



Acidic: describes soil or water with a pH lower than 5.5.

Alluvium: unconsolidated material deposited by running water, including gravel, sand, silt, clay, and various mixtures of these.

Annual: a plant that completes its entire life cycle in a single growing season.

Anthropogenic: induced or altered by the presence or activities of humans.

Aquatic bed: a wetland or deepwater habitat dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years.

Assemblage: a group of organisms that occur together; does not imply a particular scale.

Bar: an elongated mass of sand, gravel, or alluvium deposited on the beds of streams or lakes or at the mouth of streams.

Barrens: Woodland or shrubland communities where tree establishment or growth is suppressed by environmental conditions and/or disturbance regime. Most often associated with thin or excessively drained soils.

Bedrock: the solid rock that is exposed at the surface or underlies the soil or other unconsolidated material at the surface.

Biomass: the total dry weight of all organisms in a particular area, sample, or community.

Bog: a nutrient-poor, acidic peatland that receives water primarily from direct rainfall, with little or no input from groundwater or runoff; vegetation consists primarily of peat mosses (*Sphagnum* spp.) and ericaceous shrubs.

Bryophyte: members of division Bryophyta: the liverworts, hornworts, and mosses.

Calcareous: Describes soil, groundwater, or surface water with high calcium concentrations, often derived from limestone or calcium-rich glacial deposits.

Canopy: the branches and leaves of plants that form the uppermost layers of vegetation in a community. A canopy is said to be closed (or have 100% cover) when the ground and lower strata are completely hidden when viewed from above the canopy during the growing season.

Characteristic species: a species strongly associated with a particular community type, either as a dominant, a ubiquitous non-dominant component, or as particularly diagnostic of that community type.

Circumneutral: having a pH between 5.5 and 7.4.

Codominant: a species with relatively high abundance or percent cover; two or more species providing roughly equal cover, abundance, or influence in a community or stratum.

Community: an assemblage of plants and/or animal populations sharing a common environment and interacting with each other and with the physical environment.

Community complex: a set of community types that tend to occur together under a specific set of environmental circumstances.

Composition: all the species present in a community and their relative abundance.

Conifer: any of a large group of cone-bearing trees and shrubs, mostly evergreens such as the pine, spruce, fir, cedar, yew, etc.



Cover: the percentage of the ground surface that is covered or shaded by the leaves or stems of a plant species or a group of plant species during the growing season.

Disturbance regime: a repeating pattern of natural disturbances such as fire, flooding, ice scouring, windthrow, erosion, etc.

Dominant: a species with the greatest abundance, percent cover, or influence in a community or stratum.

Edaphic: pertaining to the soil.

Emergent: upright, rooted vegetation that may be temporarily to permanently flooded at the base, while the upper portions of the plant grow erect above the water surface; these plants do not tolerate prolonged inundation of the entire plant; e.g. cattail (*Typha* spp.).

Ericaceous: members of the heath family (*Ericaceae*).

Exotic: refers to species not native to Pennsylvania, or to the area in which they occur.

Fen: an open-canopy peatland that has developed under the influence of base-rich waters.

Floodplain: flat to nearly-flat areas along rivers and streams that are subject to at least intermittent flooding.

Forb: a broad-leaved (not grass-like) herbaceous plant; may include ferns and fern-allies.

Forest: a type of community dominated by trees greater than five meters in height, and having at least 60% canopy closure, crowns usually interlocking; may be terrestrial or palustrine.

Frost pocket: a small, low area that has poor aerial drainage and is subject to frequent frosts.

Graminoid: refers to grass-like, narrow leaved herbaceous plants; includes grasses (*Poaceae*), sedges (*Cyperaceae*), rushes (*Juncaceae*), and others.

Grass: a member of the grass (*Poaceae*) family.

Grassland: an open-canopy community dominated by graminoids; forbs may be common, but there are relatively few shrubs and very few trees.

Groundlayer: the herbs, shrubs, and woody vines beneath the trees in a forest; or the lowest layer of vegetation in an open-canopy community.

Groundwater: water found underground in openings in rock strata and soils.

Gravel: a mixture composed primarily of small rock fragments between 2mm and 7.6cm in diameter.

Hardwood: (in our region, with the exception of *Ilex opaca* — American holly) deciduous trees that are not conifers.

Heath: a member of the family *Ericaceae*.

Herb, Herbaceous: describes plants with no persistent woody stem above the ground, as distinct from trees and shrubs.

Herbaceous layer: the layer of vegetation in which herbs are common or dominant, usually the groundlayer.

Hydric: wet; describes soils that are sufficiently wet to at least periodically produce anaerobic conditions in the root zone, thereby influencing the growth of plants.



Hydrology: describes the way water is distributed in the landscape, moves over the ground surface and underground, includes precipitation, evaporation, transpiration, and flow.

Hydrophyte, Hydrophytic: describes any plant adapted to growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

Levee: a low ridge or embankment that impounds water.

Utter: fresh or partially decomposed organic debris such as leaves, twigs, fruit, etc.

Loam: soil composed of a mixture of particle sizes, specifically: 7% to 27% clay, 28% to 50% silt, and less than 52% sand.

Marsh: a wetland dominated by herbaceous (often graminoid) vegetation and usually having little or no peat accumulation.

Mesic: describes areas of intermediate soil moisture content; moist but well drained.

Microtopography: the fine scale of topography on a site.

Mineral soil: soil composed of primarily mineral rather than organic materials. For more information see Appendix D in Cowardin et al. (1979).

Minerotrophic: groundwater-fed; influenced by water that has been in contact with soil or bedrock, and is richer in mineral content than rainwater.

Mosaic: in a landscape, a complex pattern composed of different types of communities, aspects or assemblages that are intermingled.

Muck: highly decomposed organic material in which the plant parts are no longer distinguishable (sapric peat).

Native: describes species that occurred in Pennsylvania or in the area in which they are found prior to European settlement; not introduced by human activities; indigenous.

Nonpersistent emergent vegetation: emergent hydrophytes whose leaves and stem normally break down before the beginning of the next growing season. The breakdown may be the result of normal decay or the physical force of waves or ice. There is normally some portion of the year in which there are no visible traces of the plants above the surface; e.g. wild rice (*Zizania aquatica*), arrow arum (*Peltandra virginica*).

Oligotrophic: poor to extremely poor in nutrients, typically describes dilute waters with low base metal ion concentrations.

Organic matter: material derived from the decay of dead organisms.

Organic soil: soil composed of primarily organic rather than mineral materials. For more information see Appendix D in Cowardin et al. (1979).

Outcrop: the exposure of bedrock projecting through the overlying soil or other unconsolidated material at the surface.

Oxbow: an abandoned meander loop formed when a stream takes a new course. This crescent-shaped body of water becomes filled over time with fine-grained "back swamp" material.

Palustrine: describes wetlands; areas intermediate between aquatic and terrestrial habitats, supporting predominantly hydrophytic vegetation, where conditions are at least periodically wet enough during the growing season to produce anaerobic soil conditions and thereby influence plant growth.

Peat: partially decomposed remains of plant material in which at least some of the plant parts are still distinguishable (here fibric or hemic peat).



Peatland: a community or group of communities occurring over peat of at least 40 cm depth.

Perennial: a plant that persists and produces reproductive structures year after year.

Persistent emergent vegetation: emergent hydrophytes that normally remain standing at least until the beginning of the next growing season; e.g. cattails (*Typha* spp.) or bulrushes (*Scirpus* spp.).

pH: a symbol denoting the negative logarithm of hydrogen ion concentration in a solution; pH values run from 0 to 14, the lower the value, the more acidic the solution, that is, the more hydrogen ions it contains; pH 7 is neutral, less than 7 is acidic; more than 7 is alkaline.

Physiognomy: The general physical structure of vegetation (e.g. forest, woodland, shrubland etc.).

Relative cover: the aerial cover of a species or group of species expressed as a percent of the total cover of the stratum in which it occurs; the relative cover values for all species in a given stratum will always total 100%.

Rich: describes either environments where nutrients are abundant, or communities with high species diversity.

Sandspit: a small point or narrow embankment of land, consisting primarily of sand deposited by longshore drifting, and having one end attached to the mainland and the other terminating in open water.

Scarp: a line of cliffs or a wall-like steep slope formed by faulting or erosion.

Scrub: vegetation consisting primarily of stunted or dwarf trees and shrubs.

Seep: an area where groundwater discharges in a diffuse flow.

Sedge: grasslike herbaceous plant of the family *Cyperaceae*, especially members of the genus *Carex*.

Seral: of, relating to, or characteristic of an ecological sere.

Sere: a series of ecological communities that follow each other in the course of the biotic development of an area.

Serpentine: a secondary material, resulting from "hot water" alteration of magnesium silicates, such as peridotite. The name includes at least two minerals, antigorite and chrysolite.

Serpentinite: a rock consisting almost wholly of serpentine minerals derived from the alteration of olivine and pyroxene.

Shrub: a perennial, woody plant that differs from a tree in its short stature (less than five meters in height) and typically multi-stem growth form.

Shrubland: a community dominated by shrubs, with less than 25% total cover by trees.

Silt: soil composed of fine-grained mineral sediments—particles are of intermediate size between sand and clay (particle size between 0.074 and 0.002 mm)— and are carried in or deposited by moving water.

Site: a place or location.

Sphagnum: members of the moss genus *Sphagnum*.

Stratum: layer: here a layer of vegetation, e.g. tree, shrub, herbaceous.

Structure: the spatial arrangement of vegetation layers within a community.

Spring: location of concentrated groundwater discharge.



Spring run: body of running water adjacent to and originating at a spring.

Subcanopy: in a forest community, the tops and branches of the small trees and tall shrubs that form a distinct layer beneath the high tree canopy and above the shrub layer (if present).

Substrate: the foundation to which an organism is attached, or upon which a community occurs.

Succession: directional change in species composition on a site following a disturbance.

Successional: describes communities that are changing in composition relatively quickly in response to a disturbance.

Swamp: a wooded wetland, intermittently or permanently flooded.

Talus: rock fragments of any size or shape, derived from and lying at the base of a cliff or very steep rocky slope.

Terrestrial: uplands; where vegetated, supporting vegetation that is not predominantly hydrophytic.

Till: unstratified drift deposited by a glacier and composed of sand, clay, gravel, cobble and boulders in any combination and proportion.

Tree: a woody perennial plant, usually having one principle stem, that has a definite crown and characteristically reaches a mature height of at least five meters.

Ultramafic: describes soil or rock types high in magnesium and iron

Upland: sites with well-drained dry to mesic soils.

Understory: the lower layers of vegetation in a community; in a forest, all the vegetation layers beneath the canopy and subcanopy.

Vascular plants: plants with a vascular system; includes trees, shrubs, and herbs, but not bryophytes, lichens or algae.

Vernal: occurring in the spring.

Wetlands: areas intermediate between aquatic and terrestrial habitats; characterized by a predominance of hydrophytes, where conditions are at least periodically wet enough, during the growing season, to produce anaerobic soil conditions and thereby influence plant growth.

Woodland: a community with a sparse tree canopy (10%-60% cover), usually with an herbaceous and/or shrub layer. Characteristic of environments where tree establishment or growth is suppressed by edaphic conditions or disturbance regime.

Woody: describes plants having lignified stem tissue (trees, shrubs, and woody vines).

Xeric: very dry, describes areas with dry, well drained to excessively well-drained soils.