

## DRIP GLOSSARY

**Advance Regeneration** - Seedling or saplings that are present in the understory prior to removal of any overstory trees.

**Age Class** - A group of trees in a stand that are at or nearly the same age.

**Artificial Regeneration** – Creation of a new age class by direct seeding, or by planting seedlings or cuttings, or by equipment scarification.

**Basal Area** - Total area of cross section of tree stems measured at breast height (4 feet above the ground), usually expressed in square feet per acre.

**Biological Diversity** - The distribution and abundance of different plant and animal communities. The number and equitability of communities, with landscapes possessing more and equitably distributed communities having the highest diversity.

**Clearcut** - An even-age method of regenerating a stand through the removal, in a single cut, of all trees larger than seedling. The new age class develops in a fully-exposed microclimate. In some situations small numbers of trees may be left within the clear-cut opening for some special purpose.

**Composition, Stand** - The proportion of each tree species in a stand expressed as a percentage of either the total number, basal area, or volume of all tree species in the stand.

**Community** – An assemblage of two or more populations living together in the same geographical area at the same time.

**Conditional migrator** – Deer that move shorter distances and/or migrate infrequently compared to obligate migrators. This occurs primarily in the southern Upper Peninsula and northern Lower Peninsula where winter is typically mild and severe winters occur periodically or 2 out of 10 years.

**Conditional Summer Range** – Range occupied by conditional migratory deer during the snow free seasons of spring, summer and fall.

**Conditional Winter Range** – Deer classified as conditional migrators occupy landscapes that experience moderate snow conditions. Conditional deer move shorter distances, at more infrequent intervals and for shorter periods of time. Conditional deer occasionally experience periodic inclement winter snow events prompting them to move to suitable conifer shelter, however, as soon as snow conditions improve, they return to areas occupied during summer.

**Crown Cover (Canopy Cover)** – The ground area covered by the crowns of trees or woody vegetation as delimited by the vertical projection of crown perimeters and commonly expressed as percent of total ground area

**Deer Wintering Complex** - A deer wintering complex is a forested landscape in which food and shelter are present in sufficient quantity, quality and spatial arrangement and function to mitigate the effects of winter weather conditions. Dense stands of cedar and hemlock are necessary to mitigate the impacts of the long duration and depth of snow cover.

**Deeryard** – A term for the concentration of deer during the winter or used to indicate where deer concentrate in the winter.

**Drip line** – The outermost branches of trees from which water drips onto the ground.

**Ecosystem** – The natural assemblage of plant and animal populations and unique set of physical conditions under which they exist.

**Environment** - All the conditions, circumstances, and influences surrounding, and affecting the development of, an organism or group of organisms.

**Even-aged Stand** - A stand of trees containing a single age class in which the range of tree ages is usually less than 20 percent of the total trees in the stand.

**Featured Species** – Wildlife species whose habitat requirements guide wildlife management emphasis.

**Functional Shelter** - Conifer stands with at least 70% canopy closure and tree heights greater than 30 feet. These thresholds for canopy closure and height ensure the stand is effective at intercepting snow, resulting in decreased snow depths and increased mobility for deer to access food and avoid predators.

**Group Selection** - A method of regenerating uneven-aged stand in which trees are removed, and new age classes are established, in small groups. The maximum width of the group is approximately twice the height of the mature trees, with these small openings providing micro-environments suitable to regenerate shade intolerant tree species (requiring direct sunlight for growth). The areas are generally less than one-quarter acre in size.

**Habitat** - The specific combination of food, shelter, space and water that is required to accommodate a species.

**Hardwood Stand** - Any forest stand in which the number of stems, basal area or volume consists primarily of broad-leaf tree species.

**Landscape** - An area composed of interacting ecosystems that are repeated because of geology, land form, soils, climate, biota and human influences throughout the area. Landscapes are generally of a size, shape and pattern which is determined by interacting ecosystems.

**Mast (hard and soft)** – Hard mast consists of acorns, hickory, beechnuts and hazelnuts. They have a hard outer coating. Soft mast, represented by plants producing fruit with soft outer coatings such as raspberries, blueberries and thimbleberries.

**Natural Regeneration** - A stand of trees created from natural seeding, sprouting, suckering, or layering.

**Obligate migrator** - Deer are obligated to vacate their summer range and migrate to suitable winter shelter areas called Deer Wintering Complexes. This occurs in the northern Upper Peninsula where winters are consistently severe.

**Obligate Summer Range** - The range occupied by obligate migratory deer during the snow free seasons of spring, summer and fall. Deer vacate these areas during winter and migrate to suitably sheltered areas to spend the winter. Deer return when snow conditions moderate, allowing them to return to range occupied during spring, summer and fall. Approximately 70% of the UP is obligate summer range.

**Obligate Winter Range** - Obligate migratory deer vacate ranges they occupy during the snow-free seasons (summer range) and migrate to winter ranges that are suitable for mitigating the impact of 75+ days of 12 or more inches of snow. Obligate winter range represents approximately 17% of the UP.

**Overstory Removal** - The cutting of trees comprising an upper canopy layer in order to release trees or other vegetation in an understory.

**Partial Cutting** - The removal of a specific segment or component of a stand in a single operation, later followed by a series of operations which remove other components until a specific goal is attained.

**Prescriptions** – The written instructions by a forester for the preparation and administration of a resource management practice.

**Public Trust** – Natural and cultural resources that are owned, protected and maintained by the government for public use.

**Primary Shelter Species** - Cedar and hemlock trees provide the best functional shelter as they intercept larger amounts of snow than other conifers. These species also are a favored winter food source which makes them difficult to regenerate and recruit back into the stand canopy.

**Recruitment** – Usually means juvenile organisms surviving to breeding age.

**Regeneration (reproduction) Method** - A cutting method by which a new age class is created. The major methods are clear cutting, seed tree, shelterwood, selection, and coppice.

**Resident or Non-migratory Deer** - Deer that stay within their summer range during the winter. This behavior response may occur anywhere in the state but the majority of deer in the southern Lower Peninsula are in this category.

**Residual Stand** - The total of all trees remaining in a stand following a silvicultural practice or natural disturbance.

**Riparian Zone** - The area influenced by the presence of a concentration of water. The banks of streams, lakes or marshes. The size of the area is influenced by hydrology

**Rotation** – The planned number of years between the regeneration of a forest stand and its eventual harvest.

**Sapling** - A tree, usually young, that is larger than a seedling but smaller than a pole, generally between 1” and 5” in diameter.

**Secondary Shelter Species** - White spruce, balsam fir and white pine are secondary shelter species. They intercept less snow than cedar and hemlock but contribute to functional shelter especially when mixed with cedar and hemlock trees. In high density stands composed of these tree species, they provide suitable winter shelter on conditional deer winter range during most years. These forest types also provide feeding corridors through hardwood stands and shelter during periods of lower snow depth.

**Seed Tree Method** – An even-aged regeneration method in which a new age class develops from seedling that germinate in fully exposed micro-environments after removal of all the previous stand except a small number of trees left to provide seed and shade. Seed trees are removed after regeneration is established.

**Shade Intolerant** - Any tree species whose seedling are incapable of sustained development in low light.

**Shade Tolerant** – Plants that are more competitive in shaded environments through selection for low light conditions and they also tend to have lower photosynthetic rates and hence grow slowly in all environments.

**Shelter (primary)** - Primary shelter consists of suitable densities (> 70 % canopy closure) of eastern hemlock and northern white cedar stands that are over 30 feet in height. Hemlock and cedar grow in high densities and their growth forms intercept a high percentage of snow plus they are readily browsed by deer for winter food. Due to the frequency of extreme snow conditions, primary shelter is necessary for obligate deer to survive winter.

**Shelter (secondary)** - Secondary shelter consists of natural stands of balsam fir, white spruce, white pine and mixed stands containing these and other conifer. Trees must be at least 30 feet in height and possess a minimum of 50% canopy closure. Secondary shelter is adequate on conditional deer range but is not suitable for obligate deer winter range. Encouraging secondary shelter species in stands or clumps within DWCs helps to improve mobility of deer as secondary species intercept snow and reduces the amount of energy to forage for food.

**Shelter (Tertiary)** - Hardwood and conifer trees plus shrubs that provide suitable winter protection from snow and wind, or during summer, relief from direct sunlight and elevated temperatures.

**Shelterwood** - A method of regenerating an even-aged stand in which a new age class develops beneath the partially-shaded micro-environment provided by the residual trees. In one or more succeeding harvests the residual stand is usually removed to fully release the established regeneration.

**Shelterwood (with Reserves or Irregular)** – Maintaining a higher stocking of residual trees, and for a longer period of time, compared to a normal shelterwood regeneration harvest rotation.

**Single Tree Selection** – A method of creating new age classes in uneven-aged stands in which individual trees of all size classes are removed more or less uniformly throughout the stand to achieve desired stand structural or compositional characteristics.

**Species Diversity** - The number, variety and equitability of life forms associated with an area. Often used as an indicator of the health of an ecosystem.

**Spruce Budworm** – An insect causing defoliation and possible death of mature spruce and especially balsam fir trees. Major outbreaks occur every 70 – 100 years.

**Stand** - A contiguous group of trees sufficiently uniform in age, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit.

**Mixed Stand** – A stand in which there is a mixture of species.

**Pure Stand** – A stand composed of essentially a single species.

**Stratified Mixture** – A stand in which different species occupy different strata of the total crown canopy.

**Succession (Ecological)** - A process of community development that involves changes in species structure and community processes over time.

**Successional Stage** - One in a series of usually transitory communities or developmental stages that occur in a particular site or area over a period of time. Eventually, on most sites, a relatively stable, self-perpetuating stage, called a climax, is attained.

**Summer Deer Range** - Range occupied by deer during the snow free seasons of spring, summer and fall.

**Winter Deer Range** - The range occupied by deer during winter. Distribution of deer during winter depends on factors including shelter conditions (amount, tree species composition, size of area, site productivity) spatial arrangement of stands, age of trees, temperature, amount and distribution of available food and especially the depth and duration of snow cover. The behavioral response of deer to these varying environmental conditions determine if deer are obligate, conditional or resident migrators.

**Winter Severity** – The adverse impact of snow and wind on living organisms. Winter severity indexes have been developed to gauge the effects of winter weather on deer survival.

**Wooly adelgid** – A destructive insect that threatens the eastern hemlock. Generally, a more southern distributed species, however, with climate change, the insect may move northward.

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