

# Synopsis Table of Major Vascular Plant Families

(The 79 listed families comprise about 95% of species diversity in the SW)

## Dicots

Family	Common Name	Form	K	C	A	G	Fruit type	Miscellaneous Comments
Ranunculaceae	Buttercup	HS[V]	3-x	0-∞	∞	∞	fol, ach, ber	Lvs often palmately dissected, exstipulate with a sheathing base
Papaveraceae	Poppy	H[S]	2-3	4-12	∞	(2-x)	cap	Sepals caducous; often with brightly colored latex
Nymphaeaceae	Water lily	H	3-∞	3-∞	∞	∞	fol, nutl, ber	Showy perennial aquatics
Platanaceae	Plane Tree	T	4?	4?	3-4	<u>6-9</u>	agg of ach	Platanus is the sycamore
Santalaceae	Sandalwood	STH	4-5	0	4-5	(3-5)	ach, drp	Four genera native to U.S., chiefly in Europe
Viscaceae	Mistletoe	S	2-4	0	2-4	(3-4)	ber, drp	Tree parasites
Berberidaceae	Barberry	H	3+3	3+3	4-18	(2-3)	ber	Stamens dehiscent by flap-covered valves
Saxifragaceae	Saxifrage	HS	5[4]	5[4]	5 or 10	<u>2</u>	cap	Hypanthium present, lvs alternate or basal, exstipulate
Hydrangeaceae	Hydrangea	TS	(4-10)	4-5	4-∞	<u>2-5</u>	cap	<i>Gynoecium fused by lower parts</i> ; often with opposite leaves
Grossulariaceae	Gooseberry	S	(4-5)	5	5	(2)	ber	Often spiny shrubs
Caryophyllaceae	Pink	H	5 or (5)	5[0]	5-10	2-5	cap, utr	Cap many seeded, lvs opposite, linear or lanceolate, stem nodes swollen
Nyctaginaceae	Four o'clock	HST	5	0	5	<u>1</u>	ach	Bracts mimic sepals, sepals mimic petals, opp stems branch dichotomously
Polygonaceae	Knotweed	HS	5 or 3+3	0	3-9	(3)	ach	Calyx often petaloid, ach often triangular, lvs alternate, simple
Chenopodiaceae	Goosefoot	HS	5	0	5	(2)	nutl	Lvs alternate, simple, exstipulate, perianth green, inconspicuous
Amaranthaceae	Pigweed	HS	4-5	0	<u>4-5</u>	(2-3)	utr, pyx	Flws subtended by papery bracts, similar to goosefoot
Crassulaceae	Stonecrop	HS	4-5	4-5	8-10	<u>4-5</u>	fol	Succulent herbs and shrubs; G fused by lower parts
Portulacaceae	Purslane	H	2	4-6	4-∞	<u>2-8</u>	cap	Lvs often fleshy, cap dehiscent longitudinal or circumscissile
Cactaceae	Cactus	HS	x	∞	∞	(2-∞)	ber	Usually spiny succulents
Tamaricaceae	Tamarisk	ST	(4-5)	4-5	8-10	(4-5)	cap	Gymnosperm-like foliage
Polemoniaceae	Phlox	H	(5)	(5)	5	(3)	cap	Flws funnellform or salverform, stamens oft inserted at diff levels, 3 stigmas
Primulaceae	Primrose	H	5	(5)	5	(5)	cap, pyx	Plants mostly scapose, lvs simple, basal, opposite, stamens opposite petals
Ericaceae	Heath	ST	<u>4-5</u>	(4-5)	8-10	(4-5)	cap, drp, ber	Usually on acid soils

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Monotropaceae	Indian pipe	H	2-6	3-6	6-12	(4-6)	cap	Parasitic; anthers opening by longitudinal slits
Pyrolaceae	Pyrola	H	4-5	4-5	10	(4-5)	cap	Autotropic; anthers with terminal pores
Fouquieriaceae	Ocotillo	ST	5	(5)	10-15	(3)	cap	Fouquiera is a desert plant
Loasaceae	Loasa	H	5	5	5-∞	(3-7)	cap	Flws showy yellow to white, often with stinging or at least rough, bristly glochidiate hairs
Cornaceae	Dogwood	TS[H]	4-5	4-5	4-5	(2)	drp, ber	Only <i>Cornus</i> native to the US
Hydrophyllaceae	Waterleaf	HS	(5)	(5)	5	(2)	cap	Flws usually scorpioid, unilateral, bristly hairy
Boraginaceae	Borage	H	5	(5)	5	(2)	nutl, ach, drp	Ovary 4-lobed, scorpioid cymes, lvs simple, sessile, alternate, bristly hairy; <i>calyx fused by lower parts</i>
Apiaceae	Parsley	H [ST]	5	5	5	(2)	schizo	Typically with a compound umbel, stems hollow, lvs compound petioles sheathing at base
Asteraceae	Sunflower	HST	x	(5) or (5)z	5	(2)	ach	Inflorescence in heads; <i>Androecium fused by upper parts</i>
Campanulaceae	Harebell	HS	5	(5) or (5)z	5	(2,3,5)	cap, ber	Actinomorphic or zygomorphic
Caprifoliaceae	Honeysuckle	S	5	(5) or (5)z	4-5	(2 or 8)	ber, drp, cap	Exstipulate; easily confused with Rubiaceae
Valerianaceae	Valerian	H	0	(5)z	1-4	(3)	ach	Flowers spurred or saccate
Gentianaceae	Gentian	H	4	(4-5)	4-5	(2)	fap, ber	Lvs opposite, exstipulate, basally connate, glabrous
Asclepiadaceae	Milkweed	HSV	5	(5)	5	2	fol	Often with milky sap, lvs opposite or whorled, corona and other specialized parts; <i>Androecium fused by upper parts</i> ; <i>gynoecium fused by upper parts</i>
Apocynaceae	Dogbane	HSV	(5)	(5)	5	2	fol, ber, cap	Often with milky sap, lvs entire opposite or whorled, carpels free at base, lacking specialized parts of milkweed; <i>gynoecium fused by upper parts</i>
Lamiaceae	Mint	HS	(5)	(5)z	2 or 2+2	(2)	nut, drp	Ovary 4-lobed, 4-angled stems, style bifid at apex with unequal lobes
Scrophulariaceae	Figwort	HS	(5)	(5)z	[2] 2+2 [5]	(2)	ber, cap	Ovary not 4-lobed, stamens usually didynamous with a sterile filament
Verbenaceae	Verbena	HST	(5)	(5)z	2+2	(2)	drp, 2 or 4 nutl	Lvs opp or whorled, single terminal style, stem often 4-angled
Oleaceae	Olive	ST	(4)	(4)	2	(2)	cap	One of the few woody families with 2 stamens
Plantaginaceae	Plantain	H	(4)	(4)	4	(2)	cap, nut	<i>Plantago</i> only widespread representative
Bignoniaceae	Bignonia	TS	(5)	(5)z	2+2	(2)	cap	Differs from figworts in absence of endosperm
Convolvulaceae	Morning glory	HSV	5	(5)	5	(2)	cap, ber, nut	Often with milky sap, twining herbaceous vines in N Hemisphere, corolla plaited

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Solanaceae	Nightshade	HSV	(5)	(5)	5	(2)	ber, cap	Lvs alternate
Fumariaceae	Fumitory	H	2	2+2z	4-6	(2)	cap, nut	Sap watery
Brassicaceae	Mustard	HS	4	4	4+2	(2)	sil, slq	Petals cruciform, often clawed, often with acrid taste
Capparaceae	Caper	TS	4	4z	4-∞	(2)	cap, ber	Ovary stipitate
Anacardiaceae	Cashew	TSV	5	5	10	(3)	drp	<i>Calyx fused by lower parts</i> ; leaves pinnately compound, often trifoliolate
Rutaceae	Rue	ST	5-4	5-4	10 or 8	(5-4)	drp, ber, sam	Glandular punctate leaves
Aceraceae	Maple	TS	4-5	4-5	8	(2)	schizo or sam	Opposite, palmately lobed leaves
Malvaceae	Mallow	HST	3-5	5	∞	(5-∞)	cap, schizo	Often with stellate pub, lvs alternate, palmately veined and/or lobed; <i>Calyx fused by lower parts, Androecium fused by lower parts</i>
Onagraceae	Evening primrose	HS	2 or 4	2 or 4	4 or 8	(4)	cap, ber, nutl	Hypanthium present, stigmas often 4-lobed
Geraniaceae	Geranium	H	5	5	10	(5)	schizo	Schizocarp segments hygroscopic
Salicaceae	Willow	TS	0-x	0	2-x	(2)	cap	Seeds comose, plants dioecious, flws in catkins
Euphorbiaceae	Spurge	HST	0 or 5	0 or 5	1-∞	(3)	schizo	Often with milky latex, fruit 3 nutlets, flws unisexual usually much reduced
Linaceae	Flax	HS	5	5	5 or 10	(5)	cap	<i>A fused by lower parts</i> ; source of linseed oil and flax
Violaceae	Violet	HS	5	5z	5	(3)	cap, ber	Flowers often spurred
Zygophyllaceae	Caltrop	HS[T]	5	5	5-15	(5)	cap, drp-like	Eight genera in the US
Cucurbitaceae	Squash	V	5	(5)	5	(3)	pepo	Typically vines with unisexual flowers
Fagaceae	Beech	TS	4-6	0	4-∞	(3)	nut	Fruit <u>+</u> enclosed by a cupule
Betulaceae	Birch	TS	0 or 4	0	2-20	(2)	nut, sam	Much variation in pistillate catkin
Juglandaceae	Walnut	T	3-6	0	3-∞	(2-3)	drp or nut	Lvs pinnately compound
Fabaceae	Pea	HSTV	5	5 or 5z	5-∞	1	leg	Lvs alternate, mostly compound, stamens usually 10
Rosaceae	Rose	HST	5	5[0]	∞	∞ (5) 1	ach, drp, pom, fol	Hypanthium present, lvs alternate, usually stipulate
Ulmaceae	Elm	TS	4-8	0	4-8	(2)	sam, nut, drp	Oblique leaf bases
Eleagnaceae	Oleaster	S	4	0	4 or 8	1	ach	Fruit surrounded by fleshy calyx

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Moraceae	Mulberry	TS	4	0	4	(2)	ach, nut, drp	Milky latex often present; fig trees are in this group and have a specialized fruit called a synconium.
Rubiaceae	Madder	HST	4-5	(4-5)	4-5	(2)	ber, cap	Stipules often leaf-like, lvs opposite or whorled

## Monocots

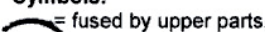
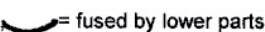
Family	Common Name	Form	K	C	A	G	Fruit type	Miscellaneous Comments
Lemnaceae	Duckweed	H	0	0	1	1	utr	Free-floating aquatics, smallest flowering plant
Juncaceae	Rush	H	3	3	6	(3)	cap	Grass-like, 3-many seeded capsule, perianth scarious, green or brown
Cyperaceae	Sedge	H	x	0	3	(2-3)	ach, nutl	Grass-like, stems often 3-sided, solid, nodes not apparent
Typhaceae	Cattail	H	x	0	2-5	1	ach, nutl	Large marsh plants with spikes of flowers
Liliaceae	Lily	H	3	3	6[3]	3	cap, ber	Fam often expanded to include Yucca and Agave
Agavaceae	Agave	HS	3	3	6	(3)	cap, ber	Flws subtended by spathe-like bracts, lvs persisting in basal rosette
Orchidaceae	Orchid	H	3	2+1z	1-2	(3)	cap	Lip often elaborate
Iridaceae	Iris	H	3	3	3	(3)	cap	Leaves typically equitant; <i>K and C fused by lower parts</i>
Poaceae	Grass	H	2-3	0	3	(2-3)	cary	Glumes present, stems hollow with obvious nodes
Commelinaceae	Spiderwort	H	3	3	6	(3)	cap	Filaments often with conspicuous hairs

## Character Explanation

Form: T = Tree, S = Shrub, H = Herb, V = Vine

K = Calyx, C = Corolla, A = Androecium (stamens), G = Gynoecium (carpels)

### Symbols:

 = fused by upper parts,  = fused by lower parts, G = ovary superior,  $\overline{G}$  = ovary inferior, Cz = corolla irregular, ( ) parts united i.e. fused, [ ] = rarely, x = low unstable number, ∞ = numerous