



Thurston County Critical Areas Ordinance Target Prairie Plant Species Manual: Indicators of Prairie Habitat in Thurston County, WA

Community Planning & Economic Development

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Introduction

This guide was created to aid in the identification of south Puget Sound (SPS) prairie plants protected in the Critical Areas Ordinance and/or known to be associated with prairies. This version is not the final version: The list of editors, contributors, plant nomenclature, and plant species butterfly use may be updated over time.

Additional information in this document includes use of the plants by six federally listed or imperiled butterflies associated with SPS prairies, classified by Washington Department of Fish and Wildlife and US Fish and Wildlife Service as Species of Greatest Conservation Need (SGCN), Species of Conservation Concern (SCC), or federally listed:

Taylor's checkerspot	(<i>Euphydryas editha taylori</i>)	SCC, SGCN, federally & state endangered
Puget blue	(<i>Icaricia icarioides blackmorei</i>)	SCC, SGCN, endemic
Hoary elfin	(<i>Callophrys polios</i>)	SCC, SGCN, endemic
Oregon branded skipper	(<i>Hesperia colorado oregonia</i>)	SCC, SGCN
Mardon skipper	(<i>Polites mardon</i>)	SCC, SGCN, state endangered
Valley silverspot	(<i>Speyeria zerene</i>)	SCC, SGCN

Known butterfly use is indicated by a  symbol at the top of each page.

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Target Prairie Plant Species for Determination of Prairie Habitat: Species Profiles and Photos

Asparagus family (Asparagaceae)

Bluedick brodiaea, harvest brodiaea (*Brodiaea coronaria*); Reclassified from the lily family

Ecology: Open, gravelly areas; grasslands, balds, prairies, meadows and hillsides at low elevations

Flowering period: May - June

Characteristics: Perennial up to 30 cm tall, arising from a thick, round scaly underground stem (corm) 2 cm wide.

Leaves: All basal, narrow and grass-like, 2 to 3 mm wide and withering prior to flowering stage; the only *Brodiaea* in this region with leaves this narrow.

Flowers: Violet to blue-purple, 2 to 5 cm long, tubular with 6 tepal lobes that curve at the tips and fuse at the base, forming a tube. Stamens attached to tepals, anthers usually noticeably white, surrounded by conspicuous staminodia (modified, petal-like stamen that do not produce pollen – see picture).

Fruits: Egg-shaped, stalkless capsules with black seeds.



Common camas (*Camassia quamash*) (Reclassified from the lily family) 

Ecology: Abundant in prairies, with variable levels of moisture.

Flowering period: April - June

Characteristics: Perennial 20 to 70 cm tall, from an egg-shaped, 2 cm-long bulb

Leaves: all basal, grass-like, 8-20 mm wide, up to 50 cm long, and noticeably shorter than the leafless flower stalk (scape).

Flowers: Inflorescences in terminal spikes of 5 or more, 5 to 30 cm long; flowers often slightly **irregular**, pale to dark blue but occasionally white; 6 tepals, 6 stamen and 3 stigmas. Lowest tepal often curves away from stem in late flowering period, tepals wither individually but do not cover the ovary. Flower stalks are 10-20 mm long; scapose.

Fruits are 3-chambered egg-shaped capsules 15-25 mm long, containing shiny, black, angled seeds;

stalks of fruits curve in toward base of stem

Prairie butterflies supported: Taylor's checkerspot (nectar); Mardon skipper (nectar).



Great Camas (*Camassia leichtlinii*) Reclassified from the lily family; **photos next page**

Ecology: Moist meadows, prairies and hillsides; a **wet prairie species**.

Flowering period: April - May

Characteristics: Perennial from bulb, 24 to 120 cm tall

Leaves: All basal, 7 to 20 mm wide and up to 60 cm long

Flowers: Inflorescences in Terminal spikes of 5 or more, 10-20 cm long or greater, usually pale to dark blue but occasionally white; flower stalks are 10-40 mm long, leafless, arising from the ground level (scapose). **Regular** flowers; 6 tepals, 6 stamen and 3 stigmas; tepals tend to twist together in late flowering period, persisting and covering the ovary.

Fruits are 3-chambered egg-shaped capsules 15-25 mm long, containing shiny, black, angled seeds; stalks of fruits curve in toward base of stem.



Key to distinguishing giant camas from common camas: *Giant camas* – flowers are **regular**, and anthers are dull yellow to violet; flower stalks and overall plant size are larger than those of common camas; **tepals twist together and remain over the ovary and conceal it** in anthesis; leaves often bear a fine, waxy powder, and seeds are generally larger than those of common camas. *Common camas* – Flowers fairly **irregular**, lowest tepal segment curves out and down, away from others; tepals wither separately and expose the ovary.

Howell's triteleia (*Triteleia grandiflora*); formerly *Brodiaea grandiflora*; formerly in the lily family

Ecology: Prairies, grasslands, and balds; areas where seasonally dry, low to middle elevations

Flowering period: May - June

Characteristics: Perennial, herbaceous plant **growing from a bulb**; **uncommon in SPS prairies**; note differences between flowers of this species and *T. hyacinthina*, below

Leaves: Basal only, 2 to 3 from bulb, 20 to 70 cm long by 4 to 10 mm wide; leafless stalk up to 75 cm tall

Flowers: Tepals fused from base and **forming a tube**, 17 to 35 mm long, light bluish purple to white; **3 petals**, 3 sepals, 6 stamens attached alternately at 2 different levels

Fruits: Capsule which splits open lengthwise, containing numerous black seeds



Fool's onion (*Triteleia hyacinthina*) Reclassified from the lily family

Ecology: Open grasslands, rocky areas at low to middle elevations; sandy and loamy, well-drained soils

Flowering period: May – August

Characteristics: Perennial herb consisting of a scape **arising from a corm**. **Much more common in SPS prairies than *T. grandiflora***; note differences in flowers between the two species

Leaves: 1 to 2 leaves, flat with keels on undersides, 3 to 10 mm wide and up to 40 cm long; leaves persist through flowering period

Flowers: Many-flowered umbels in upright clusters, generally white to light blue, **bell-shaped**, 10 to 16 mm long, with 1-to-4 cm-long stalks. Flowers divided into **6 segments which are twice to three times as long as the tube**; segments bear noticeable bluish-green mid-vein. 6 stamen with triangular filaments wider at the base.

Fruits: 3-chambered capsules with stalks almost as long as capsule



The Aster Family (Asteraceae)

Puget balsamroot (*Balsamorhiza deltoidea*)

Ecology: Prairies, open areas at low elevations but mainly in the Puget Sound ecoregion.

Flowering period: March - July

Characteristics: Herbaceous perennial with a large taproot; very showy when in flower. **Washington Natural Heritage Program (WNHP) rare plant status.**

Leaves: Mainly basal, triangular with a heart-shaped base and long stalk; leaves slightly hairy, up to 30 cm long and 20 cm wide, often with rounded teeth on margins.

Flowers: Large (heads 3 to 5 inches across), yellow and sunflower-like, one to several heads per stem, stems 20 to 100 cm tall, often bearing several reduced leaves; slightly hairy involucre (leaf-like bracts at base of flower). Rays are early-deciduous, and when several flowers present, lateral heads visibly smaller than central heads.

Fruits: Smooth, dark, hairless achenes, “sunflower seed-like.”

Prairie butterflies supported: Taylor’s checkerspot (nectar).



Showy fleabane (*Erigeron speciosus*) 

Ecology: Prairies, streambanks, at low to middle elevations.

Flowering period: June - August

Characteristics: Perennial growing from a short, woody base, 15 to 80 cm tall; stems clustered and leafy, smooth and hairless below flowers.

Leaves: Smooth, hairless, 3-nerved (3 longitudinal veins), margins lacking teeth or lobes. Lowermost leaves are stalked, narrow to spoon-shaped, and tend to die back earliest in the season, while stem leaves are stalkless and numerous.

Flowers: Flower heads in open groupings of 1 to 13, with 65 to 150 blue or sometimes white rays 9 to 18 mm long and 1mm wide; disk flowers yellow, with involucre (leaf-like bracts around the base of flower) 4 to 9 mm high.

Fruits: 2-nerved achenes (simple, dry seeds often carried by wind) with hair-like pappus; pappus in bristles of 20 to 30 (pappus is the modified hairs or bristles which crown an achene and aid in wind dispersal).

Prairie butterflies supported: Valley silverspot (nectar).



Oregon sunshine (*Eriophyllum lanatum*) 🦋

Ecology: Prairies, balds, bluffs, dry, open environments at low to mid-elevations

Flowering period: May - August

Characteristics: True to its common name, this plant is a burst of sunshine when you encounter it in bloom! Perennial herb, conspicuously white-woolly, often with a whitish or silvery-gray appearance to leaves; 10 to 60 cm tall;

Leaves: Alternate or opposite, 1 to 8 cm long, with leaf margins deeply cleft or lobed to smooth

Flowers: Flower heads solitary on long stalks, with 6-to-12 mm-high involucre; 8 to 13 ray flowers, bright yellow, 5 to 20 mm long; dark yellow disk flowers; pappus consists of a toothed crown or sometimes 6 to 12 translucent scales.

Fruits: narrow, 4-angled achenes, shiny-black when mature.

Prairie butterflies supported: Taylor's checkerspot (nectar).



Cut-leaf silverpuffs, Native Prairie Dandelion (*Microseris laciniata*)

Ecology: Moist meadows, prairies and open slopes from low to mid elevations.

Flowering period: May – July (primarily June)

Characteristics: Branched, several-headed perennial, generally hairless, with milky juice and a thickened root, 10 to 80 cm tall. **WNHP rare plant status.**

Leaves: Mostly basal, with smooth to deeply cleft or lacerate (torn or irregularly jagged) margins, 5 to 25 cm long and tapering to a pointed tip.

Flowers: Terminal and solitary, yellow with 13 to 100 petals and involucre bracts 10 to 25 mm high in two rows, slightly dark-hairy; pappus consists of short, firm, backward or downward-pointing yellow awns (slender bristles).

Fruits: Achenes 5 to 6 mm long, tapering upward but lacking a beak.



Hound's tongue hawkweed, Scouler's hawkweed (*Hieracium scouleri*) – formerly *H. cynoglossoides*

Ecology: Prairies, grasslands from low to sometimes high elevations

Flowering period: June - August

Characteristics: Perennial herb growing from a short rhizome with fibrous roots, 30 to 100 centimeters tall; stems have milky juice when broken. Much of plant covered with bristly hairs on underside, waxy white-powdery on upper surfaces

Leaves: Basal and stem; stem leaves becoming stalkless and increasingly reduced up the stem; leaves 5 to 20 cm long, 1 to 3.5 cm wide, with smooth margins and narrow, stalk-like bases.

Leaves and stems covered with bristly hairs

Flowers: Yellow, ray flowers numbering 15 to 50, with blackish-hairy involucre bracts below

Fruits: Cylindrical, ribbed achenes, narrowed toward base, with hair-like pappus



Note: The **hairy** rosettes of Hounds-tongue hawkweed are sometimes confused with those of the non-native, highly invasive mouse-ear hawkweed (*Hieracium pilosella*), (**next page**). Mouse-ear hawkweed is stoloniferous, often forming large mats. The leaves of mouse-ear hawkweed are obovate, alternate, and basal only, with long **bristles (but not hairy)** on the upper and lower leaf surfaces; upper leaf surfaces bear a distinct white midvein.



Mouse-ear hawkweed

Missouri goldenrod (*Solidago missouriensis*)

Ecology: Dry, open areas from low to high elevations.

Flowering period: Late June – October (one of two flowering periods: spring or late summer to fall)

Characteristics: Generally hairless perennial with a creeping rhizome, 20 to 90 centimeters tall.

Leaves: 3 distinct longitudinal veins (triple-nerved); basal leaves oblanceolate (lance-shaped with thinner end at the base), up to 30 cm long and 3 cm wide, other leaves smaller and becoming stalkless further up the stem. Leaf margins entire to toothed.

Flowers: Yellow ray flowers, generally totaling 8; involucre 3 to 5 mm high.

Fruits: Short-hairy achenes.



Sticky goldenrod (*Solidago simplex* var. *simplex*, formerly *S. spatulata*)

Ecology: Open, slightly moist areas from low to high elevations; coastal dunes to prairies and meadows

Flowering period: June - September

Characteristics: Hairless perennial from a short rhizome or woody base, 5 to 80 cm tall; often resinous and aromatic.

Leaves: Basal leaves oblanceolate to spatulate (widening and rounded at the top like a spatula), toothed to nearly smooth margins, or blunt or rounded, up to 15 cm long including leaf stalk, and 3 cm wide. Stem leaves increasingly reduced further up the stem.

Flowers: In long, narrow to short, compact inflorescences; individual flowers often have long stalks, with involucre 4 to 6 mm high; 8 yellow ray flowers and 13 yellow disk flowers. **Flower head and stems are usually sticky to the touch**

Fruit: short-hairy achenes with white pappus hairs



White-top aster (*Sericocarpus rigidus*); formerly *Aster curtus* 

Ecology: Prairies and open areas at low elevations.

Flowering period: July - August

Characteristics: Slightly hairy perennial with slender, creeping rhizomes, 10 to 30 cm tall. Generally unbranched all along stem up to flowers. This plant has a clonal growth form, with a tendency to grow in colonies of 50 to >1000 shoots, spreading vegetatively. **WNHP rare plant status.**

Leaves: Basal leaves smaller and senescing earlier than stem leaves, largest leaves just above base of plant, 2.5 to 3.5 cm long and 5 to 9 mm wide, oblanceolate in shape, stalkless. Upper leaves numerous and reduced in size further up the stem, rough on underlying midrib with short, stiff hairs on leaf margins.

Leaves often bear an irregular diamond shape, with the broadest point toward the tip.

Flowers: Dense terminal clusters, with involucre 7 to 9 mm high; generally consisting of 2 ray flowers, shorter than pappus, white and 1 to 3 mm long and 9 to 21 disk flowers, pale yellow in color with purple anthers.

Fruits: Achenes

Prairie butterflies supported: Valley silverspot (nectar); Oregon branded skipper (nectar).



Bellflower family (Campanulaceae)

Cascade downingia (*Downingia willamettensis*)

Ecology: Marshes, wet meadows and pond edges; **wet prairie species**

Flowering period: April - August

Characteristics: Herbaceous annual with fibrous roots; stems erect or sprawling, simple or branches, 5 to 30 cm tall, smooth and hairless overall.

Leaves: Alternate, stalkless, lowermost leaves narrow while other leavers may be lanceolate (widest near base and tapering at both ends), lance or egg-shaped, .5 to 1.5 cm long and up to 7 mm wide

Flowers: Stalkless, singular in leaf axils, with 5 narrow calyx lobes 3 to 8 mm long. Showy, 2-lipped blue to pink or white corolla with a white, yellow-ridged “eye” and 3 rounded lobes on lower lip, 2 smaller lobes on upper lip, 7 to 12 mm long.

Fruits: 1-celled, elongate capsules 2 to 4 cm long and 1 to 1.5 mm wide.



Borage family (Boraginaceae)

Fragrant popcorn flower (*Plagiobothrys figuratus*) 

Ecology: Moist field and nonalkaline meadows at low elevations; **wet prairie species.**

Flowering period: May - July

Characteristics: Hairy annual with fibrous roots and a simple to slightly branched stem, 10 to 40 cm tall; organs lying flat against each other (appressed).

Leaves: All linear to elongate stem leaves, mostly alternate but with the lowermost 1 to 4 pairs opposite, up to 6 cm long.

Flowers: Large, fragrant white flowers with a yellow center, 5 to 10 mm wide, often paired; narrow corolla tube with 5 spreading white lobes and hairy appendages opposite the lobes at the top of the tube.

Fruits: 4 keeled, rough nutlets 1.2 to 1.7 mm long.

Prairie butterflies supported: Mardon skipper (nectar)



Broomrape family (Orobanchaceae)



Golden paintbrush (*Castilleja levisecta*) (reclassified to the broomrape family from the figwort family)

Ecology: Prairies, openings in forested matrix (balds), coastal bluffs, and meadows at low elevations.

Flowering period: April – September (primarily through June).

Characteristics: Sticky-hairy perennial up to 30 cm tall, having several unbranched stems with curved bases. **Very rare, federally-listed (threatened) species; WNHP rare plant status.**

Leaves: Sticky-hairy, lower leaves smooth-margined and upper leaves oblong, with 1 to 3 pairs of lateral lobes on the upper 1/3 of the blade.

Flowers: Straight, upright growth, overlapped and obscured by bracts; bracts as wide as upper leaves, oblong, blunt and hairy with 1 to 3 pairs of lateral, sticky-hairy yellow lobes near the tip. Calyx is 15 to 18 mm long with deep clefts above and below; primary lobe of calyx divided again into 2 narrow segments. Corolla is 20 to 23 mm long, with a narrow upper lip 3 to 4 times the length of the lower lip. 4 stamens.

Fruits: Capsules.

Prairie butterflies supported: Taylor's checkerspot (host)



Harsh paintbrush (*Castilleja hispida*); reclassified from the figwort family 

Ecology: Prairies, grassy slopes, balds, and forest openings from low to middle elevations.

Flowering period: April - August

Characteristics: Perennial with a woody stem-base, stems 20 to 60 cm tall, generally unbranched, crowded, erect or sprawling, covered with stiff hairs. **Not sticky.**

Leaves: Alternate, narrow and lance-shaped to narrow-egg-shaped 1 to 5 cm long, covered with fine, soft hairs; lower leaves not lobed and reduced in size, upper leaves divided into 1 to 2 pairs of lateral lobes, with lobes visibly narrower than the leaf mid-blade

Flowers: Light greenish, hairy, 20 to 40 mm long, partially obscured by showy, scarlet, red or dark orange (sometimes yellow) bracts. Bracts are wide, deeply 3 to 5-lobed and hairy. Calyx is 15 to 30 mm long with deep clefts above and below; main lobes of calyx are divided again into 2 segments. Corollas are 20 to 40 mm long, with hairy upper lips of equal size to the tube; lower lip of corolla about 1/5 as long as tube, dark green and thickened. 4 stamens.

Fruits: Capsules bearing pitted seeds.

Prairie butterflies supported: Taylor's checkerspot (host)



Buckwheat family (Polygonaceae)

American bistort (*Bistorta bistortoides*)

Ecology: Streambanks, moist areas, most commonly at middle to high elevations; **wet prairie species, WNHP rare plant status.**

Flowering period: May - August

Characteristics: Perennial with a short rhizome and one to several erect flowering stems 20 to 70 cm tall.

Leaves: Mainly basal and long-stalked, oblong, up to 15 cm long with brownish, entire stipules 3 to 6 cm long; stem leaves few, stalkless and with slightly heart-shaped bases.

Flowers: Spike-like, 2- to 5 cm-long terminal clusters of many small, white to pink flowers; 5 small, petal-like lobes and 8 visible stamens.

Fruits: Smooth, yellow to yellowish-brown, shiny achenes with 3 angles, approximately 4 mm long



Note: This plant could be confused with another, nonnative buckwheat, **curled dock (*Rumex crispus*)**, which has similar but larger, rougher-surfaced, narrow, long-stalked basal leaves and sheathing brown stipules; the leaves of curled dock, however, have more conspicuously wavy leaf margins and are longer (10 to 30 cm, and up to 5 cm wide). Curled dock grows up to 100 cm tall, has a single stem more robust than that of American bistort, and very different flowers. The flowers of curled dock are greenish to rusty brown, are leafy-bracted, and in dense, whorled

clusters along upper part of stem and its branches; grows from a thick taproot, rather than a short rhizome.



Curled dock

Bunchflower family (Melanthiaceae)

American wild hellebore, Green false hellebore (*Veratrum viride*) (Reclassified from the lily family).

Ecology: Wetter areas such as moist meadows, wet prairies and woodlands, from low to subalpine elevations; **wet prairie species.**

Flowering period: June - September

Characteristics: Tall herbaceous perennial with thick rhizome; stems unbranched, smooth and hairless below and white-woolly above, 1 to 2 meters tall.

Leaves: Numerous, alternate, large (10 to 35 cm long and nearly as wide), oblong to oval with a pointed tip and distinct, accordion-like ribbing, growing mainly on the stem, hairy on undersides.

Flowers: Inflorescence a **loose, open** cluster 30 to 70 cm long, with visibly **drooping lower branches**. Individual flowers are **pale green** and star-shaped, with dark green centers and a musky odor; tepals <1 cm long.

Fruits: Oblong or oval capsules 2 to 3 cm long, smooth and hairless, containing flattish, tipped with residual styles from flowers; contain winged, papery brown seeds



California wild hellebore (*Veratrum californicum*) (Reclassified from the lily family)

Ecology: Wetter areas such as moist meadows, wet prairies and open woodlands, from low to subalpine elevations. **Wet prairie species.**

Flowering period: June – August

Characteristics: Tall herbaceous perennial with thick rhizome; stem unbranched, smooth, hairless, 1.5 to 2 meters tall.

Leaves: Numerous, alternate, large (20 to 30 cm long with equal or greater width), ovate to elliptic with a distinct, accordion-like ribbing, growing from stem, sheathing at base; smaller further up the stem

Flowers: Inflorescence a **dense**, erect panicle 30 to 60 cm long. Individual flowers are **whitish** and saucer-shaped, larger than those of American false hellebore (tepals >1 cm long rather than <1 cm long); unlike American false hellebore, **lower branches of California hellebore inflorescences do not droop.**

Fruits: Capsules 2 to 3 cm long, smooth and hairless, containing flattish, winged, papery brown seeds



Death camas (*Toxicoscordion venenosum* var. *venenosum*) Reclassified from lil



Ecology: Prairies, coastal bluffs, moist mountain meadows and shrub-steppes

Flowering period: May - July

Characteristics: Perennial herb 20 to 60 cm tall, consisting of a simple stem arising from an oval, onion-like bulb. Leaves narrow, mostly basal, grass-like, keeled, 10 to 30 cm long and 3 to 6 mm wide. **Highly poisonous.**

Leaves: Mostly basal, narrow, keeled on underside, 10 to 30 cm long and 3 to 6 mm wide; stem leaves reduced further up the stem.

Flowers: White, bell or saucer-shaped flowers 1 to 4 cm long, in many-flowered umbels up to 15 cm long; green to yellowish, rounded glands visible at the base of each petal, foul-smelling; flowers consist of 6, unequally-sized tepals with narrow, stalk-like bases, 6 stamens, 3 styles.

Fruit: Cylindrical capsules 8 to 15 mm long; seeds brown, spindle-shaped

Butterflies supported: Taylor's checkerspot (nectar).



Buttercup Family (Ranunculaceae)

Menzies larkspur (*Delphinium menziesii*)

Ecology: Prairies, moist meadows, coastal bluffs and forest clearings at low to mid elevations. **Generally uncommon in South Puget Sound prairies.**

Flowering period: April - July

Characteristics: Hairless to slightly hairy perennial from 10 to 50 cm tall, with several tubers. Single stem, loosely attached to tubers, simple to branched.

Leaves: Mainly on stem, with a few basal leaves; basal leaves long-stalked, 3 to 7 cm wide and 2 to 3 times dissected into lobes, but forming few narrow segments; stem leaves smaller and stalkless

Flowers: Dark blue to purple sepals (5) with some white or light blue and a distinct, straight, nectar-bearing 13 to 15 mm spur creating a trumpet-like appearance; flower in loose, simple to branched clusters of 3 to 20. Flower stalks equal to or longer than flowers

Fruits: Erect to spreading, hairy follicles 9 to 16 mm long; seeds bearing narrow flanges on angles



Nuttall's larkspur (*Delphinium nuttallii*)

Ecology: Prairies and gravelly outwash and balds at low elevations. **More common in South Puget Sound prairies than *D. menziesii*.**

Flowering period: May - June

Characteristics: Minutely hairy, glandless perennial with small, spherical, fleshy roots and singular stems 30 to 60 cm tall

Leaves: long-stalked, evenly spaced, up to 10 cm wide, 3 to 4 times dissected into narrow segments

Flowers: Spike-like inflorescence; individual flowers bear 5, dark bluish-purple sepals 7 to 12 mm long with a conspicuous hairy middle band sometimes greenish in color. Dark bluish-purple spur of equal length to sepals. Flowers also bear 4 small petals, the lower petals dark bluish-purple, slightly lobed, 2 upper petals light blue and notched.

Fruits: Follicles, 15 mm long and slightly curved



Plantain-leaved buttercup (*Ranunculus alismifolius*)

Ecology: Swales, streambanks and wet meadows or forests; **wet prairie species**

Flowering period: May - July

Characteristics: Generally hairless, glandless herbaceous perennial with fibrous roots; one to several **erect** stems, **not rooting at the nodes**, 10 to 60 cm tall

Leaves: Basal (base) leaves narrow with long stalks, smooth leaf margins and up to 15 cm long, 1 to 2.5 cm wide; upper leaves similar to basal leaves, becoming stalkless further up the stem. The long, narrow, undissected leaves distinguish this species from other buttercups, the leaves of which are often deeply lobed or divided

Flowers: One to many, with stalks up to 15 cm long by fruiting season; Flowers yellow, 5 petals 5 to 10 mm long with a wide, pocket-like nectary scale at base of petals. 25 to 90 stamens, 10 to 60 pistils

Fruits: Smooth, straight-beaked achenes 1.5 to 1.5 mm long; beak stout, 1 mm long



Straight-beak buttercup (*Ranunculus orthorhynchus*)

Ecology: Streambanks, moist field to mountain meadows and slopes, coastal bogs, fens and wetlands; **wet prairie species.**

Flowering period: April - August

Characteristics: Hairy herbaceous perennial with thickened roots and several several branched, erect or in some cases lying on the ground with tips pointing upward (decumbent), 20 to 60 cm tall

Leaves: Mainly basal with long stalks; pinnately compound with 5 irregularly toothed lobes, 3 to 7 leaflets

Flowers: Solitary on 15 cm-long stalks; 5 yellow petals 9 to 18 mm long; hairless, fan-shaped nectary scale at bases of petals .5 to 1 mm long, with lower 1/3 of margins attached to base of flower; 50 to 70 stamens, 20 to 50 pistils; sepals hairy, bent back, often purplish and dying back early, 6 to 9 mm long

Fruits: Achenes oval or ovate, smooth, 3.5 mm long with **long straight beaks 2.5 to 4 mm long.**



Western buttercup (*Ranunculus occidentalis*) 

Ecology: Prairies and other areas with well-drained, often moist soils at low to subalpine elevations

Flowering period: April - June

Characteristics: Generally hairy perennial fibrous roots and one to several erect, often hollow, branched stems 15 to 40 cm tall

Leaves: Basal leaves have long stalks and consist of 3 wedge-shaped lobes which are coarsely lobed and toothed. Stem leaves alternate with shorter stalks, deeply divided and becoming smaller up the stem

Flowers: Single flowers atop 10 cm-long stalks; 5 yellow, oblong petals 9 to 12 mm long; wedge-shaped nectary scale 1mm long, margins unattached for $\frac{3}{4}$ of their length; 30 to 60 stamens, 10 to 20 pistils. 5 greenish or pinkish hairy sepals, spreading but bent back at mid length, often dying back early in season

Fruits: Hairless, flattened achenes broader at base, 2.5 to 3.5 mm long, with slender, **slightly curved beak 1 to 2 mm long at hooked at the tip**

Prairie butterflies supported: Taylor's checkerspot (nectar); Mardon skipper (nectar); Hoary elfin (nectar).



Note: Nonnative **creeping buttercup** (*Ranunculus repens*) widespread in wetter areas, has darker-green leaves, often with pale spots, with **3 leaflets** (rather than a single leaf divided into 3 lobes) which are also 3-lobed and toothed; this species is stoloniferous. Found in moist disturbed areas, fields, pastures and ditches.



Carrot Family (Apiaceae)

Barestem biscuitroot (*Lomatium nudicaule*)

Ecology: Dry, open prairies and areas with low tree cover at low to middle elevations (dry prairie species)

Flowering period: April - June

Characteristics: Smooth, hairless perennial with a glaucous (white, waxy powder that rubs off) surface; thick taproot, one to several stems 20 to 90 cm tall, and simple crown

Leaves: Large, firm, oblong to egg-shaped; mostly growing at the base, one to three times divided into leaflets of 3 to 30, 2 to 9 cm long and 1 to 6 cm wide, veiny and stalked with smooth to slightly toothed or lobed margins.

Flowers: Yellow, small, grouped in umbels of unequally-sized ray flowers 6 to 20 cm long; stalk below umbel often swollen and hollow. **Lacking involucre or involucels.**

Fruits: Oblong, 7 to 15 mm long, sometimes tapering to a beaklike tip; wings as wide as main fruit body



Nineleaf biscuitroot (*Lomatium triternatum*) 🦋

Ecology: Dry to moist areas at low to middle elevations (dry prairie species)

Flowering period: April – July (primarily late May – mid-June)

Characteristics: Perennial with a long, slightly thickened taproot, 20 to 80 cm tall with single to several erect, fine-hairy stems. Favored by swallowtail butterflies for larval oviposition.

Leaves: Mainly basal or on lowermost portion of stems, but generally with one or more smaller leaves on the middle or upper sections; one to three times pinnately divided, then 2 to 3 times cleft into long, narrow segments 1 to 10 cm long; variable in size and formation

Flowers: Yellow compound umbels with rays of unequal size, 2 to 10 cm long

Fruits: Oblong, narrow, smooth and hairless, 7 to 15 mm long and 2 to 4 mm wide, with **lateral wings less than half the width of the body.**

Prairie butterflies supported: Taylor's checkerspot (nectar).



Spring gold (*Lomatium utriculatum*)



Ecology: Dry, open rocky meadows, as well as somewhat moist areas, at low elevations

Flowering period: April - June

Characteristics: Hairless to short-hairy perennial with a slender taproot, 10 to 60 cm tall

Leaves: Mainly stem leaves, lacy, heavily dissected into crowded, narrow segments up to 5mm long and < 1mm wide; leaf stalks inflated and sheathing at base

Flowers: Bright yellow, several to many in up to 15 compact heads forming compound umbels; egg-shaped, short (2-5mm), often slightly toothed or cleft involucre bractlets beneath each individual umbel.

Fruits: Oblong to elliptic, smooth and hairless, 5 to 11 mm long, 3 to 6 mm wide; **lateral wings the same width as the body, with raised dorsal ribs.**

Prairie butterflies supported: Taylor's checkerspot (nectar); Hoary elfin (nectar); Mardon skipper (nectar); Puget blue (nectar).



Gairdner's yampah (*Perideridia montana*); formerly (*P. gairdneri*)

Ecology: Open woodlands, wet meadows, mossy or grassy slopes, low to middle elevations. More abundant in wetter environments.

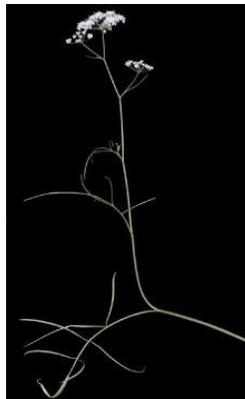
Flowering period: July - August

Characteristics: Slender, hairless perennial with a tuberous, thickened root; generally single-stemmed, 40 to 120 cm tall (appears similar to Queen Ann's lace at first glance, but with very different leaves)

Leaves: Several, far-spaced along stem, once to three-times pinnate with long, narrow segments (as opposed to the lacy, fernlike arrangement of Queen Anne's lace). Leaf shape variable, ranging from linear segments to more rounded and lobed, particularly on the lower stems.

Flowers: Terminal, white or pinkish compound umbels, 2.5 to 7 cm wide

Fruits: Rounded, nearly spherical, hairless and conspicuously ribbed, 2 to 3 mm long and wide



Dogbane family (Apocynaceae)

Spreading dogbane (*Apocynum androsaemifolium*)

Ecology: Dry, well-drained sites such as prairies, open hillsides, ridges, open areas from low to high elevations.

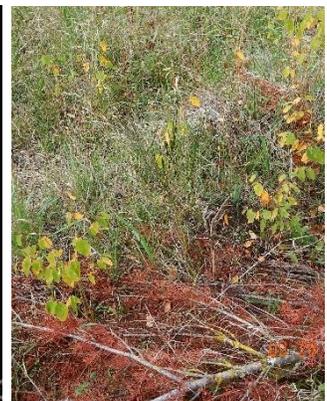
Flowering period: June – September (primarily mid-June - July)

Characteristics: Rhizomatous perennial herb with a “shrub-like” appearance and milky sap. Stems erect, leafy, branched, 20 to 70 cm tall, hairless to hairy, often reddish in color.

Leaves: Opposite, smooth margins, with or without stalks, oblong to oval, 2.5 to 8 cm long, often pointy-tipped. Spreading and drooping, green and hairless on upper surfaces, lighter and generally hairless on undersides.

Flowers: Inflorescences in terminal and lateral clusters. Individual flowers pink or whitish with pink veins, bell-shaped with flaring lobes, 6 to 8 mm long

Fruits: Long cylindrical pods 5 to 14 cm long, growing in pairs; pods contain many seeds with long tufts of cottony hairs.



Grasses (Poaceae)

California oatgrass (*Danthonia californica*)

Ecology: Prairies, open grassy meadows and rocky ridges from low to middle elevations.

Flowering period: Late May – early July

Characteristics: Perennial growing in dense tufts, 30 to 80 cm tall.

Leaves: Open, smooth to (often) hairy sheaths, generally with long hairs at the throat; ligules consist of a fringe of hairs rather than a membrane and are 1 to 2 mm long. Leaf blades are flat, or sometimes with edges slightly rolled back, smooth or sometimes with soft hairs, 8 to 30 cm long and 2 to 5 cm wide.

Flowers: Inflorescences are small (2 to 6 cm), open panicles of spikelets of 2 to 5, each with several flowers ≥ 1 cm long; flowers bear awn-like teeth up to 4 mm long, smooth on the back with some hairs and short, cobwebby hairs on the firm, thickened base. Flattened, twisted awn attached beneath lobes of lemma (one of two bracts enclosing actual flower).

Fruits: Smooth, elliptic.

Prairie butterflies supported: Mardon skipper (host).



Tufted hairgrass (*Deschampsia cespitosa*)

Ecology: Moist prairies, coastal marshes and alpine ridges; **moist prairie species.**

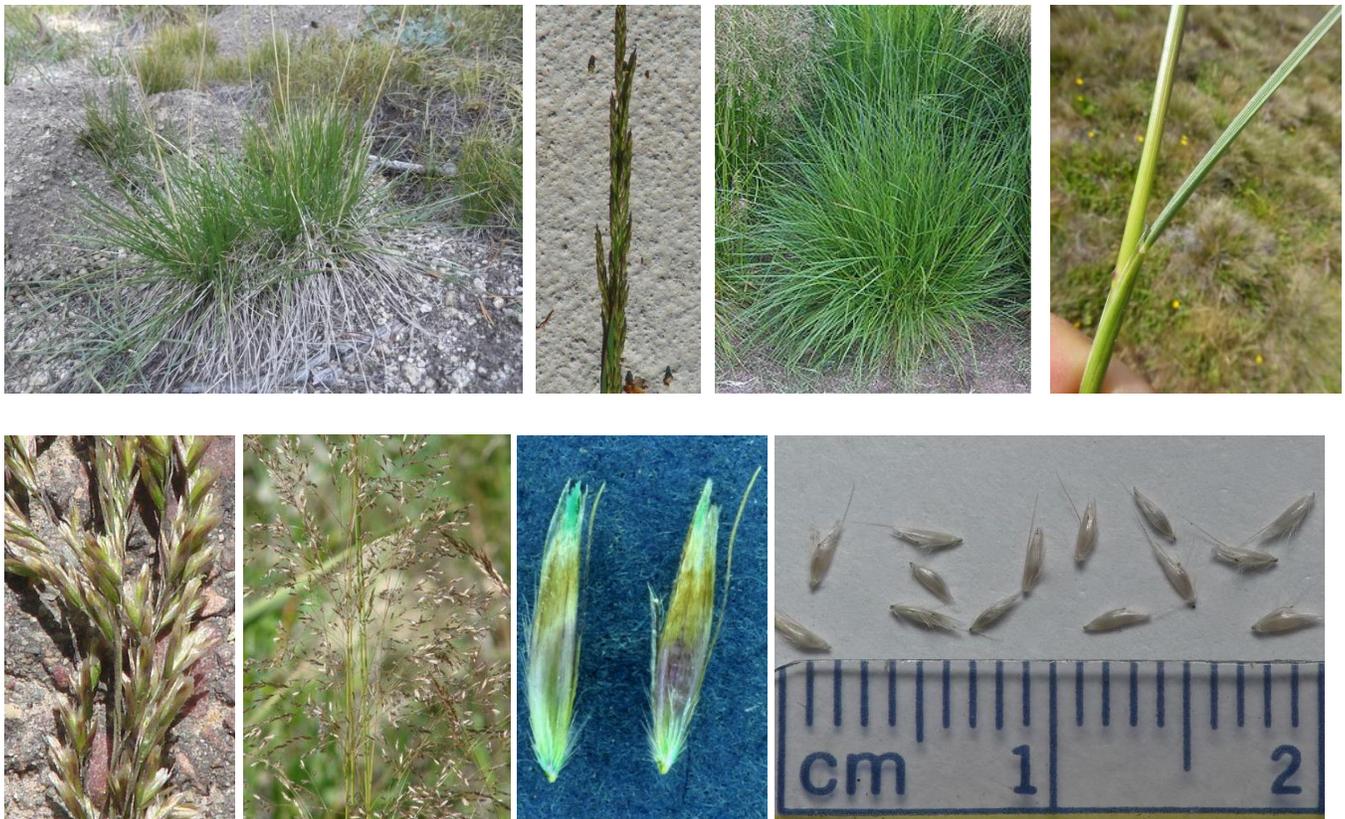
Flowering period: June – September

Characteristics: Densely tufted perennial with several hollow stems, 20 to 120 cm tall.

Leaves: Open-sheathed, hairless and smooth to rough; ligules pointed or blunt, ≥ 4 mm long and often split, with fine hairs. Blades stiff with edges often rolled back, 1.5 to 3 mm wide, rough on underside with several raised veins

Flowers: Open, drooping to narrow, erect panicle, 8 to 25 cm long; flower spikelets purplish to tawny, often bronze and glistening. Spikelets 2-to-3-flowered (usually 2). Lemmas have 4-toothed tip and awn attached near base; awn 2.5 to 4 mm long.

Fruits: Tiny and grain-like, hidden by bracts and grouped into loose clusters



Annual hairgrass (*Deschampsia danthonioides*)

Ecology: Vernal pools, roadsides, **wet prairies** from low to high elevations.

Flowering period: April – May

Characteristics: Tufted, upright, spreading annual with smooth, slender stems 10 to 60 cm tall.

Leaves: Blades narrow, hairless and rough along margins, edges slightly rolled back, .5 to 2 mm wide, 1 to 10 cm long. Ligules .5 to 4.7 mm long, acute or acuminate (tapering to a sharp point).

Flowers: Panicles open, to 25 cm long, with lower branches directed upward. Glumes equal in size, 5 to 8 mm, 3-veined, both glumes as long as or longer than florets, awnless; lemmas rounded 2 to 3 mm, slightly 1 to 3-veined, with 2 to 3 teeth at tip, soft, hairy bases and bent awns 4 to 9 mm long, at or below middle.

Fruits: Inconspicuous pubescent brown seeds, seed attached to the wall of the fruit; scar at point of attachment spotted.



Note: This hairgrass has fewer leaves, weaker root development and is smaller in size than tufted hairgrass; both species may be mistaken for fescue in their vegetative stage if not closely inspected. **Slender hairgrass (*Deschampsia elongata*)** has very thin, threadlike basal leaves rarely >1.5mm wide, and stem leaves which are flat to inrolled, 1 to 1.5 mm wide, with pointy, often hairy and split ligules 2.5 to 9mm long. Flower of this

species are narrow, 5 to 30 cm long inflorescences with greenish to purplish flowers in ascending branches. **Annual hairgrass** is sometimes confused with **North Africa grass** (*Ventenata dubia*), a non-native, tufted winter annual, also shallow-rooted, which is currently uncommon in the SPS region but can occupy the same habitat. Leaves of North Africa grass are similar to those of annual hairgrass, but with smooth margins, smooth, hairless upper surfaces and rough undersides, 1 to 3 mm in width. Ligules are obtuse, membranous, jagged, and **1 to 8 mm long. Reddish-black bands apparent on stems from May through June.** Tiny hairs give the stems a shiny appearance. Primary differences between annual hairgrass and North Africa grass are in the flowers and fruits: Inflorescences of North Africa grass consist of an open panicle 10 to 40 cm long, with drooping or spreading lower branches, 3-flowered spikelets, sometimes with awn-tipped glumes. **First glume 5 to 6.5 mm long, 6 to 7-nerved; second glume 7 to 9 mm long, 8 to 9-nerved.** First lemma is somewhat larger than the glumes and awned from the tapered tip. Bristle-like teeth, 1.5 to 2 mm long, lie on the upper lemmas, in addition to a twisted, bent, 10 to 16 mm-long dorsal awn. Fruits of North Africa grass consist of small, inflated, single-seeded pods with thin walls (utricles). Each plant can produce 15 to 35 seeds.



North Africa grass

Roemer's fescue (*Festuca roemeri*) 🦋

Ecology: Prairies and grasslands, meadows, balds and forest openings at mostly low elevations in western Oregon and Washington.

Flowering period: May - July

Characteristics: Densely tufted, non-rhizomatous (fibrous-rooted) perennial bunchgrass with mostly basal, often bluish-hued, fine-textured, dense leaf blades; stems are smooth, stiff and erect, 35 to 100 cm tall and range from light green to dark purple or red in color.

Leaves: Green to pale blue in color, often smooth and hairless, usually 8 to 25 cm long, .75 to 1.2 mm wide, egg-shaped in cross section near midleaves, and bearing 4 to seven nerves (raised veins). Ligules are .1 to .6 mm long. Basal width of "bunch" can be 8 to 18 cm; leaves persistent, persisting for more than one year;

Flowers: Open panicles 5 to 20 cm long in spikelets of 2 to 9 flowers 6 to 19mm long; flowers have lemmas 5 to 7.5 mm long and short awns 2 to 5 mm long.

Prairie butterflies supported: Mardon skipper (host); Oregon branded skipper (host).



Note: Red fescue (*Festuca rubra* L spp. *mediana*), which is not a CAO target species, may grow in the same environment as Roemer's fescue, and the two can be difficult to distinguish. Red fescue is short-rhizomatous rather than fibrous-rooted. Its basal sheaths are red to brown, tending to break down into curled fibers, and basal leaves grow in more a loosely tufted formation than the dense tuft or tussock which is characteristic of Roemer's fescue. Leaf blades are wider, at 1.5 mm wide, with ligules < .5 mm long. Red fescue leaves do not persist beyond the growing season as do those of Roemer's fescue, but instead break down or shred into fibers; while height is similar to that of Roemer's fescue, red fescue stems tend to be bent at their reddish-purple bases; flowers are often reddish-purple or waxy-white-green; awns on flowers are shorter, 1.5 to 3 mm.



Red fescue

Prairie Junegrass, prairie Koeler's grass (*Koeleria macrantha (cristata)*)

Ecology: Prairies, open forests and areas with sand to rocky soil at low to high elevations

Flowering period: May – July (primarily June)

Characteristics: Tufted perennial with stems 30 to 60 cm tall, stems may be smooth and hairless to downy.

Leaves: Leaf sheaths open, pubescent, often bearing straight hairs 1 to 1.5 mm long on the collar; blades light green to bluish-green, often visibly ribbed, 1 to 2 mm wide and 2 to 6 cm long, inrolled and often slightly rough on edges, **tip prow-shaped and pointed**, ligules .5 to 2 mm long.

Flowers: Dense, erect spike-like panicle 4 to 13 cm long with short branches; spikelets generally 2-flowered but up to 4-flowered, with keeled, awnless, pointed glumes and awnless to awn-tipped pointed lemmas.

Fruits: Seedheads dense, pale silver-green to purplish spikes; grain-like seeds enclosed in bracts, 1 per flower.



Note: This grass may be mistaken for another tufted perennial, the nonnative **common velvet grass (*Holcus lanatus*)** due to the bluish-green leaf coloration and shape of basal leaves. However, June grass leaves are *not* conspicuously velvety-hairy, as with velvet grass, and the blades are narrower (velvet grass blades are 3 to 10 mm wide). Velvet grass leaves are **flat, rather than inrolled**, and are not prow-shaped at the tip. Ligules are 1 to 2 mm long with marginal hairs. Velvet grass is taller (50 to 100 cm tall) and flowers are often purplish-tinged becoming very white as they mature, with hook-like awns from lemmas. **Photos next page.**



Common velvet grass

Iris family (Iridaceae)

Idaho blue-eyed grass (*Sisyrinchium idahoense*) 🦋

Ecology: Marshes, spring-wet areas from low to middle elevations; **wet and dry prairie species**

Flowering period: April - June

Characteristics: Tufted perennial; stems smooth and hairless, simple, **generally flattened and winged**, 15 to 45 centimeters tall and 1 to 2.5 mm wide; showy flowers.

Leaves: Mainly basal, smooth and hairless, narrow, up to 30 cm long.

Flowers: Generally in terminal clusters of 1 to 5 atop a pair of sheathing, leaf-like bracts; 6 tepals 8 to 20 mm long, light to dark bluish-violet in color with a yellow center; tepals oblong, blunt to slightly notched, often with a short bristle at the tip.

Fruits: 3-celled capsule, nearly spherical to egg-shaped, 3 to 6 mm long, beige to light brown; seeds black.

Prairie butterflies supported: Mardon skipper (nectar).



Note: In wetter prairie environments, outside the flowering or fruiting period, blue-eyed grass may be confused with pointed rush (*Juncus oxymersis*) or daggerleaf rush (*J. ensifolius*), both of which have flattened, iris-like leaf blades. See photos of both rushes below.



Pointed rush (two photos on left); daggerleaf rush (two photos on right)

Lily family (Liliaceae)

Chocolate lily (*Fritillaria affinis*)

Ecology: Prairies, grassy bluffs, forest understory from low to high elevations

Flowering period: April - June

Characteristics: Perennial herb with a small, scaly bulb yielding many rice-sized bulblets; 15 to 100 cm tall.

Leaves: Growing in 1 to 2 whorls of 3 to 5, lance-shaped, 5 to 15 cm long and 3 to 25 mm wide

Flowers: Dark purple (often appear more brownish) mottled with greenish-yellow, bell-shaped with 6 tepals, nodding, to 4 cm long. May be solitary or in terminal clusters of 2 to 5.

Fruits: Capsules 2 cm long, 6-angled with wings; numerous flat seeds.



Mallow family (Malvaceae)

Virgate checkerbloom (*Sidalcea virgata*)

Ecology: Moist meadows, tidal marshes and flats at low elevations; **moist portions of upland prairies**

Flowering period: May - June

Characteristics: Rhizomatous perennial with stems 15 to 100 cm tall, covered with branched or star-like hairs; has woody caudex (underground stem). **WNHP rare plant status.**

Leaves: Dark green, palmately lobed, fleshy; leaf margins smooth or with spreading, pointy teeth; upper leaves reduced.

Flowers: Dense to open spiked panicle; lowest bracts of individual flowers leaf-like and often divided to base. Calyx 5 to 12 mm, usually covered with star-shaped hairs; 5 petals 10 to 35 mm, bright to dark pink and often white-veined.

Fruits: 2.5 to 4 mm segments, deeply pitted, net-veined (often more on sides than on back), short-beaked.



Pea family (Fabaceae)

Sickle-keel lupine (*Lupinus albicaulis*)



Ecology: Prairies and grasslands from low to middle elevations.

Flowering period: May – July (primarily June)

Characteristics: Erect, multi-stemmed perennial 30 to >60 cm tall, foliage covered with silky hairs.

Leaves: Palmately divided into **5 to 10 leaflets**, typically 3 to 5cm long, sometimes 2 to 7 cm.

Flowers: Inflorescences in upright spikes 10 to 40 cm long, individual flowers pale blue to white or yellow, pea-like, 1 to 1.6 cm long and curving upward, **with keel poking up through the banners (see photo on right, below).**

Fruits: Silky-hairy pods, 2 to 5 cm long, containing 3 to 7 mottled, gray to tan seeds.

Prairie butterflies supported: Puget blue (host/nectar).



Prairie lupine (*Lupinus lepidus*) 🦋

Ecology: Prairies and dry, gravelly or sandy open areas from low to alpine elevations.

Flowering period: June - August

Characteristics: Silky-hairy perennial up to 40 cm tall.

Leaves: Hairy on both sides, palmately compound with **5 to 7 leaflets**; leaflets from 1 to 4 cm long.

Flowers: Inflorescences in spikes growing above the longest leaves, 11 to 13 mm long. Dark blue to purple or sometimes white, with a lighter-colored banner; banner distinctly reflexed from keel, not hairy.

Fruits: Hairy pods 10 to 20 cm long, containing 2 to 12 seeds.

Prairie butterflies supported: Mardon skipper (nectar).



Large-leaved lupine (*Lupinus polyphyllus*)

Ecology: Moist areas and stream banks, open habitats from low to middle elevations

Flowering period: June - September

Characteristics: Perennial with a branched, woody rhizome and erect stems, hollow at least near the base, up to 1.5 meters tall.

Leaves: Palmately compound **hairless or sparsely hairy**, with **10 to 17 leaflets** up to 12 cm long; basal leaves have stalks 10 to 60 cm long.

Flowers: Inflorescences in dense spikes to 40 cm long; flowers blue to violet, pea-like, up to 1.5 cm long

Fruits: Hairy pods up to 5 cm long.



Meadow bird's-foot trefoil (*Hosackia pinnata*); formerly (*Lotus pinnatus*)

Ecology: Areas with moist soil; **wet prairie species**; **WNHP rare plant status**.

Flowering period: May - July

Characteristics: Smooth, hairless perennial with a taproot and short rhizome; stem hollow, spreading to erect, 15 to 60 cm tall; lower stems inflated

Leaves: Pinnate, short-stalked, 4 to 8 cm long, with 5 to 9 leaflets; leaflets oval to obovate, 1 to 2 cm long with membranous stipules 3 to 10 mm long.

Flowers: Inflorescences in 3-to-12-flowered, terminal head-like clusters; individual flowers 10 to 15 mm long, pea-like, with 4-to-8 mm-long tubular calyx. 2 upper teeth of calyx are joined for most of their length, while the lower three teeth are awl-shaped. Corolla has yellow banner and keel, with white wings.

Fruits: Pods 3 to 6 cm long and 1.5 to 2 mm wide.



Springbank clover (*Trifolium willdenovii*; formerly *T. tridentatum*)

Ecology: Prairies, balds, meadows and grassy hillsides at low to middle elevations.

Flowering period: April - July

Characteristics: Herbaceous, hairless annual 10 to 70 cm long, sprawling to erect.

Leaves: Stalked, growing in threes (trifoliate), leaflets narrow with sharp, forward-pointing teeth on margins, 1 to 4 cm long; stipules almost half as long as leaflets, wider at base, with torn or jagged margins.

Flowers: Inflorescences of 6 to 60 flowers, 10 to 30 mm wide and long, on stalks arising from leaf axils, with underlying sets of bracts which are saucer-shaped and flared, with torn or jagged margins forming teeth; flowers purplish and composed of calyx and tube.

Fruits: 2-seeded pods.



Phlox family (Polemoniaceae)

Bicolored linanthus (*Leptosiphon bicolor*)

Ecology: Open, dry to areas to areas that are wet in the spring, at low elevations.

Flowering period: April - June

Characteristics: Finely hairy, slender annual with a taproot; leafy stems sometimes branching at the base, up to 15 cm tall.

Leaves: Opposite, lacking stalks, palmately cleft into several segments, giving leaf pairs the appearance of whorls of 6 to 14 narrow leaves; leaves adjacent to flowers are longer, hairier and appear more “whiskery” than leaves below.

Flowers: Pink, purplish or white; slender tube up to 3 cm long broadening abruptly in a yellow throat with 5 pink, 2 to 4 mm long lobes. Flowers lack stalks, and arise from a leafy terminal cluster.

Fruits: 3-chambered capsules containing several seeds in each chamber.



Great polemonium (*Polemonium carneum*)

Ecology: Forest openings, woodlands and wet areas at low to middle elevations; **wet prairie species, and a WNHP rare plant.**

Flowering period: May - July

Characteristics: Perennial with a woody rhizome, stems loosely clustered, 30 to 100 cm tall, generally erect; inflorescence and sometimes much of plant covered with sticky hairs.

Leaves: Alternate, pinnate, with 11 to 19 narrow to egg-shaped, pointed leaflets 1.5 to 4.5 cm long and 6 to 23 mm wide. Basal leaves long-stalked, stem leaves to a lesser degree, giving stem a leafy appearance.

Flowers: Open, few-flowered inflorescence, single or in small clusters, flowers with long stalks; calyx herbaceous, 7.5 to 14 mm long, with 5 lobes approximately equal in size to the tube. Corolla is bell-shaped, 18 to 28 mm long, with lobes longer than the tube and displaying variable coloration (flesh-colored, salmon, yellow, lavender, bluish-white or purple). Style divided into 3 sections.

Fruits: 3-celled capsules.



Pink family (Caryophyllaceae)

Scouler's silene (*Silene scouleri*)

Ecology: Prairies, at low to middle elevations. **WNHP rare plant status.**

Flowering period: June - August

Characteristics: Herbaceous perennial with a simple to branched crown and several stems up to 80 cm tall; plant densely hairy overall and glandular on upper surfaces

Leaves: Opposite, numerous, lance-shaped; basal leaves slender and stalked, up to 15 cm long and 3 cm wide, stem leaves in 2 to 8 pairs, reduced and stalkless further up the stem.

Flowers: Inflorescences long, narrow and several-tiered, with numerous greenish-white to purplish flowers; terminal flowers in clusters blooms first; flowers have a tubular, 10-veined, 5-lobed calyx (sepals fused into a chalice) with 10 to 18-mm-long lobes; corolla greenish-white to purplish, forming bi-lobed to 4-lobed petals with 2 appendages 1 to 3 mm long at the base.

Fruits: 1-celled capsules.



Primrose family (Primulaceae)

Henderson's shootingstar (*Dodecatheon hendersonii*)

Ecology: Prairies and forests at low elevations

Flowering period: March - June

Characteristics: Perennial with flowers on a leafless stalk arising ground level, lacking rhizomes but possessing a multitude of bulblets on its roots during flowering periods, 10 to 30 cm tall.

Leaves: All basal, generally hairless, broadly egg-shaped or triangular blades with smooth margins, 3 to 10 cm long by 2 to 6 cm, with length ~ twice as long as width; leaf blades narrow **very abruptly** to stalks nearly as long blades (other local shootingstar leaf blades narrow **gradually to stalks**).

Flowers: Flowers in terminal clusters of 2 to 15. Individual flowers consist of a purple-flecked calyx with narrow lobes 6 to 8 mm long and a 15-to-25-mm-long corolla with dark magenta to light orchid lobes, yellow at the base and on the tube. Base of tube is **reddish-purple (stamen tubes of few-flowered or Jeffrey's shootingstar are yellowish to orange or reddish to blackish-purple, respectively)**.

Fruits: Oval-cylindrical capsules 7 to 12 mm long, with a tip that drops off at the time of seed release.



Note: Henderson's shootingstar could be confused with dark-throated shootingstar (*D. pulchellum*), also associated with south Puget Sound prairies. Leaf blades of dark-throated shootingstar are narrower and more oblong than those of Henderson's shootingstar, sometimes with fine teeth in the margins, and taper **gradually** to

winged stalks. Flowers of dark-throated shootingstar are 1 to 25 in a terminal cluster, with a corolla 10 to 20 mm long and a tube which is yellowish with a **purple line around the base**; Dark-throated shootingstar is often found in coastal prairies, riparian areas, and around inland saltwater swamps.



Dark-throated shootingstar

Rose family (Rosaceae)

Slender cinquefoil (*Potentilla gracilis*) 

Ecology: Grasslands, prairies and moist areas from low to high elevations.

Flowering period: Late May - July

Characteristics: Variable perennial with a branched crown and several ascending or erect stems covered with spreading hairs, 40 to 80 cm tall; leaves mainly basal.

Leaves: Numerous, palmately divided basal leaves with stems up to 30 cm long; 7 to 9 narrow leaflets with margins toothed or deeply divided and leaf stalks to 30 cm long, smooth hairless and green on both sides of leaf in some cases, or hairy above and white-wooly below in other instances. Stem leaves generally 1 to 2 per stem, smaller than basal leaves. Stipules up to 2.5 cm long, with smooth to jagged margins.

Flowers: Inflorescences open, flat-topped, many-flowered. Individual flowers have a 5-lobed, 6 to 10 mm-wide calyx with 5 lobes 4 to 10 mm long; 5 yellow petals, longer than sepals. **20 stamens**

Fruits: Achenes 1.5 to 2 mm long, smooth and greenish, enclosed in 5-sided capsules

Prairie butterflies supported: Taylor's checkerspot (nectar); Puget blue (nectar).



Note: Non-native sulphur cinquefoil (*P. recta*), found in similar habitats to *P. gracilis*, has a **woody stem base**, **stems covered sparsely with hairs of varying sizes or glands**, **much leafier stems**, and hairy leaves divided into **5 to 7 leaflets** dissected almost halfway to the midvein; **more stem leaves than basal**, **basal leaves usually dying back prior to blooming**; **stem leaves often appressed by upright (leaf) stems**. Flowers have **sulphur-yellow** petals, often visibly notched at the tip, with **25 stamens**.



Sulphur cinquefoil

Blueleaf strawberry, wild strawberry (*Fragaria virginiana*) 

Ecology: Open woods, prairies and gravelly meadows at low elevations

Flowering period: May - August

Characteristics: Stoloniferous, mat-forming perennial with greenish, hairy stolons and flower and leaf stalks

Leaves: In threes (trifoliate), with stems up to 15 cm long; leaflets obovate (broader at end farthest from stem), 2 to 7 cm long, smooth, hairless and with waxy-whitish coating (glaucous), blue-green in color on upper leaf surface, silky-hairy on lower surface. Leaf margins coarsely toothed with rounded serrations for most of length. Top center leaflet has 2- to 7-mm-long stalk. **Upper central (terminal) tooth of all leaflets is usually shorter and narrower than neighboring teeth.**

Flowers: Open, 2 to 15-flowered inflorescences; flowers have 5 white petals 6 to 13 mm long, arising from a leafless stalk at ground level

Fruits: Achenes contained in hemispheric receptacle (strawberry) up to 1 cm wide, fleshy and red

Prairie butterflies supported: Taylor's checkerspot (nectar).



Note: Woodland strawberry (*F. vesca*), also locally common, has leaflet terminal teeth longer than the neighboring teeth, and the leaves lack the bluish-green hue of *F. virginiana*. More common in forests



Woodland strawberry

Saxifrage family (Saxifragaceae)

Whole-leaf saxifrage (*Micranthes integrifolia*) 

Ecology: Prairies, grassy slopes and moist areas, seasonally wet areas in uplands from low to high elevations.

Flowering period: March - July

Characteristics: Rhizomatous perennial; flowering stems reddish, glandular, erect, leafless, generally single, 10 to 30 cm tall.

Leaves: All basal in a rosette formation, with blades 2 to 5 cm long, diamond-shaped to diamond-egg-shaped, narrowing to wide stalks seldom as long as leaf blades; conspicuous hairs on leaf margins, rusty-wooly hairs on leaf undersides.

Flowers: Inflorescences compact, conical, partially enfolded by underlying leafy, rusty-wooly bracts; calyx cone-shaped, with 5 oblong, 1 to 2 mm-long, reflexed lobes; 5 white, broadly oval petals 1.5 to 3 mm long, \geq half as wide as long. 10 awl-shaped stamens.

Fruits: 2-to-3-beaked, follicle-like capsules, 3.5 to 5 mm long, generally reddish or purplish; brown, oblong, longitudinally ribbed seeds.

Prairie butterflies supported: Taylor's checkerspot (nectar); Mardon skipper (nectar).



Bog saxifrage (*Micranthes Oregana*)

Ecology: Bogs, wet meadows and streambanks, usually at middle elevations; **wet prairie species.**

Flowering period: April – July

Characteristics: Perennial with a short woody base. Flowering stems leafless, 30 to 120 cm tall and densely covered with glands and hairs.

Leaves: Leaves all basal, 10 to 20 cm long with smooth to wavy-toothed margins. Leaves lance to egg-shaped, narrowing to broadly-winged stalks; generally smooth but with some hairs on the margins.

Flowers: Open, long and narrow panicle; calyx 2 to 3.5 mm long, with 5 oblong, unequally-sized, reflexed lobes (sometimes ≥ 1 lobe lacking) 2 to 4 mm long and 1 to 2.5 mm wide. 10 stamens with club-shaped, 1 to 2 mm-long filaments greenish-white to pinkish in color.

Fruits: Capsules with tiny brown seeds



Sedge Family (Cyperaceae)

Dense sedge (*Carex densa*)

Ecology: Wet prairies, intertidal marshlands; seasonal wetlands west of the Cascades

Flowering period: April - June

Characteristics: Perennial from short rootstocks forming dense bunches, stems erect, 30 to 100 cm tall. **WNHP rare plant status.**

Leaves: Leaf blades are flat, 50 cm long by 2 to 5 mm wide, often shorter than the flowering stems; leaf sheaths range from whitish to clear, thin and veinless to dull brownish or red-dotted, **visibly cross-corrugated on front** (see photo bottom right). Leaf culms 50 to 110 cm tall.

Flowers: Inflorescences **broadly cylindrical** in shape, lacking fine, hair-like bracts (bracts inconspicuous), at least twice as long as wide, in branched, dense, uninterrupted clusters forming an oblong head 3 to 5 cm long, with some spikes attached to side branches; lowest branch of inflorescence short, creating an appearance that two or more spikes arise from the lowermost node. Male flowers above female flowers in spikes; scales awnless or with a short awn no longer than 1.5 mm; female scales brown, sometimes with translucent margins, and short awns (.5 to 2 mm); perigynia egg-shaped, yellowish brown to brown, reddish brown near the tip, 2.8 to 4 mm long, 1.5 to 2 mm wide, raised longitudinal veins on both sides, bearing a beak 1 to 1.5 mm long and 1/3 to 1/2 as long as the body of the perigynium, with 2 teeth.; ligules are absent to 4 mm long, and either pointed or notched. Perigynia often swollen, rounded, spongy at base.

Fruits: Achenes with double-convex shape (lenticular), reddish-brown, egg-shaped, glossy.



Green-sheath sedge (*Carex feta*)

Ecology: Wet prairies, meadows and margins of marshes west of the Cascades; also roadside ditches

Flowering period: May - July

Characteristics: Perennial forming dense bunches; stems 50 to 100 cm tall.

Leaves: sheath front green, green-veined usually almost to collar of sheaths, often with a white-transparent or translucent triangular collar up to 6 mm long near the top (see bottom left photos below),

sometimes prolonged 1.5 to 6 mm above where the sheath meets the blade. Blades 15 to 25 cm long, 2.5 to 5 mm wide.

Flowers: Inflorescences open, elongated, 30 to 80 mm long, 10 to 13 mm wide, with overlapping spikes and whitish-green to light gold flowers, individual spikelets distinct. Spikes broader at tip, with female flowers above male on the same spike. Female scales 2.7 to 3.5 mm long, white to straw-colored, with green, brown or straw-colored midrib. Perigynia green, white or straw-colored, broader at base, 3.2 to 4.2 mm long 1.7 to 2.1 mm wide, with 1 to 8 veins; flattened beak white to straw-colored at tip, with forward-pointing teeth on its margins extending nearly to the tip; bract is bristle or leaf-like.

Fruits: Egg-shaped achenes lens-shaped, (sometimes broader at one end), 1.5 to 2 mm long by .9 to 1.2 mm wide, 0.4 to 0.5 mm thick.



One-sided sedge (*Carex unilateralis*)

Ecology: Seasonally wet prairies, vernal pools, edges of ponds and marshes, ditches at low elevations.

Flowering period: May - July

Characteristics: Perennial forming dense bunches with fibrous roots; stems 20 to 80 cm tall, taller than leaves.

Leaves: Sheaths U-shaped at top (summit), otherwise flat; summit sometimes extends up to 2 mm beyond collar; ligules 2.5 to 8 mm long; fertile stems bear 3 to 5, 15 to 45 cm-long blades 2 to 4 mm wide. Blades on lower 1/3 of stem.

Flowers: Inflorescences inclined to one side, with lowermost bract leaflike; 5 to 15 spikes congested in a 1 to 3 cm long head, lacking stalks, with female flowers above male flowers; female scales gold to brown with green or gold midrib, 3 to 4.8 mm long; beak of perianth not easily distinguishable, with forward-pointing teeth along margins all or most of the way to the tip; lowest bract 5 to 15 cm long, erect, resembling a continuation of the stem. Bracts long, leaflike.

Fruits: Achenes, egg-to-lens-shaped (sometimes broader at one end) borne on a stalk, 1.2 to 1.9 mm long by .3 to .4 mm thick



Foothill sedge (*Carex tumulicola*)

Ecology: Grasslands and prairies, oak savanna, dry slopes.

Flowering periods: April - May

Characteristics: Rhizomatous perennial with short, thick rhizomes and culms (stems) 20 to 80 cm tall by 1 to 1.6 cm wide near the base, .5 to .8 mm wide near the top. Patchy growth.

Leaves: Compact sheaths with ligules < 2 mm long, green, gently arching, tough blades up to 1.5 to 2.5 mm wide at widest point, with short round projections pointing toward the axis

Flowers: Inflorescence coarse-textured; 3 to 10 spikes loosely clustered to form an irregular, cylindrical to almost linear head often slightly bent to the side, 1.5 to 5 cm long by 5 to 8 mm wide, with male flowers above female flowers; female scales tan to brown with green midrib, as long as and wider than perigynium (often hide perigynia), and with awn < 1mm; lower inflorescences easier to visibly distinguish.

Fruits: Elliptic to circular achenes, 2 to 2.4 mm x 1.4 to 1.7 mm.



Long-stolon sedge (*Carex inops ssp. inops*) 

Ecology: Well-drained, low elevation prairie and oak savana.

Flowering period: April - July

Characteristics: Rhizomatous perennial with creeping, brown to reddish-brown slender rhizomes, growing in loose clumps; stems typically 13 to 50 cm tall in prairies, rough near the tip.

Leaves: Blades green, .7 to 4.5 mm wide, herbaceous, smooth to rough on side opposite of axis; purplish sheaths.

Flowers: Male spikes terminal, 1 to 2.5 cm long, on stalks above female spikes; female spikes short (≤ 1.5 mm), numbering 1 to 4; perigynia hairy, yellowish green to pale brown or olive, veinless, egg-shaped with broader end near tip (obovoid), often as long as wide; straight beak, pale green or sometimes with reddish tinge, .4 to 1.5 mm long, slightly hairy and toothed on margins and with teeth .1 to .7 mm long at the tip.

Fruits: Dark brown achenes, obovoid to spherical, bluntly 3-angled or triangular in cross section, 1.4 to 2.5 mm long by 1.5 to 2.2 mm wide.

Prairie butterflies supported: Oregon branded skipper (host).



Valerian family (Valerianaceae)

Seablush, rosy plectritis (*Plectritis congesta*) 

Ecology: Open and seasonally wet meadows and slopes from low to middle elevations

Flowering period: April - June

Characteristics: Herbaceous annual with upright, leafy, simple stems 10 to 60 cm tall

Leaves: Opposite, hairless, narrowly egg-shaped with smooth margins, 1 to 6 cm long, 3 to 22 mm wide; lowermost leaves are spoon to egg-shaped, have short stalks, and may have either slightly toothed or smooth margins, stem leaves stalkless.

Flowers: Inflorescences of few to many flowers in dense, head-like terminal clusters; individual flowers pinkish or whitish, 2 to 8 mm long, with 5 petals fused into 2 distinct lips with a thick spur.

Fruits: Dry, hairy to hairless carpels 2 to 4 mm long, with a keeled convex side, sometimes with lateral wings; in other cases seeds may be more rounded and lacking in wings or a convex side (dimorphic fruit shapes, suitable for wind or ground dispersal).

Prairie butterflies supported: Taylor's checkerspot (nectar/host); Mardon skipper (nectar).



Violet family (Violaceae)

Early blue violet (*Viola adunca*) 🦋

Ecology: Dry to moist meadows and prairies, open woods at low to middle elevations.

Flowering period: April - August

Characteristics: Hairless to hairy, herbaceous perennial with slender rhizomes; generally stemless early in the growing season but later producing stems up to 10 cm tall.

Leaves: Oval to heart-shaped at base, hairy or hairless with short to long stalks; leaf blades up to 3 cm long with finely round-toothed margins. **Reddish-brown, narrow stipules with ragged or slender-toothed margins** 3 to 10 mm long.

Flowers: Blue to violet, up to 1.5 cm long; slender spur half as long as lowest petal; lower three petals have a whitish base imprinted with violet veins, including a lateral pair of veins which are conspicuously white-hairy (bearded).

Fruits: Small, 3-valved capsules, prostrate when mature and explosive when ready to open.

Prairie butterflies supported: Mardon skipper (nectar); Valley silverspot (host); great spangled fritillary (host).



Nuttall's violet (*Viola praemorsa* var. *nutallii*)

Ecology: Drier, well-drained prairies, valleys and grassy slopes at low elevations.

Flowering period: April - July

Characteristics: Herbaceous perennial with short, erect rhizomes; stems up to 15 cm long.

Leaves: Egg-to-wide-lance-shaped, **very hairy, thick and fleshy**, 5 to 10 cm long, with 5-to-15-cm-long stalks. Stipules attached to leaf stalks, few-toothed

Flowers: Stalks shorter than leaves; flowers 8 to 15 mm long, yellow, upper petals brownish-backed, lower petals imprinted with 3 brownish-purple veins, including a lateral pair of veins which are conspicuously hairy (bearded); head of style bearded and round.

Fruits: Hairy, 3-valved capsule.

Prairie butterflies supported: While not known to be associated the prairie butterflies listed in the introduction, this species is a host plant for the great spangled fritillary (*Speyeria cybele pugetensis*), a WA state sp. of concern.



Note: two other native violet species with yellow flowers can be differentiated from upland yellow violet by the following features: **Stream violet (*Viola glabella*)** has **heart-shaped to kidney-shaped leaves** distinctly pointed at the tips, only up to 5cm across, and leaves are **shiny, not hairy**; flowers of this species are similar to those of upland yellow violet, but the **lowest petal is visibly separated from the other petals**. **Evergreen violet (*Viola sempervirens*)** is stoloniferous, as the name implies, and has **thick, leathery (not hairy, but sometimes fine-hairy along stems)** heart-to-kidney-shaped leaves up to 3 cm across, often with purple spots on their undersides and thin, brown lance-shaped stipules. The flowers of this species are pale yellow, and similar to those of upland yellow violet, but the lateral pair of veins on the lower 3 petals are **yellow-bearded** rather than white-bearded. **Stream and evergreen violet are associated with moist forested landscapes, and are unlikely to be encountered in prairies other than in forest edges.**



Stream violet



Stream violet



Evergreen violet

Prairie Plants Not Listed in the Thurston County Critical Areas Ordinance

Family: Aster (sunflower) family (Asteraceae)

Canada goldenrod (*Solidago lepida*; formerly *S. canadensis*)

Ecology: Dry to moist prairies, meadows, and riparian areas at low to middle elevations.

Flowering period: July - October

Characteristics: Erect herbaceous perennial growing from a rhizome, 30 to 150 cm tall; finely hairy on the upper stem, often hairless below.

Leaves: Basal leaves sparse or reduced, dying back earlier than stem leaves; stem leaves abundant, dense, and generally not reduced upward; lance-shaped to linear, stalkless, narrowing at the base, 5 to 15 cm long, 5 to 22 mm wide, with toothed to entire margins.

Flowers: Inflorescence is a dense terminal panicle, with straight to curved branches; individual flowers with involucre 2 to 5 mm high and thin, tapered bracts; 10 to 17 or, more commonly, 13 yellow rays, 1 to 3 mm long.

Fruits: Achenes with hairy pappus.



Pearly everlasting (*Anaphalis margaritacea*) 🦋

Ecology: Open, dry to somewhat moist open environments; common in prairies.

Flowering period: July - September

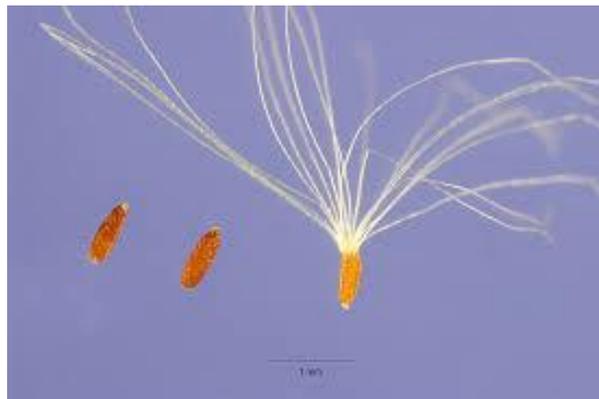
Characteristics: Individual male and female plants; rhizomatous upright perennial, 20 to 90 cm tall, with woolly white hairs covering leaves and entire plant, but most conspicuously hairy on stems and undersides of leaves; leaf abundant, stems generally unbranched.

Leaves: Alternate, stalkless, narrow and lance-shaped, oblong, or linear, up to 12 cm long, 2 cm wide, with a conspicuous midvein. Leaf surface greenish above, white and woolly on the underside; margins frequently rolled under.

Flowers: Flowers numerous in a dense, short, somewhat flat-topped terminal cluster; individual flower heads up to 1 cm. wide, with yellowish disks and pearly-white, papery bracts in a spiral arrangement; involucre 5 to 7 mm long. Male flowers tubular, style undivided; female flowers tubular and threadlike, with divided style. Senescent flowers develop a pappus with hair-like bristles.

Fruits: Small, roughened achenes with short, rounded protrusions and white pappus hairs.

Prairie butterflies supported: Oregon branded skipper (nectar).



Field pussytoes (*Antennaria howellii* ssp. *howellii*)

Ecology: Dry to moist open areas including prairies at low to middle elevations.

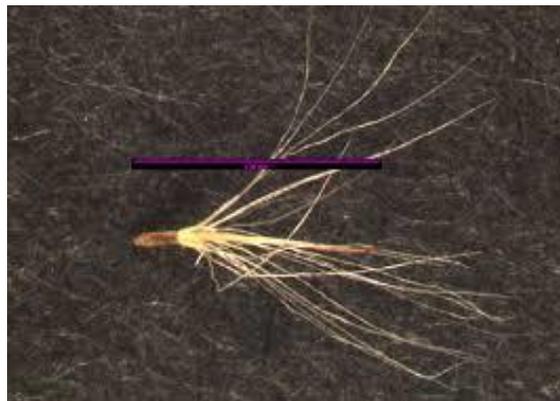
Flowering period: April - July

Characteristics: Stoloniferous, often leafy perennial 15 to 40 cm tall with vertical stems and individual male and female plants. May be rare in south Puget Sound prairies due to a lack of male plants.

Leaves: Leaves at base are spatulate to widely lance-shaped or elliptic with white-woolly undersides and hairless green upper surfaces, up to 2 cm wide, while stem leaves are sparse, linear or lance-shaped, stalkless, and smaller on upper stem.

Flowers: Several flower heads in compact clusters; greenish white and consisting only of disk flowers; female flowers bear involucres 6 to 9 mm long, and have narrow bracts with pointed whitish tips. Male flowers uncommon in our region.

Fruits: Cylindrical achenes with numerous fine white pappus hairs.



Rosy pussytoes (*Antennaria microphylla*)

Ecology: Open, often moist open areas, prairies, meadows, flood plains and bordering alkali depressions. Found in Rocky Prairie Natural Area Preserve and vicinity.

Flowering period: June - July

Characteristics: Stoloniferous, mat-forming perennial 5 to 40 cm tall, stolons decumbent and up to 10 cm long. Upper stem surface bears stalked, hairy (white or purple-haired) glands. Individual male and female plants.

Leaves: Leaves at base are spatulate to oblanceolate, tapering at the base, while stem leaves are linear and alternate. Leaves 1-nerved. Upper leaf surfaces bear silvery-white hairs.

Flowers: Several flower heads in nearly head-like inflorescences in which the terminal flower generally blooms first. Female flowers with involucre 4 to 10 mm long; thin, dry portion of the involucre bracts is generally white, straw-colored, or light yellow. Female corollas 2.5 to 4 mm.

Fruits: Achenes, generally hairless, with white-haired pappus.



Yarrow (*Achillea millefolium* L. var. *occidentalis* DC) 

Ecology: Open, dry to slightly moist environments including prairies. Does well as a pioneer species in disturbed areas.

Flowering period: April - October

Characteristics: Herbaceous, aromatic perennial 10 to 100 cm tall, growing from a rhizome. Both native and non-native populations exist in our region.

Leaves: Alternate, narrow, three-times-pinnate; fernlike, 5 to 20 cm long. Basal leaves largest, uppermost stem leaves smallest.

Flowers: Flowerheads abundant and small, forming flat-topped to round-topped clusters. 3 to 12 (usually 5) ray flowers, usually white but sometimes pinkish, 2 to 3 mm long and wide; 10 to 30 (sometimes up to 75) cream-colored disk flowers. Involucral bracts at the base of each flower, overlapping in a tight spiral or shingled arrangement, often with dark margins.

Fruits: Achenes, flattened and hairless, parallel to the involucral bracts. Lacking pappus.

Prairie butterflies supported: The Taylor's checkerspot (nectar).



Bellflower family (Campanulaceae)

Bluebell-of-Scotland (*Campanula rotundifolia*)

Ecology: Open, rock areas; prairies, pastures, and subalpine to alpine meadows.

Flowering period: June - September

Characteristics: Herbaceous perennial, generally glabrous, with stems 10 to 80 cm tall. Emerging from slender branched rhizomes emerging from a taproot.

Leaves: Basal leaves have long stalks, and blades which range from broad and egg-shaped to heart-shaped or oblanceolate with coarsely toothed to toothless margins, up to 2 cm long, often withering prior to flowering. Stem leaves alternate, abundant, narrow, lance-shaped, 1.5 to 8 cm long, with saw-toothed or entire margins

Flowers: Three or more in a loose raceme, usually nodding but sometimes erect, on short stalks. Blue to bluish-purple, bell-shaped, 1.5 to 3 cm long in a lax raceme, with hairy sepals at the fused base. The 5 lobes of the corolla are awl-shaped and shorter than the tube. 5 stamens, detached from corolla, with style almost as long as the corolla and an inferior ovary.

Fruits: 3-celled, nodding capsules with the shape of an inverted cone, 3 to 8 cm long. Numerous flattened seeds.

Prairie butterflies supported: While not known to be associated the prairie butterflies listed in the introduction, bluebell-of-Scotland provides nectar for bumblebees, swallowtail butterflies, and hummingbirds.



Broomrape family (Orobanchaceae)

Dwarf owl clover (*Triphysaria pusilla*) 

Ecology: Seasonally moist open areas, including prairies, at low elevations.

Flowering period: April - June

Characteristics: Small-statured annual, 4 to 20 cm tall, generally branched from the base and lacking a strong central axis, with coarse, spreading hairs.

Leaves: Alternate, pinnatifid and coarsely pubescent, arising from the stem, often purplish; .5 to 3 cm. long; main leaf axis slender, threadlike, and in lateral segments.

Flowers: Elongate spike inflorescence, usually reaching almost to the base of the stem; lower flowers increasingly separated. Bracts and leaves appear similar, but bracts are usually more dissected; calyx 4-lobed, small corolla 4 to 6 mm long, reddish-purple to yellow in color. Tube long, slender, and 2-lipped, with the upper lip slightly hooked at the tip and hooded, surrounding the 4 stamens; lower lip shorter with 3 inflated lobes. Stigma is entire and bears a tuft of hairs.

Fruits: Capsules

Butterflies supported: The Taylor's checkerspot (host)



Evening primrose family (Onagraceae)

Farewell to spring (*Clarkia amoena*)

Ecology: Dry, open areas including prairies and balds at low elevations.

Flowering period: May - July

Characteristics: Herbaceous taprooted annual, 10 to 100 cm tall, simple or branched, upright to spreading.

Leaves: Alternate, stalkless, 2 to 7 cm long, 2 to 6 mm wide, linear to lance-shaped, smooth-margined.

Flowers: Erect, loose, raceme, few-flowered inflorescences; calyx forming a tube 2 to 10 mm long, with 4 united lobes situated on one side; flowers cup-shaped, with 4 unclawed petals 1 to 4 cm long, light pink to rose-purple, often with deep reddish-purple spots in the center, obovate to rounded; 4-parted style with yellow, linear to oval stigmas 1.5 to 7 mm long; 8 stamens of two different lengths and shorter than the style; inferior, 4-celled ovary.

Fruits: Narrow, straight to curved 8-ribbed, 4-celled capsule, 1.5 to 4.5 cm long, beakless or beaked; beak, if present, is ~ 3mm long, straight or curved, and linear. Seeds are numerous, hairless, and angled.



Gourd family (Cucurbitaceae)

Coastal manroot (*Marah oregana*)

Ecology: Fields, prairies, and moist open areas at low elevations.

Flowering period: April - June

Characteristics: Leafy, high-climbing, vining perennial with coiling tendrils, emerging from a swollen woody root.

Leaves: Alternate, stalked, irregularly palmately lobed, and heart-shaped at base, up to 20 cm long. Leaf surface covered with rough hairs on at least the upper surface, and generally sparsely hairy on lower surface.

Flowers: White, bell-shaped, 6 to 12 mm across and bearing 5 to 8 pointed lobes 3 to 8 mm long; male flowers grow in racemes of 5 to 8 flowers, while female flower generally grow individually at the base in axils.

Fruits: Green, slightly spiny, inflated and gourd-shaped with a fibrous-netted, 2 to 4-chambered interior, 3 to 8 cm long, each bearing 1 to several large, smooth seeds up to 2 cm long. Fruits burst open at the tip when dry.

Prairie butterflies supported: The Puget blue (nectar).



Grass family (Poaceae)

Blue wildrye (*Elymus glaucus* ssp. *glaucus*)

Ecology: Prairies (often near forest edges), open woodlands and hillsides. Dry to moist environments.

Flowering period: June - August

Characteristics: Tufted perennial grass with few hollow stems 50 to 100 cm tall, forming clumps up to 10 cm wide. Fibrous, vigorous root system.

Leaves: Blades 5 to 10 mm wide, up to 30 cm long, flat, sometimes slightly inrolled, hairless to hairy, sometimes with a rough surface. Hairless to somewhat hairy open sheaths and an open, purplish collar, often bearing conspicuous, clasping, claw-like auricles. Ligules 1 mm long with hairs on the margins. Basal leaves sparse, often dying back by the time the plant matures.

Flowers: Individual, erect terminal spikes 5 to 15 cm long, with spikelets often two per node, overlapping, and lying flat on the main axis (rachis). Spikelets 2-to-5-flowered, separating above the glume. Glumes narrow, lance-shaped and membranous, tapering to short-awned, bearing 3 to 5 distinct nerves. Lemmas generally hairless but sometimes sparsely hairy, 10 to 12 mm long, often with a straight, conspicuous awn 1 to 2 cm long. Paleas are almost as long as the body of the lemma.



Hairy panicgrass (*Dicanthelium acuminatum* ssp. *fasciculatum*)

Ecology: Open and disturbed areas, including prairies, well-drained riparian areas, and open woodlands, at variable elevations.

Flowering period: June - August

Characteristics: Tufted perennial grass, pale yellowish-green to purplish, leafy near base, 10 to 75 cm tall but more often up to 30 cm locally; stems are hollow, simple during spring but often branched and spreading in the fall; often velvety-hairy. Pale yellowish green to purplish in color.

Leaves: Blades flat, firm, erect to ascending, broadly lanceolate, 6 to 12 cm long, 5 to 12 mm wide, with basal leaves shorter than stem leaves and forming a rosette. Leaves of stem branches smaller than those of simple stems or main stems. Sheaths are open, with ligules 3 to 4 mm long and made up mostly of straight hairs. Blades and stems bear fine hairs, leaf nodes bear a ring of spreading hairs underlain by a glabrous band.

Flowers: Broad, open panicle 3 to 9 cm long, almost as wide as it is long; spikelets usually 2-flowered, 1.5 to 2 mm long, elliptic-oblong to obovate, short-hairy; lower flower sterile, fertile lemma hardened, glumes of unequal size.

Fruits: Utricles (thin-walled, 1-seeded inflated fruits).



Heather and heath family (Ericaceae)

Kinnikinnick (*Arctostaphylos uva-ursi*)

Ecology: Prairies, rocky balds, coastal bluffs, and forests. Well-drained areas with full sun exposure.

Flowering period: April - June

Characteristics: Trailing, mat-forming evergreen shrub with brownish-red bark, generally less than 20 cm. tall.

Leaves: Alternate, dark green, leathery, oval to spoon-shaped, with smooth margins and sometimes bearing a faint terminal notch; 1 to 3 cm long.

Flowers: Vase-shaped, drooping, light pink to pinkish-white, ~ 5 mm long in sparse terminal clusters.

Fruits: Bright red, round berries with apple-like appearance, 7 to 10 mm wide, bearing large, hard seeds. Fruits often develop late in the season and persist into winter.

Prairie butterflies supported: The Hoary elfin (host/nectar).



Mint family (Lamiaceae)

Self-heal (*Prunella vulgaris* var. *lanceolata*)

Ecology: Moist, open disturbed areas including prairies.

Flowering period: May - September

Characteristics: Fibrous-rooted, herbaceous perennial from a short rhizome or stem base, stems erect or decumbent, individual or in clusters, 10 to 50 cm tall, slightly hairy or hairless. Native and non-native varieties in our region.

Leaves: Opposite, stalked, 2 to 9 cm long, .7 to 4 cm wide, sparse, smooth-margined to slightly toothed, elliptic to broadly ovate, with lower leaves wider than upper leaves.

Flowers: Whorled, in dense, bract-bearing terminal spikes 2 to 5 cm long, 1.5 to 2 cm wide; bracts ~1 cm long, ovate, short and slightly tapered, distinct from leaves. Calyx green or purplish to pink with 2 lips, upper lip wide, hooded and slightly 3-toothed, lower lip distinctly cleft in 2 narrow segments with a wider central fringed lobe, 7 to 10 mm long; corolla with 2 short lips, often blue-violet, 1 to 2 cm long, with the tube as long as the calyx; 4 stamens with the lower pair longer, surrounded by the upper lip of the corolla; style is 2-parted, ovary is 2-celled and superior.

Fruits: 4 nutlets



Pea family (Fabaceae)

American vetch (*Vicia americana*)

Ecology: Open areas including prairies and open forests or woodlands at low to middle elevations

Flowering period: May - July

Characteristics: Variable herbaceous perennial, hairless to densely hairy, with angled stems 15 to 80 cm tall, up to 100 cm long; trailing, climbing, or erect, tending to form tangled masses.

Leaves: Pinnate, with a simple or branched tendril at the end of the 8 to 12 (sometimes up to 18) leaflets; leaves 1 to 3.5 cm long, linear to oval, hairless to hairy, with a needle-like tip. Crescent-shaped stipules, 3 to 8 mm long, with ragged margins.

Flowers: Loose inflorescences arising from the leaf axils, bearing 3 to 10 bluish-purple to reddish-purple flowers 12 to 25 mm long. Calyx is 1/3 as long as the corolla, bearing 5 teeth half as long as the tube; pea-like corolla with wings longer than the keel, joined with the keel at approximately mid-length; tip of style is thickly bearded.

Fruits: Flattened, hairless pods, 2.5 to 3.5 cm long.



Common vetch (*Vicia sativa*) 🦋

Ecology: Open disturbed areas including prairies at low elevations.

Flowering period: April - July

Characteristics: Hairless to shaggy-hairy, creeping or climbing herbaceous perennial with slender, angled, solid stems, 30 to 80 cm tall, up to 100 cm long. **Introduced.**

Leaves: Pinnate with 10 to 15 leaflets and a branched, coiling tendril at the tip, linear to obovate-oblongate, 1.5 to 3 cm long, tips rounded or slightly notched, with a needle-like tip; stipules acutely toothed or arrow-shaped and 3 to 8 mm long, are present. Tendrils are prominent and branched.

Flowers: Pea-like and short-stalked, arising from leaf axils individually or (most often) in pairs or several, 15 to 25 mm long; calyx 5-toothed, awl-shaped and equal, more than half the length of the corolla and often longer than the tube; erect, to bright purplish pink to purplish, prominent banner, wings usually red; style with heavily bearded tip.

Fruits: Pods, 3 to 7 cm long, hairy when young, becoming hairless with maturity.

Prairie butterflies supported: The Mardon skipper.



Short-flower bird's-foot trefoil (*Acmispon parviflorus* (formerly *Lotus micranthus*)

Ecology: Open sandy areas, slopes, prairies, seashore environments.

Flowering period: April - September

Characteristics: Generally smooth, hairless annual 10 to 30 cm long, prostrate to erect, frequently branched at base.

Leaves: Irregularly pinnate, with 3 to 5 oblong to oblong-obovate leaflets 5 to 12 mm long, 2 to 3 mm wide, with entire margins and stipules resembling glands.

Flowers: Flower stalks 3 to 20 mm long, arising from leaf axil, individual bract with 2 to 3 leaflets beneath each flower. Calyx is 2 mm long and has 5 narrow lobes shorter than the tube and a small, round (pea-like) corolla, 4 to 5 mm long, pale yellow, often with a reddish hue.

Fruits: Pods 15 to 30 mm long, 1.5 to 2.5 mm wide, constrained between the seeds which number 4 to 8.



Two-color lupine (*Lupinus bicolor*)

Ecology: Open areas including prairies, meadows, grasslands, and sandy river banks.

Flowering period: April - July

Characteristics: Locally abundant herbaceous, hairy annual, 10 to 40 cm tall, with one, sometimes branched flowering stem.

Leaves: Palmately compound with 5 to 7 leaflets, 10 to 40 mm long, 1 to 5 mm wide; sometimes hairy on upper surface. Leaf stalks 1 to 7 cm long.

Flowers: Inflorescences in loose racemes, 1 to 8 cm long. Flowers 4 to 10 mm long, in whorls, with hairy stalks and sepals, pale blue to deep purple; banner is partially white, often with blue or purple spots. Banner becomes magenta in color post-pollination. Keel commonly whitish with pointy tip. Upper lip of calyx 2 to 4 mm long, deeply lobed, lower lip 4 to 6 mm long

Fruits: Hairy pods 1 to 3 cm long, ~3 to 6 mm wide, containing 5 to 8 seeds.



Pink family (Caryophyllaceae)

Field chickweed (*Cerastium arvense*) 

Ecology: Prairies, coastal cliffs, rocky hillsides, and subalpine meadows.

Flowering period: April - August

Characteristics: Tufted or clumped perennial, or sometimes growing in loose mats, up to 40 cm wide; hairless to slightly hairy and glandular on upper stems and amid flowers; flowering stems 5 to 50 cm tall.

Leaves: 1- nerved, opposite, linear to lanceolate and narrow, 1 to 3 cm long, finely hairy to hairless, with pointed tips; stem leaves usually have **bundles of secondary leaves in their axils on lower flower stem.**

Flowers: Open cluster inflorescence of 3 to 5 flowers with slender, upright stalks 1 to 3 cm long; 5 sepals with stalked glands, 4 to 6 mm long; 5 white petals, twice as long as sepals, with distinct 2-lobed clefts in upper portion; 10 stamens, 5 styles.

Fruits: Membranous, cylindrical, slightly curved capsules, 1.5 times as long as sepals, with 10 teeth at opening, bearing many seeds.

Prairie butterflies supported: The Taylor's checkerspot (nectar).



Plumbago family (Plumbaginaceae)

Thrift or sea-pink (*Armeria maritima* ssp. *californica*) 

Ecology: Beaches and coastal bluffs, occasionally prairies.

Flowering period: March - July

Characteristics: Herbaceous perennial arising from taproot with one to several hairless unbranched scapes, 10 to 50 cm tall.

Leaves: All basal, pale green, linear and persistent, growing in dense tufts, 5 to 10 cm long, 1 to 3 mm wide; hairless to somewhat hairy.

Flowers: Dense terminal heads, 1.5 to 3 cm wide, 4 to 7 mm long, with purplish, papery involucre bracts; flowers short-stalked, in clusters of 3, with two transparent bracts; funnel-shaped, 5-lobed calyx 5 to 6 mm long, 10-nerved, dry and papery; petals fused at the base with 5-lobes, pinkish to purplish; 5 stamens, 5 styles.

Fruits: Small, dry, achene-like bladders with one chamber and one seed, often enclosed in the sepals.

Butterflies supported: The Taylor's checkerspot (nectar)



Plantain family (Plantaginaceae)

English plantain (*Plantago lanceolata*)

Ecology: Disturbed open areas including prairies.

Flowering period: April - August

Characteristics: **Introduced**, fibrous-rooted herbaceous perennial arising from a stout woody base, 15 to 60 cm, tall, with several hairy, 5-grooved flowering stems per plant which are much longer than the leaves.

Leaves: All leaves basal, woolly to hairless, lance-elliptic with sharp-pointed tips, 10 to 40 cm long, 1 to 4 cm wide; several or more prominent parallel, lengthwise veins.

Flowers: Dense, green, bracteate cylindrical spike inflorescences 1.5 to 8 cm long and 1 cm wide, with small white flowers blooming from bottom to top; bracts thin, egg-shaped and tapering; 4 sepals with distinct midveins, the outer 2 sepals attached and with separate midveins; corolla green with 4 lobes, 2 to 2.5 mm long, spreading or bent backwards; 4 pale yellow stamens extending beyond the corolla; superior, 2-celled ovary. Flowers turn brown and persist as spike matures and elongates.

Fruits: Oblong to egg-shaped capsules, 3 to 4 mm long, with splitting seam running around lower middle portion, bearing 1 to 2 long, shiny black seeds.

Butterflies supported: The Taylor's checkerspot (host)



Small-flowered blue-eyed Mary (*Collinsia parviflora*) 

Ecology: Meadows and prairies with moist springtime conditions

Flowering period: March - July

Characteristics: Herbaceous annual 5 to 40 cm tall, with leafy single or branched, erect or ascending stems; slightly hairy and frequently glandular in upper portion; often growing in dense groups. **More commonly encountered in our area than large-flowered blue-eyed Mary, and with a longer flowering period.**

Leaves: Upper leaves opposite to whorled, oblong to lance-shaped, mostly stalkless, usually hairless and with entire or slightly toothed margins, 1 to 5 cm long, 1 cm wide, becoming narrower and bract-like upwards; lower leaves stalked, opposite, often oblong to spoon-shaped. Leaves are often purplish on the underside.

Flowers: Two-lipped, **4 to 7 mm long**; upper lip white to whitish pink, 2-lobed, lower lip deep blue, 3-lobed, lower portion of corolla tube fused, sharply **bent at an oblique (< 90°) angle** near base, forming a small sac on the upper side of the corolla base; flower stalks often bear short hairs which may be glandular. Flowers often singular in lower leaf axils, but may be clustered in upper leaf axils.

Fruits: Ellipse-shaped capsules 3 to 5 mm long, usually shorter than the sepals and bearing 4 smooth, reddish-brown seeds with thickened margins.

Butterflies supported: The Taylor's checkerspot (host)



Large-flowered blue-eyed Mary (*Collinsia grandiflora*) 🦋

Ecology: Open, moist to fairly dry areas at low to middle elevations.

Flowering period: April - June

Characteristics: Herbaceous annual 5 to 50 cm tall, with erect, simple or branched stems; slightly hairy.
Stouter and more erect than small-flowered blue-eyed Mary.

Leaves: Lower leaves opposite, stalked, often fairly broad and with toothed margins when fully developed; upper leaves opposite or whorled, with toothless margins, often smooth and hairless, becoming stalkless and oblong to narrow upward.

Flowers: Individual to several on short hairy stalks, **9 to 17 mm long, showier than those of small-flowered blue-eyed Mary**, growing from the axils of the upper stem leaves. Calyx 5-lobed, 5 to 8 mm long; Corolla with two lobes, blue and white or pinkish upper lip, lower lip deep blue to violet, and the **tube bent at a 90° angle** where it emerges from the calyx, forming a short pouch in the bend; 4 stamens. Flowers may occur individually at lower leaf nodes while in clusters at the terminal node.

Fruits: Capsule that breaks open along 4 seams.

Butterflies supported: The Taylor's checkerspot (host).



Rush family (Juncaceae)

Pacific woodrush (*Luzula comosa*)

Ecology: Gravelly prairies and moist, shaded areas at low elevations. Fairly uncommon west of the Cascades.

Flowering period: April - July

Characteristics: Tufted perennial with stems 10 to 40 cm tall. Lacking stolons.

Leaves: Basal, 5 to 15 cm long, 3 to 7 mm wide, reddish to green and grasslike; margins have long, wavy hairs; leaf bases are sheathed, with long, wavy hairs at the throats of the sheaths.

Flowers: Inflorescences with 1 to 6 dense clusters, in umbels or attached to stalks, spherical to almost cylindrical, 5 to 15 mm long and 5 to 7 mm wide; straight branches growing in different directions; perianth 2 to 5 mm long, dark to pale brown, with transparent margins and with outer 3 tepals longer than the inner 3

Fruits: Spherical capsules, often shorter than the perianth and greenish to dark brown in color.



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- http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=22598

Photos

Crown brodiaea, p. 1: Top: #1 – Marisa Whisman (2017); #2 – Marisa Whisman (2016); #3 – Sarah Krock (2019). Bottom: #1 – Julie Kierstead Nelson (2004); #2 – Lisa Hintz.

Common camas, p. 2: Top: #1 – Marisa Whisman (2021); #2 – John Doyen (2018); #3 – Zoyal Akulova (2019); #4 – Marisa Whisman (2019). Bottom: #1 – John Kallas, Texasbeyond history.net; #2 – Jean Pawek (2014); #3 – Sarah Krock (2019); #4 – Zoya Akulova (2019).

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Howell's triteleia, p. 4 Top: #1 – Ben Legler (2003); #2 – Ben Legler (2004); Ben Legler (2004). Bottom: #1 – Tim Gladlin (1989); #2 – David Giblin (2007); #3 – David Giblin (2007).

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Mouse-ear hawkweed - #1 – Marisa Whisman (2009); #2 – David Giblin (2021); #3 – David Giblin (2021); Richard Spellenberg (2012).

Missouri goldenrod - #1 – Keir Morse (2016); #2 – Keir Morse (2016); #3 – Barry Breckling (2015). Bottom: #1 – Keir Morse (2016); #2 – Keir Morse (2016); #3 – Peter M. Dziuk (2012).

Sticky goldenrod, p. 12 – Top: #1 – Rod Gilbert; #2 – Richard Spellenberg (2015). Bottom: #1 – Craig Althen (2010); #2 – Rob Routledge, Sault College, bugwood.org

White-top aster, p. 13 – Top: #1 – Keir Morse (2016); #2 - Rod Gilbert (2004); #3 – J.C. Semple (2014) <https://uwaterloo.ca/astereae-lab/research>. Bottom: #1 – Keir Morse (2016); #2 - Institute for Applied Ecology <https://appliedeco.org/resources/media/native-plants/>; #3 - Tab Tannery <http://flickrhivemind.net/Tags/sericocarpus/Timeline>

Cascade downingia, p. 14 – Top: #1 – Diane Fristrom (2013); #2 – Ben Legler (2004); #3 – John Game (2000). Bottom: #1 – John Doyen (2016); #2 - Bend seed extractory, seedsofsuccess.smugmug.com; #3 – science.halleyhosting.com/nature/plants/5petal/hare/downingiayina.html.

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Harsh paintbrush, p. 17 – Top: #1 – Ben Legler (2004); #2 – Ben Legler (2004); #3 – Craig Althen (2011). Bottom: #1 – Marisa Whisman (2020); #2 – Marisa Whisman (2020); #3 – Ben Legler (2004); #4 – G.D. Carr (2011).

American bistort, p. 18 – Top: #1 – Barry Breckling (2015); #2 – Gary Monroe (1993); #3 – Regina Johnson (2011). Bottom: #1 – Craig Althen (2013); #2 – Rod Gilbert (2006); #4 – Jean Pawek (2010).

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American wild hellebore, green false hellebore, p. 19 – #1 – Barry Rice (2021); #2 – Jean Pawek (2021); #3 – Ben Legler (2004); #4 – Keir Morse (2010).

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Prairie Lupine, p. 45 – Top: #1 – John Doyen (2017); #2 – Marisa Whisman (2021); #3 – Marisa Whisman (2021). Bottom: #1 – James Ellingboe (2010); #2 – Marisa Whisman (2021); #3 – Steve Matson (2017).

Large-leaved lupine, p. 46 – Top: #1 – Rod Gilbert (2006); #2 – Rod Gilbert (2005-2010); #3 – Jean Pawek (2010); #4 – John Doyen (2016). Bottom: #1 – John Doyen (2016); #2 – Jason Matthias Mills (2016); #3 – Jean Pawek (2013).

Meadow bird's-foot trefoil, p. 47 – Top: #1 – Vernon Smith (2016); #2 – Jason Matthias Mills (2018); #3 – John Doyen (2015). Bottom: #1 – John Doyen (2016); #2 – Steve Matson (2015); #3 - Steve Matson (2015).

Springbank clover, p. 48 – Top: #1 – Rod Gilbert (2013); #2 – Carol W. Witham (2004); #3 – Rod Gilbert (2005). Bottom: #1 – Jean Pawek (2021); #2 – Lisa Hintz.

Bicolored linanthus, p. 49 – Top: #1 – Steve Matson (2008); #2 – Steve Matson (2008); #3 – Jason Matthias (2016). Bottom: #1 – Barry Breckling (2009); #2 – John Doyen (2017); #3 – wikis.evergreen.edu

Great Polemonium, p. 50 - Top: #1 – G.D. Carr (2006); #2 – G.D. Carr (2008). Bottom: #1 – John Doyen (2020); #2 – Pete Veilleux, East Bay Wilds; #3 – Tanya Harvey, westerncascades.com.

Scouler's silene, p. 51 – Top: #1 – Rod Gilbert (2005); #2 – Rod Gilbert (2005); #3 – Rod Gilbert (2006). Bottom: #1 – Scott Simono; #2 – Scott Simono; #3 – Scott Simono.

Henderson's shootingstar, p. 52 – Top: #1 – Marisa Whisman (2017); #2 – John Doyen (2016); #3 – Shaun Hubbard (2006). Bottom: #1 – Shaun Hubbard (2004); #2 – Marisa Whisman (2019); #3 – Shaun Hubbard (2004); #4 – Shaun Hubbard (2005).

Dark-throated shootingstar, p. 53 – #1 – Barry Breckling (2015); #2- Mike Ireland (2005); #3 – Mike Ireland (2005); #4 – John Doyen (2015).

Slender cinquefoil, p. 54 – Top: #1 – Marisa Whisman (2016); #2 – John Doyen (2021); #3 – Marisa Whisman (2017). Bottom: #1 – Marisa Whisman (2019); #2 – Marisa Whisman (2021); #3 – Marisa Whisman (2021).

Sulphur cinquefoil, p. 55 - #1 – Keir Morse (2016); #2 – Wynn Anderson (2017); #3 – Keir Morse (2016); #4 – Keir Morse (2016).

Virginia strawberry, p. 55 – Top: #1 – Marisa Whisman (2017); #2 – Sarah Krock (2019); #3 – Zoya Akulova (2021). Bottom: #1 – Steve Matson (2017); #2 – Steve Matson (2017); #3 – George Rembert (2005).

Woodland strawberry, p. 56 - #1 – Chris Wood, UW Burke Museum Herbarium (2011); #2 – Keir Morse (2008); #3 - Zoya Akulova (2013); #4 – Zoya Akulova (2013).

Whole-leaf saxifrage, p. 56 – Top: #1 – Julie Kiersted Nelson (2002); #2 – Barry Rice (2021); #3 – Barry Rice (2021); #4 – John Doyen (2016). Bottom: #1 – Keir Morse (2016); #2 – Vernon Smith (2017).

Box saxifrage, p. 57 – Top: #1 – John Doyen (2014); #2 – Gary A. Monroe (2002); #3 – Steve Matson (2003); #4 – Keir Morse (2009).

Dense sedge, p. 58 – Top: #1 – Dean W.M. Taylor, Ph.D.; #2 – G.D. carr (2006); #3 – Dean Taylor (2008). Bottom: #1 – G.D. Carr (2000); #2 – G.D. Carr (2000); #3 – Steve Matson (2003).

Green-sheath sedge, p. 59 – Top: #1 – Steve Matson (2002); #2 – Keir Morse (2007); #3 – Keir Morse (2008). Bottom: #1 – Steve Matson (2002); #2 – Steve Matson (2002); #3 - <http://cyperaceae.e-monocot.org/gallery?page=3>.

One-sided sedge, p. 60 – Top: #1 – Zoya Akulova (2017); #2 – Steve Matson (2003); #3 – Steve Matson (2003). Bottom: #1 – Tab Tannery (flickr.com/photos); #2 – Seeds of Success Nursery, seedsofsuccess.smugmug.com; #3 – Chris Wagner (2009).

Foothill sedge, p. 61 – Top: #1 – Dean W.M. Taylor (2002); #2 – Chris Wagner (2009). Bottom: #1 – Dean W.M. Taylor (2018); #2 – Steve Matson (2003); #3 – Steve Matson (2016).

Long-stolon sedge, p. 62 – Top: #1 – Marisa Whisman (2019); #2 – Dean W.M. Taylor (2005); #3 – Rod Gilbert (2005). Bottom: #1 – Marisa Whisman (2021); #2 – Steve Matson (2003); #3 - Bend Seed Extractory, SeedsofSuccess.Smugmug.com.

Sea blush, rosy plectritis, p. 63 – Top: #1 – John Doyen (2015); #2 – Ryan Batten (2011); #3 – Keir Morse (2008). Bottom: #1 – John Doyen (2015); #2 – Steve Matson (2016); #3 – Tanya Harvey (2010).

Early blue violet, p. 64 – Top: #1 – Steve Matson (2008); #2 – Barry Breckling (2011); #3 – Marisa Whisman (2021). Bottom: #1 – Marisa Whisman (2021); #2 – Steve Matson (2015); #3 – Marion Jarisch (2020).

Nuttall's violet, p. 65 – Top: #1 – John Doyen (2018); #2 – John Doyen (2019); #3 – Marisa Whisman (2017). Bottom: #1 – Marisa Whisman (2020); #2 – Marisa Whisman (2015); #3 – Sarah Krock (2019).

Stream violet, p. 66 - #1 – Steve Matson (2006); #2 – Keir Morse (2008).

Evergreen violet, p. 66 – Steve Matson (2006).

Canada goldenrod, p. 67 – Top: #1 – Marisa Whisman (2013); #2 – Marisa Whisman (2013); #3 – Craig Althen (2010). Bottom: #1 – Marisa Whisman (2013); #2 – Dr. Nick Kurzenko; #3 – Roger T. George (2015).

Pearly everlasting, p. 68 – Top: #1 – Peter M. Dziuk (2002); #2 – Chris Wood, University of Washington Burke Museum Herbarium; #3 – Craig Althen (2010). Bottom: #1 – Steve Baskauf (2002); #2 – Steve Hurst @ USDA-NRCS PLANTS Database.

Field pussytoes, p. 69 – Top: #1 – Craig Althen (2010); #2 – Craig Althen (2012); #3 – Steve Matson (2011); #4 – Bottom: #1 – Jamie Fenneman; #2 – Mike V.A. Burrell; #3 – Lisa Hintz.

Rosy pussytoes, p. 70 – Top - #1 – Craig Althen (2011); #2 – Craig Althen (2012); Bottom - #1 – Craig Althen (2017); #2 – Craig Althen (2017).

Yarrow, p. 71 - #1 – Keir Morse (2016); #2 – Jason Matthias Mills (2012); #3 – Barry Breckling (2008); #4 – Jean Pawek (2018).

Bluebell-of-Scotland, p. 72 – #1 – Jason Matthias Mills (2012); #2 – Rod Gilbert (2007); #3 – Keir Morse (2016); #4 – wildflowerfinder.org.uk/Flowers/H/Harebell.htm.

Dwarf owl clover, p. 73 - #1 – Carol W. Witham (2007); #2 – John Doyen (2018); #3 – Marisa Whisman (2017); #4 – Steve Matson (2018).

Farewell to spring, p. 74 - #1 – Rod Gilbert (2006); #2 – Jean Pawek (2020); #3 – John Doyen (2018); #4 – Jean Pawek (2020).

Coastal manroot, p. 75 - #1 – Rod Gilbert (2008); #2 – John Doyen (2015); #3 – Steve Matson (2008); Zoya Akulova (2015).

Blue wildrye, p. 76 – Top - #1 – Steve Matson (2005); #2 – Craig Althen (2010); #3 – Keir Morse (2008); #4 – Keir Morse (2009). Bottom - #1 – Keir Morse (2008); #2 – Ron Vanderhoff (2017); #3 – Steve Matson (2007).

Hairy panicgrass, p. 77 - #1 – Rod Gilbert; #2 – Robert H. Mohlenbrock; #3 – Steve Matson (2006).

Kinnikinnick, p. 78 - #1 – Steve Matson (2016); #2 – Craig Althen (2010); #3 – David Gliblin (2018).

Self-heal, p. 79 - #1 – Wynn Anderson (2013); #2 – Jason Matthias Mills (2012); #3 – Craig Althen (2010); #4 – Zoya Akulova (2011).

American vetch, p. 80 – Top: #1 – Keir Morse (2016); #2 – Keir Morse (2008); #3 – Jean Pawek (2013). Bottom: #1 – Steve Matson (2011); #2 – Keir Morse (2016); #3 – Barry Breckling (2011).

Common vetch, p. 81 – Top: #1 – John Doyen (2015); #2 – Steve Matson (2016); #3 – Wynn Anderson (2017). Bottom: #1 – Zoya Akulova (2014); Wynn Anderson (2017); #2 – Zoya Akulova (2019).

Short-flower bird's-foot trefoil, p. 82 - #1 – John Doyen (2020); #2 – Keir Morse (2008); #3 – Steve Matson (2008); #4 – Steve Matson (2005).

Two-color lupine, p. 83 – Top: #1 – Carole W. Whitham (2004); #2 – Carol W. Whitham (2004); #3 – Carole W. Whitham (2004). Bottom: #1 – Keir Morse (2008); #2 – Gary A. Monroe (2012); #3 – Carole W. Whitham (2004); #4 – Zoya Akulova (2011).

Field chickweed, p. 84 - #1 – Marisa Whisman (2018); #2 – Keir Morse (2008); #3 – Steve Matson (2017); #4 – Steve Matson (2014).

Thrift or sea-pink, p. 85 – Top: #1 – Gary A. Monroe (2012); #2 – Zoya Akulova (2015); #3 – Zoya Akulova (2015). Bottom: #1 – Steve Matson (2016); #2 – Steve Matson (2016); #3 – Steve Matson (2016).

English plantain, p. 86 - #1 – Jean Pawek (2013); #2 – Keir Morse (2008); #3 – Steve Matson (2008); #4 – John Doyen (2016).

Small-flowered blue-eyed Mary, p. 87 – Top: #1 – Craig Althen (2010); #2 – Rod Gilbert (2007); #3 – Larry Blakely (2002). Bottom: #1 - Barry Rice (2014); #2 – John Doyen (2016); #3 – Jean Pawek (2011).

Large-flowered blue-eyed Mary, p. 88 - #1 – Vernon Smith (2010); #2 – Marisa Whisman (2018); #3 – Steven Thorsted (2006). Bottom: #1 – John Doyen (2015); Chris Wood (2010).

Pacific woodrush, p. 89 - #1 – Julie Kiersted Nelson (2002); #2 – Steve Matson (2004); #3 – Keir Morse (2009); #4 – Hayley Ross (2015).

Websites (plant photos)

<http://biology.burke.washington.edu/herbarium/imagecollection/navpane.php?group=p&list=s&bw=A>

http://calphotos.berkeley.edu/cgi/img_query?where-taxon=Carex+tumulicola

http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0408+1145

castle.eiu.edu, K.R. Robertson, Illinois Natural History Survey

<http://depts.washington.edu/propplnt/Plants/Lupinus%20lepidus.htm>

<http://extension.unh.edu/Alphabetical-Species-Listhttps://gobotany.newenglandwild.org/species/festuca/rubra/>

<http://flickrhivemind.net/Tags/pugetbalsamroot/Recent>

<https://gobotany.newenglandwild.org/species/hieracium/pilosella/>

http://www.goert.ca/propagation_guidelines/grasses_and_sedges/festuca_idahoensis_ssp_roemeri

https://klamathskiyouseeds.com/wp-content/uploads/2018/11/IMG_6656-e1542605165194.jpg

www.kootenaymountaineering.bc.ca600

<https://www.minnesotawildflowers.info/flower/mouse-ear-hawkweed>

http://web.sonoma.edu/cei/prairie/prairie_desc/grasses_rushes_sedges.shtml

<http://www.pnwflowers.com/flower/lotus-pinnatus>

www.pnwflowers.com367

<http://www.pnwflowers.com/flower/microseris-laciniata>

[www.saskwildflower.ca750 x 498](http://www.saskwildflower.ca750x498)

http://www.theodorepayne.org/mediawiki/index.php?title=Image:Carex_tumulicola1.jpg

<http://science.halleyhosting.com380>

<http://science.halleyhosting.com/nature/gorge/sun/daisy/balsam/balsam.htm>

<http://science.halleyhosting.com/nature/plants/5petal/phlox/leptosiphon/bicolor.html>

<http://seedsofsuccess.smugmug.com/Seeds-of-Success-Partners/Bend-Seed-Extractor/i-J2zbKp6>

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[Systematic Botany and Mycology Laboratory \(USDA Plants\)](http://www.usask.ca)

http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=22319

www.usask.ca

www.weedingwildsuburbia.com

Appendix A: Current CAO-listed prairie plants not known to occur in Thurston County

Bradshaw's lomatium (*Lomatium bradshawii*) Federally listed species known to occur only in Clark County

Ecology: Moist areas at low elevations; **wet prairie species.**

Characteristics: Smooth, hairless, stemless herbaceous perennial with a long, slender taproot. Plant arises from caudex (persistent, below-ground thickened stem), providing stemless appearance.

Leaves: Deeply divided/branched in threes into very thin, often threadlike segments 3 to 10 mm long and up to 1 mm wide.

Flowers: Inflorescence Umbel (umbrella-like) shape; individual flowers consist of unequal rays 4 to 13 mm long, yellow, with flower stalks 2 to 5 mm when mature. Set of leafy bracts below flowers which are 3-cleft down the middle, with lobes generally cleft again, distinguish this from other *Lomatium* spp.

Fruits: Smooth, hairless, flattened and oval-shaped, 8 to 13 mm long and 5 to 7 mm wide, with **corky, thick lateral wings** half as wide and the same color as the body of the fruit.



Coyote thistle (*Eryngium petiolatum*) Limited to Lewis, Clark, and Klickitat counties

Ecology: Seasonally submerged or flooded areas or wet areas at low elevations. **WNHP rare plant status.**

Characteristics: Perennial with fibrous roots; stems 15 to 50 cm tall, simple crown; often widely branching from axis near base of plant. Classified as a WNHP rare plant species.

Leaves: Basal leaves lack blades and have elongated, hollow stalks; stem leaves become increasingly short-stalked further up the stem, have narrow blades up to 1 cm wide, smooth-margined or with spiny teeth.

Flowers: Stalkless, with heads up to 1 cm wide; involucre bracts narrow and spiny-toothed, generally growing above flowers; calyx has 5 lobes, each 3 mm long, tapering. Corolla 5-lobed, white.

Fruits: Egg-shaped, 2 mm long and covered with tapering scales 1 to 1.5 mm long.

