

Appendix 4: Glossary of Technical Terms

Barrens Usually refers to an area with sparse vegetation or stunted plants, caused by harsh growing conditions such as infertile, droughty, or thin soils; also, a plant community that has very sparse cover or is composed of stunted plants.
Adapted from Minnesota's St. Croix River Valley and Anoka Sandplain: A Guide to Native Habitats. D. Wovcha, G. Delaney, G. Nordquist. Minnesota Department of Natural Resources. University of Minnesota Press, 1995.

Alluvium Material, such as sand and gravel, deposited by running water. River terraces and outwash plains are examples of landforms composed of alluvium.

harsh growing conditions such as infertile, droughty, or thin soils; also, a plant community that has very sparse cover or is composed of stunted plants.

Bedrock Any solid rock exposed at the earth's surface or covered by unconsolidated material such as till, gravel, or sand.

Blowout An area, on a dune or other sand deposit, where wind has eroded a bowl-shaped hollow in the sand. Blowouts generally are sparsely vegetated.

Bog A wetland composed of a layer of acidic peat on which grows a specialized group of herbs and low shrubs. Bogs are distinguished from closely related poor fens by extremely nutrient-poor conditions and the absence of most of the minerotrophic species that occur in poor fens.

Brushland An upland plant community composed of shrubs and tree sprouts.

Calcareous Describes a soil or substrate that contains a significant amount of calcium carbonate.

Canopy Aerial branches and leaves of terrestrial plants; generally the tallest layer of foliage in a plant community.

Colluvium A deposit of rock and soil at the base of a cliff or slope, formed by gravitational action.

Colonial nesting birds Species that nest in colonies (groups or aggregations), either with others of the same species or in mixed-species aggregations.

Confirmed breeding birds Species that show evidence of nesting based on the following criteria: next with eggs, adult sitting on nest constantly, eggshells near nest, young in nest seen or heard, downy young or young still unable to fly seen away from nest.

Cover The proportion of the ground shaded when the living plant canopy is projected vertically downward; also a general term used to describe any component of the habitat that conceals animals from view.

Dominant Describes a plant species that shapes the character of a community by virtue of its size, abundance, dense shade, or effects on soils. Dominant species generally influence the presence, growth, and distribution of other plant species in the community.

Downcutting The process by which a river or stream erodes and lowers its bed, eventually resulting in the formation of a valley or ravine.

Drawdown The lowering of the water level in a body of water.

Drift (glacial) Rock material, such as boulders, gravel, sand, silt, or clay, removed from one area and deposited in another by glaciers. Drift includes material deposited directly by glacial ice, such as till, as well as material deposited indirectly, such as outwash.

- Edge species** Animals that are typically associated with the boundaries between habitat types, especially between a forested habitat and an open habitat, where the growth of shrubs and trees results in high structural diversity.
- Emergent** Describes a plant capable of surviving indefinitely with its root system and lower stem in water and its upper stem above water (e.g., cattails).
- End moraine** A typically hilly landform composed of material deposited at a margin of a glacier.
- Ephemeral habitat** A temporary habitat created by low-intensity, short-lived fluctuations in environmental factors.
- Ericaceous** Describes plants in the heath or Ericaceae family (e.g., leatherleaf, blueberry).
- Esker** A long, often serpentine hill or ridge composed of sand and gravel deposited by meltwater streams flowing in a channel in a decaying ice sheet.
- Extant** Still in existence, especially for items (or plant communities) not destroyed through the passage of time.
- Fen** A wetland community composed of sedges, grasses, forbs, and sometimes shrubs, that develops on peat in shallow basins.
- Floating-leaved plants** Aquatic plants that root on lake, pond, or river bottoms and have leaves that float on the water surface at the end of long, flexible stems (e.g., water-lilies).
- Floodplain** A flat area adjacent to a stream or river channel, created by erosion and deposition of sediment during regular flooding. Signs of flooding include debris caught in trees and ice scars at the bases of trees.
- Forb** A general term for broad-leaved, herbaceous plants; as used here, the term includes ferns and fern allies.
- Forest** A plant community with a nearly continuous to continuous canopy (70% to 100% cover) of mature trees.
- Forest-grown trees** A tree that matured within a closed-canopy forest. Forest-grown trees tend to have narrow crowns and tall, straight trunks with few lower limbs.
- Graminoid** An herbaceous plant with linear, "grasslike" leaves that typically are oriented vertically. Graminoids include grasses, sedges, and rushes.
- Ground layer** A vegetation layer, mostly less than 3 feet tall, of grasses, forbs, and woody plants.
- Ground moraine** A broad and level or gently undulating landform composed of material that was deposited underneath and sometimes at the margin of a glacier as the ice sheet melted; also referred to as a till plain.
- Grove** A general term for a patch of trees less than 2 acres in area.
- Grub** A tree or shrub whose aboveground shoots are repeatedly killed by fire or browsing but whose root system survives and continues to send up new shoots. The root system of a grub may be several hundred years old; the aboveground shoots are generally much younger.
- Habitat** The locality, site, and particular type of local environment in which plants, animals, and other organisms live.
- Headwaters Reach** The region where a stream begins. Typically, occurs on level to gently rolling terrain, where shallow drainages and wetlands feed into a stream system. Generally covers an extensive area.

Health family. See **Ericaceous**.

Herb A plant lacking a persistent aboveground woody stem. Herbs include broad-leaved flowering plants, ferns, grasses, sedges, and others.

Hibernaculum A site where an animal spends the winter in a dormant state called hibernation, characterized by reduced metabolism, body temperature, breathing rate, and heart rate.

Hydrophyte A plant adapted to growing in water or on wet soils that are periodically saturated and deficient in oxygen.

Ice block lake A lake that occurs in a depression that was formed when a block of glacial ice was buried or surrounded by till or outwash sand, and then melted.

Ice scar A scar on a floodplain tree caused by abrasion by ice floes during spring flooding.

Inflorescence An arrangement of flowers on a plant, such as in a cluster or along a stalk.

Insectivore An animal that feeds on insects.

Lacustrine Refers to features (such as sediments, landforms, plant communities, or animal communities) that were formed by or are associated with a lake.

Landform A land feature, such as a plain, plateau, or valley, formed by a particular geologic process.

Larva A growing stage in the life cycle of invertebrates; also used to describe immature salamanders.

Life form Characteristic structural features and growth pattern of plant species (e.g., broad-leaved deciduous shrub).

Litter layer Relatively un-decomposed organic matter and debris on top of soil layer.

Loess Fine material consisting predominantly of silt with fine sand and clay. Loess is often deposited by wind.

Marsh A plant community of shallow wetland basins, dominated by herbaceous, emergent aquatic plants such as cattails and bulrushes. Marshes usually have standing water throughout the growing season.

Meltwater Water released by melting glacial ice.

Mesic A general term describing upland habitats that are intermediate between wet and dry; also used to describe plants and plant communities that occur in mesic habitats.

Microhabitat A small, specialized habitat.

Mineral soil A soil composed mostly of inorganic matter, including clay, silt, sand, and gravel. Mineral soils usually have less than 20% organic matter but may have organic surface layers up to 12 inches thick.

Minerotrophic A general term describing wetlands with nutrient levels that fall between very low (such as in bogs) and very high (such as in seepage meadows).

Moraine Rock and mineral debris deposited directly by glacial ice. Moraines most often consist of unsorted rock and mineral particles.

Morphology The physical shape of a stream, plant, or structure.

Muck A dark-colored organic soil of highly decomposed plant material in which the original plant parts are not recognizable.

Native habitat A habitat formed and occupied by native plants and animals and little modified by logging, farming, ditching, flood control, and the like.

Native species A species that occurs naturally within a given region.

- Native vegetation** Vegetation, composed of native plants, that has been little modified by human activities such as logging, farming, ditching, or the introduction of nonnative species.
- Natural community** An assemblage that tends to recur over space and time of native plants and animals that interact with each other and with their abiotic habitats in ways that have been little modified by nonnative plant and animal species. Natural communities are classified and described according to their vegetation, successional status, topography, hydrologic conditions, landforms, substrates, soils, and natural disturbance regimes (such as wildfires, windstorms, normal flood cycles, and normal infestation by native insects and microorganisms).
- Nonnative species** A species that has been introduced to an area by humans or that is present in the area as a result of human-caused changes. By far, most of the nonnative species in the Region have been introduced from outside North America since the mid-1800s. A handful of species are thought to have been introduced to the Region from other places in North America by American Indians before the mid-1800s.
- Open-grown tree** A tree that has matured in an open setting, such as a prairie or savanna. Open-grown trees tend to have broad crowns and thick, spreading lower limbs.
- Organic soil** A soil in which the upper surface layers contain more than 25% organic matter.
- Outcrop** Bedrock that projects above the soil.
- Outwash plain** A plain formed of sorted and stratified material - such as layers of sand and gravel - carried from an ice sheet and deposited by glacial meltwater.
- Overwintering site** See **Hibernaculum**.
- Parent material** The weathered rock or partly weathered soil material from which topsoil develops.
- Peat soil** A dark brown or black organic soil consisting largely of undecomposed or slightly decomposed plants. Peat soils usually form where persistent excessive moisture slows or inhibits the decay of plant material.
- Persistent vegetation** Wetland vegetation formed by emergent hydrophytic plants with stems that normally remain standing until the beginning of the following growing season (e.g., cattails and bulrushes).
- Prairie** An upland plant community composed of grasses and forbs. Prairies generally lack trees; shrubs, if present, are not prominent.
- Presettlement** A term used for convenience to denote the time period before Euro-American settlers moved into the Region. The Region was actually settled by American Indians for thousands of years before European-Americans arrived.
- Range (geographic)** The limits of the geographic distribution of a species or group.
- Reach** A particular section of a stream, as determined by topography, stream gradient, and stream type.
- Refugium** An isolated habitat that retains environmental conditions that were once widespread. Refugia are habitat for species that were once more widely distributed.
- Reintroduced species** Species that had been eliminated from areas where they occurred historically and were later released back into the area by humans.

Remnant A portion or fragment of a natural community that has survived while the rest of the community has been destroyed by logging, urban development, clearing of land for cultivation, and other human activities.

Rhizome A horizontal underground plant stem.

Savanna An upland plant community formed of prairie herbs with scattered trees or groves of trees. The canopy cover of trees in a savanna is generally between 10 and 70%.

Sedge Any of a number of grasslike plants of the family Cyperaceae.

Sedimentation The process by which matter (usually soil particles) settles on a substrate following transport by water, wind, or ice.

Seepage The slow, diffuse oozing of groundwater onto the earth's surface.

Shrub layer A vegetation layer, usually less than 6 feet high, of shrubs and tree seedlings.

Shrub swamp A wetland community dominated by a nearly continuous to continuous canopy (70 to 100% cover) of shrubs, such as willows and alders.

Sinuosity A measure of stream curvature

Subcanopy A vegetation layer, composed of patches of individuals of approximately equal height, that is lower than the canopy layer; often refers to a layer of saplings, tall shrubs, or small trees between 6 and 35 feet high.

Submergent Describes an aquatic plant that grows entirely under water.

Substrate The surface layer of organic or mineral material - such as till, outwash, or bedrock - from which the soil is formed.

Succession The change in vegetation over time.

Swale A broad, shallow depression in a till plain or broad river plain.

Swamp A wetland community with a fairly continuous to continuous canopy of shrubs or trees, such as speckled alder, black ash, or tamarack. Swamps generally occur in shallow basins or wet depressions.

Talus Rocks and other coarse mineral debris that accumulate at the base of a cliff or steep slope.

Terrace A sandy and gravelly alluvial plain bordering a river. Terraces represent former river floodplains, left stranded when the river level dropped because of channel downcutting or decreased flow. Terraces are ordinarily level or nearly level and are seldom flooded. Compare with **Floodplain**.

Till Un-stratified and unsorted material deposited directly by a glacier. Till consists of clay, sand, gravel, or boulders mixed in any proportion. Compare with **Drift**.

Till plain A broad and level or gently undulating landform composed of material that was deposited underneath and at the margin of a glacier as the ice sheet melted; also referred to as a ground moraine.

Transitional habitat A habitat present between two adjacent natural communities (for example, the edge of a forest along a wet meadow). Transitional habitats often have features that set them apart from the habitats formed by either of the adjacent communities.

Understory The vegetation occurring below the canopy in a plant community.

Vine A plant with a long, weak stem that grows along the ground or climbs on other vegetation for support.

Wetland Habitats where the soil is saturated or covered with water for part of the year.

Woodland A wooded habitat characterized by an interrupted tree canopy; also used as a general term to describe any tract of land with trees growing on it.

Woodland-brushland An upland plant community composed of a patchy canopy (10 to 70% cover) of mature trees and a dense understory of shrubs, tree shoots, and saplings. Usually the trees occur in scattered groves with dense thickets of brush between them.

Woody plant A perennial plant with a secondarily thickened, lignified (woody) stem.