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# Glossary

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*White spruce*

**Allelopathy:** The inhibitory or stimulatory effects of released organic chemicals by one plant on the germination, growth and metabolism of a different plant (The Dictionary of Forestry, Society of American Foresters, 1998).

**Amorphous:** Without definite form.

**Aspect:** A position facing a compass direction, such as south, north, east and west.

**Association:** A plant community of some particular kind or grade. An association may have several dominants, either mixed together or occurring in different places (The Dictionary of Forestry, Society of American Foresters, 1998).

**Awn:** A slender, bristle-like terminal extension of the flowering part of many grasses.

**Biome:** A community of living organisms of a single major ecological region.

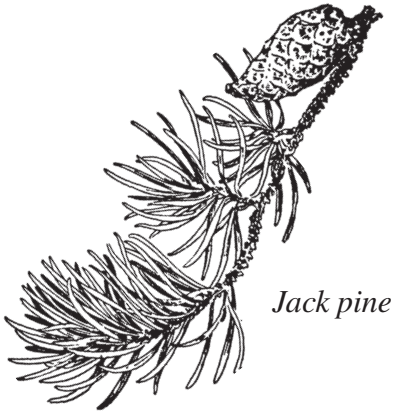
**Boreal forest:** The northern hemisphere, circumpolar tundra forest type, consisting primarily of black spruce and white spruce with balsam fir, birch and aspen. The boreal forest is the most extensive forest type in the world (The Dictionary of Forestry, Society of American Foresters, 1998).

**Browse:** To forage or graze on the buds, stems and leaves of woody vegetation by wildlife, primarily hoofed animals (The Dictionary of Forestry, Society of American Foresters, 1998).

**Budcapping:** A method of protecting the terminal bud from browsing by wildlife, by stapling a plain white piece of paper around the terminal bud of a seedling.

**Bulb scales:** Thick scales that can easily be rubbed off of a lily bulb. When planted 1/2 to 1 inch deep, they produce a single leaf in the first year, while seeds take 2 years to germinate.

**Callus tissue:** A growth of large, undifferentiated, homogeneous cells produced by the cambial zone of woody plants that seals off a wound, eventually covering it (The Dictionary of Forestry, Society of American Foresters, 1998).



Jack pine

**Canopy:** The foliar cover in a forest stand, consisting of its upper layers (The Dictionary of Forestry, Society of American Foresters, 1998).

**Climax forest:** An ecological community that presents the culminating stage of a natural forest succession for its locality (The Dictionary of Forestry, Society of American Foresters, 1998).

**Codominant branches:** Branches that are of equal size arising from the same position, competing for dominance.

**Coniferous:** Cone-bearing; refers to cone-bearing trees.

**Connectivity:** A measure of how connected or spatially continuous a corridor is or should be to ensure continuous habitat for wild plants and animals for breeding, feeding or movement. Connectivity is the primary measure of corridor structure (The Dictionary of Forestry, Society of American Foresters, 1998).

**Conservative species:** Species that thrive best in a relatively stable (successionally advanced) community with its original processes intact. A conservative species is the opposite of an early successional species, which grows best in disturbed open soil.

**Cultivar:** A plant that has been selectively bred for certain desirable characteristics and is generally more or less genetically uniform. Such a cultivated plant is given an additional non-Latin name or is designated *variety* or *var.* (The Dictionary of Forestry, Society of American Foresters, 1998).

**Cuticle:** The protective outer covering of a seed, which is often very hard.

**Cut slope:** An earthen slope that is cut; for example, a road built lower than the existing terrain would result in a cut slope.

**Deciduous forest:** A forest whose vegetation is made up of tree and shrub species that shed foliage simultaneously in the fall.

**De-bearding:** Part of the seed-cleaning process. Awns or excessive hair on some native grasses (Canada wild rye) need to be removed for easier seeding.

**Designed plantings:** An assemblage of plants selected and arranged for a specific purpose.

**Diameter at breast height (dbh):** Measurement norm (4.5 feet from the ground) for determining the diameter of a tree trunk.

**Drip line:** The line extending vertically from the exterior edge of a tree's live crown to the ground. (The Dictionary of Forestry, Society of American Foresters, 1998).



*Exotic sweet clover*

**Drumlin fields:** An accumulation of elongated hills composed of glacial drift (any rock material, sorted or unsorted, deposited as a result of glaciation).

**Ecological classification:** A multifactor approach to categorizing and delineating, at different levels of resolution, areas of land and water having similar characteristic combinations of physical environment (such as topography, climate, geology, soil and hydrology), biological communities (such as plants, animals and microorganisms), and human influences (such as social, economic and cultural factors).

**Ecological pioneer:** A plant capable of invading disturbed bare sites and colonizing rapidly over considerable areas.

**Ecosystem:** A spatially explicit, relatively homogenous unit of the earth that includes all interacting organisms and components of the biotic environment within its boundaries. An ecosystem can be of any size, such as a log, pond, field, forest or the earth's biosphere. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Ecotype:** A genetically differentiated subpopulation that is restricted or adapted to a specific habitat; plants adapted to a localized environment, such as climate, soils or aspect. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Emergent:** Emergent vegetation, stems and flowers extending out of the water.

**Endangered, threatened and special concern species:** These species have special status under Minnesota Rules, Chapter 6134.

**End moraine:** See *moraine*.

**Exotic species:** A plant introduced from another country or geographic region outside its natural range.

**Fascines:** Stems and branches of rootable plant material (willow, dogwood and alder, for example) that are tied together in long bundles, placed in shallow trenches on contour, and staked down to stabilize erodible slopes.

**Filler:** Used in the process of broadcasting seeds by hand. Seeds mixed with a filler of moistened sawdust or vermiculite will provide a more even distribution of seeds as they adhere to the filler and are less likely to be blown away by wind.

**Fill slope:** An artificial earthen slope that is being built up; for example, when a road is built higher than the existing terrain.

**Flora:** Plants collectively, especially the plants of a particular region or time.



*White trillium*

**Forb:** A non-woody, broad-leaved, herbaceous plant other than those in the grass, sedge and rush families.

**Geomorphology:** The geologic study of the configuration and evolution of land forms.

**Girdle (mechanical):** To remove a broad band of bark around a living stem, without damaging the sapwood that is directly beneath the bark. Girdling kills a tree slowly (over a full growing season), thereby avoiding resprouting. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Girdling roots:** Roots that are intertwined to the point of restricting optimum growth of a plant. Container-grown plants are most susceptible.

**Ground moraine:** See *moraine*.

**Herbaceous:** Non-woody plants made up of grasses, forbs (broad-leaf perennials) and ferns.

**Hydrology:** The scientific study of the properties, distribution and effects of water on the earth's surface, in the soil and underlying rocks, and in the atmosphere.

**Hydroseeding:** A seeding method for use on steep slopes where other methods are not possible. A seed-water-mulch mixture is sprayed as a slurry evenly onto the slope.

**Interseeding:** The dispersing of seed into an established vegetation cover where desirable species still exist.

**Lateral branches:** The branches that grow out from the trunk or stem of a tree. Ideally they should be evenly spaced.

**Laurentian Divide:** The ridge of low rugged hills meandering through Northern Minnesota that separates the headwaters of streams which flow north into Hudson Bay and south into Lake Superior. The Laurentian Divide at this location is only a remnant of a once-gigantic mountain range formed more than one billion years ago.

**Legumes:** Herbaceous or woody plants in the bean family. Because these plants are able to fix atmospheric nitrogen in the soil, they are known for their soil-improving quality.

**Ligule:** A papery, hairy or scar-like structure at the inner juncture of the leaf blade and leaf sheath; primarily in grasses.

**Listed species:** Species of plants and animals that are identified (listed) as endangered, threatened or of special concern.

**Litter:** The uppermost layer of decaying organic matter in any plant community.

**Management unit:** A subdivision of a management area.

**Mesic:** Sites characterized by intermediate soil moisture conditions, neither decidedly wet nor dry. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Monoculture:** A stand of a single species, generally even-aged.

**Moraine:** An irregular accumulation of glacial drift (any rock material, sorted or unsorted, deposited as a result of glaciation), with an initial topographic expression of its own, built chiefly by the direct action of glacial ice. There are many kinds of moraines, including end moraines or terminal moraines, ground moraines and moraine complexes. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Mulch:** Any loose covering on the surface of the soil to conserve moisture, control weeds and build soil. This may be organic material on site in the form of leaves and twigs, but is most often it is deliberately applied organic material, such as cut grass, straw, bark or sawdust. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Native species:** An indigenous species (a basic unit of taxonomy) that is normally found as part of a particular ecosystem; a species that was present in a particular area at the time of the Public Land Survey (1847-1907). (The Dictionary of Forestry, Society of American Foresters, 1998).



*Tall sunflower*

**Natural areas:** A physical and biological area in nearly natural condition that exemplifies an ecological community with its biotic, geologic and hydrologic features. A natural area is allowed to go through natural physical and biological processes, with human intervention only to the extent of prescribed burning or fire suppression. (The Dictionary of Forestry, Society of American Foresters, 1998)

**Natural colonization:** Natural regeneration from seed that naturally falls on the ground and finds the right conditions to grow. (The Dictionary of Forestry, Society of American Foresters, 1998).

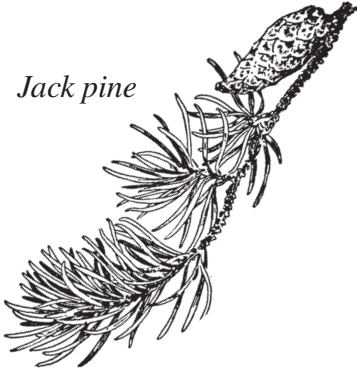
**Natural community:** Complex assembly of species as they have evolved in their environments over long periods of time.

**Natural community management plan:** A plan that identifies management priorities and strategies to enhance and preserve natural plant communities native to Minnesota.

**Natural system:** See *ecosystem*.

**Nutrient level:** The amount of nourishing ingredients in the soil that are available to plants.

Jack pine



**Openings:** Grassy openings in a forested or woodland environment.

**Opportunistic species:** Plant species that take advantage of certain conditions to establish and thrive, often to the disadvantage of other plants; exotic species, for example, are opportunistic.

**Organic matter:** The top layers of the soil where plant matter is in various stages of decomposition; for example, various layers of decomposing leaves on the forest floor.

**Outwash plain:** A level plain consisting of stratified sands and gravels laid down by glacial meltwater streams.

**Phytophotodermatitis:** A painful rash that develops when people with sensitive skin come in contact with plant sap of wild parsnip in the presence of sunlight. Wild parsnip (*Pastinaca sativa*) is a non-native plant that occurs frequently in the southeastern part of the state.

**Pine barrens:** A form of savanna (see *savanna*) that occurs in the north-central part of the state on very sandy soils. Dominant plants include: Jack pine, northern pin oak, American hazel, blueberry, sweet fern, spreading dogbane and wild strawberry.

**Prairie:** A fire-dependent natural plant community, dominated by grasses and with few or no trees.

**Propagule:** A part of a plant, such as a bud, tuber, root, shoot or spore, that can multiply vegetatively rather than through seed. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Remnant community:** A plant community with all or part of its natural composition intact as it was recorded at the time of the Public Land Survey (1847-1907).

**Rhizomatous plants:** Plants that have modified stems that grow below ground and produce roots, scale leaves, and suckers irregularly along its length and not just at nodes, such as quackgrass and sumac. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Riparian:** Pertaining to the bank or shore of a natural waterbody, the bank of a river, the edge of a lake or wetland.

**Root collar:** Transition area between stem wood and the point where the first main-order roots flare out.

**Savanna:** A more or less open woodland having an undergrowth mainly of grasses; trees are of moderate height and generally deciduous or evergreen.

**Scarify:** To apply chemical, mechanical, heat or moisture treatment to seeds to make the seed coat permeable and thereby improve germination.

**Scouring:** Soil erosion through the force of moving water.

**Slope:** An inclined surface.

**Slumping:** Soil sliding down suddenly, as it relates to the instability of an earthen slope.

**Soil amendment:** An improvement of the existing soil of a site by adding organic matter.

**Soil fauna:** Organisms that assist in the decomposing of leaf litter, eventually turning it into nutrient-rich soil.

**Spring ephemerals:** A forest groundlayer herbaceous species that produces leaves and flowers before trees leaf out, and then dies back soon after. These species are most numerous in moist hardwood forests.

**spp:** Several species of the same genus.

**ssp:** Subspecies.

**Stoloniferous:** Having a stem or branch that grows along the ground surface (stolon) and takes root at its nodes; strawberries are one example. (The Dictionary of Forestry, Society of American Foresters, 1998).

**Submerged:** Vegetation growing under water.

**Succession:** A dynamic phenomenon in natural communities whereby one group of plant species is supplanted by another over time.

**Swale:** A moist or marshy elongated depression in the landscape.

**Target community:** A plant community determined to be the most appropriate for a specific site. This determination requires indepth knowledge of the site and its history.

**Terminal bud:** The bud on the end of a shoot or twig.

**Terminal bud scar:** A mark at the end of a stem or branch, indicating the former attachment of a leaf and indicating where a new leaf or stem will grow again.

**Thatch:** Herbaceous plant material that has accumulated over several years, forming a thick layer of partially decomposed organic material that delays soil warmup in the spring and may suppress the growth of some species.



*Fly honeysuckle*

**Topography:** The physical features of a place or region.

**Topping:** Reducing the height of a tree or shrub by pruning indiscriminately across the top. Topping destroys the natural shape of a tree or shrub.

**Trash ripper:** Part of an inter-seeder drill that will slice through the vegetative layer and make a furrow in which the seed is placed.

**Treadway:** The surfaced or otherwise designated portion of a trail right-of-way where trail activities take place.

**Understory:** All forest vegetation growing under the canopy or upper layers of forest vegetation.

**Upland site:** A site that is most likely dry and more exposed to climatic variations; opposite of lowland.

**Vermiculite:** A neutral substrate of layered silicates that is commonly used for starting plant seeds and cuttings.

**Weed trees:** Species of trees, native and non-native, that aggressively invade a site when natural processes are disrupted.

**Wildlands:** Ecologically healthy lands that are not dedicated for such uses as agriculture, urban development, mining or recreation.

**Wild-type seed:** Seed that is directly derived from native wild stock, including seed that was collected from the wild and then put into production. Wild-type seed has not undergone a selection process.

**Windthrow:** Trees felled or broken off by wind; also called blowdown.

**Woodland:** A plant community in which, in contrast to a typical forest, trees form an open canopy, with the understory being occupied by shrubs, grasses and forbs.



*Wild geranium*