

Glossary

abscission – the act of shedding leaves, flowers or other plant parts at the point of formation of a narrow zone of thin-walled cells

abortive – failing to complete development

acaulescent – without a stem or apparently so

achene – a small dry indehiscent one-seeded fruit; a thin wall surrounds the seed

acorn – the fruit of an oak tree

acrid – harsh or sharp, somewhat corrosive

actinomorphic – radially symmetrical

acuminate – usually applied to the description of a leaf tip: tapering or narrowing to a slender tip

acute – having a sharp tip

adnate – the joining of different (unlike) plant parts

adventive – an introduced species that is not well established

aggregate fruit – a fruit resulting from the fusion of ovaries that were separate during flowering

albino – without pigmentation

alluvial – pertaining to material deposited by flowing water such as rivers, streams, etc.

ament – see catkin

annual – a plant that lives only one growing season, sprouting the following year from seed

anther – the pollen producing part of a stamen

anthesis – the flowering period of a species

antrorsely – pointing forward or upwards as in the barbs on the floral bristles of *Rhynchospora fusca*

apetalous – without petals

apomictic – to reproduce by apomixis

apomixis – non- sexual reproduction

appendage – a naturally occurring projection from any part of a plant

appressed – pressed closely to a plant part as for example, hairs on a stem or a leaf

arboriform – with the shape of a tree

arctic-alpine – a floral element or grouping of plants generally found only in alpine and/or arctic habitats

E. Glossary

arcuate – arching

areole – a small defined area such as those on leaves enclosed by anastomosing veins

aril – an often brightly colored, fleshy, seed covering developing from the ovule stalk, e.g. Yew (*Taxus canadensis*)

aristate – having a bristle-like awn

armature – a protective structure such as thorns, prickles, etc.

attenuate – narrowing to a slender point

auricle – a lobe (often ear-shaped)

autogamous – capable of self-fertilization

awl-shaped – having the shape of an awl (tapering from the base to a slender point)

awn – a bristle-like tip

axil – the angle (upper) formed where a leaf or branch attaches to the stem.

axillary – occurring in an axil

baccate – fruit a berry (or berrylike)

barb – a sharp projection

basal – occurring at the base of a plant as for example, basal leaves

berry – a fleshy fruit with several to many seeds

biennial – a plant that only lives for two years or seasons

bifurcate – split into two branches or parts (two-pronged)

bilabiate – two-lipped

bilaterally symmetrical – generally applied to flowers which can only be divided along one plane to obtain mirror images

bilocular – with two locules

biseriate – arranged in two rows or two whorls

bisexual – with both sexes present in the same flower

bract – a small scalelike leaf; flowers are often subtended by bracts

bracteate – having bracts

bracteole – a small bract

bristle – a stiff hair

E. Glossary

bulbiferous – bearing bulbils

bulbil – a small bulb sometimes occurring in leaf axils or inflorescences of some plants

bulbous – bearing bulbs or resembling bulbs

burr – a rough, prickly seed covering

calciphile – a plant that thrives on calcium-rich soil

callus – in grasses, the firm thickening at the base of the lemma

calyx – a collective term for all of the sepals on a single flower

campanulate – shaped like a bell as for example, a campanulate flower

canescent – having a grayish or whitish pubescence

capitate – headed

capsule – a type of dry fruit, splitting open when ripe and composed of more than one carpel

carpel – a modified leaf of an angiosperm which bears ovules; a pistil consists of one or more carpels

caryopsis – an often small dry fruit with the single seed contained within fused to its wall

catkin – a cylindrical inflorescence of small non-showy flowers; flowers either all staminate or all pistillate, usually wind-pollinated; also called aments

caudex – a short vertical persistent stem located at or just below the soil surface from which new shoots appear each year as for example in perennials

caulescent – having a leafy stem

cauline – pertaining to the stem

cespitose – forming dense clumps

chaff (chaffy) – small thin dry scales; the flower heads of some members of the Asteraeae are described as being chaffy or having chaff

ciliate – having marginal hairs

circinnate – coiled with the tip at the center e.g., unfurled fern fronds

circumscissile – dehiscing or splitting in a horizontal line as around a capsule which results in the upper part coming off like a lid

clasping – to encircle partly or completely as a leaf encircling a stem at its base

clavate – shaped like a club

claw – the abruptly narrowed base of petals, sepals or tepals in some flowers

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cleft – split or divided approximately halfway to a midrib or the base

cleistogamous – [a plant that produces]self-fertilizing flowers that never open

colonial crown in botany

– forming colonies

colony – a group of plants connected by rhizomes, roots or stolons

column – a group of united filaments; in the Orchidaceae, the structure formed by the united filaments and style

coma – a tuft of hairs as found on some seeds

commissural groove – the line along which two carpels join (may apply to other structures as well)

compound leaf – a leaf divided into two or more leaflets

concave – curved inwards

cone – an aggregation of sporophylls on an axis (see strobilus)

conical – cone-shaped

connate – the joining of like structures such as petals

convex – curved outwards

cordate – heart-shaped as the base of a leaf

corm – a short, leafless, underground stem, thickened for food storage

corolla – the collective petals of a flower

corona – a ring of petaloid structures located between the petals and the stamens representing either modified petals or modified stamens

corymb – a flat-topped racemose inflorescence

corymbiform - in the shape of a corymb

cosmopolitan – occurring worldwide

costa – a main vein or rib

costal groove –depression running the length of the costa, in some ferns

cotyledons – the seed leaf or leaves ; provide nourishment to the seedling until true leaves are formed

crenate – having rounded teeth as along a leaf margin

crenulate – finely crenate

crown – a ring of structure sitting atop another structure; or the sum of all above ground parts of a woody plant

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cuneate – wedge-shaped with the narrow end at the point of attachment

cupiform – cup-shaped

cupulate - shaped like a cupule

cylindric – cylinder-shaped

cyme – a broad, flattish inflorescence in which the terminal flower blooms first

deciduous – a plant that loses its leaves completely once a year

decumbent – with a prostrate base and upward curving tip

decurrent – extending downwards from point of insertion as e.g., a leaf base forming an adnate wing on the stem axis below its point of attachment to the stem

decussate – leaves on a stem occurring in opposite pairs, each pair at right angles to those above and below

dehiscent – opening upon maturity

deltate (deltoid) – shaped like an equilateral triangle –ate is for flat structures; -oid for 3D structures

dendroid – treelike; tree-shaped

dentate – with outward spreading pointed teeth

denticulate – finely dentate

digitate – palmately compound with the leaflets originating from a common point somewhat like the fingers on a hand

dimorphic – with two different forms or shapes

dioecious – with male and female flowers occurring on separate plants

disarticulate – separating at a predetermined point or joint

disciform – in the form of a disk

discoid – resembling a disk; in the Asteraceae, flower heads composed only of disk flowers

disk floret (disc floret) – the central tubular flowers found in some of the Asteraceae

dissected – divided or cut into narrow segments

distal – further away

distichous – in two vertical rows

distylic – having two different mature style lengths relative to other flower parts in different plants of the same species

divaricate – branching widely

dorsal – pertaining to the back

dorsiventral – flattened so as to have a back and front

double-serrate – coarse serrations that have fine marginal teeth

drupe – a fleshy fruit with a hardened inner wall which surrounds usually one seed.

eglandular – without glands

elliptic – widest at the middle and more or less equally narrowed to both ends

emarginate – having a small notch at the tip

emergent – term applied to a plant growing or extending out of the water

endemic – a species whose global distribution is limited to a very small geographic area

entire – with no teeth e.g., leaves with smooth edges

ephemeral – short-lived such as plants that appear, flower and fruit and die back in one season such as Spring

epicalyx – a series of bracts located immediately below the calyx

epigynous – an inferior ovary (with the perianth and stamens attached at the summit of the ovary)

evergreen – plants that remain green all winter

exserted – extending beyond an opening

falcate – sickle-shaped; curved and flat, gradually tapering

farinose – covered with mealy powder

fascicle – a tight bundle or cluster

fertile – capable of reproducing

filament – the stalk of a stamen

filiform – thread-like

flaccid – limp, weak

fleshy – thick and juicy, not dry

floret – a small flower; an individual flower of a head of flowers such as in the Asteraceae or of a grass spikelet

floricane – the second year flowering stems of the genus *Rubus*

foliose – having numerous or crowded leaves

follicle – a single carpel derived fruit that dehisces along a single suture

fornix– (pl. fornices) a small, arch-shaped appendage in the throat of a corolla in some plants

frond – a fern leaf

funnelform – funnel-shaped as some corollas

galeate – shaped like a galea (a helmet-shaped part of a perianth such as the upper lip of some two-lipped corollas), or having a galea

gelatinous – composed of gelatin

gemmae – small vegetative buds that are capable of developing into new plants; an asexual propagule

geniculate – abruptly bent or twisted

glabrate – lacking hairs

glabrescent – becoming glabrous

glabrous – lacking pubescence

gland – a protuberance or depression secreting a sticky, viscous substance

glandular – bearing glands

glaucous – having a whitish appearance due to the presence of a layer of wax

glomerule – a small, compact cyme or head

glume – one of the two lowermost bracts of a grass spikelet

glutinous – covered with a sticky substance

halberd-shaped – see hastate

halophyte – occurring in saline habitats

hastate – arrow-shaped with two outward pointing basal lobes

head – a dense cluster of sessile or nearly sessile flowers located on a short axis or receptacle

hemiparasitic – a parasitic plant capable of carrying out photosynthesis due to the presence of some chlorophyll

heterophyllous – bearing two types of leaves

hirsute – having coarse often bent hairs

hispid – having coarse firm or bristly hairs (hairs firmer and sharper than in the case of hirsute pubescence)

holoparasitic – a parasitic plant completely dependent on another organism for its food

hypogynous – having the point of attachment of the floral parts below the ovary

imbricate - overlapping

indehiscent – remaining closed at maturity

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indumentum– a hairy covering

indusium – the flap of tissue covering the sorus in ferns

inferior ovary – see epigynous

inflorescence – the arrangement of flowers on a plant

inserted – attached to (point where an organ originates)

integument – outer layer(s) of an ovule that develop into the seed coat

involucre – a group of bracts below an inflorescence

involute – rolled inward resulting in the lower surface of a structure being exposed

irregular – a flower with dissimilar petals and/or sepals

keel – a sharp, central ridge; the two united lower petals of flowers in the Fabaceae family

labellum – lip; the name applied to the distinctive lower petal of an orchid flower

lacunae – empty spaces in plant tissue; commonly found in aquatic plants

lacustrine – associated with lakes

lanceolate – lance-shaped

latex – a milky juice occurring in some plants

leaflet – a small leaf; a subdivision of a compound leaf

legume – a fruit found in the Fabaceae consisting of a single carpel, more than one seed and dehiscing along both sutures

lenticels – corky areas on young bark and roots where gas exchange occurs

ligulate – having a ligule; in the Asteraceae, flower heads composed solely of ligulate florets are referred to as ligulate

ligule – the flattened part of a ray floret in the Asteraceae; also the appendage occurring at the junction of a leaf sheath and blade in many grasses and sedges

lobate – bearing lobes

locule – a compartment of an ovary containing ovules/seeds

mealy – covered with a granular substance

megaspore – a spore that develops into a female gametophyte

lemma – one of a pair of bracts that subtend individual flowers in the grass family

-merous – suffix used to refer to number of parts present

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microspore – a spore that develops into a male gametophyte (a microspore is usually smaller than a megaspore)

midrib – the central main vein of a leaf

monoecious – having pistillate and staminate flowers on the same plant

monogeneric – a family made up of only one genus

monomorphic – having one form or shape

monotypic – a genus having a single species

mycorrhizal – a plant having a symbiotic relationship between its roots and a fungus

mycotrophic – having a modified appearance e.g., lacking chlorophyll, in connection with a mycorrhizal association

nectar – a sweet liquid produced by a plant for the purposes of attracting pollinating insects

node – the point on a stem where one or more leaves are attached; the sections of stem between nodes are called internodes

nut – a dry, indehiscent, hard-walled fruit usually containing one seed

nutlet – a small nut

oblanceolate – lance-shaped but with the broadest part above the middle and tapering from there to the base

oblong – shaped like a rectangle with rounded corners

obovate – ovate-shaped but with the broadest part at the distal end

ochrea – a stem sheath arising at the nodes in the Polygonaceae

orbiculate – circular in outline

ovary – the lower part of a pistil, contains the ovules

ovate – egg-shaped with the broader end at the base

ovule – the part of the ovary that develops into a seed upon fertilization

palate – a projection or bump on the lower lip of a corolla that closes or narrows the throat

palea – the second bract of a pair of bracts that subtend a grass flower

palmate – divided or lobed from a common point

paludal – relating to marshes or fens

panicle – a branched inflorescence in which the terminal flower opens last, the flowers within a panicle are pedicellate

paniculate – arranged in a panicle or resembling a panicle

papillae – short, rounded projections

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papillose – having papillae

pappus – the modified calyx of the Asteraceae

pectinate – comblike

pedicel – a flower stalk

pedicellate – borne on a pedicel

peduncle – the stalk of an inflorescence

pedunculate – borne on a peduncle

peltate – having the supporting stalk of a structure, such as a leaf or bract, attached to the lower surface rather than to the margin

pendulous – hanging

perennial – a plant that with a life span of greater than two years

perfect flower – a flower with functional stamens and functional pistils

perfoliate – a leaf whose base is joined to and surrounds the stem

perianth – a collective term for all of the sepals and petals of a flower

perigynous – pertaining to a flower which has the calyx, corolla and stamens arising from a floral cup which is not joined to the ovary

petaloid – petal-like

petiolate – having a petiole

petiole – a leaf stalk

phenology – the flowering period of a plant; the study of periodic events in the life cycle, such as flowering or fruiting

phyllary – a bract of the involucre in the Aster family

pilose – with fine, soft long hairs

pinna (pl. pinnae) – one of the primary divisions of a pinnately compound frond (fern leaf)

pinnate- having the leaflets of a compound leaf arranged along the length of the rachis

pinnatifid – deeply cut or lobed in a pinnate fashion

pinnule – the ultimate division of a bi-pinnately compound leaf or pinnately-compound?

pistil – the female part of a flower consisting of an ovary, style and stigma

pistillate – a flower bearing female parts only

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plicate – folded in a fanlike manner folded back and forth upon itself like a fan

pollen- the male gametophytes of flowering plants, produced and released from the anthers

pollinia (sing. pollinium) – a coherent group of pollen grains transported as a unit during pollination

pome – a fleshy fruit developing from an inferior ovary, with a papery core enclosing several seeds, e.g. an apple

prickle – a slender, sharp often weak outgrowth originating from the epidermis or bark

prickly – having prickles

primocane – first year cane of *Rubus* spp., usually non-flowering

procumbent – prostrate on the ground or trailing but not rooting

proximal – at the base; nearest

puberulent – pubescent with very small soft straight erect hairs

pubescent – having hairs present

quadrangle –having four sides

raceme – an elongate unbranched inflorescence of stalked flowers

racemiform – having the general form of a raceme

racemoid – pertaining to a raceme ?

rachis – the axis of an inflorescence or compound leaf

radially symmetrical – applied to flowers which can be divided along more than one plane to obtain mirror images

radiate – a flower head bearing both ray and disk flowers (Asteraceae); spreading outwards in all directions from a common point

radical – an embryonic root

ramet – an individual forming part of a clone

rank – a vertical row

ray – a strap-shaped flower of the Asteraceae; a branch of an umbellate inflorescence

receptacle – the expanded tip of a stem to which the parts of a flower are attached or to which all of the flowers are attached as in the Asteraceae

reflexed – abruptly bent downward

regular flower – see actinomorphic

reniform - kidney-shaped

resupinate – turned or twisted so as to be upside-down (e.g., Orchidaceae flowers)

reticulate – resembling a net

retorse – bent or directed backward or downward

revolute – having the margin rolled outwards towards the lower side

rhizome – an underground stem

rib – one of the main veins of a leaf

rosette – a basal circular cluster of leaves

rostellum - a small beak-like projection; often used in reference to a projection on the stigma in the Orchidaceae.

rotate – used to describe a flattened circular corolla

rugose- wrinkled; with the venation appearing sunken into the leaf surface

rugulose – finely wrinkled

saccate – having the shape of a sac or pouch

sagittate – arrowhead shaped with downward pointing basal lobes

salverform – a corolla with a slender tubular base and abruptly expanded flat limb

samara – a winged, indehiscent one-seeded fruit

saprophyte – a plant that lives on dead organic matter – often lacking chlorophyll

scale – a very small and dry leaf or bract

scape – a leafless flower stalk arising from the ground (may bare bracts)

scarious – often applied to bracts or leaflike parts that are membranous, not green and often translucent

schizocarp – a dry fruit which splits into several one-seeded segments at maturity as for example in the Apiaceae

secund – one-sided; often used to describe flowers occurring along one side of a floral branch only due to the twisting of the flower stalks

septum (septa)– a wall or partition

serrate – with marginal, sharp, forward pointing teeth

serrulate – with small serrate teeth

sessile - without a stalk

seta – a bristle

setaceous – bearing bristles

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setaeiform – bristle-shaped

sheath – the basal portion of a grass leaf that encircles the stem

siliqua – a dry elongate fruit consisting of two compartments separated by a partition; characteristic of the Brassicaceae

simple- applied to a leaf that is not divided into leaflets

sinus – the indentation between leaf or corolla lobes

salverform – a term used to describe corollas with a slender tube which abruptly expands into flat, spreading petal tips

sorus (plural: sori) – a group or cluster of sporangia usually applied to ferns

spadix – a thickened, fleshy spike, often enclosed or partially so by a spathe

spathe – a large, single bract enclosing an inflorescence (monocot families only)

spatulate – spoon-shaped

spike – an elongate un-branched inflorescence with sessile flowers

spikelet – a small spike; in grasses, the smallest floral unit including subtending bracts

spine – a slender, firm, sharp-pointed structure representing a modified leaf or stipule

spinule – small spine-shaped structure

spinulose – having spinules

spiny – having spines

sporophore – spore-bearing branch

sporophyll – a leaf (often modified) which bears or subtends spore-producing structures (sporangia)

spur – a tubular projection from a petal or sepal

stamen – the male (pollen-producing) part of a flower consisting of a filament and anther

staminate – flowers bearing stamens (functional pistils absent)

staminodes – sterile a stamen that is sterile or modified to the extent that it does not produce pollen

standard – the uppermost and often the largest petal of the flower type typical of the Fabaceae

stellate --star-shaped

sterile – not fertile; vegetative only, no sexual parts.

stigma (pl. stigmata, stigmas) – that part of the pistil that receives the pollen

stipe – stalk; often applied to the stalk of fern frond

stipitate – having a stipe

stipule – one of a pair of small leaflike structures found at the base of a leaf or petiole in some species

stobilus (strobili)- a cone or conelike structure bearing sporophylls

stolon – a runner; horizontal stem capable of producing a new plant at its tip

stoloniferous – bearing stolons

stramineous – straw-colored

striate – having fine, longitudinal lines

strigose – having appressed, sharp, stiff hairs

style –tropophore

the stalk of a pistil; that portion of a pistil between the stigma and ovary

subproximal – almost or somewhat proximal

subtend – occurring below and close to such as a bract subtending a flower

subulate – shaped like an awl; tapering to a point

succulent – thick and fleshy

superior ovary – an ovary with petals, stamens and sepals attached below it

suture – a seam or line of dehiscence

sympatric – occurring in the same geographic area

sympetalous – having the petals in a flower united to some degree

taproot – the main root extending straight downwards in the soil

tendrill – a slender twining plant part by which a plant is able to cling to a supporting structure

tepal – a perianth part when there is not differentiation between sepals and petals

terete – round or nearly round in cross section

turion – a bulb-like offset

ternate – occurring in 3's

thorn – a sharp-tipped modified branch

thyrs – a panicle composed of small cymes in a raceme-like arrangement

tomentose – with tomentum

tomentum – with matted, woolly hairs

translator – the connecting structure between pollinia of adjacent anthers in the family Asclepiadaceae

translucent – thin enough to allow the passage of light but not thin enough to be able to see clearly through

trichome – hair-like structure

trophophore –in ferns – sterile segment,

truncate – having the apex or end ending abruptly or having the appearance of being cut off

tuber – a thickened underground stem serving for food storage and reproduction

tubercles – a small surface projection or protuberance

tubiform – in the shape of a tube

turgid – swollen

umbel – a type of inflorescence where all of the peduncles or pedicels arise from a common point

umbellate – bearing umbels or umbel-like

umbelliferous – bearing umbels

unilocular – with one compartment or chamber an in an unilocular ovary

urceolate – shaped like an urn

valve – one of the units a capsule splits into at maturity; a mature discrete unit of a capsule, at maturity

vascular bundle – strand of conducting tissue

vein – a strand of vascular tissue as in a leaf

veinlet – a small vein

velum – a membranous covering as present over the sporangium in Isoëtes

velutinous – with a velvety covering of hairs

venation – pattern of veins on leaf blade

ventral – the inner surface of a plant part

verticil- a whorl of like plant parts such as leaves or flowers

vestigial – a plant part having a reduced size and function

villous – having long, soft hairs (not matted)

viscid – sticky

whorl – a ring of 3 or more similar structures (such as leaves) occurring at a node or another common point

wing – a flat projection from the side or tip of a plant structure

zygomorphic – bilaterally symmetrical