

## Glossary

**Acre** • An area of land measuring 43,560 square feet (about 209 by 209 feet square).

**Aspect** • The direction towards which a slope faces.

**Basal Area** • The basal area of a tree is the cross-sectional area (in square feet) of the trunk at breast height (4.5 feet above the ground). The basal area of a tree that measures 14 inches in diameter at breast height is about 1 square foot. This can also be expressed on a per acre basis, which is the sum of the basal areas of the individual trees on the acre.

**Best Management Practice** • A method or combination of methods that is an effective and practical (including technologically and economically) way to prevent or reduce pollution.

**Biological (Bio) Diversity** • The variety and abundance of species, their genetic composition, and the communities, ecosystems, and landscapes in which they occur.

**Board Foot** • A unit for measuring wood volumes equaling 144 cubic inches. This is commonly used to measure and express the amount of wood in a tree, sawlog, or individual piece of lumber. A piece of wood measuring 1 foot by 1 foot by 1 inch or; 1 foot by 3 inches by 4 inches.

**Canopy** • The upper layer in a forest made up of tree branches and foliage; the forest ceiling.

**Cavity trees (den trees)** • A living (cavity tree) or dead (den) tree with a hollowed out hole, opening or cavity suitable for wildlife to use for shelter, escape, or as a nursery.

**Conifer** • A tree belonging to the order Coniferales, which is usually evergreen, cone bearing and with needles, pointy, or scale-like leaves such as pines, spruces, firs, and cedars; often referred to as "softwoods", which does not necessarily refer to the hardness of the woods.

**Conservation** • The protection, improvement, and wise use of natural resources for present and future generations.

**Contamination (of water resources)** • The introduction of chemical, organic or inorganic wastes or sewage, or microorganisms into water, which render the water unfit for its intended use.

**Coppice** • the sprouts that naturally grow on tree stumps; a forest stand regenerated primarily by sprouts.

**Cord** • A unit of measure of stacked wood. The standard is a pile of wood 4 feet by 4 feet by 8 feet or a combination of 128 cubic feet.

**Crop tree** • Any tree selected to grow to final harvest or to a selected size. Crop trees are selected for quality, species, size, timber potential, or wildlife value.

**Crown** • The upper portion of the tree consisting of branches and foliage.

**Cull** • A tree that has no merchantable value as a sawlog due to defects or rot. Cull trees are often removed to allow crop trees more space and light to grow to a desired size and quality.

**Deciduous tree** • A tree with broad, flat leaves that it sheds at some time during the year (in Rhode Island during the Autumn/winter season).

**Diameter Breast Height (DBH)** • A tree's diameter measured 4.5 feet above ground level.

**Duff** • The litter on the forest floor comprised of undecomposed organic material (leaves, wood, and other plant material).

**Ecology** • The science or study of the relationships between organisms and their environment.

**Ecosystem** - A system formed by the interaction of a community of organisms with their physical environment.

**Edge** • The transition zone between two different natural areas or habitats.

**Endangered Species** • Species in danger of extinction throughout all or a significant part of their range. Protection mandated by the United States Endangered Species Act, 1973.

**Environment** • The interaction of climate, soil, topography, and other plants and animals in a given area. An organism's environment influences its form, behavior, and survival.

**Erosion** • The wearing away of land or soil by the action of wind, water, ice, and/or gravity to a point downstream or downslope of the original location.

**Even-aged Forest** • A forest in which all of the trees are essentially the same age (within 10 to 20 years).

**Felling** • The process of severing trees from stumps.

**Fertilizers** • Any substance or combination of substances used as a source of plant food or soil amendment.

**Forest Management** • (a) Proper care and control of wooded land to maintain health, vigor, product flow, and other values (soil condition, water quality, wildlife preservation, and beauty) in order to accomplish specific objectives. (b) The practical application of scientific, economic, and social principles to forest property.

**Forest Management Plan** • A set of written guidelines for current and future management practices recommended to meet an owner's objectives.

**Forest Stewardship Plan** • A written document listing activities that enhance or improve forest resources (soil, wildlife, timber, recreation, and aesthetics) on private land.

**Forest type** • A group of tree species that, because of their environmental requirements and tolerances, are repeatedly found growing together. Three examples of forest types in Rhode Island include red maple type, white pine type, and mixed hardwood type.

**Forestry** • The science, art, and practice of managing and using trees, forests, and their associated resources for human benefit.

**Ground cover** • Any vegetative growth, or natural or man-made material that renders the soil surface stable against erosion.

**Groundwater** • Water that is located beneath the earth's surface within a saturated zone. The saturated zone includes the area where all spaces (pores) between soil or rock particles are filled with water. The saturated zone often includes numerous water filled crevices in the upper layer of bedrock.

**Habitat** • (a) An area in which a specific plant or animal can naturally live, grow, and reproduce. (b) For wildlife, habitat is the combination of food, water, cover, and space.

**Hardwoods** • Trees with broad, flat leaves as opposed to coniferous or needle-leaved trees. Wood hardness varies among the hardwood species, and some, like aspen are actually softer than some softwoods.

**Harvesting/Harvest** • The removal of some or all of the trees in a stand (felling). The felled trees are transported out of the forest.

**High Grading** • A harvesting method that removes only the biggest and most valuable trees from a stand and pro-

Programs and activities are available to all persons without regard to race, color, sex, disability, religion, age, sexual orientation, or national origin.

This project is a collaboration of the Southern New England Forest Consortium, Inc., and the University of Rhode Island Cooperative Extension Home\*A\*Syst Program. Written by Holly K. Burdett, Christopher Modisette, Alyson McCann and Brianne Neptin. Special thanks to all publication reviewers. Funding for this project was provided by the USDA Forest Service in cooperation with the Rhode Island Department of Environmental Management Division of Forest Environment and the USDA Renewable Resources Extension Act, URI Cooperative Extension.



D.E.M.



vides high returns at the expense of future growth potential. Poor quality, shade-loving trees tend to dominate in continually high-graded sites.

**Intermediate (Improvement) Thinning •**

This is an intermediate treatment aimed at improving the growth and vigor of an existing stand of trees by reducing competition. Removing some of the trees will provide room in the canopy for the crowns of the remaining trees to receive sunlight.

**Invasive species •** An organism that is not native to an area and that has no natural enemies. Invasive species cause or are likely to cause economic or environmental harm, or harm to human health.

**Mast •** Fruits or nuts used as a food source by wildlife. Soft mast includes most fruits with fleshy coverings, such as apples or cherries. Hard mast refers to nuts such as acorns, beechnuts, and hickory nuts.

**Native species •** Species that naturally evolved within a region or ecosystem and are better adapted, more appropriate and ecologically suited to that area. Most native species have natural enemies.

**Nonpoint source pollution •** Pollution that occurs over a widespread, diffuse area that is not easily defined or pinpointed. Examples of nonpoint source pollution include stormwater runoff and soil erosion.

**Nutrients •** Elements necessary for growth and reproduction. Primary plant nutrients are nitrogen, phosphorus, and potassium.

**Overstory •** See canopy.

**Percolation •** The rate at which water moves through the soil.

**Permeability •** The ability of a soil layer to allow air or water to move through it. Some soils can have a restricting, impermeable layer, which causes the overall permeability to be low even though other soil layers have a higher permeability.

**Pest •** Any organism that is out of place, undesired by humans, or causes stress to a desired organism.

**Pesticide •** Any chemical used to kill or control pests, includes herbicides and insecticides.

**Pioneer Species •** Shade intolerant tree species like aspen and birch that are the first to colonize newly disturbed sites and abandoned fields.

**Pollution •** The presence of substances that impairs or renders harm to life, health and the productivity of the environment, or is offensive to the senses.

**Pruning •** The judicious cutting of limbs, twigs, and sprouts to control tree shape, height, or fruit and flower development. With forest trees, pruning is generally

done along the trunk to remove the side branches (which cause knots in the wood) to produce a higher quality (knot-free) wood or lumber product.

**Pulpwood •** Wood used in the manufacture of paper, fiberboard, or other wood fiber products. Pulpwood-sized trees are usually a minimum of 4 inches in diameter.

**Regeneration harvest •** The process by which a forest is replaced or renewed. A harvesting strategy in which old trees are removed and favorable environmental conditions are maintained for the establishment of a new stand of seedlings. The new stand of seedlings may sprout naturally or be established through deliberate seeding or planting.

**Riparian Buffer Area •** An area of trees and shrubs located adjacent to or up-gradient from surface water or groundwater resources. Establishing or maintaining an existing riparian buffer area reduces pollution to water resources and provides/improves wildlife habitat. Riparian edge areas are a transitional zone between wetlands, streams, ponds, lakes, pools and adjacent uplands, and many species of wildlife can only live in this unique habitat area.

**Runoff •** The portion of precipitation or snowmelt that flows over the land surface or in open channels.

**Sawtimber (sawlog) •** Trees that will produce logs suitable in both size and quality for the production of lumber. In Rhode Island, hardwoods must generally be over 16 inches in diameter at breast height (at 4.5 feet above the ground surface) in order to be considered sawtimber. Minimum log length is typically 8 feet.

**Silviculture •** The art, science, and practice of establishing, tending, and reproducing forest stands of desired characteristics. It is based on knowledge of species characteristics and environmental requirements.

**Snag •** A standing dead or dying tree with little or no merchantable value, but often provides valuable nesting sites and shelter for many species of wildlife.

**Soil •** The unconsolidated mineral and organic material on the immediate surface of the earth, serving as a natural medium for the growth of plants.

**Soil type •** Soils that are alike in all characteristics, including texture of the topsoil. Soil maps and information about different soil types are available from the USDA Natural Resources Conservation Service.

**Species •** A group of related organisms having common characteristics capable of interbreeding.

**Stand •** A group of trees occupying a given area and sufficiently uniform in composition, age and condition so as to be distinguishable from the adjoining areas within a forest. A pure stand contains 80% or more of the same tree species. When less than 80% of all trees present are of the same species, a mixed stand is present.

**Succession (in the Northeast region of the United States) •** The natural sequence of plant community replacement beginning with bare ground and resulting in a final, stable community in which a climax forest is reached. This process is most commonly seen when abandoned cropland or pastureland reverts back to climax forest.

**Tolerance •** The capacity of a tree to develop, grow and reproduce in the shade of and in competition with other trees.

**Topographic map •** A map that shows geographic features such as elevation, waterways, forested areas, open areas, towns, and roads. Useful for orienteering, planning, and locating property boundaries.

**Understory •** (a) The layer formed by the crowns of smaller trees in a forest. (b) The smaller, usually younger trees in a forest.

**Uneven-aged (all-aged) stand •** A stand composed of a wide range of ages and sizes of trees.

**Urban sprawl •** The unplanned, uncontrolled spreading of urban development into areas adjoining the edge of a city.

**Vernal pool •** A small temporary body of water often found in woodlands. They are typically full of water in the winter and early spring months, and dry up during the summer months. They provide a valuable and critical habitat to many species of wildlife, especially amphibians (frogs and salamanders).

**Water (hydrologic) Cycle •** The water cycle describes the ways in which water moves around the earth. During its endless circulation from ocean to atmosphere to earth and back to ocean, the water is stored temporarily in streams, lakes, the soil, or groundwater and becomes available for use.

**Water quality •** Describes the chemical, physical and biological characteristics of water in respect to its suitability for a particular purpose.

**Watershed •** An area of land that drains water to a common outlet point or other designated point within a surface water body.

**Wolf Tree •** A large tree that occupies more space than its economic value. Usually, it is a tree that is older, larger or has many more branches than other trees in the stand. These trees can be valuable for wildlife and scenic purposes.