# Term Abundance index Definition: Information obtained from samples or observations that is used to measure the weight or number of fish that make up a stock. Acid rain Definition: Natural rainfall that contains nitric and sulfuric acids due to nitrogen oxide (NOx) and sulfur dioxide discharged into the air by industries, power plants, automobiles and other emission sources. Agriculture Definition: The science or practice of farming, including growing crops and raising animals for the production of food, fiber, fuel and other products. Air deposition Definition: An airborne pollutant (often nitrogen) that falls onto the land and runs off into the water, or falls onto the water itself. Airshed Definition: The area of land over which airborne pollutants can travel to reach a particular river, lake, bay or other body of water. The Chesapeake Bay's airshed is 570,000 square miles, stretching north to Canada, west to Ohio and south to South Carolina. Algae

Page 1 of 59 05/02/2024

#### Term

Definition: Tiny, single-celled planktonic plants. Algae, or phytoplankton, are the primary producers of food and oxygen in the Bay food web.

#### Algae bloom

Definition: A dense population of algae whose growth is fueled by excess nutrients. Algae blooms can block sunlight from reaching underwater grasses, and their decomposition can rob the water of dissolved oxygen and suffocate marine life.

Allowance

Definition: The amount of pollution a source is allowed to discharge during a given period of time.

Amphibian

Definition: A cold-blooded vertebrate that lives in water and on land. Amphibians' aquatic, gill-breathing larval stage is typically followed by a terrestrial, lung-breathing adult stage. For example, frogs, toads and salamanders are amphibians found in the Chesapeake Bay watershed.

**Amphipod** 

Definition: A small, shrimp-like crustacean.

Anadromous fish

Definition: Fish that spend their adult lives in salt water but must migrate to freshwater tributaries to spawn. For example, Atlantic sturgeon and American shad are both anadromous fish.

Page 2 of 59 05/02/2024

Term
Anaerobic
Definition: Not containing oxygen or not requiring oxygen.
Angler
, trigici
Definition: Someone who fishes recreationally with a hook, line and rod.
Anoxia
Definition: A condition in which little or no oxygen is present in a body of water. Also called a "dead zone."
Anthropogenic
Definition: Caused by humans.
Aquaculture
Aquaculture
Definition: The farming of plants and animals that live in water, such as fish or shellfish.
Aquatic
Definition: Living in water.
Aquatic reef
Definition: A solid, three-dimensional ecological community made up of densely packed oysters or other natural substances. Aquatic,

Page 3 of 59 05/02/2024

#### Term

or oyster, reefs provide vital habitat for finfish, crabs and other invertebrates.

Aquifer

Definition: A body of permeable rock that can contain or transmit groundwater.

Arachnid

Definition: A group of animals that have four pairs of legs and a body divided into two segments. Spiders, ticks, scorpions and mites are all arachnids.

Arthropod

Definition: A diverse group of invertebrates that have jointed legs and an exoskeleton, or external skeleton. Aquatic arthropods include horseshoe crabs and crustaceans like blue crabs and barnacles. Terrestrial arthropods include insects, scorpions and spiders.

Artificial reef

Definition: An underwater structure made of artificial substances (such as concrete or metal) that mimics oyster reefs and provides habitat for aquatic species that live on or around aquatic reefs.

Atmospheric deposition

Definition: The process by which airborne pollutants settle onto land or water. "Wet deposition" refers to pollutants that fall to the earth while attached to raindrops or snowflakes. "Dry deposition" refers to pollutants that fall to the earth without precipitation.

# Term Attenuation Definition: The process by which forests reduce the amount of pollutants in the air. Backwater Definition: A still body of water or a still portion of a larger body of water that is unaffected by the flow of the larger body of water. A small stagnant branch of a river would be considered a backwater. **Ballast** Definition: Water, sand, or other heavy material used to give ships weight and stability. Baseflow Definition: The portion of river flow that comes from groundwater, rather than runoff. Baseline Definition: The numeric level of pollution coming from a source during a particular time period, which is used as a standard to measure future reduction goals and allowances against. Basin Definition: An area of land that drains into a particular river, lake, bay or other body of water. Also called a watershed. Bathymetry

Page 5 of 59 05/02/2024

#### Term

Definition: The varying physical characteristics--including depth, contour and shape--of the bottom of the Bay and other bodies of water.

Bay jurisdictions

Definition: Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia.

**BayScapes** 

Definition: Colorful, environmentally sound landscapes that provide wildlife habitat; slow and filter polluted runoff; and require less mowing, fertilizer and pesticides.

**Bedrock** 

Definition: Solid rock underlying the earth's surface.

**Benthic** 

Definition: Bottom-dwelling. Benthic organisms spend at least part of their lives in, on or near the bottom of aquatic environments.

Benthic macroinvertebrate

Definition: Bottom-dwelling invertebrates that can be seen with the unaided eye. Benthic macroinvertebrates are used by state and federal water resource agencies to assess stream health.

**Benthos** 

#### Term

Definition: Plants and animals that live in or on the bottom of an aquatic environment, including worms, shellfish and bottom-feeding finfish.

Best management practices

Definition: The most effective and practical ways to control pollutants and meet environmental quality goals. BMPs exist for forestry, agriculture, stormwater and many other sectors.

Acronym: BMPs

Bioaccumulation

Definition: The uptake and storage of chemical contaminants by living animals and plants. This can occur through direct contact with contaminated water or sediment or through the ingestion of another organism that is contaminated. For example, a small fish might eat contaminated algae, a bigger fish might eat several contaminated fish and a human might eat a bigger, now-contaminated fish. Contaminants typically increase in concentration as they move up the food chain.

Biodiversity

Definition: The variety of life forms, the ecological roles they perform and the genetic diversity they contain.

Biological diversity

Definition: The variety of life in all forms, levels and combinations, including ecosystem diversity, species diversity and genetic diversity.

Biological nutrient removal

#### Term

Definition: Wastewater treatment technology that uses microorganisms to remove nitrogen and phosphorous from effluent.

Acronym: BNR

**Biomass** 

Definition: The amount of a living species, expressed as a concentration or weight per unit area.

Bioretention site

Definition: Also called a rain garden; an innovative method of stormwater management that retains rainwater and uses plants and layers of soil, sand and mulch to reduce the amount of nutrients and other pollutants that enter local waterways.

**Biota** 

Definition: The flora and fauna of a region.

Bivalve

Definition: An aquatic mollusk whose compressed body is enclosed within a hinged shell. For example, clams, oysters and mussels are bivalves.

Bloom

Definition: A dense population of algae fueled by excess nutrients. Algae blooms rob the Bay's aquatic life of sunlight and dissolved oxygen.

Term Bog Definition: A type of wetland that has poorly drained acidic peat-soil dominated by sedges and sphagnum moss. **Brackish** Definition: A combination of fresh and salt water. Most of the water in the Bay is brackish. Bycatch Definition: Fish, sea turtles, sea stars and other aquatic animals that are unintentionally caught in fishing gear. Bycatch is usually thrown back into the water dead or dying. Canopy Definition: The top layer of a forest. The canopy shades and protects the plants and animals below it, while intercepting and slowing rainfall. Cap Definition: The total amount of nutrients or sediments allowed to be discharged into a given water body. The cap is the baseline minus the pollutant load that needs to be reduced to meet a water quality or restoration goal. Cap load Definition: The maximum amount of nutrients and sediments that can be allowed to flow into a waterway and still have it meet water

Term
quality criteria.
Cap load allocations
Definition: Based on each tributary's nutrient and sediment input to the Bay, the total Chesapeake Bay pollution load is divided
proportionally to each tributary and jurisdiction. Cap load allocations show where the nutrient and sediment loads will most effectively
be reduced to achieve restoration goals.
Carapace
Carapace
Deficition. A bond about an extra the bond of an extract and an extract and allow
Definition: A hard shell covering the back of an animal, such as a crab or turtle.
Carnivore
Definition: An animal or plant that feeds on animal tissue or meat.
Carrion
Definition: The rotting flesh of a dead animal.
Carrying capacity
Definition: The maximum number of individual organisms that a habitat or a region can support before environmental degradation or
social stress takes place.
Catadromous fish

Page 10 of 59 05/02/2024

#### Term

Definition: Fish that spend most of their lives in freshwater tributaries but must migrate to salt water to spawn. The American eel is the only catadromous fish in the Chesapeake Bay region.

Cephalopod

Definition: A type of mollusk. The brief squid is the only cephalopod common to the Chesapeake Bay.

Chemical contaminants

Definition: Pesticides, pharmaceuticals, metals and other toxic substances that can harm the health of both humans and wildlife.

Chlorophyll a

Definition: The predominant type of chlorophyll found in algae. Chlorophyll a is used as an indicator of nutrient pollution in the Bay and its tributaries.

Cilia

Definition: Tiny, projecting "hairs" on a cell or microscopic organism that beat rhythmically to aid in movement.

Clean Water Act

Definition: Common name for the Federal Water Pollution Control Act. Its purpose is to "restore and maintain the chemical, physical and biological integrity of the nation's waters," whether on public or private land. It authorizes the U.S. Environmental Protection Agency (EPA) to set water quality criteria for states to use to establish water quality standards.

Clutch

# Term Definition: A group of eggs laid together at one time. Coastal plain Definition: The level land downstream of the piedmont and fall line, where soils are generally finer and fertile and rivers are influenced by the tide. Coliform bacteria Definition: A group of bacteria primarily found in human and animal intestines and wastes. Coliform bacteria (such as E. coli) are widely used as an indicator of the presence of such wastes in water. Commensal Definition: A two-species association in which there is a positive effect on one species and neither a positive nor a negative effect on the other. Community Definition: A group of organisms occurring together. Competition

Definition: An interaction between members of two or more species that, as a consequence either of exploitation of a shared resource or of interference related to that resource, has a negative effect on fitness-related characteristics of at least one of the species.

Page 12 of 59 05/02/2024

Term
Conical
Definition: Shaped like a cone.
Conifer
Definition: Any needle-leaved or scale-leaved cone-bearing tree or shrub, such as pines, spruces and cypress.
Conservation
Definition: The care and protection of natural resources.
Consumer
Definition: Any organism that consumes other organisms (living or dead) to meet its energy needs.
Contaminant
Definition: Anything that makes the water or land impure, unclean or polluted.
Contaminants of emerging concern
Definition: Pharmaceuticals, personal care products and other chemicals that are being discovered in water that previously had not been detected or are being detected at levels that may be significantly different than expected. The risk to human health and the environment associated with the presence, frequency of occurrence or source of these contaminants may not be known.
Copepods

Page 13 of 59 05/02/2024

#### Term

Definition: Small, abundant planktonic crustaceans that are important food for fish.

Crustaceans

Definition: Aquatic arthropods (invertebrates) that have gills, joined legs and exterior skeletons. Crabs, shrimps, barnacles, amphipods and isopods are all crustaceans.

Dam

Definition: Any barrier which impounds or diverts water.

DDT

Definition: A pesticide used widely in the mid-20th century to control mosquitoes. DDT was banned after it was found to cause bald eagles and other birds to lay eggs with brittle shells that would crack easily, causing populations to decline.

Dead zone

Definition: A condition where no oxygen is present in the water. Dead zones are often caused by the decomposition of algae blooms.

Decomposition

Definition: The process by which organic matter breaks down into simpler forms.

Deforestation

# Definition: The removal of a forest, woodland or stand of trees without adequate replanting or natural regeneration. Delmarva Peninsula Definition: The land separating the Chesapeake Bay from the Atlantic Ocean. The Delmarva Peninsula falls within the states of Delaware (Del-), Maryland (-mar-) and Virginia (-va), from which it gets its name. Denitrification Definition: The loss or removal of nitrogen or nitrogen compounds. Dermo

Definition: An oyster disease caused by the protozoan parasite Perkinsus marinus, which many Chesapeake Bay oysters contract in their second year of life.

Designated use

Definition: The description of an appropriate intended use by humans and/or aquatic life for a water body. Designated uses for a water body may include recreation, shellfishing, water supply and/or aquatic life habitat.

**Detritus** 

Term

Definition: Accumulated organic debris from dead organisms that is often an important source of food in a food web.

Detrivore

Term
Definition: Any organism that gets most of its nutrients from the detritus in an ecosystem.
Diatoms
Definition: Microscopic algae with plate-like structures made of silica. Diatoms are considered a good food source for zooplankton.
Dinoflagellate
Definition: A type of algae with long, whip-like structures called flagellates.
Dissolved inorganic nitrogen
Definition: Nitrogen that is readily usable by plants.
Acronym: DIN
Dissolved oxygen
Definition: The amount of oxygen that is present in the water. It is measured in units of milligrams per liter (mg/L), or the milligrams of oxygen dissolved in a liter of water. Just like humans, all of the Bay's living creatures need oxygen to survive.
Acronym: DO
Diurnal
Definition: An animal that is active during daylight.
Diversity

Page 16 of 59 05/02/2024

Term
Definition: An ecological measure of the variety of organisms present in a habitat.
Dorsal
Definition: Relating to or situated on an animal's back.
Drainage basin
Definition: An area of land that drains into a particular river, lake, bay or other body of water. We all live in a drainage basin: some are
large (like the Chesapeake), while others are small (like your local stream or creek). Also called a watershed.
Dredge
Definition: An apparatus used to bring up objects or mud from a river or seabed by scooping or dragging.
Dry deposition
Dry deposition
Definition: Pollutants in the air that fall onto the land or water as dry particles, without the aid of precipitation.
Easement
Definition: A limited right to use a part of land owned by another person or organization.
Ebb tide
Definition: A falling tide.
Echinoderm

Page 17 of 59 05/02/2024

#### Term

Definition: A marine invertebrate animal that has tube feet and five-part radial symmetry. Sea stars and sea cucumbers are both echinoderms, which means "spiny-skinned."

**Ecology** 

Definition: The study of interrelationships between living things and their environment.

**Ecosystem** 

Definition: A natural unit formed by the interaction of a community of plants and animals with the environment in which they live. All of the elements of an ecosystem interact with each other in some way, depending on each other directly or indirectly.

Effluent

Definition: Discharge of liquid waste from a wastewater treatment facility, factory or industry to a local waterbody.

**Emergent** 

Definition: Growing in water, with the majority extending above the water's surface.

**Emissions** 

Definition: Pollution released or discharged into the air from natural or man-made sources, including vehicles, smokestacks and the spraying of aerosols.

**Endangered species** 

#### Term

Definition: A species whose numbers are so small that it is in immediate danger of becoming extinct and needs protection to survive.

**Endemic species** 

Definition: A species that is restricted in its distribution to a particular locality or region.

Endocrine disruptors

Definition: Synthetic chemicals that disrupt normal endocrine system functions in humans and wildlife by blocking or mimicking hormones. Known endocrine disruptors include PCBs, dioxins, DDT and some other pesticides.

Enhanced nutrient removal

Definition: Wastewater treatment technology that improves upon the nutrient reductions achieved through biological nutrient removal (BNR).

Acronym: ENR

Environment

Definition: The place in which an organism lives and the circumstances under which it lives. An environment includes measures like moisture and temperature as much as it refers to the actual physical place where an organism is found.

Environmental data

Definition: Any measurements or information that describe environmental processes, location or conditions; ecological or health

#### Term

effects and consequences; or the performance of environmental technology. For EPA, environmental data include information collected directly from measurements, produced from models and compiled from other sources such as databases or literature.

Environmental technology

Definition: An all-inclusive term used to describe pollution control devices and systems, waste treatment processes and storage facilities, and site remediation technologies and their components that may be utilized to remove pollutants or contaminants from the environment or prevent them from entering the environment.

#### **Epifauna**

Definition: Animals that live either attached to a hard surface (for example, on rocks or pilings) or move on the surface of bottom sediments. Epifauna include oysters, mussels, barnacles, snails, starfish, sponges and sea squirts.

**Epiphyte** 

Definition: A plant that grows upon another plant. The epiphyte does not "eat" the plant on which it grows, but uses the plant for structural support or as a way to get off the ground and into the canopy environment.

**Erosion** 

Definition: The disruption or movement of soil by wind, water or ice, occurring naturally or as a result of land use practices.

Estuarine species

Definition: A permanent resident of an estuary. Also called a resident species.

# Term **Estuary** Definition: A partially enclosed body of water where fresh water from rivers and streams mixes with salt water from the ocean. It is an area of transition from land to sea. Euryhaline Definition: Used to describe aquatic organisms that tolerate a wide range of salinities. **Eutrophic** Definition: An aquatic system with high nutrient concentrations, which fuels algal growth. This algae eventually dies and decomposes in a process that reduces the amount of dissolved oxygen in the water. Eutrophication Definition: The process of excess nutrients accelerating the growth of algae, ultimately depleting the water of dissolved oxygen. Exoskeleton Definition: Hard outer shell that provides an invertebrate with support and protection. Blue crabs and other crustaceans have exoskeletons. **Exotic species** Definition: Any introduced plant or animal species that is not native to a region. Exotic species are not always considered a nuisance

Page 21 of 59 05/02/2024

Term
or invasive.
Extant species
Definition: A species that is currently in existence (the opposite of extinct).
Extinct species
Definition: A species that has disappeared from existence due to either natural or human-induced means.
Fall line
Definition: The boundary between the Piedmont Plateau and the Coastal Plain, ranging from 15 to 90 miles west of the Bay. Waterfalls and rapids clearly mark this line, which is close to Interstate 195.
Fecundity
Definition: The rate at which an individual produces offspring, usually expressed only for females. For example, the number of eggs produced per female striped bass during a spawning season.
Fertilizer
Definition: A natural substance or chemical added to soil or land to increase its fertility and help plants grow.
Filter feeder
Definition: An organism that feeds by straining plankton and other food particles from water that is pumped through its gills or mouth.

Page 22 of 59 05/02/2024

# Term For example, oysters and menhaden are filter feeders. Fish ladder Definition: A series of ascending pools of running water constructed to allow fish to swim upstream around or over a dam. Fish passage Definition: Features of a dam that enable fish to move around, through or over a dam without harm. Generally an upstream fish ladder or a downstream bypass system. Fishing mortality rate Definition: The percentage of fish removed from a species' population due to commercial fishing. Flagellum Definition: A long, threadlike or whip-like appendage found in certain cells or unicellular organisms that helps the cells move. Flood tide Definition: A rising tide. Food chain/web

chains, in which each organism supplies energy to another life form.

Definition: A food chain is formed as one organism eats another. A food web is a system of interlocking and interdependent food

Page 23 of 59 05/02/2024

# Term Forest fragmentation Definition: A form of habitat fragmentation occurring when large patches of forest are cut down in a manner that leaves smaller patches of trees standing. Forest fragmentation can be caused by wildfires or by the intentional clearing of trees to make room for roads and development, and can make it difficult for some species to breed or find food. Forest-interior species Definition: Species that tend to avoid edge habitats and that require large tracts of forest habitat for nesting and foraging. Forest parcelization Definition: The division and sale of privately owned forestland into smaller pieces owned by more landowners. Freshet Definition: An increase of water flow into the Bay during late winter or spring due to increased precipitation and snow melt in the watershed. Fry Definition: Newly-hatched young fish. Gastropod Definition: The largest class of mollusks. Gastropods have a one-piece shell (univalve) or no shell at all, and travel by using a single

Page 24 of 59 05/02/2024

#### Term

large muscular foot. Snails and slugs are gastropods.

Geographic Information System

Definition: A computer program used to view, store and analyze maps and other geographic information.

Acronym: GIS

Groundwater

Definition: Water that is stored under the earth's surface, in the cracks and spaces between particles of soil, sand and rock.

Habitat

Definition: The natural home or environment in which a plant, animal or other organism lives, feeds and/or breeds.

Harmful algae bloom

Definition: An algae bloom that produces chemicals toxic to humans and aquatic life.

Headwaters

Definition: Streams at the source of a river.

Heavy metals

Definition: Any metallic chemical element that has a relatively high density and is toxic or poisonous at low concentrations.

Herbaceous

Term
Definition: Plants without woody stems.
Herbicide
Definition. A substance that is toxic to plants and is used to destroy unwented vegetation
Definition: A substance that is toxic to plants and is used to destroy unwanted vegetation.
Herbivore
Definition: An enimal that cate plants
Definition: An animal that eats plants.
Hermaphroditic
Definition: A plant or animal that has both male and female reproductive organs and secondary sexual characteristics.
Home range
Definition: An area to which an individual organism restricts most of its usual activities.
Hybridize
Definition: To crossbreed a plant or animal.
Hydric soil
Definition: Soil that is saturated or flooded with water for long enough during the growing season that its upper portion develops
anaerobic or low-oxygen conditions.

#### Term

Hydrology

Definition: The way water moves and is distributed via precipitation, runoff, storage and evaporation.

Hydrophyte

Definition: A plant that grows only in or on water or very moist soil.

Hypoxia

Definition: A condition in which oxygen levels in water are very low.

Impaired waters

Definition: Waterways that do not meet state water quality standards. Under the Clean Water Act, section 303(d), states, territories and authorized tribes are required to develop prioritized lists of impaired waters.

**Impervious** 

Definition: A hardened surface or area that does not allow water to pass through. For example, roads, rooftops, driveways, sidewalks, pools, patios and parking lots are all impervious surfaces.

Indigenous species

Definition: A species that is native to the Chesapeake Bay region. It evolved on the North American continent and was present at the time of European colonization.

#### Term

Infauna

Definition: Animals and bacteria of any size that live in bottom sediments. Worms and clams are considered infauna. They form their own community structures within bottom sediments, connected to the water by tubes and tunnels.

Infrastructure

Definition: The physical structures and facilities that support the functioning of a community, including roads, sewers, water lines and power supplies.

Insectivorous

Definition: An animal that feeds on insects.

Integrated pest management

Definition: A sustainable pest management approach that combines the use of biological, cultural, physical and chemical tactics to minimize economic, health and environmental risks.

Acronym: IPM

Interior forest

Definition: Mature forest that is separate from other land uses and provides interior forest dwelling species with the moderate temperatures and light levels integral to their summertime habitat.

Intersex

Term
Definition: An animal (usually a fish) that displays both male and female characteristics. Intersex in fish has been linked to exposure
to hormone-disrupting compounds such as pharmaceuticals, personal care products, herbicides, pesticides and agricultural products.
Intertidal
Definition: The area of shoreline between the high tide and low tide marks.
Introduced species
Definition: A species that has been intentionally or inadvertently brought into a region or area. Also called an exotic or non-native species.
Invertebrate
Definition: An animal that lacks a backbone. Aquatic invertebrates include squids, shrimps, crabs, mollusks and sea stars.
Isopod
Definition: A tiny, bug-like crustacean.
Jetty
Definition: A wall or other barrier built out into a body of water to shelter a harbor, protect a shoreline from erosion and/or redirect water currents.
Juvenile

Page 29 of 59 05/02/2024

Term
Definition: Any member of a species that is not yet sexually mature. Often used interchangeably with young of the year (YOY).
Keystone species
Definition: A species whose survival affects other organisms in an ecosystem. If a keystone species were removed from an ecosystem, the ecosystem would drastically change.
Lag-time
Definition: The span of time between the adoption of a pollution-reducing practice and the visible effects of that practice on a particular waterway.
Land cover
Definition: Anything that exists on and is visible from above the earth's surface. Examples include water, vegetation and exposed or barren land.
Land use
Definition: The way land is used by humans. Forest, agricultural land and urban/suburban land are all land uses.
Larva
Definition: The tiny, newly hatched stage of many insects and aquatic animals.
Light attenuation

Page 30 of 59 05/02/2024

Term
Definition: Reduction in the amount of light that can penetrate through the water, usually caused by excess suspended sediment or algae blooms.
Littoral zone
Definition: The intertidal area of the shoreline, between the high tide and low tide marks.
Load
Definition: The amount of a type of pollution that the Bay and its tributaries receive.
Low-impact development
Definition: Innovative stormwater management practices that mimic a site's pre-development hydrology. LID uses design techniques that reuse runoff and allow it to soak into the soil, helping to protect local water quality.  Acronym: LID
Macroinvertebrates
Definition: Large, generally soft-bodied organisms that lack backbones.
Macrophyte
Definition: An individual alga large enough to be seen with the naked eye.
Mainstem

## Term Definition: The region of Chesapeake Bay extending from the Susquehanna River to the mouth of the Bay, not including the tributaries. Mammal Definition: Warm-blooded vertebrates that give birth to and nurse live young; have highly evolved skeletal structures; are covered with hair, either at maturity or at some stage of their embryonic development; and generally have two pairs of limbs, although some aquatic mammals have evolved without hind limbs. Mandibles Definition: Jaw-like organs on some invertebrates that are used for seizing and biting food. Marine Definition: A species that lives in the ocean. Marsh Definition: A border habitat that connects shorelines to forests and wetlands. Marshes are found in fresh, brackish and salt water areas. Maxilliped Definition: One of three pairs of claw-like structures located near the mouth on the heads of crustaceans. Megalops

Page 32 of 59 05/02/2024

Term
Definition: A second larval form of the blue crab.
Mesohaline
iviesorialine
Definition: Moderately salty waters with salinities that range from 5 to 18 parts per thousand (ppt).
Mesotrophic
Wide a child
Definition: An aquatic system that is somewhere between eutrophic (nutrient enriched) and oligotrophic (nutrient poor).
Micro-organism
Definition: An organism that can only be seen with a microscope.
Micron
Definition: A unit of measurement equal to one thousandth of a millimeter.
Migration
Wilgiadon
Definition: The seasonal movement of animals from one region to another.
Migratory
Definition: A species that moves from one habitat or region to another on a regular or seasonal basis.
Mollusk

Page 33 of 59 05/02/2024

#### Term

Definition: A phylum of invertebrates that includes bivalves (clams, oysters and mussels), gastropods (snails) and cephalopods (squids).

Molt

Definition: An animal's shedding of its exoskeleton prior to new growth. For example, blue crabs and other crustaceans must molt--or shed their shells--in order to grow.

Monoecious

Definition: A single plant that has both male and female flowers.

MSX

Definition: A parasitic oyster disease that thrives in warm, high-salinity waters and can affect oysters of all ages.

Mycobacteriosis

Definition: An infectious disease that causes inflammation, tissue destruction and the formation of scar tissue in the organs of striped bass.

Native species

Definition: A species that is native to the Chesapeake Bay region. It evolved on the North American continent and was present at the time of European colonization.

Page 34 of 59 05/02/2024

#### Term

Natural infrastructure

Definition: Natural physical systems that support life, such as water cycles, nitrogen cycles and water purification.

Nearshore

Definition: The relatively shallow waters between the shoreline and deeper, open waters.

Needle

Definition: A long, slender leaf found on loblolly pines and other evergreens.

Nekton

Definition: Organisms that are able to swim through the water column and move against currents. Nekton include fish, blue crabs, whales and rays.

Nematocyst

Definition: Stinging cells found on jellyfish and anemones. The "sting" is caused by a coiled, thread-like tube that is propelled outward for defense and to capture food.

Nesting

Definition: When a bird makes, repairs or lives in a nest in preparation for giving birth to young.

Niche

#### Term

Definition: The particular area within a habitat that an organism lives and functions in.

Nitrification

Definition: The process by which ammonia is oxidized into nitric acid or another nitrate or nitrite. Biological nitrification is a key step in the removal of nitrogen from wastewater.

Nitrogen

Definition: A type of nutrient that contributes to the Bay's poor water quality. While nitrogen is needed for plant growth, human activities--like driving cars or applying fertilizers--contribute more nitrogen than the Bay's waters can handle. Elevated nitrogen levels cause more algae to grow, blocking out sunlight and reducing oxygen for fish, crabs and other Bay life.

**Nocturnal** 

Definition: An animal that is only active at night.

Non-point source

Definition: A source of pollution that cannot be attributed to a clearly identifiable, specific physical location or a defined discharge channel. Non-point source pollution includes nutrients that run off croplands, feedlots, lawns, parking lots, streets and other land uses. It also includes nutrients that enter waterways via air pollution, groundwater or septic systems.

Notochord

Term
Definition: A flexible, primitive backbone that forms the main body support of sea squirt larvae and some other marine animals.
Nutrient removal technology
Definition: Technology that removes nitrogen and phosphorus during wastewater treatment. Also known as biological nutrient removal (BNR).
Acronym: NRT
Nutrient trading
Definition: The transfer of nutrient reduction credits, specifically for nitrogen and phosphorus.
Nutrients
Definition: Chemicals that plants and animals need to grow and survive but, in excess amounts, can harm aquatic environments.
Elevated levels of the nutrients nitrogen and phosphorus are the main cause of poor water quality in the Chesapeake Bay.
Oligohaline
Definition: Brackish waters with low salinities that range from 0.5 to 5 parts per thousand (ppt).
Oligotrophic
Definition: A water body or habitat with low concentrations of nutrients.
Omnivore

Page 37 of 59 05/02/2024

#### Term

Definition: An organism that will eat both plants and animals.

Open space

Definition: An area of land that is valued for natural processes and wildlife, agricultural and sylvan production, active and passive recreation and/or other public benefits.

Overwinter

Definition: To remain alive or viable throughout the winter.

Palps

Definition: Sensory appendages located near the mouth on many invertebrates that are used to move and sense food.

Parapodia

Definition: Paired appendages or feet found on each segment of bristle worms and other segmented marine worms.

Parasite

Definition: A plant or animal that lives on or in another species and derives its nutrition and/or protection, often with harmful effects to the host.

Pathogen

Definition: A bacterium, virus or other microorganism that can cause disease.

Term
Pelagic
Definition: The open ocean, excluding the ocean bottom and shore.
Perennial
Definition: Plants that live for more than two growing seasons. Perennial plants either die back after each season (herbaceous plants)
or grow continuously (shrubs).
Permeable
Definition: Having pores or openings that allow water to pass through.
Pervious
Definition: A porous surface that water is able to penetrate through.
Pesticides
Definition: A general term that describes the chemical substances used to destroy or control insect or plant pests. Many pesticides
are manufactured and do not occur naturally in the environment. Others are natural toxins that are extracted from plants and animals.
Hq
Definition: A measure of the acidity or alkalinity of water.
Pharmaceuticals

Page 39 of 59 05/02/2024

#### Term

Definition: Compounds manufactured for use as medicinal drugs.

Phosphorus

Definition: A type of nutrient contributing to the Bay's poor water quality. While phosphorus is vital to plant life, human activities--like applying fertilizers or using household cleaners--contribute more phosphorus than the Bay's waters can handle. Elevated phosphorus levels cause more algae to grow, blocking out sunlight and reducing oxygen for fish, crabs and other Bay life.

Photic zone

Definition: The layer of water that sunlight is able to penetrate through and reach plants growing underwater.

Photosynthesis

Definition: The process by which plants convert carbon dioxide and water into carbohydrates and oxygen. These carbohydrates are used as energy by the plants or by organisms that consume the plants. Photosynthesis is also called primary production.

Phytoplankton

Definition: Tiny, single-celled planktonic plants. Also called algae. Phytoplankton are the primary producers of food and oxygen in the Bay food web.

Piedmont

Definition: Uplands or hill country located above the fall line. Rivers and streams in the Piedmont region are not influenced by the tide.

Term Term
Piscivorous
Definition: A fish-eating animal.
Plankton
Platiktori
Definition: Small and microscopic free-floating plants, animals and bacteria. Plankton have limited or no swimming ability and are
transported by currents and tides.
Plastron
Definition: The lower part of a turtle's shell.
Plumage
Definition: The feathers that cover a bird's body.
Point source
Definition: A source of pollution that can be attributed to a specific physical location an identifiable, end-of-pipe "point." The vast
majority of point source discharges of nutrients are from wastewater treatment plants, although some come from industries.
Pollinate
Definition: To fertilize a plant by transferring pollen grains from a male plant structure to a female plant structure.
Polluted runoff

Page 41 of 59 05/02/2024

_			
•	Δľ	'n	n
	G.	ш	ш,

Definition: See definition for Stormwater.

**Pollution** 

Definition: The introduction of harmful substances or products into the environment.

Polychlorinated biphenyls

Definition: A chemical contaminant that was once used as a flame retardant in electrical equipment. Though their production has been banned since 1977, PCBs persist in the environment, posing a risk to humans and wildlife.

Acronym: PCBs

Polycyclic Aromatic Hydrocarbons

Definition: A chemical contaminant that forms when gas, coal and oil are burned. PAHs are common in areas with high rates of development and motor vehicle traffic.

Acronym: PAHs

Polyhaline

Definition: Salty waters with salinities that range from 18 to 30 parts per thousand (ppt).

Population

Definition: All persons present in a particular area.

Term
ppt
Definition: A measurement of water salinity; stands for "parts per thousand."
Precipitation
Definition: Rain, snow, sleet or hail that falls to the ground.
Predation
Definition: The proving of one animal on others
Definition: The preying of one animal on others.
Predator
Definition: An animal that hunts for and eats other plants or animals.
Prey
Definition: A plant or animal that is hunted for and eaten by a predator.
Primary producers
Definition: Organisms, such as algae, that convert solar energy to organic substances through chlorophyll. Primary producers serve
as a food source for higher organisms.
Primary production
i filliary production

Page 43 of 59 05/02/2024

#### Term

Definition: See definition for Photosynthesis

Probable Effects Level

Definition: An estimate of the concentration of a potentially toxic substance in sediment, above which the toxic substance is likely to cause adverse effects in aquatic organisms.

Acronym: PEL

**Proboscis** 

Definition: A long or tubular mouth part in certain insects, worms and spiders that is used for feeding, sucking and other purposes.

Pycnocline

Definition: The zone or boundary where the fresher water layer on the surface meets the saltier water layer below. The pycnocline can be a physical barrier that prevents mixing or exchange between the two layers.

**Quality Assurance** 

Definition: An integrated system of management activities involving planning, implementation, documentation, assessment, reporting and quality improvement to ensure that a process, item or service is of the type and quality needed and expected by the customer.

Acronym: QA

Quality Assurance Project Plan

Definition: A document describing in comprehensive detail the necessary quality assurance, quality control and other technical activities that must be implemented to ensure that the results of the work performed will satisfy the stated performance criteria.

#### Term

**Quality Control** 

Definition: The overall system of technical activities that measures the attributes and performance of a process, item or service against defined standards to verify that they meet the stated requirements established by the customer; operational techniques and activities that are used to fulfill requirements for quality.

Acronym: QC

**Quality Management** 

Definition: That aspect of the overall management system of the organization that determines and implements the quality policy. Quality management includes strategic planning, allocation of resources and other systematic activities (e.g., planning, implementation, documentation and assessment) pertaining to the quality system.

Quality Management Plan

Definition: A document that describes a quality system in terms of the organizational structure, policy and procedures, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, documenting and assessing all activities conducted.

**Quality System** 

Definition: A structured and documented management system describing the policies, objectives, principles, organizational authority, responsibilities, accountability and implementation plan of an organization for ensuring quality in its work processes, products (items) and services. The quality system provides the framework for planning, implementing, documenting and assessing work performed by the organization and for carrying out required quality assurance and quality control.

Term
Radial
Definition: Body parts on an invertebrate that are arranged in a circle around a single center.
Radula
Definition: A flexible, toothed organ in the mouths of gastropods used to graze and scrape microscopic algae off hard surfaces.
Rain garden
Definition: A garden that uses plants and layers of soil, sand and mulch to retain rainwater, reducing the amount of polluted runoff
that reaches storm drains and local waterways.
Range
range
Definition: The geographic area in which a plant or animal lives.
Raptor
Definition: A bird of prey, including eagles, ospreys and hawks.
Recruitment
Definition: The addition of new individuals to a population by reproduction, commonly measured as the proportion of young in the
population just before the breeding season.
Red tide

Page 46 of 59 05/02/2024

#### Term

Definition: A dense outburst of dinoflagellates that colors the water reddish-brown. Certain dinoflagellates can produce toxins that kill fish and contaminate shellfish.

Reforestation

Definition: The natural or intentional restoration of a forest, woodland or stand of trees that had been lost due to fire, cutting or other method of deforestation.

Reservoir

Definition: A natural or artificial place where water is collected or stored for use, especially water for supplying a community, irrigating land and furnishing power.

Resident

Definition: A species that lives permanently in a particular area.

Rhizome

Definition: The underground portion of a plant's stem. Rhizomes are usually thick and horizontal, produce roots and have shoots that develop into new plants.

Riparian

Definition: The area of land next to a body of water. Riparian areas form the transition between terrestrial and aquatic environments.

#### Term

Riparian forest buffers

Definition: Trees, shrubs and other vegetation located along the edge of rivers, streams and other waterways that filter pollution, prevent erosion and provide wildlife habitat.

Riverine

Definition: Of a river, relating to or produced by a river.

Roe

Definition: The eggs or egg mass of a fish.

Rootstock

Definition: The underground portion of a plant's stem, also called a rhizome.

Salinity

Definition: A measure of the salt concentration of water. Higher salinity means the water is more salty, while low salinity means that the water is more fresh. Salinity is usually measured in parts per thousand (ppt).

Salinity regime

Definition: Water distinguished by its salinity and tidal influence. The major salinity regimes are tidal fresh, oligohaline (brackish), mesohaline (moderately salty) and polyhaline (salty).

#### Term

Salt marsh

Definition: Wetlands that are located in salt water areas and are dominated by cordgrass, also called Spartina. Salt marshes are one of the most productive plant communities on earth.

Scavenger

Definition: An opportunistic animal that feeds on decaying plants and animals or scraps of food abandoned by other animals.

**Scutes** 

Definition: Large, bony plates covering animals such as sturgeon, turtles and sticklebacks.

Sediment

Definition: Loose particles of sand, silt and clay that settle on the bottom of rivers, lakes, estuaries and oceans. Suspended sediment pushed into the water by erosion is one of the biggest impairments to water quality in the Chesapeake Bay.

Sedimentation

Definition: The accumulation of sediment in an area, filling shipping channels and covering oysters and other bottom-dwelling organisms. Sedimentation is also called siltation.

Sessile

Definition: An organism that is immobile because it is attached to a hard surface, such as oysters, sea squirts and barnacles.

# Term Shellfish Definition: Aquatic animals, such as clams, crabs, oysters and shrimps, that have a shell or shell-like external skeleton. Siltation Definition: The process by which sediment is suspended and deposited in a body of water. Also referred to as sedimentation. Smog Definition: Ozone, particulate matter, humidity and other pollutants that mix together in the air and reduce visibility. Spat Definition: Juvenile oysters that have just attached to a hard surface. Spawn Definition: To release eggs and/or sperm into the water. **Species** Definition: A group of organisms made up of similar individuals that are capable of breeding with one another. **Spicules**

Definition: Small, needle-like projections that make up the skeleton of a sponge.

Page 50 of 59 05/02/2024

Term
Sprawl
Definition: Land development that is built away from urban areas and existing town centers, creating large areas of relatively low-
density residential and commercial development.
Stamen
Definition: The male reproductive organ of a flower.
Stocking
Definition: Adding fish to a body of water, such as a lake, pond or stream.
Stormwater
Definition: Any precipitation in an urban or suburban area that does not evaporate or soak into the ground, but instead collects and
flows into storm drains, rivers and streams. Stormwater is also called urban stormwater, stormwater runoff and polluted runoff.
Increased development across the Chesapeake Bay watershed has made stormwater the fastest growing source of pollution to the
Bay and its rivers and streams.
Stormwater runoff
Definition: See definition for Stormwater.
Stratification

Page 51 of 59 05/02/2024

#### Term

Definition: The division of warmer, lighter fresh water over a layer of saltier and denser water in the Bay. Stratification of the two layers varies within any season depending on rainfall.

Stream bank erosion

Definition: Loss of sediment along a stream bank as a result of increased runoff from nearby development. Stream bank erosion degrades stream habitats for wildlife and increases suspended sediments in the water.

Submerged aquatic vegetation

Definition: The technical term for bay grasses that grow underwater. SAV can improve water quality and provide food and habitat to fish, shellfish and waterfowl.

Acronym: SAV

Substrate

Definition: The surface or material that an organism lives on or in. For example, oyster reefs provide hard substrate for invertebrates to attach themselves to.

Subtidal

Definition: The area of shoreline that is always submerged, even at the lowest tide.

Succession

Definition: The process by which a plant or animal community successively gives way to another until a stable state is reached.

Term
Suspended sediments
Definition: Tiny particles of clay and silt that become suspended in the water, reducing water clarity and the amount of sunlight that can reach underwater bay grasses. Excess suspended sediment is one of the largest contributors to the Bay's impaired water quality.
Sustainability
Definition: Maintaining an ecological balance by avoiding depletion of natural resources.
Swamp
Definition: A type of wetland dominated by woody vegetation or trees.
Swim bladder
Definition: A gas-filled organ that regulates buoyancy in most bony fishes.
Terrestrial
Definition: An organism that lives on the land.
Thicket
Definition: A thick, tangled growth of shrubs, bushes and/or small trees.
Threatened

Page 53 of 59 05/02/2024

Term
Definition: A species that is likely to become endangered if not protected.
Tidal marsh
Definition: A type of marsh in which the flooding characteristics are determined by the tidal movement of the adjacent river, estuary, sea or ocean.
Tidal mud flat
Definition: The unvegetated area of shore that is exposed during low tide.
Tides
Definition: The alternate rising and falling of the sea caused by the gravitational attraction of the earth, sun and moon.
Total maximum daily load
Definition: Defines the pollutant load that a water body can acquire without violating water quality standards, and allocates the pollutant loading between contributing point sources and non-point sources.  Acronym: TMDL
Toxicant
Definition: A toxic agent that is harmful to plants and animals.
Trend analysis

#### Term

Definition: A formal statistical process used to determine the presence or absence of changes in measures of water quality over time or a geographic area.

Tributary

Definition: A creek, stream or river that flows into a larger body of water. For example, the Susquehanna, Potomac and James rivers are tributaries of the Chesapeake Bay.

Tributary strategies

Definition: River-specific cleanup plans that detail the actions needed to achieve nutrient and sediment cap load allocations that are developed in cooperation with local watershed stakeholders.

Trophic level

Definition: Each step along a food chain; an organism's feeding level.

**Turbidity** 

Definition: The thickness, opaqueness or reduced clarity of water caused by the suspension of sediments. The turbidity of rivers and streams increases after a rainfall.

Understory

Definition: The layer of forest located underneath the canopy. Here, smaller trees and shrubs grow, replacing older trees as they die.

Urban forest

_	_			
1	е	r	r	r

Definition: The system of trees and associated plants that grow in small groups or under forest conditions on public and private lands in cities, suburbs and towns. This includes the approximately 74.4 billion trees in the U.S. that are located in parks, along streets and around private homes and businesses.

Urban stormwater

Definition: See definition for Stormwater.

Urbanization

Definition: The process by which an area of land becomes more urban in character, developed and otherwise changed to more closely resemble a city or town.

Use attainability analysis

Definition: A structured scientific assessment of the factors affecting attainment of the designated use component of water quality standards, based on physical, chemical, biological and/or economic factors.

Acronym: UAA

Valve

Definition: A shell on a mollusk. Mollusks with two shells (such as clams and oysters) are called bivalves.

Veliger

#### Term

Definition: Free-floating, planktonic larvae of certain mollusks, such as snails, oysters and sea slugs.

Venom

Definition: A poisonous fluid produced by an animal that is transmitted by a bite or a sting. Venom is used to capture prey or as a means of defense.

Vertebrate

Definition: An animal with a backbone, including fish, amphibians, reptiles, birds and mammals.

Wastewater

Definition: Water that has been used in homes, industries and businesses that is not reuseable unless treated by a wastewater facility.

Water clarity

Definition: A measure of the amount of sunlight that can penetrate through the water.

Water quality criteria

Definition: Water quality conditions necessary to protect aquatic plants and animals.

Water quality standards

Definition: Standards that define the goals for a water body by designating its uses, setting criteria to protect those uses, and

#### Term

establishing provisions to protect water bodies from pollutants.

Waterfowl

Definition: Any of various birds that swim on water or rely on aquatic environments, including ducks, geese and swans.

Watershed

Definition: An area of land that drains into a particular river, lake, bay or other body of water. We all live in a watershed: some are large (like the Chesapeake), while others are small (like your local creek, stream or river).

Wet deposition

Definition: Pollutants in the air that fall onto the land or water with rain or snow.

Wetland

Definition: A transitional zone between land and water that is periodically flooded. For example, marshes, swamps and bogs are all wetlands.

Year class

Definition: All of the fish of any species that hatched during one annual spawning period.

Young of the year

Definition: All of the fish of a species that were born in the past year, from transformation to juvenile until January 1.

Term
Acronym: YOY
Zoea
Definition: A tiny, semi-transparent larval blue crab.
Zooplankton
Definition: Planktonic animals that float in the water and range in size from single-celled protozoa to comb jellies. Zooplankton feed

on detritus, phytoplankton and other zooplankton. They are eaten by fish, shellfish and whales.

Page 59 of 59 05/02/2024