McKay and Gordon Meadow Brooks Portage Trail

Glossary

Note – Ctrl+Click to follow links

Amphibians – frogs, toads, newts, and salamanders are cold-blooded, four-limbed animals with a backbone. They inhabit a wide variety of habitats with most species living within terrestrial, underground, treed or freshwater aquatic ecosystems. Amphibians typically start out as larvae living in water, but some species have developed behavioural adaptations to bypass this. The young generally change from larva with gills to an adult air-breathing form with lungs. Amphibians use their skin as a secondary respiratory surface and some small terrestrial salamanders and frogs lack lungs and rely entirely on their skin. With their complex reproductive needs and permeable skins, amphibians are often ecological indicators and in recent decades there has been a dramatic decline in amphibian populations for many species around the globe.

Anther – see **Flower Parts → Stamen → Anther**

Anthocyanin – in photosynthetic tissues (such as leaves and sometimes stems), anthocyanins have been shown to act as a "sunscreen", protecting cells and tissues from high-light damage and stress by absorbing blue-green and ultraviolet light.

Awn – either a hair or bristle-like appendage on a larger structure like a glume or lemma of a grass floret, or in the case of the Aster Family (Asteraceae), a stiff needle-like element or of the pappus.

Bifurcated –forked or divided into two parts or branches, as the Y-shaped stigmas of certain flowers.

Bryophytes – a traditional name used to refer to all land plants that do not have true vascular tissue, i.e. mosses, liverworts and hornworts, and are therefore called "non-vascular plants". Some bryophytes do have specialized tissues for the transport of water; however, since these do not contain lignin which reinforces the cell walls, they are not considered to be true vascular tissues.

Calyx – see **Flower Parts → Sepals → Calyx**

Carbon sink – a natural or artificial reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period.

Chlorophyll – the molecule that absorbs sunlight and uses its energy to make carbohydrates from carbon dioxide (CO_2) and water (H_2O). This process is known as photosynthesis.

Corolla – see **Flower Parts → Petals → Corolla**

Corymb – see **Inflorescence**

Cyme – see **Inflorescence**

Fen – a peat-forming wetland that receives nutrients from sources other than precipitation; usually from upslope sources through drainage from surrounding mineral soils and from groundwater movement. Fens differ from bogs because they are less acidic and have higher nutrient levels. They are, therefore, able to support a much more diverse plant and animal community. These systems are often covered by grasses, sedges, rushes, and wildflowers.[1]

Filament – see **Flower Parts → Stamen → Filament**

Fauna and Flora – fauna is all of the animal life of any particular region or time. The corresponding term for plants is flora. Flora, fauna and other forms of life such as fungi are collectively referred to as biota.

Flower Fertilization – when a pollen-grain lands on a stigma, usually transported by insects or wind, it sprouts a tube that grows down the style, thus creating a passageway for the pollen-grain's liquid contents, containing two male gametocytes (sperm cells), to eventually reach the ovary. After entering the ovule through an opening called the micropyle, the tube ruptures and the two sperm cells are released. The union of one sperm cell and the egg cell will subsequently form a plant embryo. The other fuses with the polar nuclei to form the endosperm which is a food source for the seedling while it is developing to the point when it can make enough food by photosynthesis to survive.

Endosperm is a tissue produced inside the seeds of most flowering plants around the time of fertilization. It surrounds the embryo and provides nutrition for it in the form of starch, though it can also contain oils and protein.

Flower Parts

Petals – modified leaves that surround the reproductive parts of flowers. They are often brightly colored or unusually shaped to attract pollinators.

Corolla – petals of a single flower collectively.

Sepals – are found below the petals. Some flowers do not have petals, in which case the sepals may be big and colorful.

Calyx – sepals of a single flower collectively.

Perianth – corolla and calyx collectively. It surrounds the reproductive parts of the flower.

Tepals – a term referring collectively to the petals (corolla) and sepals (calyx) that are indistinguishable in size, shape and colour as in the Lily Family (Liliaceae).

Stamen – the male reproductive part of a flower that it made up of the anther and filament.

Anther – this oval to oblong-shaped pollen-producing structure is found at the tip of the filament.

Pollen – a collection of fine, yellowish dust (pollen-grains) from a seed-producing plant, which appears when released from the anther and carried to stigmas mainly by insects and wind. Under magnification the outer surface of each pollen-grain exhibits a pattern unique to that species.

Filament – the stalk of the stamen that bears the anther.

Pistil – the female reproductive part of the flower that consists of a stigma, style and ovary.

Stigma – the part of the pistil to which pollen-grains adhere because of its sticky or papillose (covered with short, pimple-like or nipple-like protuberances) surface.

Style – the part of the pistil that connects the stigma to the ovary and functions as a conduit between the two. After entering the ovule through an opening called the micropyle, the tube ends its journey once it attaches itself to the embryo-sac wall.

Ovary – contains the ovules or female gametocytes.

Frond – large, divided leaves of Ferns. Fronds can have different appearances by individual species. Examples: Bracken Fern consists of one frond and Cinnamon Fern and Interrupted Fern consist of many fronds.

Frond (fertile and sterile) – in some species of Ferns, there is virtually no difference between the fertile and sterile fronds, such as in the genus *Dryopteris*, other than the presence of the sori or fruit-dots, on the back of the fertile fronds. Sori begin appearing in summer.

Some ferns of the genus *Osmunda*, have the fertile pinnae on a portion of the frond only (e.g. the Interrupted Fern). Still others, such as The Cinnamon Fern of the Flowering Fern Family, or plants of the family *Onocleaceae*, for example, the Sensitive Fern, have fertile fronds that are completely different from the sterile fronds.

Herbaceous – describes a plant with leaves and stem(s) that fall(s) down prior to the next growing season. It has no persistent woody stem above ground. Herbaceous plants may be annuals, biennials or perennials.

Inflorescence – the complete flowering structure.

Corymb – a flower cluster whose lower stalks are proportionally longer so that the flowers form a flat or slightly convex head, e.g. Flat-topped White Aster.

Cyme – a usually flat-topped or convex flower cluster in which the main axis and each branch end in a flower (see Common Elder).

Raceme – an inflorescence or a complete flowering structure, having stalked flowers arranged singly along an elongated, un-branched stem. The flowers at the bottom open first.

Panicle – a compound raceme (see definition above) or branched cluster of flowers.

Single – an inflorescence consisting of a single, un-branched, terminal flower.

Spike – a simple inflorescence with sessile or nearly sessile flowers arranged on an elongated axis.[2]

Umbel – an inflorescence which consists of a number of short flower stalks (called pedicels) which spread from a common point, somewhat like umbrella ribs.

Lagg – a transition zone or eco-tone at the margin of a bog that receives water from both the bog and the surrounding mineral ground. The primary sources of water for the bog may be precipitation and/or groundwater. A more familiar example of an eco-tone is the transition zone between an abandoned field and a forested area.

Leaves – simple or compound, depending on how their blades (or lamina) are divided. In a simple leaf, the blade can be undivided (e.g. White Birch) or formed of lobes (e.g. Red Maple) where the gaps between the lobes do not reach to the mid-vein. In a compound leaf, the leaf blade is divided, forming leaflets that are attached to the middle vein, but have their own stalks.[4]

Nectar – a sugar-rich liquid and the raw material for honey that is produced by plants in glands called nectaries. Common nectar-consuming pollinators include bees, butterflies, moths, hummingbirds, and bats.
Nectar secretion increases as the flower is visited by pollinators. After pollination, the nectar is frequently reabsorbed into the plant.

Nectary – a nectar-secreting structure located either within a flower at the base of the perianth (floral nectary), a tissue within the wall of a plant ovary (septal nectary) or on a leaf or other part of a plant (extrafloral nectary).

Nematodes – or roundworms are a diverse animal group inhabiting a very broad range of environments. Nematode species can be difficult to distinguish, and although over 25,000 have been described, of which more than half are parasitic, the total number of nematode species has been estimated to be about 1 million.

Ovary – see **Flower Parts** → **Pistil** → **Ovary**

Panicle – see **Inflorescence**

Peat – an accumulation of partially decayed vegetation or organic matter that is unique to natural areas called peat lands The peat land ecosystem is the most efficient carbon sink on the planet because peat land plants capture the CO_2

which is naturally released from the peat, thus maintaining an equilibrium. In natural peat lands, the "annual rate of biomass production is greater than the rate of decomposition", but it takes "thousands of years for peat lands to develop the deposits of 1.5 to 2.3 m, which is the average depth of the boreal peat lands". One of the most common components is *Sphagnum* moss, although many other plants can contribute. Soils that contain mostly peat are known as histosols. Peat forms in wetland conditions, where flooding obstructs flows of oxygen therefore slowing rates of decomposition.

Perianth – see **Flower Parts → Perianth**

Pistil – see **Flower Parts → Pistil**

Parasitic – living in or on a host for an extended period. The parasite benefits at the expense of the other organism, the host. Parasites typically do not kill their host and are generally much smaller than it. The parasitic Dwarf Mistletoe is very small in comparison to the sizes of the trees it parasitizes. This non-mutual symbiotic (see **Symbiosis**) relationship between species is called parasitism**.**

Pollen – see **Flower Parts → Stamen → Anther → Pollen**

Raceme – see **Inflorescence**

Reptiles – comprising today's turtles, crocodilians, snakes, lizards and tuatara, their extinct relatives, and some of the extinct ancestors of mammals. The study of reptiles, historically combined with that of amphibians, is called herpetology. Reptiles are creatures with a backbone that either have four limbs or, like snakes, being descended from four-limbed ancestors. Unlike amphibians, reptiles do not have an aquatic larval stage.

Sessile – attached directly by its base without a petiole, stalk or peduncle.

Sloping Bog – a bog that has water flow derived from groundwater and precipitation which flows down slope through vegetation communities more commonly associated with bogs.[3]

Spike – see **Inflorescence**

Spikelet – a small or secondary spike, characteristic of grasses and sedges, bearing one or more florets and usually subtended by one or two bracts.

Stamen – see **Flower Parts → Stamen**

Stigma – see **Flower Parts** → **Pistil** → **Stigma**

Stolon – a slender stem that grows horizontally along the ground, giving rise to roots and aerial (vertical) branches at specialized points called nodes. A stolon is often called a runner.

Style – see **Flower Parts** → **Pistil** → **Style**

Symbiosis – a close and often long-term interaction between two or more different biological species that can be either beneficial to both species (e.g. pollinating insects and flowering plants, ants and aphids) or to one species only (e.g. spider using a leaf for a hiding place). Other insects can benefit from a mutually beneficial symbiotic between two others.

Tepal – see **Flower Parts** → **Perianth** → **Tepals**

Vascular and non-vascular plants – relating to plants that can (vascular) or cannot (non-vascular) conduct water, sap, and nutrients throughout the organism. Vascular plants form a large group of plants (club mosses, horsetails, flowering plants, ferns and fern allies, and conifers) that have reinforced tissue called xylem for conducting water and minerals throughout the plant. They also have a specialized non-reinforced tissue in the bark called the phloem to conduct products of photosynthesis. These features allow vascular plants to evolve to a larger size than non-vascular plants (mosses, liverworts and hornworts), which lack these specialized conducting tissues and are therefore restricted to relatively small sizes.

Witch's broom – a disease or deformity in a woody plant, typically a tree, where the natural structure of the plant is changed. A dense mass of shoots grows from a single point, with the resulting structure resembling a broom or a bird's nest. Witch's broom may be caused by many different types of organisms, including fungi, water molds, insects, mistletoe, dwarf mistletoes, mites, nematodes, or viruses. The broom growths may last for many years, typically for the life of the host plant. Human activity is sometimes behind the introduction of these organisms, for example, by failing to observe hygienic practice and thereby infecting the tree with the causative organism, or by pruning a tree improperly, and thereby weakening it.

References:

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