
GLOSSARY

Acid deposition: Nitric acid or sulfuric acid pollution that is deposited in wet forms such as rain and sleet or dry forms including particulates and gases. Derived from chemical processes that transform nitrogen oxides and sulfur dioxide emissions from primarily anthropogenic sources (e.g., coal burning), although also from natural sources (e.g., volcanoes).

Aestivate: Refers to an animal that becomes dormant or torpid during hot summer months.

Amplexus: Copulatory behavior of frogs and toads; males clasp female partners from behind to fertilize the females' eggs as they are released.

Annual pool: Seasonal body of water that dries annually in typical years; they have hydroperiods from 2 months to 12 months.

Anthropogenic: Created by humans or as a side-effect of human activities.

Biodiversity: Shorthand for biological diversity; the variety and variability of life, at the genetic, species, and ecosystem level.

Biomass: The weight of total living organisms per unit of area or of a species' population per unit of area.

Breeding phenology: Reproductive-related activities that occur according to season; time frame in months when eggs, larvae, and metamorphs of amphibians are present at seasonal pools.

Cloaca: In many vertebrates, the cloaca is the last part of the digestive tract which receives feces and urogenital products. In certain invertebrates, the cloaca is a terminal portion of the digestive tract that also serves as respiratory, excretory, or reproductive tract.

Coniferous: Refers to trees that bears seeds in cones; the wood of these trees is known as softwood.

Crustaceans: Arthropods of the subphylum Crustacea; predominantly aquatic; characteristic exoskeleton, segmented body, and jointed limbs. Examples are crabs, amphipods, and fairy shrimp.

Deciduous: Refers to trees that lose all their leaves during cold seasons (e.g., fall and winter in the temperate zone).

Desiccation: Dehydration or the process of drying.

Detritus: Dead organic matter as well as decomposers such as bacteria and fungi associated with the dead organic matter.

Dormant: Refers to resting state when invertebrates and vertebrates undergo periods of reduced metabolic and respiratory activity.

Dorsal: The upper surface or back of an animal.

Dorsolateral: Pertaining to the back and side of an animal. Many species of true frogs have dorsolateral ridges, two ridges that begin at the eye and go all or partially down the back. Tadpoles of many species exhibit dorsolateral eyes, in which the eyes are located on the top but to the side of the head.

Endemic: Exclusively native to or confined to a certain region.

Ephemeral pool: Temporary body of water formed by intense periods of precipitation; hydroperiods less than two months.

Evapotranspiration: The combination of evaporation and transpiration referring to the total water loss from vegetative leaf surfaces and from the soil surface.

Facultative species: Organisms that use seasonal pools for obtaining food, water, temporary cover, or breeding, though they can also successfully breed in other habitats.

Habitat: The physical place, environmental conditions, and set of resources that a population (a group of individuals of the same species that are capable of interacting with each other in a localized area) utilizes.

Habitat Fragmentation: The process or occurrence of the breaking of a larger region of habitat into smaller patches of habitat. For example, a highway that is constructed through a forest creates forest fragmentation; the total area of forest, the size of the forest patches, and the connectedness of the forest decreases as a consequence.

Herpetofauna: Grouping of animals that is composed of amphibians and reptiles.



Hybrid: Progeny of a cross between two different species. For example, salamanders with chromosomes from both Jefferson and blue-spotted salamanders as a result of interbreeding between these two species are considered hybrids.

Hydrology: The scientific study of water, including the occurrence, properties, distribution, circulation and transport of water.

Hydroperiod: The duration of time when a wetland or other water body is saturated or covered with water.

Impervious: Refers to surfaces that do not allow the penetration of water and prevent precipitation and other water to infiltrate soils. Impervious materials include asphalt, concrete, brick and stone; impervious surfaces include rooftops, parking lots, roads, and buildings as well as highly compacted soils in urban areas.

Indicator species: Organisms that depend upon seasonal pools for optimal breeding conditions.

Invertebrates: Animals lacking a backbone or vertebrae.

Landscape connectivity: The extent to which the landscape facilitates wildlife movement.

Landscape: The traits, patterns, and structure of a specific geographic area (e.g., mountain range, watershed, state), including its biological composition, its physical environment, and its anthropogenic or social patterns.

Land use: The way land is developed and used in terms of the kinds of anthropogenic activities that occur (e.g., agricultural areas, industrial areas).

Larva: The immature stage of any animal species. Larvae are typically very different in body form and habit from the adults that they metamorphose into.

Life history: The entire progression of changes that an organism undergoes from inception or conception to death.

Metamorphosis: The dramatic transformation from a larva and/or juvenile form to an adult form; occurs in numerous invertebrates (e.g., insects) and vertebrates (e.g., amphibians).

Mole salamander: Of the family Ambystomatidae; this family contains 30 species of salamanders, seven of which are mid-Atlantic seasonal pool indicator species. The common name of *Ambystoma*

talpoideum, one of these indicator species, is also ‘mole salamander.’

Paedomorph: A sexually mature individual which fails to metamorphose, retaining its larval morphology; literally means “child-shape” or “underdeveloped.”

Physiological: Relating to the science of the bodily functions or organic processes (e.g., metabolism, digestion, reproduction) of an organism.

Semipermanent pool: Body of water that undergoes seasonal fluctuations in water levels; they do not dry annually and have hydroperiods of greater than 12 months.

Spermatophore: A packet or “container” of sperm produced by male animals, which is subsequently taken up by or placed in or on the body of a female. Spermatophores are produced by male Ambystomatid salamanders.

Succession: The gradual change and replacement over time of one group of species in a community by other groups or of one set of conditions by another.

Ventral: The under surface or belly of an animal.

Watershed: The area of land from which runoff of water, sediments, and dissolved materials (e.g., nutrients, contaminants) drain into a river, lake, estuary, or ocean. Watersheds can be viewed at different scales, from very small (e.g., the area draining into a small stream) to very large (e.g., the entire Chesapeake Bay watershed of 64,000 square miles).

Wetland: Transitional areas where land-based and water-based ecosystems overlap. Wetlands are defined for regulatory purposes as “*those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*” (This definition is from the U.S. Army Corps of Engineers Wetlands Delineation Manual and 33 Code of Federal Regulations 328.3(b)).

Zooplankton: Small, often microscopic animals that feed on detritus, phytoplankton, and other zooplankton and are preyed upon by zooplankton and other seasonal pool animals.

