## Field Guide

## to

## Plants of UC Santa Cruz

#### Selected Trees, Shrubs, Herbs & Ferns

Nathalie Martin UCSC Environmental Studies, B.A. 2017



Illustrated by Brett Bell Edited by Alex Jones Field Guide to Plants of UC Santa Cruz Selected Trees, Shrubs, Herbs & Ferns by Nathalie Martin Illustrated by Brett Bell

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#### Edited by Alex Jones

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## How To Use This Guide

**Organization**: This guide is organized in the same manner as the second edition of The Jepson Manual, Vascular Plants of California. This guide is divided into five main sections: Ferns, Gymnosperms, Magnoliids, Eudicots, and Monocots. These sections are then subdivided alphabetically by family, genus, and species. This can help users get familiar with Jepson's general format if they wish to learn how to use its dichotomous keys for plant identification.

**Abundance**: Each plant is marked with an abundance ranking, ranging from abundant to rare. Please note that "rare" does not necessarily mean that the species itself is rare statewide or federally, but that the plant is a rarity within the campus boundaries. If a plant is considered rare by the California Native Plant Society, it is noted in the description. No federally endangered or threatened plant species are known to occur on campus.

**Plant height**: Average height is represented using the following relative scales: below ankle, ankle, mid-calf, knee, waist, chest, and head heights. These scales are used to give users a general (not exact!) idea of height, as height can vary throughout a plant's life. Over-head heights are given in meters and plants that grow in vine form are given as "variable" since they can grow along the ground, up trees/other plants, and everywhere in between.

**Bloom period**: This indicates the time period in which a plant typically flowers. These periods can vary slightly from year to year depending on a number of environmental factors. Phenology is not fixed!

**Flower/inflorescence size**: The diameter of each flower or inflorescence in the guide corresponds to one of the following:

- $\Box$  very small = 0.5 cm or less
- $\square$  small = 0.5 to 2 cm
- $\square$  medium = 2 cm to 4 cm
- $\Box$  large = 4 cm to 6 cm
- $\Box$  very large = 6 cm or greater

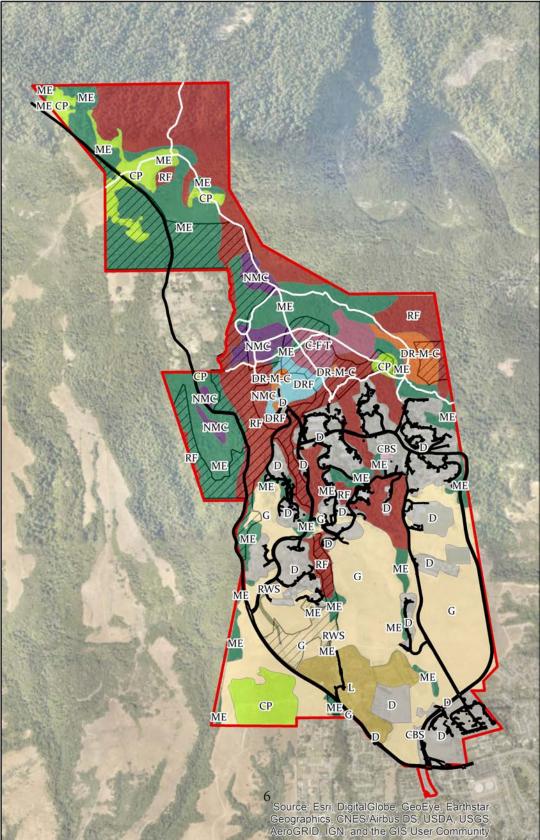
"Inflo. size" applies to plants with composite flowering heads, i.e. plants in Asteraceae that have ray and/or disk flowers. Remember, like plant height, flower/inflorescence size is variable. A plant's flowers may be assigned "very small" in this guide, but that does not mean it cannot also have "small" sized flowers.

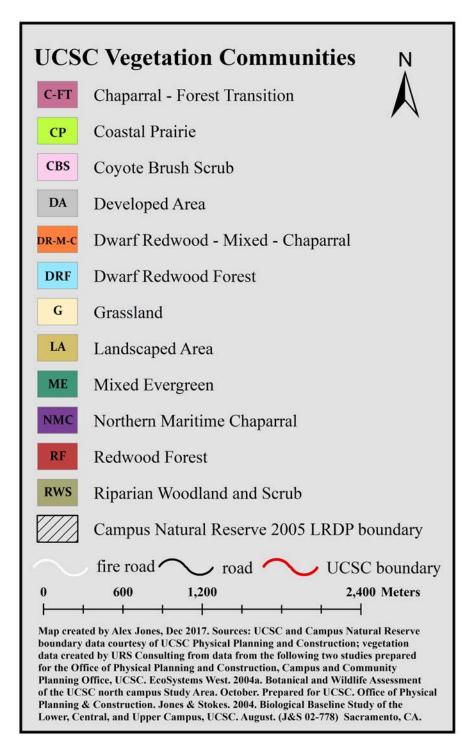
**Habitat**: The habitats in which a particular plant may be found are indicated by the colored rectangles found on each plant's species account. The colors and vegetation community abbreviations correlate to those on the UCSC Vegetation Communities map on the next page.

**Please note**: There are over 500 plant species that exist on the UCSC campus; thus, this guide, with its 185 species, is just a start (see p.126 for a more complete, though still partial, working list). If you see a plant on campus but cannot find it in the book, use what you have learned from the guide or what you may already know about plant taxonomy to point you in the right direction. Its organization is meant to help you notice certain characteristics of the various groups, families, and genera spread across the campus. What family does the plant look like it might be in? Even further, what genus? Does it remind you of something else that you know? Such clues can help you deduce what you are looking at and enhance your botanizing experience.

Additionally, photos are not necessarily the best way to identify plants to species (or subspecies) level. Keying a plant with the Jepson Manual or a local flora is the most accurate way to figure out what plant you are observing.

Lastly, you may notice that the guide does not include graminoids-the grasses and grass-like plants (rushes and sedges). Are you, dear reader, the one who will create the second edition of this guide?





## **Campus Vegetation Communities**

#### Redwood Forest

DRF DR-M-C

All those who visit UC Santa Cruz are familiar with this plant community, as coast redwoods (Sequoia sempervirens) are a dominant feature of the central and upper regions of campus. These towering, long-lived conifers can grow up to 120 m tall and 2200 years old in some parts of California, but only reach about 60 m and 100 years old on campus. They are restricted to the central and northern coast of California and a small part of the southern coast of Oregon. This is because redwoods exist where coastal fog exists, as it provides moisture for the trees in the otherwise too-dry summer months. The plant species that dwell in the forest understory need this moisture, too. However, the dark canopy and deep duff that the redwoods create limits what plants are able to grow in their company. Associated species you can observe growing on the forest floor are sword fern (Polystichum munitum), milkmaids (Cardamine californica), fetid adder's tongue (Scoliopus bigelovii), wake-robin (Trillium ovatum), redwood violet (Viola sempervirens), and redwood sorrel (Oxalis oregana). Some tree species, like Douglas-fir (Pseudotsuga menziesii) and tanoak (Notholithocarpus densiflorus) also dwell in the midst of the redwoods

Additionally, there are some stands redwoods that are categorized as "dwarf redwoods" on the Vegetation Communities Map. These are not true dwarf forms, but are reduced in stature in terms of circumference and height. Stands of these smaller trees, which grow more densely than the other redwoods on campus, are found on the East Slope of the Campus Natural Reserve, as well as around the Trailer Park and North Remote parking lot. These trees are perhaps smaller because they grow on poor, sandy soils and/or in areas that were historically burned.

#### Mixed Evergreen Forest

This diverse vegetation community is found on the main campus in small patches, but is most common in Upper Campus and a section of campus west of Empire Grade. Much more diverse and variable than redwood forest, mixed evergreen forest is host to an abundance of ferns, trees, shrubs, and herbaceous plant species. Here, broadleaf evergreen trees, like members of the oak family (*Quercus* spp. *Notholithocarpus densiflorus*, *Chrysolepis chrysophylla* var. *minor*), madrone (*Arbutus menziesii*) can grow in the company of conifers (redwood, Doug-fir, pine). Shrubs like California hazelnut (*Corylus cornuta* subsp. *californica*), California blackberry (*Rubus ursinus*), and poisonoak (*Toxicodendron diversilobum*) are common in this varied landscape. Flowers of striking colors and unique features also bloom here, such as hound's tongue (*Cynoglossum grande*), white globe lily (*Calochortus albus*), Douglas iris (*Iris douglasiana*), and California hedgenettle (*Stachys bullata*).

#### Chaparral NMC C-FT DR-M-C

This is a hot, dry plant community that is characterized mostly by shrubs. Here in Santa Cruz, the influence of summer fog and presence of sandy soil makes this kind of chaparral distinct from the more inland type. This is referred to as northern maritime chaparral, which is a relatively rare plant community found in small patches along the coast. Although the fog provides some respite for the plants in the summer, maritime chaparral is still a harsh environment that plants must adapt to in specialized ways. Small, thick, stiff leaves help plants hold and efficiently use the small amounts of water they receive. Plants here are also fire-adapted, as fire is integral to the ecology of this community. Some species are able to resprout from their bases after fire while others have seeds that germinate in response to the heat or smoke of fire. Examples of chaparral plants include manzanitas (Arctostaphylos spp.), ceanothus (Ceanothus spp.), coffeeberry (Frangula californica), huckleberry (Vaccinium ovatum), chaparral pea (Pickeringia montana), and sticky monkeyflower (Mimulus aurantiacus). Occasionally, you will find a knobcone pine (Pinus attenuata) or a small oak, too. Two good places to visit campus chaparral are on Chinquapin Rd. northwest of Red Hill Rd. and on Fuel Break Rd. between Red Hill and West roads.

#### Grassland & Coastal Prairie

Grassland dominates most of the lower half of campus and pockets of Upper Campus. Large meadows, like the East Meadow, the

CP

Great Meadow, and Mima Meadow, are composed mostly of annual plants, especially grasses. Most of the grasses and herbaceous plants in these meadows are non-native and/or invasive, like ripgut brome (Bromus diandrus), slender wild oat (Avena barbata), rattlesnake grass (Briza maxima), wild radish (Raphanus spp.), stork's bill (Erodium botrys), and rough cat's ear (Hypochaeris radicata), which can have detrimental impacts on the native ecosystem. However, some native species have managed to persist. Sky lupine (Lupinus nanus) and California poppies (Eschscholzia californica) still bloom in abundance in the spring, painting the meadows with patches of blue and orange. Other common native grassland species are sun cups (Taraxia ovata), Fremont's star lily (Toxicoscordion fremontii), California buttercup (Ranunculus californicus), blue-eyed grass (Sisyrinchium bellum), coyote brush (Baccharis pilularis var. consanguinea), purple needlegrass (Stipa pulchra), and California oatgrass (Danthonia californica).

While the large lower campus meadows have spectacular views and a host of plant life, the meadows of Upper Campus are truly the jackpot for botanizing. These meadows, like the Marshall Fields complex, are a specific type of grassland called coastal prairie that sit on ancient marine terraces. This plant community is especially diverse. In addition to the native and non-native plants found on lower campus, this community also includes colorful species like harlequin lotus (*Hosackia gracilis*), yellow owl's clover (*Triphysaria versicolor*), golden brodiaea (*Triteleia ixioides*), mariposa lilies (*Calochortus* spp.), and brodieas (*Brodiaea* spp.). Many of these species are rare or restricted in range, such as Point Reyes horkelia (*Horkelia marinensis*), largeflowered mariposa (*Calochortus uniflorus*), and San Francisco popcorn flower (*Plagiobothrys diffusus*).

#### **Riparian Woodland & Scrub**

Riparian zones on campus include those with standing water, streams, seeps, and springs. Some of this water is present year round and some is seasonal, greatly influencing what grows when and where. Riparian plant species require ample moisture, growing in or near the three main riparian corridors on campus: Cave Gulch, Moore Creek, and Jordan Gulch. The most common trees

RWS

in this plant community are bigleaf maple (*Acer macrophyllum*), willows (*Salix* spp.), and buckeye (*Aesculus californica*). Riparian zones on campus also support a number of fern species, like giant chain fern (*Woodwardia fimbriata*) and lady fern (*Athyrium felix-femina* var. *cyclosorum*), as well as the grass-like sedges (*Carex* spp.) and rushes (*Juncus* spp.). Fewer herbaceous plants and shrubs dwell in these chronically wet environments, although elk clover (*Aralia californica*), western azalea (*Rhododendron occidentale*), and sneezeweed (*Helenium puberulum*) do thrive in these conditions.

#### Coyote Brush Scrub

Coyote brush (*Baccharis pilularis* var. *consanguinea*) is dominant or co-dominant in coyote brush scrub, sometimes growing in the company of other scrub-affiliated shrubs like blue blossom (*Ceanothus thyrsiflorus*), sticky monkeyflower (*Mimulus aurantiacus*), blackberry (*Rubus ursinus*), and coffeeberry (*Frangula californica*). Often, coyote brush scrub is a transitional community between grassland and woodland--when left unmanaged (e.g. fire suppression, no grazing), coyote brush can establish in grassland and shelter tree seedlings as they mature. On campus, the extent of coyote brush scrub may actually be larger than mapped, but CBS is not a persistent community and current management practices are keeping coyote brush populations down.

#### Developed / Landscaped Area DA LA

Areas developed and cultivated by humans exist primarily on the main campus where there are buildings, plantings around buildings, parking lots, and gardens. In these areas, the natural landscape is "disturbed" by human activity and thus altered in some way. The Arboretum, the CASFS Farm, Chadwick Garden, and the various college gardens are all examples of landscaped areas. Developed areas essentially include any piece of land that has been built on or paved over. These places often host invasive plants, as many of these species prefer and thrive in environments where the soil is disturbed. While invasive plants thrive in degraded habitats, native plants do not do so well and are at a disadvantage. This allows weedy species to outcompete native plants and dominate disturbed areas.

#### **Transitional Communities**

DR-M-C C-FT

While categorizing different vegetation communities is useful, it is not truly so cut and dry in nature: variation, transition, and overlap within and between different communities is a given. In other words, you cannot really put nature into definitive boxes or cleanly draw borderlines (although we try!). There are two distinct transitional communities that occur on campus: Chaparral - Forest Transition and Dwarf Redwood - Mixed - Chaparral. These communities exist where chaparral species and forest (redwood and/or mixed evergreen) species meet and mix. These transitional spaces occur, in part, due to past land use and current fire suppression on the campus. Wildfire is crucial to the ecology of chaparral communities, so when it is prevented, forest plants like Douglas-fir are able to encroach and take over. Historically, Cowell Ranch limework's industrial practices like forest clearing and slash burning allowed chaparral to expand on campus lands. Now, the area of chaparral is shrinking due to fire suppression and forest regeneration after the abandonment of the lime industry. Because of this, there is a large buildup of fuel from dead chaparral plants in the forest understory, which presents a management issue for campus land managers.

## Key to UCSC Plants

With your smartphone, use the QR code below to access the UCSC-FERP Key to UCSC Plants. Differing from dichotomous keys such as those in the Jepson Manual, this is a user-friendly synoptic key that allows you to select easily identifiable traits to narrow down your speices ID possibilities. You can use the key to help confirm an ID you have already made with the guide, or as a starting point in identifying a plant. If you are unfamiliar with the plant morphology terminology used in the key, the glossary in the back of the guide may be useful.

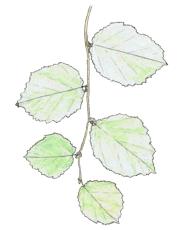


The UCSC Forest Ecology Research Plot (FERP) is a 16-hectare mapped forest plot located on the Campus Natural Reserve. It includes approximately 28,000 woody individuals larger than 1 cm in diameter, 3/4 of which are made up of oaks, tanoaks, Douglas-fir, and redwoods. The FERP, directed by Dr. Gregory Gilbert, provides an outdoor laboratory for students to learn about ecology and evolutionary biology in a field-based setting. The FERP is one of 63 CTFS-ForestGEO network plots (forestgeo.si.edu).

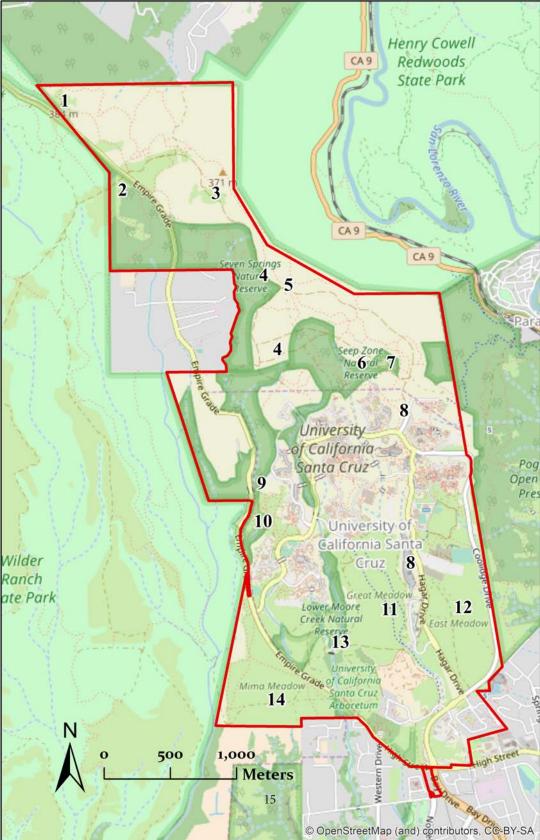
## **UCSC** Botanical Hotspots

The map on the right highlights some of the locations mentioned in the species accounts throughout the guide. These spots are botanically interesting in that they are host to an diversity of plant species and/or unique plant species. The Water Tanks are merely for geographic reference (though perhaps someone should paint a flower on one). Some spots are illustrative of a certain vegetation community, providing a good example of what coastal prairie or chaparral may look like. Use the map to guide you down into the gulches and up into the meadows!

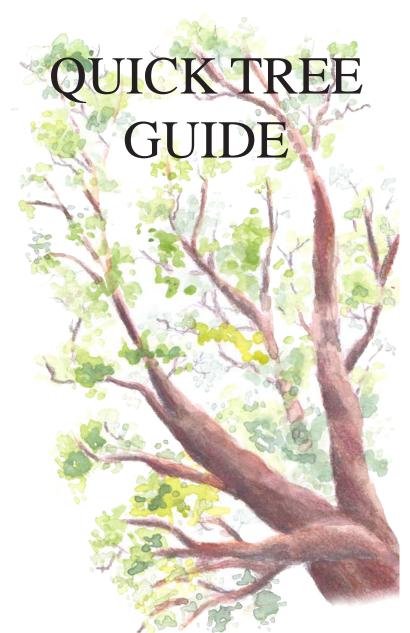
- 1 North Marshall Field
- 2 West Marshall Field
- 3 Lower Marshall Field
- 4 Chaparral
- 5 The Water Tanks
- 6 Seep Zone
- 7 Crown Meadow
- 8 Jordan Gulch
- 9 Cave Gulch
- 10 Porter Meadow
- 11 Great Meadow
- 12 East Meadow
- 13 Lower Moore Creek
- 14 Mima Meadow



Sources: Map by Alex Jones, December 2017. Base map by OpenStreetMap © OpenStreetMap contributors. OpenStreetMap® is open data, licensed under the Open Data Commons Open Database License by the OpenStreetMap Foundation. Cartography in map tiles licensed under the Creative Commons Attribution-ShareAlike 2.0 license (CC BY-SA). See openstreetmap.org and opendatacommons.org. UCSC boundary supplied by UCSC Physical Planning and Construction.







This section is included to provide an abbreviated guide to some of the campus trees. Cone-bearing trees and flower-bearing trees are separated in the main guide, so this section allows users to see all of the trees in one place. Page numbers of the full species accounts are noted beside each species name. Please note that these are not the only tree species on campus—other species not included in this book do occur.

#### Coast redwood p. 30 Sequoia sempervirens

#### Cupressaceae





- □ Abundant
- $\Box < 60 \text{ m tall}$
- □ Cone size: 1.3-1.5 cm



This tree is a familiar one on campus. It has fibrous red-

brown bark and small, spheric, woody seed cones. Mature leaves are generally flat and have narrow, alternate leaflets with pointed tips, while younger leaves may have "stubbier" leaflets that are not in one plane.

Pacific ponderosa pine p. 31 Pinus ponderosa var. pacifica

Pinaceae



□ Uncommon
 □ < 50 m tall</li>
 □ Cone size: 7-18 cm

Ponderosa pines have flat-plated, yellowish-brown bark and prickly, ovoid seed cones that are spreading or recurved. The leaves are long, dark green needles that grow in 3 per bundle. The foliage is bushy looking overall. This species does not usually grow so close to the coast.

#### Knobcone pine p. 30 Pinus attenuata

Pinaceae



Fairly common
< 36 m tall</li>
Cone size: 6-18 cm



These pines are named for their curved, knob-like cones that directly attach to the trunks and branches. The long, needlelike leaves are yellowish-green and grow in bundles of 3. The bark is gray-brown. Lack of wildfire is reducing populations of this fire-adapted species on campus.

Douglas-fir p.31 Pseudotsuga menziesii var. menziesii

Pinaceae



□ Abundant
 □ < 67 m tall</li>
 □ Cone size: 4-20 cm



This shade-tolerant species has large upper branches

and small, light brown seed cones with protruding bracts. Mature bark is graybrown and deeply furrowed, while younger bark is smooth. The short, rounded, blunttipped needles spiral around the twigs.

#### California bay p. 34 Umbellularia californica

#### Lauraceae



- □ Common  $\Box < 45 \text{ m tall}$
- □ Blooms: March-May
- $\sqcap$  Flower size: small

This tree has simple, deep yellow-green leaves with a

strong, tangy scent. The narrow trunks have smooth, gray-green to red-brown bark. In midwinter, clusters of 5-10 small cream-colored flowers bloom. The fruit resembles a small avocado (same family!).

#### Blackwood acacia p. 67 Acacia melanoxylon

Fabaceae



- □ Uncommon
- $\square < 30 \text{ m tall}$
- □ Blooms: Feb.-March
- □ Flower size: very small

This invasive tree has fernlike juvenile leaves and

simple, lanceolate adult leaves with 3-5 distinct lengthwise veins. The small, pale yellow flowers grow in spherical tufts. The fruit is a curving, leathery seed pod. Few mature trees occur on campus.

#### Pacific madrone p. 63 Arbutus menziesii

Ericaceae



□ Abundant  $\Box < 40 \text{ m tall}$ 

DR-M-C

DRF

- □ Blooms: April-May
- □ Flower size: small

DR-M-C DRF

This broadleaf evergreen has large, simple, bright green leaves that are ovate to oblong. The reddishorange bark is thin and peeling. The small, urn-shaped flowers are yellowwhite or pink-tinged. The round fruit is bumpy. Madrones twist and turn, growing towards light gaps in the canopy.



DA

C-FT



Giant chinquapin p. 74 Chrysolepis chrysophylla var. minor

#### Fagaceae





- 🗆 Uncommon
- $\Box \ < 10 \ m \ tall$
- Blooms: April-May
- □ Flower size: very small



Chinquapins have leathery leaves with dark green upper surfaces and goldenyellow undersides. The leaf blades are similar in shape to those of bay trees, but appear somewhat folded and have upturned margins. The gray bark is thick, rough, and furrowed. The fruit is spiny and bur-like.

#### Coast live oak p. 75 Quercus agrifolia var. agrifolia

Fagaceae





CP

- □ Abundant
- □ 10-25 m tall
- Blooms: Feb.-April
- □ Flower size: very small

This common oak species has convex, roundish leaves with spiny margins. Often, leaves have small tufts of hairs in the axils ("armpits") on the undersides. The dark gray bark is furrowed and checkered with age. The acorns are slender and pointed and have obconic cups. Tanoak p. 75 Notholithocarpus densiflorus var. densiflorus

Fagaceae



- $\Box \quad Common \\ \Box \quad < 30 \text{ m tall}$
- □ Blooms: June-Oct.
- □ Flower size: very small

These shade-tolerant trees have gray-brown bark and



CP

leaves with "parking lot"-like venation. Mature leaves are hairless, while younger leaves are slightly hairy on top and finewoolly underneath. The acorns have cups with stiff scales. This is not a "true" oak.

Shreve oak p. 76 Quercus parvula var. shrevei

Fagaceae



- $\Box$  Common
- $\Box$  < 17 m tall
- Blooms: April-June
- □ Flower size: very small

This oak has hairless, variably-shaped leaves with entire to spine-toothed margins. Leaves are olive-green to dark green above and dull, light olive-green below. Hairy "armpits" are not present on the leaves. The bark is grayish. The acorns have blunt tips and sit in bowl-shaped cups.

RWS

#### Bigleaf maple p. 103

Acer macrophyllum

#### Sapindaceae





RWS

- □ Uncommon
- $\Box < 30 \text{ m tall}$
- Blooms: April-May
- □ Flower size: small

This monoecious tree has large, palmate leaves with 5 lobes and more or less toothed edges. Its leaves are deciduous, meaning they turn colors and drop in the fall. The fringed flowers hang in a pendulous inflorescence. The winged fruit is called a samara. The bark is gray.

#### Buckeye p. 104 Aesculus californica

Sapindaceae



- Uncommon to rare
- □ 4-12 m tall
- Blooms: May-July
- Flower size: medium

Buckeyes have deciduous, palmately compound leaves with 5-7 leaflets. The panicle-like inflorescences have white to pale rose flowers with exserted stamens. The fruit is a large, pear-like pod that holds a glossy brown seed. The bark is silvery-gray.









#### Woodwardia fimbriata

DENNSTAEDTIACEAE

#### Giant chain fern Native



- Common
- Waist to head height



This evergreen fern is characterized by its large, coarse, 2-pinnate leaves, chain-like sori, and affinity for wet envionments. Each frond has many pinnae (leaflets) that are divided into pointed, curving pinnules (subleaflets). On the underside of the frond, the oblong sori are arranged endto-end along each pinnule's main vein. The stipe (leaf stalk) is orange-brown to straw-colored at the base. Giant chain fern can grow 1-3 m tall.

## Western bracken fern *Pteridium aquilinum* var. *pubescens* Native



- Abundant
- □ Mid-calf to knee height

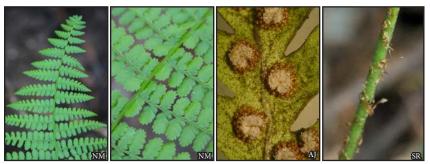


Bracken fern has a stiff, upright main stem that bears bright green leaves that are widely triangular and leathery. The fronds are 1-3-pinnate. The leaf blades are often 3-pinnate at the base. The pinnules, which have clear hairs, are divided into lobes with rounded tips. Dense lines of tiny sori appear along the edges of the pinnules. This common fern is found in many habitats in partial to full sun, sometimes forming dense "forests".

# DRYOPTERIDACEAE

Dryopteris arguta

#### California wood fern Native



- AbundantMid-calf to knee height

DR-M-C	DRF
RF	ME

Wood fern has 2-3-pinnate fronds and a feathery appearance overall. The elongate leaf blade is widest at the base, narrowing to an acute tip. The pinnae are shallowly to deeply lobed and have veined pinnules with serrate edges. The teeth sometimes have bristle-like tips. The round sori have scale-like outgrowths that are round to kidneyshaped. The lower stipe has shaggy scales that are tan to brown. It is found on open, wooded slopes.

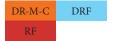
Polystichum munitum

### Sword fern

Native



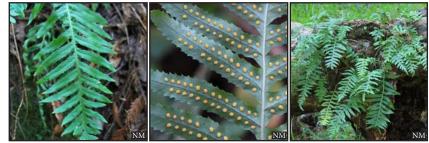
- □ Abundant
- Mid-calf to knee height



Sword fern is characterized by the sword-hiltlike projection at the base of each pinna. The evergreen, 1-pinnate leaf blades are lanceolate to narrow-elliptic, tapering to an acute tip. The pinnae have pointed tips and slightly serrate margins. The sori are round with straight, conspicuous hairs along the edges. This plant is commonly found on wooded hillsides and shaded slopes, especially in redwood forest.

PTERIDACEAE

#### California polypody Native



- □ Common
- □ Ankle to mid-calf height

DR-M-C	DRF
RF	ME

California polypody is a fern with droughtdeciduous leaves that often grows on rocks, tree trunks, and cliffsides. The firm leaf blades are ovate to equilaterally triangular and variably membranous to fleshy in texture. The pinnules are widely serrate, have pointed or rounded tips, and often appear fused together along the axis. The flat, yellow sori are round to oval-shaped, more or less sunken, and sometimes have short, glandular hairs.

## Goldenback fern *Pentagramma triangularis* subsp. *triangularis* Native



CommonAnkle height



Goldenback fern has small, pale to dark green leaves and is characterized by the golden spores that coat the underside. The leaf blade is 2-3-pinnate and triangular in shape. The pinnules are largest and most divided at the base of the blade. Tiny, yellowish-gold sporangia are found along veins and all across the back of the leaves. The wiry, upright stem is brown to red-brown. This fern grows in moist areas and disturbed places.

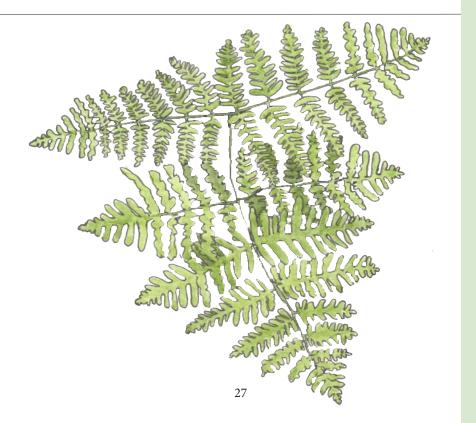
# WOODSIACEAE

#### Athyrium filix-femina var. cyclosorum



- Fairly commonWaist to chest height
  - RWS RF

This fern has large, dense, lacy leaves that are elliptic to lanceolate in shape. The leaf blades are 2-3-pinnate, with the lower 2-4 pinna pairs generally smaller than those above. The pinnule lobes are toothed at the tips. The sori are round, oblong, or J-shaped like an eyebrow. The base of the stipe is covered with thin, black scales. Lady fern is found in woodland, especially along streams and seepage areas.





# GYMNOSPERMS



## Coast redwood

Pinus attenuata



- $\Box$  Abundant
- $\Box$  < 60 m tall  $\Box$  Cone size: 1.3-1.5 cm

DR-M-C	DRF
RF	ME

Coast redwood is the world's tallest-growing tree, exceeding heights of 110 m (not on campus). It has fibrous red-brown bark and bears small, spheric, woody seed cones. Mature leaves are flat and have narrow, alternate leaflets with pointed tips, while leaves in the canopy are usually very short annd scale-like. Redwoods, a common feature of the campus, can resprout from stumps after trauma, sometimes forming "cathedral/fairy rings."

## Knobcone pine

Native

PINACEAE



□ Fairly common
 □ < 36 m tall</li>
 □ Cone size: 6-18 cm



Knobcone pine is a many-branched evergreen tree. The knobby, curved, serotinous cones are directly attached to the tree's gray-brown bark. The leaves are yellowish-green and sheathed, with needles in bundles of 3. This species usually does not grow so close to the coast or near well-developed redwood groves, so their presence on campus is unusual. Good places to see it are along Fuel Break Rd and Red Hill Rd.

#### Pacific ponderosa pine Native



□ Fairly common
□ < 50 m tall</li>
□ Cone size: 7-18 cm

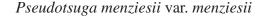


This is an evergreen conifer with yellowishbrown bark, dark green needles, and spreading or recurved seed cones. The straight trunk has ruddy, flat-plated bark with well-spaced, shallow furrows and yellowish inner surfaces. The bushy leaves have 3 long, thin needles per bundle. The cones are generally ovoid and slightly prickly. This species is unusual here because it is most common in the arid, mountainous habitats of the inland West.

Pinus ponderosa var. pacifica

## Douglas-fir

Native





□ Abundant
 □ < 67 m tall</li>
 □ Cone size: 4-20 cm



Douglas-fir, the world's second-tallest conifer, is an evergreen tree that has gray-brown bark, large branches, and light brown seed cones with protruding bracts. Young bark is smooth and has resin blisters, while mature bark is thick, firm, and deeply furrowed. The needles have rounded, blunt tips and spiral around the twigs. Doug-firs can be confused with redwoods, which have redder, stringier, parallel-grooved bark and flat leaves.



## MAGNOLIIDS



## Wild-ginger



- □ Rare
- $\Box$  Ankle height
- □ Blooms: March-May
- □ Flower size: medium

RF

This rhizomatous perennial herb has flowers with 3 long-tapered, reflexed, maroon sepals and heartor kidney-shaped leaves. The cup-shaped flowers are white inside and have a red spot or stripe in the middle. The flowers generally grow at the base of the plant and are often concealed by the leaves, which grow from upright petioles. Wildginger forms loose mats in moist forest habitats.

Umbellularia californica

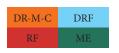
#### California bay

Native

LAURACEAE



- □ Abundant
- $\Box < 45 \text{ m tall}$
- □ Blooms: March-May
- □ Flower size: small



California bay is an evergreen tree or shrub with stongly-scented foliage. Its narrow, smooth trunk has gray-green to red-brown bark. The shiny, deep yellow-green leaves are simple, narrow, and pointed. In midwinter, the tree bears clusters of 5-10 small, cream-colored flowers. The roundovoid, green fruit resembles a small avocado. This tree commonly grows in canyons and valleys, such as on the edge of Porter Meadow.

## EUDICOTS





# ANACARDIACEAE

APIACEAE

### Toxicodendron diversilobum

### Poison-oak



- □ Abundant
- $\Box$  Ankle to over head ht.
- □ Blooms: April-June
- $\Box$  Flower size: small

DR-M-C	ME
C-FT	NMC
RF	

This vine or shrub is notorious for its ability to cause severe contact dermatitis. Poison-oak is seen growing abundantly on the forest floor or climbing high into the trees. The deciduous leaves have 3 leaflets, which are round to oblong with wavy or lobed margins, and turn bright red in the fall. The small, yellow-green flowers hang down from the brown, twig-like stems. Remember: leaves of three, let it be. And beware of bare twigs!

### Bur-chervil

Non-native

### Anthriscus caucalis



- Common
- □ Mid-calf to waist height
- □ Blooms: April-June
- □ Flower size: very small



This annual herb has tiny white flowers that grow in a compound umbel inflorescence. The flowers grow in distinct clusters atop stem-like peduncles, which radiate from the erect main stem. The light green leaves are finely dissected, giving them a feathery appearance. The small, spiny fruit is ovoid. Bur-chervil, which is native to Eurasia, is generally found in shady places.

### Conium maculatum

Eryngium armatum

### Poison hemlock



- □ Fairly common
- □ Knee to head height
- □ Blooms: March-Aug.
- $\Box$  Flower size: small

RWS

This biennial herb has fern-like leaves and a typically purple-streaked or -spotted stem. It has small, white flowers that grow in compound umbels. It appears similar to *Anthriscus caucalis*, but hemlock is distinguishable by its height, stem, and glossier leaves. It is most commonly found in moist and disturbed places. This plant is highly toxic when consumed and was most famously used to put Greek philosopher Socrates to death.

### Prickly coyote-thistle

Native



- □ Uncommon
- □ Ankle to mid-calf height
- □ Blooms: May-August
- □ Flower size: very small

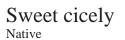


Prickly coyote-thistle is a perennial herb with a flat basal rosette of thick, yellow-green leaves and spiky inflorescences. The tiny, somewhat spherical flowers have white or purplish petals and are nestled in the pointed bracts. The long, narrow leaves have sparsely sharp-serrate to irregularly cut margins. This plant, which is indeed very prickly at some stages, grows in coastal prairie and grassland communities, often in clay soils.

### Osmorhiza berteroi

Perideridia kelloggii

# APIACEAE





- □ Fairly common
- □ Mid-calf to waist height
- □ Blooms: April-Sept.
- □ Flower size: very small



Sweet cicely is a licorice-scented perennial herb with small, white flowers and compound leaves. The flowers have 5 petals and grow in a compound umbel inflorescence. The leaves are divided into 3 ovate to lanceolate leaflets that have serrate, irregularly cut or lobed margins. The long, narrow fruit has bristly ribs. This plant, which is nearly hairless to finely hairy, can be found in conifer forest, woodland, and disturbed areas on campus.

### Kellogg's yampah

Native



- □ Uncommon
- □ Knee to chest height
- □ Blooms: June-Aug.
- □ Flower size: very small



This perennial herb has cream colored flowers that grow in compound umbels atop a tall, slender stem. The tiny flowers have 5 roundish petals, each with 1 distinct vein. The basal leaves often wither by flowering time and have linear to lanceshaped leaflets which resemble blades of grass. The fruit is elliptic-oblong and has thread-like ribs. Kellogg's yampah prefers open grassland, such as the upper meadows of Upper Campus.

### Sanicula bipinnatifida

Sanicula crassicaulis

# APIACEAE

## Purple sanicle



- □ Fairly common
- □ Ankle to mid-calf height
- □ Blooms: March-May
- □ Flower size: very small



This perennial herb has spherical flowering heads composed of very small, densely clustered flowers with reddish-purple (sometimes yellow) petals. The tiny, curved petals are exceeded by the protruding stamens. The glaucous, sharplytoothed leaves are once or twice pinnately divided and green or purplish in color. The fruit is ovate to round with stout, curved prickles. Purple sanicle is found in open, grassy areas like the Great Meadow.

### Gambleweed

Native



- $\Box$  Common
- $\Box$  Ankle to knee height
- □ Blooms: Feb.-April
- □ Flower size: very small



The inflorescence of this perennial herb has tight clusters of many tiny flowers with 5 yellow, curved petals. The smooth leaves are generally palmate and deeply 3-5 lobed with finely sharp-serrate margins. The erect stem is stout and taprooted. The fruit is more or less round and has stout prickles. Gambleweed prefers open slopes, ravines, and woodland areas.

### Ilex aquifolium

ARALIACEAE



- □ Uncommon
- $\Box$  Knee to over head ht.

English holly

Invasive non-native

- Blooms: Feb.-March
- $\Box$  Flower size: small



This evergreen shrub or small tree has many branches with stiff, shiny, ovate leaves. The leaves usually have widely-spaced, spinelike teeth, but sometimes have entire to lobed margins. The small four-petaled flowers are a dull white color. The bright red fruit is round, shiny, and smooth. This escaped cultivar, historically planted as an ornamental, has invaded forested areas via bird-dispersed seeds.

### Elk clover

Native



- □ Uncommon
- □ 2-3 m tall
- □ Blooms: June-Sept.
- □ Flower size: very small



Elk clover is a perennial herb with spherical clusters of white to greenish-white flowers, very large compound leaves, and a stout stem. The flowers have 5 pointed petals and protruding stamens. The leaves have opposite, ovate to oblong leaflets with serrate margins and slightly cordate bases. The fruit is a black berry. This plant grows in moist shade, canyons, and along streams in areas like the Seep Zone in Upper Campus.

Aralia californica

### Hedera helix

### English ivy Invasive non-native



- □ Fairly common
- $\Box$  Ankle to over head ht.
- □ Blooms: May-June
- □ Flower size: very small

ME	RF
DR-M-C	

This woody vine or shrub has simple, dark green evergreen leaves with lighter green venation. The leaf blades are ovate to diamond-shaped. The green, five-petaled flowers grow in umbels and have clearly protruding stamens. It only produces flowers in vine form. The fruit is a black or yellow berry. English ivy often outcompetes native plant species and thus has a negative impact on native ecosystems in forest habitats where it grows.

Achillea millefolium

# ASTERACEAE

### Yarrow Native



- □ Fairly common
- □ Knee height
- □ Blooms: April-Aug.
- □ Inflo. size: small

G

White ray flowers and yellow-white disk flowers form the radiate flowering heads of this perennial herb. The flowers grow in dense, flattopped clusters to form the inflorescence. The alternate cauline leaves are finely pinnately divided, giving them a feathery appearance. The slender stem is long and straight. This plant has a strong, sweet scent and on campus most commonly grows in grassland habitats.

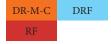
### Adenocaulon bicolor

Ageratina adenophora

### Trail plant Native



- □ Fairly common
- □ Ankle to knee height
- □ Blooms: July-Aug.
- □ Inflo. size: very small



This perennial herb has small disciform flowering heads with deciduous white pistillate flowers and white disk flowers. The flowers grow atop the branches of the slender, erect stem. The triangular basal leaves have shallowly toothed margins, hairless upper surfaces, and white-tomentose undersides. The fruits are club-shaped and encircle the inflorescence. Trail plant grows in shaded areas of forests.

### Sticky snakeroot

Invasive non-native



- □ Uncommon
- □ Mid-calf to waist height
- □ Blooms: April-Aug.
- □ Inflo. size: small



This perennial herb has a woody base and flowers that grow in clustered discoid heads. The flowers have creamy-white or pink-tinged petals and the protruding stamens make them appear sparsely hairy on top. The opposite cauline leaves are broadly triangular with serrate edges. They are sticky and slightly hairy. The stem is more or less brown-purple. Sticky snakeroot prefers wet, disturbed places.

### Anisocarpus madioides

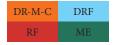
# ASTERACEAE

## Woodland madia

Na



- $\Box$  Common
- □ Mid-calf to knee height
- □ Blooms: April-July
- □ Inflo. size: medium



This perennial herb has radiate heads with yellow 3-lobed petal-like ray flowers. Each flowering head is subtended by a spherical involucre with glandular phyllaries. The linear to oblanceolate leaves are bristly-hairy to soft-hairy with entire margins. Generally, the lower leaves are opposite and the smaller upper leaves are alternate. The stems have golden to dark brown glands. Woodland madia prefers moist forested areas.

### Prostrate cape weed

Arctotheca prostrata

Invasive non-native



- □ Rare
- □ Ankle height
- □ Blooms: year-round
- □ Inflo. size: large

DA

This annual or perennial herb has radiate flowering heads with long, yellow ray flowers and yellow disk flowers. The deeply lobed leaves grow in basal rosettes. The leaf surfaces are slightly wooly and the undersides are white-woolly. Prostrate cape weed grows in large patches in disturbed areas. It is not too common on campus, but can be seen growing in a patch between Family Student Housing and Porter Meadow.

### Arnica discoidea

# ASTERACEAE

## Rayless arnica



- □ Fairly common
- Ankle height
- D Blooms: April-June
- □ Inflo. size: small



This perennial herb has yellow, soft-hairy discoid flowering heads that generally number 3-10 per plant. The involucre subtending the disk flowers is long and tube-like. The soft-hairy basal leaves grow in a rosette and cauline leaves are often reduced in size. The slightly sticky leaves are ovate to more or less heart-shaped with slightly lobed to toothed edges. Rayless arnica grows in coniferous forests and mixed forests.

Artemisia douglasiana

## California mugwort

SR NM

- □ Fairly common
- □ Mid-calf to waist height
- □ Blooms: May-Oct.
- □ Inflo. size: very small



Mugwort is an aromatic perennial herb bearing gray-green leaves and clusters of disciform, bell-shaped flowering heads with yellowish petals. The evenly-spaced leaves are coarsely lobed and have sparsely tomentose surfaces and densely white-tomentose undersides. At flowering, the upper leaves have entire margins. This plant, which has medicinal properties, grows in open to shady areas, often in drainages.

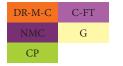
## Coyote brush

ASTERACEAE





- $\Box < 4.5 \text{ m tall}$
- □ Blooms: Sept.-Jan.
- □ Inflo. size: very small



Coyote brush is an upright or rounded evergreen shrub that commonly occurs in chaparral and grassland. It has many spreading branches with small leaves that are narrowly lance-shaped or oval. Leaves taper at the base and have entire or toothed margins. Staminate (male) and pistillate (female) flower heads grow along the stem in leafy clusters and on separate plants. Mature pistillate flowers are light brown and look like cottony tufts.

## English daisy

Bellis perennis

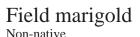


- □ Common
- $\Box$  Ankle height
- □ Blooms: April-Aug.
- □ Inflo. size: small

DA

The radiate heads of this perennial herb are composed of many narrow, white ray flowers around bright yellow disk flowers. The basal leaves are oblanceolate to obovate and taper to the base, sometimes creating a spoon shape. The leaf margins are serrate, crenate, or entire. English daisy prefers damp, grassy areas usually around human developments, such as the McHenry Library lawn.

### Calendula arvensis





- □ Fairly common
- □ Ankle to mid-calf height
- □ Blooms: March-April
- □ Inflo. size: medium

DA G

This naturalized annual herb has yelloworange ray flowers and small, similarlycolored disk flowers. At maturity, the flower heads begin to nod. The leaves are lanceolate and have slightly wavy margins. Both the leaves and narrow stem are finely hairy and glandular. This plant is an escaped cultivar that now grows in areas disturbed by humans.

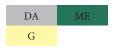
Carduus pycnocephalus

### Italian thistle

Invasive non-native



- □ Common
- □ Mid-calf to waist height
- □ Blooms: Feb.-July
- □ Inflo. size: medium



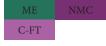
This annual herb grows from a rosette of long basal leaves that have sharply pointed lobes. The cauline leaves also have sharply pointed lobes and are often covered in cobweb-like hairs. The flower heads have pink to purple corollas and generally grow in clusters of 2-5. The spiny stem is stiff and can be glabrous to slightly woolly. This plant grows in open, disturbed areas, such as roadsides and annual grasslands.

# ASTERACEAE

Golden-yarrow Eriophyllum confertiflorum var. confertiflorum Native



- □ Uncommon
- □ Mid-calf to knee height
- □ Blooms: June-Sept.
- $\Box$  Inflo. size: small



This small shrub has yellow flowers that grow in dense clusters from many erect stems. The clusters have 3-30 radiate flowering heads that have 4-8 oval-shaped, petal-like ray flowers each. The small, alternate leaves are deeply 3- to 5-lobed with narrow, filament-like divisions that appear to curl under. The stems and leaves are white-woolly to green. Golden-yarrow is named for the flowers' likeness to those of *Achillea millefolium*.

### Gazania Invasive non-native

### Gazania linearis



- □ Rare
- □ Ankle height
- □ Blooms: year-round
- □ Inflo. size: very large

DA

This perennial herb has colorful, distinctive flowers. The wide ray flowers are yellow, orange, or red-orange and surround yellow or orange disk flowers. Each petal has a dark spot at the base. The dark green, pinnately lobed leaves are adaxially hairless and abaxially whitewooly, growing in loose rosettes. The stems are short and decumbent. Gazania is found growing in disturbed places like roadsides.

### Grindelia camporum

# ASTERACEAE

### Common gumplant Native



- □ Fairly common
- □ Mid-calf to knee height
- □ Blooms: April-Oct.
- Inflo. size: medium



This perennial herb has a bell- to dome-shaped involucre with spiny, hook-like phyllaries. Before flowering, the involucre exudes a white, gummy material. During flowering, yellow ray and disk flowers emerge. The hairless, resinous leaves are lanceolate to ovate and have entire or serrate margins. The fruit is a white to golden-brown achene. Gumplant is found growing in places like North Marshall Field.

### Sneezeweed

Native



- $\Box$  Common
- □ Knee to waist height
- □ Blooms: June-Aug.
- □ Inflo. size: medium



This perennial herb has spherical, yellow radiate flowering heads. The short ray flowers project downward from the base of each head. The margins of the winged stem and the proximal leaves often become wavy when the plant flowers. The cauline leaves are long, narrow, and curl under slightly. Sneezeweed prefers wet areas, such as streambanks and seepage areas.

Helenium puberulum

### Bristly ox-tongue Invasive non-native



- □ Uncommon
- □ Mid-calf to knee height
- □ Blooms: June-Dec.
- □ Inflo. size: medium

DA G

This annual or perennial herb has yellow liguliflorous heads. The leaves are oblong with a prickly surface and sharp white spines on the underside. Spiny leaf-like bracts subtend the flower from below. The stem and its branches are coarse and stout. The fruit is composed of white, plumose tufts. For much of the year, bristly ox-tongue can be found in disturbed areas.

Heterotheca grandiflora

### Telegraph weed

Native



- □ Fairly common
- □ Mid-calf to head height
- □ Blooms: year-round
- □ Inflo. size: medium

DA

This bristly annual or short-lived perennial herb has yellow composite flowers and grows tall in disturbed areas like roadsides. The inflorescence has few to many radiate flower heads that grow in flat-topped or panicle-like clusters. The hairy, clasping basal leaves have entire to toothed margins and a leaf stalk, whereas the mid-cauline leaves are less hairy, not clasping, and lack leaf stalks. The fruits form spherical, silvery-brown tufts.

# ASTERACEAE

Hieracium albiflorum

Hypochaeris radicata

# White flowered hawkweed



- □ Fairly common
- $\Box$  Ankle to knee height
- □ Blooms: May-Sept.
- $\Box$  Inflo. size: small

ME RF

This perennial herb has white, petal-like ligules and curling yellow stamens. The rectangular ligules are slightly toothed at the tips. The upright main stem is densely hairy on the lower half. The hairy, oblanceolate leaves are mostly basal, forming a rosette around the base of the stem. Smaller cauline leaves are sometimes present on the lower half of the stem. This species can be found growing in redwood forest along Red Hill Rd.

### Rough cat's ear

Invasive non-native



- □ Abundant
- □ Mid-calf to knee height
- □ Blooms: April-Dec.
- □ Inflo. size: medium



This rough-hairy perennial herb has 1 to several usually branched stems with yellow, liguliflorous flower heads. The many 5-toothed ligules are often reddish on the back. Under each flower are thin, dry, overlapping bracts. The thick leaves of the basal rosette are toothed or lobed. The fruit is a bristly achene. Rough cat's ear invades disturbed areas and grassland, growing in abundance in places like Mima Meadow.

# ASTERACEAE

### Common goldfields Native

### Lasthenia gracilis

Leontodon saxatilis



- □ Rare
- □ Ankle height
- □ Blooms: Feb.-June
- □ Inflo. size: small

CP

This annual herb has radiate heads with yellow corollas and grows in open areas in large numbers--hence the name "goldfields". The ray flowers number 6-13 and may be 3-lobed at the tip. The stem is short, slender, and simple. The leaves are linear to oblanceolate, have entire margins, and are sometimes fleshy in texture. Although this species grows abundantly in many habitats, it can only be found in coastal prairie habitats on campus.

### Hairy hawkbit

Non-native



- Common
- □ Mid-calf to knee height
- □ Blooms: April-Aug.
- □ Inflo. size: medium



Hairy hawkbit is an introduced annual herb with many curved-ascending stems bearing liguliflorous flower heads. The yellow ligules are toothed at the tips and purplish on the backsides. The oblanceolate basal leaves are more or less stiffbristly-hairy and have entire, toothed, or deeply lobed margins. The fruit is an achene with short, fringed scales and plumose bristles. This plant is found on roadsides, disturbed areas, and grassland.

### Madia exigua





- □ Uncommon
- □ Ankle height
- □ Blooms: April-June
- □ Inflo. size: very small

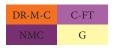
DR-M-C	C-FT
NMC	

Threadstem madia is a small annual herb that is coated with glandular hairs and has tiny yellow flowers. The involucres that subtend the flowers are shaped like flattened spheres and have grooved phyllaries with golden yellow, roundish glands. The small leaves are linear in shape. The ray fruit is strongly arched and the disk fruit is obovoid. This plant, which prefers sandy or clay soils, can be found in chaparral communities in Upper Campus.

## Fragrant pearly everlasting *Pseudognaphalium beneolens* Native



- □ Common
- □ Ankle to knee height
- □ Blooms: June-Oct.
- □ Flower size: very small



This annual or short-lived perennial herb is entirely whiteor gray-woolly, sometimes appearing greenish-yellow in color. The alternate leaves are long, narrow, and tomentose on both the upper and lower surfaces. The small yellow disciform flower heads grow in clusters and are encased in papery, overlapping phyllaries. Fragrant pearly everlasting is found in dry, open areas in chaparral and grassland.

#### Silybum marianum

Solidago spathulata

### Milk thistle Invasive non-native



- □ Common
- □ Mid-calf to head height
- □ Blooms: April-July
- □ Inflo. size: medium



This perennial herb has a basal rosette of spiny, white-blotched leaves and a spiky inflorescence with a discoid head of pink to purple flowers. The shiny, hairless leaves are sharp-toothed and coarsely lobed. The cauline leaves are alternate, clasping, and coiled along the hairless to slightly woolly stem. The fruit is an achene with many long bristles and a tan to brown seed. Milk thistle invades roadsides, pastures, and disturbed areas.

### Dune goldenrod

Native



- □ Uncommon
- □ Ankle to knee height
- □ Blooms: May-Nov.
- □ Inflo. size: small



This perennial herb is wand-like to club-like in form and has yellow radiate flower heads. Flower heads are few to many, with small, sparse ray flowers and many protruding disk flowers. The spoon-shaped leaves are hairless, resinoussticky, and slightly toothed along the margins. The stem is decumbent to erect and has a woody base. The fruits form clustered tufts. Dune goldenrod grows in coastal prairie on campus.

# ASTERACEAE

BETULACEAE

Taraxacum officinale

## Common dandelion



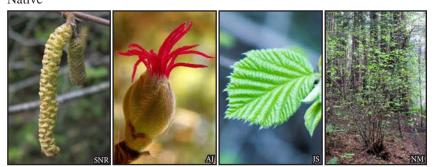
- □ Fairly common
- □ Ankle to mid-calf height
- □ Blooms: year-round
- □ Inflo. size: medium

DA

This perennial herb has a liguliflorous head with bright yellow ligules and long, reflexed phyllaries underneath. The unbranched stem contains white, milky sap. The basal leaves are oblanceolate to obovate with pointed lobes that gradually curve downward. The slender, minutelybarbed bristles of fruit form a silvery-white sphere that is a defining feature of dandelions. Dandelions are found in disturbed areas.

### California hazelnut

Corylus cornuta subsp. californica



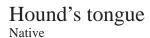
- □ Common
- $\Box < 4 \text{ m tall}$
- □ Blooms: Jan.-March
- □ Inflo. size: small



Hazelnut is a shrub characterized by its velvetyhairy deciduous leaves and arching stems that have smooth or scaly dark brown bark. The bright green leaf blade has a cordate base, pointed tip, and deep veins. The staminate inflorescence is a catkin and the pistillate inflorescence has several tiny magenta tendrils enclosed in papery, fused bracts. The fruit is vase-shaped. It is found in many habitats, especially moist and shady places.

### Cynoglossum grande

# BORAGINACEAE





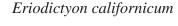
- $\Box$  Common
- $\Box$  Ankle height
- Blooms: Feb.-May
- $\Box$  Flower size: small

DR-M-C	DRF
RF	ME

This perennial herb has radial flowers with 5 blue-purple, fused petals and white appendages in the center, as well as large, dog tonguelike basal leaves. The flat-faced flowers grow above the leaves atop a single erect stem. The leaves have hairless upper surfaces and hairy undersides. The fruit consists of 4 nutlets with rounded outer surfaces, which appear spiny. Hound's tongue grows in shady forest habitats.

### Yerba santa

Native





- □ Fairly common
- □ Knee to waist height
- □ Blooms: May-June
- □ Flower size: medium



This perennial shrub has white to pale purple, funnel-shaped flowers and waxy, aromatic leaves. Leaves are lanceolate to oblong, have entire to toothed margins that roll under, and have sticky upper surfaces. The upright stem has hairless, sticky twigs. The foliage is sometimes covered in grayish-black, soot-like fungi (as pictured in far right photo). Yerba santa grows in chaparral and fields and on slopes and roadsides.

# BORAGINACEAE

Myosotis latifolia

### Broadleaved forget-me-not

Invasive non-native



#### □ Abundant

- □ Ankle to mid-calf height
- □ Blooms: Feb.-July
- □ Flower size: small

ME RWS

This perennial herb has flowers with 5 pale blue, fused petals and yellow appendages in the center. The erect stem has a woody base. The bright green basal leaves are ovate and the cauline leaves are oblong. The fruit consists of wide-ovate, dark brown nutlets. Forget-me-not is an introduced species found in moist, disturbed, shady places. They are common garden plants, as well. Compare with the native Hound's tongue.

# San Francisco popcornflower Plagiobothrys diffusus Native



- □ Rare
- □ Ankle height
- □ Blooms: March-June
- □ Flower size: very small

CP

San Franscisco popcornflower is an annual herb with small, white, 5-lobed flowers that appear popcorn-like. The spreading stems are prostrate to somewhat ascending and bear small cauline leaves. The fruit is a nutlet that is ovate, somewhat flat, dull tan to gray, and ridged. This California endemic, which is considered threatened by the CNPS, is found in moist places and seeps in coastal prairie communities such as North Marshall Field.

### Cardamine californica

Cardamine hirsuta

# BRASSICACEAE

### Milk maids Native





- □ Abundant
- □ Mid-calf height
- □ Blooms: Feb.-April
- $\Box$  Flower size: small



This early-blooming, rhizomatous perennial herb has white to pale pink, 4-petaled flowers which grow in a raceme inflorescence atop a single erect stem. The basal leaves are ovate, round, or widely heart-shaped with smooth to wavy edges, and are connected to the main stem underground. The cauline leaves have 3-5 widely ovate to lanceolate leaflets. The long, slender fruit is vertically oriented. Milkmaids prefer shady, woodland habitats.

### Hairy bittercress

Non-native

- □ Uncommon
- □ Ankle height
- □ Blooms: Feb.-July
- □ Flower size: very small



Hairy bittercress is an annual herb with small, white flowers and a basal rosette of leaves with many leaflets. The flowers have 4 petals and 4 stamens. The basal leaves have many pairs of reniform to roundish leaflets. The leaflets are smallest basally and largest terminally. The cauline leaves are similar to but smaller than the basal leaves. The fruit is a long, slender, vertical seed pod. This plant is found in disturbed areas.

#### Raphanus spp.





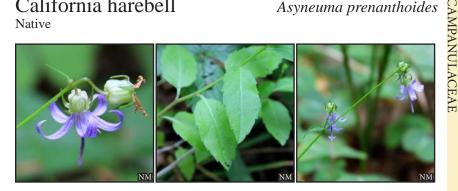
- □ Abundant
- $\Box$  Knee height
- □ Blooms: Feb.-July
- $\Box$  Flower size: medium



Both R. sativus and R. raphanistrum grow on the UCSC campus. These species often hybridize to create plants with highly variable flower color and fruit shapes. Petals can be yellow, white, pink, or purple with dark veins. The leaves are pinnately lobed and have dentate margins--the lower leaves with a petiole and the upper leaves sometimes without. Both species and their hybrids grow in large stands in disturbed areas and fields.

### California harebell Native

Asyneuma prenanthoides



- □ Uncommon
- □ Ankle to mid-calf height
- □ Blooms: June-July
- $\square$  Flower size: small



This perennial herb has small, funnel-shaped flowers with pale purple to blue petals. Each of the 5 petals are narrow and reflexed. The pistil has a long style that is much exserted from the corolla. The small, ovate leaves have serrate margins. The fruit is hemispheric, ribbed, and has a cordate base. California harebell can be observed blooming amongst the redwoods in the mid-summer months.

### Lonicera hispidula

# Hairy honeysuckle



□ Abundant

CAPRIFOLIACEAE

- $\Box$  Ankle to over head ht.
- □ Blooms: April-July
- $\Box$  Flower size: small

DR-M-C	DRF
RF	ME

Hairy honeysuckle is a sprawling or twining perennial shrub or vine with pink flowers and minutely hairy herbage. The flowers are strongly 2-lipped with a shallowly 4-lobed upper lip and have exserted stigmas and stamens. The evergreen leaves are oblong to ovate with rounded tips. Upper leaf pairs are fused around the stem, while others have scale-like stipules. The red fruit is spherical. It is found in canyons, streamsides, and woodland.

### Upright snowberry Symphoricarpos albus var. laevigatus Native



- □ Abundant
- □ Knee height
- □ Blooms: May-July
- □ Flower size: small



Upright snowberry is a hairless to minutely hairy perennial herb named for its white, berry-like fruit. Its main branches are stiff and spreading, while new shoots are erect and unbranched. The simple, deciduous leaves are round to elliptic with varying sizes and margins. The pink, bell-shaped flowers grow in clusters. They are swollen on one side and densely hairy inside. This plant grows in shady woodland habitats.

# CARYOPHYLLACEAE

### Common catchfly

Non-native

#### Silene gallica



- □ Fairly common
- □ Ankle to mid-calf height
- □ Blooms: Jan.-June
- □ Flower size: very small



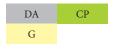
This annual herb, also known as windmill pink, has small white to pale pink flowers with 5 petal-like lobes. Each flower grows from an oval-shaped, green- or purple-veined calyx tube that has long, clear, glandular hairs on its surface. The leaves are lance-shaped and are gradually reduced in size upward. The stem is erect or upward-curving and covered in short, rough hairs or bristles. This plant prefers fields and disturbed areas.

### Corn spurry Non-native

### Spergula arvensis



- □ Common
- □ Ankle height
- □ Blooms: Nov.-May
- □ Flower size: small



Corn spurry is an annual herb with small white flowers and long, narrow leaves. 5 ovate petals and 5 pointed or rounded sepals surround the stamens and pistil in the center. The whorled leaves encircle the stem and have blunt to abruptly pointed tips. The stem is more or less branched. Overall, this plant is hairless or generally glandular-hairy. It is found growing somewhat inconspicuously in fields and disturbed areas.

## Peak rush-rose



- □ Fairly common
- □ Ankle height
- □ Blooms: March-June
- $\Box$  Flower size: small



Peak rush-rose is a small shrub with bright yellow flowers that appear similar to those of plants in the rose family. Each flower has 5 wide petals and many exserted stamens. Sepals are reddish-brown; this is most evident when flowers have not yet opened and flower buds are present. The small, simple leaves grow on long stems that are slender and smooth. This species grows in dry, chapparral habitats.

Marah fabacea

### California man-root

Native

CUCURBITACEAE



- □ Fairly common
- $\Box$  Ankle to over head ht.
- □ Blooms: March-April
- □ Flower size: small



This perennial herb or vine has yellow-green to cream flowers and 5-7-lobed leaves. The flowers have 5 fused lobes and fused stamens. The leaves vary in size and lobe length but commonly have cordate bases. The stiff stems, which lose hairiness with age, have tendrils for climbing. The green, somewhat spherical fruit has stiff prickles that range from sparse to dense. Man-root grows on streamsides and in washes and open areas.

### Arbutus menziesii



- □ Abundant
- $\Box < 40 \text{ m tall}$
- □ Blooms: April-May
- $\Box$  Flower size: small

ME	RF
DR-M-C	DRF
C-FT	NMC

Madrone is a broadleaf evergreen tree with reddish-orange peeling bark, red-orange fruit, and small urn-shaped flowers. The bright green leaves are ovate to oblong with rounded or pointed tips and entire or slightly serrate edges. The flowers are yellow-white or somewhat pink. The fruit is spheric and has a bumpy surface. This tree is found in forest and transitional habitats, often growing diagonally towards light gaps in the canopy.

### Santa Cruz manzanita Native

Arctostaphylos andersonii



- □ Fairly common
- $\square$  2-5 m tall
- □ Blooms: Nov.-May
- □ Flower size: very small



This tree-like shrub is endemic to SC County and considered moderately threatened by the CNPS. It has urn-shaped, 5-lobed flowers that are white to pink and grow in hanging clusters. The oblong, overlapping, light green leaves have pointed tips and lobed, clasping bases with serrate margins. The twigs are densely tomentose or have hairs that are gland-tipped and not. The peeling bark is reddish. The sticky, berry-like fruit is yellow to red-orange.

### Crinite manzanita Arctostaphylos crustacea subsp. crinita Native



Common

ERICACEAE

- Waist height to 3 m
- D Blooms: Jan.-March
- □ Flower size: very small

DR-M-C	C-FT
NMC	

Crinite manzanita is a burl-forming shrub with urnshaped, white to pink, 5-lobed flowers and brittle, lime green leaves. The oblong-ovate to lanceoblong leaves are densely hairy underneath. Unlike *A. andersonii* leaves, these have entire margins and are not lobed at the base. The twigs have short and long stiff hairs. The reddish stems have peeling bark. The fruit is berry-like and orange-red. This endemic is restricted to the Monterey Bay area.

## Sensitive manzanita

Arctostaphylos sensitiva



- □ Uncommon
- $\square$  Waist height to 2 m
- □ Blooms: Jan.-April
- □ Flower size: very small



Sensitive manzanita is a shrub with small, white, urn-shaped flowers that grow in hanging clusters. The flowers are 4-lobed, unlike those of *A. andersonii* and *A. crustacea* subsp. *crinita* which are 5-lobed. The small leaves are roundish, shiny, and have dark green surfaces. They have entire margins and are hairless except for the midveins. The twigs are hairy. The hairless fruit is somewhat cylindrical.

### Western azalea

Rhododendron occidentale

Native



- □ Fairly common
- $\Box < 8 \text{ m tall}$
- Blooms: May-June
- □ Flower size: large

RF	ME
RWS	

This tree or shrub has large, widely funnelshaped flowers with 5 long, exserted stamens. The 5 petals vary in color from white to pink to salmon and are often yellow- or orange-blotched. The inflorescence has a cluster of 3-15 fragrant flowers. The oval-shaped leaves are deciduous, turning yellow-gold or orange in autumn before falling from the branches to expose bare, whorled twigs. It is found on moist wooded slopes.

Vaccinium ovatum

### Huckleberry

Native



- □ Abundant
- □ Waist height to 3 m
- □ Blooms: Feb.-June
- □ Flower size: very small



Huckleberry is a rhizomatous shrub with shiny evergreen leaves and purple/black, sometimes glaucous berries that grow in clusters. The small white to pink flowers are bell-shaped, 5-lobed, and grow in hanging clusters. The leathery leaves are elliptic to lanceolate with saw-toothed margins and indistinct veins. The stems are gray to reddish and erect. This plant often forms dense thickets on edges or in clearings of coniferous forests.

### Euphorbia oblongata

# EUPHORBIACEAE





- □ Uncommon
- □ Mid-calf to knee height
- □ Blooms: March-Aug.
- □ Flower size: very small



This perennial herb has green to yellow-green hairless leaves that are oblong to elliptic or lanceolate and have finely-toothed margins. The leaves closer to the base are alternate, while those nearer the top are whorled. The inflorescence is an in umbel-like cluster of 3 branches and features cyathia, or "false flowers." The spherical fruit is lobed and has a wart-like projection. Broken stems and leaves exude a toxic, milky sap.

### Petty spurge

Non-native

### Euphorbia peplus



- $\Box$  Common
- $\Box$  Ankle to mid-calf height
- □ Blooms: Feb.-Aug.
- □ Flower size: very small

DA

Petty spurge is an annual herb with bow-like pairs of obovate to oblanceolate leaves borne on green or reddish stems. The lower leaves are alternate, while the upper leaves are generally whorled. The inflorescence branches grow in an umbel-like cluster of 3. Typical of the *Euphorbia* genus, it has cyathia, or "false flowers," between the leaves. The fruit is spherical and has creased lobes. This species is common in disturbed areas on campus.

Acacia melanoxylon

## Blackwood acacia



- □ Uncommon
- $\Box < 30 \text{ m tall}$
- Blooms: Feb.-March
- □ Flower size: very small



Blackwood acacia is an invasive tree found in disturbed areas. The juvenile leaves are fern-like, whereas adult leaves are simple and lanceolate with entire margins. Adult leaves have 3-5 prominent lengthwise veins. The brown fruit is curving, leathery, and flat and holds the seeds, which are encircled by yellow to red arils. The stem is hairless. Flowers are in small pale yellow tufts. Few mature acacias occur on campus.

### Spanish lotus Native

Acmispon americanus var. americanus



- □ Fairly common
- $\Box$  Ankle height
- □ Blooms: April-July
- □ Flower size: small



This small, hairy annual herb has a prostrate to erect stem bearing a single pink, white, and yellow bilateral flower. The white banner has pink veins and the wings are white and yellow. The compound leaves generally have 3 hairy leaflets and red-tinged margins. The fruit is oblong, flat, and more or less straight. Spanish lotus is found growing in coastal prairie communities, such as the meadows in upper Upper Campus.

### Acmispon glaber

## Deerweed Native



- □ Common
- □ Mid-calf to waist height
- □ Blooms: March-Aug.
- □ Flower size: small



Deerweed is a subshrub with yellow flowers that turn a reddish-orange color once pollinated. The inflorescence has 2-7 bilateral flowers that grow on clustered stems. The stems are generally ascending to erect, but are sometimes prostrate and mat-forming. The alternate leaves have 3-6 elliptic leaflets and are often deciduous. The fruit is a curved 2-seeded pod. This pioneer species is characteristic of dry slopes in chaparral habitats.

### French broom

Invasive non-native

Genista monspessulana



- □ Common
- $\Box$  < 3 m tall
- □ Blooms: March-May
- □ Flower size: small



This invasive shrub has erect branches with yellow, silky-hairy flowers. Flowers grow in raceme inflorescences along slightly hairy twigs. The deciduous leaves are generally composed of 3 ovate leaflets that taper at the base. The leaflets have well-defined midveins. The fruit is densely silky-hairy. French broom is common in disturbed areas, such as roadsides, and can grow up to 3 m tall.

### Hosackia gracilis

## Harlequin lotus



- □ Fairly common
- □ Ankle height

CP

- Blooms: March-July
- $\Box$  Flower size: small

The flowers of this glabrous perennial herb have bright yellow banners and pink-purple wings that fade to white. The umbel inflorescence is generally 3-9-flowered. Leaves are composed of 3-7 dark green leaflets. The elliptic or obovate leaflets have entire margins and are typically opposite. The sprawling to ascending stem often has a spongy base. Harlequin lotus, considered rare by the CNPS, is found in moist coastal prairie.

### Common Pacific pea

Lathyrus vestitus var. vestitus



- □ Uncommon
- $\Box$  Ankle to over head ht.
- □ Blooms: Jan.-May
- □ Flower size: small



The flowers of this perennial herb have a pale pinkish-purple banner and a white keel and wings. The inflorescence includes 8-15 flowers that grow close together. Leaflets are alternately arranged and ovate in shape, generally numbering 8-12 per leaf. The narrow, angled stems often bear coiling tendrils at the end. Pacific pea prefers mixed evergreen forests but will also grow in redwood forest.

### Lupinus nanus

# Sky lupine



- □ Fairly common
- Ankle height
- $\square$  Blooms: March-May
- $\Box$  Flower size: small

CP G

This annual herb grows abundantly in grassy open areas in the spring, forming beautiful patches of blue in campus meadows. The flowers have blue to purple-blue petals and feature a white spot on the banner. They grow along an erect stem in whorled racemes. The fuzzy leaves are palmately compound and have 5-9 oblanceolate leaflets with entire margins. The hairy seed pods are long and narrow.

### Common bur-clover

Medicago polymorpha

Invasive non-native



- □ Common
- □ Ankle height
- □ Blooms: Feb.-June
- □ Flower size: very small



This annual herb is prostrate, mat-forming, or ascending. The flowers are very small and yellow. The inflorescence is 2-6-flowered. The opposite leaflets generally grow in threes. The fruit is a loose, prickly-edged spiral that is coiled 2-6 turns. This glabrous plant is commonly found in in disturbed areas and grasslands.

### Pickeringia montana

### Chaparral pea Native



- □ Uncommon
- □ Waist height to 3 m
- □ Blooms: May-Aug.
- □ Flower size: medium



This intricately branched shrub has distinctive magenta flowers. The branches feature modified twigs that appear as long, stout thorns. Flowers grow in a raceme inflorescence. The evergreen leaves have three elliptic or ovate leaflets with entire margins. The reddishyellow fruit is oblong with wavy margins. This species can be found growing in the maritime chaparral on Chinquapin Rd. in Upper Campus.

### California goldenbanner Thermopsis california var. californica Native



- □ Uncommon
- □ Mid-calf to knee height
- □ Blooms: April-Oct.
- □ Flower size: small

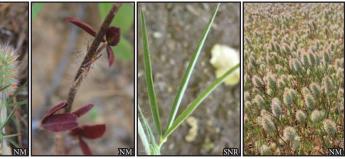


California goldenbanner is a perennial herb with bright yellow flowers and a slender stem that is ascending to erect. The branches along the stem are irregularly arranged. The widely ovate to oblanceolate leaves are palmately compound and feature three hairy leaflets with distinct lateral veins. Some of the leaves are clasping. The fruit is straight, generally ascending, and densely hairy.

# FABACEAE

# Narrow-leaved clover





- □ Abundant
- Ankle height
- Blooms: April-May
- □ Flower size: very small



This annual herb has a cylindrical spike inflorescence with an erect stem. The flowers have needle-like, plumose sepals and orange to pale pink corollas. The hairy lobes of the sepals harden into bristles as the plant dries and begins to fruit. The leaves are palmately compound with three linear, narrow leaflets that are fused at the base. This clover tends to carpet disturbed areas in grassy habitats.

### Rose clover

Invasive non-native

### Trifolium hirtum



- □ Common
- □ Ankle height
- □ Blooms: Feb.-March
- □ Flower size: very small



Rose clover is a naturalized annual herb that has flower heads with pink corollas. The calyx lobes of the flowers are bristle-like and densely plumose. Sepals tend to harden with age. The compound palmate cauline leaves have three obovate leaflets that are hairy. The stem is ascending to erect. This plant is commonly found in disturbed areas such as roadsides.

# FABACEAE

Trifolium subterraneum

# Subterranean clover



- □ Uncommon
- □ Below ankle height
- □ Blooms: Feb.-Jan.
- □ Flower size: very small

DA	G
СР	

This annual herb has tiny white flowers and grows close to the ground with a prostrate or creeping stem. The cauline leaves are hairy with obovate or obcordate leaflets. The flowers bear fruit in the form of burs. Subterranean clover can be found in disturbed areas, roadsides, and meadows.

# Purple vetch

Non-native

Vicia benghalensis



- Common
- $\Box$  Ankle to over head ht.
- Blooms: March-June
- □ Flower size: small



Purple vetch, also known as reddish tufted vetch, is an annual herb or vine with a sprawling or climbing stem. 3-12 reddish-purple flowers that are long and curved generally grow on one side of the stem. The hairy stem and calyx make the plant appear silvery. The leaves have 10-16 opposite, elliptic to oblong leaflets. The fruit is a densely strigose pod. This plant prefers grassland, roadsides, and disturbed areas.

# Common vetch

FABACEAE



- $\Box$  Common
- $\Box$  Ankle to over head ht.
- □ Blooms: Feb.-March
- □ Flower size: medium

DA G

Common vetch is an annual herb or vine with a decumbent to ascending stem. The flowers, which subtend the leaves, have purple-pink banners and dark reddish-purple wings. The leaflets are wedge-shaped to oblong and minutely hairy, forming the compound leaf. The leguminous fruit is brown to black in color and produces generally lens-shaped seeds. This plant can be found in disturbed areas, roadsides, and grasslands.

# FAGACEAE

Giant chinquapin Native

Chrysolepis chrysophylla var. minor



- □ Uncommon
- $\Box < 10 \text{ m tall}$
- □ Blooms: April-May
- □ Flower size: very small



Giant chinquapin, a less common tree on campus, has leathery leaves with dark green upper surfaces and golden-yellow undersides and distinctive spiny, bur-like fruit. The lanceolate to oblong leaf blades have tapered bases and tips, as well as a central fold and upturned margins. The gray bark is thick, rough, and furrowed. The the top (crown) of the tree is somewhat conical. It is often found in transitional plant communities on campus.

## Notholithocarpus densiflorus var. densiflorus

### Tanoak Native



- Common
- $\Box < 30 \text{ m tall}$
- □ Blooms: June-Oct.
- □ Flower size: very small

DR-M-C	DRF
RF	ME

Tanoak is a shade-tolerant, a corn-bearing evergreen tree that has grayish-brown bark and leaves with "parking lot"-like venation. The oblong to ovate leaf blade has a rounded base, obtuse tip, and entire or serrate margins. Leaves are generally hairless on top and have fine-woolly undersides. Each a corn has a cap with stiff, reflexed or spreading scales. The staminate inflorescence is stiff, spreading to erect, and densely many-flowered.

# Coast live oak

Quercus agrifolia var. agrifolia



- □ Abundant
- □ 10-25 m tall
- D Blooms: Feb.-April
- □ Flower size: very small



This evergreen tree has a wide, rounded crown and grayish, furrowed, somewhat checkered mature bark. The convex leaves are widely elliptic to round with spine-toothed margins. Unlike Shreve oak, coast live oak has small tufts of hairs on the underside of its leaves in the axils or "armpits." The acorns have obconic cups. The male flowers are pendulous catkins and the tiny female flowers are in inconspicuous clusters.

## Shreve oak Native



- $\Box$  Abundant
- $\Box$  < 17 m tall
- Blooms: April-June
- □ Flower size: very small

ME	СР
DR-M-C	DRF
RF	C-FT
NMC	

Shreve oak is an evergreen tree with hairless leaves that are olive-green to dark green above and dull, light olive-green below. Its leaves are oblong, lanceolate, or ovate with obtuse, acute, or acuminate tips. The leaf edges are entire to spinetoothed. Unlike coast live oak, small tufts of hairs are not present on the leaf undersides. The bark is grayish. The acorns have bowl-shaped cups. This tree is found in a variety of habitats.

# GERANIACEAE

# Longbeak stork's bill

Erodium botrys



- □ Abundant
- $\Box$  Ankle height
- □ Blooms: Feb.-May
- □ Flower size: small



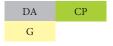
This annual herb has pink flowers, a flat basal rosette of leaves, and long, narrow fruit that resembles a stork's beak. Each flower has 5 purple-veined petals and grows atop a short-hairy stem that is prostrate to ascending. The hairless to minutely hairy leaves have ovate to oblong outlines that are lobed to dissected; their veins and long petioles are generally reddish in color. Stork's bill prefers dry, open, or disturbed sites.

## Erodium cicutarium



 Image: state stat

- □ Common
- $\Box$  Ankle height
- Blooms: Feb.-June
- □ Flower size: small



Redstem filaree is an annual herb with decumbent to ascending, glandular-hairy stems that bear small, pink to purple flowers and compound leaves. The 5 petals are narrowly oval and have dark veins at their bases. The sparsely hairy leaves have 9-13 deeply dissected leaflets. Leaf edges and stems are sometimes reddish. The fruit is much like that of stork's bill, but is smaller and less sharply pointed. It is found in open, disturbed sites and grassland.

# Woodland geranium

Non-native

Geranium molle



- □ Common
- □ Ankle to mid-calf height
- □ Blooms: Feb.-July
- □ Flower size: small



Woodland geranium is an annual herb that has pink to red-purple flowers with 5 notched petals. The many palmate leaves are slightly to deeply divided into 5-9 segments and have toothed margins. The stem and its many branches have sparse, soft hairs. The fruit is hairless and wrinkled. This introduced species prefers disturbed ground in open to shady sites.

### Geranium purpureum

# GERANIACEAE

## Herb robert Non-native



- □ Fairly common
- $\Box$  Ankle to mid-calf height
- □ Blooms: March-May
- $\Box$  Flower size: small

DA

GROSSULARIACEAE

Herb robert is a annual herb that has pink to red-purple flowers, fern-like leaves, and stems with long, soft hairs. The flat-faced flowers have 5 rounded petals that surround stamens with yellowish anthers; their sepals are covered with soft, clear hairs. The leaves are generally divided into 5 distinct segments and have margins with rounded teeth. This introduced plant grows in open to shaded disturbed sites.

Pink-flowering currant *Ribes sanguineum* var. *glutinosum* Native



- □ Uncommon
- $\square$  Waist height to 4 m
- □ Blooms: Jan.-March
- □ Flower size: small



Pink-flowering currant is a shrub with a pendent inflorescence of many pink to white flowers. The lobed leaves have sparsely hairy undersides and coarsely to finely toothed margins. The leaf hairs on the veins are sometimes gland-tipped. The fruit is a glaucous, glandular, blue-black berry. This plant is found in redwood forest and mixedevergreen forest communities on campus. Beyond UCSC, it can be found in a variety of habitats.

## Whipplea modesta





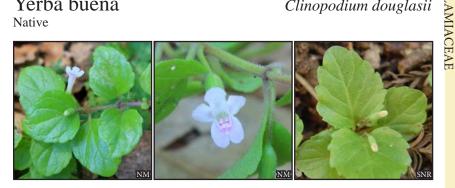
- □ Fairly common
- □ Ankle to mid-calf height
- □ Blooms: March-May
- □ Flower size: small

DR-M-C	DRF
RF	ME

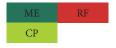
Modesty is a decumbent perennial herb or subshrub with small, white flowers that grow in dense clusters. Each flower has 5 petals and 8-12 stamens. The opposite, persistent leaves are ovate to elliptic and have stiff, straight, appressed hairs on their surfaces. The main stem, which lies flat on the ground, has gray-brown, peeling bark. The fruit is spheric and grows segmented with age. This plant is found in coniferous forests and on slopes.

## Yerba buena Native

Clinopodium douglasii



- □ Abundant
- □ Below ankle height
- □ Blooms: May-July
- □ Flower size: very small



Yerba buena is a decumbent, mat-forming and viney perennial herb with small, tubular flowers that are white to lavender in color. The flowers are bilateral and 5-lobed. The small, opposite and fragrant leaves are ovate to ovate-triangular and feature round-toothed and sharp-toothed margins. The leaves and stems have sparse, minute hairs. The very small fruit is shiny brown and smooth. This plant prefers shady, woodland habitats.

# LAMIACEAE

# Lance-leaved selfheal *Prunella vulgaris* var. *lanceolata* Native



- □ Fairly common
- $\Box$  Ankle to mid-calf height
- □ Blooms: July-Aug.
- □ Flower size: small

CP

Selfheal is a perennial herb with purple, 2-lipped flowers that grow in a club-like spike inflorescence on a square stem. The top lip is hood-like and the bottom lip is 3-lobed with a larger, fringed center lobe. The elliptic or lanceolate leaves have slightly toothed margins, wedgeshaped bases, and red tips. The leaves grow in opposite pairs. The bracts and sepals often have reddish edges. This plant grows in moist areas.

Scutellaria tuberosa

# Danny's skullcap

Native



- □ Rare
- □ Ankle height
- □ Blooms: March-July
- □ Flower size: small



This perennial herb has tubular, usually paired blue-violet flowers and opposite, ovate leaves. Each flower is 2-lipped with a large, whitepatched or -spotted lower lip and a folded upper lip with a hairy, beaklike protrusion. The leaves have entire to scalloped margins and rounded tips. The fruit is obconic and black. Skullcap grows from an underground root system of short, fleshy stems called tubers.

### Stachys bullata





- □ Abundant
- □ Mid-calf to knee height
- □ Blooms: April-Sept.
- $\Box$  Flower size: small

DR-M-C	DRF
RF	ME

Hedgenettle is a hairy, glandular perennial herb with bilateral, two-lipped flowers and opposite, aromatic leaves. The tubular flowers, which grow in clusters of 6 along the stem, are pink to somewhat purple and white. Each has a long lower lip and shorter upper lip. The stiffhairy leaves are generally ovate with cordate bases and blunt tips. This plant, a California endemic, grows on dry slopes in forests.

# Pale flax

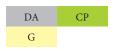
Non-native

Linum bienne

INACEAE



- $\square$  Common
- □ Ankle to mid-calf height
- □ Blooms: March-Aug.
- $\Box$  Flower size: small



Pale flax is a biennial to weak perennial herb that has small flowers with light blue veins and a long, narrow, many-leaved stem. The 5 petals are nearly round in shape. The slender leaves are linear to lance-linear and grow all along the upright stem. This introduced plant grows in grassland habitats, woodland habitats, and disturbed areas near the coast. Dwarf checkerbloom Sidalcea malviflora subsp. laciniata Native



- □ Fairly common
- □ Ankle to mid-calf height
- □ Blooms: May-Aug.
- □ Flower size: medium

CP G

Checkerbloom is a rhizomatous perennial herb with a decumbent stem that bears flowers with pink, white-veined petals. The petals vary in color from light to dark pink, and occasionally appear white. The leaves are sparsely hairy, with basal leaves shallowly 7-lobed and cauline leaves with many deep, straight-edged segments. It is found growing in grassland and coastal prairie habitats such as Mima Meadow in the summer months.

# MONTIACEAE

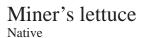
Red maids Native Calandrinia menziesii

- □ Uncommon
- □ Below ankle height
- □ Blooms: Feb.-May
- □ Flower size: small



This low-growing annual herb has bright pinkpurple petals that are typically streaked with white at their bases. The petals are widest above the middle and slightly curved at the ends. The leaf blades are variable in shape, from linear to oblanceolate to spoon-shaped. Leaves can be hairless to slightly hairy along the edges. Red maids prefer grassy areas and chaparral communities.

## Claytonia perfoliata





- □ Common
- □ Ankle to mid-calf height
- □ Blooms: Feb.-May
- $\Box$  Flower size: small

Miner's lettuce is a highly variable annual herb with small, white-petaled flowers. The fleshy basal leaves are reniform to cordate in shape, while the leaves subtending flowers are more or less round and completely encircle the stem. The flowers appear in the center of this "perfoliate" leaf, growing in a raceme inflorescence. This plant, which has edible leaves, commonly sprouts up in large aggregations in cool, damp areas.

# Scarlet pimpernel

Non-native

Lysimachia arvensis

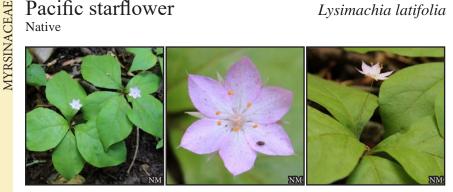


- □ Abundant
- □ Ankle height
- □ Blooms: March-Sept.
- □ Flower size: small

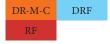


This annual herb has small flowers with primarily salmon colored petals that feature a hint of purple at each petal base. Although the salmon color is most common, flowers sometimes appear red, blue, or blue-white. The small leaves are ovate to elliptic in shape and grow opposite or whorled along the stem. Scarlet pimpernel blooms for many months of the year in grassy disturbed areas of campus.

## Pacific starflower Native



- Common
- $\Box$  Ankle height
- □ Blooms: April-July
- $\Box$  Flower size: small



As the name suggests, this perennial herb has star-like flowers. The petals are pale whitishpink in color and are tapered at the tips. Flowers emerge from a whorl of leaves on a thin, delicate pedicel. The bright green, ovate leaves have entire margins and, like the petals, taper at the tips. The petals, sepals, and stamens are all 5-, 7-, or 9-parted. Pacific starflower occurs in the understory of redwood forest habitats.

# ONAGRACEAE

# Native

Fringed willowherb Epilobium ciliatum subsp. ciliatum



- □ Fairly common
- □ Ankle to mid-calf height
- □ Blooms: June-Sept.
- □ Flower size: small



Fringed willowherb is a perennial herb that has small flowers with 4 notched, white to pink petals. The opposite leaves are narrowly lanceolate, have conspicous veins, and are reduced in size near the top of the plant. A basal rosette is present, bearing a more or less erect stem. The fruit is a hairy capsule that produces seeds with deciduous hair-tufts. This wildflower is found in disturbed places and moist meadows and on streambanks and roadsides.

### Taraxia ovata



□ Common

Sun cup

- $\Box$  Ankle height
- □ Blooms: Feb.-April
- □ Flower size: small

CP G This low-growing perennial herb has bright yellow, radial flowers growing from a basal rosette. The 4 wide petals are round or oval and open to the sun at dawn. Below the petals are 4 narrow, reflexed sepals. The leaves are narrowly elliptic to ovate and have nearly entire to wavy margins. Stems and veins are sometimes red. This plant prefers clay soils in grassy areas, so it can be seen growing on walking trails in places like the Great Meadow.

# Johnny-nip

Castilleja ambigua subsp. ambigua



- □ Rare
- □ Ankle height
- $\square$  Blooms: May-Aug.
- □ Flower size: very small



Johnny-nip is a puberulent annual herb with a dense, spike-like inflorescence that is greenishyellow and white. The small, pouch-like flowers that grow in between the leaf-like bracts have yellow lobes and have teeth at the tips. The foliage is yellow-green, brown, or reddish-brown. The leaves are 0-5-lobed. This hemiparasite, highly variable in form, is found on campus in coastal prairie communities like Mima Meadow.

## Denseflower owl's clover Castilleja densiflora subsp. densiflora Native



- □ Fairly common
- □ Ankle height
- □ Blooms: March-May
- □ Flower size: very small

CP

Denseflower owl's clover, a hemiparasite, is an annual herb with a spike-like inflorescence that is rose-purple or cream in color. This coloration is attributed to the the leaf-like, 3- to 5-lobed bracts. which grow together in a paintbrush-like formation. The small, pouched flowers grow between these bracts in yellow, white, pink, or purple hues. The leaves have 0-3 lobes. This plant grows in grassland communities such as Marshall Fields.

### Yellow owl's clover Triphysaria versicolor subsp. versicolor Native



- □ Uncommon
- $\Box$  Ankle to mid-calf height
- □ Blooms: Feb.-May
- $\square$  Flower size: small



Yellow owl's clover is a green-brown to yellowbrown annual herb with distinctive, 3-parted flowers that grow in a spike inflorescence. Each flower has white petals, which fade to a rose-pink color with age, and a yellow beak. The hairless, finely-divided leaves are 5-9-lobed. Like other species in the family, this plant is a hemiparasite. It grows in colorful stands in grassland communities such as North Marshall Field. 86

# OXALIDACEAE

Oxalis corniculata

# Creeping wood sorrel



□ Uncommon

Non-native

- □ Ankle height
- □ Blooms: year-round
- $\Box$  Flower size: small



This perennial herb, which is native to mediterranean Europe, has small, mustard-yellow flowers and a creeping stem. The inflorescence has 2-7 flowers. The 5 petals are oblong to spoon shaped and often feature small red spots below the middle. The clover-like, purplish-green leaves have 3 heart-shaped leaflets and hairs along the margins. Creeping wood sorrel can be seen flowering in disturbed areas all year.

# Crimson wood-sorrel

Oxalis incarnata



- □ Rare
- $\Box$  Ankle height
- □ Blooms: March-June
- □ Flower size: medium



Crimson wood sorrel is a perennial herb that has a solitary, funnel-shaped flower growing atop a slender stalk. The flowers have 5 petals that are white to pale pink in color. The leaves are clover-like with 3 heart-shaped leaflets and grow in whorl-like clusters. This rhizomatous plant grows in shady woodland habitats.

## Oxalis oregana

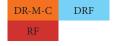
# Redwood sorrel



□ Abundant

OXALIDACEAE

- $\Box$  Ankle height
- Blooms: Feb.-June
- Flower size: medium



This rhizomatous perennial herb, which is commonly seen carpeting the floor of redwood forests, has clover-like leaves and 5-petaled flowers with white to deep pink petals. The leaves, which taste like sour apples, have 3 heart-shaped leaflets that are bright green above and often purple below. Each leaflet has a pale midrib. The leaf and flower stalks are hairy and grow low to the ground. Redwood sorrel grows in moist conifer forests.

# Bermuda buttercup

Invasive non-native

Oxalis pes-caprae

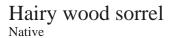


- □ Abundant
- $\Box$  Ankle to mid-calf height
- □ Blooms: Dec.-June
- □ Flower size: medium



Bermuda buttercup, also known as sourgrass for its fleshy, sour-tasting stems, is a rhizomatous perennial herb with bright yellow, 5-petaled flowers. The bright green, clover-like leaves grow in a loose basal rosette and have heartshaped leaflets that are often purple-spotted. This highly invasive, many-flowered plant grows abundantly along roadsides and in disturbed areas.

## Oxalis pilosa



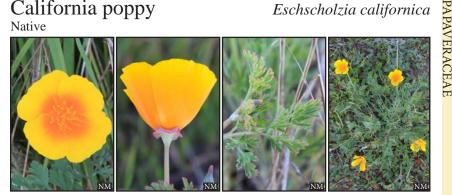


- □ Fairly common
- □ Ankle height
- □ Blooms: Feb.-Sept.
- □ Flower size: medium

G DA Hairy wood sorrel is an annual herb with yellow flowers and clover-like, appressed-hairy leaves. As with other plants in the oxalis family, the flowers have 5 petals and the leaves have 3 heartshaped leaflets. The inflorescence is 1-3-flowered. The main stem is erect to decumbent and densely hairy. This plant grows in grassland vegetation communities and disturbed areas.

# California poppy

Eschscholzia californica



- □ Common
- □ Ankle to mid-calf height
- □ Blooms: Feb.-Sept.
- $\Box$  Flower size: large



This brightly colored annual or perennial herb is the California state flower. It has 4 wide, yelloworange petals that open on sunny days. The feathery, blue-green leaves are sometimes pink-tipped. The presence of the pink, wavy-edged receptacle, which supports the petals from underneath, distinguishes this poppy from other poppy species. This wildflower is a common sight in grassy, open areas of campus for many months of the year.

## Sticky monkeyflower Native





- □ Common
- □ Mid-calf to chest height
- □ Blooms: March-Aug.
- $\Box$  Flower size: medium



Sticky monkeyflower is a shrub or subshrub with tubular, 5-lobed flowers that are yellow-orange or creamy orange in color. The leaves have sticky lower surfaces, hairless upper surfaces, and distinct veins. The leaf blades are narrowly elliptic to linear in shape and have entire to serrate margins that are generally rolled under. This plant grows on rocky hillsides and canyon slopes and in open forest, chaparral, and transitional areas.

Plantago lanceolata

# English plantain Invasive non-native

PLANTAGINACEAE



- □ Abundant
- □ Ankle to knee height
- □ Blooms: March-Aug.
- □ Flower size: very small



This perennial herb has a spike inflorescence of many flowers that have inconspicuous brownish petals and long, white stamens with large anthers. The flowers open from the bottom to the top, meaning that as the lowermost flowers turn brown and die, those above them bloom (as pictured far left). The long basal leaves are tapered to their bases and have parallel veins. English plantain is common in grassy areas that have been disturbed.

# POLEMONIACEAE

# Variable-leaf collomia



- □ Fairly common
- $\Box$  Ankle height
- D Blooms: April-June
- $\Box$  Flower size: small



Variable-leaf collomia is a small annual herb with an erect, branched stem bearing salverform to funnel-shaped flowers. The flowers have light pink to white petal-like lobes. The flower tube is yellow to light pink and the throat is yellow to white. The lower leaves are 1-2-pinnatelylobed while the upper leaves are lobed to entire and typically glandular-hairy. This plant grows in sandy to gravelly open areas.

# Small-flowered leptosiphon

Leptosiphon parviflorus

Collomia heterophylla



- □ Rare
- □ Ankle to mid-calf height
- □ Blooms: March-June
- □ Flower size: small



This hairy annual herb has many variably-colored, salverform flowers. The 5 corolla lobes can be pink, white, yellow, or purple and often have red marks at their bases. The thread-like flower tubes are maroon, pink, or yellow, appearing as a long, slender stalks that emerge from the whiskery tuft of calyces below. The leaf lobes are typically linear and encircle the main stem. Small-flowered leptosiphon is found in open or wooded areas.

# POLYGALACEAE

## California milkwort Native

## Polygala californica



- □ Common
- $\Box$  Ankle to mid-calf height
- □ Blooms: April-June
- $\Box$  Flower size: small

DR-M-C	DRF
RF	ME
C-FT	NMC

Milkwort is a perennial herb with a decumbent stem bearing unusual pink flowers. The uppermost flowers may be open, while the lower flowers may be cleistogamous, meaning non-opening and selfpollinating. The dark green leaves are lanceolate, elliptic, ovate, or obovate and have entire margins. The fruit is a flattened, oval seedpod. This plant grows on slopes of chaparral, mixed evergreen, and redwood forest communites on campus.

# POLYGONACEAE



Rumex acetosella



- $\Box$  Common
- □ Ankle to mid-calf height
- □ Blooms: March-Nov.
- □ Flower size: very small



This dioecious perennial herb has an ascending or erect stem bearing whorls of small yellowishgreen or rusty red flowers terminally. The leaves, which can be described as hastate, appear arrowshaped due to the wing-like lobes present at their bases. The fruit is brown. Sheep sorrel grows from a creeping rhizome and/or taproot in more or less disturbed, acidic areas in grassland communities.

## Padre's shooting star Native

- Uncommon
- □ Ankle height
- Blooms: March-April
- □ Flower size: small

CP

Padre's shooting star is a 1-6-flowered perennial herb with unique, firework-like flowers. The reflexed petals are magenta to white in color. Each petal base is generally yellow, darkening to maroon and then to dark purple or black. The basal leaves are narrowly elongate, widest at the tip and tapering to the base. This wildflower grows in moist areas of coastal prairie communities, such as the uppermost meadows of Upper Campus.

Primula clevelandii var. patula

# Western baneberry

Native

Actaea rubra

RANUNCULACEAE



- □ Rare
- □ Ankle to mid-calf height
- □ Blooms: May-July
- □ Flower size: small



This perennial herb, also known as bearberry, has a cylindrical cluster of white flowers atop a long, erect stalk and compound leaves. The flowers have small, spoon-shaped to oval petals and numerous long, radiating stamens. The leaves have leaflets with toothed to irregularly cut margins and are sometimes lobed. The fruit is a shiny, toxic, red or white berry. Baneberry prefers deep soils in moist areas of mixed-evergreen or conifer forests.

Aquilegia formosa

# Blue windflower



- □ Fairly common
- $\Box$  Ankle to mid-calf height
- □ Blooms: Feb.-June
- □ Flower size: small

DR-M-C	DRF
RF	ME

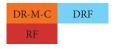
This rhizomatous perennial herb has white or blue petal-like sepals that surround many long, ascending stamens and a cluster of green pistils. The sepals are elliptic to obovate and have pale venation. Below each solitary flower is a whorl of 3 compound, leaf-like bracts. Each bract has 3 leaftlet-like units with scalloped or serrate margins. Blue windflower grows on moist shaded slopes in redwood and mixed-evergreen forests.

# Crimson columbine

Native



- □ Rare
- □ Ankle to mid-calf height
- □ Blooms: March-May
- □ Flower size: medium



Crimson columbine has nodding flowers with yellow and red spurred petals, spreading to reflexed red sepals, and much exserted stamens. Its basal and lower cauline leaves have 3 bright green, lobed leaflets, while the upper cauline leaves are simple to deeply 3-lobed. This beautiful species grows in many different types of plant communities, but on campus is a rarity that is typically only found in moist regions of redwood forest.

California buttercup Ranunculus californicus var. californicus Native



- □ Common
- □ Ankle to mid-calf height
- □ Blooms: Feb.-May
- $\square$  Flower size: small

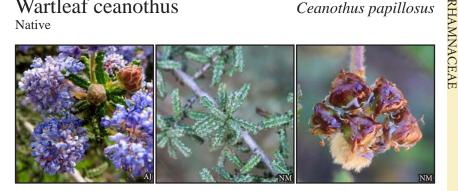


This perennial herb has an erect to decumbent stem bearing flowers with bright yellow, shiny petals. Yellow stamens with large anthers surround the cluster of pistils in the center. The leaves are deeply lobed to compound, with the upper leaves much reduced in size. The smooth fruit is disklike and curved. California buttercup, a common sight in campus meadows in the springtime, grows in grassland and open woodland communities.

# Wartleaf ceanothus

Native

Ceanothus papillosus



- □ Common
- □ Waist height to 3.5 m
- □ Blooms: April-May
- □ Flower size: very small



Wartleaf ceanothus is a densely-growing shrub named for the glandular bumps on its small, thick leaves. These evergreen leaves are oblong to rectangular in shape with dark green surfaces, hairy undersides, and margins that are rolled under. The tiny, 5-petaled flowers are deep blue-purple and grow in fluffy looking clusters. The fruit is sticky and ridged. This California endemic grows in open sites of chaparral and woodland communities.

# RHAMNACEAE

# Blue blossom

Ceanothus thyrsiflorus var. thyrsiflorus

Native



- □ Common
- $\Box$  Chest height to 6 m
- □ Blooms: March-May
- □ Flower size: very small

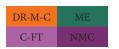
DR-M-C	C-FT
NMC	ME

Blue blossom is a mat-like to erect, occasionally tree-like shrub named for the tiny, light blue flowers that grow in fluffy, caterpillar-like clusters. Sometimes, the flowers appear deep blue or white in color. The oblong-ovate to elliptic evergreen leaves feature prominent veins and have margins that are sometimes partly rolled under. The fruit is sticky. This plant is found on wooded slopes and in chaparral.

## California coffeeberry Frangula californica subsp. californica Native



- □ Fairly common
- $\square$  Waist height to 5 m
- □ Blooms: June-Aug.
- □ Flower size: small



This shrub features black, spherical fruit that contain seeds reminiscent of coffee beans. The smooth evergreen leaves are narrowly to widely elliptic with dark green surfaces, bright green or yellowish undersides, and prominent veins. Leaf margins are entire to serrate and sometimes rolled under. The greenish flowers have pointed sepals and grow in clusters. This plant grows in mixed-evergreen and chaparral communities.

## Adenostoma fasciculatum var. fasciculatum

# Chamise Native



- □ Common
- □ Waist height to 4 m
- □ Blooms: June-Aug.
- □ Flower size: small

C-FT

Chamise is a much-branched shrub with small cream colored flowers. The flowers have round petals, protruding stamens, and are more or less clustered together on the branches. They dry out and turn a rusty brown color with age. The needlelike evergreen leaves are small, stiff, and grow in clusters. The base of the plant features a woody, burgeoning growth or "burl" that helps it resprout after fire.

## Sticky cinquefoil Drymocallis glandulosa var. wrangelliana Native



- □ Fairly common
- □ Ankle to knee height
- □ Blooms: April-Sept.
- □ Flower size: small



Sticky cinquefoil is a generally hairy perennial herb with flowers and leaves reminiscent of *Fragaria vesca*. The leafy, spreading inflorescence has flowers with 5 wide, cream or pale yellow petals encircling yellow stamens and pistils. The leaves generally have 3 pairs of lateral leaflets and a longer terminal leaflet. The leaf margins are twice toothed. The fruit is red to brown. This plant is found in chapparal communities on campus. ROSACEAE

### Fragaria vesca

## Wild strawberry Native

ROSACEAE



- □ Common
- $\Box$  Ankle height
- □ Blooms: Feb.-May
- □ Flower size: small



This perennial herb has flowers with roundish white petals and an aggregation of yellow-green pistils and stamens in the center. In the spring, these central reproductive structures become enlarged and produce small, red, edible fruit. The leaves are mostly basal and have 3 slightly hairy leaflets with toothed edges. The stem is soft-hairy. It reproduces via runner stems or "stolons" that lie flat on the ground and take root to form a new, clonal plant.

## Toyon

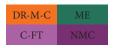
Native



Heteromeles arbutifolia



- $\Box$  Common
- □ Waist height to 10 m
- □ Blooms: June-Aug.
- $\Box$  Flower size: small



Toyon, a shrub also known as Christmas berry for its bright red fruit, has flowers with 5 white petals and simple, leathery evergreen leaves. The leaf blades are more or less elliptic, have finely toothed margins, and are attached to the branches by stalks that have bark at their bases. The trunk bark is more or less gray. This plant prefers chaparral, oak woodland, and mixed-evergreen forest communities.

# Wedge-leaved horkelia



- □ Fairly common
- $\Box$  Ankle to mid-calf height
- □ Blooms: Feb.-July
- □ Flower size: small

CP G

Wedge-leaved horkelia is a matted or spreading perennial herb that has an open, few-flowered inflorescence with white, 5-petaled flowers. The narrow, obovate petals have pointed sepals between. The hairless to hairy leaves have leaflets with pinnate venation and an indistinct terminal leaflet. The leaflets number 5-12 per side and are typically less crowded than those of *H. marinensis*. This plant can be found in campus meadows.

Horkelia cuneata var. cuneata

# Point Reyes horkelia

Horkelia marinensis



- $\square$  Uncommon
- $\Box$  Ankle height
- □ Blooms: May-Sept.
- □ Flower size: small



This strongly-scented perennial herb has white, 5-petaled flowers that grow atop hairy, ascending to decumbent stems. The long, narrow petals and pointed sepals encircle a ring of stamens. The fuzzy leaves have crowded, toothed, generally wedgeshaped leaflets with palmate venation that number 5-10 per side. This horkelia, which can be found in coastal prairie meadows like North Marshall Field, is considered threatened by the CNPS.

## Wood rose Native

### Rosa gymnocarpa var. gymnocarpa



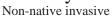
- $\Box$  Common
- □ Mid-calf to chest height
- □ Blooms: May-June
- □ Flower size: medium



This loose shrub grows in shady, damp forests and has fragrant flowers that come in many shades of pink. The flowers are flat, openfaced, and have 5 more or less heart-shaped petals. Many stamens surround 5-10 pistils in the center. The main branches have long, sharp prickles. The leaves have finely-toothed, ovate leaflets that are oppositely arranged. The fruit is a spherical, red- to orange-colored rose hip.

# Himalayan blackberry

Rubus armeniacus





- □ Fairly common
- $\Box$  Ankle to over head ht.
- □ Blooms: April-Aug.
- □ Flower size: medium



This stout shrub has flowers with white to pink, roundish petals and black or dark purple fruit, which is larger and more swollen looking than that of CA blackberry. The leaves are palmately compound and have 3-5 oval leaflets with pointed tips, coarsely toothed edges, and white-woolly undersides. The stem has large prickles and can be green- or reddish-tinged. It is common in disturbed areas, especially roadsides.

## Rubus parviflorus

## Thimbleberry Native



- □ Uncommon
- $\square$  Mid-calf height to 2 m
- □ Blooms: March-May
- □ Flower size: medium



This erect, somewhat viney shrub has large, white flowers and large, fuzzy leaves. The flowers have delicate, oval-shaped to round petals and many stamens. The soft leaves are simple and palmately 5-lobed, with coarsely toothed edges and pale undersides. The dark brown stems often have peeling bark. The raspberry-type fruit is pink to red and thimble-like at maturity. Thimbleberry grows densely in moist, semi-shaded areas.

# California blackberry

Rubus ursinus



- □ Abundant
- $\Box$  Ankle to over head ht.
- □ Blooms: March-July
- □ Flower size: medium



This low growing, spreading shrub or vine has white flowers with narrow petals and small, blackberry-type aggregate fruit. Generally, the flowers are unisexual, meaning some have stamens and some have pistils, but not both. The leaves are simple with 3 lobes or compound with 3 leaflets. They have irregularly coarse-toothed edges, pointed tips, and hairy undersides. The stiff stems have many slender and straight prickles or bristles.

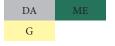
## Galium aparine

# Annual bedstraw

RUBIACEAE



- □ Fairly common
- □ Ankle to knee height
- □ Blooms: April-May
- □ Flower size: very small



This species is an annual herb with whorls of small, narrowly oblanceolate leaves and hooked prickles throughout. The bright green leaves grow in whorls of 6-8 around a brittle, 4-angled stem. The tiny flowers, which emerge from the leaf axils, have white corollas with 4 pointed lobes. The nutlet fruits have many short, hooked hairs on the surface, helping with seed dispersal. This plant is found in grassy areas and generally shady places.

# California bedstraw

Galium californicum subsp. californicum



- □ Fairly common
- $\Box$  Ankle to knee height
- □ Blooms: Mar.-Sept.
- □ Flower size: very small



California bedstraw is a coarsely hairy perennial herb that forms mats or tufts in shady to open sites in forest and chaparral communities. The ovate to elliptic leaves grow in whorls of 4 and have blunt to sharp tips. The flowers have more or less yellow corollas with 4 pointed lobes. The fruit is a berry with soft hairs. This plant is endemic to California.

## Galium triflorum

SAPINDACEAE



- □ Fairly common
- $\Box$  Ankle to knee height
- □ Blooms: June-Aug.
- □ Flower size: very small



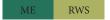
Fragrant bedstraw, a hairless to rough hairy perennial herb, has a decumbent stem bearing whorls of generally 6 broad, oval leaves. Each leaf has an acute, tapered, or small-pointed tip. The tiny flowers, which have cream to pink corollas with 4 lobes, grow in clusters in the leaf axils. The nutlet fruits are covered in soft, hooked, white to brown hairs. This sweet-scented plant is found in damp, shady forested areas.

# **Bigleaf** maple

Native



- □ Fairly common
- $\Box < 30 \text{ m tall}$
- □ Blooms: April-May
- $\sqcap$  Flower size: small



Bigleaf maple is a monoecious tree with large, palmate leaves and grayish bark. The leaves are 5-lobed with more or less toothed edges. In the fall, their bright green color turns to shades of gold and yellow. The small, fringed flowers hang in a pendulous inflorescence, as do the greenish-brown, winged fruit (as pictured on far right). This species prefers riparian communities such as streambanks and canyons.

### Acer macrophyllum

### Aesculus californica

Tellima grandiflora

### Buckeye Native

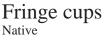


- □ Fairly common
- □ 4-12 m tall
- □ Blooms: May-July
- □ Flower size: medium

ME

This deciduous tree has panicle-like inflorescences of white to pale rose flowers and palmately compound leaves. The flowers have long, exserted stamens with orange anthers. 5-7 leaflets have finely serrate margins and tapered tips. The fruit is a large, pear-like pod that splits open to expose a glossy brown seed. The bark is silvery-gray. It grows on dry slopes and stream borders along Lower Moore Creek and at the base of the bike path.

# SAXIFRAGACEAE





- □ Rare
- □ Mid-calf height
- □ Blooms: April-July
- $\Box$  Flower size: small



This rhizomatous perennial herb has small, cup-like flowers with fringed petals that are green-white, rose, or red in color. The many-flowered inflorescence generally grows on one side of the stem. The ovate leaves have cordate bases, shallow lobes, and sharp teeth along the margins. The cauline leaves are clasping and reduced up the stem. Fringe cups grows on moist slopes in forests, like Jordan Gulch.

# SOLANACEAE

Solanum americanum

# American black nightshade



□ Rare

- □ Knee height
- □ Blooms: March-Nov.
- □ Flower size: small



American black nightshade is a hairy annual herb to subshrub with star-shaped flowers and short, protruding yellow anthers. The fused petals, which are sometimes recurved, are white in color. The inflorescence is umbel- or raceme-like. The ovate leaves have entire to coarsely wavytoothed margins. The fruit is a spherical black or somewhat green berry. This wildflower grows in disturbed areas and seep areas in redwood forest.

# Red valerian

Non-native

- □ Fairly common
- □ Mid-calf to knee height
- □ Blooms: April-Aug.
- □ Flower size: small

DA

Red valerian is an annual or perennial herb with an inflorescence of many small, spurred flowers that are generally purple-red but occasionally lavender or white. The hollow stem is decumbent to erect and bears opposite leaves, which have entire margins, pointed to rounded tips, and occasionally lobed bases. The lower leaves are stalked while the upper leaves are not. This plant grows in disturbed places, rock or wall crevices, and roadsides. 105

Centranthus ruber

# Western verbena

Native



- □ Uncommon
- □ Mid-calf height
- □ Blooms: April-Sept.
- □ Flower size: very small



Western verbena, or western vervain, is a branching perennial herb with an ascending to erect stem. The inflorescence is a spike of small, 5-lobed, blue to purple flowers. The leaves have coarsely toothed margins and are deeply 1-2-lobed near the base. They are generally soft hairy and have a gray-green upper surface. The fruit is composed of 4 nutlets. It is found in open, disturbed areas that are dry to wet.

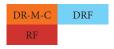
# VIOLACEAE

## Stream violet Native

Viola glabella

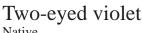


- □ Uncommon
- $\Box$  Ankle to mid-calf height
- □ Blooms: April-July
- □ Flower size: small



Stream violet, also known as pioneer violet, is a perennial herb with heart-shaped leaves and lemon-yellow flowers that grow right above each leaf. The lower 3 petals (and sometimes the upper 2) have deep purple veins. The thin basal leaves have cordate bases and serrate to scalloped margins, while the similar cauline leaves grow only near the stem tips. This violet grows in moist, shady forest and on streambanks.

### Viola ocellata



Native



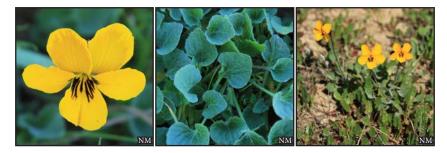
- □ Common
- $\Box$  Ankle height
- □ Blooms: April-May
- $\square$  Flower size: small

DR-M-C	DRF
RF	ME

Two-eyed violet is a perennial herb that has white petals with yellow bases. The 2 lateral petals each feature a dark purple spot, giving the plant its name. The lowermost petal has a large yellow patch with purple veins and the upper 2 petals are deep red-violet on the back. The simple leaves are generally heart-shaped with scalloped to somewhat serrate margins. This violet grows in moist areas and forests and on rocky or grassy banks.

### Johnny-jump-up Native

Viola pedunculata



- □ Fairly common
- □ Ankle height
- Blooms: Feb.-April
- $\sqcap$  Flower size: small



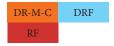
This rhizomatous perennial herb, also known as California golden violet, has many decumbent to erect stems bearing gold-yellow flowers. The lower 3 petals have dark brown veins and the upper 2 are red-brown on the back. The small, simple leaves are deltate to ovate with scalloped to serrate margins and are hairy or not. This violet is found growing in full sun in open grassy areas such as Mima Meadow. 107

## Viola sempervirens

# Redwood violet



- □ Common
- $\Box$  Ankle height
- □ Blooms: January-May
- □ Flower size: small



Redwood violet, a common redwood forest understory plant, has lemon-yellow flowers with brown-purple veins on the lower 3 petals. The sepals are often purple-streaked or -spotted. The ovate to round evergreen leaves have cordate bases, scalloped margins, and blunt to obtuse tips; they are often purplespotted on 1 or both surfaces. This violet prefers the shade of coastal forest communities.



VIOLACEAE

## MONOCOTS





## Soap plant Chlorogalum pomeridianum var. pomeridianum Native



- $\Box$  Common
- □ Ankle to waist height
- □ Blooms: May-Aug.
- □ Flower size: medium



This perennial herb has long basal leaves with wavy edges and flowers with 6 white, downwardcurving petals. Long stamens exceed the narrow petals, which have green or purple midveins. The flowers branch off of the upper portion of the main stem, opening in the evening and closing the next morning. The leaves die back and are not visible at flowering time. Soap plant grows from a bulb, which Native Americans crushed and used as soap.

### Three-cornered leek

Non-native



- □ Uncommon
- □ Ankle to mid-calf height
- Blooms: March-April
- $\Box$  Flower size: small

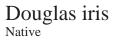


This perennial herb, which grows from a bulb, has several white, bell-shaped flowers that hang from the top of a sharply 3-angled stem. The flowers have long, pointed petals with green midveins. The long, narrow basal leaves are similar to the stem but flatter. Three-cornered leek, an introduced plant often cultivated as an ornamental, is found in shady, disturbed places like the forested edge of Mima Meadow.

#### Allium triquetrum

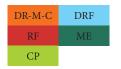
ALLIACEAE

#### Iris douglasiana





- □ Fairly common
- Mid-calf heightBlooms: Feb.-June
- □ Flower size: very large



Douglas iris is a rhizomatous perennial herb with large, showy flowers. Usually, the flowers are blueish-lavender, but sometimes they appear deep red-purple or pale cream in color. A purpleveined, yellow and white patch is commonly featured at the base of each of the 3 petal-like, reflexed sepals. The leaves are long and narrow, with straight edges and lengthwise, parallel veins. This iris is found in forests and grassy places.

## Fernald's iris

Iris fernaldii



- □ Fairly common
- □ Mid-calf height
- □ Blooms: April
- □ Flower size: very large



Fernald's iris is a rhizomatous perennial herb with funnel-shaped, cream-colored to pale yellow flowers. The 3 petal-like sepals typically feature dark veins and patches of yellow at their bases. The straight-edged leaves are long, very narrow, and have parallel veins. The perianth tube (pictured above-center) is long and slender. This plant, which only grows northwestern California, can be found in the shade of campus forests.

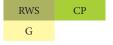
#### Sisyrinchium bellum

Watsonia meriana

## Blue-eyed grass



- $\Box$  Common
- $\Box$  Ankle height
- □ Blooms: March-May
- Flower size: medium



This perennial herb, with its distinct contrasting colors and upright form, is a common sight in moist, grassy, open areas of campus in the springtime. Its blue-purple petals, which can be quite variable in hue, feature yellow spots at their bases and small, tapered points at their tips. Occasionally, the petals are white. The grass-like leaves are long and narrow, like most in the iris family.

## Bulbil bugle lily

Invasive non-native



- □ Rare
- $\Box$  Knee to chest height
- □ Blooms: May-July
- □ Flower size: large



Bulbil bugle lily is a perennial herb introduced from South Africa. Its inflorescence has 10-15 trumpet-shaped, curved flowers that are orange or reddish in color. The bright green leaves are long, narrow, and thick. Small bulblike structures called bulbils form clusters on the stem. This invasive plant, which can reach 1.5 m tall in height, grows in disturbed areas and fields, sometimes forming dense colonies.

#### Calochortus albus

# LILIACEAE

## White globe lily Native



- □ Fairly common
- □ Ankle to knee height
- □ Blooms: April-May
- □ Flower size: medium

ME

Also known as fairy-lantern, this perennial herb has 2 to many nodding flowers and long, narrow leaves. The flowers have 3 white to pink petals that close at the tip and are sparsely hairy on the inside. The sepals are appressed. The inflorescence has leaf-like bracts that are generally paired. The bulb-bearing stem is slender. The fruit is a capsule with 3 prominent edges. It grows in shady to open woodland, such as the edge of Mima Meadow.

### Yellow mariposa lily

Calochortus luteus



- □ Uncommon
- $\Box$  Ankle to mid-calf height
- □ Blooms: May-June
- □ Flower size: large



This perennial herb has deep yellow bell-shaped flowers with long, tapered sepals. Each of the 3 petals is distinctively lined red-brown and generally has a larger central spot. They are wide and sparsely hairy near the base. 6 white to light yellow stamens are prominent in the center of the corolla. The leaves are long and narrow. The fruit is erect and narrowly lanceolate. This species can be observed growing at sites like Porter Meadow.

## LILIACEAE

## Hairy star tulip



- □ Rare
- □ Ankle height
- D Blooms: April-July
- $\Box$  Flower size: small



This perennial herb has small, bell-shaped flowers with 3 hairy white petals that have pink to purple markings. 1 to several flowers form the inflorescence. The flowers have 3 sepals that taper to a point. The linear-lanceolate basal leaf can grow up to 40 cm long. The nodding fruit is a winged capsule that contains dark brown, net-like seeds. Hairy star tulip prefers dry grassy slopes and woodland.

## Large-flowered mariposa

Calochortus uniflorus

Calochortus tolmiei



- □ Uncommon
- $\Box$  Ankle height
- D Blooms: April-June
- □ Flower size: large



This perennial herb has lilac to light pink bellshaped flowers with 3 wide petals that narrow at the base. 2 purple spots and hairs are typically present at the base near the nectary. The stamens have light blue, lilac, cream, or pink anthers. The stem is simple and the leaves are long and linear. The elliptic, winged fruit bears light brown, netlike seeds. Large-flowered mariposa, considered rare by the CNPS, is found in moist coastal prairie.

#### Clinonia andrewisana

Fritillaria affinis

## Red clintonia



- □ Rare
- □ Knee to waist height
- □ Blooms: Feb.-May
- □ Flower size: small

RF

Red clintonia is a rhizomatous perennial herb with bell-shaped, pink to red-purple flowers. The inflorescence is composed of 1 terminal umbel plus 0-3 lateral umbels below, which grow on a tall, upright stem. The 5 or 6 large basal leaves are elliptic in shape and have distinct midveins. The fruits are eye-catching, bright blue berries. This plant grows in shaded, damp redwood forests, but is a rare sight on campus.

## Checker lily

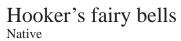
Native



- □ Rare
- $\Box$  Ankle to knee height
- □ Blooms: March-May
- □ Flower size: medium

This perennial herb has nodding flowers with striking patterns. The 6 petal-like perianth parts have pointed tips and slightly wavy margins. Perianth parts can be brown-purple with yellow checkered mottling or pale yellow-green with purple checkered mottling. The leaves are lance-linear, generally in whorls of 2-8 on the bottom half of the plant and alternately arranged on the upper half. The fruit is widely winged.

#### Prosartes hookeri





- □ Fairly common
- $\Box$  Ankle to mid-calf height
- □ Blooms: March-June
- □ Flower size: small

DR-M-C	DRF
RF	ME

Hooker's fairy bells, or drops of gold, is an erect (but nodding) perennial herb with cream-colored to greenish flowers that are generally hidden below pairs of oval-shaped leaves. The flowers are narrowly bell-shaped, often spreading at the middle to expose large anthers. The slightly clasping leaves have parallel veins which are sometimes rough-hairy and wavy edges that are hairy. The berry-like fruit is orange to bright red.

## Fetid adder's tongue

Scoliopus bigelovii



- □ Uncommon
- $\Box$  Ankle height
- □ Blooms: Jan.-March
- $\Box$  Flower size: small



This perennial herb, named for its ill scent, is one of few species to bloom in winter. Its 3 petal-like sepals are etched with maroon lines and point downward. The slender petals are threadlike and upcurved around the 3-pronged pistil. The 2 wide leaves are darkly mottled. The capsule-like "slink pod" fruit causes the flower stalk to bend and touch the ground. It is found in moist, shady redwood forest sites like Cave Gulch.

#### Fremont's star lily Native



- □ Common
- □ Mid-calf to waist height
- □ Blooms: March-May
- □ Flower size: small



The star-like flowers of this perennial herb, also known as Fremont's death camas, grow in a panicle or raceme inflorescence along a tall, erect stem. The 6 perianth parts (the 3 petals and 3 petal-like sepals collectively) are each white with a yellow spot at the base. The long, narrow leaves are curved and have short, stiff hairs along the edges. The fruit is a cylindric, segmented capsule. Fremont's star lily grows on grassy or wooded slopes.

## Fremont's star lily (dwarf form) Toxicoscordion fremontii Native



- □ Common
- $\Box$  Ankle height
- D Blooms: Jan.-March
- □ Flower size: small



This smaller version of *Toxicoscordion fremontii* is a common sight in campus grassland and coastal prairie habitats. Previously, it was recognized as *Zigadenus fremontii* var. *minor*, but, currently, it goes unrecognized as a distinct variety. However, it differs from *T. fremontii* in that it has a short stature, smaller leaves, and a raceme inflorescence (instead of panicle). Additionally, this form flowers earlier and does not grow in woodland habitats.

# MELANTHIACEAE

ORCHIDACEAE

#### Trillium ovatum subsp. ovatum

## Wake-robin

Native



- □ Fairly common
- □ Ankle height
- □ Blooms: Feb.-June
- □ Flower size: medium

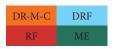
DR-M-C	DRF
RF	ME

Wake-robin is a perennial herb with parts growing in threes, hence the "tri-" in *Trillium*. It has 3 petals, 3 sepals, and 3 leaves. The flower generally grows erect and has white petals that often darken to a purplish-pink color with age. The wide, ovate leaves have sharp, tapered tips and form whorl around a straight stem. This plant is found on moist, wooded slopes in forests, often growing in association with redwoods.

#### Summer coralroot Corallorhiza maculata var. occidentalis Native



- □ Rare
- □ Ankle to mid-calf height
- □ Blooms: May-July
- □ Flower size: small



This parasitic orchid is a tough one to spot in the duff of campus forests, as it is small and inconspicuous. The red, brown, yellow, and white colors of the plant make it easy to miss among the leaf litter. Each of the many flowers has a white lower lip, 2 lateral petals, and 3 pointed sepals. The lip and petals can be spotted or unspotted and the sepals are often the same color as the stem. No leaves are present, as coralroot does not photosynthesize.

#### Corallorhiza striata

*Epipactis helleborine* 

## Striped coralroot



- □ Rare
- $\Box$  Ankle to mid-calf height
- □ Blooms: May-July
- $\Box$  Flower size: small

DR-M-C	DRF
RF	ME

Like summer coralroot, striped coralroot is a parasitic orchid that is quite elusive on campus. It has many small, striped flowers that grow along a red-brown, purplish, or yellowish erect stem. The sepals, petals, and lip of each flower vary in color from yellow to pink to pale brown and have lengthwise stripes that are red to purple. This plant grows in the leaf litter of open to shaded redwood or mixed-evergreen forest communities on campus.

## Helleborine

Non-native



- □ Common
- □ Mid-calf to knee height
- □ Blooms: April-Dec.
- □ Flower size: small



This perennial herb has multicolored flowers and broad leaves. It bears few to 20 flowers, each of which has 3 greenish sepals, 2 purple-tinged lateral petals, and a pouch-like lip that is white to pink on the outside and brown to purple on the inside. The column, which looks like a small upper lip, has a yellow anther cap. The leaves are lanceolate to ovate, alternate, and ribbed. Helleborine grows on dry slopes and in redwood forests.

#### Goodyera oblongifolia

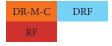
Piperia transversa

#### Rattlesnake-plantain Native



#### $\square$ Rare

- □ Ankle to mid-calf height
- □ Blooms: July-Sept.
- $\Box$  Flower size: small



Rattlesnake-plantain, an orchid, is a perennial herb that gets its name from the snakeskin-like pattern on its leaves. The leaf blades are dark green with white-streaked midribs and white veins, their basal rosettes collectively forming patches in conifer forest leaf litter. The flowers, which have white petals and green-brown sepals, grow in a dense inflorescence along an erect, hairy stem. The plants on campus seem to flower infrequently.

## Mountain piperia

Native



- □ Uncommon
- □ Ankle to mid-calf height
- □ Blooms: June-July
- □ Flower size: very small



Also known as flat spurred piperia, this orchid has flowers that grow densely atop a tall, slender stem. The flowers have petals with green midveins, a forward- or downward-pointing lip, and a long spur that grows more or less perpendicular to the stem. The sepals are white to yellowish. The wide basal leaves are not present at the time of flowering. This piperia grows in dry, forested sites. Some plants occur West Rd. in Upper Campus.

ORCHIDACEAE

#### Hooded ladies' tresses Native



- □ Rare
- □ Ankle height
- □ Blooms: July-Aug.
- □ Flower size: small

CP

Like all orchids in the *Spiranthes* genus, *S. romanzoffiana* has flowers that grow in a tight spiral to form a dense spike inflorescence. Each of the white flowers, hood-like with their fused upper sepals and lateral petals, has a recurved lower lip. The basal leaves do not always persist through flowering. This plant, a rare one on campus, can be found growing in wet meadows such as Lower Marshall Field.

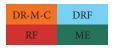
## Slim false Solomon's seal Native

Maianthemum racemosum

RUSCACEAE



- □ Uncommon
- $\Box$  Ankle to mid-calf height
- □ Blooms: May-July
- □ Flower size: very small



This rhizomatous perennial herb has small, creamy white, starry flowers that grow in dense clusters at the end of an erect (but nodding) stem. The flowers have stamens that are tipped with roundish, yellow-green anthers. The long, wavy-edged leaves have parallel veins and grow alternately along the stem on one plane. The fruit is a red, purple-dotted berry. This plant grows in moist, open woodland and on streambanks.

## Harvest brodiaea

#### Brodiaea elegans subsp. elegans

Native

- Uncommon
- Ankle heightBlooms: March-Aug.
- □ Flower size: medium

СР

This perennial herb has funnel-like, ascending flowers that are bright purple. The 6 petals have downward curving tips and distinct midveins, especially the outsides. Each of several individual flowers in the scape inflorescence grows from its own stem-like pedicel, looking to be part of a loose umbel. White, flat, stamenlike staminodes form around a central cluster of stamens that are topped with large anthers.

## Dwarf brodiaea

Brodiaea terrestris subsp. terrestris



- □ Fairly common
- □ Below ankle height
- □ Blooms: April-July
- □ Flower size: medium

CP

This perennial herb has pale purple, funnel-like flowers much like those of harvest brodiaea, but its stem-like peduncle is significantly shorter. This short peduncle keeps the plant close to the ground and is dwarf brodiaea's defining feature. 6 petals with outward or downward curving tips and distinct midveins are present, as well as white, stamen-like, incurving staminodes surrounding the central cluster of stamens. 123

## Blue dicks Native

THEMIDACEAE



□ Uncommon

G

- □ Mid-calf height
- Blooms: Feb.-April
- $\square$  Flower size: small

This perennial herb has blue, blue-purple, or pink-purple cup-shaped flowers that grow in a dense, umbel- or head-like cluster atop a long, leafless stalk. The 6-15 flowers per cluster are subtended by dark purple bracts. The small petals point upward. A set of white, membraneous, stamen-like appendages form around the anthers in the center. Blue dicks prefers open disturbed areas, such as grassland and scrub.

## White brodiaea

Native

#### Triteleia hyacinthina



- □ Fairly common
- □ Mid-calf height
- □ Blooms: April-June
- $\sqcap$  Flower size: small

СР

The scape inflorescence of this perennial herb is an umbel-like cluster of many white flowers. The shallowly bowl-shaped flowers have ascending to spreading petals and a green midvein. Occasionally, the outer surfaces of the petals are flushed purple. The 6 stamens have white or yellow anthers and generally triangular filaments. The basal leaves are long and narrow. It grows in grassland and vernally wet meadows, like Mima Meadow.

# THEMIDACEAE

## Golden brodiaea

#### Triteleia ixioides subsp. ixioides

Native



- □ Fairly common
- □ Mid-calf height
- □ Blooms: May-June
- $\Box$  Flower size: medium



This perennial herb has gold-yellow flowers with spreading petals and distinct midveins. The 6-petaled flowers and striped, unopened buds grow in an umbel-like scape inflorescence. The stamens closely surround the pistil and have flat, forked filaments with straight to recurved tip appendages and cream, yellow, or blue anthers. The 1 to 2 basal leaves are long and narrow. Golden brodiaea can be



Working Vascular Plant Checklist of UC Santa Cruz Compiled and revised by Krikor Andonian according to TJM2 December 2017

Additional edits by Dylan Neubauer and Alex Jones

Note: This workinig list includes some likely extirpated and many unconfirmed species

Symbols & their significance \* = exotic

\*\* = exotic+invasive

endemic or rare

Spe	cies	featured ii	n Field Guide to F	Species featured in Field Guide to Plants of UC Santa Cruz are highlighted in light gray	lighted in light gray
$\sim$	#	taxon	Family	Latin name	common name
	1	ferns	Azollaceae	Azolla filiculoides	duckweed/water fern
	2	ferns	Blechnaceae	Blechnum spicant	deer fern
	3	ferns	Blechnaceae	Woodwardia fimbriata	western (giant) chain fern
	4	ferns	Dennstaedtiaceae	Pteridium aquilinum var. pubescens	bracken fern
	5	ferns	Dryopteridaceae	Dryopteris arguta	California/coastal wood fern
	9	ferns	Dryopteridaceae	Polystichum californicum	California sword fern
	7	ferns	Dryopteridaceae	Polystichum dudleyi	Dudley's sword fern
	8	ferns	Dryopteridaceae	Polystichum munitum	western (common) sword fern
	6	ferns	Equisitaceae	Equisetum arvense	common horsetail
	10	ferns	Equisitaceae	Equisetum telmateia ssp. braunii	giant horsetail
	11	ferns	Isoetaceae	Isoetes nuttallii	Nuttall's quillwort
	12	ferns	Ophioglossaceae	Sceptridium multifidum	leather grape fern
	13	ferns	Polypodiaceae	Polypodium californicum	California polypody
	14	ferns	Polypodiaceae	Polypodium glycyrrhiza	licorice fern

## UCSC Plant List

15	ferns	Pteridaceae	Adiantum aleuticum	five finger fern
16	ferns	Pteridaceae	Adiantum jordanii	California maidenhair fern
17	ferns	Pteridaceae	Pentagramma triangularis ssp. t.	goldenback fern
18	ferns	Pteridaceae	Pteris cretica*	ribbon fern
19	ferns	Woodsiaceae	Athyrium filix-femina var. cyclosorum	lady fern
20	conifers	Cupressaceae	Sequoia sempervirens <sup>E-CAFP</sup>	coast redwood
21	conifers	Pinaceae	Pinus attenuata	knobcone pine
22	conifers	Pinaceae	Pinus ponderosa var. pacifica	Ponderosa pine
23	conifers	Pinaceae	Pseudotsuga menziesii var. menziesii	Douglas fir
24	magnoliids	Aristolochiaceae	Asarum caudatum	wild ginger
25	magnoliids	Lauraceae	Umbellularia californica	California bay, laurel
26	eudicots	Adoxaceae	Sambucus nigra ssp. caerulea	blue elderberry
27	eudicots	Aizoaceae	Carpobrotus edulis <sup>**</sup>	freeway ice plant, sea fig
28	eudicots	Amaranthaceae	Amaranthus deflexus*	low/largefruit amaranth
29	eudicots	Anacardiaceae	Toxicodendron diversilobum	poison oak
30	eudicots	Apiaceae	Anthriscus caucalis*	bur-chervil
31	eudicots	Apiaceae	Cicuta douglasii	water hemlock
32	eudicots	Apiaceae	Conium maculatum <sup>**</sup>	poison hemlock
33	eudicots	Apiaceae	Cyclospermum leptophyllum*	fir-leaved celery
34	eudicots	Apiaceae	Daucus pusillus	rattlesnake weed, wild carrot
35	eudicots	Apiaceae	Eryngium armatum	coyote thistle

36	eudicots	Apiaceae	Foeniculum vulgare**	fennel
37	eudicots	Apiaceae	Osmorhiza berteroi	sweet cicely
38	eudicots	Apiaceae	Perideridia gairdneri ssp. g. <sup>E-CA, R-4.2</sup>	Gairdner's yampah
39	eudicots	Apiaceae	Perideridia kelloggii	Kellogg's yampah
40	eudicots	Apiaceae	Sanicula arctopoides	footsteps-of-spring
41	eudicots	Apiaceae	Sanicula bipinnatifida	purple sanicle
42	eudicots	Apiaceae	Sanicula crassicaulis	gambleweed, snakeweed
43	eudicots	Apiaceae	Sanicula hoffmannii <sup>R-43</sup>	Hoffman's sanicle
44	eudicots	Apiaceae	Scandix pecten-veneris	shepherd's needle
45	eudicots	Apiaceae	Torilis arvensis**	tall sock destroyer
46	eudicots	Apiaceae	Torilis nodosa	short sock-destroyer
47	eudicots	Apocynaceae	Vinca major**	periwinkle
48	eudicots	Aquifoliaceae	llex aquifolium**	English holly
49	eudicots	Araliaceae	Aralia californica	California spikenard, elkclover
50	eudicots	Araliaceae	$Hedera\ helix^{**}$	English ivy
51	eudicots	Asteraceae	Achillea millefolium	yaırow
52	eudicots	Asteraceae	Adenocaulon bicolor	trail plant
53	eudicots	Asteraceae	$Ageratina\ adenophora^{**}$	sticky eupatorium
54	eudicots	Asteraceae	Agoseris grandiflora	CA dandelion, large-flowered
55	eudicots	Asteraceae	Agoseris heterophylla var. cryptopleura	mountain dandelion
56	eudicots	Asteraceae	Agoseris heterophylla var. h.	annual agoseris

57	eudicots	Asteraceae	Anaphalis margaritacea	pearly everlasting
58	eudicots	Asteraceae	Anisocarpus madioides	woodland madia
65	eudicots	Asteraceae	Anthemis cotula $^*$	stinking chamomile, dog fennel
09	eudicots	Asteraceae	Arctotheca prostrata <sup>**</sup>	prostrate capeweed
61	eudicots	Asteraceae	Arnica discoidea	rayless amica
62	eudicots	Asteraceae	Artemisia douglasiana	Douglas' mugwort
63	eudicots	Asteraceae	Baccharis glutinosa	marsh baccharis, seep willow
64	eudicots	Asteraceae	Baccharis pilularis ssp. consanguinea	coyote brush
65	eudicots	Asteraceae	Bellis perennis*	English (lawn) daisy
66	eudicots	Asteraceae	Calendula arvensis*	field marigold
67	eudicots	Asteraceae	Calendula officinalis*	pot marigold
68	eudicots	Asteraceae	Carduus pycnocephalus ssp. p.**	Italian thistle
69	eudicots	Asteraceae	Centaurea calcitrapa $^{**}$	purple star thistle
70	eudicots	Asteraceae	Centaurea melitensis**	tocalote, Maltese starthistle
71	eudicots	Asteraceae	Centaurea solstitialis**	yellow starhistle
72	eudicots	Asteraceae	Cirsium arvense**	Canada thistle
73	eudicots	Asteraceae	Cirsium brevistylum	Indian thistle
74	eudicots	Asteraceae	Cirsium vulgare*	bull thistle
75	eudicots	Asteraceae	Corethrogyne filaginifolia	common sand aster
76	eudicots	Asteraceae	Crepis vesicaria*	weedy/beaked hawksbeard
77	77 eudicots	Asteraceae	Deinandra corymbosa	coastal tarweed

78	eudicots	Asteraceae	Dittrichia graveolens	stinkwort
62	eudicots	Asteraceae	Ericameria arborescens	golden fleece (mock heather)
80	eudicots	Asteraceae	Erigeron bonariensis*	South American conyza
81	eudicots	Asteraceae	Erigeron canadensis	horseweed
82	eudicots	Asteraceae	Eriophyllum confertiflorum var. c.	golden yarrow
83	eudicots	Asteraceae	Euthamia occidentalis	western goldenrod
84	eudicots	Asteraceae	Gamochaeta ustulata	featherweed, purple cudweed
85	eudicots	Asteraceae	Gazania linearis*	gazania
98	eudicots	Asteraceae	Gnaphalium palustre	lowland cudweed
L8	eudicots	Asteraceae	Grindelia camporum	common gumplant
88	eudicots	Asteraceae	Helenium puberulum	rosilla, sneezeweed
68	eudicots	Asteraceae	$Helminthotheca\ echioides\ ^*$	bristly ox-tongue
06	eudicots	Asteraceae	Heterotheca grandiflora	telegraph weed
91	eudicots	Asteraceae	Hieracium albiftorum	white hawkweed
92	eudicots	Asteraceae	Hypochaeris glabra*	smooth cat`s ear
93	eudicots	Asteraceae	$Hypochaeris\ radicata^{**}$	hairy cat's ear
94	eudicots	Asteraceae	Lactuca saligna $^{*}$	willow-lettuce
95	eudicots	Asteraceae	Lactuca serriola $^{**}$	prickly lettuce
96	eudicots	Asteraceae	Lactuca virosa*	poison wild lettuce
67	eudicots	Asteraceae	Lasthenia gracilis	needle goldfields
86	eudicots	Asteraceae	Layia platyglossa	coastal tidy tips

66	eudicots	Asteraceae	Leontodon saxatilis ssp. longirostris	hairy hawkbit
100	eudicots	Asteraceae	Leucanthemum vulgare	ox-eye daisy
101	eudicots	Asteraceae	Logfia gallica*	narrow-leaved cottonrose
102	eudicots	Asteraceae	Madia elegans	common madia
103	eudicots	Asteraceae	Madia exigua	little tarweed
104	eudicots	Asteraceae	Madia gracilis	gumweed
105	eudicots	Asteraceae	Madia sativa	coast tarweed
106	eudicots	Asteraceae	Malacothrix floccifera	woolly desert dandelion
107	107 eudicots	Asteraceae	Matricaria discoidea*	pineapple weed
108	eudicots	Asteraceae	Micropus californicus var. c.	slender cottonweed, Q-tips
109	eudicots	Asteraceae	Microseris paludosa <sup>E-CA, R-1B.2</sup>	marsh silverpuffs
110	eudicots	Asteraceae	Petasites frigidus var. palmatus	western colt's foot
111	eudicots	Asteraceae	$Pseudognaphalium\ beneolens$	fragrant everlasting
112	eudicots	Asteraceae	Pseudognaphalium californicum	California everlasting
113	eudicots	Asteraceae	Psilocarphus chilensis	round woolly marbles
114	eudicots	Asteraceae	Psilocarphus tenellus	slender woolly-heads
115	eudicots	Asteraceae	Senecio glomeratus*	cutleaf burnweed
116	eudicots	Asteraceae	Senecio minimus	toothed fireweed
117	eudicots	Asteraceae	Senecio vulgaris*	common groundsel
118	eudicots	Asteraceae	Silybum marianum**	milk thistle
119	eudicots	Asteraceae	Solidago spathulata	coast goldenrod

121 et 122 et				)
122 <mark>el</mark>	121 eudicots	Asteraceae	Soliva sessilis*	field burweed, common soliva
	122 eudicots	Asteraceae	Sonchus asper ssp. a.*	prickly sow-thistle
123 <mark>et</mark>	eudicots	Asteraceae	Sonchus oleraceus*	common sow-thistle
124 <mark>e</mark> t	124 eudicots	Asteraceae	Stephanomeria virgata	tall stephanomeria
125 <mark>e</mark> l	125 eudicots	Asteraceae	Symphyotrichum chilense	Pacific aster
126 <mark>e</mark> l	126 eudicots	Asteraceae	Taraxacum officinale*	common dandelion
127 <mark>eu</mark>	eudicots	Asteraceae	Tragopogon porrifolius*	purple salsifly, oyster plant
128 <mark>et</mark>	128 eudicots	Asteraceae	Uropappus lindleyi	silver puffs, uropappus
129 <mark>eı</mark>	eudicots	Asteraceae	Xanthium spinosum	spiny cocklebur
130 <mark>et</mark>	130 eudicots	Asteraceae	Xanthium strumarium	cocklebur
131 <mark>et</mark>	eudicots	Berberidaceae	Berberis nervosa	Oregon grape
132 <mark>et</mark>	132 eudicots	Betulaceae	Alnus rubra	red alder
133 <mark>et</mark>	133 eudicots	Betulaceae	Corylus cornuta ssp. californica	California hazlenut
134 <mark>et</mark>	134 eudicots	Boraginaceae	Amsinckia lycopsoides	tarweed fiddleneck
135 <mark>et</mark>	135 eudicots	Boraginaceae	Amsinckia menziesii	small flowered fiddleneck
136 <mark>et</mark>	136 eudicots	Boraginaceae	Borago officinalis*	common borage
137 <mark>et</mark>	137 eudicots	Boraginaceae	Cryptantha clevelandii	Cleveland's cryptantha
138 <mark>eu</mark>	eudicots	Boraginaceae	Cryptantha micromeres	minute-flowered cryptantha
139 <mark>ei</mark>	139 eudicots	Boraginaceae	Cryptantha torreyana var. pumila	Torrey's cryptantha
140 <mark>et</mark>	140 eudicots	Boraginaceae	Cynoglossum grande	hound's tongue

141	141 eudicots	Boraginaceae	Eriodictyon californicum	yerba santa
142	142 eudicots	Boraginaceae	Myosotis latifolia**	forget-me-nots
143	143 eudicots	Boraginaceae	Nemophila menziesii var. m.	baby blue-eyes
144	eudicots	Boraginaceae	Nemophila parviflora var. p.	small-flowered nemophila
145	145 eudicots	Boraginaceae	Phacelia nemoralis ssp. n.	woods (shade) phacelia
146	146 eudicots	Boraginaceae	Plagiobothrys chorisianus var. hickmanii	artist's allocarya
147	147 eudicots	Boraginaceae	Plagiobothrys diffusus R-IB.1	San Francisco popcorn flower
148	eudicots	Boraginaceae	Plagiobothrys tenellus	slender popcorn flower
149	149 eudicots	Boraginaceae	Symphytum $X$ uplandicum $^*$	Russian comfrey
150	150 eudicots	Brassicaceae	Barbarea orthoceras	winter-cress
151	eudicots	Brassicaceae	$Brassica\ nigra^{**}$	black mustard
152	eudicots	Brassicaceae	Brassica rapa**	field mustard
153	153 eudicots	Brassicaceae	Capsella bursa-pastoris*	shepherd`s purse
154	eudicots	Brassicaceae	Cardamine californica	toothwort, milkmaids
155	eudicots	Brassicaceae	Cardamine hirsuta*	hairy bittercress
156	156 eudicots	Brassicaceae	Cardamine oligosperma	bittercress
157	157 eudicots	Brassicaceae	$Hirschfeldia$ incana $^{**}$	shortpod mustard
158	158 eudicots	Brassicaceae	Lepidium nitidum	common peppergrass
159	eudicots	Brassicaceae	Lobularia maritima*	sweet alyssum
160	160 eudicots	Brassicaceae	$Nasturtium\ officinale\ *$	water cress
161	161 eudicots	Brassicaceae	Raphanus sativus**	wild radish

163         eudicots           164         eudicots           165         eudicots           165         eudicots           166         eudicots           167         eudicots		Brassicaceae Brassicaceae Brassicaceae	Sinapis alba* Sinapis arvensis*	white mustard charlock mustard
164         eudic           165         eudic           166         eudic           167         eudic			Sinapis arvensis*	charlock mustard
165eudic166eudic167eudic				
166eudic167eudic			Thysanocarpus curvipes var. elegans	hairy fringe pod
167 eudic		Campanulaceae	Asyneuma prenanthoides	California harebell
		Campanulaceae	Heterocodon rariflorum	few-flowered heterocodon
168 eudicots		Caprifoliaceae	Lonicera hispidula	hairy (or California) honeysuckle
169 eudicots	ots	Caprifoliaceae	Symphoricarpos albus var. laevigatus	common/white snowberry
170 eudicots		Caprifoliaceae	Symphoricarpos mollis	creeping snowberry
171 eudicots		Caryophyllaceae	Cerastium glomeratum $^{st}$	mouse-ear (sticky) chickweed
172 eudicots		Caryophyllaceae	Petrorhagia dubia	childing (wilding) pink
173 eudicots		Caryophyllaceae	Polycarpon tetraphyllum var. t.*	four leaved allseed
174 eudicots		Caryophyllaceae	Sagina apetala	sticky/dwarf pearlwort
175 eudicots		Caryophyllaceae	Sagina procumbens	matted (sticky) pearlwort
176 eudicots	cots	Caryophyllaceae	Silene gallica*	common catchfly
177 eudicots		Caryophyllaceae	Spergula arvensis*	corn spurry
178 eudicots		Caryophyllaceae	Spergularia rubra*	purple/red sand spurrey
179 eudicots		Caryophyllaceae	Stellaria media*	common chickweed
180 eudicots		Celastraceae	Euonymus occidentalis var. o.	burning bush
181 eudicots		Celastraceae	Maytenus boaria $^*$	mayten
182 eudicots		Chenopodiaceae	$Chenopodium\ album^*$	lamb's quarters

183	183 eudicots	Chenopodiaceae	Dysphania ambrosioides*	Mexican tea
184	184 eudicots	Cistaceae	Crocanthemum scoparium var. s.	rushrose, sun rose
185	eudicots	Commelinaceae	$Tradescantia fluminensis^*$	wandering Jew
186	eudicots	Convolvulaceae	Calystegia purpurata ssp. purpurata	purple western morning glory
187	187 eudicots	Convolvulaceae	Dichondra donnelliana	California ponysfoot, dichondra
188	eudicots	Convulvulaceae	Convolvulus arvensis*	field bindweed
189	eudicots	Crassulaceae	Crassula connata	sand pygmy, pygmy weed
190	190 eudicots	Cucurbitaceae	Marah fabacea	California manroot
191	191 eudicots	Dipsacaceae	Dipsacus sativus **	Fuller`s teasel
192	eudicots	Ericaceae	Arbutus menziesii	madrone
193	eudicots	Ericaceae	Arctostaphylos andersonii <sup>E-SC/SE</sup> , R-1B.2	Santa Cruz manzanita
194	194 eudicots	Ericaceae	Arctostaphylos crustacea ssp. crinita <sup>E-COSF</sup>	brittleleaved (crinite) manzanita
195	eudicots	Ericaceae	Arctostaphylos sensitiva E-NCA	glossy leaf, sensitive manzanita
196	196 eudicots	Ericaceae	Gaultheria shallon	salal
197	eudicots	Ericaceae	Hemitomes congestum	gnome plant (mycoparasitic)
198	eudicots	Ericaceae	Pyrola aphylla	leafless wintergreen
199	199 <mark>eudicots</mark>	Ericaceae	Rhododendron occidentale	Western azalea
200	200 eudicots	Ericaceae	Vaccinium ovatum	California huckleberry
201	eudicots	Euphorbiaceae	Croton setiger	dove weed, turkey mullein
202	eudicots	Euphorbiaceae	Euphorbia oblongata**	eggleaf spurge
203	203 eudicots	Euphorbiaceae	Euphorbia peplus*	petty spurge

205endicotsFabaceae206endicotsFabaceae207endicotsFabaceae208endicotsFabaceae209endicotsFabaceae209endicotsFabaceae210endicotsFabaceae211endicotsFabaceae212endicotsFabaceae213endicotsFabaceae214endicotsFabaceae215endicotsFabaceae216endicotsFabaceae217endicotsFabaceae218endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae219endicotsFabaceae211endicotsFabaceae212endicotsFabaceae213endicotsFabaceae <th></th> <th></th>		
eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots	A and an allow *	silver wattle
eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots	Acacia melanoxylon	blackwood acacia
eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots	Acmispon americanus var. a.	Spanish clover
eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots	Acmispon glaber var. g.	deerweed
eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots	Acmispon junceus var junceus	rush trefoil
eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots	Acmispon parvifiorus	small-flowered lotus, hill lotus
eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots	Acmispon strigosus	Bishop (strigose) lotus
eudicots eudicots eudicots eudicots eudicots eudicots eudicots eudicots	Acmispon wrangelianus	Chilean bird's-foot trefoil
eudicots eudicots eudicots eudicots eudicots eudicots eudicots	Genista monspessulana**	French broom
eudicots eudicots eudicots eudicots eudicots eudicots	Hosackia gracilis <sup>R-4.2</sup>	harlequin (coast) lotus
	Hosackia oblongifolia var. o.	narrow leaved lotus
	Lathyrus vestitus var. v.	common Pacific pea
	Lupinus affinis	fleshy lupine
	Lupinus bicolor	miniature lupine [purple flrs]
	Lupinus latifolius var l.	broadleaf lupine
	Lupinus nanus	sky lupine
	Lupinus polyphyllus var. p.	meadow (large-leaved) lupine
222 eudicots Fabaceae	Medicago arabica*	spotted bur clover
223 eudicots Fabaceae	Medicago polymorpha**	bur-clover
224 eudicots Fabaceae	Melilotus albus	white sweetclover

C77	225 eudicots	Fabaceae	Melilotus indicus*	annual yellow sweetclover
226	226 <mark>eudicots</mark>	Fabaceae	Pickeringia montana	chaparral pea
227	eudicots	Fabaceae	Rupertia physodes	California tea
228	eudicots	Fabaceae	$Spartium\ junceum^{**}$	Spanish broom
229	229 eudicots	Fabaceae	Thermopsis californica var. c.	California golden banner
230	eudicots	Fabaceae	$Trifolium\ angustifolium^*$	narrowleaf crimson clover
231	eudicots	Fabaceae	Trifolium barbigerum	colony clover
232	eudicots	Fabaceae	Trifolium bifidum var. decipiens	pinole (notchleaf) clover
233	eudicots	Fabaceae	$Trifolium\ campestre^*$	low hop (field) clover
234	eudicots	Fabaceae	Trifolium depauperatum	cowbag/palesack clover
235	eudicots	Fabaceae	$Trifolium\ dubium^*$	shamrock (clover)
236	236 eudicots	Fabaceae	Trifolium gracilentum var. g.	pin-point (graceful) clover
237	237 eudicots	Fabaceae	$Trifolium\ hirtum^{**}$	rose clover
238	eudicots	Fabaceae	$Trifolium$ incarnatum $^{st}$	crimson (French, Italian) clover
239	eudicots	Fabaceae	Trifolium microcephalum	maiden clover
240	240 eudicots	Fabaceae	Trifolium obtusiflorum	clammy clover
241	eudicots	Fabaceae	$Trifolium\ repens^*$	white clover
242	eudicots	Fabaceae	$Trifolium\ subterraneum^*$	subterreanean clover
243	eudicots	Fabaceae	Trifolium variegatum	white-tipped (variegated) clover
244	244 eudicots	Fabaceae	Trifolium willdenovii	tomcat clover
245	245 eudicots	Fabaceae	Trifolium wormskioldii	coast (springbank/cow) clover

ć	16 andianta			A monitore control
77	240 endicors	rabaceae	vicia americana ssp. a.	American veich
24	247 eudicots	Fabaceae	Vicia benghalensis*	purple vetch
24	248 eudicots	Fabaceae	Vicia gigantea	giant vetch
24	249 eudicots	Fabaceae	Vicia sativa ssp. nigra*	common vetch
25	250 eudicots	Fabaceae	Vicia sativa ssp. s.*	spring vetch
25	251 eudicots	Fabaceae	Vicia villosa ssp. varia*	woolly pod (huck-fruited) vetch
25	252 eudicots	Fagaceae	Chrysolepis chrysophylla var. c.	giant chinquapin
25	253 eudicots	Fagaceae	Chrysolepis chrysophylla var. minor	golden chinquapin
25	254 eudicots	Fagaceae	Notholithocarpus densiflorus var. d.	tanbark oak; tanoak
25	255 eudicots	Fagaceae	Quercus agrifolia var. agrifolia	coast live oak
25	256 eudicots	Fagaceae	Quercus chrysolepis	canyon (golden cup) oak
25	257 eudicots	Fagaceae	Quercus parvula var. shrevei	Shreve oak
25	258 eudicots	Fagaceae	Quercus X morehus	oracle oak ( <i>wislizeni X kelloggii</i> )
25	259 eudicots	Gentianaceae	Cicendia quadrangularis	timwort
26	260 eudicots	Gentianaceae	Zeltnera davyi	centaury
26	261 eudicots	Geraniaceae	Erodium botrys**	long-beaked filaree
2€	262 eudicots	Geraniaceae	$Erodium\ cicutarium^{**}$	red-stemmed filaree
26	263 eudicots	Geraniaceae	$Erodium\ moschatum\ ^*$	white-stemmed filaree
2€	264 eudicots	Geraniaceae	$Geranium~dissectum^{**}$	cut-leaved geranium
2€	265 eudicots	Geraniaceae	$Geranium\ molle^*$	dove's foot geranium
26	266 eudicots	Geraniaceae	Gernaium purpureum $^{st}$	herb robert

267	267 eudicots	Geraniaceae	Geranium robertianum*	Robert geranium
268	268 eudicots	Grossulariaceae	Ribes divaricatum var. pubifiorum	spreading/straggly gooseberry
269	eudicots	Grossulariaceae	Ribes menziesii var. m. <sup>E-CAFP</sup>	canyon gooseberry
270	eudicots	Grossulariaceae	Ribes sanguineum var. glutinosum	red-flowering/blood currant
271	271 eudicots	Hydrangeacae	Whipplea modesta	modesty, yerba de selva
272	eudicots	Hypericaceae	Hypericum anagalloides	tinker's penny
273	eudicots	Lamiaceae	Clinopodium douglasii	yerba buena
274	eudicots	Lamiaceae	Lamium amplexicaule $^*$	henbit
275	275 eudicots	Lamiaceae	Marrubium vulgare*	horehound
276	276 eudicots	Lamiaceae	Melissa officinalis*	lemon balm
277	eudicots	Lamiaceae	$Mentha\ pulegium^*$	pennyroyal
278	eudicots	Lamiaceae	Mentha spicata $^*$	spearmint
279	279 eudicots	Lamiaceae	Mentha X piperita*	peppermint / watermint
280	280 eudicots	Lamiaceae	Monardella villosa ssp. v.	pennyroyal, coyote mint
281	eudicots	Lamiaceae	Pogogyne serpylloides	thymeleaf beardstyle
282	eudicots	Lamiaceae	Prunella vulgaris var. lanceolata	selfheal
283	283 eudicots	Lamiaceae	Prunella vulgaris var. v.	European self-heal
284	284 eudicots	Lamiaceae	Scutellaria tuberosa	Danny's skullcap
285	eudicots	Lamiaceae	Stachys ajugoides var. rigida	bugle hedge nettle
286	286 eudicots	Lamiaceae	Stachys bullata	California hedge nettle
287	287 eudicots	Lamiaceae	Stachys rigida	rough hedge nettle

8BedicotsLinaceaeLinum bienee*Incrow leaved flax120edicitotsLythraceaeLythrum hysopifolia*Hysop loosestrife120edicitotsMalvaceaeMahva increensis*Hysop loosestrife121edicitotsMalvaceaeMahva increensis*Hum llow122edicitotsMalvaceaeMahva increensis*Hole23euticotsMalvaceaeCalandrinia menziestiHoleHole24euticotsMyriaceaeCalandrinia menziestiHoleHole25euticotsMyriaceaeLysimachia asp. perfoliataHoleHole294euticotsMyriaceaeLysimachia asp. perfoliataHoleHole295euticotsMyriaceaeLysimachia asp. perfoliataHoleHole296euticotsMyriaceaeLysimachia asp. perfoliataHoleHole297euticotsMyriaceaeLysimachia asp. perfoliataHoleHole298euticotsMyriaceaeLysimachia asp. perfoliataHoleHole299euticotsMyriaceaeLysimachia asp. perfoliataHoleHole290euticotsMyriaceaeLysimachia asp. perfoliataHoleHole291euticotsMyriaceaeLysimachia asp. perfoliataHoleHole292euticotsMyriaceaeLysimachia asp. eritorHoleHole293euticotsDongraceaeEpilohian brachyraryHole	28	288 eudicots	Limnanthaceae	Limnanthes douglasii ssp. nivea	meadow foam
endicotsLythraceaeLythran hysopifolia*endicotsMalva easisMalva nicaeensis*endicotsMalvaceaeMalva nicaeensis*endicotsMalvaceaeMalva parviflora*endicotsMalvaceaeSidalcea malviflora ssp. laciniataendicotsMontiaceaeSidalcea malviflora ssp. laciniataendicotsMontiaceaeCalandrinia menzisxiiendicotsMontiaceaeCalandrinia nenzisxiiendicotsMortiaceaeLysimachia aryenfoliataendicotsMyrsinaceaeLysimachia aryenfoliataendicotsMyrsinaceaeLysimachia aryensis*endicotsMyrsinaceaeLysimachia aryensis*endicotsMyrsinaceaeLysimachia aryensis*endicotsOnagraceaeLysimachia aryensis*endicotsOnagraceaeEpilobium brachycarpumendicotsOnagraceaeEpilobium canum ssp. canumendicotsOnagraceaeEpilobium ciliatum ssp. nookeriendicotsOnagraceaeBellardia rixago*endicotsOnagraceaeBellardia rixago*endicotsOnagraceaeBellardia rixago*endicotsOnbanchaceaeBellardia rixago*endicotsOnbanchaceaeCarsilley ansigua ssp. diendicotsOnbanchaceaeCarsilley ansigua ssp. diendicotsOnbanchaceaeCarsilley ansigua ssp. diendicotsOnbanchaceaeCarsilley ansigua ssp. diendicotsOnbanchaceaeCarsilley ansigua ssp. diendicotsOnbanchaceae <th>28</th> <td>eudicots</td> <td>Linaceae</td> <td>Linum bienne*</td> <td>narrow leaved flax</td>	28	eudicots	Linaceae	Linum bienne*	narrow leaved flax
endicotsMalvaceaeMalva nicaeensis*endicotsMalvaceaeMalva parvifiora*endicotsMalvaceaeSidalcea malvifiora ssp. laciniataendicotsMontiaceaeCalandrinia merziesiiendicotsMontiaceaeCalandrinia merziesiiendicotsMontiaceaeCalandrinia merziesiiendicotsMyrsinaceaeLysimachia arvensis*endicotsMyrsinaceaeLysimachia arvensis*endicotsMyrsinaceaeLysimachia latifoliaendicotsMyrsinaceaeLysimachia latifoliaendicotsOnagraceaeEpilobium brachycarpumendicotsOnagraceaeEpilobium canum ssp. canumendicotsOnagraceaeEpilobium caliatum ssp. andendicotsOnagraceaeEpilobium caliatum ssp. canumendicotsOnagraceaeEpilobium caliatum ssp. andendicotsOnagraceaeEpilobium caliatum ssp. andendicotsOnagraceaeBellandia trixago*endicotsOnagraceaeBellandia trixago*endicotsOnagraceaeBellandia trixago*endicotsOrobanchaceaeCaratileja avataendicotsOrobanchaceaeCaratileja avataendicotsOrobanchaceaeCaratileja avataendicotsOrobanchaceaeCaratileja avataendicotsOnagraceaeBellandia trixago*endicotsOrobanchaceaeCaratileja avataendicotsOrobanchaceaeCaratileja avataendicotsOrobanchaceCaratileja avata <td< th=""><th>29(</th><th>) eudicots</th><th>Lythraceae</th><th>Lythrum hyssopifolia*</th><th>Hyssop loosestrife</th></td<>	29(	) eudicots	Lythraceae	Lythrum hyssopifolia*	Hyssop loosestrife
endicotsMalvaceaeMalva parvifitora*endicotsMalvaceaeSidalcea malvifitora ssp. laciniataendicotsMontiaceaeSidalcea malvifitora ssp. laciniataendicotsMontiaceaeCalandrinia menziesiiendicotsMontiaceaeClarvinia menziesiiendicotsMyrsinaceaeMorella californicaendicotsMyrsinaceaeLysimachia arvensis*endicotsMyrsinaceaeLysimachia arvensis*endicotsMyrsinaceaeLysimachia arvensis*endicotsOnagraceaeLysimachia anguiculataendicotsOnagraceaeEpilobium brachycarpumendicotsOnagraceaeEpilobium canum ssp. canumendicotsOnagraceaeEpilobium calitatum ssp. canumendicotsOnagraceaeEpilobium canum ssp. canumendicotsOnagraceaeBellobium calitatum ssp. vatsoniiendicotsOnagraceaeBellobium calitatum ssp. canumendicotsOnagraceaeBellardia trixago*endicotsOnagraceaeBellardia trixago*endicotsOnagraceaeBellardia trixago*endicotsOrobanchaceaeBellardia trixago*endicotsOrobanchaceaeCastilleja densifitora ssp. diendicotsOrobanchaceaeCastilleja densifitora ssp. di	29.		Malvaceae	Malva nicaeensis*	bull mallow
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endicotsMontiaceaeClaytonia perfoliata ssp. perfoliataendicotsMyricaceaeMorella californicaendicotsMyrsinaceaeLysinachia arvensis*endicotsMyrsinaceaeLysinachia arvensis*endicotsMyrsinaceaeLysinachia arvensis*endicotsMyrsinaceaeLysinachia arvensis*endicotsOnagraceaeLysinachia arvensis*endicotsOnagraceaeLysinachia unguiculataendicotsOnagraceaeEpilobium brachycarpumendicotsOnagraceaeEpilobium cultataendicotsOnagraceaeEpilobium cultatum ssp. canumendicotsOnagraceaeEpilobium ciliatum ssp. vatsoniiendicotsOnagraceaeBellardia arvenaendicotsOnagraceaeBellardia trixago*endicotsOrobanchaceaeBellardia trixago*endicotsOrobanchaceaeCastilleja anbigua ssp. a.d.endicotsOrobanchaceaeBellardia trixago*endicotsOrobanchaceaeCastilleja densifiora ssp. d.	29-	4 eudicots	Montiaceae	Calandrinia menziesii	redmaids
endicotsMyricaceaeMorella californicaendicotsMyrsinaceaeLysimachia arvensis*endicotsMyrsinaceaeLysimachia latifoliaendicotsMyrsinaceaeLysimachia latifoliaendicotsOnagraeeaeLarkia unguiculataendicotsOnagraeeaeEpilobium brachycarpumendicotsOnagraeeaeEpilobium brachycarpumendicotsOnagraeeaeEpilobium canum ssp. canumendicotsOnagraeeaeEpilobium ciliatum ssp. canumendicotsOnagraeeaeEpilobium ciliatum ssp. vatsoniiendicotsOnagraeeaeEpilobium ciliatum ssp. vatsoniiendicotsOnagraeeaeBalardia elata ssp. hookeriendicotsOnagraeeaeBelardia trixago*endicotsOrobanchaeaeBelardia trixago*endicotsOrobanchaeaeCastilleja densiftora ssp. diendicotsOrobanchaeaeCastilleja densiftora ssp. di	29:	5 eudicots	Montiaceae	Claytonia perfoliata ssp. perfoliata	miner's lettuce
audicotsMyrsinaceaeLysimachia arvensis*audicotsMyrsinaceaeLysimachia latifoliaaudicotsOnagraceaeLysimachia latifoliaaudicotsOnagraceaeClarkia unguiculataaudicotsOnagraceaeEpilobium brachycarpumaudicotsOnagraceaeEpilobium canum ssp. canumaudicotsOnagraceaeEpilobium canum ssp. canumaudicotsOnagraceaeEpilobium ciliatum ssp. vatsoniiaudicotsOnagraceaeDenothera elata ssp. hookeriaudicotsOnagraceaeDenothera elata ssp. hookeriaudicotsOnagraceaeBellardia trixago*audicotsOrobanchaceaeBellardia trixago*audicotsOrobanchaceaeCastilleja ambigua ssp. a.audicotsOrobanchaceaeCastilleja densifiora ssp. d.	29	5 eudicots	Myricaceae	Morella californica	California wax myrtle
endicotsMyrsinaceaeLysinachia latifoliaendicotsOnagraceaeClarkia unguiculataendicotsOnagraceaeEpilobium brachycarpumendicotsOnagraceaeEpilobium brachycarpumendicotsOnagraceaeEpilobium canum ssp. canumendicotsOnagraceaeEpilobium cultatum ssp. canumendicotsOnagraceaeEpilobium ciliatum ssp. canumendicotsOnagraceaeEpilobium ciliatum ssp. vatsoniiendicotsOnagraceaeEpilobium ciliatum ssp. watsoniiendicotsOnagraceaeBellobium ciliatum ssp. watsoniiendicotsOnagraceaeBellardia trixago *endicotsOrobanchaceaeBellardia trixago *endicotsOrobanchaceaeCastilleja ambigua ssp. a.endicotsOrobanchaceaeCastilleja densifibora ssp. d.	29'	7 eudicots	Myrsinaceae	Lysimachia arvensis $^{st}$	scarlet pimpernel
endicotsOnagraceaeClarkia unguiculataendicotsOnagraceaeEpilobium brachycarpumendicotsOnagraceaeEpilobium canum ssp. canumendicotsOnagraceaeEpilobium ciliatum ssp. vatsoniiendicotsOnagraceaeEpilobium ciliatum ssp. vatsoniiendicotsOnagraceaeEpilobium ciliatum ssp. vatsoniiendicotsOnagraceaeDenothera elata ssp. hookeriendicotsOnagraceaeDenothera elata ssp. hookeriendicotsOnagraceaeBellardia trixago*endicotsOrobanchaceaeBellardia trixago*endicotsOrobanchaceaeCastilleja ambigua ssp. a.endicotsOrobanchaceaeCastilleja densiftora ssp. d.	298	8 eudicots	Myrsinaceae	Lysimachia latifolia	woodland star flower
endicotsOnagraceaeEpilobium brachycarpumendicotsOnagraceaeEpilobium canum ssp. canumendicotsOnagraceaeEpilobium ciliatum ssp. ciliatumendicotsOnagraceaeEpilobium ciliatum ssp. watsoniiendicotsOnagraceaeEpilobium ciliatum ssp. watsoniiendicotsOnagraceaeEpilobium ciliatum ssp. watsoniiendicotsOnagraceaeDenothera elata ssp. hookeriendicotsOnagraceaeTaraxia ovataendicotsOrobanchaceaeBelardia trixago*endicotsOrobanchaceaeCastilleja ambigua ssp. a.endicotsOrobanchaceaeCastilleja densiftora ssp. d.	29	eudicots	Onagraceae	Clarkia unguiculata	elegant clarkia
endicotsDnagraceaeEpilobium canum ssp. canumendicotsDnagraceaeEpilobium ciliatum ssp. ciliatumendicotsDnagraceaeEpilobium ciliatum ssp. watsoniiendicotsOnagraceaeOenothera elata ssp. hookeriendicotsOnagraceaeDenothera elata ssp. hookeriendicotsOnagraceaeBellardia trixago*endicotsOrobanchaceaeBellardia trixago*endicotsOrobanchaceaeCastilleja ambigua ssp. a.endicotsOrobanchaceaeCastilleja densiflora ssp. d.	30	) eudicots	Onagraceae	Epilobium brachycarpum	tall annual willowherb
endicotsOnagraceaeEpilobium ciliatum ssp. ciliatumendicotsOnagraceaeEpilobium ciliatum ssp. watsoniiendicotsOnagraceaeOenothera elata ssp. hookeriendicotsOnagraceaeDenothera elata ssp. hookeriendicotsOnagraceaeBentaria ovataendicotsOrobanchaceaeBelardia trixago*endicotsOrobanchaceaeCastilleja ambigua ssp. a.endicotsOrobanchaceaeCastilleja densiftora ssp. d.	30	l eudicots	Onagraceae	Epilobium canum ssp. canum	California fuschia
OnagraceaeEpilobium ciliatum ssp. watsoniiOnagraceaeOenothera elata ssp. hookeriOnagraceaeDenothera elata ssp. hookeriOrobanchaceaeBellardia trixago*OrobanchaceaeCastilleja ambigua ssp. a.OrobanchaceaeCastilleja densiflora ssp. d.	30	2 eudicots	Onagraceae	Epilobium ciliatum ssp. ciliatum	fringed willowherb
OnagraceaeOenothera elata ssp. hookeriOnagraceaeTaraxia ovataOrobanchaceaeBellardia trixago*OrobanchaceaeCastilleja ambigua ssp. a.OrobanchaceaeCastilleja densifiora ssp. d.	30	3 eudicots	Onagraceae	Epilobium ciliatum ssp. watsonii	Watson's willowherb
OnagraceaeTaraxia ovataOrobanchaceaeBellardia trixago*OrobanchaceaeCastilleja ambigua ssp. a.OrobanchaceaeCastilleja densiflora ssp. d.	30	4 eudicots	Onagraceae	Oenothera elata ssp. hookeri	Hooker's evening-primrose
Orobanchaceae         Bellardia trixago*           Orobanchaceae         Castilleja ambigua ssp. a.           Orobanchaceae         Castilleja densiflora ssp. d.	30:	5 eudicots		Taraxia ovata	sun cups
Orobanchaceae         Castilleja ambigua ssp. a.           Orobanchaceae         Castilleja densiflora ssp. d.	30	5 eudicots	Orobanchaceae	Bellardia trixago $^{st}$	Mediterranean lineseed
Orobanchaceae Castilleja densifiora ssp. d.	30	7 eudicots	Orobanchaceae	Castilleja ambigua ssp. a.	Johnny-nip
	30	8 eudicots	Orobanchaceae	Castilleja densiflora ssp. d.	owl's-clover

309	309 eudicots	Orobanchaceae	Castilleja exserta ssp. exserta	purple owl's clover
310	310 eudicots	Orobanchaceae	Orobanche fasciculata	clustered broomrape
311	eudicots	Orobanchaceae	Orobanche fasciculata	broomrape
312	eudicots	Orobanchaceae	Pedicularis densifiora	Indian warrior
313	eudicots	Orobanchaceae	Triphysaria eriantha ssp. rosea	butter 'n eggs, rosy jonnytuck
314	eudicots	Orobanchaceae	Triphysaria pusilla	dwarf owl's clover
315	eudicots	Orobranchaceae	Triphysaria versicolor ssp. v.	smooth owl's clover
316	eudicots	Oxalidaceae	Oxalis corniculata*	creeping wood sorrel
317	317 eudicots	Oxalidaceae	Oxalis incarnata*	crimson wood sorrel
318	eudicots	Oxalidaceae	Oxalis oregana	redwood sorrel
319	eudicots	Oxalidaceae	Oxalis pes-caprae <sup>**</sup>	Bermuda buttercup
320	eudicots	Oxalidaceae	Oxalis pilosa	hairy wood sorrel
321	321 eudicots	Papaveraceae	Eschscholzia californica	California poppy
322	eudicots	Papaveraceae	Fumaria parviflora*	fumitory
323	eudicots	Papaveraceae	Platystemon californicus	cream cups
324	eudicots	Phrymaceae	Mimulus aurantiacus	sticky monkey flower
325	325 eudicots	Phrymaceae	Mimulus floribundus	floriferous monkey flower
326	326 eudicots	Phrymaceae	Mimulus guttatus	seep monkey flower
327	eudicots	Phrymaceae	Mimulus moschatus	musk monkeyflower
328	eudicots	Phrymaceae	Mimulus rattanii	Rattan's monkeyflower
329	329 eudicots	Plantaginaceae	Callitriche marginata	California water-starwort

331				
	331 eudicots	Plantaginaceae	Cymbalaria muralis*	Kenilworth Ivy
332	eudicots	Plantaginaceae	Digitalis purpurea	foxglove
333	eudicots	Plantaginaceae	$Plantago\ coronopus^*$	cut-leaved plantain
334	334 eudicots	Plantaginaceae	Plantago erecta	California plantain
335	eudicots	Plantaginaceae	$Plantago\ lanceolata^*$	ribgrass, English plantain
336	336 eudicots	Plantaginaceae	Plantago major*	common plantain
337	eudicots	Plantaginaceae	Plantago subnuda	mexican plantain
338	338 <mark>eudicots</mark>	Plantaginaceae	Veronica americana	American brooklime
339	339 <mark>eudicots</mark>	Plantaginaceae	Veronica peregrina ssp. xalapensis	neckweed, purselane speedwell
340	340 eudicots	Plantaginaceae	Veronica persica*	bird's eye (Persian) speedwell
341	341 eudicots	Polemoniaceae	Allophyllum gilioides ssp. g.	blue false gilia
342	342 eudicots	Polemoniaceae	Collomia heterophylla	varied-leaved collomia
343	343 <mark>eudicots</mark>	Polemoniaceae	Leptosiphon parviflorus	variable linanthus
344	344 eudicots	Polemoniaceae	Navarretia atractyloides	holly-leaved navarretia
345	345 eudicots	Polemoniaceae	Navarretia mellita	honey-scented pincushion
346	346 eudicots	Polygalaceae	Polygala californica	California milkwort
347	347 eudicots	Polygonaceae	Chorizanthe diffusa	diffuse spineflower
348	eudicots	Polygonaceae	Persicaria lapathifolia	common knotweed
349	349 eudicots	Polygonaceae	Persicaria punctata	dotted/water smartweed
350	350 eudicots	Polygonaceae	Polygonum aviculare ssp. depressum	prostrate/common knotweed

351	351 eudicots	Polygonaceae	Rumex acetosella**	sheep sorrel
352	eudicots	Polygonaceae	Rumex crassus	willow-leaved dock
353	eudicots	Polygonaceae	Rumex crispus*	curly dock
354	eudicots	Polygonaceae	Rumex pulcher*	fiddle dock
355	eudicots	Polygonaceae	Rumex salicifolius	willow-leaved dock
356	eudicots	Primulaceae	Primula clevelandii var. patula	shooting star
357	eudicots	Ranunculaceae	Actaea rubra	Western baneberry, bearberry
358	eudicots	Ranunculaceae	Anemone grayi	blue windflower
359	359 eudicots	Ranunculaceae	Aquilegia formosa	crimson columbine
360	eudicots	Ranunculaceae	Ramunculus aquatilis vat. capillaceus	water buttercup
361	eudicots	Ranunculaceae	Ranunculus californicus var. c.	California buttercup
362	eudicots	Ranunculaceae	Ranunculus muricatus*	pricklefruit buttercup
363	363 <mark>eudicots</mark>	Ranunculaceae	Thalictrum fendleri var. polycarpum	meadow rue
364	364 eudicots	Rhamnaceae	Ceanothus papillosus vat. roweanus	warty-leaved ceanothus
365	eudicots	Rhamnaceae	Ceanothus thyrsiflorus var. t.	blue brush, California Lilac
366	366 eudicots	Rhamnaceae	$Frangula\ californica\ { m ssp.}\ c.$	coffeeberry
367	367 eudicots	Rosaceae	Acaena pinnatifida var. californica	California sheepburr
368	eudicots	Rosaceae	Adenostoma fasciculatum var. f.	chamise, greasewood
369	eudicots	Rosaceae	$Cotoneaster franchetii^{**}$	Franchet's cottoneaster
370	370 eudicots	Rosaceae	Cotoneaster pannosus **	woolly/silverleaf cotoneaster
371	371 eudicots	Rosaceae	Drymocallis glandulosa var. wrangelliana	sticky cinquefoil

37	372 eudicots	Rosaceae	Fragaria vesca	California strawberry
37	373 eudicots	Rosaceae	Heteromeles arbutifolia	toyon, Christmas berry
37	374 eudicots	Rosaceae	Holodiscus discolor var. d.	ocean spray, cream bush
37	375 eudicots	Rosaceae	Horkelia cuneata	wedge-leaved horkelia
37	376 eudicots	Rosaceae	Horkelia marinensis <sup>R-18</sup> 2 E-BDS,BLM.ac.S	leafy horkelia
37	377 eudicots	Rosaceae	Pyracantha angustifolia**	slender firethorn
37	378 eudicots	Rosaceae	Rosa californica	California rose
37	379 <mark>eudicots</mark>	Rosaceae	Rosa gymnocarpa var. g	wood rose
38	380 <mark>eudicots</mark>	Rosaceae	Rosa spithamea <sup>E.CA</sup>	Sonoma (ground) rose
381	1 eudicots	Rosaceae	Rubus armeniacus**	Himalayan blackberry
38	382 <mark>eudicots</mark>	Rosaceae	Rubus leucodermis	whitestemmed raspberry
38	383 <mark>eudicots</mark>	Rosaceae	Rubus parviflorus	thimbleberry
38	384 <mark>eudicots</mark>	Rosaceae	Rubus ulmifolius var. anoplothyrsus*	thornless elm leaf bramble
38	385 <mark>eudicots</mark>	Rosaceae	Rubus ursinus	California blackberry
38	386 <mark>eudicots</mark>	Rubiaceae	Galium aparine	common bedstraw, sticky willy
38	387 eudicots	Rubiaceae	Galium californicum ssp. c. <sup>E-CA</sup>	California bedstraw
38	388 <mark>eudicots</mark>	Rubiaceae	Galium nuttallii	climbing bedstraw
38	389 <mark>eudicots</mark>	Rubiaceae	Galium parisiense*	wall bedstraw
39	390 <mark>eudicots</mark>	Rubiaceae	Galium porrigens	climbing bedstraw
39	391 eudicots	Rubiaceae	Galium triflorum	fragrant/sweet-scented bedstraw
39	392 <mark>eudicots</mark>	Rubiaceae	Sherardia arvensis*	field madder
	-			

393	393 <mark>eudicots</mark>	Rutaceae	Ruta chalepensis*	rue
394	eudicots	Salicaceae	Populus trichocarpa	black cottonwood
395	eudicots	Salicaceae	Salix laevigata	red Willow
396	eudicots	Salicaceae	Salix lasiandra var. l.	Pacific willow
397	eudicots	Salicaceae	Salix lasiolepis	arroyo willow
398	eudicots	Salicaceae	Salix scouleriana	Scouler's willow
399	eudicots	Salicaceae	Salix sitchensis	Coulter willow, Sitka willow
400	eudicots	Sapindaceae	Acer macrophyllum	big leaf maple
401	401 eudicots	Sapindaceae	Acer negundo var. californicum	box elder
402	eudicots	Sapindaceae	Aesculus californica <sup>E-CA</sup>	California buckeye
403	eudicots	Saxifragaceae	Boykinia occidentalis	coast brookfoam
404	eudicots	Saxifragaceae	Heuchera micrantha	(crevice) alum root
405	405 eudicots	Saxifragaceae	Tellima grandiflora	fringe cups
406	406 eudicots	Saxifragaceae	Tiarella trifoliata vat. unifoliata	sugar scoop
407	eudicots	Scrophulariaceae	Scrophularia californica	California bee plant, figwort
408	eudicots	Solanaceae	$Datura\ stramonium\ ^*$	Jimson weed
409	eudicots	Solanaceae	Solanum americanum	American black nightshade
410	eudicots	Solanaceae	Solanum douglasii	Douglas' nightshade
411	eudicots	Solanaceae	$Solanum \ furcatum^*$	forked nightshade
412	eudicots	Solanaceae	Solanum umbelliferum	bluewitch nightshade
413	eudicots	Tropaeolaceae	$Tropaeolum$ majus $^*$	garden nasturtium

415       eudicots         416       eudicots         417       eudicots         418       eudicots         419       eudicots         420       eudicots         421       eudicots         423       eudicots         423       eudicots         424       monocots         425       monocots         426       monocots	Urticaceae Urticaceae Urticaceae Valerianaceae Verbenaceae Violaceae Violaceae	Soleirolia soleirolii* Urtica dioica ssp. kolosericea Urtica dioica ssp. kolosericea Centranthus ruber* Verbena lasiostachys var. l. Viola glabella Viola glabella Viola pedunculata Viola sempervirens	baby's tears coastal California nettle hoary nettle, giant creek nettle red valerian, Jupiter's beard western vervain stream violet two-eyed violet Johnny jump-up, wild pansy
416       eudicots         417       eudicots         418       eudicots         419       eudicots         419       eudicots         420       eudicots         421       eudicots         422       eudicots         423       eudicots         423       eudicots         424       monocots         425       monocots         426       monocots		cea	coastal California nettle hoary nettle, giant creek nettle red valerian, Jupiter's beard western vervain stream violet two-eyed violet Johnny jump-up, wild pansy redwood violet
417       eudicots         418       eudicots         419       eudicots         420       eudicots         421       eudicots         422       eudicots         423       eudicots         424       monocots         425       monocots         426       monocots         427       monocots         427       monocots			hoary nettle, giant creek nettle red valerian, Jupiter's beard western vervain stream violet two-eyed violet Johnny jump-up, wild pansy redwood violet
418       eudicots         419       eudicots         420       eudicots         421       eudicots         422       eudicots         423       eudicots         423       eudicots         424       monocots         425       monocots         426       monocots         427       monocots		s var. <i>l.</i>	red valerian, Jupiter's beard western vervain stream violet two-eyed violet Johnny jump-up, wild pansy redwood violet
419       eudicots         420       eudicots         421       eudicots         422       eudicots         423       eudicots         424       monocots         425       monocots         426       monocots         427       monocots			western vervain stream violet two-eyed violet Johnny jump-up, wild pansy redwood violet
420     eudicots       421     eudicots       422     eudicots       423     eudicots       424     monocots       425     monocots       426     monocots       427     monocots			stream violet two-eyed violet Johnny jump-up, wild pansy redwood violet
<ul> <li>421 eudicots</li> <li>422 eudicots</li> <li>423 eudicots</li> <li>424 monocots</li> <li>425 monocots</li> <li>426 monocots</li> <li>427 monocots</li> </ul>			two-eyed violet Johnny jump-up, wild pansy redwood violet
422eudicots423eudicots424monocots425monocots426monocots		Viola pedunculata Viola sempervirens	Johnny jump-up, wild pansy redwood violet
<ul> <li>423 eudicots</li> <li>424 monocots</li> <li>425 monocots</li> <li>426 monocots</li> <li>427 monocots</li> </ul>		Viola sempervirens	redwood violet
<ul><li>424 monocots</li><li>425 monocots</li><li>426 monocots</li><li>427 monocots</li></ul>	Violaceae		
425 monocots 426 monocots 427 monocots	Agavaceae	Chlorogalum pomeridianum var. p.	soap plant, soaproot; amole
426 monocots 427 monocots	Alliaceae	Allium triquetrum	three-angled onion
427 monocots	Alliaceae	Allium unifolium	one-leaved onion
	Araceae	Lemna minor	duckweed
428 monocots	Araceae	Lemna valdiviana*	Valdivia duckweed
429 monocots	Cyperaceae	Carex amplifolia	ample leaved sedge
430 monocots	Cyperaceae	Carex brevicaulis	short stemmed sedge
431 monocots	Cyperaceae	Carex densa	dense sedge
432 monocots	Cyperaceae	Carex globosa	round fruit sedge
433 monocots	Cyperaceae	Carex gynodynama	Olney's hairy sedge
434 monocots	Cyperaceae	Carex harfordii	Harford's (Monterey) sedge

435	monocots	Cyperaceae	Carex obnupta	slough sedge
436	monocots	Cyperaceae	Carex subbracteata	small bract sedge
437	monocots	Cyperaceae	Carex tumulicola	slender sedge
438	monocots	Cyperaceae	Cyperus eragrostis	tall flatsedge
439	monocots	Cyperaceae	Cyperus niger	black umbrella sedge
440	monocots	Cyperaceae	Eleocharis acicularis var. a.	needle spikerush
141	monocots	Cyperaceae	Eleocharis macrostachya	spikerush
442	monocots	Cyperaceae	Eleocharis montevidensis	sand (creeping) spikerush
443	monocots	Cyperaceae	Isolepis carinata	dwarf club rush
777	monocots	Cyperaceae	Isolepis cernua	low bulrush
445	monocots	Cyperaceae	Schoenoplectus acutus var. occidentalis	tule
446	monocots	Cyperaceae	Scirpus microcarpus	panicled/small fruited bulrush
447	monocots	Iridaceae	Crocosmia ×crocosmiiflora*	montbretia
448	monocots	Iridaceae	Iris douglasiana	Douglas' iris
449	monocots	Iridaceae	Iris fernaldii	Fernald's iris
450	monocots	Iridaceae	Sisyrinchium bellum	blue-eyed grass
451	monocots	Iridaceae	Sisyrinchium californicum	yellow-eyed grass
452	monocots	Iridaceae	Watsonia meriana*	bulbil watsonia
453	monocots	Juncaceae	Juncus bufonius var. b.	common toad-rush
454	monocots	Juncaceae	Juncus capitatus	dwarf rush
455	monocots	Juncaceae	Juncus effusus ssp. pacificus	Pacific rush

456	456 monocots	Juncaceae	Juncus falcatus ssp. f.	sickle-leaved rush
457	457 monocots	Juncaceae	Juncus hesperius	coast/bog rush
458	8 monocots	Juncaceae	Juncus occidentalis	western rush
459	9 monocots	Juncaceae	Juncus patens	spreading rush
460	0 monocots	Juncaceae	Juncus phaeocephalus var. p.	brown-headed rush
461	1 monocots	Juncaceae	Juncus phaeocephalus var. paniculatus	brownhead rush
462	2 monocots	Juncaceae	Juncus xiphioides	iris leaved rush
463	3 monocots	Juncaceae	Luzula comosa var. comosa	common wood-rush
464	4 monocots	Liliaceae	Calochortus albus <sup>E-CA</sup>	fairy lantern, globe lily
465	5 monocots	Liliaceae	Calochortus luteus	yellow mariposa lily
466	6 monocots	Liliaceae	Calochortus tolmiei	hairy star-tulip, pussy ears
467	7 monocots	Liliaceae	Calochortus uniflorus <sup>R-4.2</sup>	large-flowered star-tulip
468	8 monocots	Liliaceae	Clintonia andrewsiana	red clintonia
469	9 monocots	Liliaceae	Fritillaria affinis	checker lily, mission bells
470	0 monocots	Liliaceae	Lilium pardalinum ssp. p. <sup>E.c.a</sup>	leopard lily, panther lily
471	1 monocots	Liliaceae	Prosartes hookeri	fairy bells, drops of gold
472	2 monocots	Liliaceae	Scoliopus bigelovii <sup>E-CA</sup>	California fetid adder's tongue
473	3 monocots	Melanthiaceae	Toxicoscordion fremontii	Fremont's death camas; star-lily
474	4 monocots	Melanthiaceae	Trillium chloropetalum	giant wake-robin
475	5 monocots	Melanthiaceae	Trillium ovatum ssp. o.	western wake robin
476	476 monocots	Orchidaceae	Calypso bulbosa	Calypso orchid

1148monocotsOrchidaceaeCoraliorhiza macudaa var. accidentalissummer coral-root1479monocotsOrchidaceaeCorallorhiza striatastripethooded coral1480monocotsOrchidaceaeCorallorhiza striatastream orchid1481monocotsOrchidaceaeEpipactis siganteastream orchid1483monocotsOrchidaceaeEpipactis siganteabroad-leaved hellehoo1483monocotsOrchidaceaeEpipactis siganteabroad-leaved hellehoo1483monocotsOrchidaceaeEpipactis siganteabroad-leaved hellehoo1483monocotsOrchidaceaeSpiranteasbroad-leaved hellehoo1484monocotsOrchidaceaeSpiranteasbroad-leaved strintoridis1485monocotsOrchidaceaeSpiranteasbroad-gast1486monocotsPoaceaeAgrostis sigantea*broad-gast1487monocotsPoaceaeAgrostis sigantea*broad-gast1488monocotsPoaceaeAgrostis sigantea*broad-gast1489monocotsPoaceaeAgrostis sigantea*broad-gast1480monocotsPoaceaeAgrostis sigantea*broad-gast1481monocotsPoaceaeAgrostis sigantea*broad-gast1481monocotsPoaceaeAgrostis sigantea*broad-gast1480monocots <td< th=""><th>477</th><th>477 monocots</th><th>Orchidaceae</th><th>Corallorhiza maculata var. m.</th><th>spotted coral-root</th></td<>	477	477 monocots	Orchidaceae	Corallorhiza maculata var. m.	spotted coral-root
OrchidaceaeCorallorrhiza striataOrchidaceaeEpipactis siganteaOrchidaceaeEpipactis siganteaOrchidaceaeEpipactis siganteaOrchidaceaeFiperia transversaOrchidaceaePiperia transversaOrchidaceaePiperia transversaOrchidaceaeSpiranthes romanzoffianaOrchidaceaeAegilops triuncialisPoaceaeAgrostis exarataPoaceaeAgrostis gigantea*PoaceaeAgrostis pilensPoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	478	monocots		Corallorhiza maculata var. occidentalis	summer coral-root
OrchidaceaeEpipactis giganteaOrchidaceaeEpipactis helleborine*OrchidaceaeEpipactis helleborine*OrchidaceaePiperia transversaOrchidaceaePiperia transversaOrchidaceaePiperia transversaOrchidaceaeSpiranthes romanzoffianaOrchidaceaeSpiranthes romanzoffianaOrchidaceaeAgrostis exarataPoaceaeAgrostis gigantea*PoaceaeAgrostis pigantea*PoaceaeAgrostis pilensPoaceaeAgrostis pallensPoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeAvena faua**PoaceaeAvena faua**PoaceaeArrhenatherum elatius*PoaceaeAvena faua**PoaceaeAvena faua**PoaceaeAvena faua**PoaceaeAvena faua**PoaceaeAvena faua**PoaceaeAvena faua**PoaceaeAvena faua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	479		Orchidaceae	Corallorrhiza striata	striped/hooded coral root
OrchidaceaeEpipactis helleborine *OrchidaceaeGoodyera oblongifoliaOrchidaceaePiperia transversaOrchidaceaePiperia transversaOrchidaceaePiperia transversaOrchidaceaeSpiranthes romanzoffianaOrchidaceaeSpiranthes romanzoffianaPoaceaeAgrostis exarataPoaceaeAgrostis syamtea*PoaceaeAgrostis pigantea*PoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeAnthoxanthum odoratum*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata*PoaceaeAvena barbata*PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	480			Epipactis gigantea	stream orchid
OrchidaceaeGoodyera oblongifoliaOrchidaceaePiperia transversaOrchidaceaePiperia transversaOrchidaceaeSpiranthes romanzofftanaOrchidaceaeSpiranthes romanzofftanaOrchidaceaeSpiranthes romanzofftanaPoaceaeAegilops triuncialisPoaceaeAgrostis exarataPoaceaeAgrostis gigantea*PoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeAira caryophyllea*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata*PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	481			Epipactis helleborine*	broad-leaved helleborine
OrchidaceaePiperia transversaOrchidaceaePiperia unalascensisOrchidaceaeSpiranthes romanzoffianaOrchidaceaeSpiranthes romanzoffianaPoaceaeAgrostis exarataPoaceaeAgrostis starataPoaceaeAgrostis pigantea*PoaceaeAgrostis pigantea*PoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeAnthoxanthum odoratum*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata**PoaceaeAvena fatua **PoaceaeBrachypodium distachyon **PoaceaeBrachypodium distachyon **	482			Goodyera oblongifolia	Rattlesnake-plantain
OrchidaceaePiperia unalascensisOrchidaceaeSpiranthes romanzoffianaPoaceaeSpiranthes romanzoffianaPoaceaeAegilops triuncialisPoaceaeAgrostis exarataPoaceaeAgrostis exarataPoaceaeAgrostis gigantea*PoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeArrhenathernPoaceaeArrhenatherum elatius*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	483	_		Piperia transversa	royal rein orchid
OrchidaceaeSpiranthes romanzoffianaPoaceaeAegilops triuncialisPoaceaeAgrostis exarataPoaceaeAgrostis gigantea*PoaceaeAgrostis pillinPoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeAnthoxanthum odoratum*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata**PoaceaeAvena fatua**PoaceaeArrhenatherum elatius*PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	484	_		Piperia unalascensis	(Alaska) rein orchid
PoaceaeAegilops triuncialisPoaceaeAgrostis exarataPoaceaeAgrostis exarataPoaceaeAgrostis sigantea*PoaceaeAgrostis halliiPoaceaeAgrostis halliiPoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeArra caryophyllea*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	485		Orchidaceae	Spiranthes romanzoffiana	hooded lady's-tresses
PoaceaeAgrostis exarataPoaceaeAgrostis gigantea*PoaceaeAgrostis pillensPoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeAira caryophyllea*PoaceaeAnthoxanthum odoratum*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	486			Aegilops triuncialis	barbed goat gras
PoaceaeAgrostis gigantea*PoaceaeAgrostis pallensPoaceaeAgrostis pallensPoaceaeAnthoxanthum odoratum*PoaceaeAnthoxanthum odoratum*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata**PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	487			Agrostis exarata	spike bentgrass
PoaceaeAgrostis halliiPoaceaeAgrostis pallensPoaceaeAira caryophyllea*PoaceaeAnthoxanthum odoratum*PoaceaeArrhenatherum elatius*PoaceaeAvena barbata**PoaceaeAvena fatua**PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBrachypodium distachyon**	488		Poaceae	$Agrostis$ gigantea $^*$	creeping bentgrass, redtop
Poaceae     Agrostis pallens       Poaceae     Aira caryophyllea*       Poaceae     Anthoxanthum odoratum*       Poaceae     Anthoxanthum odoratum*       Poaceae     Arrhenatherum elatius*       Poaceae     Avena barbata**       Poaceae     Avena fatua**       Poaceae     Brachypodium distachyon**	489			Agrostis hallii	Hall's bent grass
Poaceae     Aira caryophyllea*       Poaceae     Anthoxanthum odoratum*       Poaceae     Arrhenatherum elatius*       Poaceae     Avena barbata**       Poaceae     Avena barbata**       Poaceae     Avena fatua**       Poaceae     Brachypodium distachyon**       Poaceae     Brachypodium distachyon**	490	monocots	Poaceae	Agrostis pallens	seashore/leafy bentgrass
Poaceae     Anthoxanthum odoratum*       Poaceae     Arrhenatherum elatius*       Poaceae     Avena barbata**       Poaceae     Avena fatua**       Poaceae     Brachypodium distachyon**       Poaceae     Brachypodium distachyon**	491		Poaceae	Aira caryophyllea*	silver hairgrass
Poaceae     Arrhenatherum elatius*       Poaceae     Avena barbata**       Poaceae     Avena fatua**       Poaceae     Brachypodium distachyon**       Poaceae     Brachypodium distachyon**	492		Poaceae	$Anthoxanthum odoratum^*$	sweet vernal grass
Poaceae     Avena barbata**       Poaceae     Avena fatua**       Poaceae     Brachypodium distachyon**       Poaceae     Brachypatium distachyon**	493		Poaceae	$Arrhenatherum\ elatius^*$	tall oatgrass
PoaceaeAvena fatua**PoaceaeBrachypodium distachyon**PoaceaeBriza maxima**	494			Avena barbata**	slender wild oat
Poaceae Brachypodium distachyon** Poaceae Briza maxima **	495			Avena fatua**	European wild oat
Poaceae Briza maxima**	496	monocots		$Brachypodium\ distachyon^{**}$	purple falsebrome
	497	monocots	Poaceae	Briza maxima**	large rattlesnake (quaking) grass

PoaceaeBromus carinatus var. c.PoaceaeBromus carinatus var. c.PoaceaeBromus catharticus var. c.PoaceaeBromus commutatus*PoaceaeBromus diandrus **PoaceaeBromus diandrus **PoaceaeBromus nadritensis ssp. m.*PoaceaeBromus vulgarisPoaceaeBromus vulgarisPoaceaeBromus vulgarisPoaceaeBromus vulgarisPoaceaeBromus vulgarisPoaceaeCortaderia jubata**PoaceaeDacylon dacylon*PoaceaeDacylis glomerata*PoaceaeDacylis glomerata*PoaceaeDacylis glomerata*PoaceaeDacylis glomerata*PoaceaeDacylon dcorylonicaPoaceaeDacylonicaPoaceaeDacylonicaPoaceaeDacylis glomerata*PoaceaeDacylonicaPoaceaeDacylonicaPoaceaeDacylonicaPoaceaeDacylonicaPoaceaeDacylonicaPoaceaeDacylonicaPoaceae <t< th=""><th>498</th><th>monocots</th><th>Poaceae</th><th>Briza minor*</th><th>small rattlesnake (quaking) grass</th></t<>	498	monocots	Poaceae	Briza minor*	small rattlesnake (quaking) grass
monocotsPoaceaeBromus carinatus var. marginatusmonocotsPoaceaeBromus catharticus var. c.monocotsPoaceaeBromus diandrus**monocotsPoaceaeBromus diandrus**monocotsPoaceaeBromus diandrus**monocotsPoaceaeBromus nadritensis ssp. m*monocotsPoaceaeBromus madritensis ssp. nubens*monocotsPoaceaeBromus madritensis ssp. nubens*monocotsPoaceaeBromus nadritensis ssp. nubens*monocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeCalamagrostis koelerioidesmonocotsPoaceaeCortaderia jubata **monocotsPoaceaeCynodon dactylon*monocotsPoaceaeDartylis glomerata*monocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californicamonocotsPo	499		Poaceae	Bromus carinatus var. c.	California brome
monocotsPoaceaeBromus catharticus var. c.monocotsPoaceaeBromus commutatus*monocotsPoaceaeBromus hordeaceus**monocotsPoaceaeBromus hordeaceus**monocotsPoaceaeBromus madritensis ssp. m*monocotsPoaceaeBromus madritensis ssp. m*monocotsPoaceaeBromus madritensis ssp. m*monocotsPoaceaeBromus madritensis ssp. m*monocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeCalamagrostis koelerioidesmonocotsPoaceaeCalamagrostis rubescensmonocotsPoaceaeCortaderia jubata**monocotsPoaceaeCynosurus echinatus*monocotsPoaceaeCynosurus echinatus*monocotsPoaceaeCynosurus echinatus*monocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californica	500	monocots		Bromus carinatus var. marginatus	large mountain bromegrass
monocotsPoaceaeBromus commutatus*monocotsPoaceaeBromus diandrus**monocotsPoaceaeBromus hordeaceus**monocotsPoaceaeBromus nadritensis ssp. m.*monocotsPoaceaeBromus madritensis ssp. m.*monocotsPoaceaeBromus rectorum **monocotsPoaceaeBromus vulgarismonocotsPoaceaeCalamagrostis rubescensmonocotsPoaceaeCortaderia jubata**monocotsPoaceaeCortaderia selloana **monocotsPoaceaeCynodon dacrylon *monocotsPoaceaeDaratylis glomerata*monocotsPoaceaeDarthonia californicamonocotsPoaceaeDarthonia californica <td< th=""><th>501</th><th></th><th></th><th>Bromus catharticus var. c.</th><th>rescue grass</th></td<>	501			Bromus catharticus var. c.	rescue grass
monocotsPoaceaeBromus diandrus**monocotsPoaceaeBromus hordeaceus**monocotsPoaceaeBromus madritensis ssp. m.*monocotsPoaceaeBromus madritensis ssp. m*monocotsPoaceaeBromus madritensis ssp. m*monocotsPoaceaeBromus rectorum **monocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeCalamagrostis rubescensmonocotsPoaceaeCortaderia jubata**monocotsPoaceaeCortaderia selloana**monocotsPoaceaeCynodon dactylon*monocotsPoaceaeDactylis glomerata*monocotsPoaceaeDactylis glomerata*monocots<	502	monocots		$Bromus\ commutatus^*$	hairy chess
monocotsPoaceaeBromus hordeaceus**monocotsPoaceaeBromus madritensis ssp. m.*monocotsPoaceaeBromus madritensis ssp. rubens*monocotsPoaceaeBromus tectorum **monocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeCalamagrostis rubescensmonocotsPoaceaeCortaderia yubata**monocotsPoaceaeCortaderia selloana**monocotsPoaceaeCynodon dactylon*monocotsPoaceaeDactylis glomerata*monocotsPoaceaeDactylis glomerata*<	503			Bromus diandrus**	ripgut brome
monocotsPoaceaeBromus madritensis ssp. m.*monocotsPoaceaeBromus madritensis ssp. rubens*monocotsPoaceaeBromus tectorum**monocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeBromus vulgarismonocotsPoaceaeCalamagrostis rubescensmonocotsPoaceaeCalamagrostis rubescensmonocotsPoaceaeCortaderia jubata**monocotsPoaceaeCortaderia selloana**monocotsPoaceaeCortaderia selloana**monocotsPoaceaeCynodon dactylon*monocotsPoaceaeDactylis glomerata*monocotsPoaceaeDactylis glomerata*	504	_		Bromus hordeaceus**	soft brome
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	518	monocots	Poaceae	Deschampsia danthonioides	annual hairgrass

519	monocots	Poaceae	Deschampsia elongata	slender hairgrass
520	monocots	Poaceae	Digitaria sanguinalis	hairy crab grass
521	monocots	Poaceae	Echinochloa crus-galli	million-dollar (barnyard) grass
522	monocots	Poaceae	Ehrharta erecta**	erect veldtgrass
523	monocots	Poaceae	Elymus californicus <sup>E-CA, R4.3</sup>	California bottle-brush grass
524	monocots	Poaceae	Elymus caput-medusae**	Medusa head
525	monocots	Poaceae	Elymus glaucus ssp. g.	blue wildrye
526	monocots	Poaceae	Elymus triticoides	beardless/creeping wildrye
527	monocots	Poaceae	$Festuca\ arundinacea^{**}$	tall fescue
528	monocots	Poaceae	$Festuca\ bromoides^*$	brome fescue
529	monocots	Poaceae	Festuca elmeri	Elmer's fescue
530	monocots	Poaceae	Festuca microstachys	small fescue
531	monocots	Poaceae	$Festuca\ mywos^*$	rattail fescue
532	monocots	Poaceae	Festuca occidentalis	western fescue
533	monocots	Poaceae	Festuca octofiora	annual (8-flowered) fescue
534	monocots	Poaceae	$Festuca\ perennis^{**}$	Italian ryegrass
535	monocots	Poaceae	Festuca pratensis $^*$	Meadow fescue
536	monocots	Poaceae	Festuca rubra	red fescue
537	monocots	Poaceae	$Gastridium\ phleoides^*$	nitgrass
538	monocots	Poaceae	Hainardia cylindrica	one-glumed hard grass
539	monocots	Poaceae	Holcus lanatus**	velvet grass

540	540 monocots	Poaceae	Hordeum brachvantherum ssp. californicum	California meadow harlev
541	monocote		Hamburgen ass munitaria muser and the second secon	Mediterranean harlev
041	III0II0C0IS		notaeum marmum ssp. gussoneumum	
542	monocots	Poaceae	Hordeum murinum $\mathrm{ssp.}\ leporinum^*$	foxtail/hare barley
543	3 monocots	Poaceae	Koeleria macrantha	June grass
544	4 monocots	Poaceae	Melica californica	California melic, oniongrass
545	5 monocots	Poaceae	Melica imperfecta	coast range melic
546	5 monocots	Poaceae	Melica subulata	Alaskan onion grass
547	7 monocots	Poaceae	Melica torreyana	Torrey's melica
548	8 monocots	Poaceae	Panicum acuminatum var. fasciculatum	Pacific panic grass
549	) monocots	Poaceae	$Paspalum\ dilatatum^*$	Dallis grass
550	) monocots	Poaceae	Pennisetum clandestinum	Kikuyu grass
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552	2 monocots	Poaceae	Phalaris californica	California canarygrass
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559	) monocots	Poaceae	Stipa lepida	foothill needlegrass
560	) monocots	Poaceae	Stipa pulchra	purple needlegrass

561	monocots	Poaceae	Trisetum canescens	tall trisetum, nodding oat grass
562	monocots	Poaceae	Triticum aestivum $^{st}$	common wheat
563	monocots	Ruscaceae	Maianthemum racemosum	false Solomon's seal
564	monocots	Ruscaceae	Maianthemum stellatum	starry false Solomon's seal
565	monocots	Themidaceae	Brodiaea coronaria	garland brodiaea
566	monocots	Themidaceae	Brodiaea elegans ssp. elegans	harvest brodiaea
567	monocots	Themidaceae	Brodiaea terrestris ssp. terrestris	dwarf brodiaea
568	monocots	Themidaceae	Dichelostemma capitatum ssp. c.	blue dicks
569	monocots	Themidaceae	Triteleia hyacinthina	white brodiaea
570	monocots	Themidaceae	Triteleia ixioides ssp. ixioides	golden brodiaea, pretty face
571	monocots	Themidaceae	Triteleia laxa	Ithuriel's spear, common triteleia

# Glossary

Abaxial: the backside or underside of a surface or structure

Achene: a dry, 1-seeded fruit that does not open inherently to release its seed(s); characteristic of Asteraceae, usually featuring pappus

Acuminate: when a structure such as a leaf tapers to a long, sharp tip with concave sides

**Acute**: when a structure such as a leaf tapers to a short, sharp tip with convex or straight sides that come together at less than a right angle

Adaxial: the front side or upper side of a surface or structure

Alternate: arranged singly along an axis, with points of attachment alternating along the sides of the stem rather than growing across from each other (opposite) Annual: a plant that germinates and dies in one year or one growing season; usually herbaceous

Anther: the top part of a stamen that bears pollen

**Appressed**: flattened against a surface (or nearly so)

Ascending: growing upward and away from the base

**Axil**: angle between a structure or appendage and its main axis (e.g. leaf and stem, lateral leaf vein and leaf midrib)

**Axis**: main line of direction, growth, or extension of a structure (e.g. stem) that other structures emerge or grow from

**Banner**: large, uppermost petal characteristic of bilateral Fabaceae flowers **Basal**: located at or near the base of a plant or plant part

**Beak**: narrowed end of a flower part (mostly pertaining to plants in Orobanchaceae in this guide)

**Bell-shaped**: describes a flower that widens gradually from an already wide base **Berry**: generally fleshy, soft, many-seeded fruit that does not open inherently to release its seed(s)

**Biennial**: a plant that germinates and dies in two years or growing seasons; usually herbaceous

**Bilateral**: when a structure such as a flower can be divided into a mirror image in just one way

**Bisexual**: when functional male and female reproductive parts are both present in a flower

Blade: the expanded part of a leaf or petal

Bract: a reduced leaf-like structure present at the base of an inflorescence,

flower, or branch or emerging from a cone

Bristle: a stiff, straight, relatively large hair or hair-like structure

Bulb: a short underground stem with fleshy layers

**Bulblet**: a small bulb or bulb-like structure that forms at the base of a bulb or in a leaf or bract axil

**Calyx**: term for a flower's sepals together as a single unit, making up the first and outermost perianth whorl

**Capsule**: a dry fruit with multiple chambers, which opens irregularly or via slits, pores, or lines

**Catkin**: a pendent spike or raceme inflorescence of inconspicuous unisexual flowers

**Cauline**: leaves growing along an above-ground stem (as opposed to basal) **Ciliate**: fringe of hairs along margins or edges

**Compound**: a structure made up of two or more parts or of repeating structures **Compound leaf**: a leaf composed of two or more distinct sets of leaflets;

essentially, leaves made up of smaller leaves

Compressed: flattened

Conic: cone-shaped

Cordate: heart-shaped; a term usually in reference to the base of a leaf

**Corolla**: term for a flower's petals together as a single unit, making up the second perianth whorl

Crenate: having shallow, rounded teeth along a margin; scalloped

**Deciduous**: leaves or other structures that are not persistent, meaning they fall off the plant seasonally or readily; describes non-evergreen plants

**Decumbent**: primarily lying flat on the ground but with tips growing upward **Deltate**: more or less with the shape of an equilateral triangle

**Dentate**: having coarse, outward-pointing teeth along a margin

**Dioecious**: a unisexual plant that produces separate male and female flowers on different individuals

**Disciform head**: in Asteraceae, a flowering head made up of disk flowers and inconspicuous or missing ray flowers (similar in appearance to a discoid head)

**Discoid head**: in Asteraceae, a flowering head made up of only disk flowers

**Disk flower**: in Asteraceae, small, bisexual, radial, 5-lobed flowers that collectively make up the center portion of a composite flowering head

Dissected: deeply, sharply cut into segments as to appear compound

Distal: toward the tip or end (as opposed to proximal)

**Elliptic**: widest at the middle and tapering equally at both ends, like a flattened circle or narrow oval

**Endemic**: a native plant limited to a particular area

**Entire**: having continuous margins that lack teeth, lobes, or any other sorts of divisions

**Erect**: upright

**Evergreen**: plants that are not deciduous, meaning that they do not drop their leaves seasonally

**Exceeding**: when one structure surpasses another due to length or orientation **Exserted**: protruding beyond surrounding parts

Exudate: a substance excreted from a plant

Filament: thread-like stalk of a stamen supporting the anther

**Flower**: the reproductive portion of a flowering plant, with petals and/or sepals and male and/or female reproductive structures present

Fusiform: broadest at the middle and tapering to both ends

Glabrous: hairless

**Glandular**: bearing substance-excreting gland(s) in the outermost cell layer or at the tip of a hair

Glaucous: covered with a waxy or powdery coating that is whitish or bluish in color

**Head**: a dense cluster of flowers or inflorescences, usually pertaining to plants in Asteraceae

**Herb**: a plant that is non-woody above ground

**Inflorescence**: all the flowers or flower clusters together on a plant as one unit, not including larger foliage

Involucre: whorl of bracts subtending a flower, fruit, or inflorescence

Keel: pair of lowermost, fused petals characteristic of bilateral Fabaceae flowers

**Lanceolate**: widest near the base and narrowing to an acute tip; significantly longer than wide

Lateral: on or at the side of a structure

Leaf: a photosynthetic organ made up of a flat blade and a stalk

Leaflet: a leaf-like unit of a compound leaf

Ligule: in Asteraceae, a strap-shaped, petal-like, 5-lobed ray flower

**Liguliflorous head**: in Asteraceae, a flowering head made up of only ligules **Limb**: the expanded, petal-like lobes of a fused corolla or calyx located above the tube and throat

Linear: long and very narrow with approximately parallel sides

**Lip**: one of the upper or lower two parts of a bilateral, irregular corolla or calyx **Lobe**: like marginal teeth, but larger and rounder; non-fused portions of

otherwise fused structures, like sepals

Margin: edge

Membranous: thin, flexible, and more or less translucent

**Monoecious**: a unisexual plant that produces separate male and female flowers on the same individual

Native: growing naturally in an area

**Naturalized**: a non-native plant that has established and persists in the new environment without human aid

**Nectary**: a structure that produces nectar

Needle: slender, linear, needle-shaped leaf typical of conifers

Nodding: drooping or hanging down on a curved stalk

Node: point of origin of a leaf, bud, branch, or flower on a stem

Nutlet: small nut or nut-like fruit

**Ob-**: prefix used to invert a term regarding shape

**Oblong**: at least two times longer than wide with almost parallel sides **Obtuse**: when a structure such as a leaf tapers to a short, blunt or rounded tip with convex or straight sides that come together at more than a right angle

**Opposite**: arranged in pairs along an axis, growing across from each other rather than singly, alternating along the axis (alternate)

**Ovary**: wider, basal part of the pistil that holds ovules, which become seeds

Ovate: describes two-dimensional structures (leaf) that are egg-shaped

Ovoid: describes three-dimensional structures (cone) that are egg-shaped

**Palmate**: lobed, veined, or divided from a single point of origin, like fingers on a hand

**Panicle**: a branched inflorescence in which flowers bloom from the bottom upwards; a raceme of racemes

**Pappus**: collective term for the scales, awns, or bristles protruding from the top of the achene and replace the calyx in Asteraceae plants

Pedicel: in an inflorescence, the stalk of an individual flower

**Peduncle**: the stalk of a single flower (not in an inflorescence) or of a whole inflorescence

Pendent: drooping or hanging straight downward

**Perennial**: a plant that germinates and dies in more than two years or growing seasons; non-woody to woody

**Perianth**: collective term for the calyx (sepals) and corolla (petals) together, usually used when the calyx and corolla are indistinguishable, as with many Liliaceae plants

**Perianth part**: individual part of a perianth; useful term when the calyx and corolla are indistinguishable

Petal: individual part of the corolla

Petiole: leaf stalk, which can be conspicuous or not

**Phyllary**: in Asteraceae, an individual bract that makes up part of the involucre **Pinna (Pinnae)**: a primary division in a fern leaf blade, like a leaflet in a compound leaf

**Pinnate**: term for the feathery appearance of leaves, veins, or lobes that are borne, branching from, or arranged along a shared axis, whether in pairs or not; if a compound leaf has a leaflet at the end, it is odd-pinnate, and if it does not have a leaflet at the end, it is even-pinnate

1-pinnate: leaf blade once-divided into leaflets

**2-pinnate**: leaf blade twice-divided into leaflets

**3-pinnate**: leaf blade divided into leaflets three times

**Pinnule**: a secondary division in a twice-compound fern leaf blade, which is the primary division of a pinna

**Pistil**: a flower's female reproductive organ, which is made up of an ovary, a style, and a stigma; a flower can have one pistil, multiple pistils, or a compound pistil

**Pistillate**: possessing functional pistils but lacking functional stamens (or lacking stamens altogether)

**Prickle**: a sharp projection, stiff to somewhat flexible, emerging from a plant's outer tissue layer

**Prostrate**: growing flat on the ground or low and parallel to the ground **Proximal**: closer to the base or source than to the end or tip

**Puberulent**: slightly hairy with fine, short hairs

**Raceme**: an unbranched inflorescence in which flowers that are borne on pedicels bloom from the bottom upwards

**Radial**: when a structure such as a flower can be divided into a mirror image in three or more ways

**Radiate head**: in Asteraceae, a flowering head made up of central disk flowers and surrounding ray flowers

Ray flower: in Asteraceae, petal-like, generally sterile or pistillate, 3-lobed

flowers that collectively make up the outer portion of a composite flowering head

Receptacle: the structure where flower parts or flowers are attached in a flower or flowering head

**Recurved**: curved downward or backward gradually

**Reduced**: smaller in size

Reflexed: curved or bent downward or backward abruptly

**Reniform**: kidney-shaped

Rhizome: horizontal underground stem

**Rib**: raised vein or ridge

Rosette: radiating cluster of leaves at or near the base of a plant

Rotate: fused, disk-shaped corolla with widely spreading lobes and little or no tube

Sagittate: arrowhead-shaped, with downward-pointing lobes at the base

Salverform: fused corolla with a slender tube and an abruptly spreading, flat limb (of petal-like lobes)

Scabrous: rough texture

Scale: dry, thin, translucent or variously colored structure

Scape: a leafless flowering stem (peduncle) rising from a bulb, rhizome or other underground structure

**Sepal**: individual part of the calyx

Serrate: having sharp, saw-like, tipward-pointing teeth along a margin **Sessile**: directly attached without a stalk

Sheath: when one structure or part of a structure partially or fully surrounds another structure or part of a structure

**Shrub**: a woody, much-branched plant that is tree-like usually shorter than a tree Simple: undivided or unbranched; not compound

Sorus (Sori): cluster of sporangia on the backside of a fern

Spheric: sphere-shaped

Spike: an unbranched inflorescence in which sessile flowers usually bloom from the bottom upwards

Spine: modified leaf or leaf part that is sharp, stiff, and usually subtending an axillary bud or branch

**Sporangium (Sporangia)**: a case or sac that bears spores

**Spore**: microscopic reproductive cells present in a sporangium

Spreading: nearly horizontal to the origin or point of attachment

**Spur:** hollow, slender, sac-like appendage of a perianth part, which usually bears nectar

Stamen: a flower's male reproductive organ, made up of a filament and a pollenbearing anther

Staminate: possessing functional stamens but lacking a functional pistil or pistils (or lacking a pistil or pistils altogether)

Staminode: a modified, sterile stamen that can appear petal-like

Stigma: top part of the pistil that receives pollen

Stipule: leaf-like appendage, usually part of a pair, present at the base of a petiole

Stolon: thin, above-ground, horizontal stem that roots and produces new clonal 158

Strigose: having hairs that are stiff, straight, sharp and appressed

Subshrub: a small shrub with a woody base and non-woody upper stems and twigs

**Tendril**: thin, twining, stem-like structure helps plants such as vines coil around and climb up other plants or structures

Ternate: in three parts

**Throat**: expanded, open portion of a fused corolla or calyx located between the tube and limb

**Tomentose**: having woolly, densely interwoven hairs that are matted or tangled; cobwebby

Tooth (Teeth): projection that is small and pointed

Truncate: having a tip or base that is squared off as if cut

**Tube**: hollow, cylindrical portion of a fused corolla or calyx located below the limb and throat

**Umbel**: an inflorescence with three or more pedicels that radiate from a common point, giving it a flat-topped or convex overall shape

Urn-shaped: wide at the base and narrowing to a hollow mouth

**Unisexual**: when functional male or female reproductive parts are present in a flower, but not both

**Whorled (Whorl)**: ring-like arrangement where three or more structures, like leaves, arise from the same point on an axis in a group

**Wing**: one of two lateral petals characteristic of bilateral Fabaceae flowers or a thin, flat extension or appendage emerging from a structure



## A Simple Guide to Plant Morphology

#### Leaf Venation













pinnate

pinnately lobed

parallel

palmate

palmately lobed

trifoliate















elliptic



oblanceolate

ovate





falcate

linear oblong



orbicular



spatulate

runcinate

**Leaf Tip Shapes** 











acute

acuminate

rounded

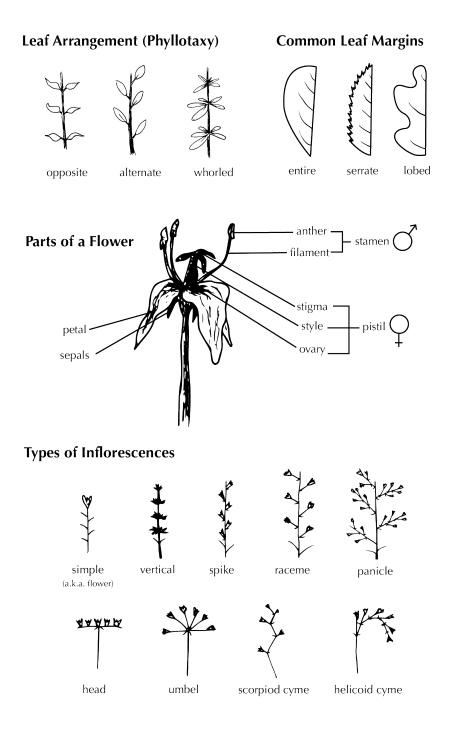
emarginate

spine tipped

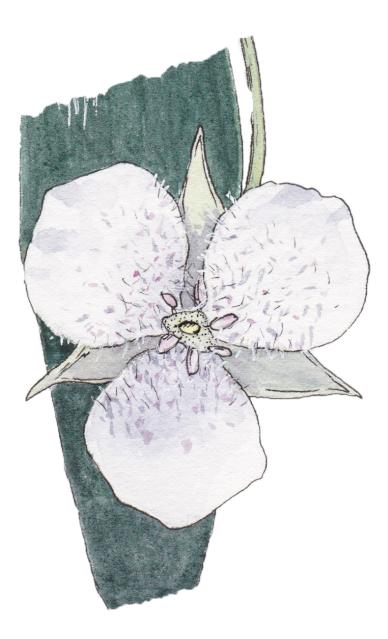
cordate

deltoid





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I am so grateful I had the opportunity to create a campus resource such as this, as it better connected me to my natural surroundings and the endless wonders they contain. I hope the *Field Guide to Plants of UC Santa Cruz* inspires readers to get out in the field and make some new flowering (and non-flowering!) friends, just as the process of making it encouraged me to do. Whether you're walking between classes or hiking in the coastal prairie meadows of Upper Campus, there is always an opportunity to form a new friendship.



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# UCSC Campus Natural Reserve

The UC Santa Cruz Campus Natural Reserve (UCSC CNR) is a 409-acre living laboratory and outdoor classroom that supports a wide variety of field-based research and learning. Established as part of the 1988 UCSC Long Range Development Plan, the CNR represents the most diverse campus reserve within all of California.

The acknowledged need for such a learning and research resource on the UCSC campus originated with Chancellor Dean McHenry, even before the campus officially opened its doors. In early visionary and program-planning endeavors UC leaders realized the unique natural resources that the UCSC campus offered and began integrating the natural landscape into the campus vision in a manner that explicitly supports education and research in natural and environmental sciences.

The CNR provides a vital link between ideas discussed within traditional classrooms and their counterparts in the natural world. Thousands of students engage in CNR activities each year, participating in transformative experiences such as internships, student and faculty research projects, class field trips and volunteer opportunities. CNR staff members provide resources to meet the learning objectives of small, intensive upper-division field courses, as well as lower-division classes with enrollments topping 400 students. Enriched both professionally and personally, students often cite their hands-on experiences within the CNR as highlights of their time at UCSC.



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