

GLOSSARY

Achene: A hard, dry, one-seeded fruit that does not split open when mature. Often looks like a seed.

Alkaline: Containing soluble mineral salts (alkaline waters are considered to be hard water).

Alternate: A leaf arrangement where each leaf occurs singly at each node.

Anther: A male flower part. The pollen bearing structure at the top of the stamen.

Beak: A hardened projection often seen on the edge of pondweed achenes.

Blade: The broad usually flat part of a leaf or petal.

Brackish: Slightly salty or having a high concentration of dissolved minerals.

Bract: A reduced or modified leaf associated with a flower or flower cluster.

Capsule: A dry, usually many-seeded fruit that splits open at maturity.

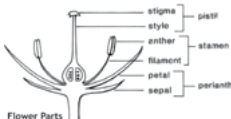
Compound: Divided into similar smaller parts united in one common whole such as leaves composed of two or more distinct leaflets.

Corm: A solid bulb-like stem usually found underground.

Dioecious: Having male and female flowers on separate plants of the same species.



Alternate



Flower Parts



Leaf & Stem Parts



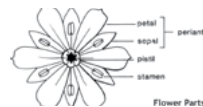
Pinnately Compound Leaves



Corm

GLOSSARY

Flower: The reproductive part of the plant. Plants may have male only flowers, female only flowers, or both male and female flowers on the same plant.



Flower Parts

Freshwater: Non-salty water.

Fruit: The ripened ovary bearing the ripened seeds.

Gland: A bump, depression, or appendage on a plant's surface that produces a sticky or greasy viscous fluid.

Habitat: The environment in which a plant lives.

Invasive: Tending to spread and then dominate the new area.

Keel: The ridge of any structure formed by a fold, alluding to its resemblance to the keel of a boat.

Leaflet: A part or division of a compound leaf.

Margin: Edge - as in the edge of a lake or the edge of a leaf.



Pinnately Compound

Midvein: The main central vein of a leaf.

Monoecious: Having male flowers and female flowers together on the same plant.

Non-native: Nonindigenous to a region or county; an introduced species.

Node: The place on the stem where a leaf, branch, or root is attached (or has been attached).

Nut: A hard, dry, usually one seeded fruit that does not open at maturity. Harder and thicker sided than an achene.



Node

GLOSSARY

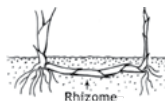
Opposite: Leaves arranged directly opposite of each other on each side of a node.

Pedice: The stalk that supports one flower only when there are several on a peduncle.

Petals: The inner ring of the flower. Often white or brightly colored to attract pollinators. (see sepal)

Pod: A dry fruit that splits open at maturity.

Rhizome: A horizontal underground stem that is distinguished from the root by the presence of nodes or scale-like leaves.



Rosette: A cluster of leaves arranged in a circle usually at ground level (like a dandelion).

Saline: Salty or brackish

Scale: A small thin or flat outgrowth, often associated with underground parts, though leaves or bracts may be scale-like.

Sepals: The outermost ring of the flower; often green and leafy in structure. (see petal)

Sheath: A tubular part surrounding another part, often papery. In pondweeds the portion of the leaf that surrounds the stem.

Spike: A flower cluster with sessile flowers arranged along an unbranched stalk, blooming from the bottom upwards.

Spores: The reproductive body of ferns and other non-seed plants - analogous to a seeds.

Stalk: A stem or similar structure that supports a flower, flower cluster, or a leaf.

Stamen: The male part of a flower usually consisting of the stalk-like filament and the pollen-bearing anther.

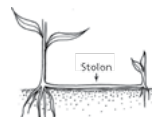


GLOSSARY

Stem: The part of the plant bearing leaves and flowers and composed of nodes and internodes (space between the nodes). Sometimes also below ground (see rhizome, corm, stolon, tuber).

Stipules: A pair of wing or scale-like structures often found at the base of leaves. Sometimes joined into a sheath.

Stolons: A stem that trails along the sediment or soil surface that forms roots at the nodes (strawberries spread by stolons).



Submerged: Growing underwater (submerged).

Tepals: Petals and sepals that are almost indistinguishable from each other, as in rushes (*Juncus* spp.).

Thallus: A main plant body not differentiated into stems and leaves as in duckweeds and liverworts.

Toothed: Saw-edged.

Tubers: An enlarged, fleshy, reproductive and food-storage structure produced on an underground stem (a potato is a tuber).

Turion: An overwintering structure that is scaly or often thick and fleshy that detaches, and then geminates or starts growth in the spring.

Vascular: Refers to the circulatory system in plants or to plants with veins.

Vein: A circulatory structure often prominent in leaves.

Whorls: A ring of 3 or more similar structures radiating from a common point (a whorl of leaves around a node).

Winter buds: Structures that form on the plant in the fall, detach, and then germinate in the spring to form a new plant. Often look like compact bundles of small leaves.



SPECIES INDEX

SPECIES INDEX: SCIENTIFIC NAMES

<i>Alisma plantago-aquatica</i>	82
<i>Alisma triviale</i>	82
<i>Bidens beckii</i>	96
<i>Brasenia schreberi</i>	12
<i>Butomus umbellatus</i> (INVASIVE)	86
<i>Callitriche hermaphrodita</i>	28
<i>Callitriche heterophylla</i>	30
<i>Callitriche palustris</i>	30
<i>Callitriche stagnalis</i>	28
<i>Ceratophyllum demersum</i>	32
<i>Chara</i> spp.	8
<i>Egeria densa</i>	36
<i>Elatine rubella</i>	88
<i>Elodea canadensis</i>	34
<i>Elodea nuttallii</i>	34
<i>Heteranthera dubia</i>	38
<i>Hippuris vulgaris</i>	90
<i>Hydrilla verticillata</i> (INVASIVE)	40
<i>Iris pseudacorus</i> (INVASIVE)	92
<i>Lemna</i> spp.	76
<i>Limosella aquatica</i>	84
<i>Lythrum salicaria</i> (INVASIVE)	94
<i>Megalodonta beckii</i>	96
<i>Myriophyllum quitense</i>	42
<i>Myriophyllum sibiricum</i>	44
<i>Myriophyllum spicatum</i> (INVASIVE)	46
<i>Myriophyllum verticillatum</i>	48
<i>Najas flexilis</i>	50
<i>Najas guadalupensis</i>	50
<i>Nasturtium officinale</i>	98
<i>Nitella</i> spp.spp.	10
<i>Nuphar polysepala</i>	14
<i>Nymphaea odorata</i>	16
<i>Persicaria amphibian</i>	100
<i>Polygonum amphibium</i>	100
<i>Polygonum coccineum</i>	100
<i>Potamogeton amplifolious</i>	18
<i>Potamogeton berchtoldii</i>	54
<i>Potamogeton crispus</i> (INVASIVE)	52
<i>Potamogeton filiformis</i>	56
<i>Potamogeton foliosus</i>	54
<i>Potamogeton gramineus</i>	20
<i>Potamogeton illinoensis</i>	22

SPECIES INDEX

SPECIES INDEX: SCIENTIFIC NAMES (CONT.)

<i>Potamogeton natans</i>	24
<i>Potamogeton nodosus</i>	26
<i>Potamogeton obtusifolius</i>	58
<i>Potamogeton pectinatus</i>	56
<i>Potamogeton praelongus</i>	60
<i>Potamogeton pusillus</i>	54
<i>Potamogeton richardsonii</i>	62
<i>Potamogeton robbinsii</i>	64
<i>Potamogeton vaginatus</i>	56
<i>Potamogeton zosteriformis</i>	66
<i>Ranunculus aquatilis</i>	68
<i>Ranunculus circinatus</i>	68
<i>Ranunculus longirostris</i>	68
<i>Ranunculus subrigidus</i>	68
<i>Ranunculus trichophyllus</i>	68
<i>Rorippa nasturtium-aquaticum</i>	98
<i>Ruppia cirrhosa</i>	70
<i>Ruppia maritima</i>	70
<i>Ruppia spiralis</i>	70
<i>Sagittaria cuneata</i>	102
<i>Sagittaria latifolia</i>	102
<i>Spirodela polyrrhiza</i>	78
<i>Stuckenia filiformis</i>	56
<i>Stuckenia pectinata</i>	56
<i>Tamarix ramosissima</i> (INVASIVE)	104
<i>Utricularia vulgaris</i>	72
<i>Utricularia macrorhiza</i>	72
<i>Wolffia</i> spp.	80
<i>Zannichellia palustris</i>	74

SPECIES INDEX: COMMON NAMES

American pondweed	26
American water-lily	16
American water-plantain	82
Anacharis	36
Andean water-milfoil	42
Arum-leaf arrowhead	102
Autumnal water-starwort	28
Beck water marigold	96
Beck's water-marigold	96
Big-leaf pondweed	18
Blunt-leaved pondweed	58

SPECIES INDEX

SPECIES INDEX: COMMON NAMES (CONT.)

Brazilian elodea	36
Brittlewort	10
Broad waterweed	34
Broadleaf arrowhead	102
Broad-leaved water plantain.....	82
Canadian waterweed	34
Chara spp.	8
Common arrowhead	102
Common bladderwort	72
Common elodea	34
Common hornwort	32
Common mare's-tail	90
Common watercress	98
Common water-milfoil	44
Common water-nymph	50
Common waterweed	34
Coon's tail.....	32
Coontail	32
Curly pondweed	52
Curlyleaf pondweed	52
Different leaved water-starwort	30
Ditch-grass	70
Dollar bonnet	12
Duck potato.....	102
Duck-meal.....	78
Duckmeat	78
Duckweed spp.	76
Eelgrass pondweed	66
Elatine water-milfoil	42
Eurasian watermilfoil	46
Eurasian water-milfoil	46
Fern-leaf pondweed	64
Fine leaf pondweed	56
Flatleaf pondweed.....	64
Flat-leaved pondweed	64
Flatstem pondweed	66
Flat-stem pondweed	66
Floating pondweed	24
Floating-leaved pondweed	24
Flowering-rush	86
Fragrant waterlily	16
Giant elodea	36
Giant-duckweed.....	78

SPECIES INDEX

SPECIES INDEX: COMMON NAMES (CONT.)

Grassleaf mudplantain	38
Grass-leaved pondweed.....	20
Grassy pondweed	20
Great duckweed.....	78
Greater bladderwort	72
Horned pondweed	74
Hydrilla	40
Illinois pondweed	22
Large water-plantain	82
Large water-starwort.....	30
Largeleaf pondweed.....	18
Leafy pondweed.....	54
Lesser duckweed.....	80
Longleaf pondweed.....	26
Long-leaf pondweed.....	26
Lythrum.....	94
Mare's tail.....	90
Mudwort	84
Muskgrass.....	8
Muskwort	8
Nitella spp.	10
Nodding waternymph.....	50
Northern arrowhead.....	102
Northern mudwort.....	84
Northern watermilfoil.....	44
Northern water-plantain.....	82
Northern water-starwort	28
Nuttall's waterweed.....	34
Pale yellow iris	92
Pondwater water-starwort	28
Purple loosestrife	94
Redhead grass	62
Red-head pondweed.....	62
Richardson's pondweed	62
Robbins' pondweed	64
Robinson's pondweed	64
Sago pondweed.....	56
Salt cedar	104
Sheathed pondweed	56
Sheathing pondweed	56
Shortspike milfoil	44
Slender leaved pondweed	56
Slender pondweed	56

SPECIES INDEX: COMMON NAMES (CONT.)

Slender water-nymph	50
Small pondweed.....	54
Southern waternymph.....	50
Southwestern waterwort	88
Spatterdock.....	14
Stonewort	8
Tamarisk	104
Twoheaded water-starwort.....	30
Variable leaf pondweed.....	20
Vernal water-starwort.....	30
Wapato	102
Water cress	98
Water crowfoot.....	68
Water marigold.....	96
Water mudwort.....	84
Water smartweed	100
Water star-grass.....	38
Water target.....	12
Water-flag	92
Watermeal	80
Watershield	12
Waterwort water-milfoil.....	42
Western waterweed	34
White water buttercup.....	68
White water-buttercup	68
White waterlily.....	16
Whitestem pondweed	60
White-stemmed pondweed.....	60
Whorled water-milfoil.....	48
Whorl-leaf watermilfoil.....	48
Widgeongrass	70
Yellow cow-lily	14
Yellow pond-lily	14
Yellowflag iris.....	92

Carpendo, S.M. and L.A. Saul. 2010. *Common Native and Invasive Wetlands Plants in Montana*. Montana Department of Environmental Quality, Wetland Program. Helena, MT

Missoula County Weed District. 2013. *Key to Montana's Submerged and Floating Aquatic Plants*. (<http://www.missoulaeduplace.org/submergedaquaticplantkey.html>) Missoula County Weed District. Missoula, MT

Montana Natural Heritage Program. 2013. *Montana Field Guide* (<http://fieldguide.mt.gov/default.aspx>, 30 April 2013). Montana Natural Heritage Program. Helena, MT

USDA, NRCS. 2013. *The PLANTS Database* (<http://plants.usda.gov>, 30 April 2013). National Plant Data Team, Greensboro, NC 27401-4901 USA.

Washington State Department of Ecology. 2001. *An Aquatic Plant Identification Manual: for Washington's Freshwater Plants*. Washington State Department of Ecology. Olympia, WA

