

JUNIOR ENVIROTHON

GLOSSARY

1. **Accipiters**: Hawks that feature small heads, long tails, and short well-rounded wings. They fly with rapid wing beats followed by a long glide. Extremely maneuverable, they are well-suited to the thick forest. Accipiters feed largely on other birds.
2. **Adaptation**: Special features developed over time that help animals obtain food, protect themselves against predators, and cope with weather conditions.
3. **Alternate**: The arrangement of leaves along a stem where consecutive leaves alternate along different sides of the stem. Taken together, all of the leaves plus the stem lie in roughly the same geometric plane. In winter, (after leaf drop for deciduous plants), the arrangement can be determined by looking at the leaf scars on the dormant twigs.
4. **Axil**: The area between a leaf and a stem, where an auxiliary bud can be a floral bud that becomes a flower, or vegetative bud that may produce a lateral stem (or remain dormant).
5. **Big Game**: A term for large species of wild animals, birds or fish hunted for food or sport (e.g. deer, elk, wild turkey, and black bear).
6. **Biodiversity**: The sum of all plants, animals, and other organisms living on Earth.
7. **Biological Control**: The use of living organisms-parasites, pathogens, or predators-to control invasive or other pest species.
8. **Bud**: The tightly wrapped structure that contains miniaturized forms of leaves and stems (vegetative bud) which may open at a later date or remain dormant forever, or flowers (floral bud) which open the following spring.
9. **Bundle**: The grouping together of needles on a pine tree into a unified cluster, bound by a sheath (or fascicle) at the base, and attached at a single point to the twig. Individual species of pine trees are known by the number of needles in a bundle; for example, White Pine has five, Loblolly Pine has three, and Scotch Pine has two.
10. **Cambium**: The growth layer of woody plant. A meristem that gives rise to radial rows of cells in stem and root, increasing them in girth; commonly applied to the vascular cambium which produces wood and phloem and cork cambium, which produces bark.

11. **Canine**: The dog family includes coyotes, wolves, and fox.
12. **Carnivore**: A meat eater.
13. **Cervid**: The deer family, in North America includes deer, elk, moose, and caribou.
14. **Conifer**: A plant that has cones, rather than fruits, as its method of dispersing seeds. Most conifers are needle-foliaged (evergreens such as the Spruces and Pines, or deciduous versions such as Larch) that have relatively large cones that spread open at maturity. However, others have a miniature berry-like cone (such as the Junipers) or a ball-like cone (such as Bald Cypress, a deciduous conifer) instead.
15. **Cultivar**: A race or variety of plant that has been created or selected intentionally and maintained through cultivation.
16. **Deciduous**: Trees that shed or lose foliage at the end of the growing season.
17. **Deforestation**: The removal of the forest.
18. **Dioecious**: Plants that have male flowers (or staminate flowers) on one plant, and female flowers (or pistillate flowers) on another plant. Therefore, a pollinating male bears no fruits or seeds, whereas a female plant may have fruits, if pollination and favorable environmental conditions occur. Examples of dioecious trees include Green Ash and Osage Orange. An advantage of dioecious trees is that seedless males can be selected and propagated.
19. **Diurnal**: Active during the day.
20. **Dominant**: Plant or animal species that has a major influence on a natural community.
21. **Drupe**: A type of fruit having a single seed enclosed in a hard layer and covered with soft, often juicy flesh, as in cherries and peaches.
22. **Echolocation**: The use of high-pitched squeaks, which echo off nearby objects-bushes, fences, branches, insects-and bounce back to the animals ear's. Bats and some marine mammals use echolocation.
23. **Evergreen**: A woody plant that retains its leaves throughout the winter. These include broad-leaved evergreens (such as most rhododendrons and bayberries) and the more common needle evergreens (the pines, spruces, firs, and hemlocks).
24. **Extinct**: The condition of having been removed from existence.
25. **Extirpated**: Missing from a native range but not extinct.
26. **Fauna**: The animals of a given region or period considered as a whole.

- 27. Feline:** The cat family, in North America includes the mountain lion, bobcat, and lynx.
- 28. Flora:** The plants of a particular region or period considered as a whole.
- 29. Floral Bud:** A bud that develops into a flower the following year. Although often occurring as a lateral bud, it can also be terminal bud (as in the European Horsechestnut) or even on the bark of trunks (as in Redbud).
- 30. Fruit:** The reproductive structure that includes the inner seeds. Mature fruits can be moist (such as the fleshy fruit of the Pawpaw), mealy (such as the nuts of the Hickories), or dry (such as the wafers of the Elms).
- 31. Furbearer:** These mammals feature fur that can be used for coats and clothing. Fox, raccoon, coyote, opossums, skunks, weasels, bobcats, and fishers are classified as furbearers in Pennsylvania.
- 32. Gamebird:** Legal name for birds that may be managed and hunted only under regulation. Includes pheasant, grouse, woodcock, and quail.
- 33. Girdle:** To cut through the bark and growing layer (cambium) around the trunk of a tree.
- 34. Habitat:** The arrangement of food, water, shelter, and space suitable to wildlife's needs.
- 35. Hardwood:** A term used in reference to the relative hardness of wood in a tree. Examples of hardwoods include the Oaks, Hickories, and Ashes.
- 36. Herbivore:** A plant eater.
- 37. Insectivore:** An insect eater.
- 38. Invasive:** A species (plant or animal) that grows and spreads rapidly, establishes itself over large areas, and displaces native species.
- 39. Invertebrate:** An animal that lacks a backbone.
- 40. IPM (Integrated Plant Management):** Using the best environmentally sound combination of cultural, biological, and chemical tools to provide long-term suppression of undesired organisms.
- 41. Lateral Bud:** A bud that originates just above the point of leaf attachment to the stem. A lateral bud may be a floral bud that flowers the following year, or a vegetative bud that can potentially become a lateral stem.
- 42. Leaf Scar:** A scarred portion of a twig where a leaf once attached. After several years, the enlarging twig becomes a branch, and the bark of the branch overwhelms the leaf scars, rendering them non-existent.

- 43. Leaflet:** In compound leaves such as the ashes, the green blades that attach to the central rachis are termed leaflets (a simple leaf like Redbud, on the other hand, does not have leaflets, but instead has only a single leaf blade attached to the petiole).
- 44. Lenticel:** A small opening (either a pore or a slit) in the bark of the tree, through which the tree “breathes” air into the cambium and other living tissues of the outer trunk. While all trees have lenticels, some are more easily observed on twigs and young branches (such as those of Black Cherry and River Birch) than others.
- 45. Limiting Factors:** Influences in the life history of any animal, population of animals, or species. (e.g., disease, predation, weather, pollution, hunting, poaching, and accidents.)
- 46. Lobe:** A division or projecting part of the blade or a leaf.
- 47. Migratory:** Birds or other animals which make annual yearly moves from one region or country to another.
- 48. Monoecious:** Plants that have male flowers (or staminate flowers) and female flowers (or pistillate flowers) on the same plant. Therefore, a monoecious plant will bear fruit from some of the female flowers scattered throughout its growth, if favorable environmental conditions occur. Examples of monoecious trees include American Beech and Black Walnut.
- 49. Mustelid:** The weasel family in North America includes the weasel, skunk, mink, otter, fisher, badger, and wolverine.
- 50. Native (also Indigenous):** A species that naturally occurs in a particular region, ecosystem, or habitat. Species native to North America are generally recognized as those occurring on the continent prior to European settlement.
- 51. Natural Areas:** An area of land or water with predominately native vegetation or natural geologic features that allowed to respond to the forces of nature with minimal human influence.
- 52. Neo-tropical Migrant:** Birds that migrate great distances between breeding grounds in temperate regions (Canada & the United States) and wintering grounds in the tropics (Mexico, Central America, South America, or the Caribbean Islands).
- 53. Nocturnal:** Active at night.
- 54. Node:** The place along a stem or twig where a structure (such as a leaf, leaf scar, or lateral bud) is attached. Nodes may have single structures

(alternate arrangement), dual structures (opposite arrangement), or multiple structures (Whorled arrangement). Usually, the apex of a twig is considered the terminal node. The areas of a twig between the nodes are called internodes, and constitute the overwhelming majority of the twig.

- 55. Non-native (also Alien, Exotic, Foreign, or Introduced):** A species that, due to direct or indirect human activity, occurs in locations beyond its known historical or potential natural range. Refers to species from another continent, region, ecosystem, or habitat.
- 56. Noxious Weed:** A legal designation used specifically for species that have been determined to be major pests of agricultural systems and are subject, by law, to certain restrictions.
- 57. Opposite:** The arrangements of leaves along a stem where a pair of leaves are opposite one another, with the stem in-between. Taken together, all of the leaves plus the stem lie in roughly the same geometric plane. In winter (after leaf drop for deciduous plants), the arrangement can be determined by looking at the leaf scars or buds on dormant twigs.
- 58. Palmately Compound:** The arrangements of leaflets in whorled fashion around the top of the petiole, which then attaches to the stem of the plant. This resembles the arrangement of fingers attached to the palm of the hand, which itself attaches to the arm (at the wrist). Ohio Buckeye and European Horsechestnut are good examples of palmately compound leaves
- 59. Pedicle:** The stem-like structure that attaches to a developing flower (or fruit) to the twig (or peduncle, which then attaches to the twig).
- 60. Petiole:** In a simple leaf the petiole is the structure that attaches the leaf blade to the stem. In a palmately compound leaf, the petiole attaches the leaflets to the stem. In a pinnately compound leaf, the petiole attaches the leaflets to the rachis, which in turn attaches to the stem.
- 61. Phloem:** In vascular plants, the downward flowing food conducting tissue.
- 62. Pinnately Compound:** The situation where the leaf is not simple, but rather composed of leaflets attached to a central rachis, which then attaches to the true twig of the plant. In autumn for woody plants, the leaflets detach from the rachis, and the rachis falls off from the twig,

completing leaf drop. Black Locust and White Ash are good examples of pinnately compound leaves.

- 63. Pith:** The spongy material in the center of twigs and young trunks (may be solid, diaphragmed, chambered, star-shaped, etc.)
- 64. Precocial:** Well developed at birth.
- 65. Pest:** A plant, animal, or other organism considered harmful.
- 66. Petiole:** The slender stalk by which a leaf is attached to the stem.
- 67. Predator:** An animal that kills and eats other animals.
- 68. Pubescence:** The fuzziness found on some leaves, stems, buds, floral structures, and fruits, especially when they are immature.
- 69. Rachis:** In a pinnately compound leaf, the elongated structure that attaches to both the leaflets and the petiole, which then attaches to the stem. A rachis is sometimes referred to as the axis of the pinnately compound leaf.
- 70. Range:** The geographic region where a plant or animal lives and grows; an area grazed by livestock and/or wildlife.
- 71. Reintroduction:** As related to conservation, when a plant or animal species is introduced back into their natural habitat.
- 72. Rodent:** Mammals with large incisors adapted for gnawing or nibbling (e.g. mice, rats, squirrels).
- 73. Samara:** A type of dried fruit that has a seed attached to a wing, which often causes the fruit to spin downward when it falls from a tree. Most maples have paired samaras in clusters, while most Ashes and Tree-of-Heaven have single samaras in large clusters.
- 74. Scavenger:** An animal that will feed on dead animal material. The opossum and turkey vultures are good examples of scavengers.
- 75. Simple Leaf:** The most common type of leaf, where a single leaf blade attaches to a petiole, which then attaches to a twig of the plant. In autumn, both the leaf blade and the petiole detach from the twig a single unit, completing leaf abscission.
- 76. Softwood:** A term used in reference to the relative softness of the wood of a tree. Examples of softwoods include Colorado Spruce and White Pine.
- 77. Songbird:** Birds that sing. These birds use song to help defend territories and/or to attract a mate.
- 78. Stipule:** Very small, leaf-like structures that occur at the base of the petiole on the leaves of a very few trees, usually appearing briefly in

early spring with leaf emergence, and soon falling away. Examples include the large stipules of Tulip Trees and the very small ones of some American Chestnuts.

- 79. Systematic herbicide:** An herbicide that is absorbed by a plant and carried throughout its tissues.
- 80. Terminal Bud:** A bud that occurs at the end of a stem. Although it usually a vegetative bud that will continue the growth of the stem the following year, it can also be a floral bud that will flower the following year. Some trees do not have a true terminal bud (Tree-of-Heaven is a good example), in which case the uppermost lateral bud serves its purpose.
- 81. Territory:** Dominance over a unit of habitat; an area defended by an animal against others of the same species.
- 82. Threatened:** In wildlife terms, a species present in its range but in danger because a decline in numbers.
- 83. Vegetative Bud:** A bud that develops into a stem with leaves, either originating as a terminal bud or as a lateral bud.
- 84. Weed:** A subjective word used to describe any plant growing wherever someone wishes it did not; can include native and non-native plants.
- 85. Whorled:** The arrangement of leaves along a stem where a cluster of three or more leaves occurs at the same juncture on the stem. In winter (after the leaf drop for deciduous plants), the arrangement can be determined by looking at the leaf scars on the dormant twigs, such as Catalpa.
- 86. Xylem:** In vascular plants, the wood tissue that conducts water and minerals up through the plant.