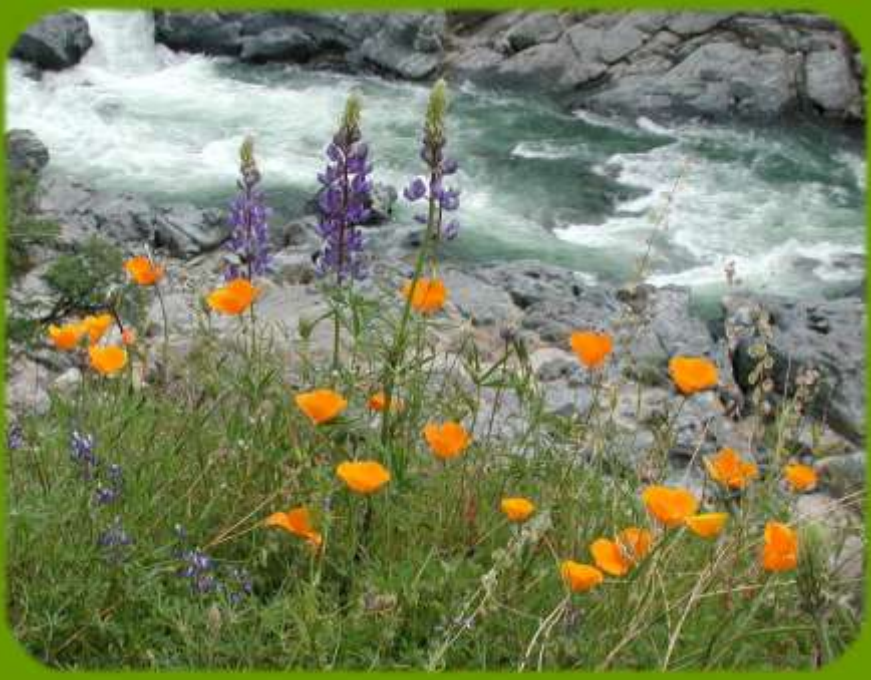
Wildflowers of Bridgeport



Photographs, descriptions and Maidu Native American uses of species on Bridgeport trails

South Yuba River Park Association

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Preface

The Bridgeport portion of the South Yuba River State Park ranges in elevation from about 600 to 1000 feet and includes four designated trails: Buttermilk Bend, Point Defiance Loop, Kneebone Beach, and Cemetery-Kentucky Creek. An April 2002 combined list by Chet Blackburn, Mary Miller, Marya Miller and Karen Callahan of the Redbud Chapter of the California Native Plant Society (RC-CNPS) identifies 220 flowering plants on these trails. This is a reasonably digestible list compared with the more than 15,000 flowering plants cataloged by the U.S. Department of Agriculture (USDA). The local scope, and hence small number, of Bridgeport flowering plants has allowed docents to post photo placards that identify plants on the Buttermilk Bend trail.

Typically, placards are placed for less than half these 220 identified plants, but those posted include the most frequently seen by visitors and the ones that contribute most of the spectacular display of spring wildflowers from late February to mid May. This book provides descriptions and photos for about 80 Bridgeport flowering plants, the great majority of the placard-identified plants.

In 2007, the Redbud Chapter of CNPS published *Wildflowers of Nevada and Placer Counties, California*. The 472-page book has photographs and descriptions of more than 500 species of wildflowers in this botanically rich area (only 1.5% of California's land area but with 38% of its vascular plant species). In that book, plants are organized by their botanical names and readers are encouraged to learn about wildflowers with these names. Botanical names are systematic and reasonably fixed, unlike common names, which vary with the whims of local residents, and unlike colors, which bear tenuous relationships to plant family, genus and species.

Nevertheless, wildflowers in the present book are organized by color, and under each color alphabetically by common names used in the region. This is done to conform with the trail guide created by the South Yuba River Park Association Wildflower Committee. The guide introduces Bridgeport wildflowers to visitors, who are often more interested in the beauty and Native American uses of the flowers than in their relationships to wildflowers more generally. The present book has the same purpose, and includes many photographs to give a close look at the beauty of wildflowers, even those that are noxious weeds when in our gardens. Sometimes several photographs are given for each species to show various contexts of beauty. For those who take the next step toward understanding wildflowers more generally, we highly recommend the magnificent book by the Redbud Chapter. Throughout the present book page numbers are given for related material in the RC-CNPS book.

This same material is presented in more dynamic form as a network of web pages on a South Yuba River Park Adventures website:

http://syrpa.lindberglce.com/flowerY.htm

where one can jump from a table of plant names directly to web pages for each plant. The web table is essentially the same as the Contents table of this book. The plant pages can also be accessed by grids of 12 thumbnail pictures, for when you need access by pictures rather than words. A link is also provided to a full-screen, 13-minute slide show of the flowers with music and explanation. Further search opportunities are provided by direct links from the web page for each plant to information on that plant at the U. S. Department of Agriculture PLANTS website. Wider information is available by electronic cut and paste of the botanical plant name into the Calflora website or Internet search engines. The botanical names in the table of flowers are direct links to the Jepson Manual treatment of this plant on The University and Jepson Herbaria web site.

In this printed book, inevitable large gaps around some photo insertions are filled with general park information and photos from park activities. These photos were taken from the South Yuba River State Park Adventures website, where they appear along with the stories of the activities.

Interesting information about each plant was extracted from notes prepared by Barbara Pixley from her Wildflower Committee resources as she updated the trail guide. We are indebted to her and more so to others who have added interesting facts about Bridgeport plants over the years. I tried to be faithful to these notes and to the accuracy of plant detail from the Internet, and assume responsibility for any errors that remain. Several pictures with butterflies were photographed by Andy and Barbara Heninger, including the picture on the back cover. All other photographs are by Herb Lindberg except as noted on the photos.

Please note that descriptions of Maidu, or more general, use of the plants as food or medicine are not guaranteed recipes for reader use. *Any such use is done at the risk of the reader -- no guarantee is given for safety.*

Comments for improvements or additions to this book are welcome in person at the SYRSP Visitors Center or via its phone, 530-432-2546.

Editor and SYRSP Docent
Herb Lindberg
Penn Valley, CA
January 2014

Contents

The flowering plant species in this book are presented in the same order as in the free fold-up brochure available in the Visitors Center: first by color – white, yellow / orange, red/pink, violet/purple, and shrubs/vines, and then in each color alphabetically by common name. The nominal months for the blooming seasons in the first column of the Contents are

E —— early: February to mid-March,
M —— mid-season: mid-March to mid-April, and
L —— late: mid-April through May.

In the detailed description pages, the information on family, genus, and species given in indented format just above the photograph was copied electronically (no re-typing or editing) from the USDA plants website, http://plants.usda.gov/. Now and again there are some subjective differences from the plant names in the main text, but these are minor and a demonstration of why botanical names so important.

Part 1. White

Part 2. Yellow / Orange

Part 3. Red / Pink

Part 4. Violet / Purple

Part 5. Shrubs / Vines

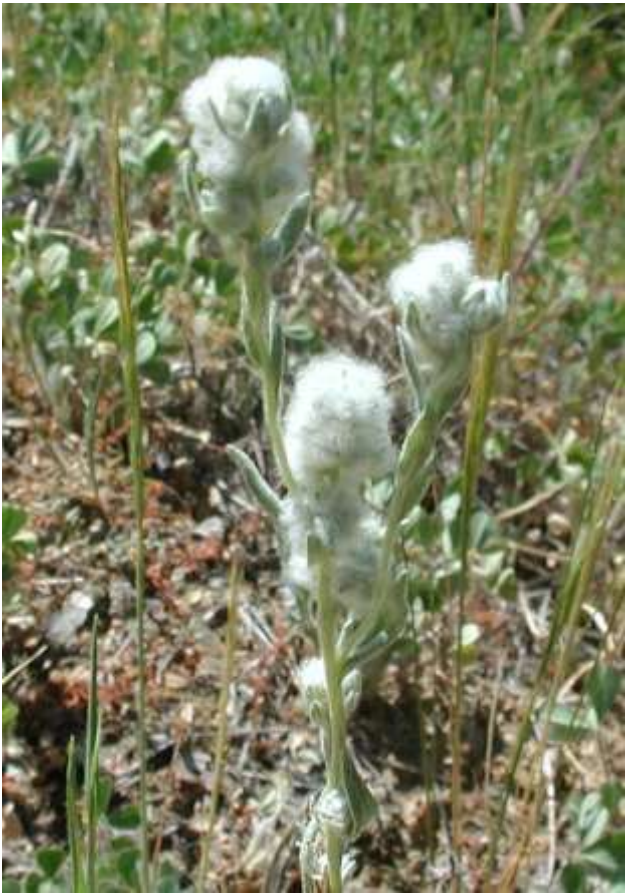
Part 1
White Flowers

Slender Cottonweed, *Micropus californicus*

Midseason bloomer. Aster (Sunflower) family. Low growing plant with grayish fuzzy flowers in heads. Flowers look like tips of cotton swabs. Tends to grow in masses. RC-CNPS: p. 112

No USDA classification was found for this plant under the above name, but it was found at Calflora, where its new name is given as *Bombycilaena californica*. With this name USDA gives:

Family Asteraceae — Aster family
Genus Bombycilaena DC.
Species *Bombycilaena californica* (Fisch. & C.A. Mey.) Holub
— false cottonseed

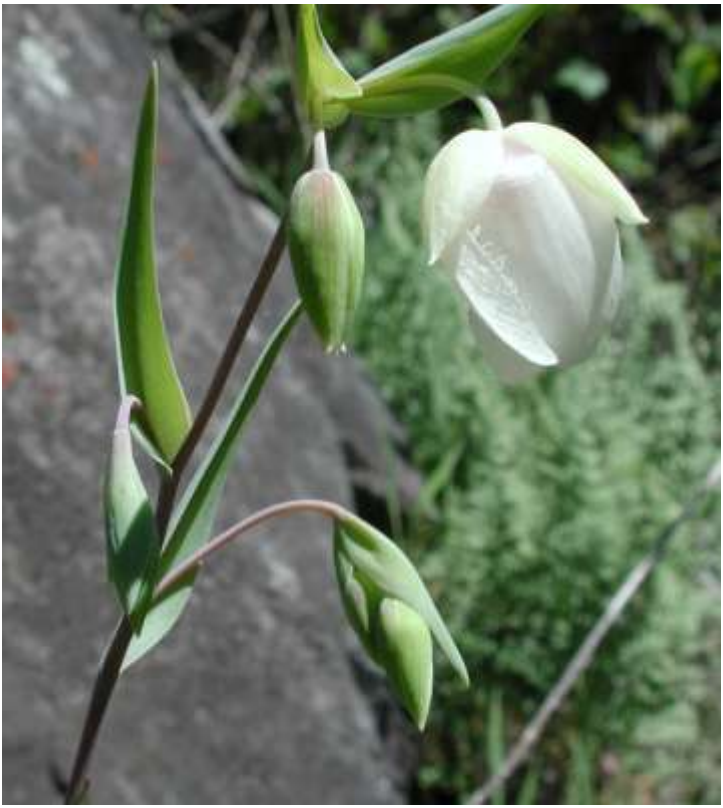


Fairy Lantern (Globe Lily), *Calochortus albus*

Midseason bloomer. Three-petal, hanging-lantern-like flowers with a pink bluish tinge. Alternate Globe Lily name reflects the globe shape of the flowers. Grows on shady hillsides. RC-CNPS: p. 219

Notes: Calochortus is Greek for *beautiful grass*. The Maidu ate the bulbs of this and others in this genus — dug bulbs, boiled, roasted or steamed them in pits. Some tribes pounded bulbs into flour and ate the result as mush. Bulbs preserved well. The entire plant can be used as a potherb, seeds ground into meal, buds eaten raw in salads. The bulbs are nutritious and tasty. Those of the Globe Lily species have a maple-like taste. Flowers are also edible. Some of the species are endangered. They prefer cool, shady, rocky slopes. USDA lists 56 Species and 78 accepted taxa overall in the mariposa lily genus.

Family Liliaceae — Lily family
Genus Calochortus Pursh — mariposa lily
Species *Calochortus albus* Dougl. ex Benth. — white fairy-lantern



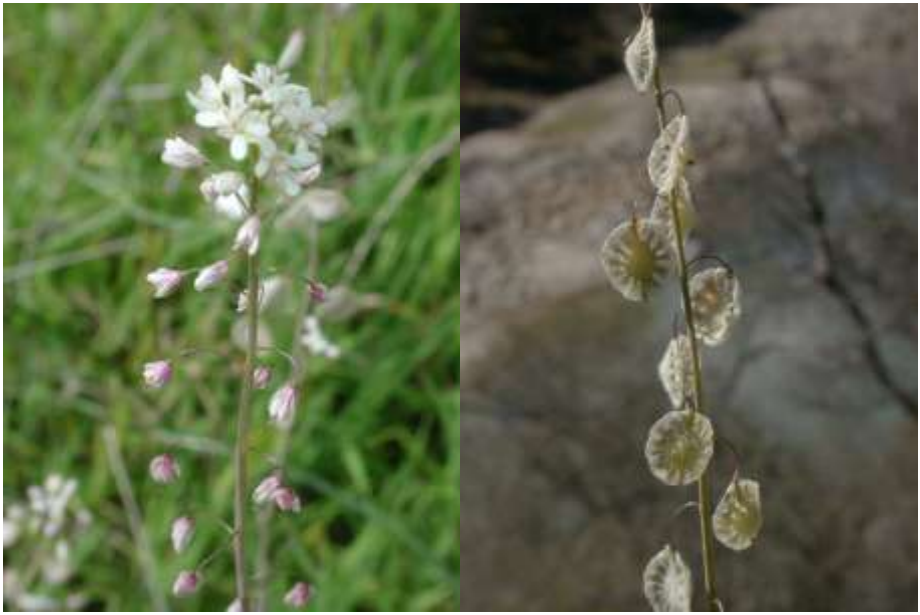
Lace Pod, *Thysanocarpus curvipes*

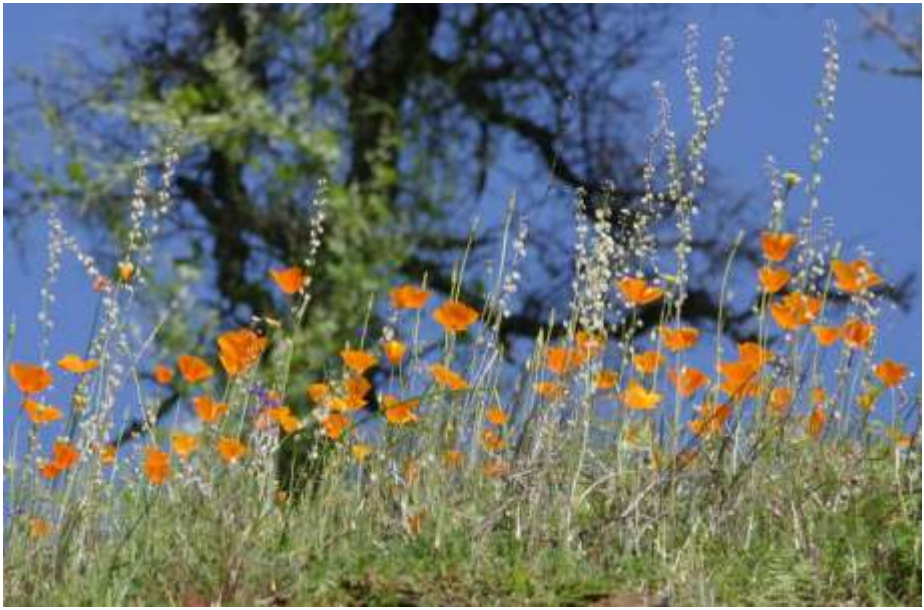
Early bloomer. Very tiny cross-shaped 4-petaled flowers, delicate seedpods. Grow on tall stems, with progression from flower to seedpod along a single stem at the same time. Stem is generally straight, but curved specimen was chosen for the picture on this page to get more of the progression into limited space. One of several members of the Mustard Family at Bridgeport. RC-CNPS: p. 133

Notes: Also called Fringepod and Fringe Lace Pods. Pods best observed when back-lighted. Used for gruel-like soup, and tea for stomach aches and colic. The seeds were ground, parched and made into flour. It is common in open, grassy slopes. High in vitamins A, B, and C. Unopened flowers can be boiled and eaten. The seeds were collected from dried pods. **Caution**: some species can be poisonous! Related Cruciferae include: cabbage, radishes, broccoli, and brussel sprouts. Most mustards are yellow, some are white.

Family Brassicaceae — Mustard family
Genus Thysanocarpus Hook. — fringepod
Species *Thysanocarpus curvipes* Hook. — sand fringepod

Lace Pod, *Thysanocarpus curvipes* (Concluded)





Beautiful display with tufted poppies

Miner's Lettuce, *Claytonia perfoliata*

Early bloomer. Small white or pink flowers, 5 petals, umbrella-like leaves. Edible, cooked or raw; also many medicinal uses. RC-CNPS: p. 301

Notes: Native plant, also called Winter Purslane. Formerly called Montia perfoliata. It was named after John Clayton, a colonial American botanist. Perfoliata means *through leaf*, because the stems "perforate" through the leaf — see photo below. This genus has 28 species in North and Central America, and eastern Asia. It prefers shaded, moist areas. Miners ate it. Leaves and stems can be eaten raw or boiled, best eaten when young. Roots are also edible. It is a good source of vitamin C. It is now grown as a delicacy in Europe — a gourmet salad green, and also eaten cooked, like spinach. The Maidu used the leaves as a laxative tea. The black seeds are a food source for birds.

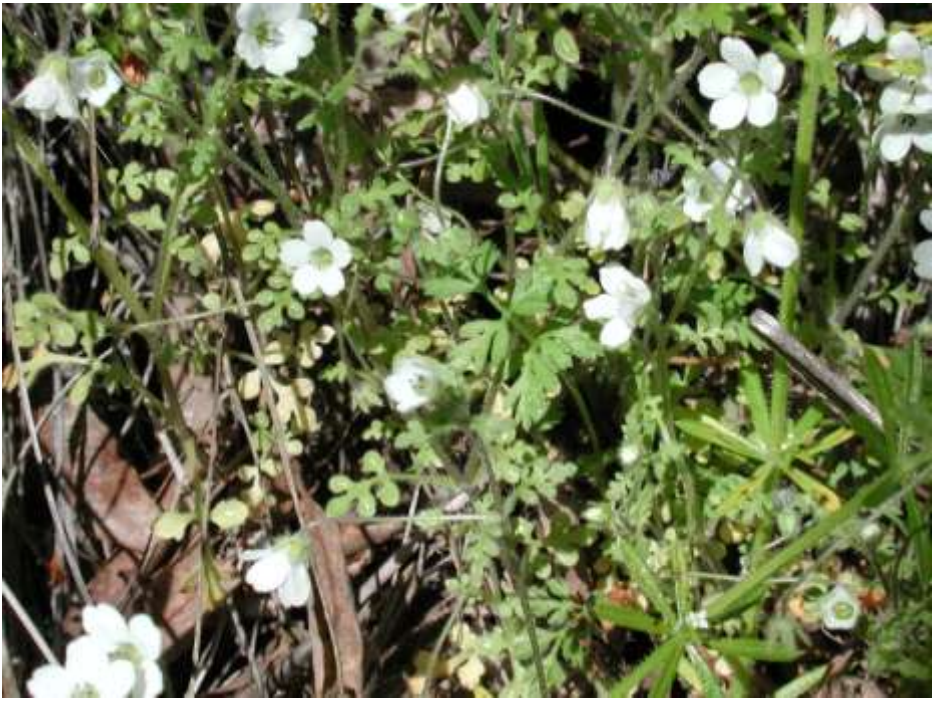
Family Portulacaceae — Purslane family
Genus Claytonia L. — springbeauty
Species *Claytonia perfoliata* Donn ex Willd. — miner's lettuce

Canyon Nemophila, *Nemophila heterophylla*

Early bloomer. Five small petals united in a bowl shape, weak stems. Low plants often massed on grassy, shady slopes. While distinct from popcorn flower (page 20), both have small white 5-petaled flowers and from a distance the flowers look very similar. However, they can be distinguished from a distance because popcorn flowers grow on tall stems while Canyon Nemophila hugs the ground. RC-CNPS: p. 189

Notes: Nemos from the Greek meaning *wooded pasture* or *meadow*, Phila from the Greek meaning *lover of*. Our species is white to pale blue—related to Baby Blue Eyes.

Family Hydrophyllaceae — Waterleaf family
Genus Nemophila Nutt. — baby blue eyes
Species *Nemophila heterophylla* Fisch. & C.A. Mey. — small baby blue eyes

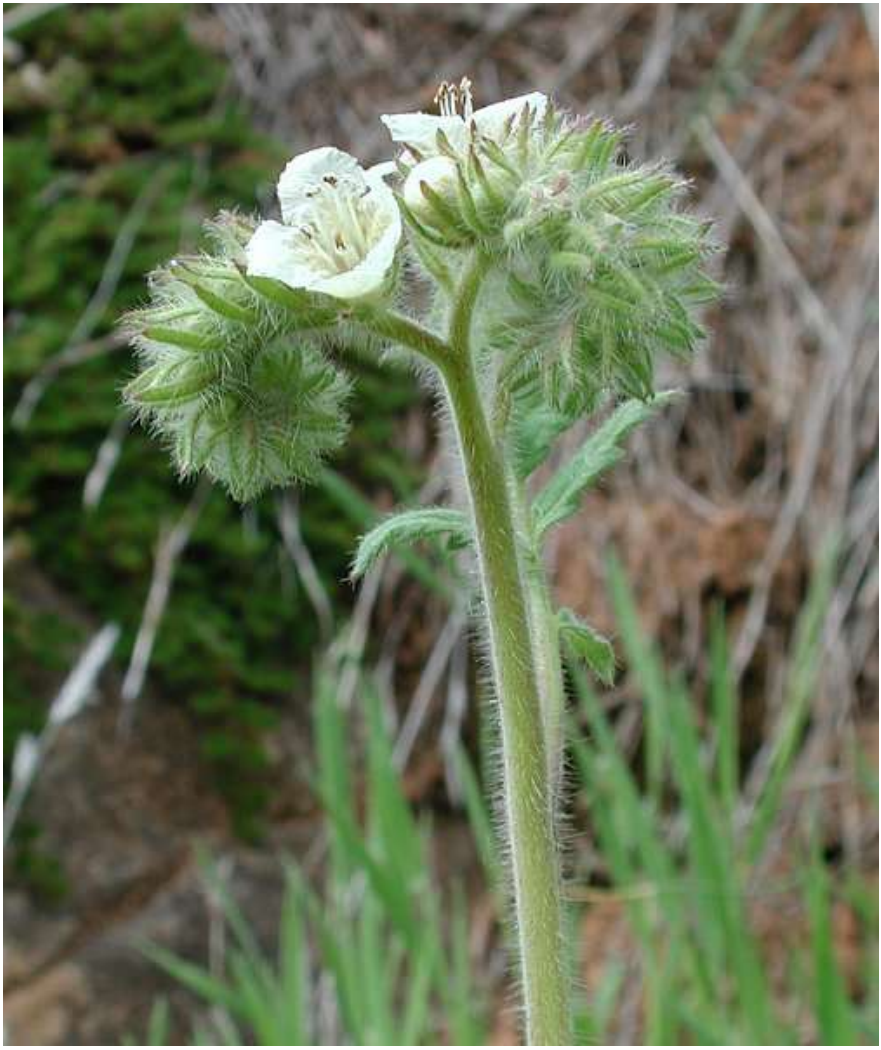


Phacelia, Caterpillar; *Phacelia cicutaria*

Midseason bloomer. Five dirty white petals, flowers in coiled clusters, hairy plant. Weak leaning stems, annual. RC-CNPS: p. 191

Notes: Phacelia comes from the Greek, phakelos meaning *bundle*. When the flowers unfold they take on a fuzzy look. Prefer dry slopes.

Family Hydrophyllaceae — Waterleaf family
Genus Phacelia Juss. — phacelia
Species *Phacelia cicutaria* Greene — caterpillar phacelia

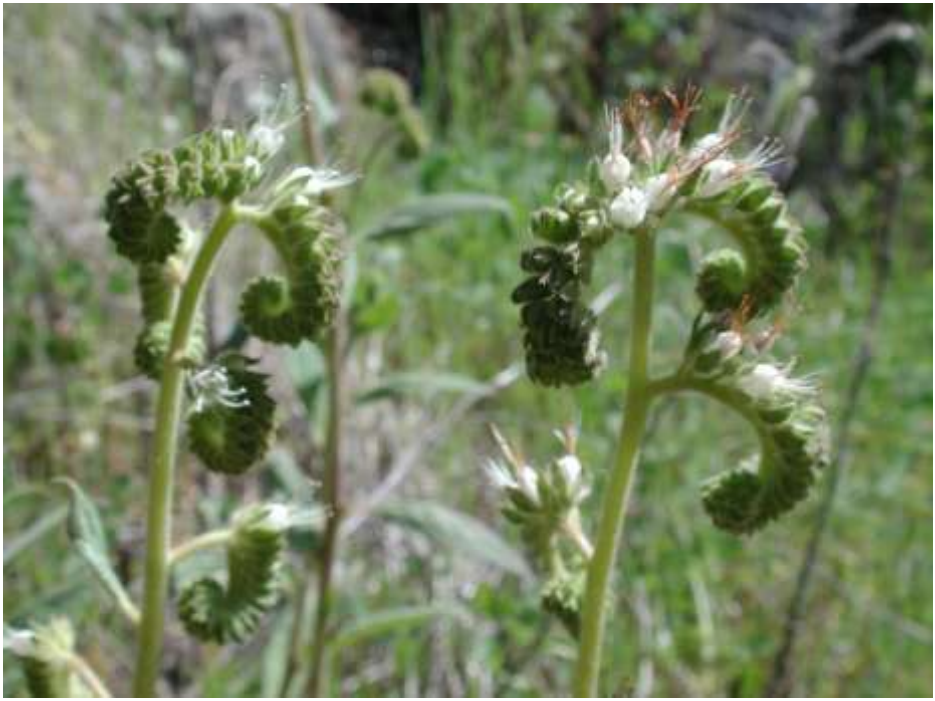


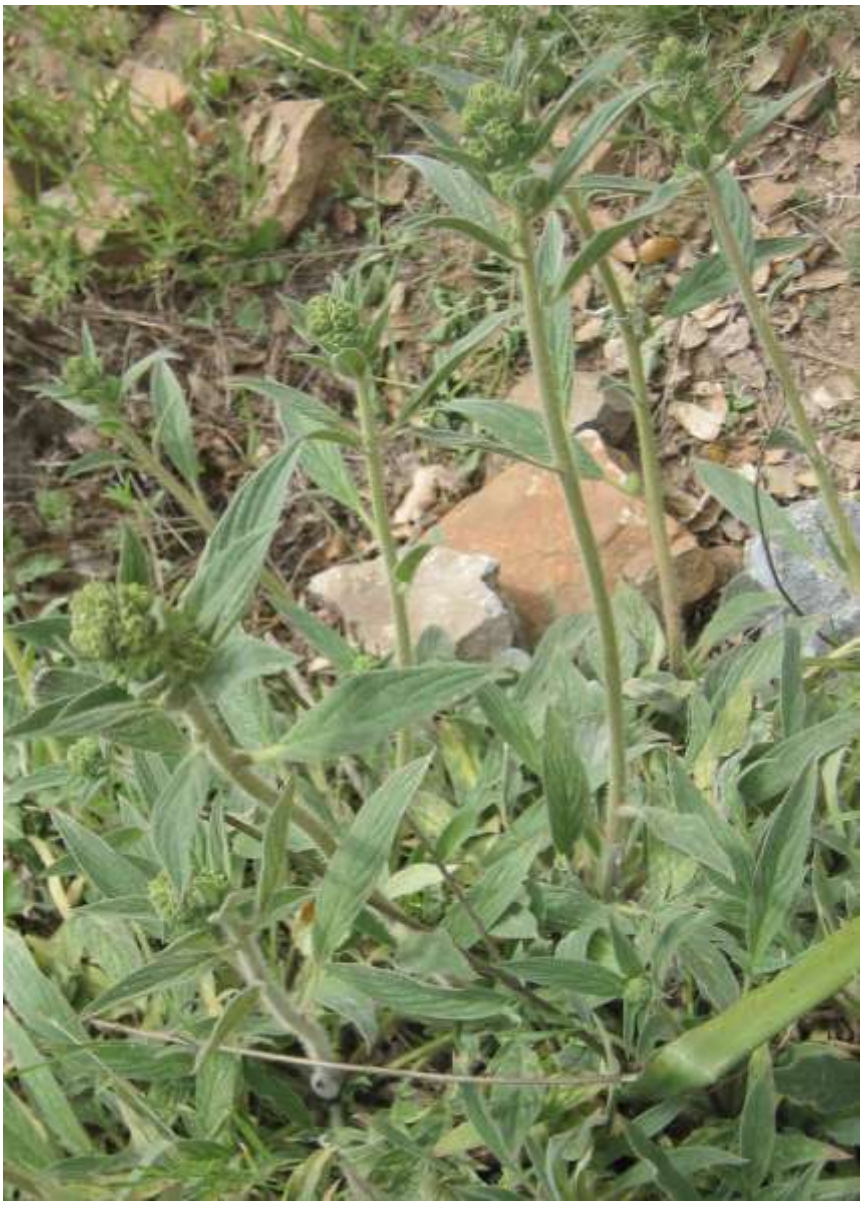
Phacelia, Vari-leaf; *Phacelia heterophylla*

Late bloomer. Five greenish-white petals, many flowers in a coil on a tall, stout stem; biennial plant. RC-CNPS: p. 191

Notes: These look more like a caterpillar than the Caterpillar Phacelia (compare photo here with that on previous page). Vari-leaf Phacelia has long, smooth-edged leaves (see next page) while Caterpillar Phacelia has lance-like leaves with toothed margins. The flower has a distinctive, coiled, wormlike look with small white flowers on the worm's back.

Family Hydrophyllaceae — Waterleaf family
Genus Phacelia Juss. — phacelia
Species *Phacelia heterophylla* Pursh — varileaf phacelia





Vari-leaf Phacelia has long, smooth-edged leaves

Popcorn Flower, *Plagiobothrys nothofulvus*

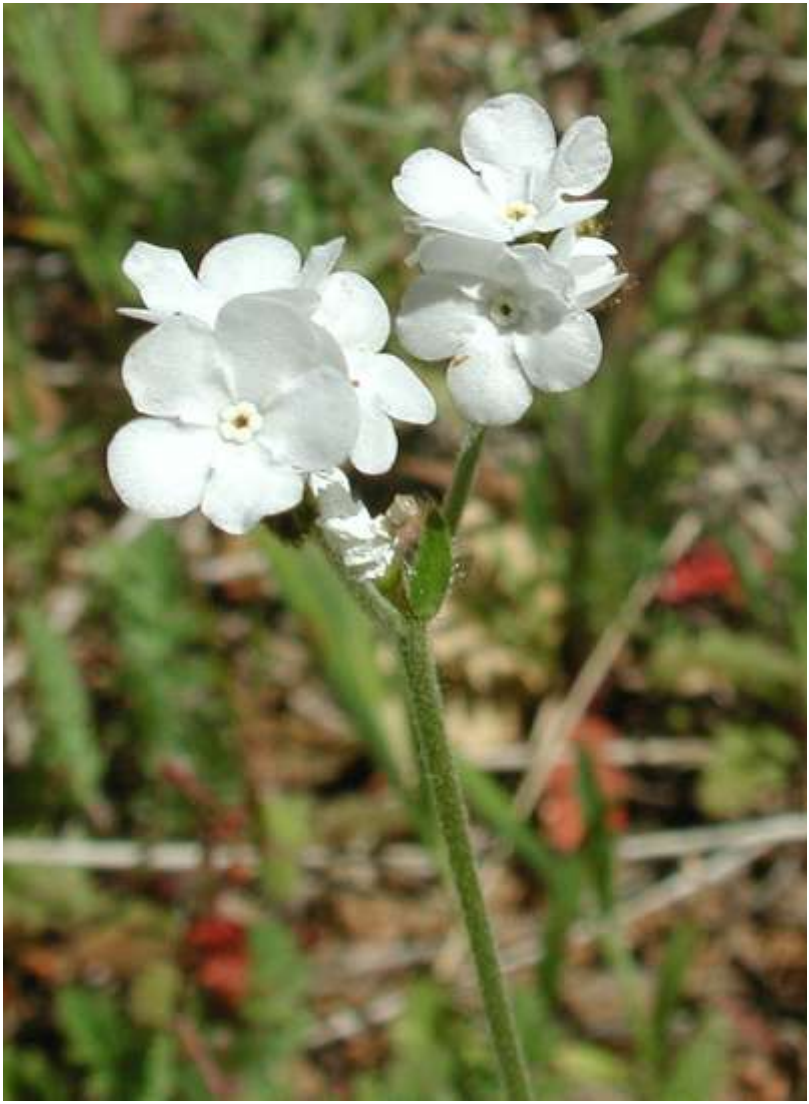
Early bloomer. Five (5) white petals, yellow centers, resembles a Forget-Me-Not. May release a purple dye, which the Maidu used for this purpose. RC-CNPS: p. 125

Notes: This plant can be distinguished from canyon nemophila, which also has small, white 5-petaled flowers (see page 15), by its tall stem. Also, the name popcorn describes its tendency to appear in clusters which resemble popcorn. If you look very closely, you will see a 5-lobed washer at the center of each bloom (this is apparent in the photo on the next page).

Family Boraginaceae — Borage family
Genus Plagiobothrys Fisch. & C.A. Mey. — popcornflower
Species *Plagiobothrys nothofulvus* (Gray) Gray
— rusty popcornflower

Grows on tall stems in open fields

Popcorn Flower, *Plagiobothrys nothofulvus* (concluded)



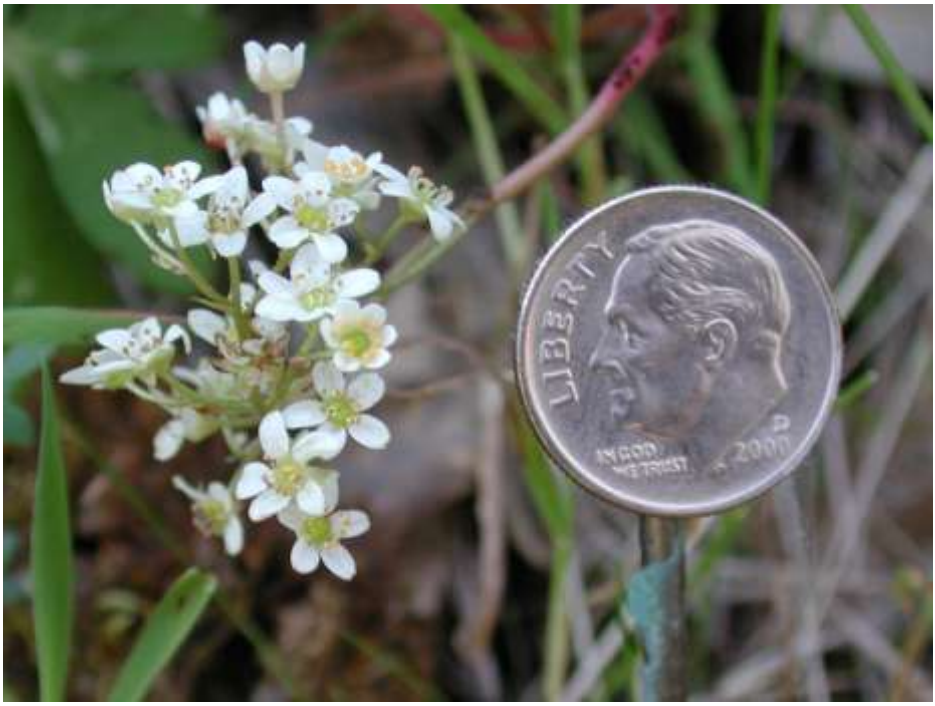
Close-up. Blossoms often bunch like popcorn, and have a central donut.

Saxifrage, *Saxifraga Californica*

Early bloomer. Five small rounded petals, leaves clustered at base of stems. The flowers are very tiny, as seen by comparison to a dime in the photo below. Often found sprouting from between rocks. Name means rock breaker. RC-CNPS: p. 333

Notes: Characterized by broad, basal leaves and slender, hairy, leafless stems. Tiny white hairs on the leaves. This species has pure white flowers. It can be showy even as early as February. This genus has about 400 species worldwide. The USDA lists 67 Species and 105 accepted taxa overall. Saxifraga means *stone-breaker* in reference to the rocky habitats of some species and probably to the use of some species in dissolving gallstones.

Family Saxifragaceae — Saxifrage family
Genus Saxifraga L. — saxifrage
Species *Saxifraga californica* Greene — California saxifrage



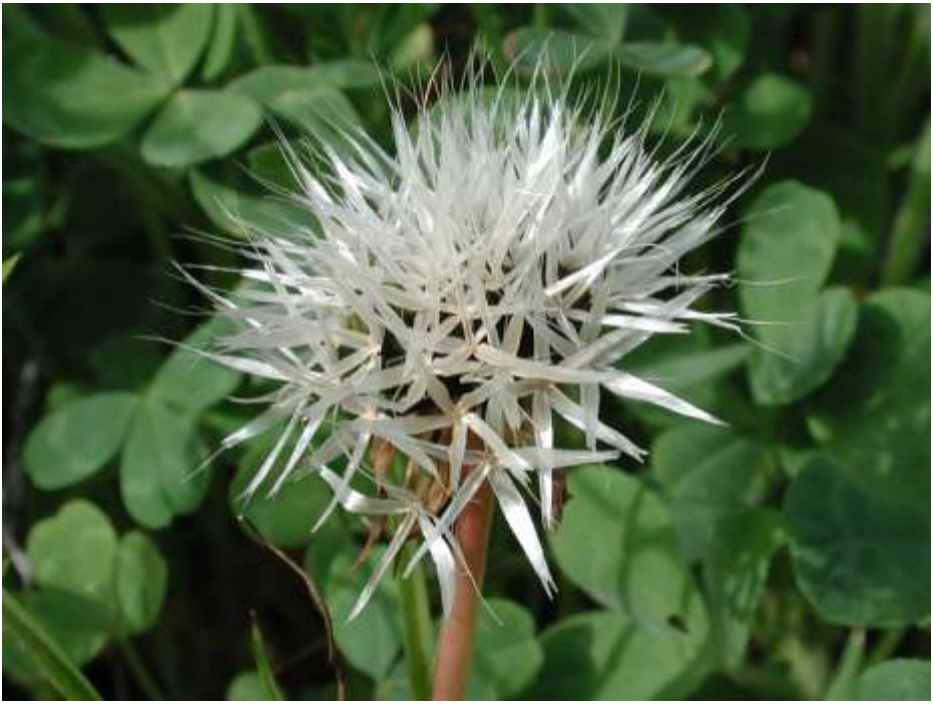
Silver Puff, *Uropappus lindleyi*

Midseason bloomer. Small yellow flowers, white, rounded, feathery seed balls. Can resemble Blow Wives.

Notes: Aster (Sunflower) family. The small, single, yellow flowers are seldom noticed. It is when they go to seed, forming the showy seed balls, that they are most apparent on our trail. That is why it was decided to place it under white instead of yellow flowers, as we felt people would see it and look for it there. It is listed in wildflower books under yellow. The picture below is of the seed head, which is white and about an inch across.

No USDA classification was found with the above plant name, but it does appear under this name in Calflora, where its new name is given as ***Microseris lindleyi***, which does appear in USDA classification:

Family Asteraceae — Aster family
Genus Microseris D. Don — silverpuffs
Species *Microseris lindleyi* (DC.) Gray — Lindley's silverpuffs



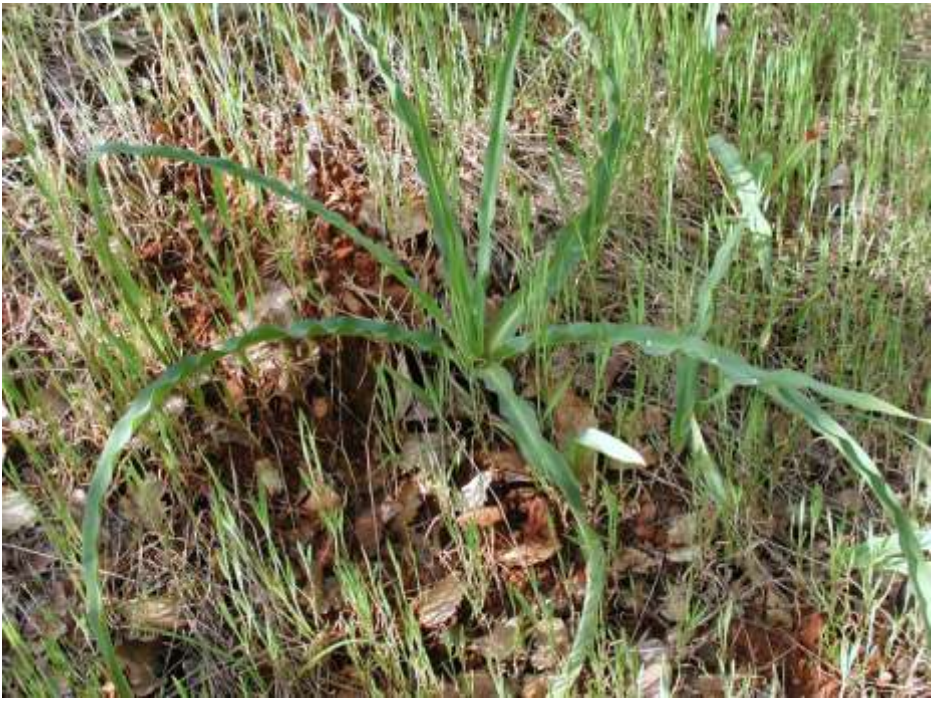
Soap Plant, *Chlorogalum pomeridianum*

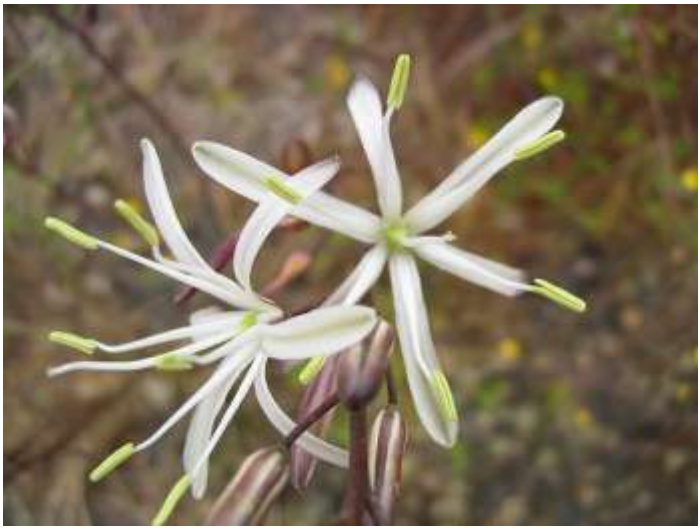
Late bloomer. Long, wavy leaves at base of tall, leafless stems, 6 petals. Blooms at night, large fiber-coated bulb was used by the Maidu for many purposes as described below. RC-CNPS: p. 223

Notes: A native, the Wavy-Leaf Soap Plant prefers dry, open hills and is one of the most useful plants. Hairs on the large bulb were used to make brushes to winnow Maidu baskets. The bulb was used for soap, because it lathers and can be used for bathing. It is said to leave hair silky and shiny. One can dry the bulb to remove this soapiness. The bulbs were slow roasted in stone-lined pits 3 to 4 hours or all night, wrapped in poison oak leaves, and then eaten. The bulbs were a good source of carbohydrates but are toxic raw. The Maidu would grind them up and throw them into streams and rivers to stun the fish. This practice was stopped, as it obviously would poison the water. The ground, roasted, bulbs were used as a poultice for sores. Fresh bulbs were rubbed on the body to relieve rheumatism pains and cramps. They were also used as a diuretic and laxative. The thick juice from slow-roasting the bulb was used as a glue. The young leaves are edible and very sweet when slow cooked. The juice from the leaves was used for green tattoo markings. The fragrant, night-blooming flower is pollinated by moths. The flowers open in the early evening and close in the morning. It takes 25 years for a plant to grow to significant size.

Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Liliopsida — Monocotyledons
Subclass Liliidae
Order Liliales
Family Liliaceae — Lily family
Genus Chlorogalum Kunth — soapplant
Species *Chlorogalum pomeridianum* (DC.) Kunth — wavyleaf soap plant

Note: The complete classification, from Kingdom to Species, is given for this plant simply because there is extra space on this page. The top levels of classification form large groups of flowering plants and the intermediate levels form smaller and smaller groups down to the species level. The entire classification tree is given for all the plants in the website version of this book.





Soap Plant Flower (photo courtesy of Vince Scheidt)

Woodland Star, *Lithophragma bolanderi*

Mid bloomer. 5 deeply notched petals, leafless spike-like flowers. Grows on open slopes. RC-CNPS: p. 332

Notes: Our species is probably Litophragma bolandari or Smooth Woodland Star. These are aptly named, as they look like delicate stars at the end of a magic want. The white, unlobed flowers appear to be attached almost directly to the plant stem. It occurs on open slopes throughout the Sierra Foothills from 500 feet to 5000 feet. Lithrophragma means *rock hedge* and Parviflorum means *small-flowered*. Bolander was an early 19th century naturalist. A related species is the Fringed Woodland Star, Lithophragma parviflorum, which have white to pink/lavender distinctly 3-lobed flowers.

Family Saxifragaceae — Saxifrage family
Genus Lithophragma (Nutt.) Torr. & Gray — woodland-star
Species *Lithophragma bolanderi* Gray — Bolander's woodland-star

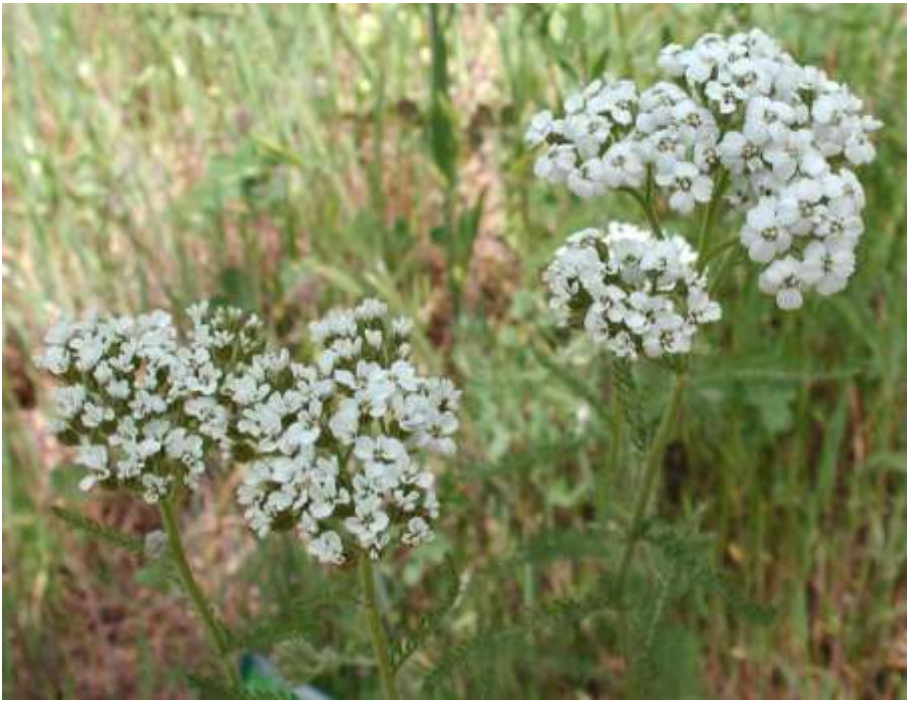
Common Yarrow, *Achillea millefolium*

Mid bloomer. Flat topped clusters of flowers, soft, fern-like leaves. Used for medicinal teas, tonics, poultices. RC-CNPS: p. 89

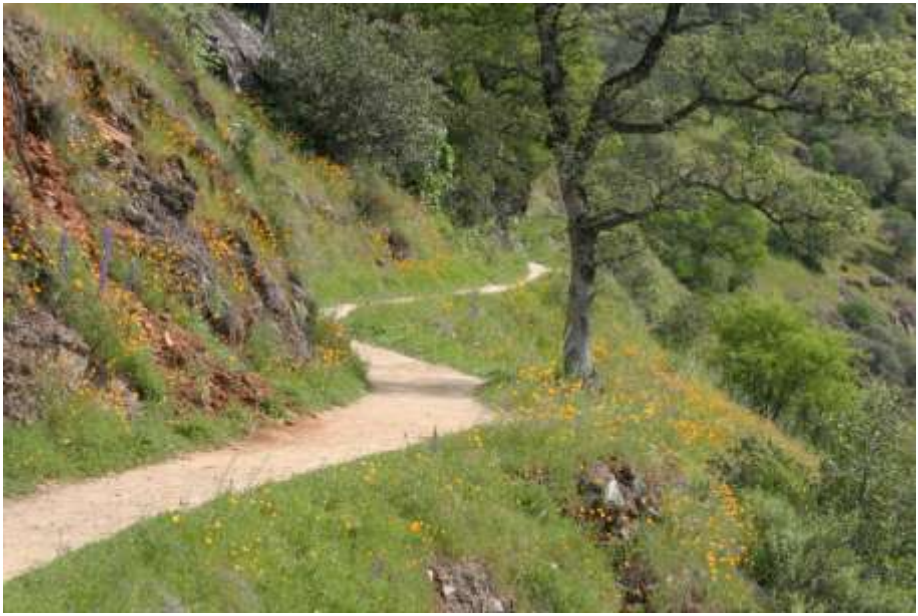
Notes: Aster (Sunflower) Family, Mayweed Tribe, related to the Pineapple Weed. Found in grassy areas. Achillea is after the legendary Greek hero, Achilles, who presumably used yarrow to cure some of his soldiers' wounds. (Achilles reportedly said that if you put yarrow juice in your eye, it takes away redness). Millefolium means *thousand leaved* referring to the lovely much-divided leaves. As with other Mayweeds, Yarrow is strongly aromatic — some Mayweeds have unpleasant odors. It is used as an anti-inflammatory and has astringent properties, reduces fever. The Maidu used crushed leaves for a general tonic or for sores and as a blood coagulant (ground yarrow tops steeped in hot water). Powdered dry yarrow taken in Plantain water halts internal bleeding. It is also used for liver ailments, as a sedative, for cuts, bruises and bleeding. A poultice from dried leaves was used for rashes, and dried leaves as a medicinal tea for indigestion and hair loss. Fresh leaves were used as an insect repellent when rubbed on the skin, but can cause dermatitis in sensitive people. It is still used as a healing herb and can be purchased in health food stores. Formerly known as A. lanulosum.

Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Magnoliopsida — Dicotyledons
Subclass Asteridae
Order Asterales
Family Asteraceae — Aster family
Genus Achillea L. — yarrow
Species *Achillea millefolium* L..
— common yarrow

Don't forget to visit the South Yuba River Adventures website: http://syrpa.lindberglce.com/. It has all the wildflower photos and descriptions in this book in dynamic linked form and much more: photo stories and full-screen slideshow videos of park special events, photos and useful information about park headquarters, bridges and trails, maps, and so on.

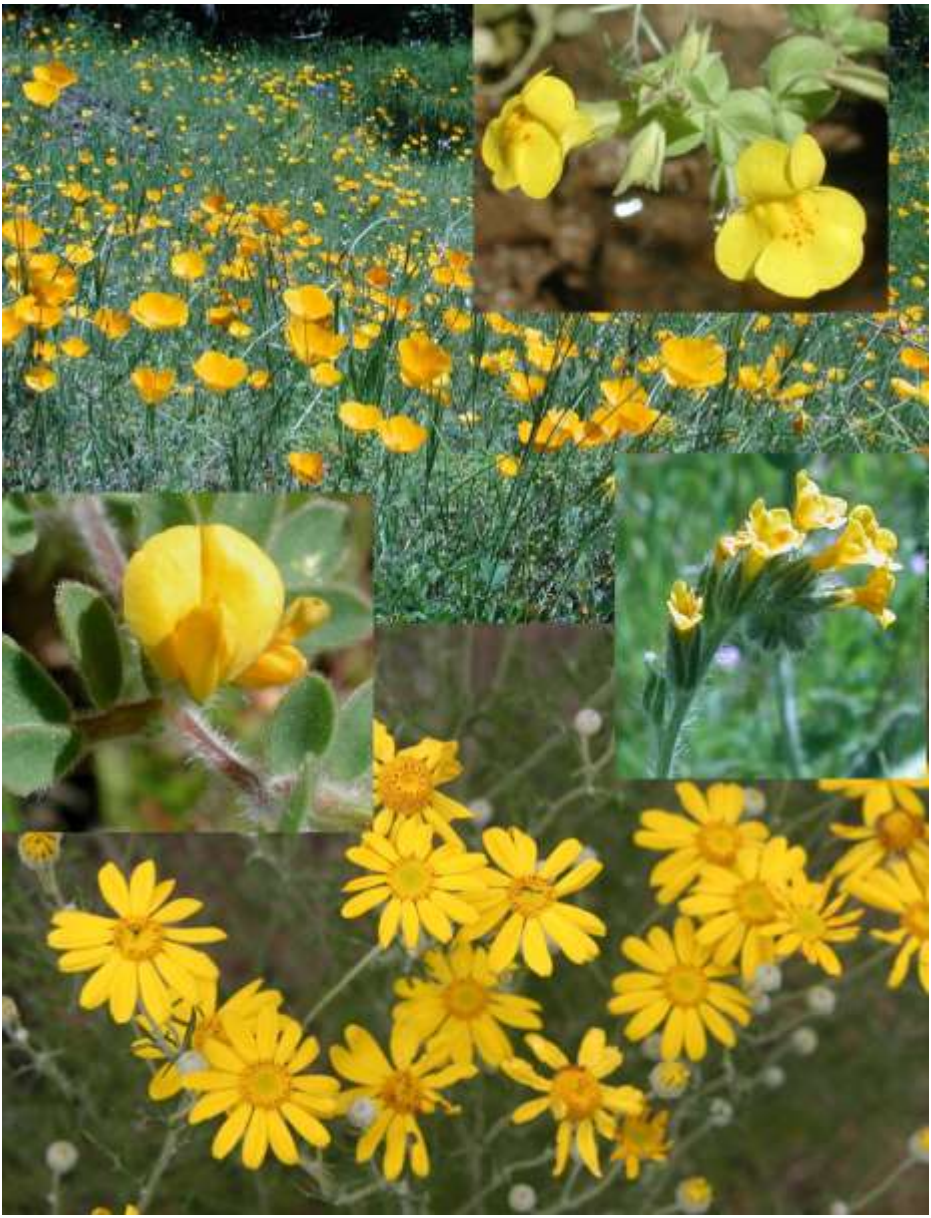


Common Yarrow, *Achillea millefolium*



Buttermilk Bend Trail

Part 2
Yellow/Orange Flowers

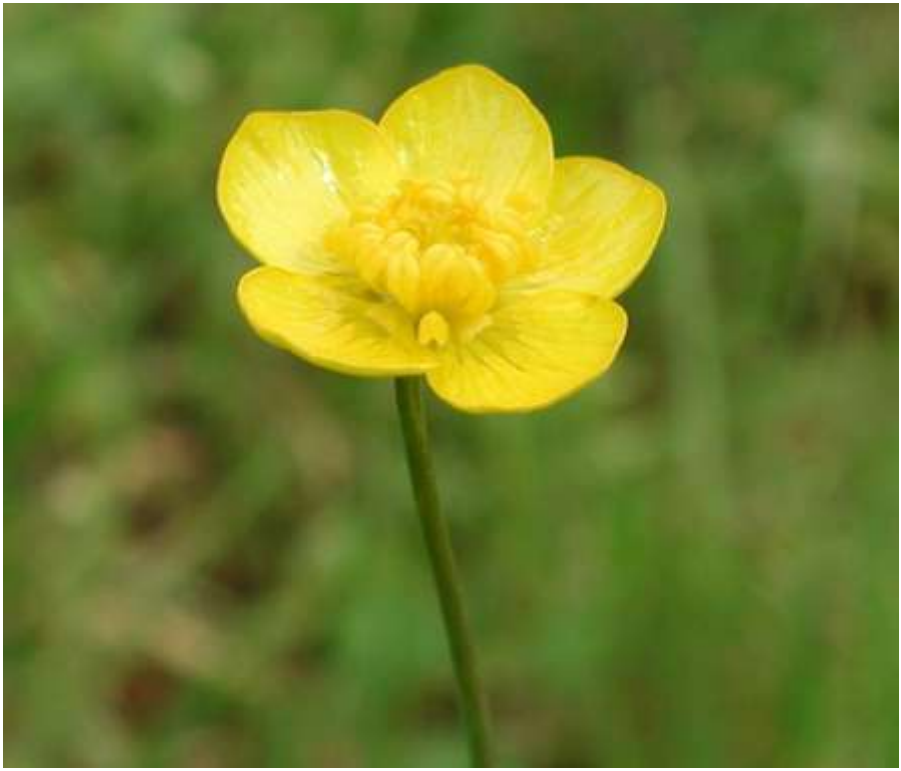


Western Buttercup, *Ranunculus occidentalis*

Early bloomer. Five or six small, shiny yellow petals, slender, erect stems. The Maidu parched seeds for meal and used flowers as dye. RC-CNPS: p. 318

Notes: Ranunculaceae family name comes from Latin meaning *little frog*, as these plants like moist, soggy areas, close to water. Some species are aquatic. In the sun the shiny petals seem to be covered in melted butter. Dye is made from the juice of the flowers. The seeds are edible when cooked. The Maidu parched them for meal used in breads. Raw they can be poisonous but are eaten by some birds. Leaves, stems and roots can be cooked and eaten**;** however the sap of all species is toxic. The young flowers can be preserved in vinegar as small pickles.

Family Ranunculaceae — Buttercup family
Genus Ranunculus L. — buttercup
Species *Ranunculus occidentalis* Nutt. — western buttercup



Canyon Dudleya, *Dudleya cymosa*

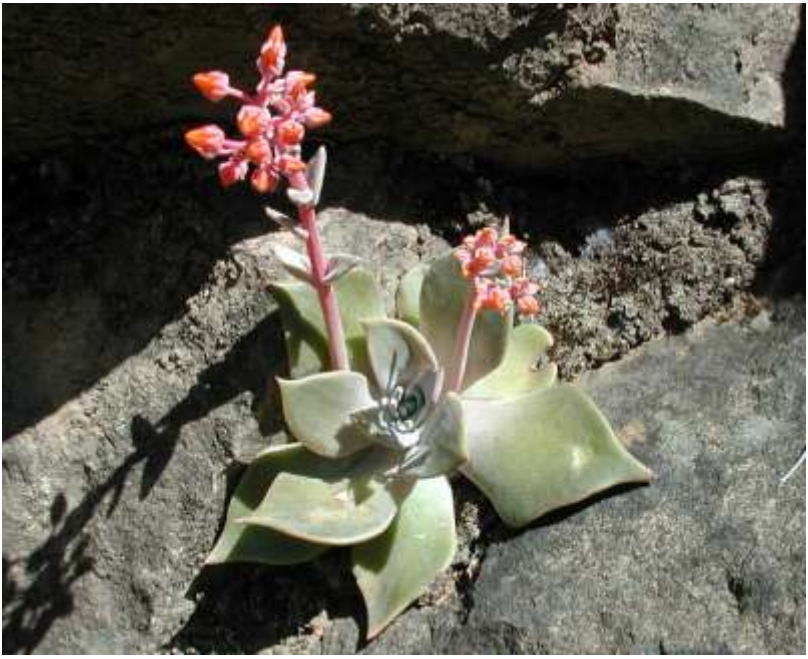
Mid bloomer. Red-orange stems, yellow flowers, succulent leaves, found near sun-drenched rocks and on rocky slopes. Also called Live Forever. RC-CNPS: p. 148

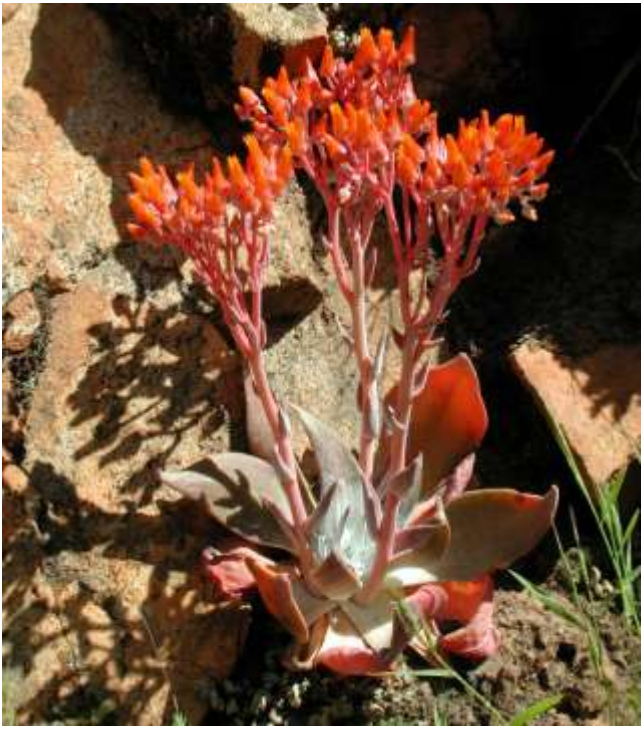
Notes: Showy clusters of tiny yellow flowers on showy red-orange stems are favorites, as they attract people even from across the river, who ask, "What are the red flowers?" It isn't so much the flowers but the color of the stems and sepals. Varying in color from pale orange to bright red-orange, they are also in plain sight, as they prefer rocky down slopes. The stems arise from a lovely rosette of succulent leaves. By the end of summer they are usually quite withered but will engorge themselves again with the fall rains. Some species were known as "Mission Lettuce" because the fleshy leaves can be eaten raw and used in salads. There are 45 species, some of which are endangered through loss of habitat and theft of the plants. The USDA records for this genus 29 species and 50 accepted taxa overall. W.R. Dudley was an early 20th century American botanist. Cymosa means *bearing cymes* in reference to the growth form of this plant. The Maidu saw them incredibly growing out of the rock hence, the name Live Forever.

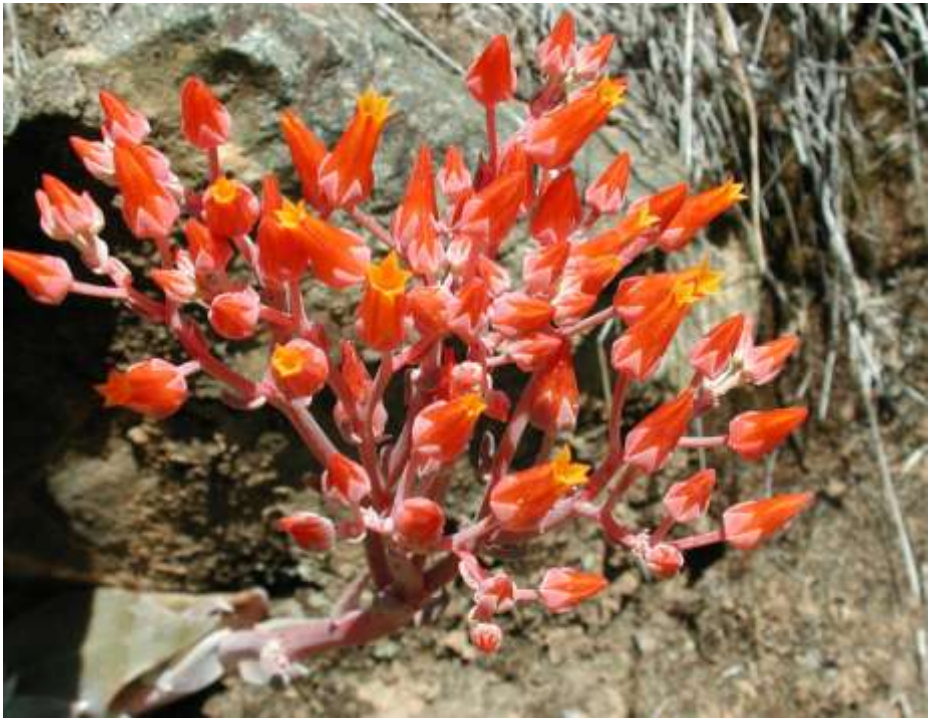
Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Magnoliopsida — Dicotyledons
Subclass Rosidae
Order Rosales
Family Crassulaceae — Stonecrop family
Genus Dudleya Britt. & Rose — dudleya
Species *Dudleya cymosa* (Lem.) Britt. & Rose — canyon liveforever

This is another example of the full classification trees included for all the plants in the website version of this book.

Photos follow on next two pages





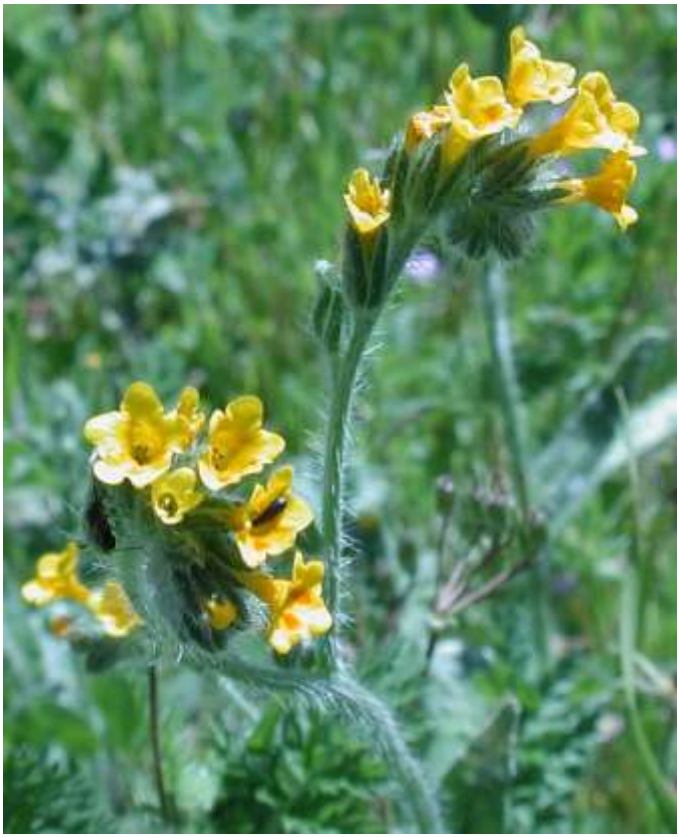


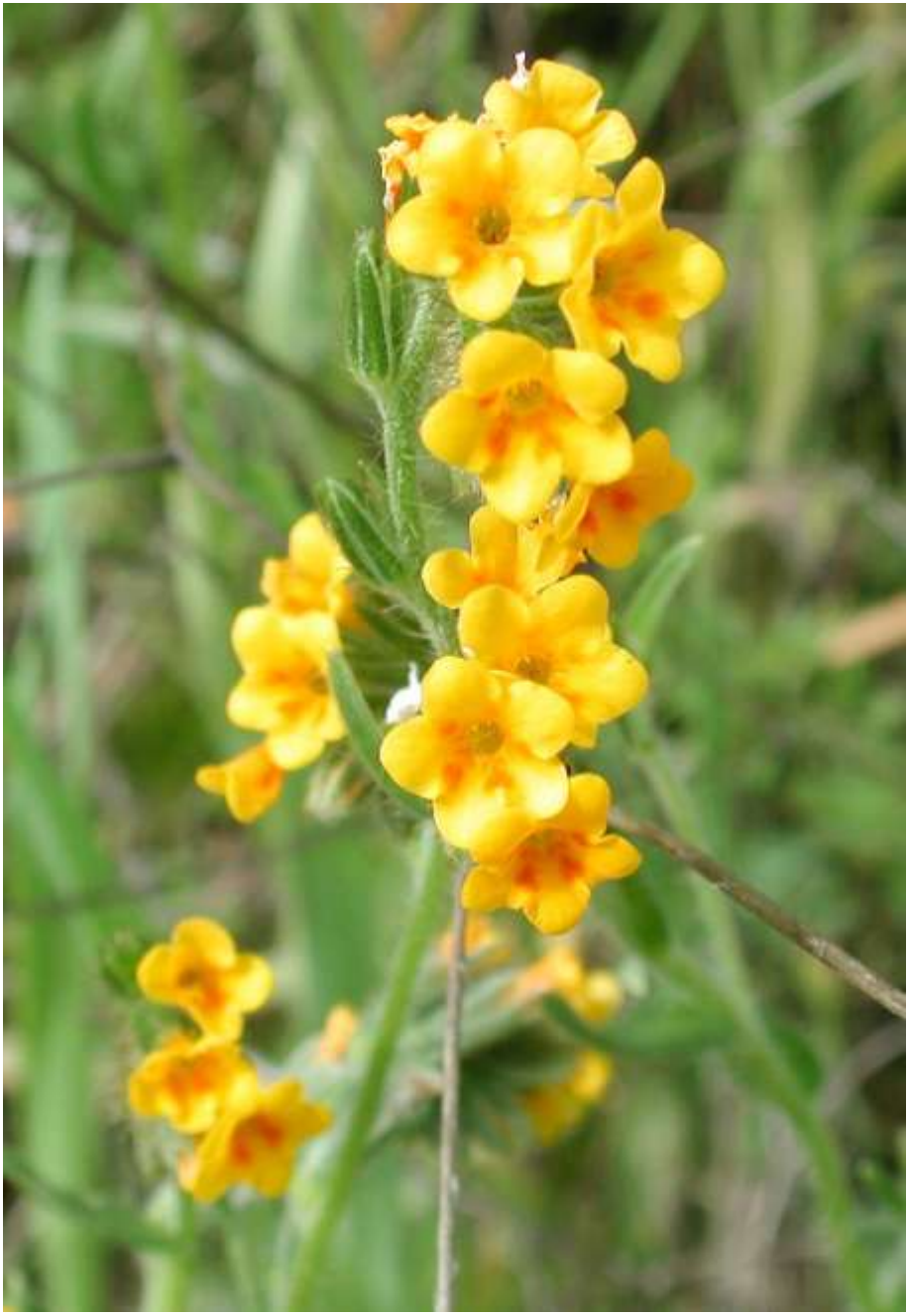
Fiddleneck; *Amsinckia menziesii*

Early bloomer. Orange-yellow flowers on a curved, hairy stem. Food for the painted lady butterfly, toxic to livestock and horses. RC-CNPS: p. 122

Notes: Borage Family, the same as the Popcorn Flower and Forget-Me-Nots. Small trumpet-like flowers on a distinctive coiled "shepherd's crook". To some the coil looks like the curled top of a fiddle. It is common in disturbed, open areas. The hairy stem can be a skin irritant to some—best to warn the public of this. Peterson and Niehaus both give the Fiddle Neck as: Amsinckia intermedia. USDA lists A. Intermedia as "Common Fiddleneck" while A. Menziesii is "Menzies' Fiddleneck."

Family Boraginaceae — Borage family
Genus Amsinckia Lehm. — fiddleneck
Species *Amsinckia menziesii* (Lehm.) A. Nels. & J.F. Macbr.
— Menzies' fiddleneck





Fiddleneck; *Amsinckia menziesii — end-on close-up*

Great Valley Gumplant, *Grindelia camporum*

Late bloomer. Tall plant, daisy-like gummy flower heads. The Maidu chewed resin as a cough medicine. RC-CNPS: p. 105

Notes: Gummy liquid on young flowers can by chewed like gum to coat a sore throat and for a cough remedy; can use the leaves and sap too. The flowers were also used as a blood purifier, for lung problems, as a remedy for poison oak, and for bladder infections. The Maidu boiled the root to make a tea for the liver, dried the buds for use against small pox, and used a decoction of leaves for sores.

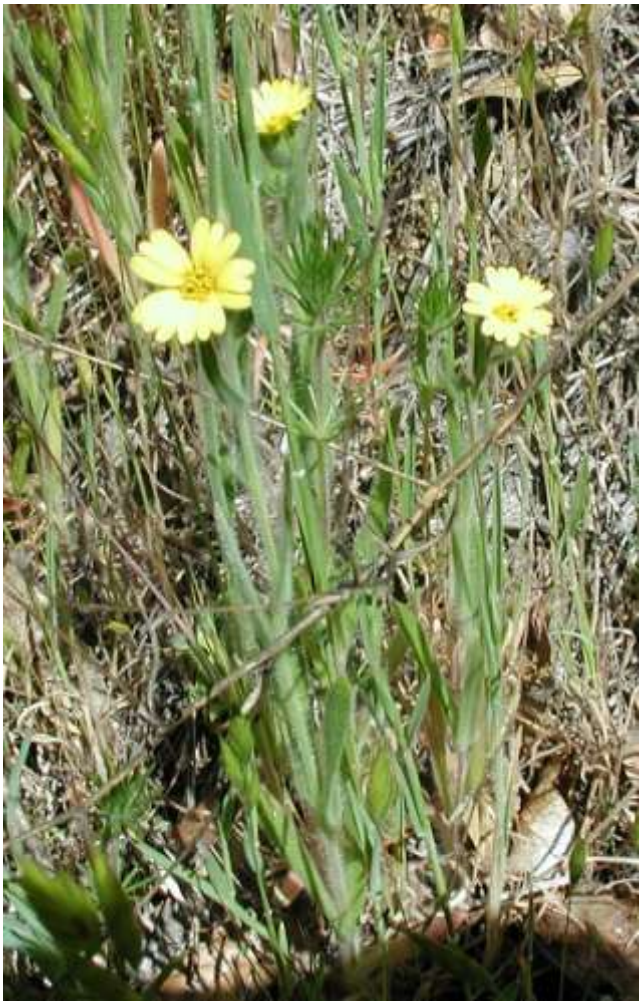
Family Asteraceae — Aster family
Genus Grindelia Willd. — gumweed
Species *Grindelia camporum* Greene — Great Valley gumweed

Common Hareleaf, *Lagophylla ramosissima*

Late bloomer. 5 pale petals with 3 scallops each, soft fuzzy leaves. Flowers open in late afternoon, close next morning.

Notes: Aster (Sunflower) Family, Tarweed tribe. Bracts of flowers look like 'bunny tails' i.e. "rabbit-tail-like bracts." Has white hairs on leaves and yellow-stalked glands.

Family Asteraceae — Aster family
Genus Lagophylla Nutt. — hareleaf
Species *Lagophylla ramosissima* Nutt. — branched lagophylla

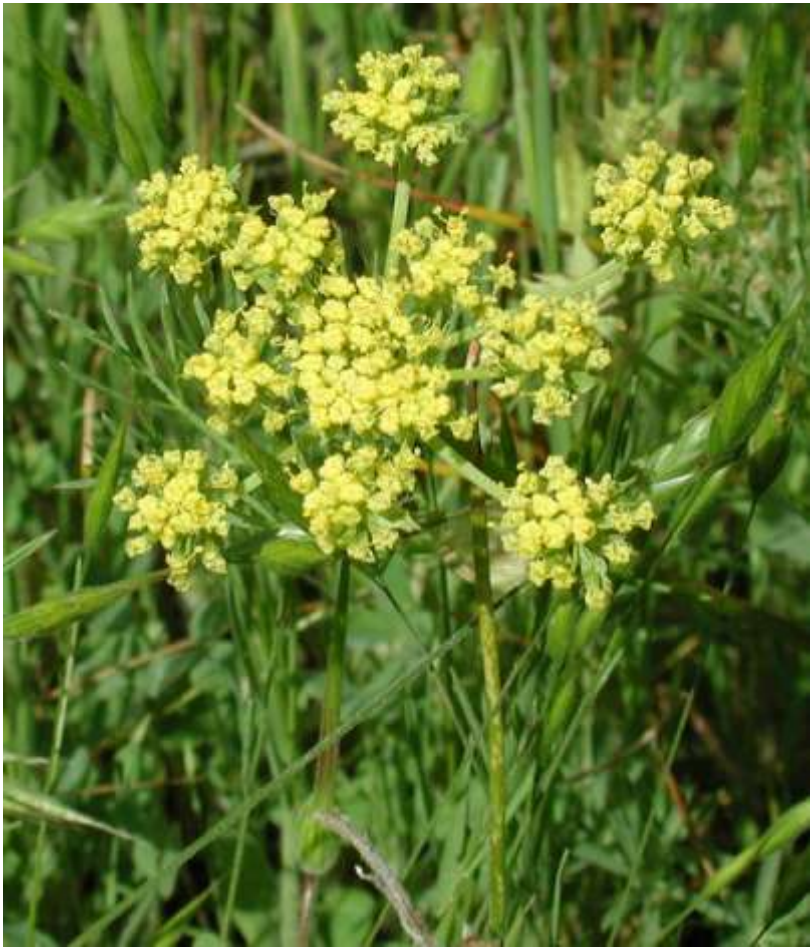


Foothill Lomatium, *Lomatium utriculatum*

Early bloomer. Tiny yellow flowers in flat-topped clusters. Related to Queen Anne's Lace and Poison Hemlock. RC-CNPS: p. 76

Notes: Also called Wild Carrot. Some species, when soaked in water, were used for birth control. (Have people look at leaves and guess what family it might belong to.)

Family Apiaceae — Carrot family
Genus Lomatium Raf. — desertparsley
Species *Lomatium utriculatum* (Nutt. ex Torr. & Gray) Coult. & Rose — common lomatium

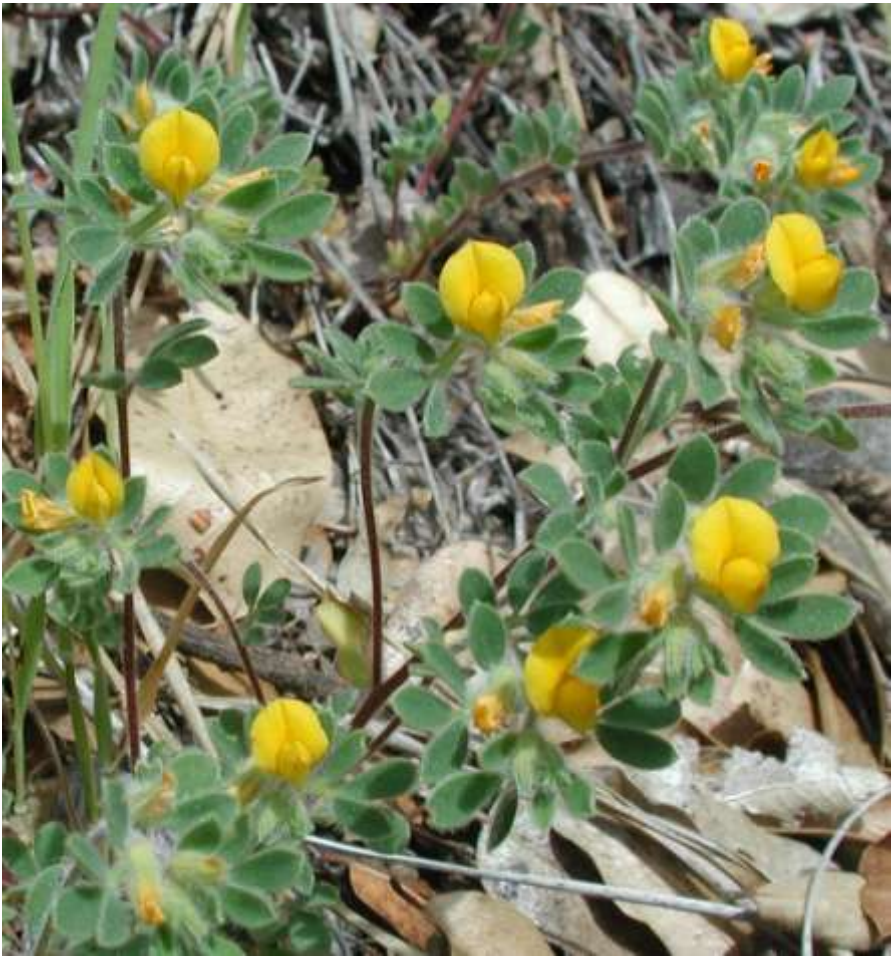


Hill Lotus, *Lotus humistratus*

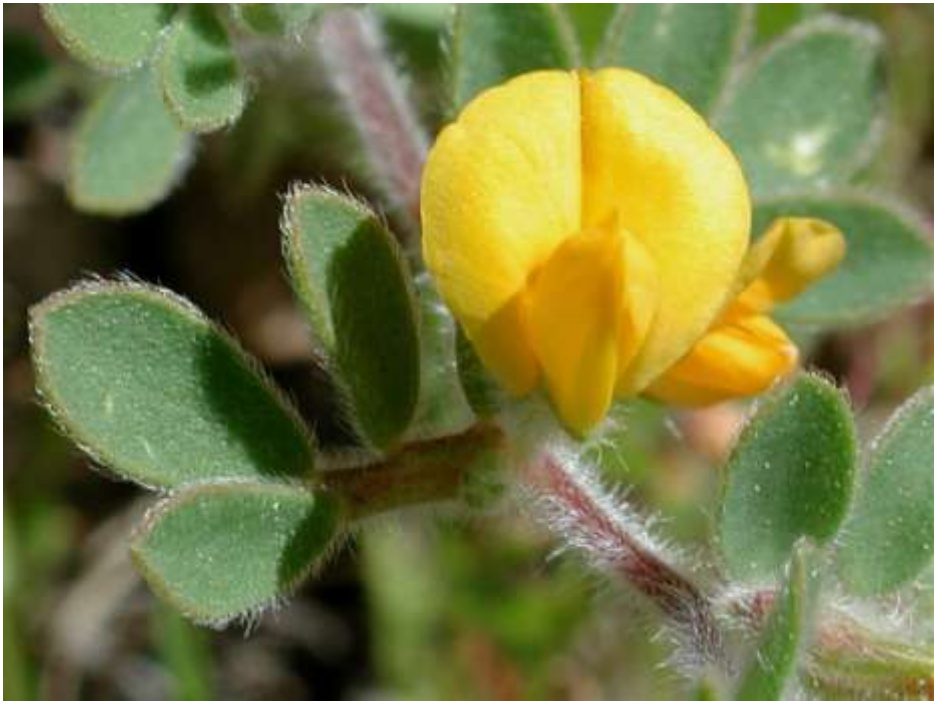
Mid bloomer. Small single yellow flowers above each leaf cluster. Flowers redden with age, short stems, hairy stems and leaves. RC-CNPS: p. 164

Notes: Prefers grassy slopes. The genus Lotus has about 150 species (USDA lists 72 Species and 81 accepted taxa overall). The name Lotus is an old Greek name of uncertain origin. Humistratus means *low layer* in reference to its often low-growing nature.

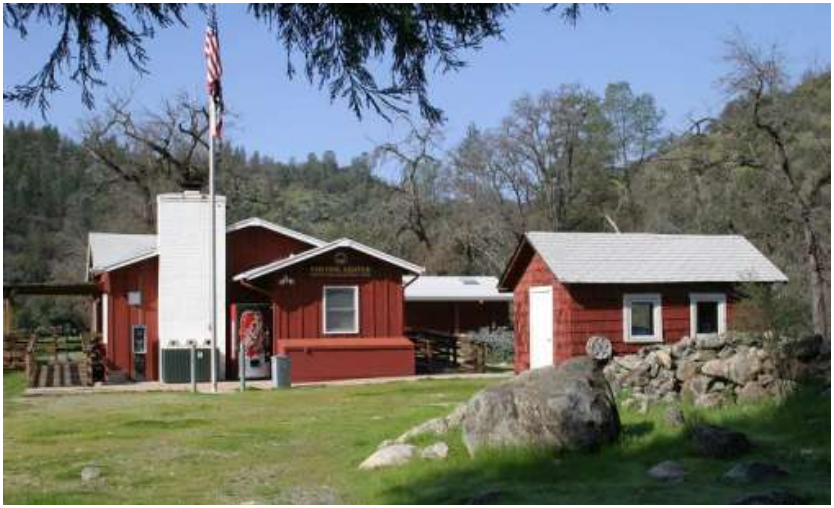
Family Fabaceae — Pea family
Genus Lotus L. — trefoil
Species *Lotus humistratus* Greene — foothill deervetch



Lotus, Hill; *Lotus humistratus* (concluded)



Lotus, Hill; *Lotus humistratus — extreme close-up*



Park Office and Visitors Center

Silverleaf Lotus, *Lotus argophyllus*

Late bloomer. Small flowers in clusters, sprawling hairy branched slivery-grey leaves. Important cattle forage, seeds for birds and animals. RC-CNPS: p. 163

Notes: The only plants on Buttermilk Bend Trail are beyond the bridge near the hill where the Bird's Eye Gilia bloom, at the bottom of the hill near the trail. Have distinct densely silvery gray-haired leaves. Small yellow flowers may darken with age.

Family Fabaceae — Pea family
Genus Lotus L. — trefoil
Species *Lotus argophyllus* (Gray) Greene — silver bird's-foot trefoil

Seep-spring Monkey Flower, *Mimulus guttatus*

Late bloomer. Yellow tubular flowers, some have small, red spots. Found in wet areas. The Maidu used it for food and medicine; butterflies use it for food. RC-CNPS: p. 346

Notes: It is usually found near the creek just beyond the Redbud tree. Can be found in surrounding areas if watery conditions are right. The Maidu ate slightly bitter leaves and stems, and crushed leaves for a poultice and application for rope burns. Sierra Checkerspot and other butterfly caterpillars use it for food.

Family Scrophulariaceae — Figwort family
Genus Mimulus L. — monkeyflower
Species *Mimulus guttatus* DC. — seep monkeyflower

Mule Ears, *Wyethia angustifolia*

Late bloomer. Large daisy-like flowers, large tapering hairy leaves. Prefers meadows and woods. RC-CNPS: p. 119

Notes: Aster (Sunflower) family. The genus is named for Nathaniel Wyeth, the first American in what is now southern Idaho. There are seven species in our area. The large leaves grow vertically; this, with the dense hairs, helps reduce evaporation. When you see a hillside of Mule Ears, you can be pretty certain that the hillside is volcanic, as the plants are ideally suited to reach the water that has seeped deep into the porous volcanic soil. The Maidu fermented the roots on heated stones in the ground for 1 to 2 days, then ate them. They have a sweet flavor. The roots were also used to make a poultice to relieve pain and bruises. Maidu also ground the roots, soaked them in water, and drank the solution to induce vomiting. The leaves are poisonous but an essence (decoction) was used as a bath to produce profuse sweating. A tea was made with the roots and end twigs of juniper to cure colds and fever. Ours grows on the trail to the Redbud, on the left across from where the Footlhill Lomatium grows, and on the hill to the left after you cross French Corral Creek Bridge.

Family Asteraceae — Aster family
Genus Wyethia Nutt. — mule-ears
Species *Wyethia angustifolia* (DC.) Nutt. — California compassplant

Pallid Owl's Clover, *Castilleja lineariloba*

Mid bloomer. Three yellow tubular sacs with red-purple spots, white tips. Not a true clover, grows in masses, grassy areas. RC-CNPS: p. 339

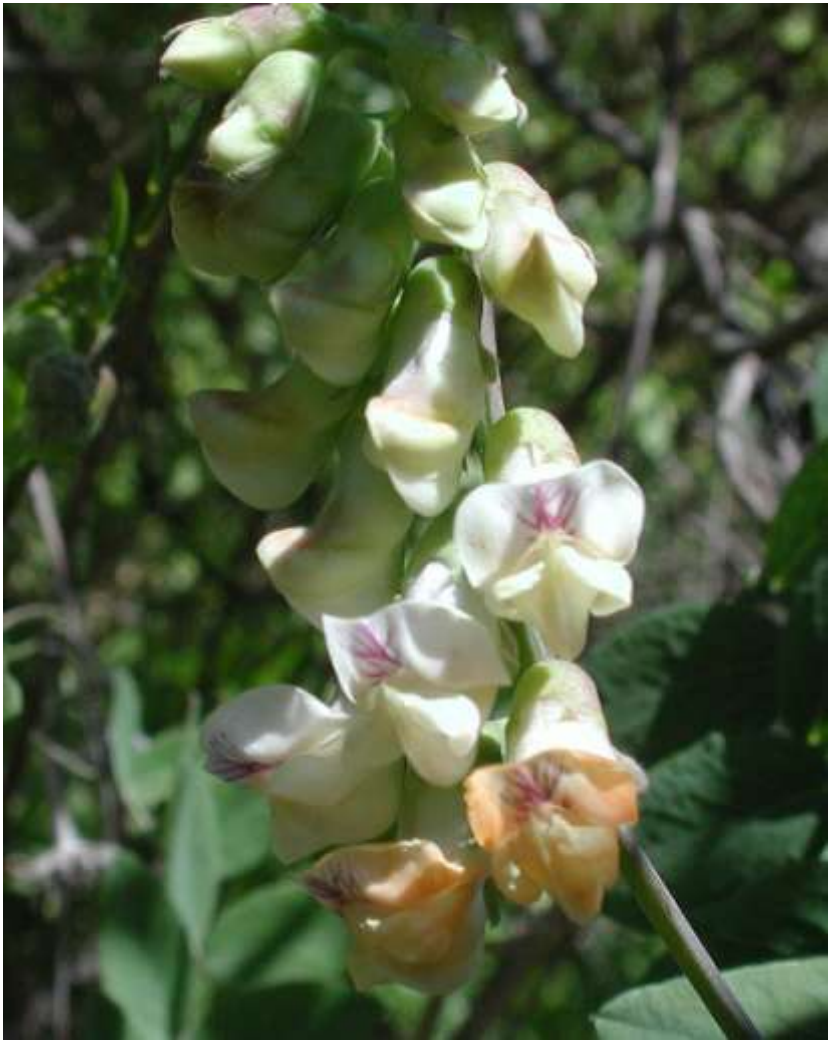
Notes: Figwort (Snapdragon) family. Botanists moved it (and Butter and Eggs) out of the Orthocarpus genus, but the common name remains Owl's Clover. (It is still listed Orthocarpus in Peterson. USDA lists many species for genus Orthocarpus, and also for genus Castilleja, but as yet has no record for species Castilleja lineariloba.) It is therefore not a true clover, but related to Indian Paintbrush. This species. was so-named because some thought they saw an "owl's face" in the yellow corolla sacs. The species was found at Calflora under the above name, but the alternate name, *Orthocarpus linearilobus*, given there, was also not found at USDA Plants.

Sulpher Pea, *Lathyrus sulphureus*

Mid bloomer. Yellow to tan irregular flowers, some with purple to tan/orange tint. Climbing vine, food for blue butterflies.

Notes: Also called Brewer's Pea. Has sprawling stems, prefers semi-shaded western slopes. RC-CNPS: p. 168

Family Fabaceae — Pea family
Genus Lathyrus L. — pea
Species *Lathyrus sulphureus* Brewer ex Gray — snub pea



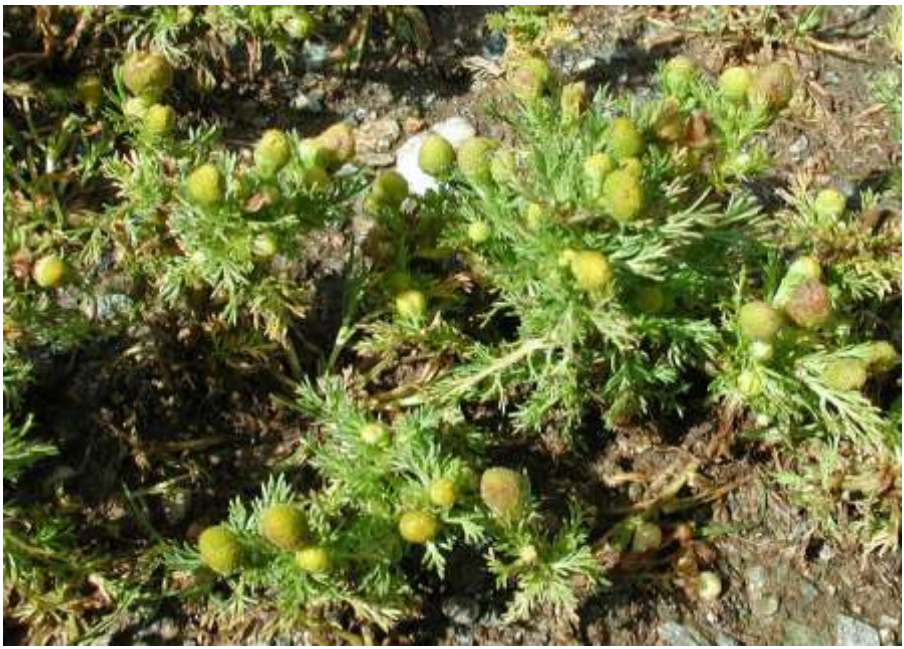
Pineapple Weed; *Chamomilla suaveolens*

Mid bloomer. Small yellow-green pineapple-shaped flower heads, distinctive odor, low plant. RC-CNPS: p. 99

Notes: Aster (Sunflower) family, Mayweed Tribe. Gently squeeze the flower to smell its scent. Also called Wild Chamomile. It is related to *feverfew*, used for migraines. Chamomile is used for arthritis, some species used to make chamomile tea for relaxation.

Some sources give the Pineapple Weed as Matricaria mactricarioides, e.g., Peterson & Niehuas. The USDA lists nothing for Chamomilla and 4 species for Matricaria, but nothing for Matricaria mactricarioides. The classification below is for genus Matricaria.

Family Asteraceae — Aster family
Genus *Matricaria* L.. – mayweed

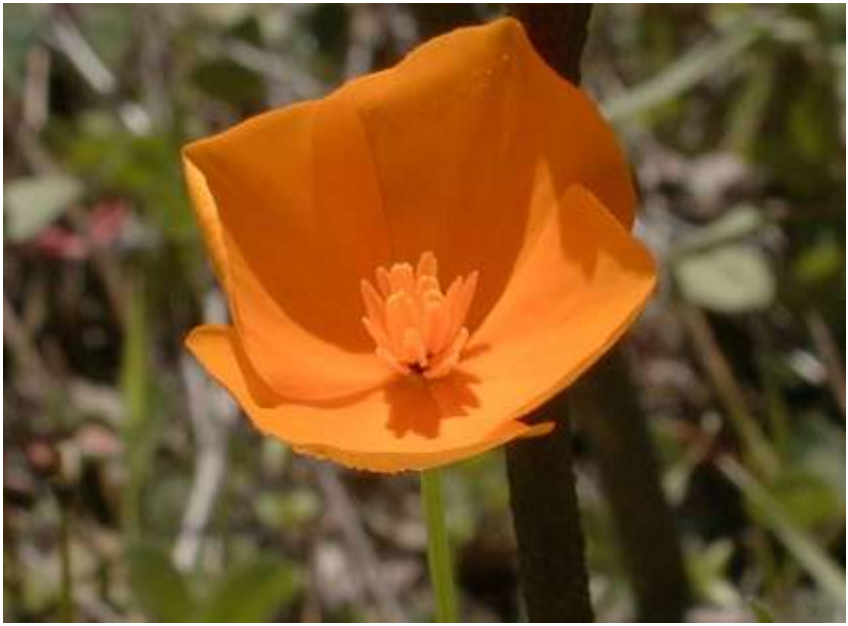


Tufted Poppy, *Eschscholzia caespitosa*

Early bloomer. Orange to yellow, same genus but not the California state flower. Birds eat seeds, leaves used for toothache. RC-CNPS: p. 274

Notes: Ours can be distinguished from the state flower, Eschscholzia californica, by looking beneath flowers. The californica has a washer or small green plate, the caespitosa does not. Ours also tends to have smaller flowers. Coastal poppies tend to be more yellow, inland-more orange, but colors can vary in the same area, even to white. Warmer weather tends to produce more orange flowers. The seed pods (like little caps) rupture when ripe, open like little mouse-traps, and can project their seeds, which are used for food by some birds. The Maidu used the leaves to relieve toothache and the plant as a sedative, for headaches and insomnia. In art, the poppy is the symbol for sleep/death. It is one of the few plants with special pigment molecules (escholtzxanthin).

Family Papaveraceae — Poppy family
Genus Eschscholzia Cham. — California poppy
Species *Eschscholzia caespitosa* Benth. — tufted poppy



Pretty Face; *Triteleia ixioides*

Mid bloomer, 6-petaled showy flat flowers clustered on tall leafless stems. Birds eat seeds; leaves are used for toothache. RC-CNPS: p. 236

Notes: The flowers look like yellow stars on an umbel. It was one of the 'Indian Potatoes', edible bulb. Former name: Brodiaea lutea, Golden Brodiaea.

Family Liliaceae — Lily family
Genus Triteleia Dougl. ex Lindl. — triteleia
Species *Triteleia ixioides* (Ait. f.) Greene — prettyface

Foothill Pseudobahia, *Pseudobahia heermannii*

Mid bloomer. Daisy-like petals, yellow to yellow-orange. Massed in grasslands, very similar to goldfields. RC-CNPS: none

Notes: Aster (Sunflower) family. These grow after the bridge in the area of Hansen's Larkspur. True Bahias are of the sneezeweed tribe.

Family Asteraceae — Aster family
Genus Pseudobahia Rydb. — sunburst
Species *Pseudobahia heermannii* (Dur.) Rydb.
— foothill sunburst

Scarlet Pimpernel; *Anagallis arvensis*

Late bloomer. Small red to orange flowers, 5 flat petals, sprawling leafy stems. Primrose Family, toxic to humans and animals. RC-CNPS: p. 306

Notes: They are from Europe. The color variation depends on soil.

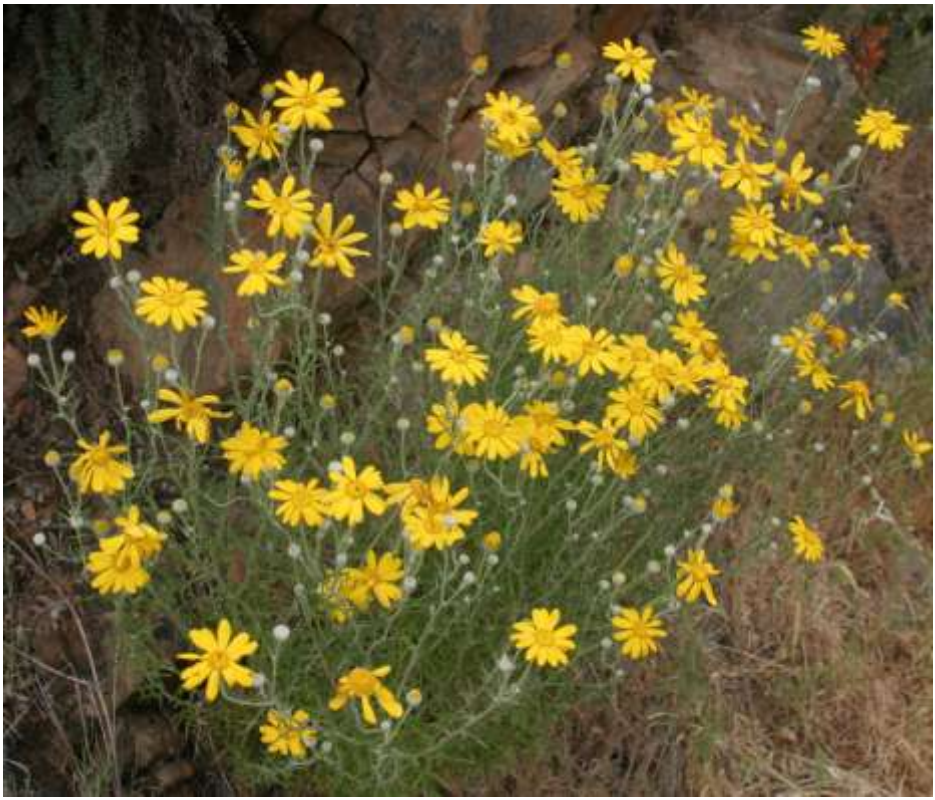
Family Primulaceae — Primrose family
Genus Anagallis L. — pimpernel
Species Anagallis arvensis L. — scarlet pimpernel
Subspecies *Anagallis arvensis* L. ssp. *arvensis*
— scarlet pimpernel

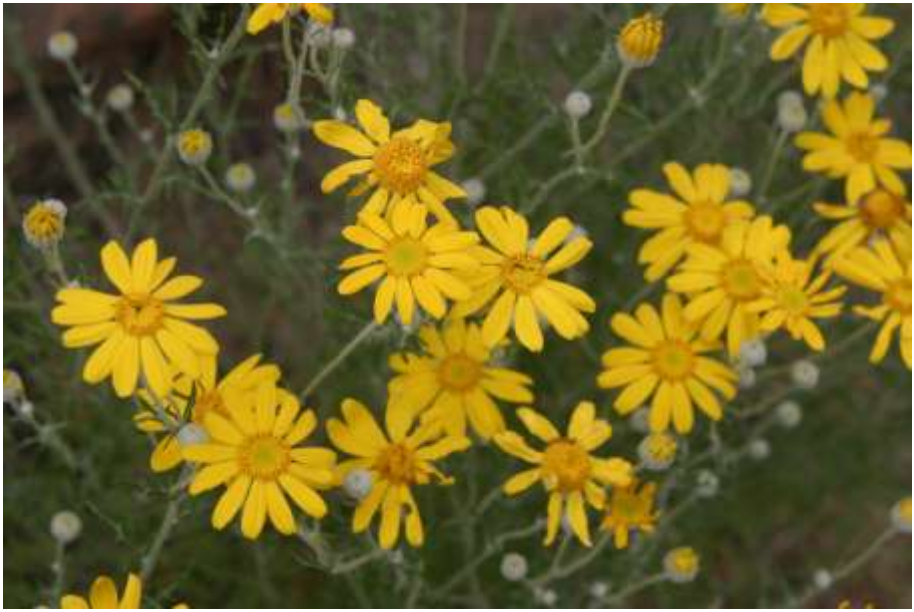
Woolly Sunflower, *Eriophyllum lanatum*

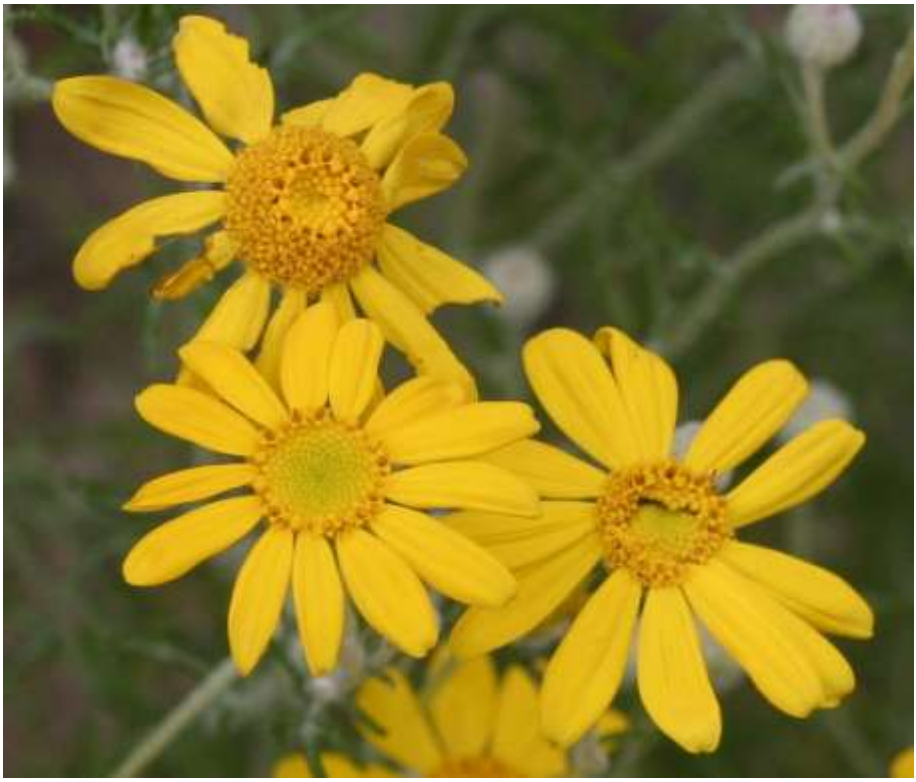
Mid bloomer. Large, yellow flowers, gray hairy stems and leaves. Common plant with many variations. RC-CNPS: p. 104

Notes: Aster (Sunflower) family. Also called Common Woolly Sunflower. Some members of this family provided food for the Maidu and the extract a cure for poison oak. The seeds were sun-dried and ground into meal. Pinnate leaves, mostly near the base, white woolly covering.

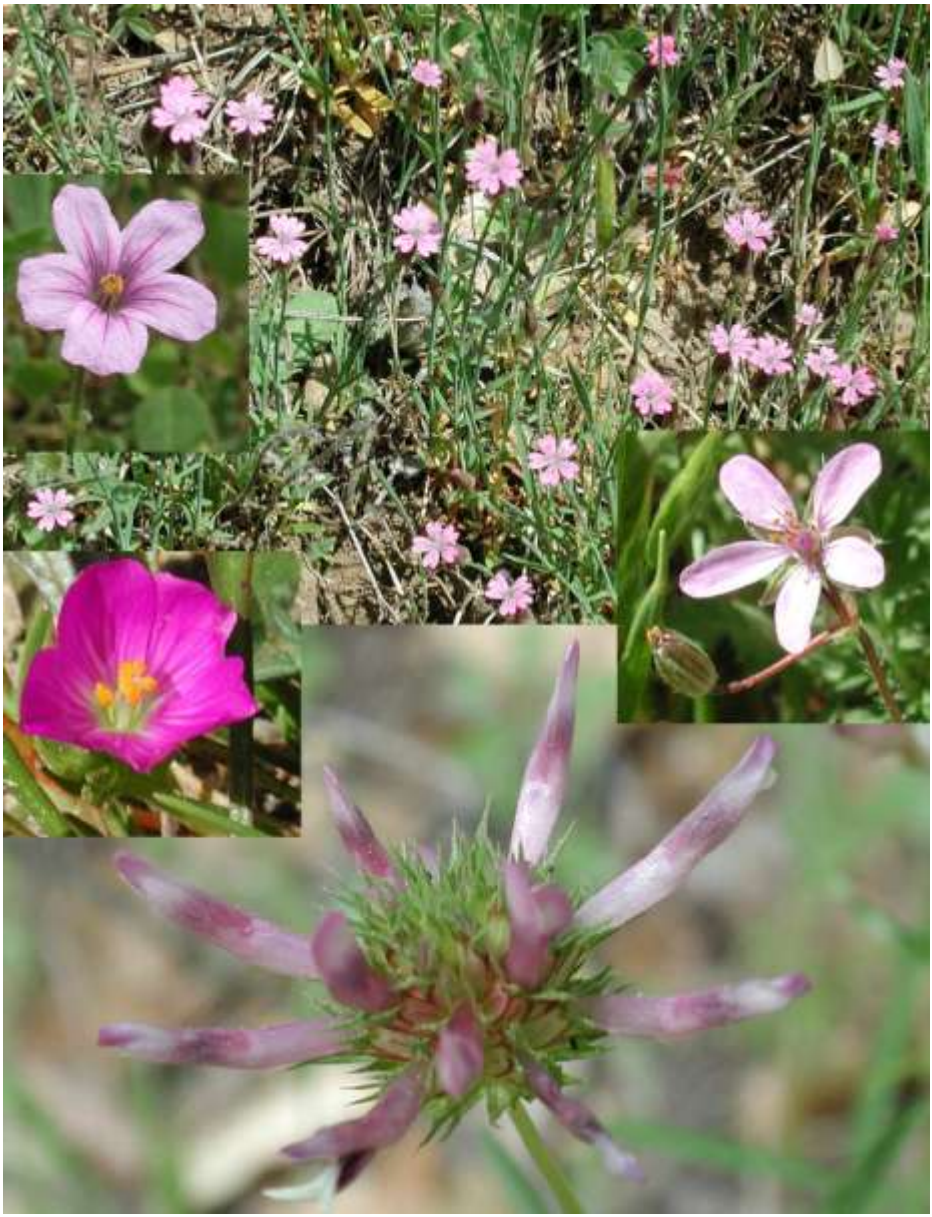
Family Asteraceae — Aster family
Genus Eriophyllum Lag. — woolly sunflower
Species *Eriophyllum lanatum* (Pursh) Forbes
— common woolly sunflower
Genus contains 12 Varieties and 12 accepted taxa overall







Part 3
Red/Pink Flowers

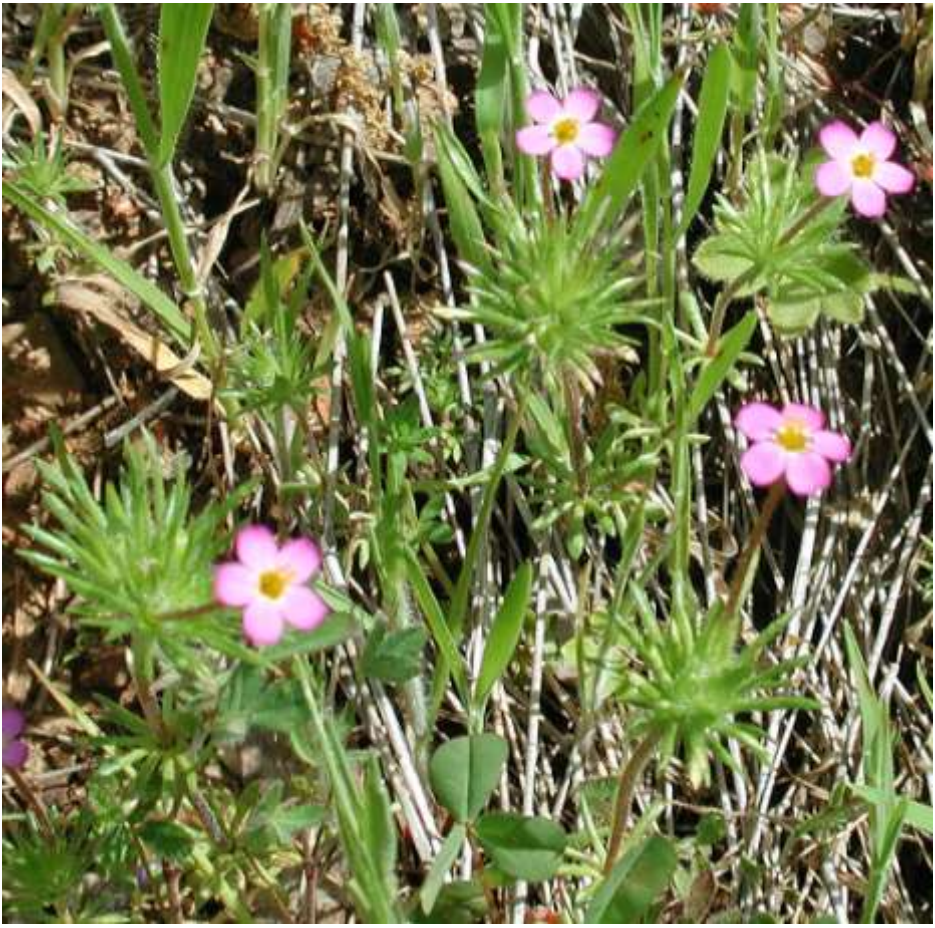


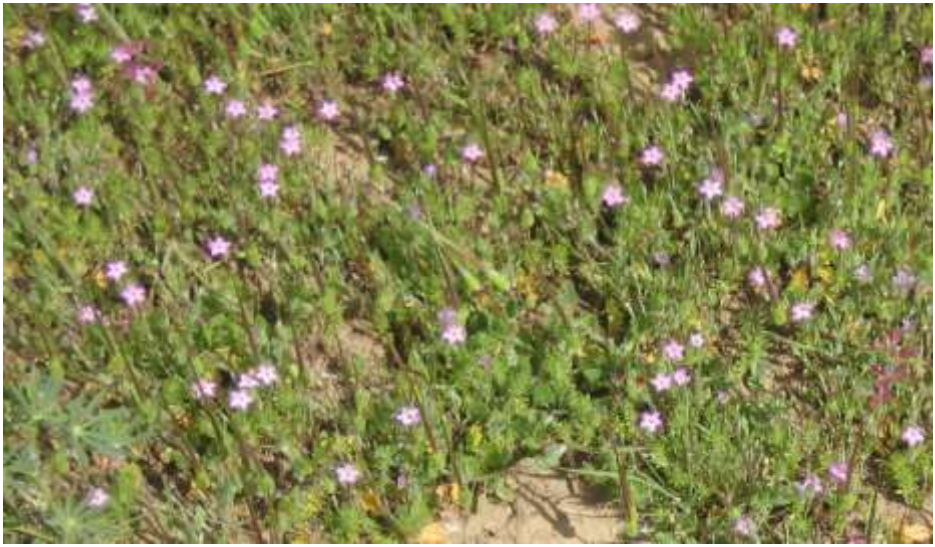
Baby Stars; *Linanthus bicolor*
(also called *Leptosiphon bicolor)*

Mid Bloomer. Small red-pink five-petal flowers, low growing. Thinly divided leaves circle stem at intervals. RC-CNPS: p. 284

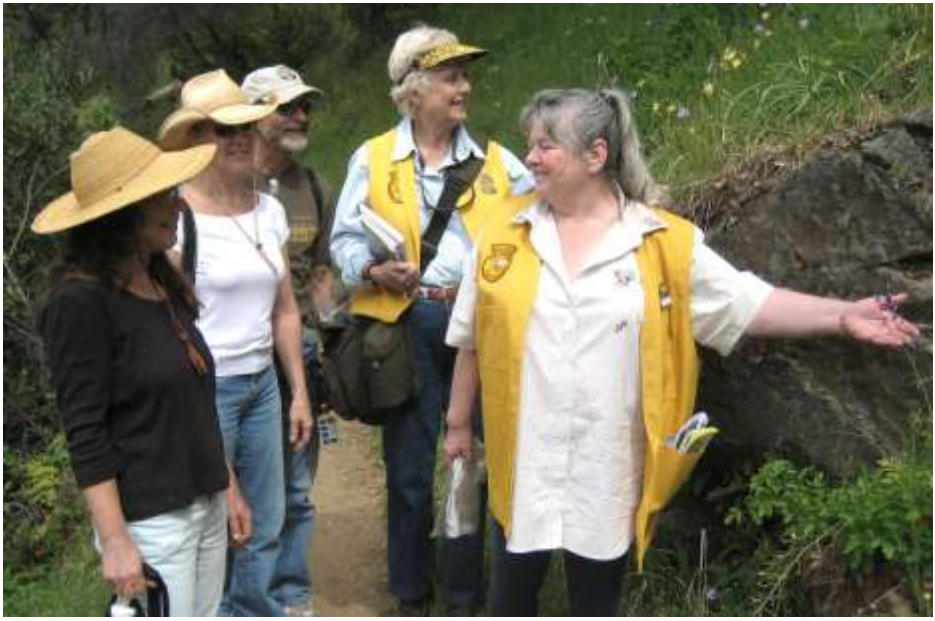
Notes: Pink flowers with yellow centers, grows in masses in open areas. Intricate coloring and design most fully appreciated with a magnifying glass. Linanthus means 'flax flower.'

Family Polemoniaceae — Phlox family
Genus Leptosiphon Benth.
Species *Leptosiphon bicolor* Nutt. — true babystars





Baby Stars are clearly tiny when viewed among long-beaked stork's bills.



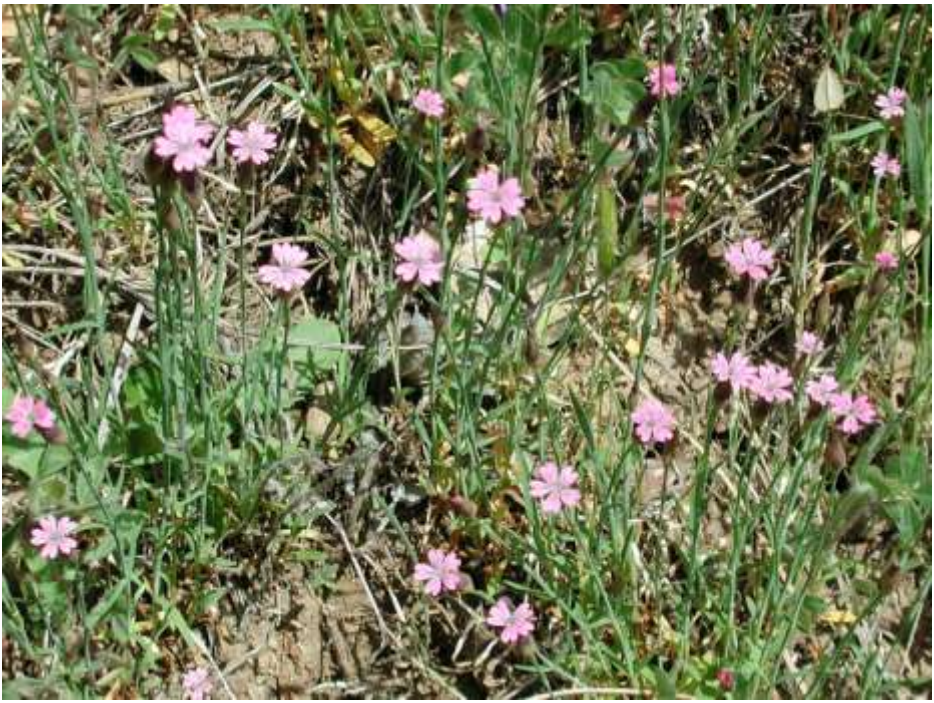
Docents guide a 1.5-hour wildflower walk at 11 a.m. on Saturdays and Sundays from early March to mid May. Wear comfortable shoes and bring water for this easy walk. Meet at the Buttermilk bend trailhead at the north parking lot.

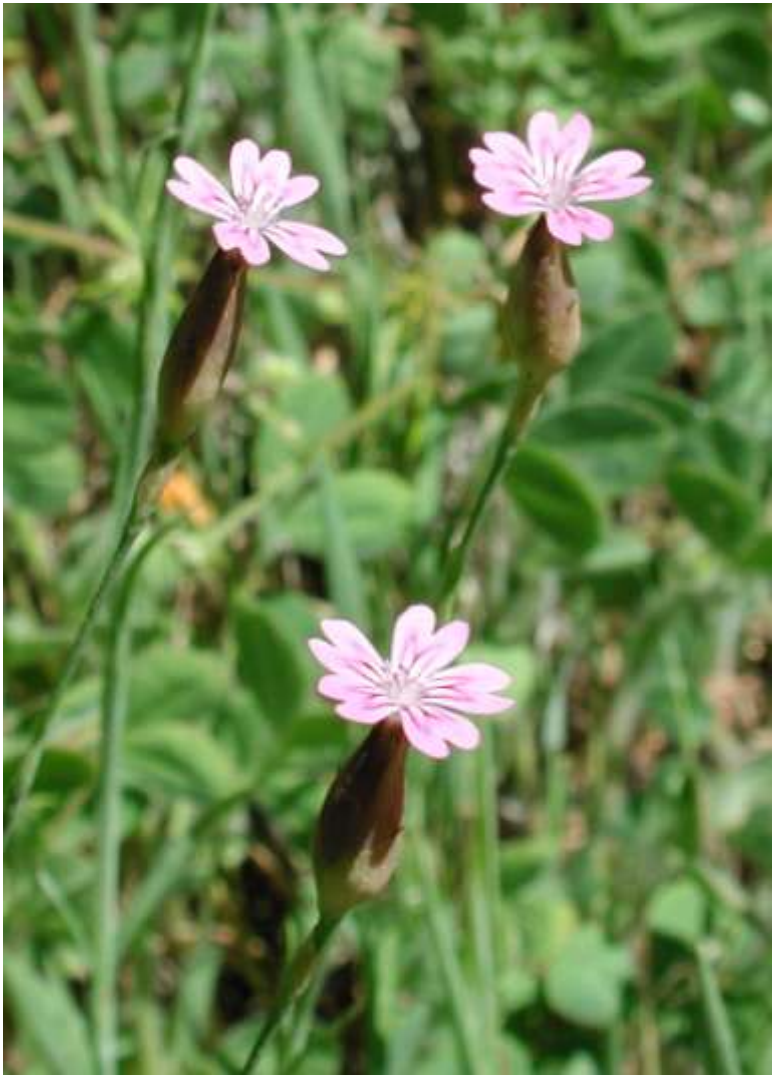
Wild Carnation; *Petrorhagia dubia*

Mid Bloomer. Tiny pink flowers, 5 petals on leafless, erect stem, petals have pinked edges. RC-CNPS: p. 140

Notes: Also called Grass Pink. Florescent-pink flowers perched atop a single, wiry 4-inch to 24-inch stem. Pinks are so named for their notched or pinked petals, creating a somewhat heart-shape. P. Dubia is from southern Europe. Grows in open, disturbed areas. Petrorhagia means 'rock fissure' in reference to some of the species (not ours). Formerly called Kohlrauschia velutina.

Family Caryophyllaceae — Pink family
Genus Petrorhagia (Ser.) Link — pink P
Species *Petrorhagia dubia* (Raf.) G. López & Romo — hairypink



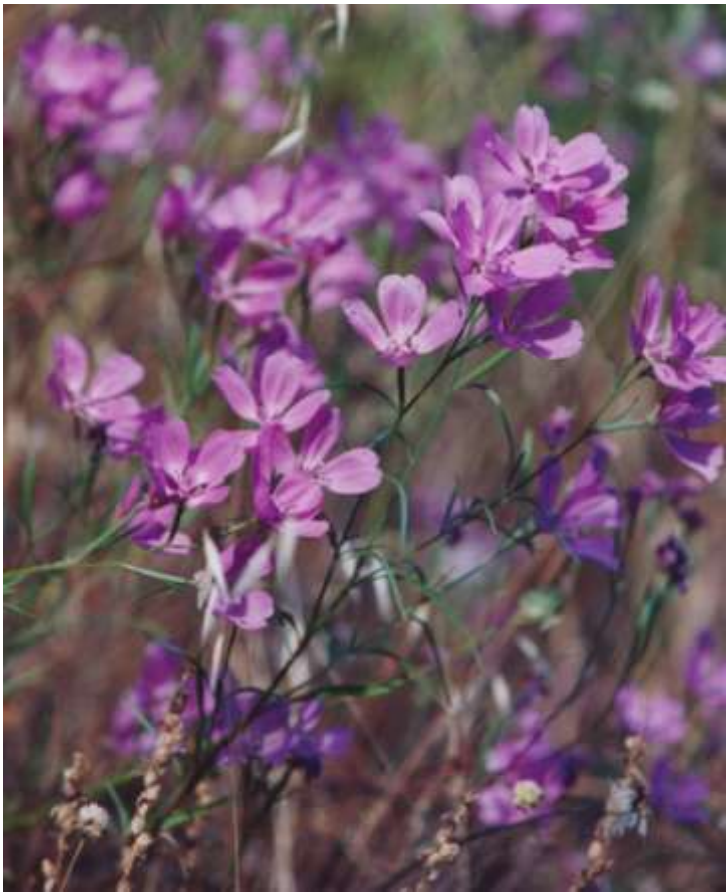


Wild Carnations close-up

Bilobed Clarkia, *Clarkia biloba*

Late Bloomer. Four pink to lavender petals, each divided into 2 equal lobes, erect stems, grows on dry open slopes, grassy areas. RC-CNPS: p. 253

Family Onagraceae — Evening Primrose family
Genus Clarkia Pursh — clarkia P
Species *Clarkia biloba* (Dur.) A. Nels. & J.F. Macbr. — twolobe clarkia

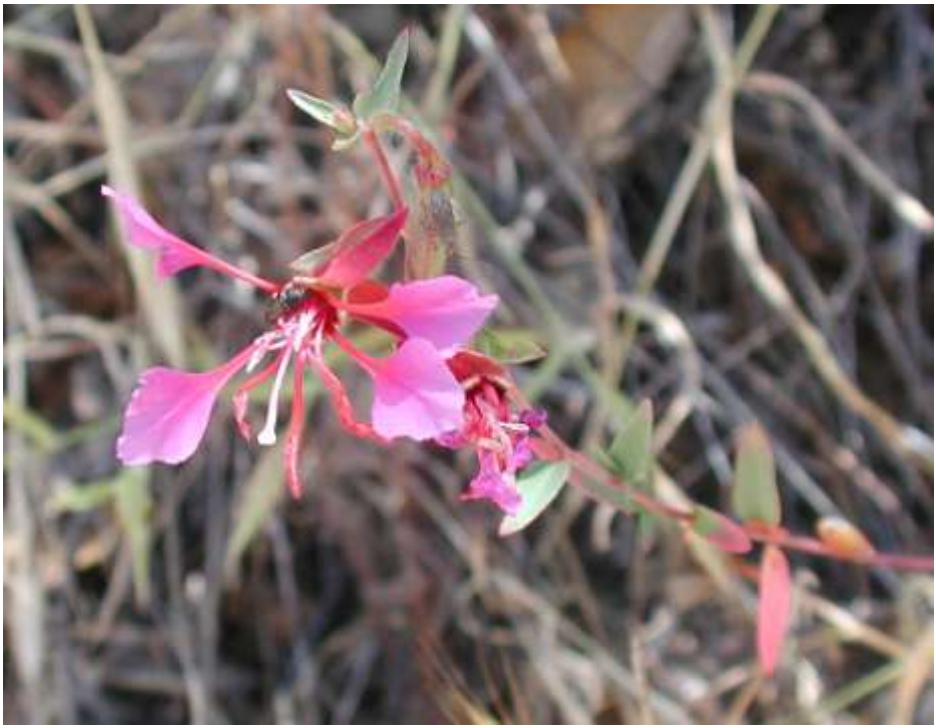


Elegant Clarkia, *Clarkia unguiculata*

Late Bloomer. Four pink unique shovel-shape-tipped petals, with red spot. Named for Captain William Clark of Lewis and Clark expedition. RC-CNPS: p. 255

Notes: Distinctive flowers are pinkish, often red at base. The Maidu would dry, parch and pulverize some species of Clarkia seeds, then eat the meal dry or with acorn meal.

Family Onagraceae — Evening Primrose family
Genus Clarkia Pursh — clarkia P
Species *Clarkia unguiculata* Lindl. — elegant clarkia

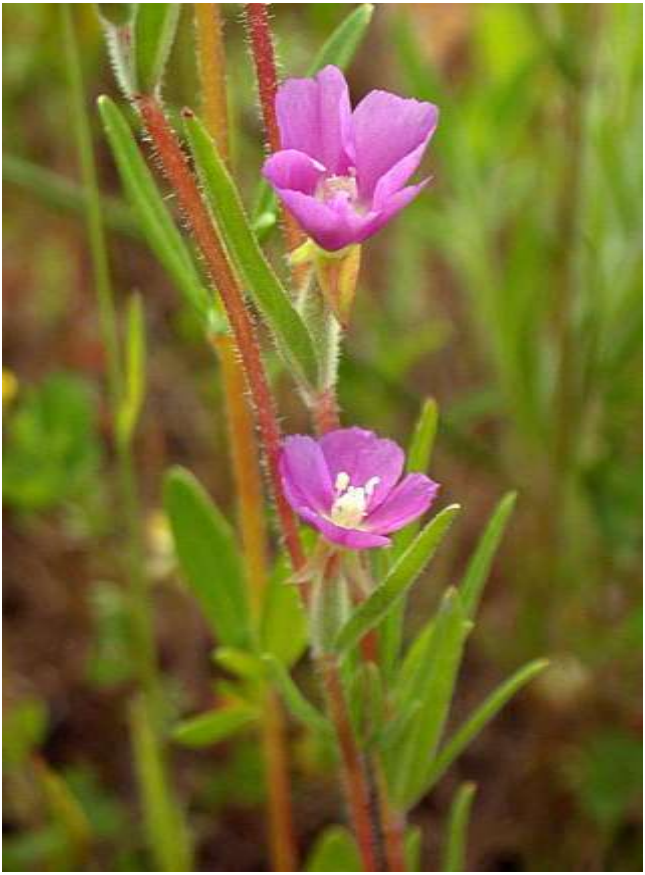


Winecup Clarkia, *Clarkia purpurea*

Mid Bloomer. Small cup-like flowers with pink or purple petals. Also called Farewell to Spring, because of its late bloom season. RC-CNPS: p. 254

Notes: They are among the last annuals to bloom. Flower buds are erect.

Family Onagraceae — Evening Primrose family
Genus Clarkia Pursh — clarkia
Species — *Clarkia purpurea* (W. Curtis) A. Nels. & J.F. Macbr.
— winecup clarkia



CalPhoto: © 2004 Norman Jensen

Rosy Clover, *Trifolium hirtum*

Mid Bloomer. Pinkish flower heads, hairy stems and leaves, 3-leafed. A weedy plant found in disturbed places. RC-CNPS: p. 173

Notes: Only the bumble bee's tongue is long enough and shaped to reach the well of the flower (T. pretense). Some clovers are edible. Leaves used for blood disorders. Rosy Clover contains estrogen-like compounds. It was also used for liver ailments and memory. There are many species of clover. The Maidu boiled greens in saltwater (overeating can cause stomach bloat). Birds can eat foliage and seeds. Also a food source for squirrels, deer and several species of butterflies. It was used as a folk medicine for colds and coughs. Rosy Clover can be used as a substitute for Pekoe tea.

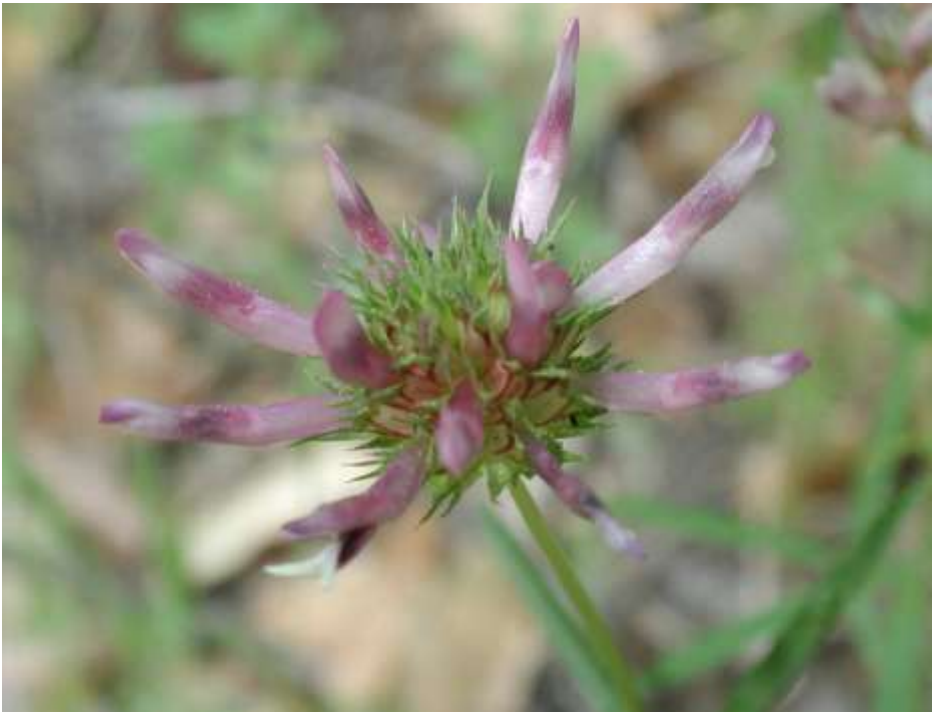
Family Fabaceae — Pea family
Genus Trifolium L. — clover
Species *Trifolium hirtum* All. — rose clover

Tom Cat Clover, *Trifolium willdenovii*

Late Bloomer. Reddish-purple flower heads, white-tipped, spread as they age. Clovers are food source for several butterflies. RC-CNPS: p. 176

Notes: Formerly T. tridentatum. Very common, often creating masses of red-purple in damp, grassy areas. Sometimes a small plant but often with stems up to 2 feet. Karl Willdenow was the director of the Berlin Botanical Garden in the early 19th century. The USDA lists this plant under the alternate spelling below:

Family Fabaceae — Pea family
Genus Trifolium L. — clover
Species *Trifolium willdenowii* Spreng. — tomcat clover



Red-stem Filaree, *Erodium cicutarium*

Early Bloomer. Five pink/purplish petals, low growing reddish stems. Storksbill-shaped seed pod. RC-CNPS: p. 184

Notes: The Genus Erodium (Storksbill) has a seed with a long stem that dries into a coil resembling a clock spring. The plants are sometimes called "Clocks." At night the tail straightens when moistened by dew and then re-coils in the morning when dried by the sun. The sharp-pointed seed thus slowly plants itself by the repeated straightening and coiling of the tail. You can simulate this action by simulating dew by breathing heavily on a seed. If you then place it in a hot sunny place, it will coil before your eyes. You can also push one of the long needlelike seed pods thru another one to make "a pair of scissors"…hence the name, 'Scissor Plant.' The leaves are edible, especially when young, and have a parsley-like flavor. It has long been used as a diuretic, astringent, and anti-inflammatory herb. In Chinese medicine, the tea was used as a kidney tonic and to control urinary tract bleeding. In Mexico it has been long used to control bleeding in childbirth. Erodium was accidentally introduced into California by the Spaniards during the mission period, with the seeds clinging to the wool of sheep brought from the Mediterranean countries. It is in the same genus as the Long-beaked Filaree (Storksbill, page 72)

Family Geraniaceae — Geranium family
Genus Erodium L'Hér. ex Ait. — stork's bill
Species *Erodium cicutarium* (L.) L'Hér. ex Ait. — redstem stork's bill

Dove's Foot Geranium, *Geranium molle*

Early Bloomer. Tiny pink flowers, 5 petals, low-growing plant. Rounded soft leaves. Plant used for food, medicine. RC-CNPS: p. 185

Notes: A low, nearly prostrate, tiny-flowered species. The rounded, deeply veined leaves have short, blunt lobes. Likes open meadows and woods. The photograph below is of part of a large patch along the dirt road from the covered bridge to Pleasant Valley Road and the north parking lot.

Family Geraniaceae — Geranium family
Genus Geranium L. — geranium
Species *Geranium molle* L. — dovefoot geranium

Closer view of isolated blooms and deeply veined leaves

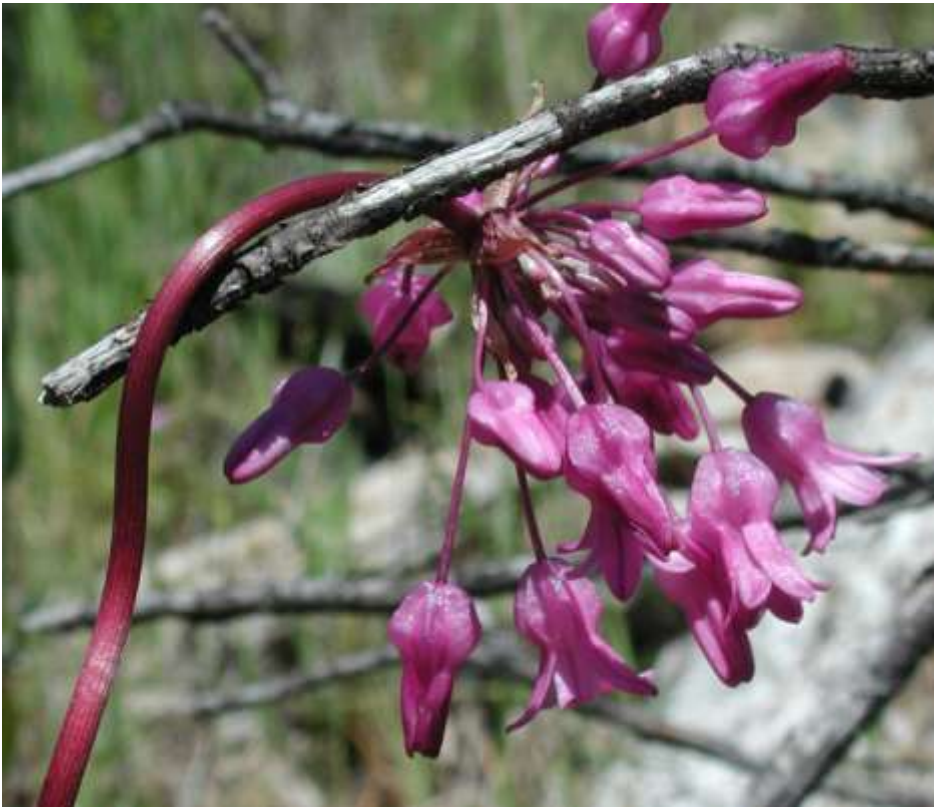
Gold panning near the Visitor Center

Twining Snake Lily, *Dichelostemma volubile*

Mid Bloomer. Purple-pink urn-shaped flowers clustered on purple-pink vining stems. Long, weak stems seek support, twine on branches, grasses etc. RC-CNPS: p. 225

Notes: The flowers are clustered on umbels. It's fun to let people try to trace back to where the 'snaking' stems begin their journey. The bulbs are edible (one of the "Indian potatoes") and have a mild garlic/onion flavor, as they are related to the Alliums: garlic, onions, leeks etc. As with other Dichelostemma, the leaves are long and grass-like. They prefer shady, grassy areas (including around Poison Oak). Dichelostemma means 'toothed crown' in reference to the forked tamen appendages. The Latin *volubile* means 'twining'. It was formerly called Brodiaea volubilis, with common name Twining Brodiaea. Blue Dicks are also classified as Dichelostemma.

Family Liliaceae — Lily family
Genus Dichelostemma Kunth — snakelily
Species *Dichelostemma volubile* (Kellogg) Heller — twining snake lily

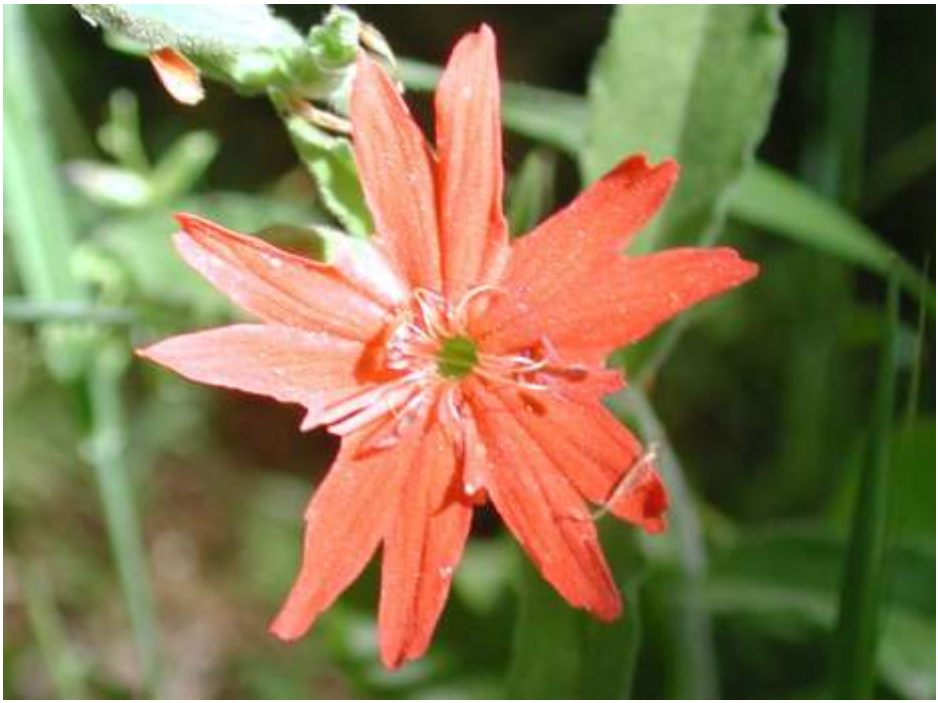


Indian Pink, *Silene californica*

Mid Bloomer. Five bright scarlet petals with four forked lobes, sticky hairs trap bugs. The only Sierra Silene with bright red flowers, likes open shade. RC-CNPS: p. 141

Notes: They are the only truly red flower at Bridgeport, low-growing and found down beyond the Lomatium, near the river where the trail goes straight before it forks left to the Redbud at creek's bank. This is also a nice area for Blue Dicks, Iris and others on the shady slopes. The genus Silene has about 500 species. The word is derived from the mythological Silenus, intoxicated foster-father of Bacchus, the god of wine. They are related to the Catchfly, the word being somewhat of misnomer. It apparently refers to the sticky secretion on the calyx of many species, which sometimes trap tiny knats; it is unlikely a fly would get stuck, though it might be distracted. Most pinks, but not all, have deeply lobed (pinked) petals.

Family Caryophyllaceae — Pink family
Genus Silene L. — catchfly
Species *Silene californica* Dur. — Indian pink



Pink, Indian; *Silene californica* (concluded)

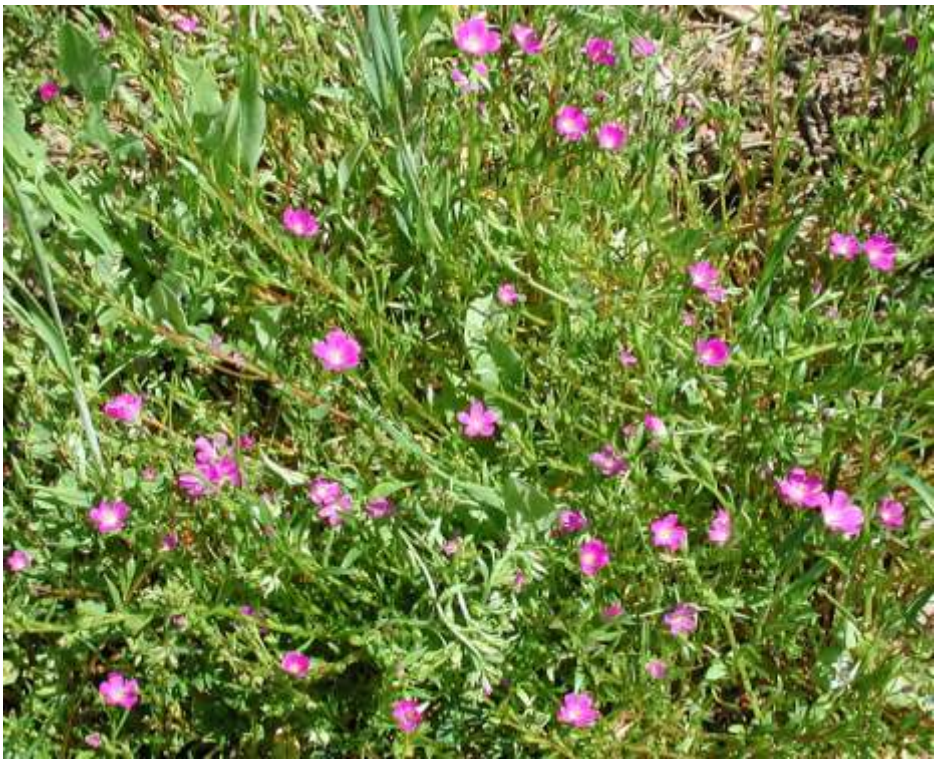
Judy Nichols teaches pine needle basket weaving in the Visitor Center once or twice a year. Call the center at 530-432-2546 to learn how to reserve a spot in the class.

Red Maids; *Calandrinia ciliata*

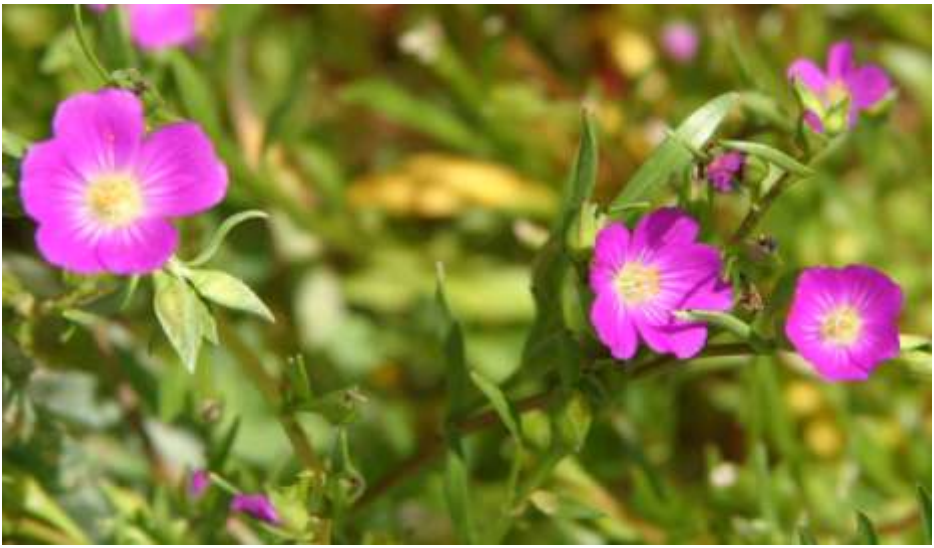
Early Bloomer. Five small red-pink petals form a bowl shape, low growing in open areas. Seeds and foliage edible, blooms only in bright sunlight. RC-CNPS: p. 299

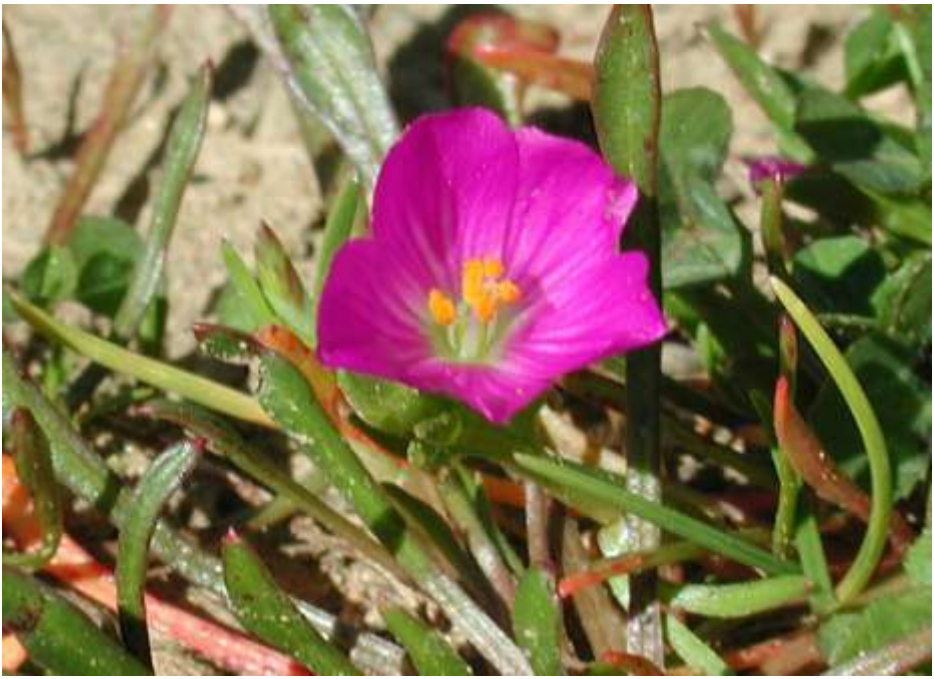
Notes: Blooms only in the sun, and are scarcely noticeable when closed. The tiny black seeds were prized by the Maidu as a food source; as in many of the purslanes (e.g. Miner's Lettuce) the leaves are tasty. Seeds are also eaten by birds. The genus Calandrinia has about 150 species. J. L. Calandrini was an 18th century Swiss botanist. Ciliata means 'fringed' in reference to the fine hairs on the edges of the sepals.

Family Portulacaceae — Purslane family
Genus Calandrinia Kunth — redmaids
Species *Calandrinia ciliata* (Ruiz & Pavón) DC.
— fringed redmaids



Red Maids; *Calandrinia ciliate* (concluded)



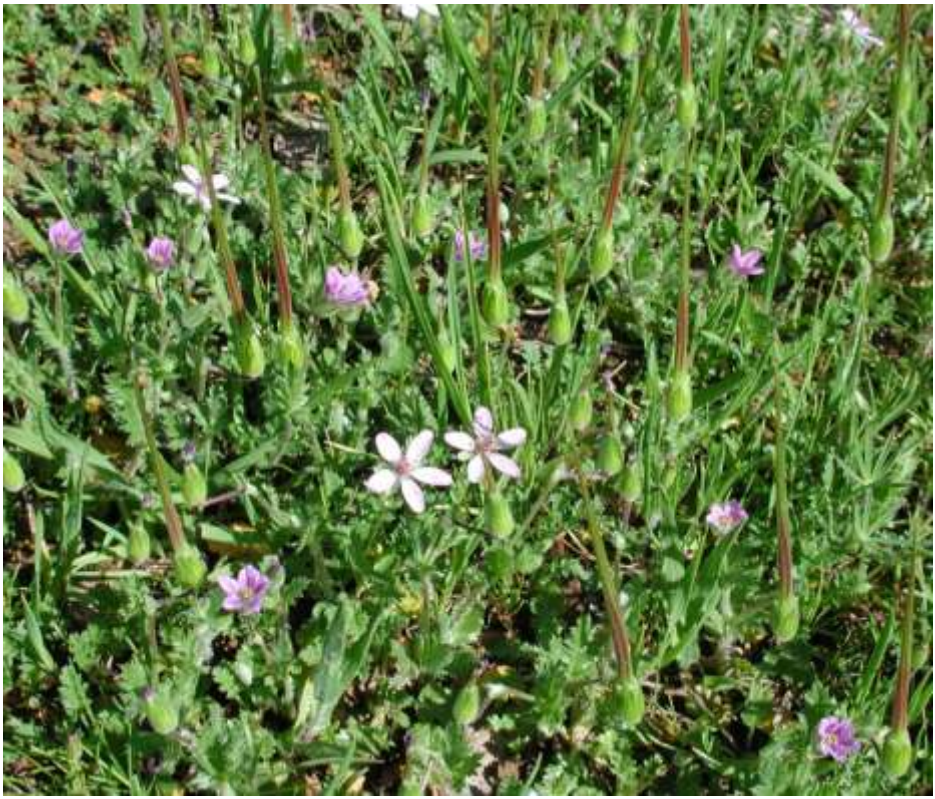


Long-beaked Storksbill, *Erodium botrys*

Early Bloomer. Five petaled, small pink/purplish flowers, beak-like seed pods, weedy. Also called Scissor Plant. Seed pods coil to resemble clock springs. RC-CNPS: p. 183

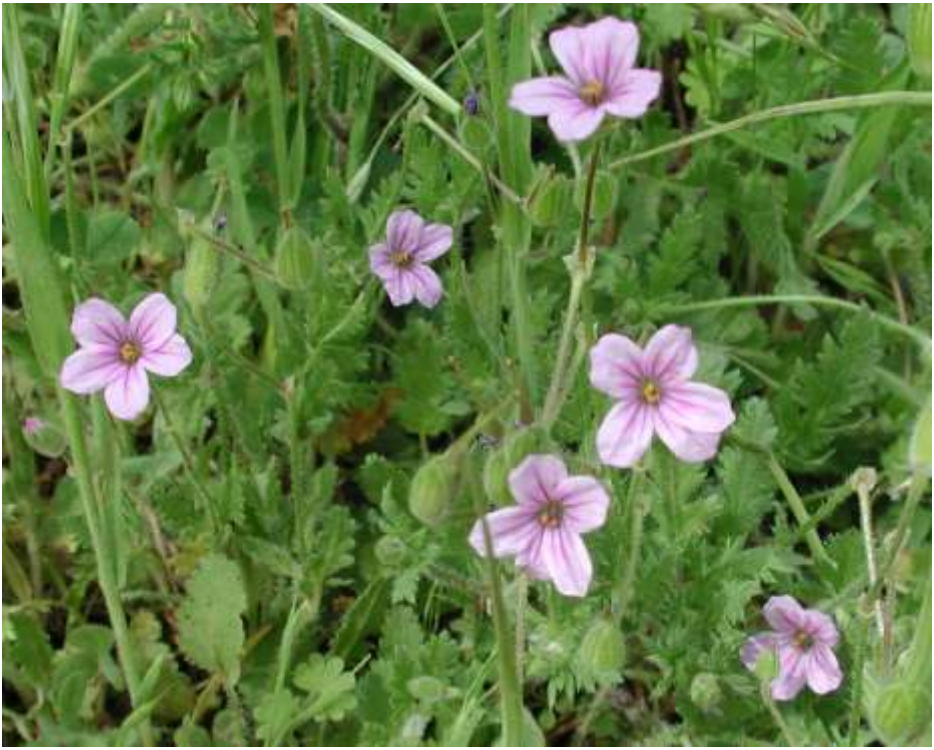
Notes: See notes for Red-stemmed Filaree. The Long-beaked filaree (Storksbill) grows low to the ground and has many characteristics in common with red-stemmed filaree. A notable difference is the shape of the petals. The long-beaked storksbill's petals flare out together to form a horn, while the red-stemmed filaree's petals splay out separately. See example photos below.

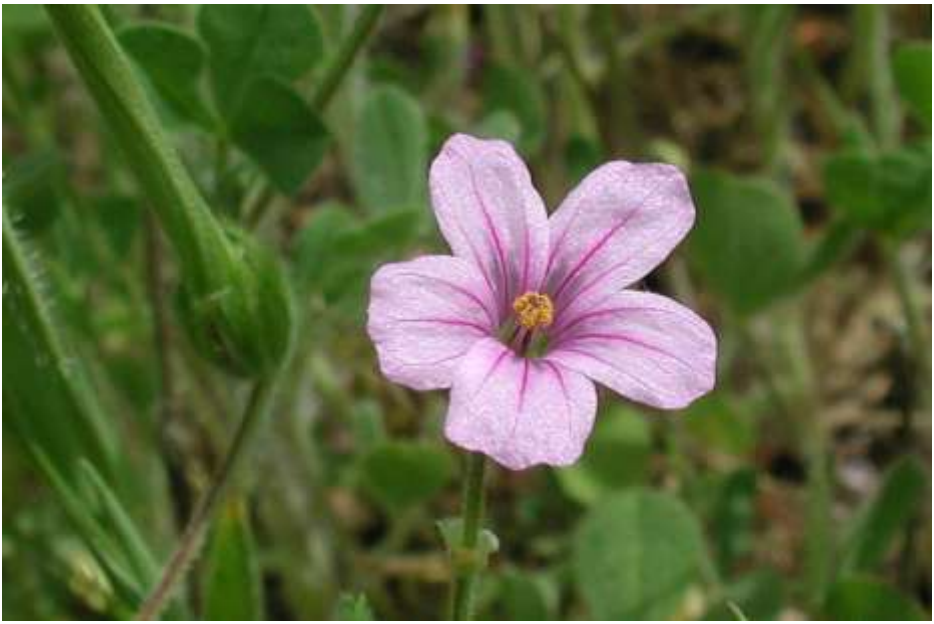
Family Geraniaceae — Geranium family
Genus Erodium L'Hér. ex Ait. — stork's bill
Species *Erodium botrys* (Cav.) Bertol. — longbeak stork's bill



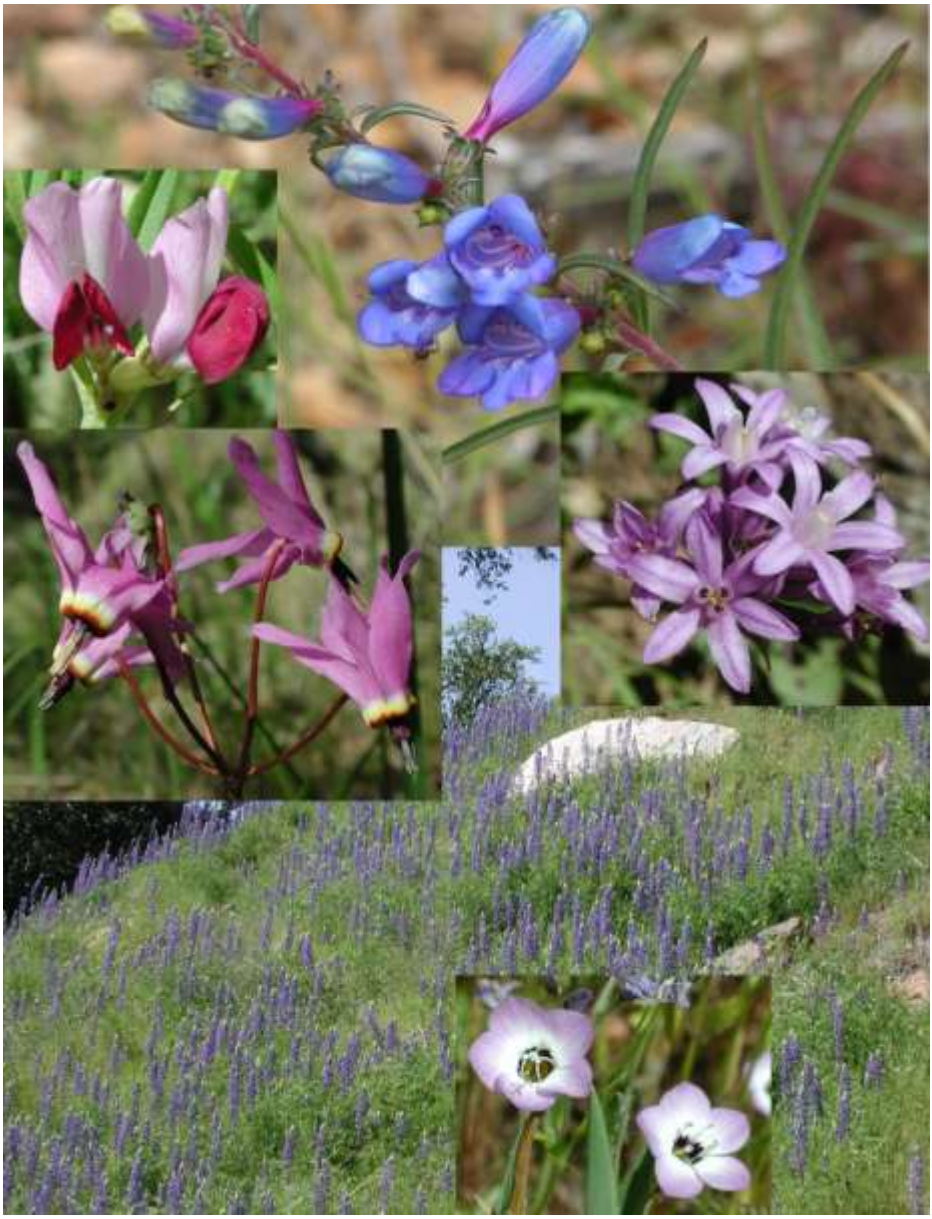
Long-beaked Storksbill intermingled with Red-stemmed Filaree

Long-beaked Storksbill, *Erodium botrys* (concluded)





Part 4
Violet/Purple Flowers



Blue Dicks; *Dichelostemma capitatum*

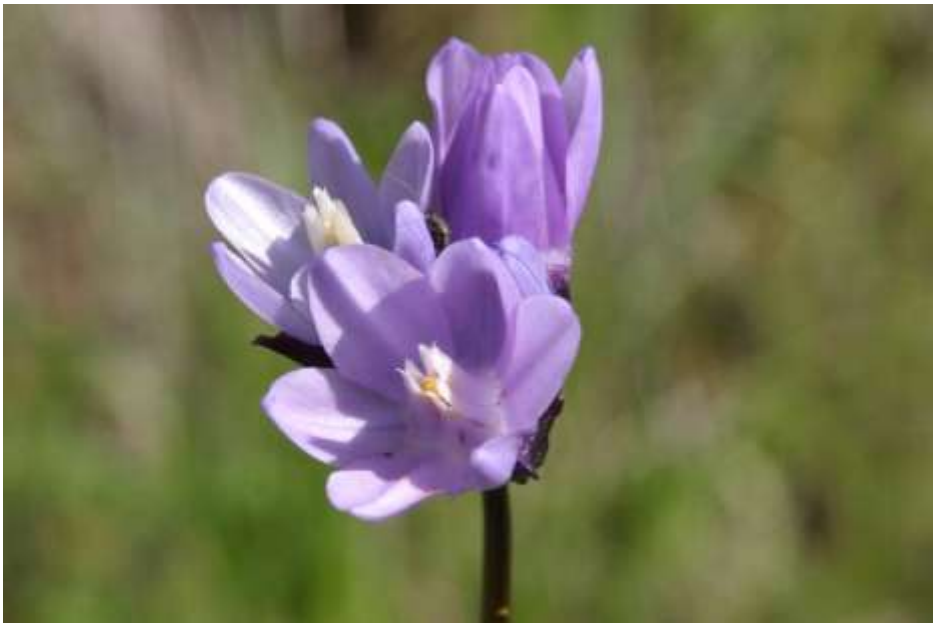
Early Bloomer. Tight clusters of few urn-shaped flowers on tall stalks, 6 blue to purple petals, edible bulbs. RC-CNPS: p. 223

Notes: (Formerly the Amaryllis family: based on recent genetic studies, botanists have merged the entire amaryllis family into the lily family. The Amaryllis family no longer exits, although older books still list Blue Dicks as Amaryllis.) The genera formerly considered to be in the amaryllis family certainly do share numerous physical characteristics with the lily family. In all but one genus, the Calochortus (the Globe Lily), many characteristics are identical, or extremely similar.

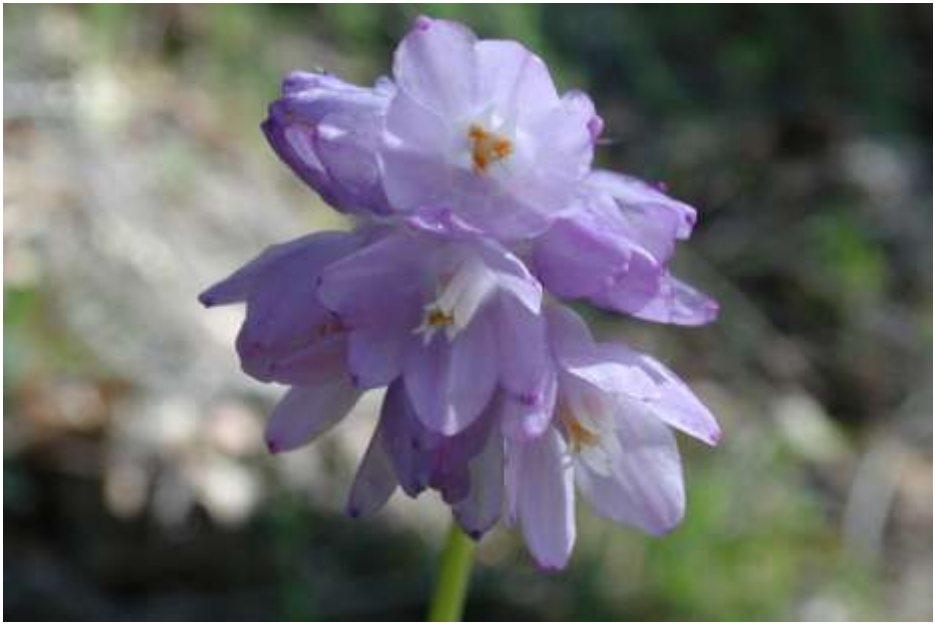
Blue Dicks are frequent and showy blue-purple Hyacinth-like flowers on grasslands and slopes. You can recognize the characteristics that place Blue Dicks in the Dichelostemma genus rather than the Brodiaea or Triteleia: the stems are often weak and bent rather than stiff, the umbel is closely crowded rather than loose, and there are conspicuous appendages on some of the anthers. Other Dichelostemma (of which there are only members) have only 3 fertile stamens, the C. capitatum has 6 large, alternating with 3 small. Capitatum means 'head' in reference to the tight umbels. See Twining Snake Lily.

Related to onions, the bulbs are edible. It is one of the so-called "Indian Potatoes," eaten raw, fried, boiled and roasted. Some have a sweet, nutty flavor. They were sweeter when baked but were also eaten raw, and were one of the most important food sources for the Maidu.

Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Liliopsida — Monocotyledons
Subclass Liliidae
Order Liliales
Family Liliaceae — Lily family
Genus Dichelostemma Kunth — snakelily
Species *Dichelostemma capitatum* (Benth.) Wood — bluedicks



Total flower head is about one inch across. Only the tip of the long stem is shown.



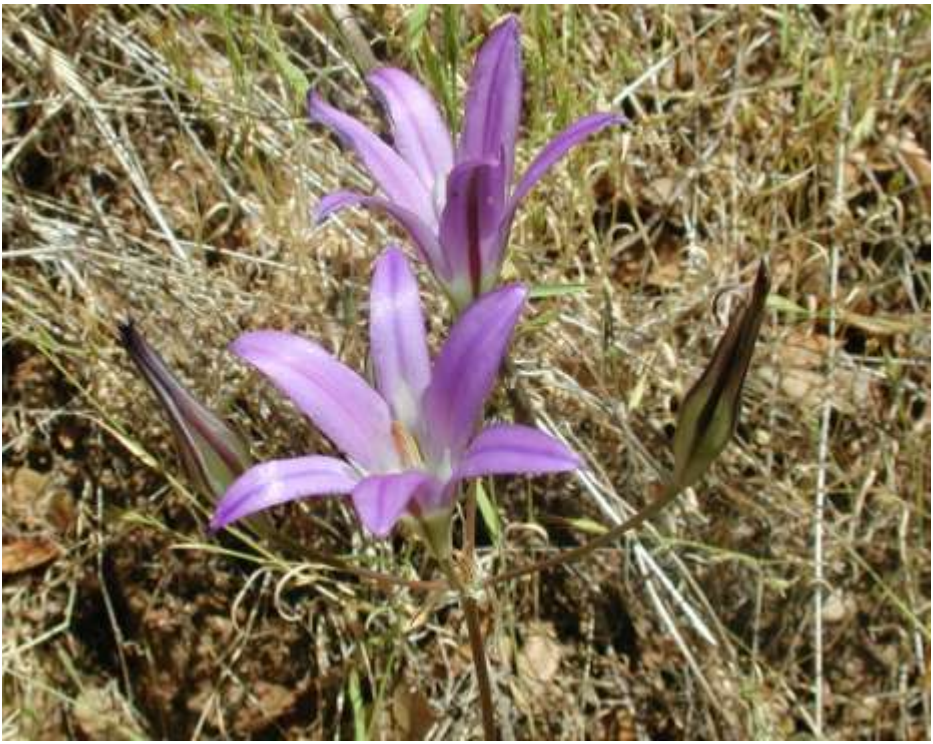
A few become as complex as this.

Elegant Brodiaea, *Brodiaea elegans*

Late Bloomer. Funnel-like flowers, long flower stalks at the top of stem, 6 violet-to blue-purple petals, the only Brodiaea species found at Bridgeport. RC-CNPS: p. 218

Notes: Also called Harvest Brodiaea. A number of species were moved from the genus Brodiaea to others such as Dichelstemma and Triteleia. They are close relatives. Older editions of wildflower books still list many of the these as Brodiaea and sometimes people on the walks will question that. James Brodi was a Scottish botanist of the late 1700a and early 1800s

Family Liliaceae — Lily family
Genus Brodiaea Sm. — brodiaea
Species *Brodiaea elegans* Hoover — harvest brodiaea

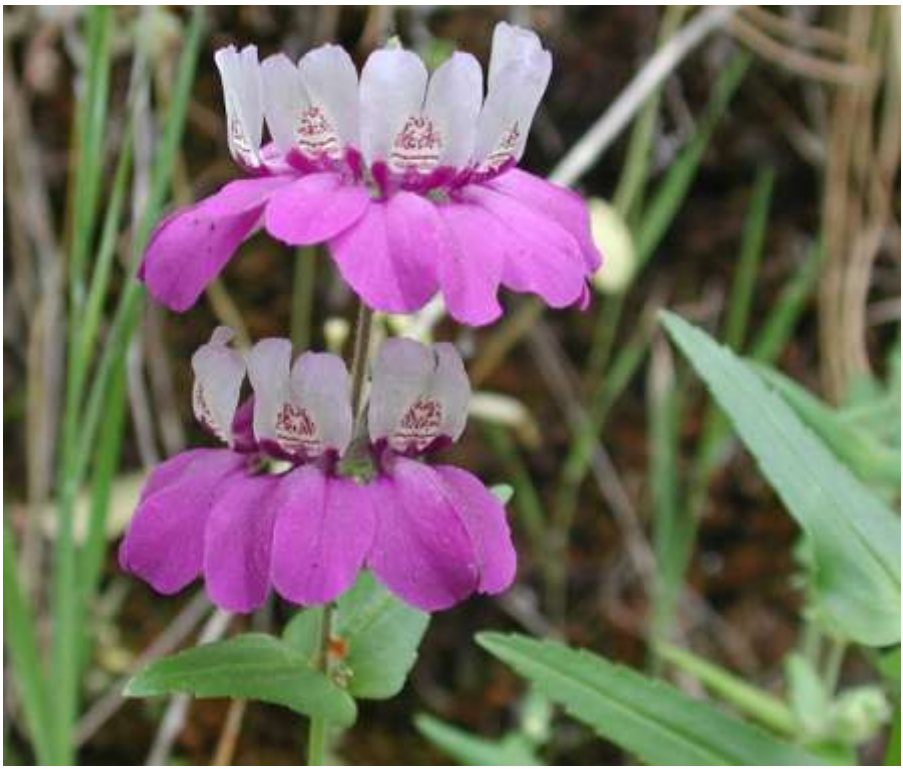


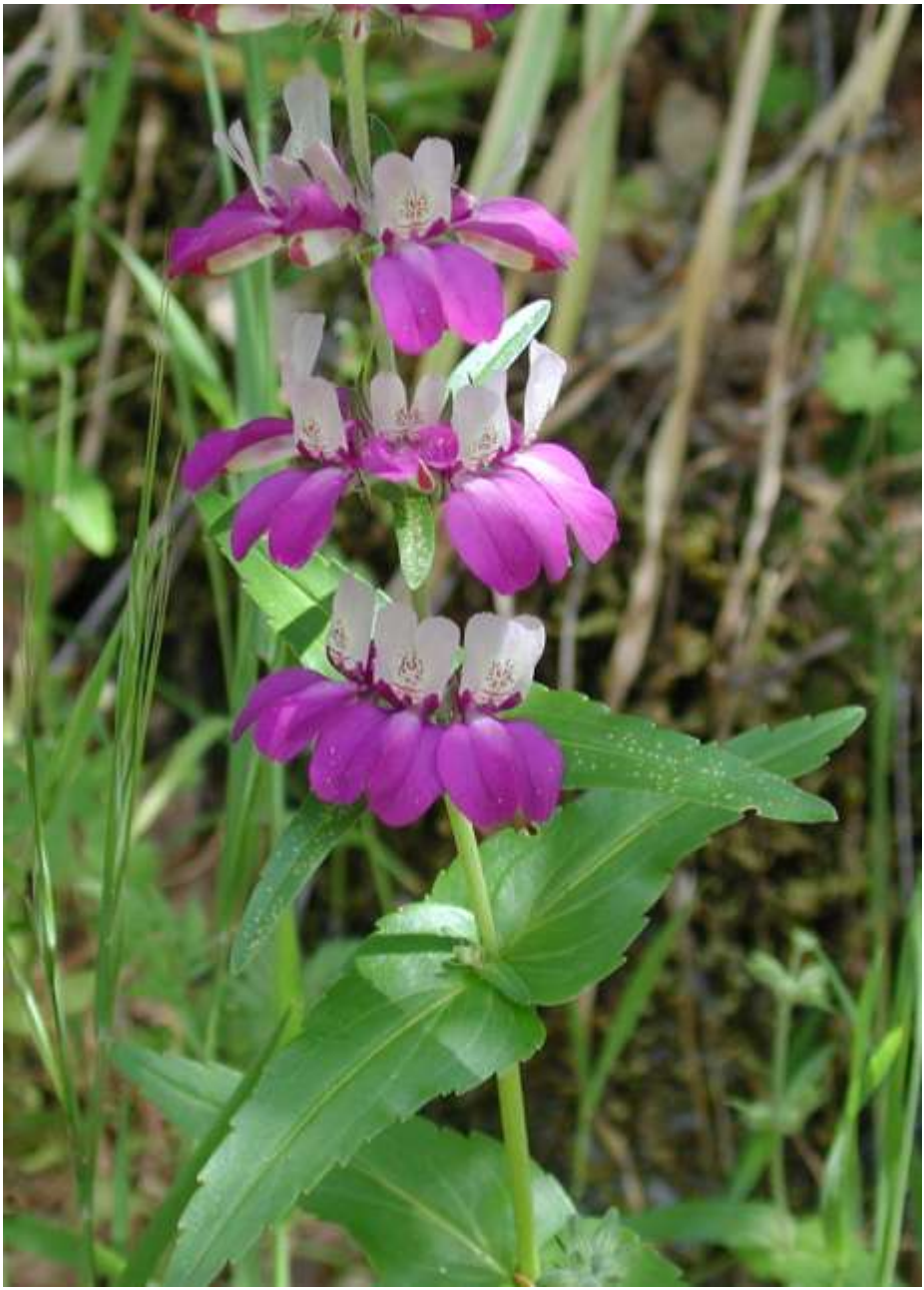
Purple Chinese Houses, *Collinsia heterophylla*

Mid Bloomer. Numerous purple multi-colored flowers in tiers, grows on shady slopes. Flowers are stacked on the stem like apartment houses. RC-CNPS: p. 340

Notes: Figwort (Snapdragon) family. White and lilac-colored flowers in distinctive, dense whorls, one on top of another...look like "Chinese houses." The middle petal of the lower lip in all Collinsia species is somewhat hidden—folded into a keel-like structure that houses the reproductive parts. Sixteen species in California, 18 in North America. (USDA lists 19 Species and 34 accepted taxa overall.) Zaccheus Collins was a Philadelphia botanist in the late 1700's and early 1800's. Heterophyllla means 'varied leaf,' probably in reference to the leaves being deeply lobed in the seedlings and only shallowly toothed in the mature plants. When you look at the pictures below you can see the flower parts are quite varied.

Family Scrophulariaceae — Figwort family
Genus Collinsia Nutt. — blue eyed Mary
Species *Collinsia heterophylla* Buist ex Graham — purple Chinese houses





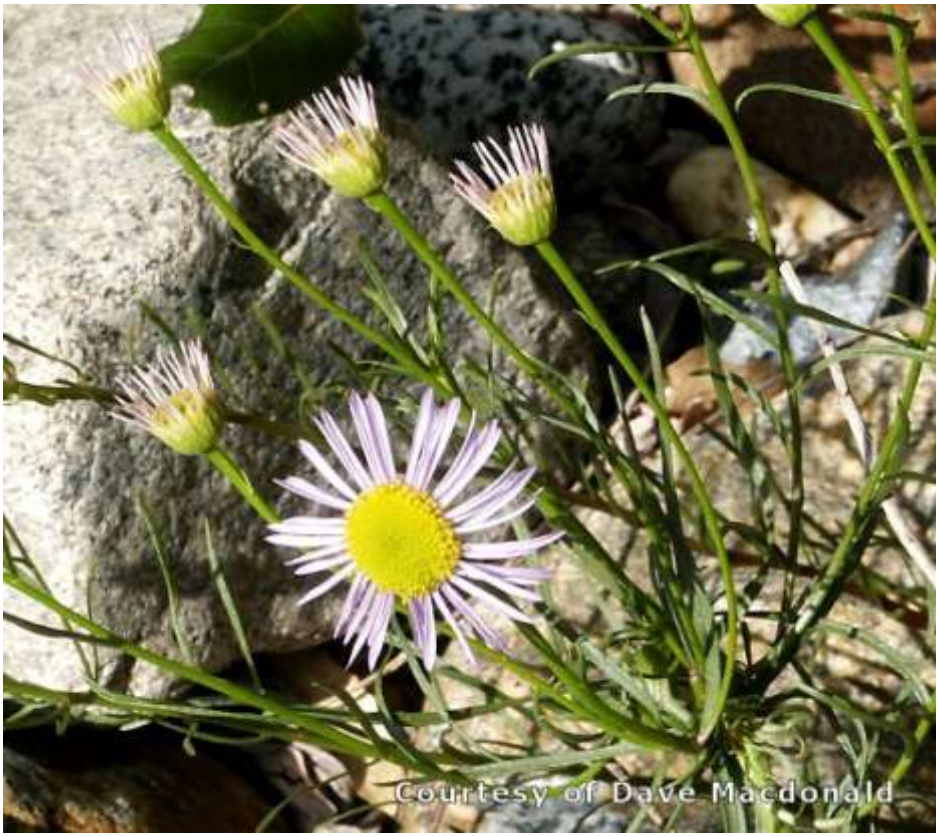
Flowers have been seen with two to five tiers;
here there are four, with the top tier mostly out of the picture.

Narrow-leaved Daisy, *Erigeron foliosus*

Late Bloomer. Daisy-like flowers, bluish rays, yellow disks. Also called Foothill Fleabane, Leafy Daisy. RC-CNPS: p. 103

Notes: Aster (Sunflower) family. Pink to pale blue flowers, linear leaves covered with many short hairs. Prefer grassy, dry slopes. Ours grow on the left slopes before the French Corral Creek Bridge, and along the river bank below and beyond. The genus Erigeron has about 375 species worldwide. Erigeron means 'early old age.'

Family Asteraceae — Aster family
Genus Erigeron L. — fleabane
Species *Erigeron foliosus* Nutt. — leafy fleabane

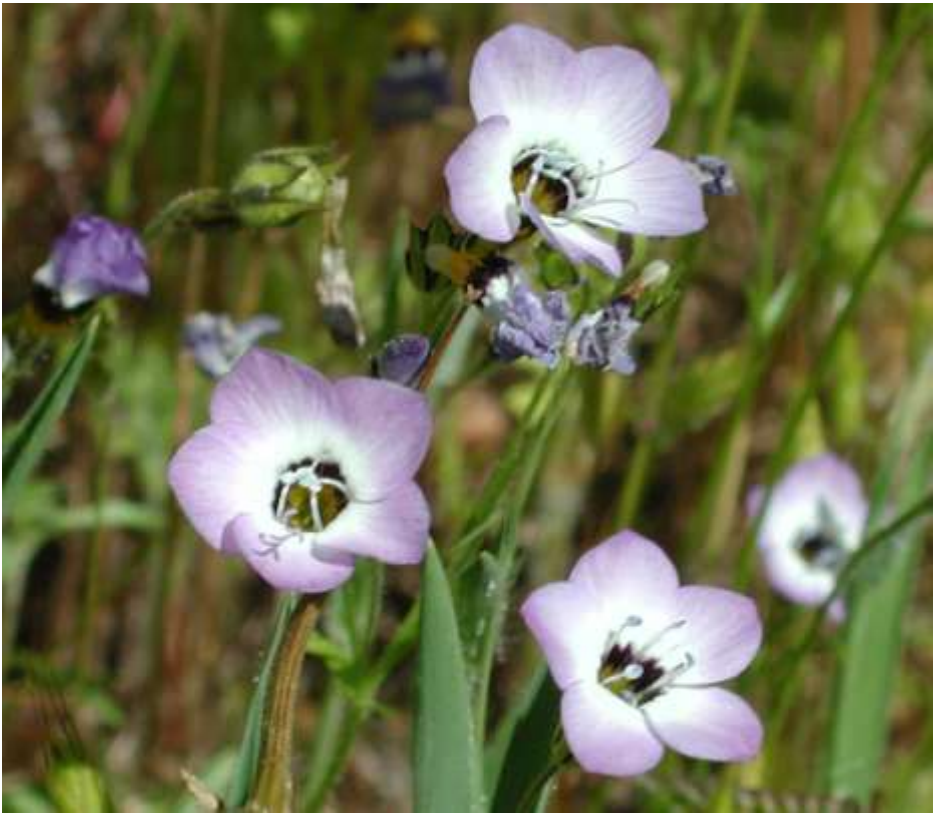


Bird's Eye Gilia, *Gilia tricolor*

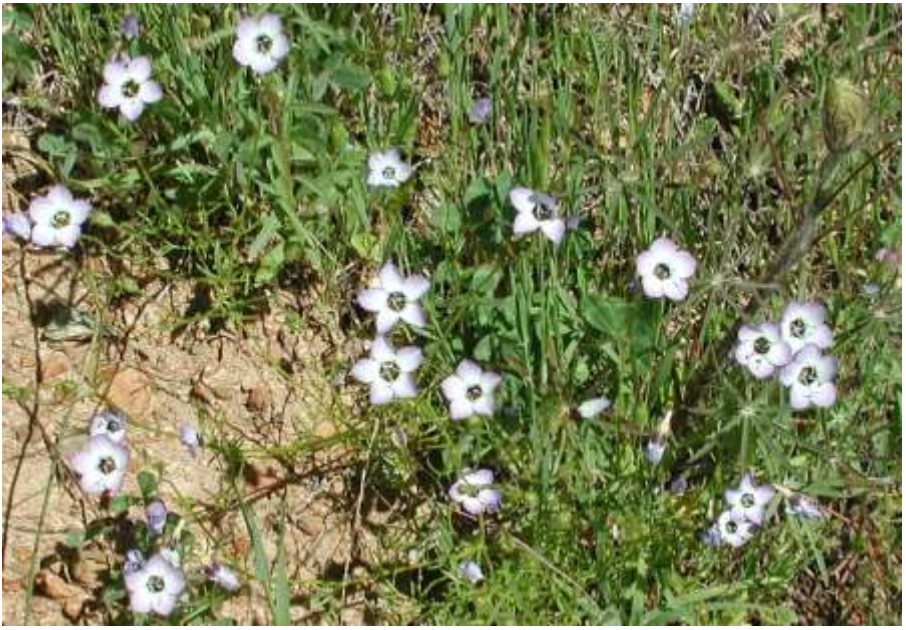
Mid Bloomer. Five small multicolor petals, blue to purple, yellow tube, branched stems, grow in grassy areas, blooms on sunny days. RC-CNPS: p. 282

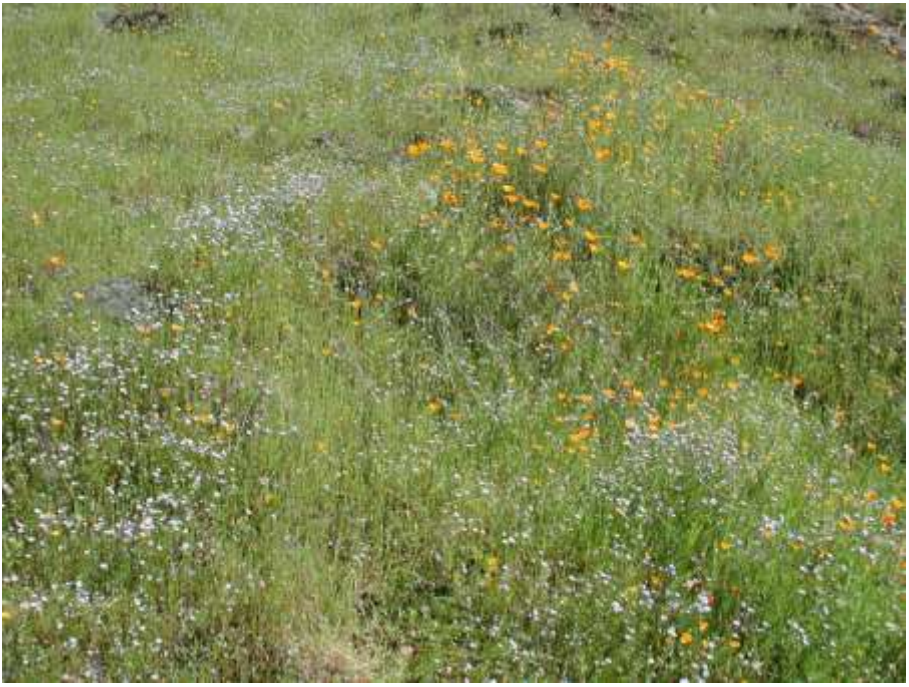
Notes: Ours grow on the grassy slopes beyond the French Corral Creek Bridge. They grow in masses, which creates a lovely lavender haze on the hill. The name comes from the dark centers of the tiny flowers that look like a bird's eye. The darkness is caused by a deep central opening in the flower. Using a magnifying glass you can see the wild combination of colors and intricate beauty: several clusters of 2 to 5 flowers branch off the slender 4-inch to12-inch stem. The very narrow, almost thread-like leaves are typical of the Phlox family. There are about 70 species of Gilia. Felipe Gil was an 18th century Spanish botanist. RC-CNPS: p. 282

Family Polemoniaceae — Phlox family
Genus Gilia Ruiz & Pavón — gilia
Species *Gilia tricolor* Benth. — bird's-eye gilia



Bird's Eye Gilia, *Gilia tricolor* (concluded)





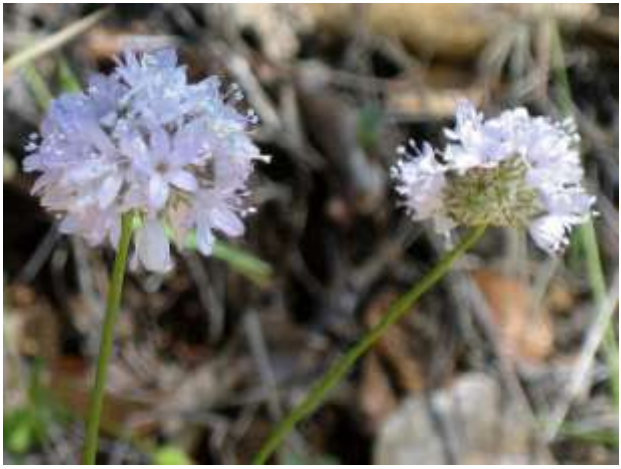
Field of Bird's Eye Gilia with Tufted Poppies

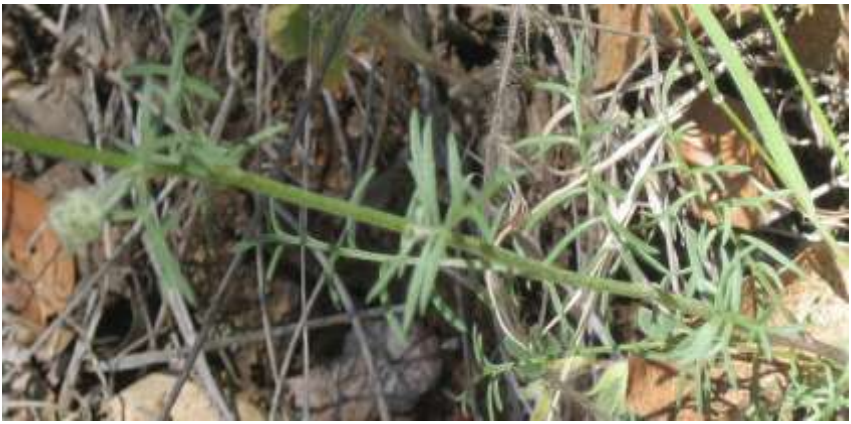
Globe Gilia, *Gilia capitata*

Mid Bloomer. Round balls of many tiny white to violet flowers on tall stems. Likes dry, sandy slopes. RC-CNPS: p. 281

Notes: Typical of the Phlox family, the flowers consist of 5 petals that flare out of the tube to form a shallow bowl. The reproductive parts stick well out of the flowers, and it has narrow, needle-like leaves adapted to dry climates. Capitata means 'head,' in reference to its spherical flower cluster which distinguishes it from other phlox.

Family Polemoniaceae — Phlox family
Genus Gilia Ruiz & Pavón — gilia
Species *Gilia capitata* Sims — bluehead gilia





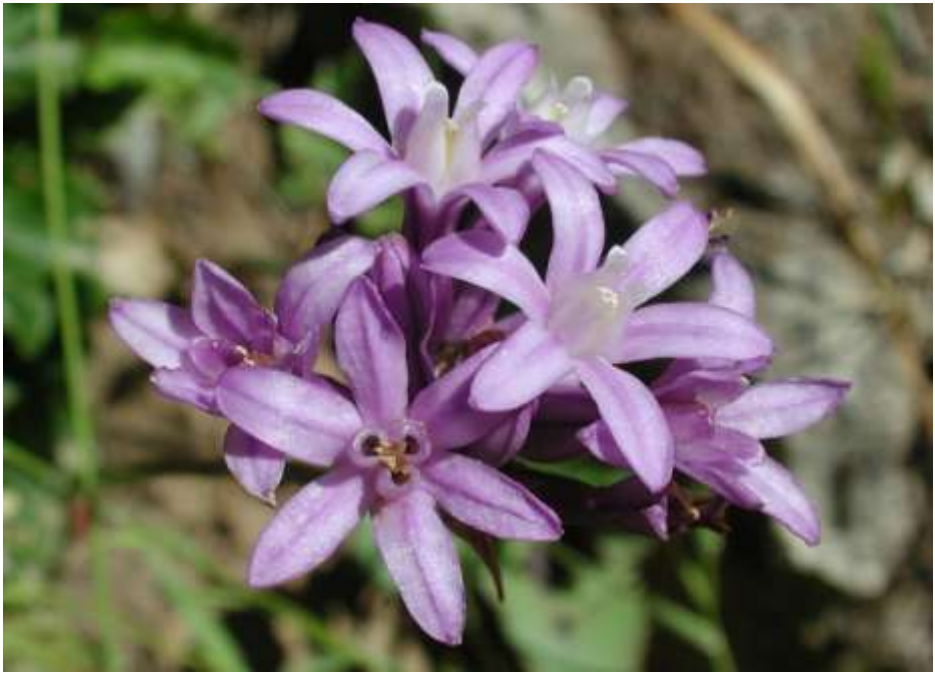
Long narrow leaves along stem

Wild Hyacinth, *Dichelostemma multiflorum*

Late Bloomer. Many pink to purple flowers in tight clusters, 6 petals, flower's tubes narrow at the top. Also called Round-toothed Snakelily. RC-CNPS: p. 224

Notes: One of the several Brodiaea-like flowers of lower elevations, grasslands and slopes. It is classified as Dichelostemma rather than than Brodiaea or Triteleia (See Blue Dicks and Harvest Brodiaea). It is identified by its tight umbel of flowers and its three fertile stamens with conspicuous upright appendages. The Blue Dick, with which it is sometimes confused, does not have the deep purple bract under the umbel. Also, the Wild Hycinth is usually a richer, purple hue, the petals are noticeably rounder, and there are generally more flowers in the umbel. It prefers open, grassy areas and slopes. Multiflorum refers to the dense, many-flowered umbels. Hyacinth is the name of several species, including water hyacinth. Formerly known as Brodiaea multiflora.

Family Liliaceae — Lily family
Genus Dichelostemma Kunth — snakelily
Species *Dichelostemma multiflorum* (Benth.) Heller — roundtooth snakelily

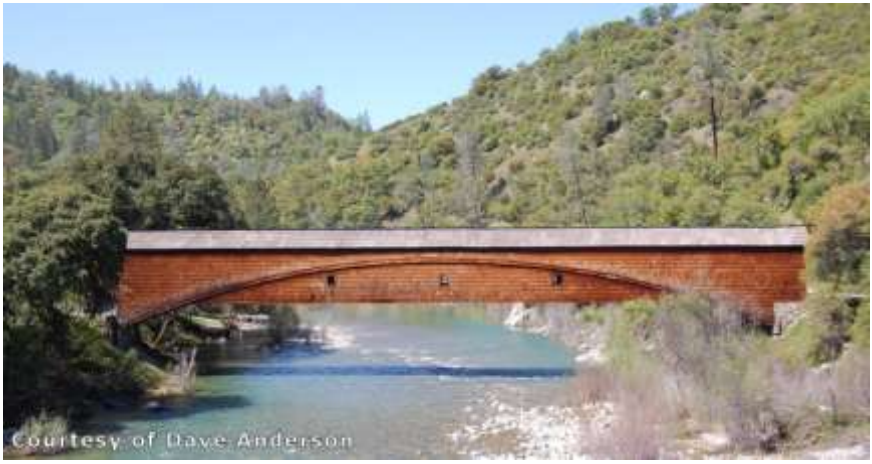


Bowl-tubed Iris, Iris macrosiphon

Early bloomer. Flowers blue to pale yellow with blue violet tinting and striping. Its leaves were used for baskets. RC-CNPS: p. 198

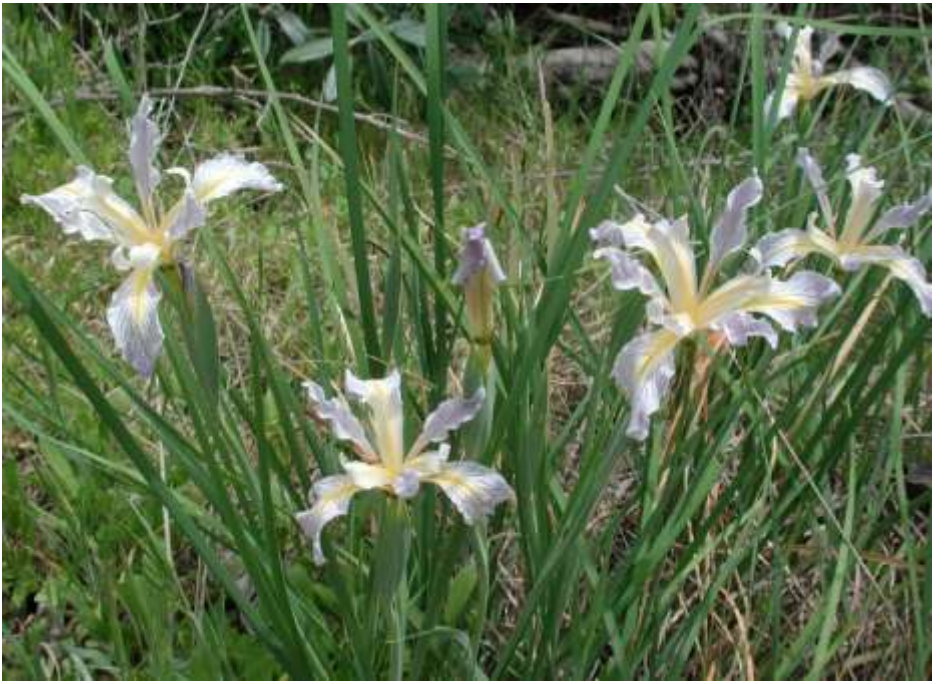
Notes: Likes shady places. The Iris became the French symbol of the fleur-de-lis with Louis VII. It is the oldest cultivated flower and was found in ancient Egypt. Some of the finest cords from the leaf margins are fine, silky, but strong. Harvested in the fall, and stored until needed it was also used for nets, hairnets, rope, string etc. It was "Big Medicine" to the Maidu because of its many uses. Roots and rhizomes were used raw as a poultice against staph infections, infected wounds, ulcers and to remove freckles. Root tea was used for kidney trouble. It could be used internally only when dried, as a diuretic and to stimulate the pancreas. For toothache, the root was inserted into the cavity to kill the nerve, which worked fine—except the tooth falls out!? It was used preferably with other plants that were less strong. The flower can be pale yellowish, with blue tinting or completely blue purple.

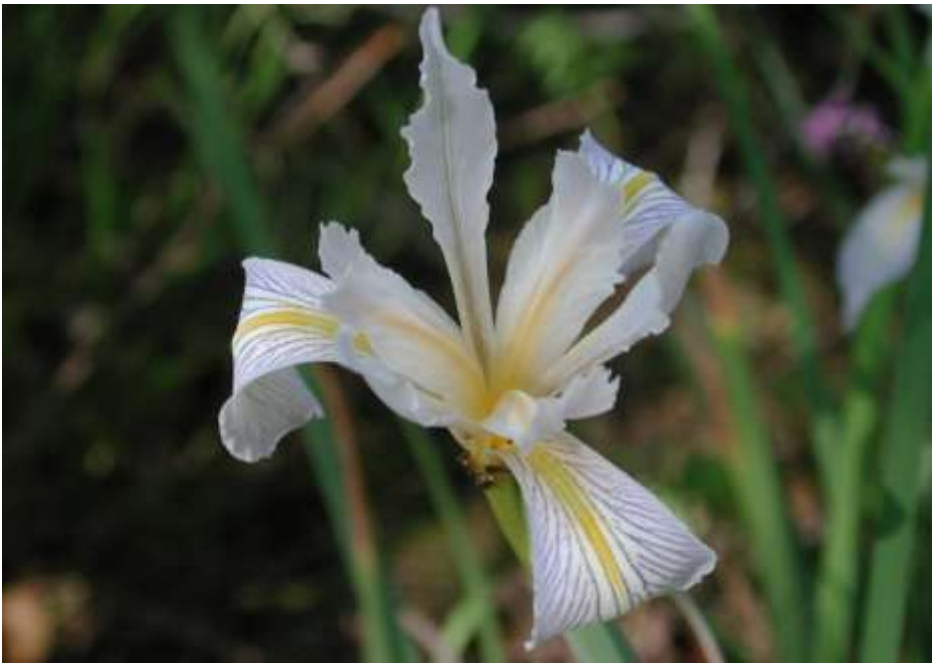
Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Liliopsida — Monocotyledons
Subclass Liliidae
Order Liliales
Family Iridaceae — Iris family
Genus Iris L. — iris
Species *Iris macrosiphon* Torr. — bowltube iris



David I. Wood bridge at Bridgeport

Bowl-tubed Iris, *Iris macrosiphon* (concluded)





Zig-Zag Larkspur, *Delphinium patens*

Early Bloomer. Purple to dark to purple spurred flowers on thin, wiry stems. Very toxic, kills livestock. RC-CNPS: p. 313

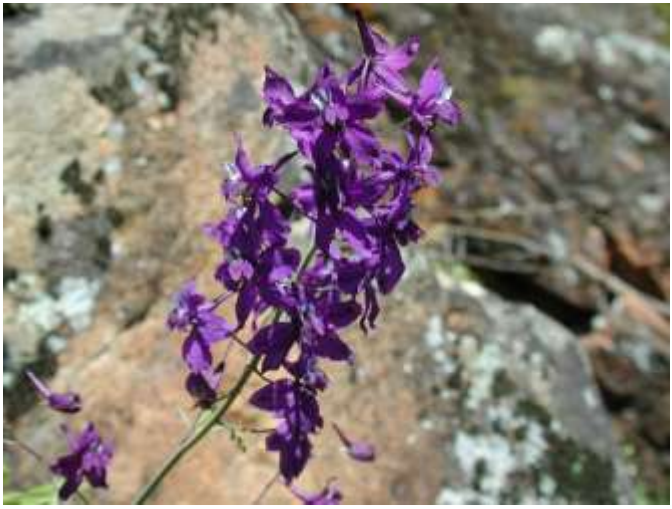
Notes: Larkspur are distinctive members of the buttercup family; the unusual shape of their petals make them easy to recognize. Nearly 30 species are native to California; most are difficult to tell apart. (More broadly, the USDA lists 73 Species and 106 accepted taxa overall.) The name larkspur refers to the spur formed by the upper sepal of the flower, which bears a likeness to a bird's claw. The Greeks thought it resembled a dolphin, hence the name Delphinium or 'dolphin plant.' One story says that when the Greek hero Ajax killed himself a flower sprang from his blood. The petals are said to have formed the letters AI, the first two letters in Ajax's name in Greek (one species is denoted *ajacis*). It is second only to locoweed in causing death of livestock. For centuries larkspur has served mankind as an agent that destroys human parasites such lice (and their eggs) and itch mites. It is still used by herbalists for this purpose.

Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Magnoliopsida — Dicotyledons
Subclass Magnoliidae
Order Ranunculales
Family Ranunculaceae — Buttercup family
Genus Delphinium L. — larkspur
Species *Delphinium patens* Benth. — zigzag larkspur

Photos next page

The history of life at Bridgeport is just as interesting as its wildflowers. Park Rangers and docents are always happy to tell the stories of Native Americans, Gold Rush settlers, and the Kneebone and related families who lived at the bridge. Two special events celebrate this history and make for fun-filled days at the park: **Spring Festival** in the spring (last Sunday of April), and **Fall Festival** in the fall (last Sunday in October). Watch for announcements in the local newspapers or call the park office / Visitor Center at 432-2546.

Zig-Zag Larkspur; *Delphinium patens* (concluded)



Douglas's Lupine, *Lupinus nanus*

Mid Bloomer. Flowers in whorls around stem, hairy leaves and stems, 4" to 20" tall, ½″ dark flowers with white spot. Also called Sky lupine. RC-CNPS: p. 169

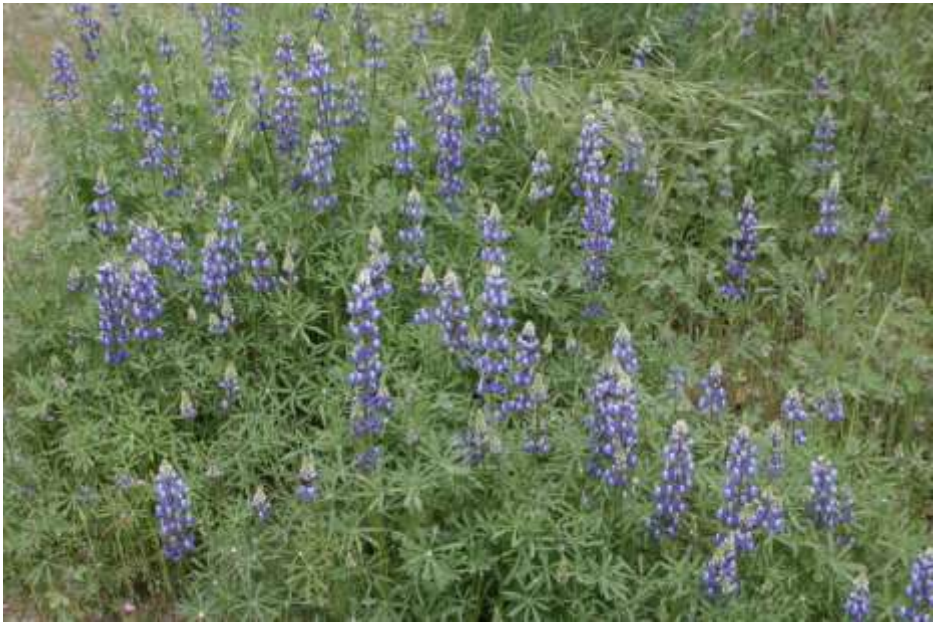
Notes: Pea family. Among the most familiar and recognizable members of the Pea family. Prefer grassy fields and slopes. Lupinus nanus is in many ways a typical blue-flowered lupine with hairy palmate leaves and ½″ flowers on ½ foot to 2-foot stems. The banners (upper petal), however, are low and rounded rather than broader and tall. As with many lupine, Lupinus nanus banners are blue with a white splotch in the center, speckled with black spots. There are about 200 species of lupine; not all are blue. The USDA lists 165 species and 342 accepted taxa overall.

Lupinus means "wolf." Since lupines and others of the Pea family (Legumes) are nitrogen-fixing, they can grow on quite barren soil where most other plants can't survive. Apparently those who named these plants thought that the soil was barren because the lupine were stealing (wolfing up) the nutrients from the soil, the way wolves stole from their flocks. They didn't realize that, in fact, the plants were creating their own fertilizer and making it possible for other plants to grow in subsequent seasons. Nanus means "dwarf." David Douglas was a British horticulturalist and explorer who made three collecting trips to America in the 1820's and 1830's. Many flowers and the Douglas fir tree are named for him.

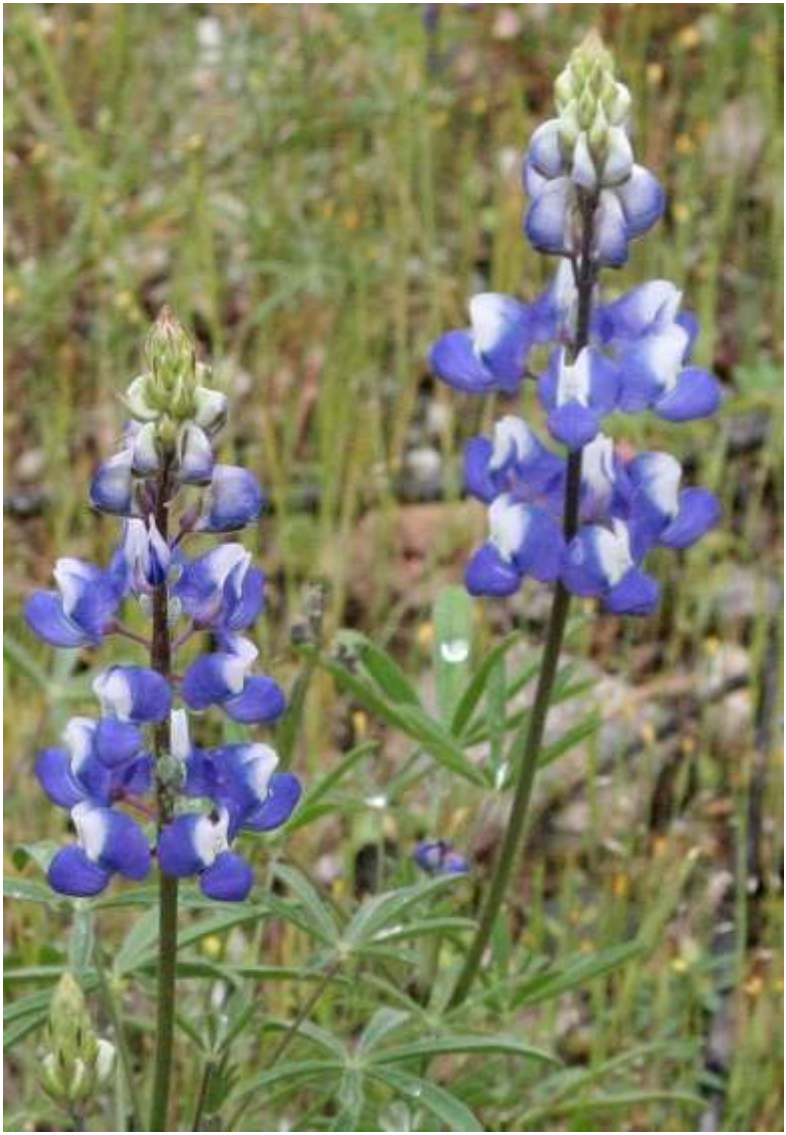
Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Magnoliopsida — Dicotyledons
Subclass Rosidae
Order Fabales
Family Fabaceae — Pea family
Genus Lupinus L. — lupine
Species *Lupinus nanus* Dougl. ex Benth. — sky lupine

Photos on following pages

Douglas's Lupine, *Lupinus nanus* (continued)



Douglas's Lupine, *Lupinus nanus* (concluded)



Close-up from upper picture on previous page

Harlequin Lupine, *Lupinus stiversii*

Mid bloomer. Lovely tricolor bloom: yellow, rose and lavender. RC-CNPS: p. 170

Notes: It is said this plant disappeared from Bridgeport some years back. Now many plants appear along the river in the level, coarse-sand area downriver from Family Beach. The picture below was taken in this area.

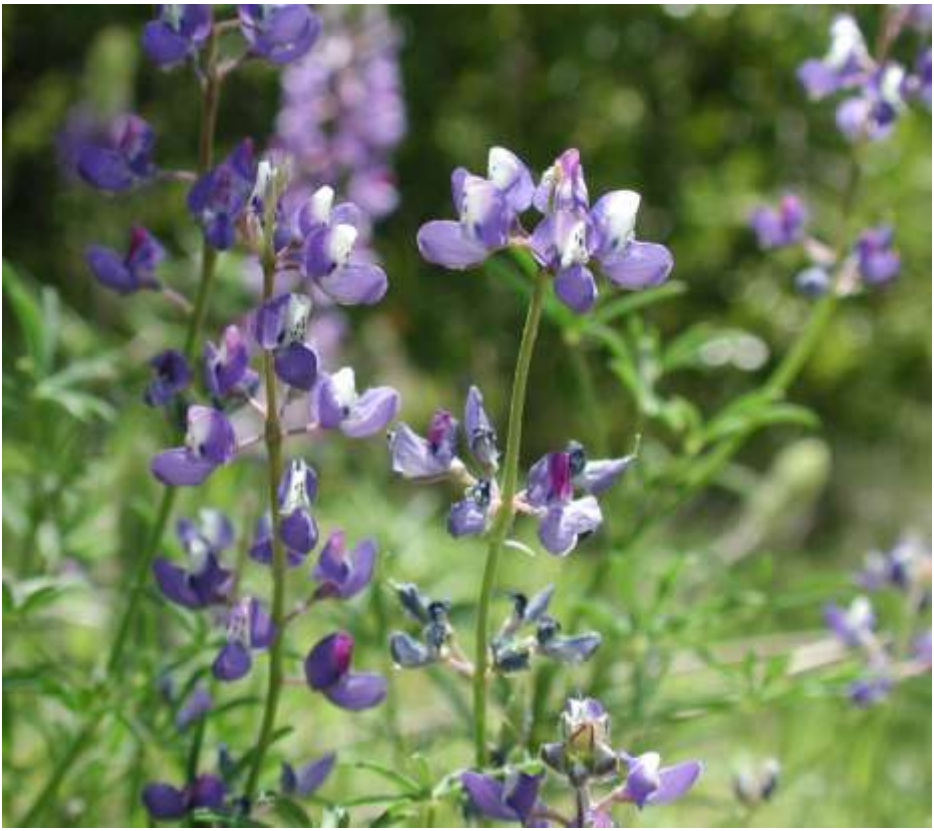
Family Fabaceae — Pea family
Genus Lupinus L. — lupine
Species *Lupinus stiversii* Kellogg — harlequin annual lupine

Miniature Lupine, *Lupinus bicolor*

Mid Bloomer. Flowers sometimes whorled, on 6-inch to 16-inch tall stems; dark blue flowers with white spot, turns magenta. RC-CNPS: p. 167

Notes: Like so many of its genus, it has blue wings and a blue banner with a large, central, black-dotted white splotch that turns rosy red with age. One botanist told us that the red denotes that the flower has been pollinated and that the red color is chemically close to human hemoglobin. Lupinus bicolor is abundant in open fields at low elevations. The flowers are usually small and the white splotch on the banner is usually triangular. Bicolored means 'two-colored.'

Family Fabaceae — Pea family
Genus Lupinus L. — lupine
Species *Lupinus bicolor* Lindl. — miniature lupine



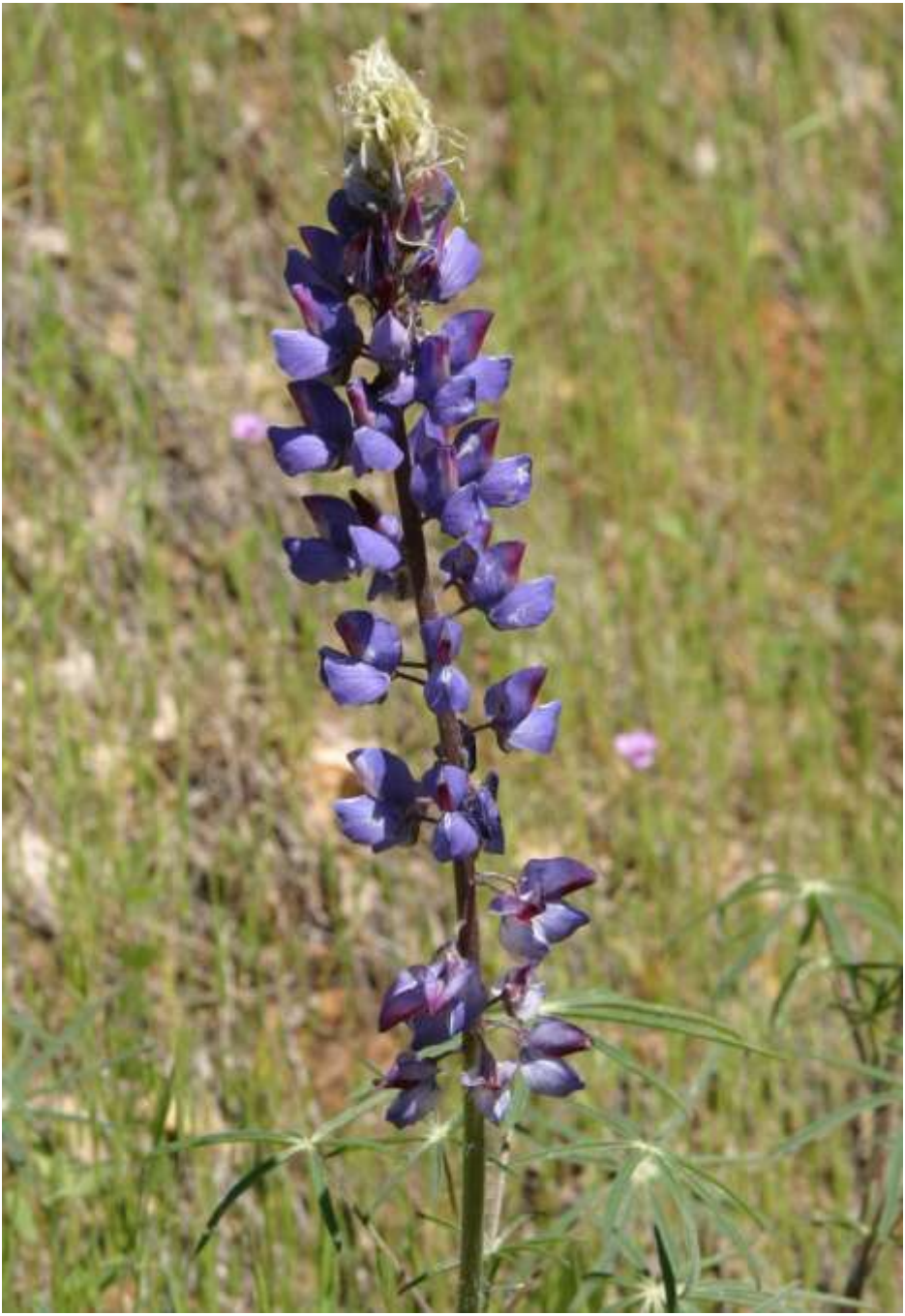
Narrow-leaved Lupine, *Lupinus benthamii*

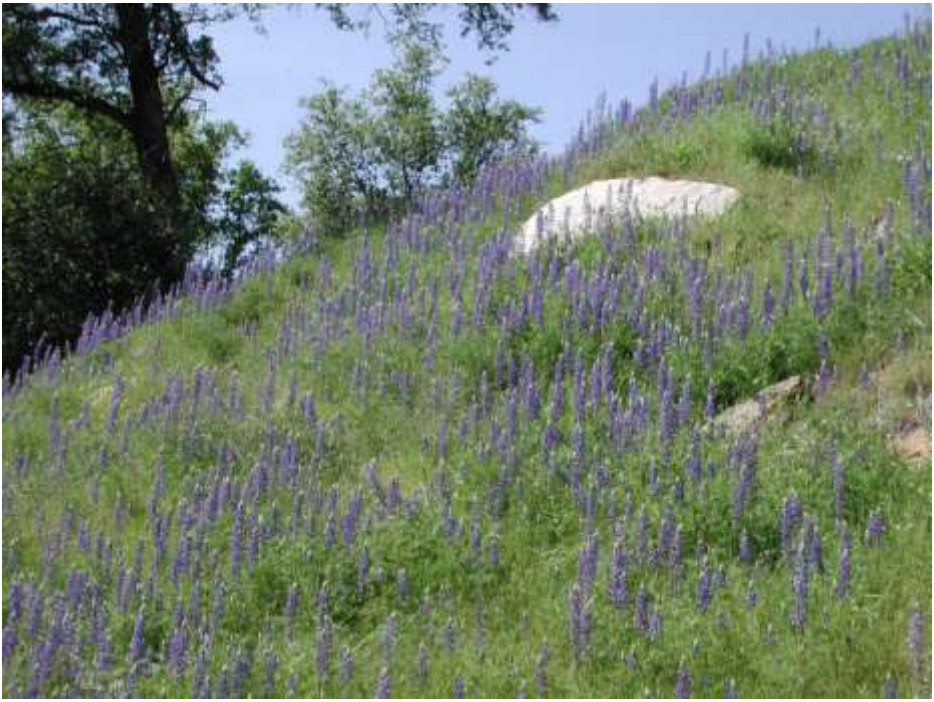
Mid Bloomer. Stems 8 inches to 28 inches tall, bright blue flowers, leaflets very narrow, flowers sometimes whorled. Also called Spider Lupine. RC-CNPS: p. 167

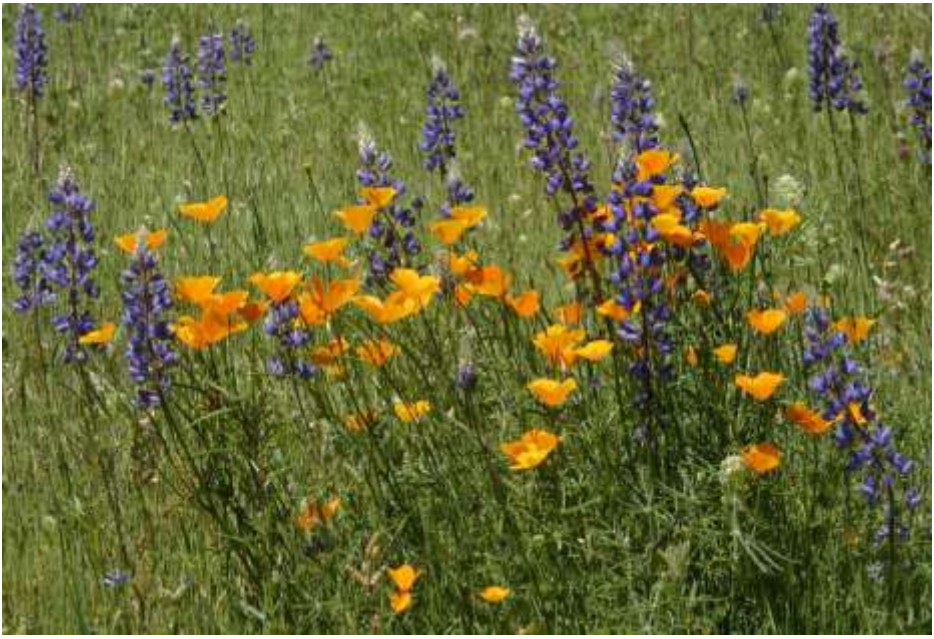
Notes: The Narrow-leaved Lupine has the typical blue flower with the white banner splotch that reddens with age, but its leaves are unique: the silvery leaflets resemble a spider's legs, are long, widely separated and very narrow: hence: Spider Lupine. Stems and sepals have conspicuous scattered long hairs. George Bentham was a 19th century English botanist. There are many species in the lupine genus; the USDA lists 165 Species and 342 accepted taxa overall.

Family Fabaceae — Pea family
Genus Lupinus L. — lupine
Species *Lupinus benthamii* Heller — spider lupine

Lupine and poppies are the most notable flowers covering our hillsides.







Narrow-leafed Lupine and tufted poppies, the dominant flowers at Bridgeport

Purple Milkweed, *Asclepias cordifolia*

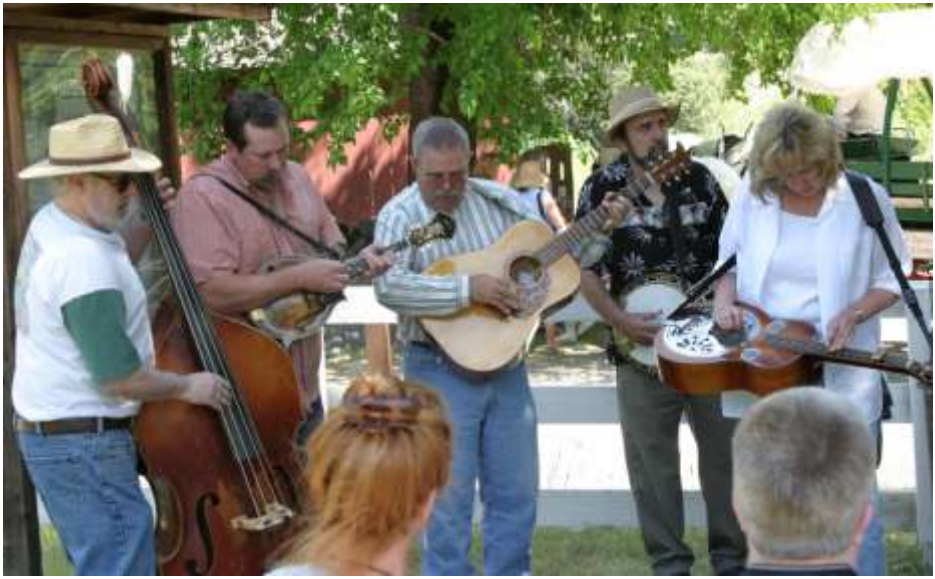
Mid Bloomer. Clustered red-purple flowers, 5 down-turned petals, smooth stem and leaves, hosts Monarch Butterfly larvae. Grows up to 2 feet tall with broad, heart-shaped, clasping leaves about 6 inches long. RC-CNPS: p. 87

Notes: One of the most useful plants (along with the Soap Plant and Manzanita), milkweed is a native of America, where the American natives discovered its medicinal properties and taught them to the settlers in Virginia (reported in 1597). The plant's name refers to the milky, white sap, or latex, which was used for skin ailments and is still used in folk medicine as a treatment for warts, ringworm, poison ivy, rattlesnake bite and other skin problems. It was even used for treating sores on horses. Some tribes used extracts from the boiled roots for bowel and kidney disorders, rheumatism, worms, edema, asthma and venereal diseases.

In the 1800's, American physicians also valued both the sap and root for treating conditions, particularly bronchitis and respiratory diseases. Some milkweeds were used for chewing gum, for which the sticky white juice is heated and stirred until solid. A tea from crushed leaves was used for measles, coughs and swellings. A tea from powdered milkweed roots was used as an asthma remedy and sedative. The entire plant was used to recover from childbirth. Canadian natives used an infusion of roots for temporary birth control. Some tribes ate the blossoms raw and the roots boiled (otherwise poisonous). The juice was used for cuts and wounds and also in tattooing. The juice would hold soot in place while it was pricked into the skin.

Milkweed was once cultivated for the silky down from its large seedpods, which was used to stuff beds, pillows, and, during WWII, life jackets. The young shoots, flowers, and pods may be eaten, but only after being boiled in 3 or 4 different batches of water to remove toxic substances. The cooking water should be thrown away. Some milkweeds are made into cords, ropes and fibers for cloth or string/cord, hence the name *cordiflora*. The fibers were rubbed between the hands and thighs to form the cords. Asklepios was an ancient Greek physician—what an apt name for this medicinal plant. The Monarch Butterfly depends on Milkweed as food for its caterpillars. Look for the striped, greenish-yellow, caterpillars on the plants in the late spring.

Family Asclepiadaceae — Milkweed family
Genus Asclepias L. — milkweed
Species *Asclepias cordifolia* (Benth.) Jepson
— heartleaf milkweed



Music during the Spring Festival, by Mountain Laurel

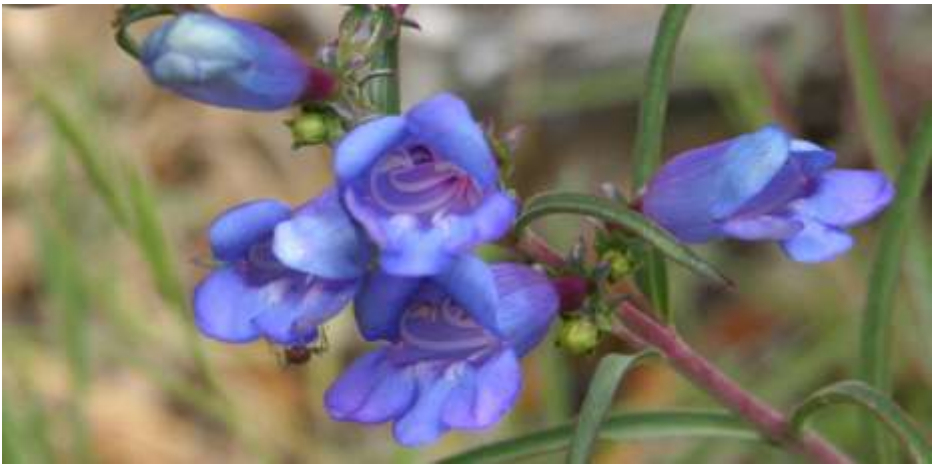
Foothill Penstemon, *Penstemon heterophyllus*

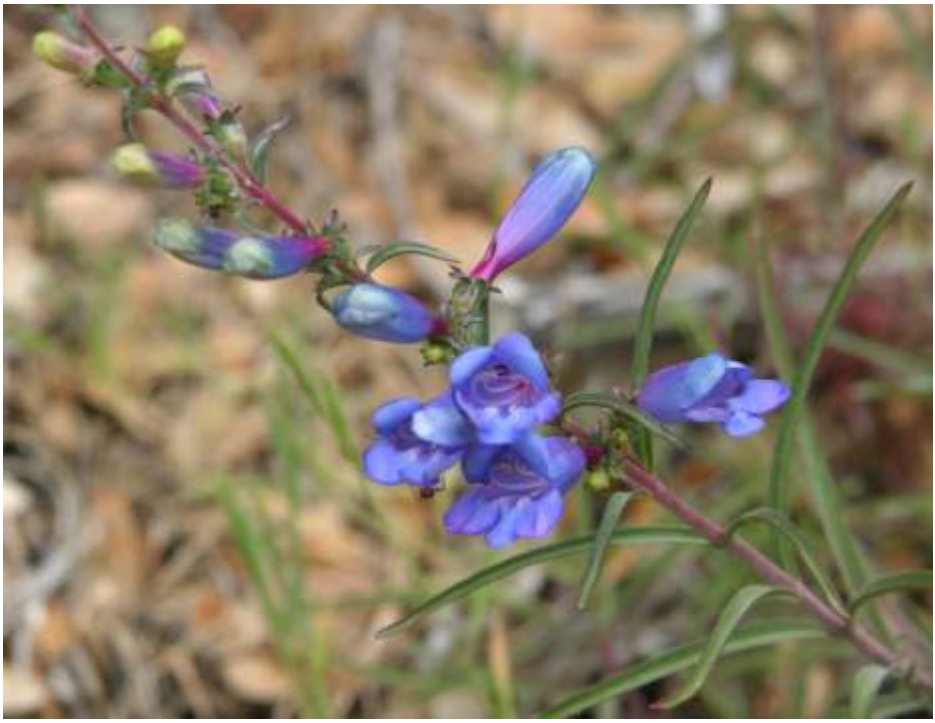
Mid Bloomer. Large snapdragon-like flowers, shades of magenta to blue, smooth stems, many narrow leaves at the base. RC-CNPS: p. 355

Notes: Figwort (Snapdragon) family. The coloration of blues, blue-violets, and purple to magenta make this one of our loveliest and showiest plants (although some can be red, pink or white). Penstemons have a long, narrow, tube, with a relatively small face. They often reach 3 feet to 4 feet or taller. There are about 250 species of Penstemon, all in North America, most in the West. The USDA lists 249 Species and 388 accepted taxa overall. Penstemen means '5 stamens.' Heterophyllus means 'varied-leaf,' probably in reference to the dramatic difference between the lower and upper stem leaves.

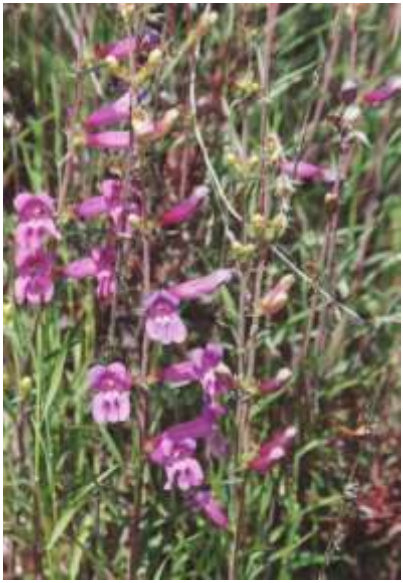
Indians soaked the leaves and used the tea for a laxative. Powdered leaves and roots were used for sores, and raw leaf-juice to wash venereal disease sores. They made a wash and poultice for sores, and also steeped the tops of the plant for colds. In New Mexico, the flowering tops were boiled and the liquid drunk for kidney problems. If one observes the bees and hummingbirds that visit the flowers, it becomes apparent that each of the species has a different pollinator. This is one of nature's way of preventing hybridization between species. This is another reason why the loss of even one species of pollinator can cause the loss of a plant and vise versa. Penstemen is a food source for the caterpillar of the Sierra Checkerspot Butterfly.

Family Scrophulariaceae — Figwort family
Genus Penstemon Schmidel — beardtongue
Species *Penstemon heterophyllus* Lindl. — bunchleaf penstemon





Another Color:

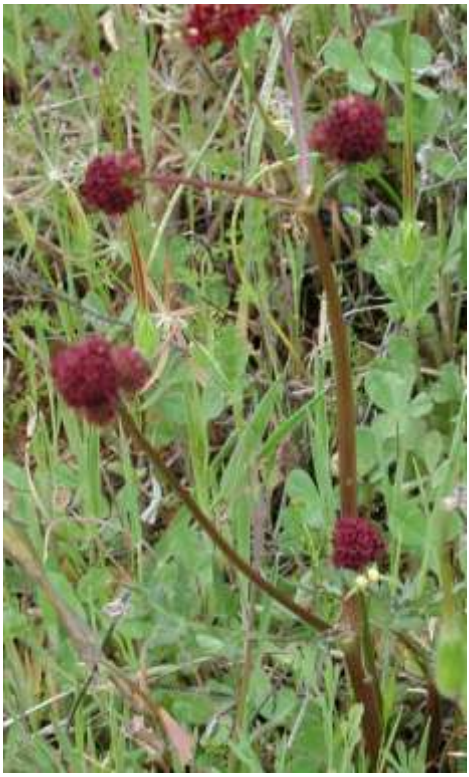


Purple Sanicle, *Sanicula bipinnatifida*

Early Bloomer. Many tiny red-purple or yellow flowers in a fuzzy ball, broad leaves with spiny margins. RC-CNPS: p. 78

Notes: Sanicle seeds are rounded with bump-like hooked spines. Peterson lists them under both yellow and pink-red, and states that yellow is the more common on the western slope of the Sierra Nevada. However, we seem to have a lot of the deep red ones on the trail. Most are foul smelling and some species can be poisonous, e.g., Sanicula bipinata or Poison Sanicle, which is very similar to the yellow form of bipinnatifida. Sanicle bipinnatifida is also called Shoe Buttons, Pincushions, or 'Satellites' because of the round flower head with extending stamens. The species name refers the leaf shape, which sometimes has a purplish midrib.

Family Apiaceae — Carrot family
Genus Sanicula L. — sanicle
Species *Sanicula bipinnatifida* Dougl. ex Hook. — purple sanicle

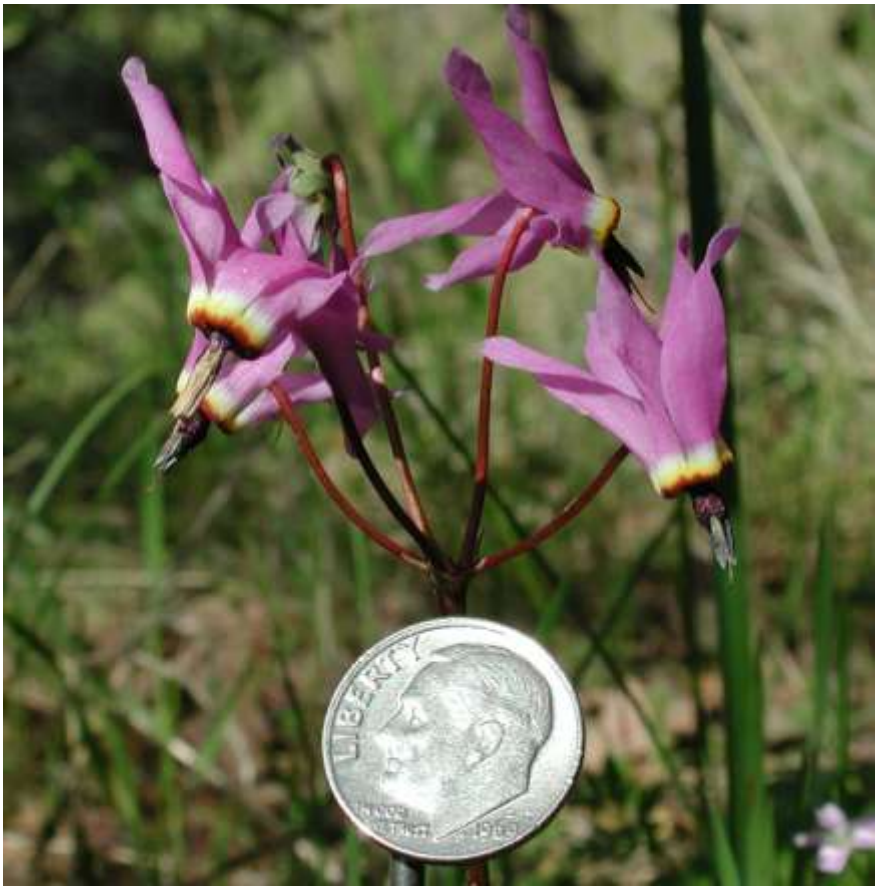


Shooting Star, *Dodecatheon hendersonii*

Early Bloomer. Five deep lavender or white petals, yellow band, nodding flowers bloom early in shady place. RC-CNPS: p. 307

Notes: This species is also called Mosquito Bills. The distinctive looking flower is a very early bloomer, usually found on the left slopes as you approach the French Corral Creek Bridge. The stems and leaves are reported to be edible after boiling or roasting. The name is from the Greek dodeka (twelve) and theos (a god). According to historian Pliny, the flowers reminded him of a meeting of the 12 major Greek gods. The USDA lists 15 Species and 38 accepted taxa overall within the Dodecatheon (shooting star) genus.

Family Primulaceae — Primrose family
Genus Dodecatheon L. — shootingstar
Species *Dodecatheon hendersonii* Gray — mosquito bills

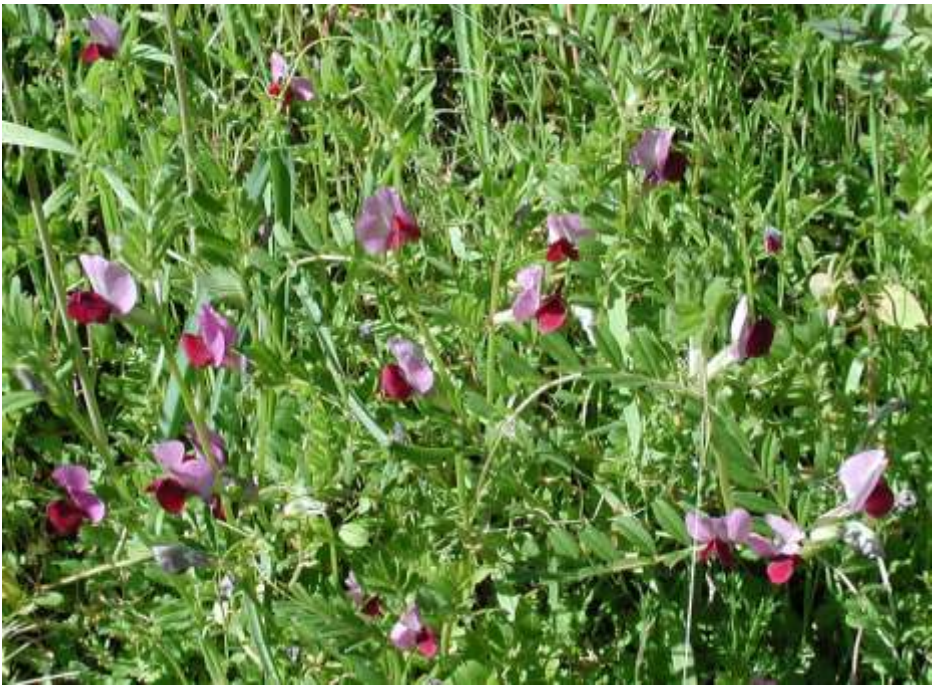


Spring Vetch, *Vicia sativa*

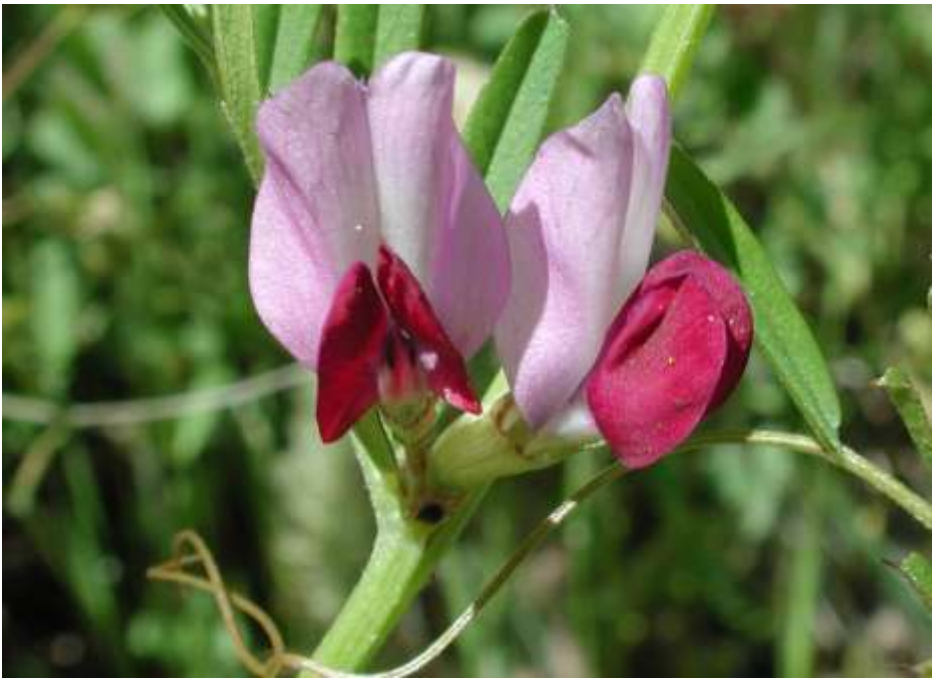
Early Bloomer. 1 to 3 red-purple sweet pea-like flowers cluster near base of stalk. Sprawling vine, invasive alien. RC-CNPS: p. 177

Notes: Vetch is an alien, brought in for cattle forage. It can become very invasive, smothering plants in its path. The names Spring Vetch and Winter Vetch are misleading, as both grow about the same time on our trail. The Spring species is easily discerned as it is pinkish-purple and looks much like a sweet-pea, while the Winter Vetch is a deep purple color and hangs from stems in long clusters of much smaller blossoms.

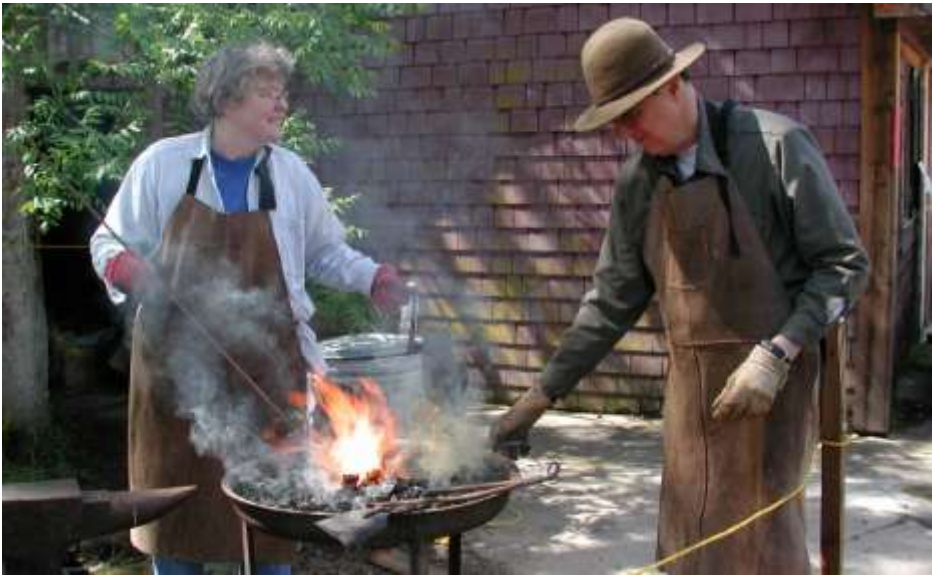
Family Fabaceae — Pea family
Genus Vicia L. — vetch
Species *Vicia sativa* L. — garden vetch



Spring Vetch, *Vicia sativa* (concluded)



Flowers are beautiful, but a pervasive weed in your garden.



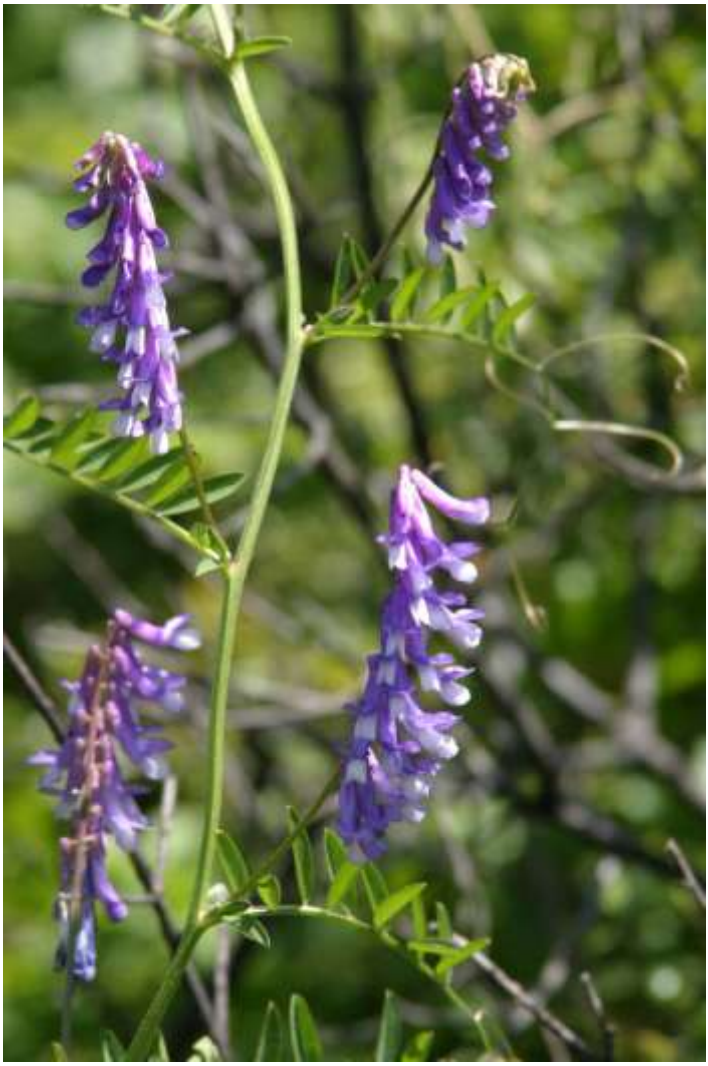
Blacksmiths during Spring Festival

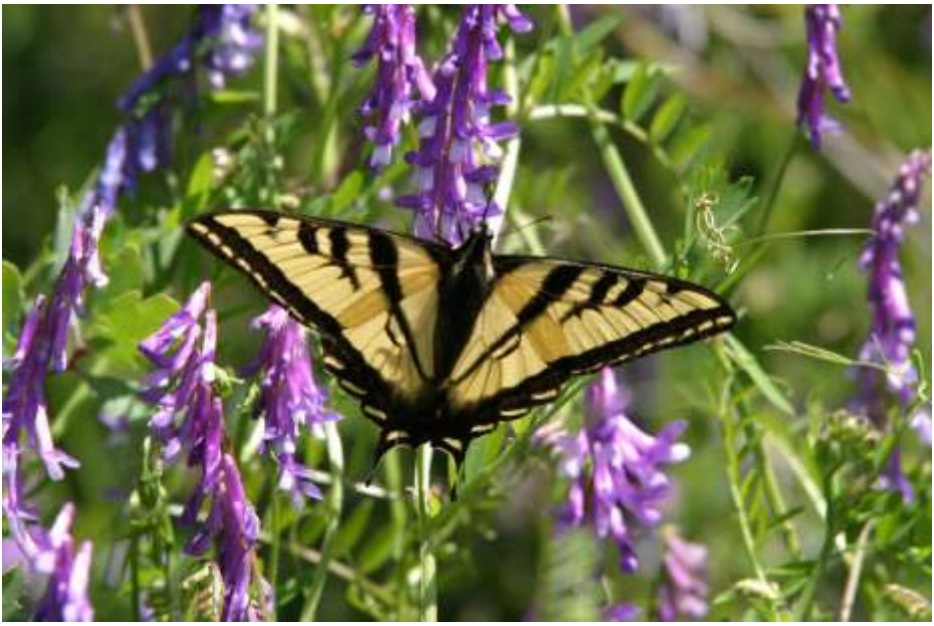
Winter Vetch, *Vicia villosa*

Mid Bloomer. Nine or more violet-purple to lavender flowers in long, dangling clusters. Sprawling, invasive vine. RC-CNPS: p. 178

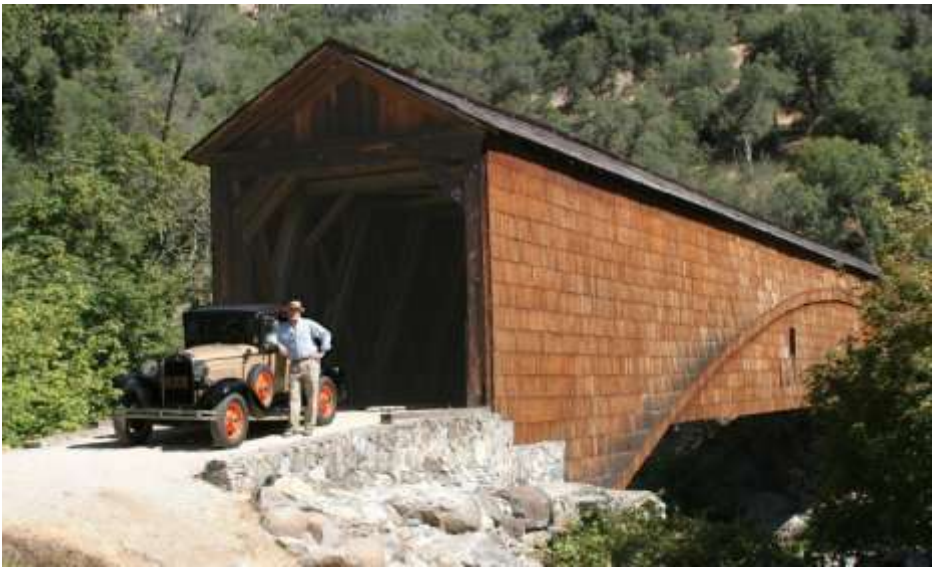
Notes: See Spring Vetch for discussion.

Family Fabaceae — Pea family
Genus Vicia L. — vetch
Species *Vicia villosa* Roth — winter vetch





Western Tiger Swallowtail butterfly enjoys Winter Vetch nectar.



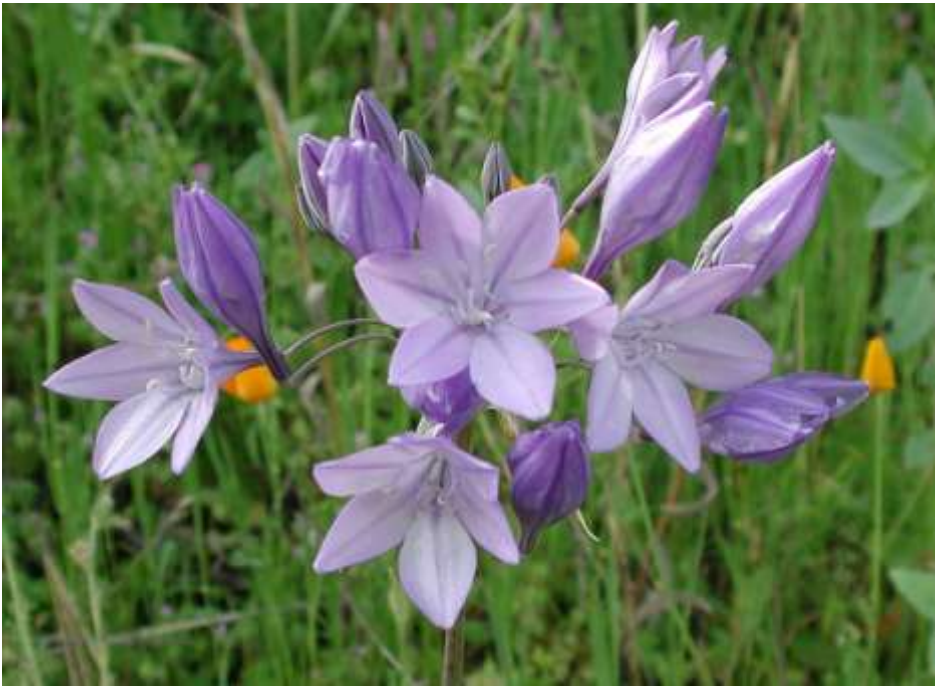
Group auto tours of the Virginia Turnpike and the opportunity to photograph your car at the ramp to the historic covered bridge can be arranged by calling 530-432-2546.

Wally Basket (Ithuriel's spear), *Triteleia laxa*

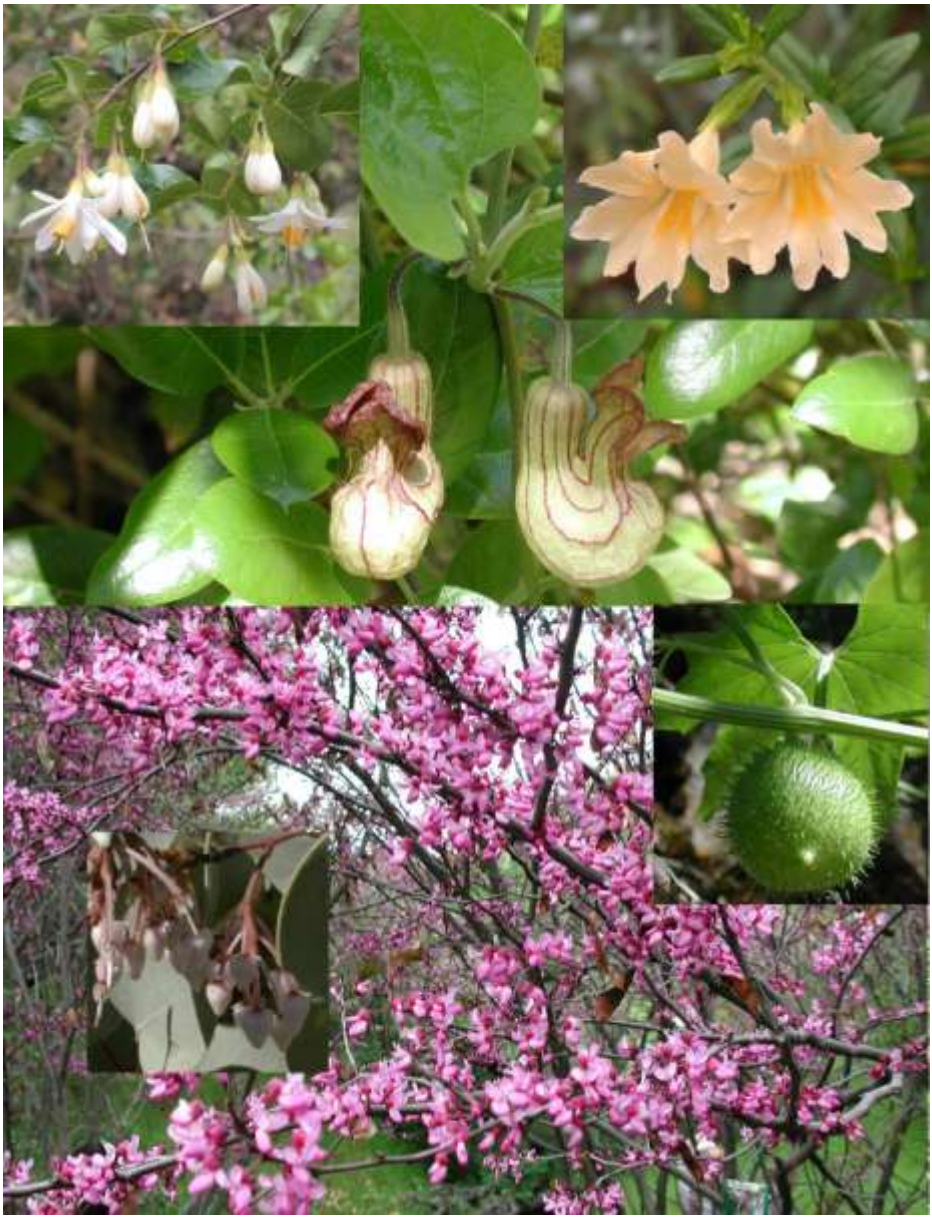
Mid Bloomer. Light blue to blue-purple flowers clustered at top of tall stems. Bulbs were food for Native Americans. RC-CNPS: p. 235

Notes: Former name: Brodiaea Laxa-Triteleia, split off from Brodiaea. Alternate name Ithuriel's Spear is sometimes listed in wildflower books. People will often know it as that, so it good to be able to reference it as such. The name comes from Milton's Paradise Lost**:** an angel had a spear and everything the spear touched would return objects to their proper shapes—thus Satan in disguise was revealed in his true form. Native Americans used the stems for temporary baskets, and the plant was dug and eaten as one of the 'Indian Potatoes.' Also called Nut Grass for its nutty flavor. Triteleia means 'three complete' in reference to its 3 flower parts, laxa means 'loose' in reference to the openness of the umbel.

Family Liliaceae — Lily family
Genus Triteleia Dougl. ex Lindl. — triteleia
Species *Triteleia laxa* Benth. — Ithuriel's spear (or Wallybasket)



Part 5
Shrubs / Vines



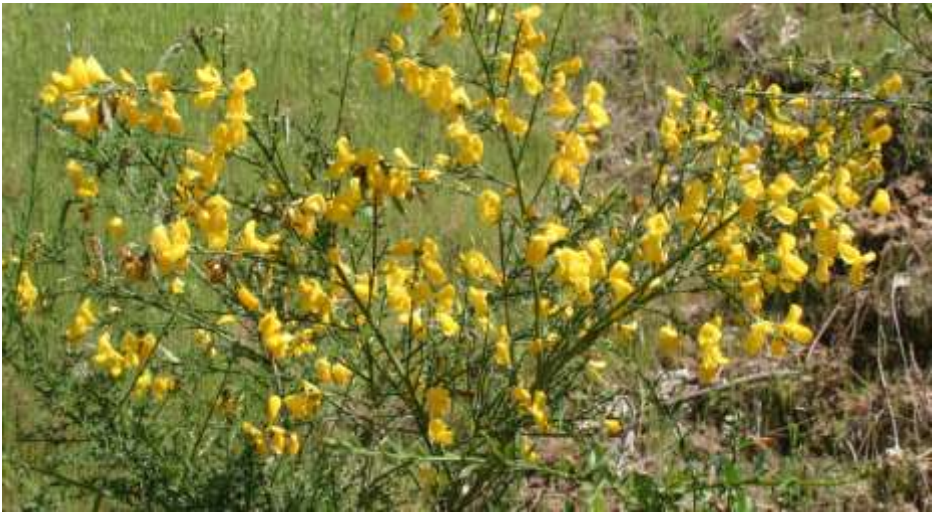
Scotch Broom, *Cytisus scoparius*

Late Bloomer. Golden yellow flowers; noxious green shrub, highly invasive alien. RC-CNPS: not a native plant

Notes: Noxious alien species. Cytisus is a Greek name of uncertain meaning. Scoparius means 'broom-like,' referring to the dense plume of straight stems that form a natural, inverted broom in the fall and winter seasons without flowers. Though noxious, it is still sold in nurseries because it does give a blanket of bright color. However, in the wild the blanket soon covers everything and chokes out native plants. A good example of Scotch Broom taking over is seen on Birchville Road north of Bridgeport on the way to Tyler Foot Road and Malakoff Diggins State Park. Both sides of this road are covered by Scotch Broom for miles, and form a dense carpet of yellow in Summer. As a member of the Pea family, it is highly prolific and, as with so many alien species, has few known natural enemies. It was purportedly introduced by being in the packing material for cases of Scotch whiskey.

When a species like this takes hold, it crowds out not only other native plants but native animals, insects, and so on, that depend on these natives for survival. John Muir said that in nature "everything is connected to everything else." Such evil invasive plants break that delicate connection with disastrous, often irreversible results, as has occurred with Scotch Broom. We try to keep them at bay by pulling, or digging, them out. Burning and spraying are options but must be used judiciously, and only by those who know what they are doing.

Family Fabaceae — Pea family
Genus Cytisus Desf. — broom
Species *Cytisus scoparius* (L.) Link — Scotch broom



Himalayan Blackberry, *Rubus discolor*

Late Bloomer. Thorny stems in brambles, white flowers, edible fruit

Notes: This species is an alien, having largely replaced the native Blackberry where it takes over in disturbed areas. The underside of the leaves are white, whereas the California Blackberry (Rubus vitifolius, Rubus ursinus) have green on the underside. The fruit is delicious. The berries can be used for dye and the roots boiled for tea that can be used for diarrhea and menstrual pain. Blackberry bushes are very invasive.

The USDA lists 271 plants in the Rubus genus, none of which are Rubus discolor. A search on the above name in Calflora, however, does return this plant, where the plant's new name is given as ***Rubus armeniacus***. Rubus discolor is discussed thoroughly in the Sequoia and Kings Canyon National Parks web pages on *Invasive Non-Native Plants*. Their first two paragraphs are very enlightening:

> Himalayan blackberry (*Rubus discolor*) is a shrubby weed that is native to Eurasia and has naturalized throughout California in riparian areas and other moist, disturbed sites. This plant forms dense thickets that become a thorn in the side of Mother Nature and land manager alike. Himalayan blackberry is known to take over entire stream channels and ditch banks shading out nearly all other vegetation.
>
> **Identification**
>
> In California, Himalayan blackberry is the most common blackberry picked and eaten by humans. The stems are covered with heavy, broad-based prickles and the larger stems are distinctly five-angled. The leaves are clustered in fives and their undersides are white. The white-to-pinkish petals are each about 10 to 15 millimeters (0.4 to 0.6 inches) long.

The remainder of the article includes a discussion of eradication methods. Washington State University in Lake Whatcom County (includes Bellingham) lists Himalayan Blackberry as one of its ten most unwanted pests.

Family Rosaceae — Rose family
Genus Rubus L. — blackberry
Species *Rubus armeniacus* Focke — Himalayan blackberry

Himalayan Blackberry, *Rubus discolor* (concluded)

This plant covers the banks of French Corral Creek near the bridge.

Docent Doug Leach explains placer mining—Fall Festival

California Buckeye, *Aesculus Californica*

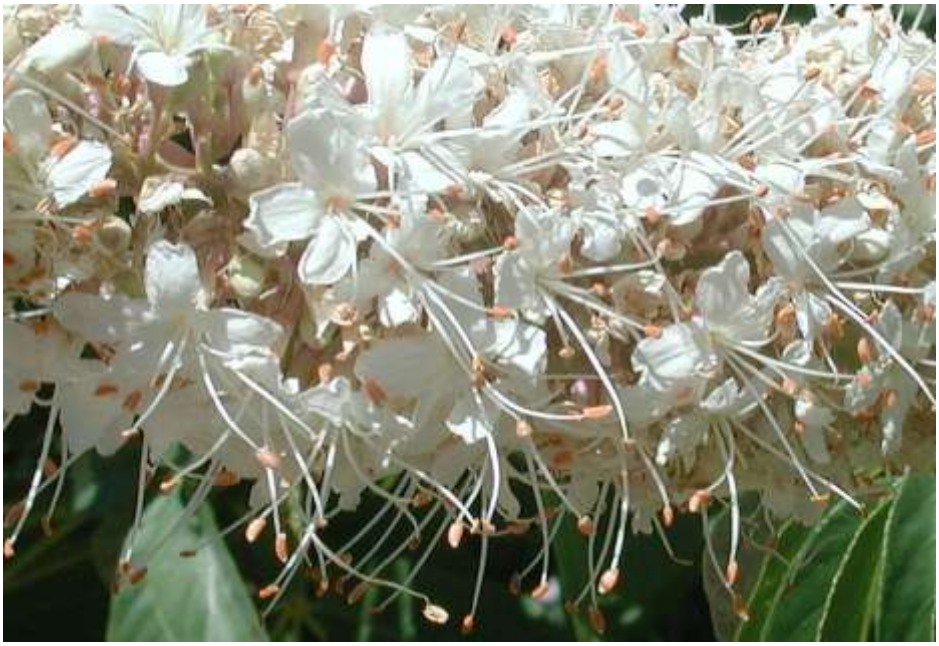
Late Bloomer. Broad tree with large, tall, pinkish-white, fragrant flower spikes and chestnut-like seeds. Attracts butterflies. RC-CNPS: not included

Notes: Buckeye (Horse-chestnut) family. One of our loveliest natives. About mid-April the tree is covered with huge spires of flowers which are attractive to butterflies but poisonous to bees. At peak blooming period, it is a delight to see these umbrella-shaped trees and their flower spikes covered with butterflies. Poisonous to bees is an interesting plant strategy. Why would a species be poisonous to a potential pollinator? One can understand that many plants are designed for certain pollinators (e.g., Soap Plant for the Moth), but why would a plant be poisonous? Also, only one flower of the hundreds on a stalk (see following photographs) becomes pollinated because of a chemical reaction which occurs after the pollinator visits—again an interesting strategy. Oh well, in humans only one sperm among millions typically fertilizes an egg.

The name comes from the seed balls, which have a white circular area on the surface that reminded some of a buck's eye. The Osage Native Americans used the seeds to stun fish, by crushing and tossing the seeds into the water. When used for food, they leached the nuts longer than they did acorns. The nuts were broken open, soaked for a day, and then pounded into meal which was leached. It took all day to leach and dry, leach and dry ... at least 10 times. At the start of each leach/dry cycle, they laid a stick on the ground to keep count. Then the meal was cooked into mush and eaten right away. Another method was to bury the nuts in cold, swampy ground all winter, and then boil them in the spring. A tea was made from the leaf and used as a remedy for varicose veins and lung congestion. The buckeye was prized by Native Americans and settlers alike. Some settlers believed that putting a buckeye nut in the pocket would ward off rheumatism and hemorrhoids, while losing it would bring bad luck.

Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Magnoliopsida — Dicotyledons
Subclass Rosidae
Order Sapindales
Family Hippocastanaceae — Horse-chestnut family
Genus Aesculus L. — buckeye P
Species *Aesculus californica* (Spach) Nutt.
— California buckeye

Zoom into above picture

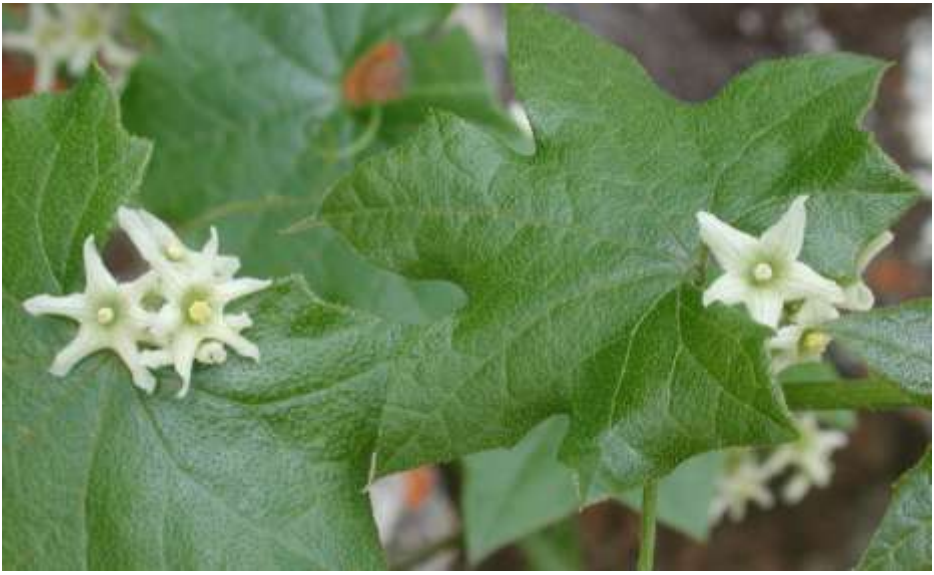


Wild Cucumber, *Marah fabaceus*

Early Bloomer. Long vine, 5-petaled star-like flower, round, green spiny fruit, medicinal seeds. RC-CNPS: p. 151

Notes: Cucumber (Gourd) family. Also called California Manroot, so named because of the distinctive shape of the large root, which can resemble the torso of a man. The long, trailing vine (as long as 15 to 20 feet) with large, 5-lobed leaves, can be seen both downslope and upslope from Buttermilk Bend trail, sometimes hanging from overhead rocks and other shrubs. The flowers are small greenish white, after which the fruit appear hanging from the vine. The fruit dries, browns, and splits, revealing almond-like seeds. It is said that the spiny pod develops water pressure within its covering and bursts so dramatically that the large seeds can hurt if they hit you. Native Americans roasted them as a treatment for kidney troubles. Oil from the seeds was used for hair loss. Crushed seeds were used to stun fish. A tea was drunk to treat venereal diseases. Crushed roots were mixed with sugar and used on horses for saddle sores.

Family Cucurbitaceae — Cucumber family
Genus Marah Kellogg — manroot
Species *Marah fabaceus* (Naud.) Naud. ex Greene
— California manroot



Bush Lupine, *Lupinus albifrons*

Mid Bloomer. Clustered flowers, plant covered with silky hairs, sometimes has a grape-like fragrance. RC-CNPS: p. 166

Notes: This is the only shrubby Lupine in the foothills, with beautiful wands of blue-violet flowers and silver foliage, therefore also called Silver Lupine. Almost every part of this plant is covered with fine, silvery-white hairs. Albifrons means 'white-fronded.' The flowers can occasionally give off a grape-like fragrance. The black-flecked patch on the blossoms turns red with age.

Family Fabaceae — Pea family
Genus Lupinus L. — lupine
Species *Lupinus albifrons* Benth. ex Lindl.
— silver lupine

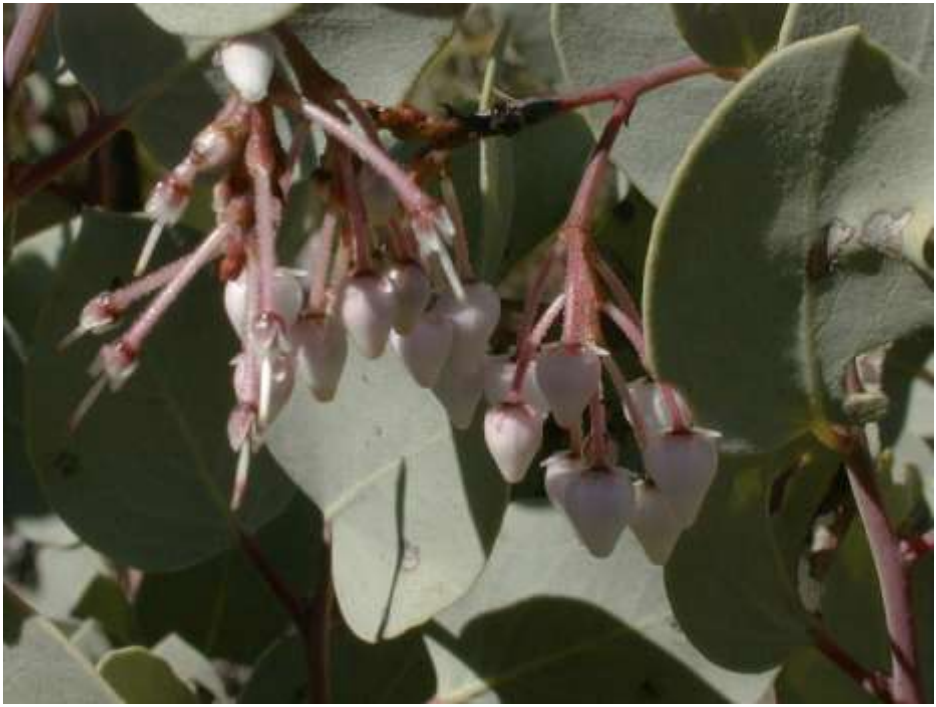
Whiteleaf Manzanita, *Arctostaphylos viscida*

Early Bloomer. Useful plant, pink bell-shaped flowers, red bark, grey-green leaves.

Notes: This species grows 4 to12 feet tall, has whitish twigs and smooth, pale or gray green ovate to elliptic leaves. Its lovely, nodding pink to white flowers hang in clusters like hanging bells. The red berry fruits have a sticky surface, hence *viscida*. Native Americans made a soft drink and jelly from the green berry pulp.

The berries can be eaten raw, although difficult to digest. They were also dried and stored for the winter. They were stewed, or dried and ground into meal and cooked and eaten as mush. The ground meal also was made into thin cakes and baked over an open fire. A lotion made from leaves was used for treating poison oak. A tonic was also made from the leaves for headache and in a poultice for sores. The fruit and leaves were crushed for their astringent properties to treat bronchitis, dropsy (fluid retention) and other ailments. The wood was used to make spoons and pipes, and as structural members in Maidu huts. String from the bark was used for reels etc. Manzanita seeds can stay in the soil for 300 years, and are germinated by fire.

Family Ericaceae — Heath family
Genus Arctostaphylos Adans. — manzanita
Species *Arctostaphylos viscida* Parry — sticky whiteleaf manzanita

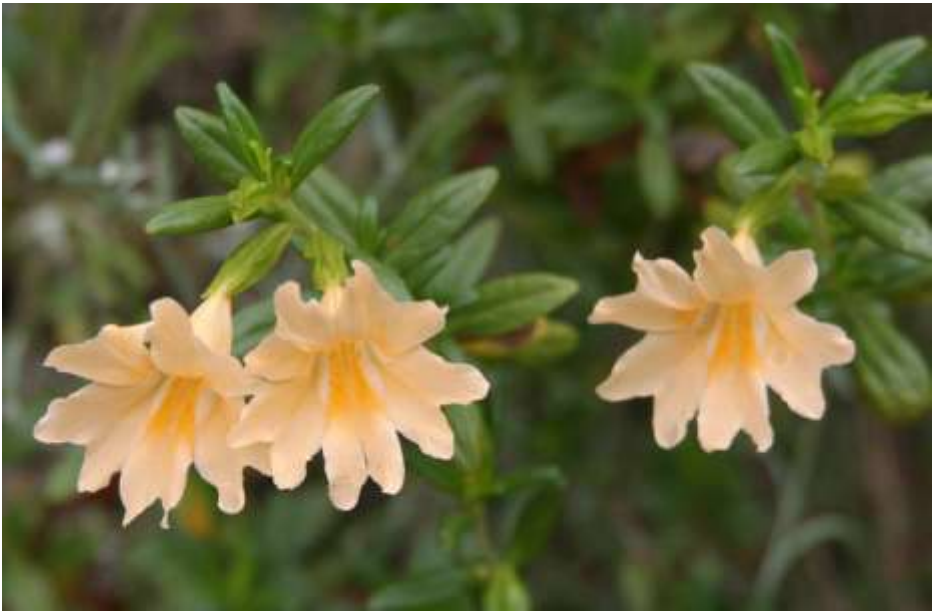


Bush Monkey Flower, *Mimulus aurantiacus*

Mid Bloomer. Yellow-salmon flowers, sticky stems and leaves, small shrub found on sunny slopes and near rocks along the river bed. RC-CNPS: p. 345

Notes: Figwort (snapdragon) family. The genus name is form the Latin word *mimus*, a comic actor, because the flowers have grinning faces like the masks of early actors. There are about 100 species growing worldwide in temperate areas. Some have a strong odor. The young leaves and stems are edible, raw or cooked. The leaves are bitter but milder when cooked. Native Americans used the young stems and leaves for salads. The raw leaves and stems make a poultice for wounds. The salty leaves and stems were also used as a flavor enhancer. Our species is an unusual pale orange color: *aurantiacus* means 'orange-colored.' It was formerly *Mimulus longiflorus* and is sometimes listed as *Diplacus aurantiacus* (for example by the USDA as seen below). Related species also found at Bridgeport: Seep Spring Monkey Flower.

Family Scrophulariaceae — Figwort family
Genus Diplacus Nutt. — bush monkeyflower
Species *Diplacus aurantiacus* (W. Curtis) Jepson —orange bush monkeyflower



Poison Oak, *Toxicodendron diversilobum*

Early Bloomer. Shrub/vine, yellow-green flowers, white fruit, 3-lobed shiny leaves, reddish when young, mature leaves turn red in fall.

Notes: Poison Oak has a toxin that bonds to the skin within minutes, so if even hit by a branch, use a Wash-and-Wipe or alcohol to wipe the oil off your skin right away. On the walk, always ask if everyone knows what Poison Oak looks like, then use a specimen early on the trail to familiarize them with it. "Leaves of three, let it be" is only somewhat of a help, as many harmless plants fit that description, for example some oak trees, but their leaves have bristly tips. The flowers are whitish and young leaves are an attractive shiny red color. It prefers shady areas and likes to insinuate itself among other plants. Always warn fellow hikers to look before they reach and touch!

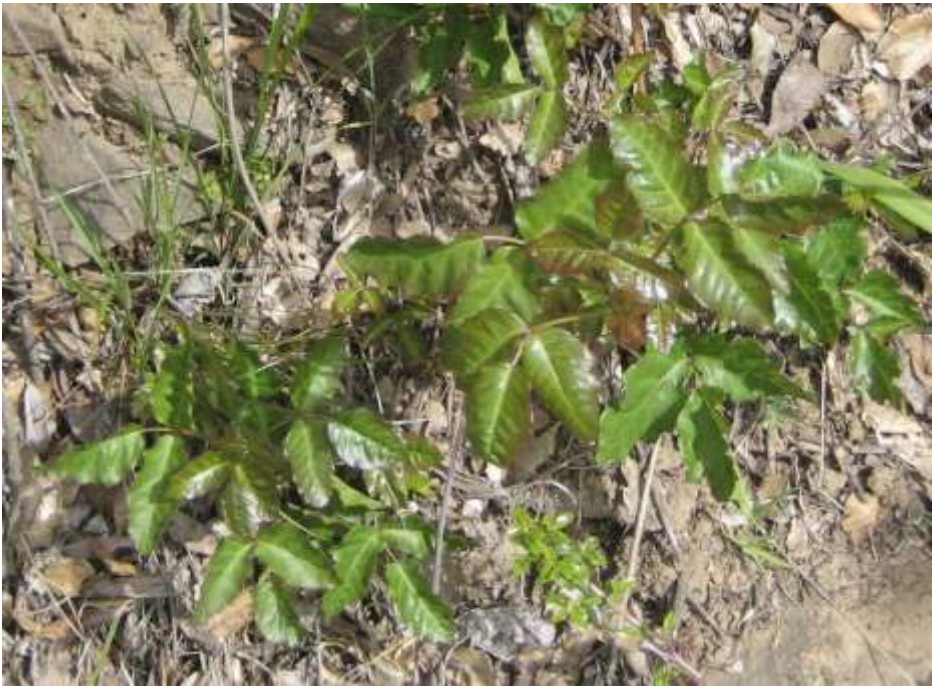
Native Americans may have built up an immunity to it by feeding small portions of leaves to their young. Full-blooded natives were immune; mixed blood were not. They used the young leaves to wrap around bread for baking and even mixed it into cornmeal for bread. They wrapped the bulbs of the Soap Plant with poison oak leaves for slow pit baking. Stems were used for baskets, juice from the stems, leaves and roots were used to cure warts and ringworm. As an aid for rattlesnake bites, fresh leaves were wrapped tightly around the wound. If done immediately, it is said to have counteracted the snake toxin. Poison Oak juice was also used for dye.

Whenever you hike where Poison Oak lurks, it is good policy to wash any exposed skin as soon as possible thereafter. Smearing shaving cream on exposed skin prior to hiking provides a shield layer and enhances washing afterward. If all else fails, cures for Poison Oak include Soap Plant root, cooked and made into a paste, and strong extracts from the roots of Sunflowers.

We also have a related species on the trail: the Skunk or Squaw Bush (*Rhus trilobata*). Rather difficult to spot, it grows downslope to the right going up trail, near the rocky, lichen-covered outcropping. It is not toxic. Poison Oak flowers are whitish on the axis of the leaves, whereas the Skunk Bush has yellow-green terminal flowers. The berries on the Poison Oak are white, those on the Skunk Bush are red. Both are 3-leaved.

Family Anacardiaceae — Sumac family
Genus Toxicodendron P. Mill. — poison oak
Species *Toxicodendron diversilobum* (Torr. & Gray) Greene
— Pacific poison oak

Poison Oak, *Toxicodendron diversilobum* (concluded)



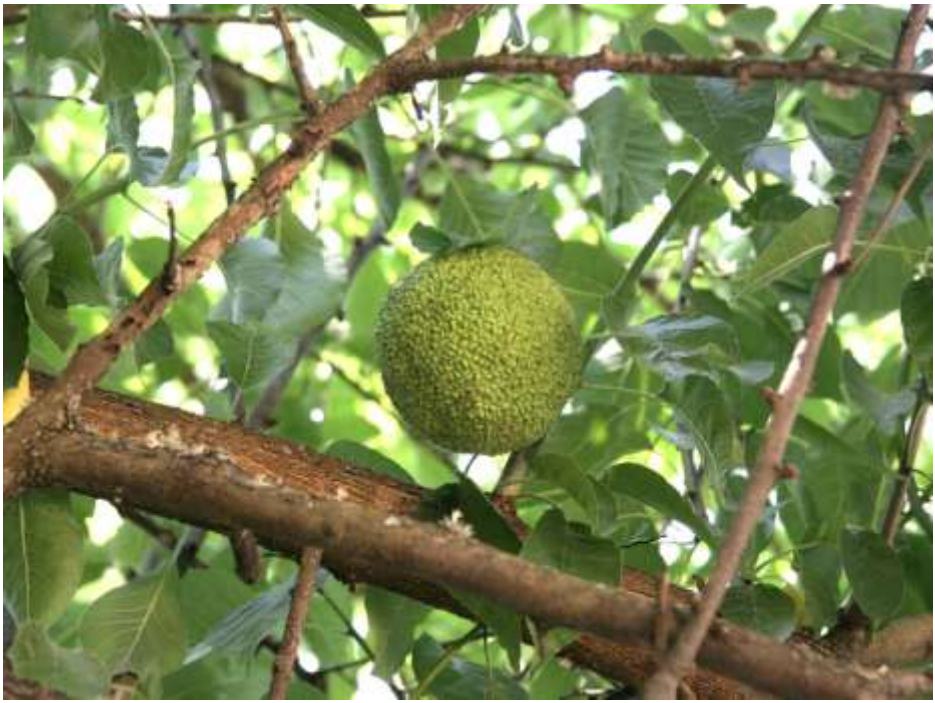
Park facilities at Bridgeport. Covered bridge peaks out at lower right.

Osage Orange; *Maclura pomifera*

Examples found at Buttermilk Bend trailhead and at first bridge on wheelchair access trail. Large, sticky, green, orange-like fruit are conspicuous on the tree and ground.

Notes: This tree grows to from 15 to 30 feet tall and was used as one of the first "living fences" to bound prairie farms. The Osage tribe (Ohio River valley) prized the tough wood for bows and war clubs; now used to a limited extent for posts and ties. It is a relative of the Mulberries and is easily identified by its shiny leaves, thorny twigs and bright orange inner bark. The unusual, wrinkled, orange-like fruit, 4 to 5 inches in diameter, has a typical citrus odor, but the inside is dry and pulpy, with a milky juice. It grows from a ball of small green flowers.

Family Moraceae – Mulberry family
Genus Maclura Nutt. – maclura
Species *Maclura pomifera* – osage orange

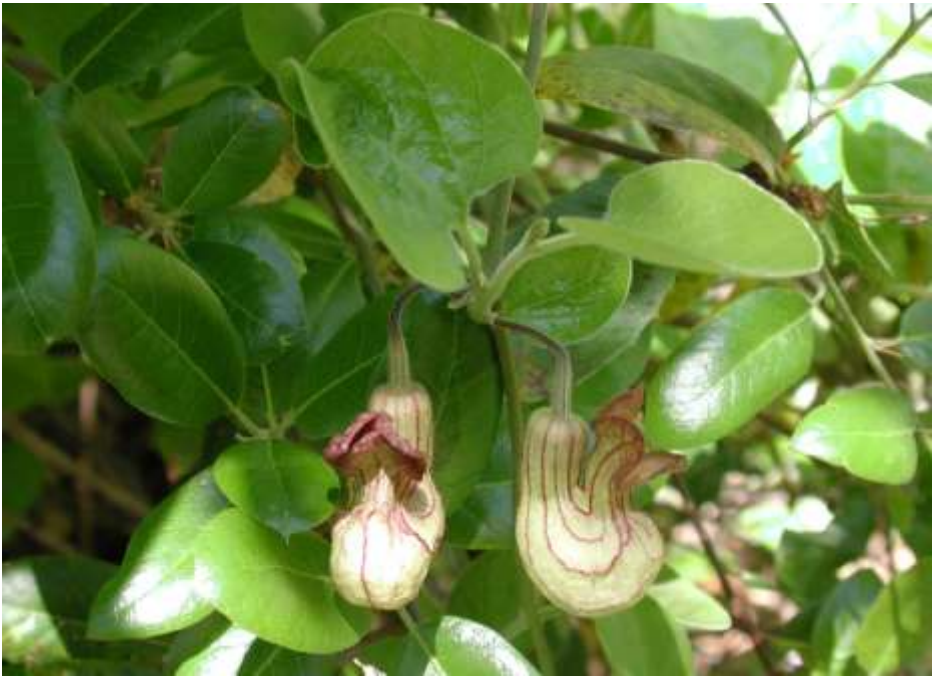


Pipe Vine; *Aristolochia californica*

Early Bloomer. Green/brown pipe-shaped flowers, purple lines, woody vine, velvety heart-shaped leaves.

Notes: From the Greek 'good birth.' They are woody vines with aromatic roots used in folk medicine to aid in childbirth. Also called Birthroot. Flowering sometimes begins as early as January. The distinctive U- or pipe-shaped flowers are foul smelling. Therefore, flies are the main pollinators, attracted by the strong, fetid odor. It has distinctive shovel or heart-shaped leaves. Later in the spring fruits develop that look like the star fruit from the grocery store. In one species the shape led people to believe it had medicinal qualities for the heart, and the leaves were used as a tea for a heart tonic. Our beautiful dark, iridescent Pipe Vine Swallow Tail Butterfly depends on this plant as a food source for its caterpillars. They can be seen late in the season**:** black, bristly, red spotted creatures, crawling and eating, especially on the underside of the leaves. It's a fine plant to grow over a trellis.

Family Aristolochiaceae — Birthwort family
Genus Aristolochia L. — dutchman's pipe
Species *Aristolochia californica* Torr. — California dutchman's pipe



Western Redbud, *Cercis occidentalis*

Early Bloomer. Shrub, small tree, showy pink/magenta flowers, used in basket weaving.

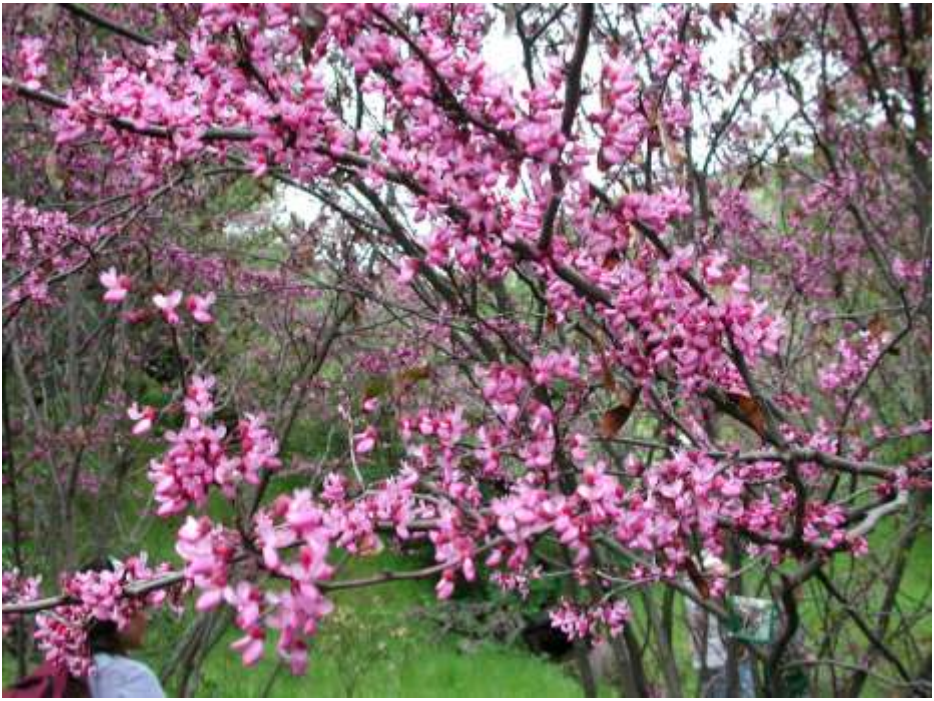
Notes: Cercis is a Greek name of uncertain origin. Occidentalis means 'western.' Redbud has an astringent bark which was used for diarrhea and dysentery. The flowers are edible and rather sweet tasting. The buds can be pickled. Although it is called Redbud, the flowers are more magenta-pink in color. Native Americans used the young branches for their 2-color baskets, the lighter color being from the willow.

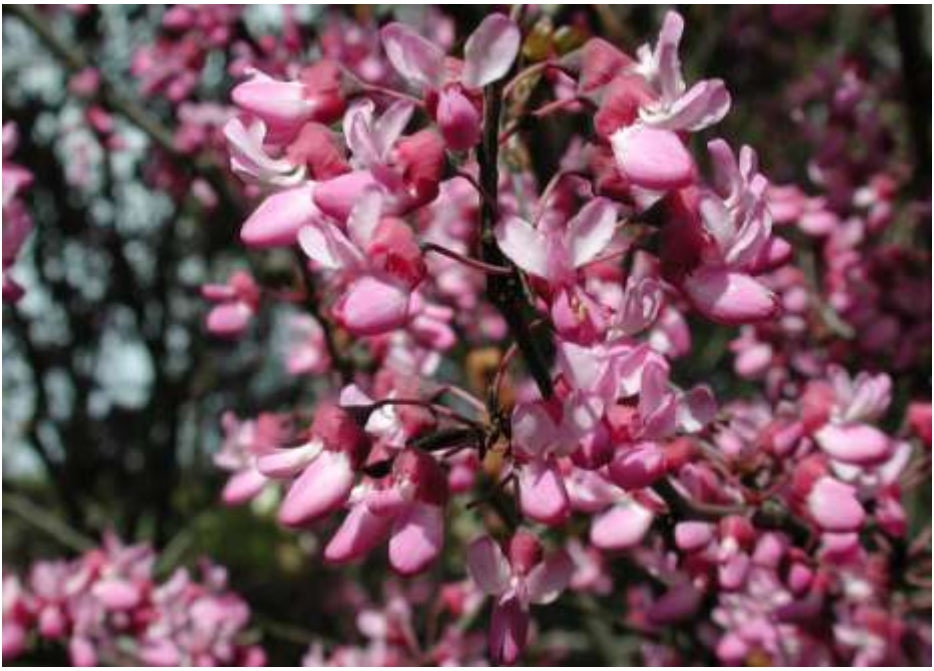
This small tree is one of our loveliest natives. Our local chapter of the California Native Plant Society is named for it. While educating the public about the 'awful aliens,' also promote planting of native species. Natives are adapted to the weather, animals, insects and so on, and can make life in the garden a win/win situation and a whole lot easier. Tell them that our Native Plant Society is available to answer their questions and has periodic plant sales as well. The Redbud is lovely and interesting throughout the seasons: brilliant flowers in the spring, lovely heart-shaped leaves in the summer that redden into the fall, and then long peapod-like seeds in the winter. Also, the Redbud is a Fabaceae (legume) member of the Pea Family, which means the Redbud fixes nitrogen in the soil. Stated more simply, the Redbud is a natural fertilizer of the soil. It thrives in disturbed places. Germination can begin with seeds scarred by shovels or broken down by the stomach acid of animals who eat them, or by the heat of wildfires (which 'renews' them). Native Americans used controlled burns for this purpose. Prefers ravines and canyons in moist areas. USDA does not list this plant under Cercis occidentalis, but does list under Cercis orbiculata.

Kingdom Plantae — Plants
Subkingdom Tracheobionta — Vascular plants
Superdivision Spermatophyta — Seed plants
Division Magnoliophyta — Flowering plants
Class Magnoliopsida — Dicotyledons
Subclass Rosidae
Order Fabales
Family Fabaceae — Pea family
Genus Cercis L. — redbud
Species *Cercis orbiculata* Greene — California redbud

Photographs on following page

Western Redbud, *Cercis occidentalis* (concluded)



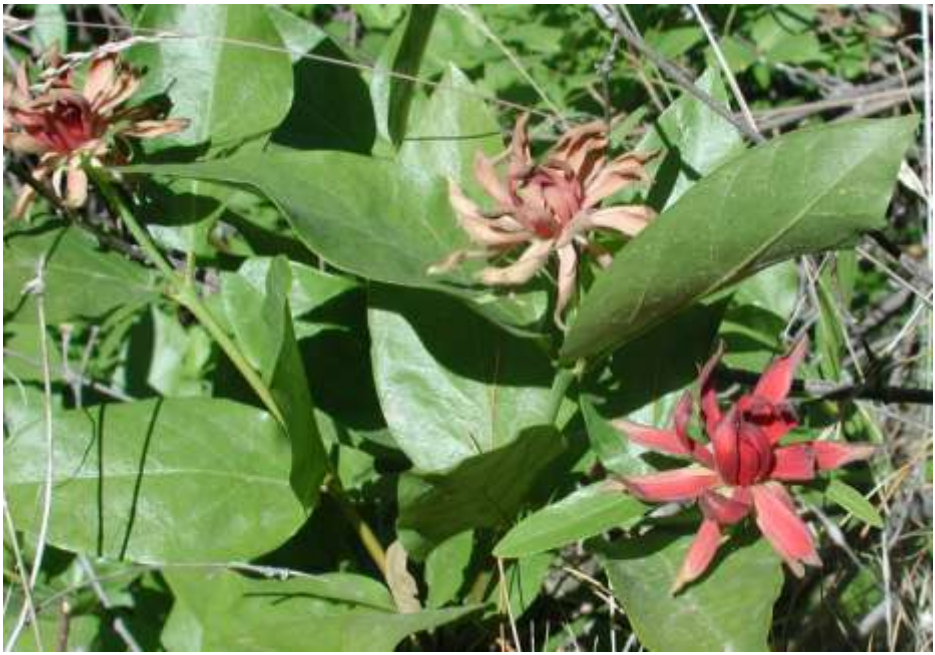


Spice Bush; *Calycanthus occidentalis*

Late Bloomer. Large shrub, long purplish petals, large flowers, fragrant leaves.

Notes: Sweet-shrub family. The genus name is from the Greek *calyx* flower, meaning "hollow receptacle." Deciduous or evergreen, aromatic shrubs. Can grow into small trees. This is a favorite of ladybugs, which may spend the winter packed into the urn-shaped seed pods or, at lower elevations, massed on top of one another in large clumps to stay warm. A good specimen is found at the first bridge of the wheelchair (left) trail. Prefers moist, shady places. Also called Sweet Shrub.

Family Calycanthaceae — Sweet-shrub family
Genus Calycanthus L. — sweetshrub P
Species *Calycanthus occidentalis* Hook. & Arn. — western sweetshrub

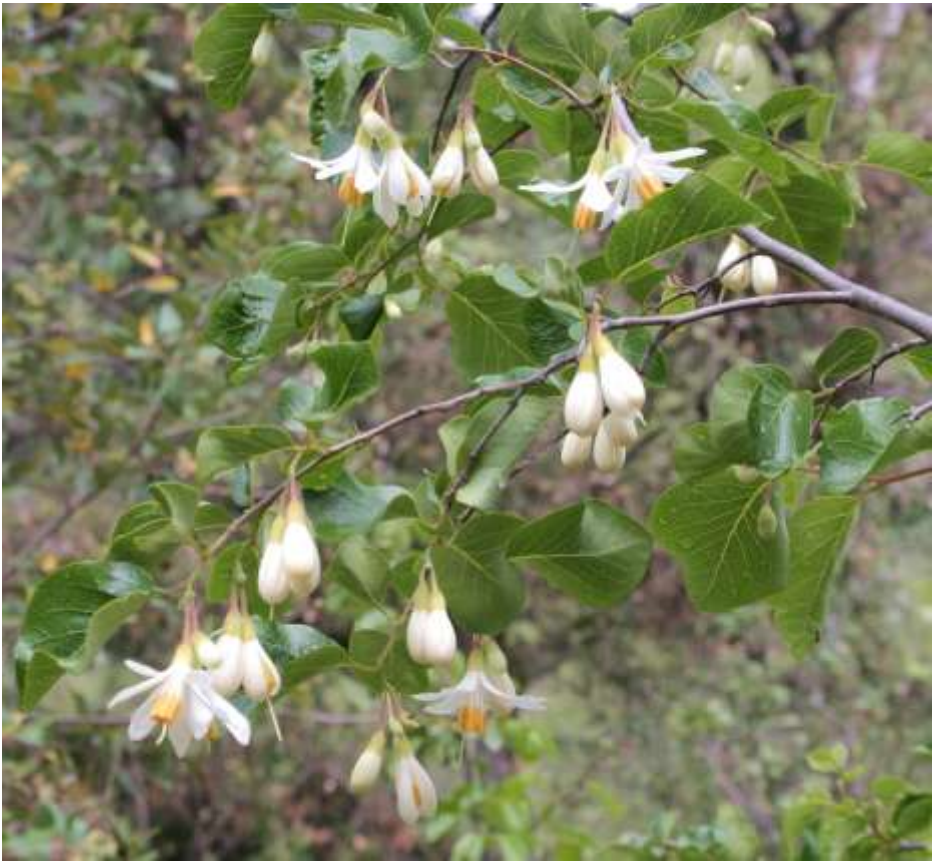


Snowdrop Bush; *Styrax officinalis*

Late Bloomer. Large shrub, pendulous flowers with long white petals. Very pretty.

Notes: A beautiful but little known California native. Slow to mature but worth the wait. Develops into a graceful multi-stemmed deciduous shrub. Dark green rounded leaves clothe the smooth gray branches. Late spring brings dangling clusters of pure white, waxy, bell-shaped blossoms. Grows 6 to 10 feet tall; for sun to light shade. Many beautiful examples are downriver from Family Beach.

Family Styracaceae — Storax family
Genus Styrax L. — snowbell
Species *Styrax officinalis* L. [excluded]



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