lions, and elephant seals are among the mammals inhabiting the ocean, as is the California sea otter, a threatened species that has its home locally along the central coast. Farther offshore, many marine mammals, including gray and humpback whales and several species of dolphins and porpoises, are commonly found, as well as fish such as tuna and swordfish. The most abundant animals in the oceans are zooplankton, microscopic in size, which form part of the base of many food chains.

**Deserts:** Deserts are ecosystems characterized by very low and unpredictable rainfall. Although many deserts, such as the Mojave Desert and Death Valley, can be very hot, they can also be cold, especially if they are high in the mountains. The animals living in deserts are adapted to life with very little water and extreme temperatures. Kangaroo rats can go their whole lives without taking a drink of water, getting enough water from the plants and seeds they eat. Like the kangaroo rat, many desert animals escape the hottest temperatures by leading nocturnal lives. Some other animals found in California deserts are the desert tortoise, roadrunner, rattlesnake, scorpion, bighorn sheep, and coyote.