

Chapter 5 (excluding climate p. 100-105)

biome	Terrestrial regions inhabited by certain types of life, especially vegetation. Examples are various types of deserts, grasslands, and forests.
coniferous trees	Cone-bearing trees, mostly evergreens, that have needle-shaped or scalelike leaves. They produce wood known commercially as softwood. Compare deciduous plants.
deciduous plants	Trees, such as oaks and maples, and other plants that survive during dry seasons or cold seasons by shedding their leaves. Compare coniferous trees, succulent plants.
evergreen plants	Plants that keep some of their leaves or needles throughout the year. Examples are ferns and cone-bearing trees (conifers) such as firs, spruces, pines, redwoods, and sequoias. Compare deciduous plants, succulent plants.
forest	Biome with enough average annual precipitation (at least 76 centimeters, or 30 inches) to support growth of various tree species and smaller forms of vegetation. Compare desert, grassland.
grassland	Biome found in regions where moderate annual average precipitation (25-76 centimeters, or 10-]30 inches) is enough to support the growth of grass and small plants but not enough to support large stands of trees. Compare desert, forest.
latitude	Distance from the equator. Compare altitude.
monsoons	Periods of heavy rains experienced on continents lying north or south of warm oceans.
permafrost	Perennially frozen layer of the soil that forms when the water there freezes. It is found in arctic tundra.
succulent plants	Plants, such as desert cacti, that survive in dry climates by having no leaves, thus reducing the loss of scarce water. They store water and use sunlight to produce the food they need in the thick, fleshy tissue of their green stems and branches. Compare deciduous plants, evergreen plants.

Chapter 6

barrier islands	Long, thin, low offshore islands of sediment that generally run parallel to the shore along some coasts.
benthos	Bottom-dwelling organisms. Compare decomposer, nekton, plankton.
coastal wetland	Land along a coastline, extending inland from an estuary, that is covered with salt water all or part of the year. Examples are marshes, bays, lagoons, tidal flats, and mangrove swamps. Compare inland wetland.
cultural eutrophication	Overnourishment of aquatic ecosystems with plant nutrients (mostly nitrates and phosphates) because of human activities such as agriculture, urbanization, and discharges from industrial plants and sewage treatment plants. See eutrophication.
estuary	Partially enclosed coastal area at the mouth of a river where its fresh water, carrying fertile silt and runoff from the land, mixes with salty seawater.
euphotic zone	Upper layer of a body of water through which sunlight can penetrate and support photosynthesis.
eutrophic lake	Lake with a large or excessive supply of plant nutrients, mostly nitrates and phosphates. Compare mesotrophic lake, oligotrophic lake.
inland wetland	Land away from the coast, such as a swamp, marsh, or bog, that is covered all or part of the time with fresh water. Compare coastal wetland.
mangrove swamps	Swamps found on the coastlines in warm tropical climates. They are dominated by mangrove trees, any of about 55 species of trees and shrubs that can live partly submerged in the salty environment of coastal swamps.
oligotrophic lake	Lake with a low supply of plant nutrients. Compare eutrophic lake, mesotrophic lake.
phytoplankton	Small, drifting plants, mostly algae and bacteria, found in aquatic ecosystems. Compare plankton, zooplankton.
runoff	Fresh water from precipitation and melting ice that flows on the earth's surface into nearby streams, lakes, wetlands, and reservoirs. See reliable runoff, surface runoff, surface water. Compare groundwater.
upwelling	Movement of nutrient-rich bottom water to the ocean's surface. This can occur far from shore but usually occurs along certain steep coastal areas where the surface layer of ocean water is pushed away from shore and replaced by cold, nutrient-rich bottom water.
watershed	Land area that delivers water, sediment, and dissolved substances via small streams to a major stream (river).

wetland Land that is covered all or part of the time with salt water or fresh water, excluding streams, lakes, and the open ocean. See coastal wetland, inland wetland.

zooplankton Animal plankton. Small floating herbivores that feed on plant plankton (phytoplankton). Compare phytoplankton.

Chapter 7

annual Plant that grows, sets seed, and dies in one growing season. Compare perennial.

climax community Fairly stable, self-sustaining community in an advanced stage of ecological succession; usually has a diverse array of species and ecological niches; captures and uses energy and cycles critical chemicals more efficiently than simpler, immature communities. Compare immature community.

commensalism An interaction between organisms of different species in which one type of organism benefits and the other type is neither helped nor harmed to any great degree. Compare mutualism.

competition Two or more individual organisms of a single species (intraspecific competition) or two or more individuals of different species (interspecific competition) attempting to use the same scarce resources in the same ecosystem.

disturbance A discrete event that disrupts an ecosystem or community. Examples of natural disturbances include fires, hurricanes, tornadoes, droughts, and floods. Examples of human-caused disturbances include deforestation, overgrazing, and plowing.

ecological succession Process in which communities of plant and animal species in a particular area are replaced over time by a series of different and often more complex communities. See primary succession, secondary succession.

ecosystem services Natural services or natural capital that support life on the earth and are essential to the quality of human life and the functioning of the world's economies. See natural resources.

habitat fragmentation Breakup of a habitat into smaller pieces, usually as a result of human activities.

indicator species Species that serve as early warnings that a community or ecosystem is being degraded. Compare keystone species, native species, nonnative species.

invasive species See nonnative species.

keystone species Species that play roles affecting many other organisms in an ecosystem. Compare indicator species, native species, nonnative species.

mutualism Type of species interaction in which both participating species generally benefit. Compare commensalism.

native species Species that normally live and thrive in a particular ecosystem. Compare indicator species, keystone species, nonnative species.

nonnative species Species that migrate into an ecosystem or are deliberately or accidentally introduced into an ecosystem by humans. Compare native species.

parasitism Interaction between species in which one organism, called the parasite, preys on another organism, called the host, by living on or in the host. See host, parasite.

perennial Plant that can live for more than 2 years. Compare annual.

pioneer species First hardy species, often microbes, mosses, and lichens, that begin colonizing a site as the first stage of ecological succession. See ecological succession, pioneer community.

predation Situation in which an organism of one species (the predator) captures and feeds on parts or all of an organism of another species (the prey).

primary succession Ecological succession in a bare area that has never been occupied by a community of organisms. See ecological succession. Compare secondary succession.

resilience Ability of a living system to restore itself to original condition after being exposed to an outside disturbance that is not too drastic. See constancy, inertia.

secondary succession Ecological succession in an area in which natural vegetation has been removed or destroyed but the soil is not destroyed. See ecological succession. Compare primary succession.

theory of island biogeography The number of species found on an island is determined by a balance between two factors: the immigration rate (of species new to the island) from other inhabited areas and the extinction rate (of species established on the island). The model predicts that at some point the rates of immigration and extinction will reach an equilibrium point that determines the island's average number of different species (species diversity).