

## GLOSSARY

**abiotic** - non-living or physical component.

**agroecosystem** - an agricultural ecosystem, typically receiving energy and nutrient subsidies from humans.

**algae** - a diverse group of plants ranging in size from microscopic single cells to large seaweeds.

**amphipod** - very small crustacean, flattened from side-to-side.

**anaerobic** - without oxygen.

**annelid** - segmented worms (as distinguished from nonsegmented roundworms and flatworms).

**anthropogenic factor** - created by, or the result of, human activity.

**assimilative capacity** - the limit of a water body to incorporate nutrients or pollutants without degradation of the receiving waters.

**autotroph, autotrophic** - an organism requiring only simple inorganic molecules to sustain life, or a community containing sufficient photosynthetic organisms to support a food web.

**bacteria** - single-celled microorganisms which may be autotrophic, saprophytic, or parasitic.

**benthic** - associated with the bottom of a water body.

**benthic algae** - algae attached to the bottom, sometimes permanently.

**benthos** - the community of organisms associated with submerged substrates.

**biodeposition** - the addition of feces and pseudofeces from suspension feeders to sediments.

**biomass** - the total mass of living organisms.

**biota, biotic** - living plants, animals, and microscopic organisms.

**bioturbation** - the displacement and movement of sediment due to living organisms.

**bivalve mollusk** - mollusks with a two-piece shell, such as oysters and clams.

**blue-green algae** - primitive algae whose cells resemble bacteria, lacking a nucleus and other cell structures; they manufacture photosynthetic pigments but lack the specialized organelles, chloroplasts; cyanobacteria.

**chaetognath** - planktonic marine worm.

**chironomid** - aquatic larval stage of midge insect.

**commensal** - a relationship between two organisms where one obtains food, shelter or other benefits from another organism within harming or benefitting the other.

**community** - the intermingled populations of plants and animals which share a given space, compete for local resources, and consume one another to establish food webs.

**congener** - closely related members of the same taxonomic genus.

**constraint, constraint mechanism** - a factor which inhibits or controls some action.

**contaminant** - a substance released by man's activities (see pollutant).

**copepod** - small aquatic crustacean prominent in planktonic and benthic communities.

**corridor** - a narrow strip of land that differs from the matrix on either side.

**CPOM** - coarse particulate organic matter.

**crustacean** - joint-legged arthropod with a hard external skeleton; for example, crabs and shrimp.

**ctenophore** - gelatinous planktonic animal; for example, comb jellies.

**culm** - the stem of a grass plant.

**cyanobacteria** - see blue-green algae.

**decomposer** - an organism which consumes dead biomass.

**decomposition** - the breakdown of organic matter.

**demersal** - animals living in the water column but feeding on the bottom; for example, croaker.

**deposit feeder** - organism which ingests bottom sediments and digests microorganisms and organic matter contained therein.

**detrital food web** - consumption which begins with dead plant material and its associated decomposing organisms.

**detritivore** - an organism that derives nutrients and energy by consuming detritus.

**detritus** - decomposing organic material.

**developed site** - fuel-powered system, such as urban and industrial sites fabricated by humans.

**diatom** - nucleated, photosynthetic algal cell with walls of silica; major component of both planktonic and benthic communities.

**dissolved material** - substance that chemically dissolves into an aquatic medium.

**disturbance** - an event that causes a significant change from a normal pattern.

**diversity** - the wide variety of plants and animals in a community.

**DOM** - dissolved organic matter.

**domesticated site** - solar-powered system subsidized by human-controlled work energy, such as fossil-fuel-powered machinery, human and animal labor, imported fertilizers, etc.; includes agricultural land, managed woodlands and forests, and artificial lakes and ponds.

**ecological niche** - the functional role of a species in a community and its specific habitat requirements.

**ecosystem** - all of the organisms of a given place interacting with the physical environment.

**ecotone** - a gradient in species distributions along an edge between two distinct habitats.

**edaphic factor** - related to the soil.

**edge** - the juncture between two distinct entities.

**edge effect** - the result of certain species prospering along an edge, as opposed to the interior, of a habitat patch.

**edge species** - a plant or animal limited or attracted to edges between distinct habitats.

**egested material** - remnant material returned to the environment following digestion by an organism.

**emergent** - rooted, aquatic vegetation which stands erect and partially above the water level.

**emergent property** - one that results from the functional interaction of the component parts.

**energy transfer** - the interchange of energy-containing molecules between organisms.

**environs** - that which surrounds.

**epifauna** - animals living on the surface of the bottom.

**epiphytic** - growing on, and supported by, a plant.

**estuary** - a semi-enclosed coastal body of water with salinity intermediate between salt and fresh water.

**euhaline** - salinities greater than 30 parts per thousand.

**euphotic zone** - that portion of the water column which receives sufficient sunlight to support photosynthesis.

**euryhaline** - tolerant of a broad range of salinity.

**evapotranspiration** - the movement of a water molecule from soil to a root, then within the plant to a leaf, where it evaporates to enter the atmosphere.

**exotic species** - an organism which is not native to an area.

**fecal coliform** - rod-shaped bacteria which inhabit the colon and are associated with fecal wastes of warm-blooded animals.

**feedback loop** - linked components of a system, where one affects another, which then either stimulates or inhibits the first.

**finfish** - vertebrate fish with cartilaginous or bony skeleton and single median or paired lateral fins.

**fishable** - waters where fewer than 10 percent of dissolved oxygen measurements are less than 3.0 milligrams per liter, thus capable of supporting fishes.

**flocculant** - an aggregation of fine suspended particles.

**floodplain** - the land parallel to a stream or river which is subject to intermittent flooding.

**food chain, food web** - a biotic pathway for matter and energy transport from primary producer to primary consumer to secondary consumer to top carnivore to decomposer within a community.

**FPOM** - fine particulate organic matter.

**fungus, fungi (pl.)** - saprophytic or parasitic lower plants or microorganisms.

**gastropod mollusk** - mollusk with a one-piece shell, as a snail.

**gillraker** - a structure on the bony arch of a fish gill that diverts solid substances from the gills; sometimes modified to filter food particles.

**grazing food web** - consumption which begins with living plants or phytoplankton.

**green algae** - algal cells with nuclei, and photosynthetic pigments organized in special organelles, the chloroplasts.

**groundwater** - water flowing in spaces between soil particles.

**guild** - a group of organisms exploiting a common resource in a similar way.

**habitat** - a chosen environment of an organism which provides its life requisites.

**halophytic** - a salt-tolerant plant.

**hectare** - a metric measure of area, encompassing 10,000 square meters (e.g., a square 100 meters by 100 meters), equivalent to 2.47 acres.

**herbivore** - an animal which primarily consumes vegetation or phytoplankton.

**heterotroph, heterotrophic** - an animal that consumes chemical energy stored in organic molecules made by other organisms; a community which requires the importation of organic matter from elsewhere to support its food web.

**hierarchy, hierarchical** - a graded series of compartments, each level of which influences activities within adjacent levels.

**holoplankton** - permanent (all life stages) members of the plankton.

**hydrologic cycle** - the cycling of water molecules evaporated from the ocean, precipitated on land, and flowing as surface streams or groundwater back to the ocean.

**hypersaline** - saltier than seawater (35 parts per thousand), the result of evaporation exceeding precipitation and freshwater inflow.

**hyphae** - extensions of a fungal cellular membrane.

**indicator species** - a species with wide distribution, sensitivity to changes in the system, and an appropriate life cycle that permits observation of changes in organism density and productivity in association with environmental change.

**individual** - a single organism.

**infauna** - animals living immediately beneath the bottom surface.

**intertidal** - found between the high tide and low tide demarkations, and thus intermittently exposed to the subaerial environment.

**invertebrate** - animals which lack a spinal column (vertebrae).

**isopod** - a small crustacean with flattened body.

**juvenile** - immature individuals of similar appearance as adults.

**key species** - species important as a conduit of materials and energy throughout the food web; for example, brown and white shrimp, gulf menhaden, bay anchovy.

**keystone species** - (1) species important as creators of habitat; for example, oysters, seagrasses, smooth cordgrass, etc.; or (2) species which regulate community structure to the extent that disappearance of the keystone species will lead to significant changes in the community or habitat.

**laity** - the mass of the people as distinguished from those of a particular profession or those specially skilled.

**landscape** - a heterogeneous land area composed of clustered, interacting ecosystems.

**larva, larvae** (pl.) - an early life stage of an organism, which may bear little resemblance to the adult stage.

**layperson** - a person who does not belong to a particular profession or who is not expert in some field.

**lentic ecosystem** - a system of slow-moving water; for example, a lake.

**life cycle** - a series of stages in form and functional activity through which an organism passes during its lifetime.

**lotic ecosystem** - a system of fast-moving water; for example, a stream or river.

**macroflora** - plants visible to the unaided eye.

**macrophyte** - a large plant, visible to the unaided eye.

**macroplankton** - plankton 200 to 2000 micrometers (= 2 millimeters) in size (or greater than 2 millimeters by some authors).

marine - related to the sea.

**matrix** - the dominant landscape element.

**megaplankton** - plankton larger than 2 millimeters in size.

**meiofauna** - animals from 62 to 500 micrometers in size.

**meroplankton** - temporary member of the plankton, especially (but not restricted to) a larval stage.

**mesoplankton** - plankton 200 micrometers to 2 millimeters in size.

**meter** - a metric measure of length, equivalent to 3.28 feet or 39.37 inches.

**microbe** - a microscopic-size organism.

**microfauna** - nonphotosynthetic animals smaller than 62 micrometers.

**microflora** - microbes or plants invisible to the unaided eye.

**microplankton** - various plankters in the size range 20 to 200 micrometers.

**mineralization** - the conversion of dead organic matter to inorganic molecules.

**mysid** - a type of shrimp; crustacean.

**nano- or nannoplankton** - ultra-small (2 to 20 micrometers) planktonic organisms such as phytoplankton, heterotrophic bacteria and protozoans.

**natural site** - a solar-powered system dependent on sunlight and indirect forms of solar energy such as wind and rainfall.

**nauplius, nauplii (pl.)** - a larval stage of many crustaceans.

**nearshore gulf** - adjacent to the continental shoreline.

**nekton** - aquatic organism living within the water column and capable of self-directed feeding activity and swimming against a current.

**neritic** - inhabiting shallow coastal waters.

**nonpoint-source contaminant** - a contaminant that cannot be traced readily to a specific source, such as fertilizers or pesticides transported as surface runoff from farmlands and developed urban areas.

**nursery** - a place where young finfishes and shellfishes grow up.

**nutrient cycle** - the biogeochemical movement and transformation of nutrients from the abiotic environment into the biota, through the food web, and return to the physical environment.

**oligohaline** - salinities of 0.5 to 5 parts per thousand.

**omnivore, omnivorous** - an animal that consumes both plant and animal matter.

**organic matter** - carbon compounds, especially those created by the biota.

**organism** - an individual plant, animal or microbe.

**osmotic stress** - stress resulting from a large difference in solute concentration within an organism and its environment.

**ostracod** - a small crustacean.

**oxygen sag** - the depletion of oxygen caused by the introduction of oxygen-demanding chemicals or microorganisms into a stream.

**oyster reef** - the physical structure resulting from aggregated oyster shells adhering to one another.

**parasite** - an organism living in or on another organism, deriving its nourishment from the host.

**patch** - a surface area differing in appearance from its surroundings.

**pathogen** - a microorganism or virus which causes a disease.

**pelagic** - organisms which live in open waters; not associated with the bottom or the shoreline.

**perturbation** - a condition or factor which disturbs a system.

**pheromone** - a chemical substance produced by an animal which stimulates another individual of the same species.

**photosynthesis** - the creation of chemical compounds with the aid of sunlight.

**phytoplankton** - photosynthetic members of the plankton.

**phytoplanktivore, phytoplanktivorous** - animals which consume phytoplankton.

**plankter** - a single planktonic organism.

**plankton** - living organisms passively suspended in, and transported by, the water column.

**point source contaminant** - a contaminant traceable to a specific source, such as a discharge pipe from a factory or sewage treatment plant.

**pollutant** - a substance that occurs in the environment at least in part as a result of man's activities, and has a deleterious effect on living organisms.

**polychaete** - segmented worm common in marine benthos.

**polyhaline** - salinities of 18 to 30 parts per thousand.

**POM** - particulate organic matter.

**population** - all of the individuals of a given species within a specified area.

**postlarvae** - an intermediate life stage in some organisms, between the larval and adult stages.

**predator** - an animal which consumes other animals as food.

**primary consumer** - organism that consumes primary producers (green plants, phytoplankton) directly; the second stage of a food chain.

**primary producer** - an organism capable of capturing the physical energy of sunlight and storing this energy as chemical bonds in organic molecules constructed from carbon dioxide gas; the first stage of a food chain or web.

**primary productivity** - the creation of organic matter by autotrophic organisms.

**productivity** - the creation of organic matter by organisms.

**propagule** - the reproductive product (seed, egg, etc.) of a plant or animal.

**protozoan, protozoa** (pl.) - small (2 micrometers to 1 millimeter), single-celled, nucleated organisms that lack cell walls; some are photosynthetic.

**pseudofeces** - material which has been filtered from the mantle cavity of bivalve mollusks but not ingested.

**riparian** - related to or located on the bank of a watercourse.

**river continuum** - the concept that river characteristics and biota change in a predictable manner from headwater to terminus.

**salinity** - the amount of various salts in solution in water.

**salinity gradient** - a change in salinity, in either a horizontal or vertical direction.

**salt pan** - an unvegetated or poorly vegetated shoreline zone with high soil salt content due to evaporation of salt water.

**SAV** - submerged aquatic vegetation.

**scavenger** - an animal that consumes dead animals.

**secondary consumer** - an organism that eats primary consumers, rather than primary producers directly.

**sediment** - matter transported and deposited by water.

**sergistid** - a type of shrimp (decapod crustacean).

**sessile** - attached to a hard surface; non-motile.

**shellfish** - invertebrate organism with hard outer skeleton or shell; for example, crab, shrimp, oyster, clam, snail.

**spatial scale** - measurements which may differ in various localities.

**spawning** - the release of eggs and sperm during reproduction.

**species** (sing. & pl.) - organisms sharing common attributes, potentially capable of interbreeding, and designated by a common name.

**standing crop** - the total amount of biomass per unit area at a given time.

**subaerial** - surrounded by air; for example, terrestrial plants and animals.

**subaqueous** - surrounded by water; for example, aquatic plants and animals.

**submerged, submergent** - living in and beneath the water.

**subtidal** - below the low tide demarkation, and thus submerged virtually all of the time.

**surface microlayer** - the air-water interface, inhabited by a distinct biotic community, the neuston.

**surface runoff** - the movement of water over a soil surface.

**suspended material** - substances which do not dissolve in an aquatic medium but are physically suspended within and transported by motion of the water.

**suspension feeder** - organism which filters suspended particles and plankton from the water column.

**sympatric** - occupying the same habitat.

**temporal scale** - measurements which may differ at different points in time.

**toxicant** - a pollutant that is toxic to living organisms, as distinguished from those that alter the environment without being toxic. Toxic effects depend on exposure and dose.

**trophic level** - a position in a food chain or web, such as primary producer, primary consumer, secondary consumer, top carnivore.

**urban-industrial ecosystem** - a fuel-powered system fabricated by humans.

**virus** - a submicroscopic, nonliving, infective agent.

**water column** - a mass of water of unspecified dimension extending from the bottom to the surface.

**watershed** - the area drained by a river or stream and its tributaries.

**wetland** - land where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface.

**zooplankton** - animal members of the plankton.