

Native Flora of Estero Bay



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Introduction

The botanical history of the Morro Bay area can be traced through the ice ages as our coastline receded and advanced over thousands of years. As plate tectonics moved landmasses to their current positions, so evolution moved the forms of life from early uni-cellular organisms to the dinosaurs to our current flora and fauna. As landmasses continue to move continents and ice ages continue their cycle of advance and retreat, so too does evolution continue to change our local plants.

Locally, the history of geologic change is most notable in our prominent volcanic plugs known as “the Morros.” Changes in landforms are also evident in the Baywood fine sands that form the soils of the Los Osos area. Baywood fine sands are highly organic sands blown from ancient dunes. Evolution is evident in the diversity of floral species, as well as the occurrence of unique populations on their way to speciation, sub-speciation, or extinction.

Of all the things to be appreciated about the Estero Bay, and probably the most important, is in spite of increasing human encroachment this region of San Luis Obispo County still resembles its natural state. For this reason, this area has a high number of rare and under-reported species, some of which are found here and nowhere else in the world. This makes the conservation of as much open space as possible much more important to preserve this genetic information from being lost forever. The purpose of this field guide is to provide means to excite and captivate even the staunchest anti-environmentalist to the truly extraordinarily diverse and beautiful plants found nestled in our tiny corner of California.

The flora of the Estero Bay (and San Luis Obispo County for that matter) is unique not only because it is well preserved but also because of its geographic location. Coastal California is broken up into two ecoregions; the cool, moist Northern coastal scrub and the drought tolerant Southern coastal scrub. The joining of these two communities occurs in San Luis Obispo County, thereby creating means for distinct and endemic plant forms. The Estero Bay itself exacerbates this effect with its sandy soils being surrounded by the deeper, heavier soils of the Coast Range Mountains. Thus, we have an island in terms of soil and species composition.

Like most islands, the threat of invasive species and human disturbance can amplify the loss of these remarkable species. Eucalyptus groves (*Eucalyptus spp.*), for example, have spread and destroyed an estimated 17% of the habitat of the federally endangered Morro manzanita (*Arctostaphylos morroensis*) as well as the once uniquely vegetated Hazard Canyon in Montana de Oro State Park. Likewise, Veldt grass (*Ehrharta calycina*), introduced from South Africa, has decimated available habitat for numerous rare species, including the dune almond (*Prunus fasciculata* var. *punctata*), curly leaved monardella (*Monardella undulata*) and the California spineflower (*Mucronea californica*), all of which are on the CNPS watch list. These facts alone have made it necessary to inventory the species found in our preserved open spaces.

As we lose our natural heritage to human “progress,” we also lose our connection to natural world. The Bureau of Land management estimates that 342 acres of land per hour and 8219 acres per day are lost to exotic species. In the face of such dire threats, there are always those who try to record what’s left before more disappears.

Locally, a few persons have tried to document our flora. Since the 1830’s numerous botanists have spent varying efforts collecting plants in San Luis Obispo County. However, not until 1970 did Dr. Robert F. Hoover of California Polytechnic State University, San Luis Obispo write the definitive flora of our area, The Vascular Plants of San Luis Obispo Count, California. While Hoover’s flora is now often outdated on a taxonomic level, the work provides detailed information on plant distribution. Recently, two books of flower photographs have been published. Central Coast

Wildflowers: Monterey, San Luis Obispo and Santa Barbara Counties of California was published in 1993 and written by Mary Coffeen. This guide provides text, line drawings, and limited color photographs of many of our more common and more widespread plants of the central coast counties. Dune Mother Wildflower Guide: Dunes of Coastal San Luis Obispo and Santa Barbara Counties, California was published by the California Native Plant Society in 2001. This book provides a more focused effort on dune plants, with numerous color photographs.

This current guide, The Native Flora of Estero Bay, attempts to focus on only those plants that occur in the immediate area. Plants found in this guide are found in the open spaces around the communities of Los Osos, Morro Bay, and Cayucos. Photographs are provided for all plants to aid in identification, and text is left to a minimum due to the existence of other reference materials. We are grateful for the assistance of the current guru of San Luis Obispo flora, Dr. David Keil of California Polytechnic State University, San Luis Obispo.

About the Guide

The guide is arranged in terms of ferns, dicots, and monocots. Grasses, which are also monocots, were not included in this guide due to the difficulty of photographing diagnostic features. In addition, even among botanists, grasses are often considered a difficult group to identify.

Within each of these headings, it is categorized further by family name in alphabetical order. The format was arranged to present photographs of the overall nature of the plant in its natural settings as well as a close-up of the flower. Occasionally, we only chose one photo because more than one for some species would be superfluous. The scientific name is in bold italics on the left, while the common name is found in all capital letters to the right. If a plant has a particular conservation listing it is included, and for those that do not the heading is left out completely.

The general habitat is where it would be expected in our area and not in the context of the entire state of California. Each species also contains notes on identifying characters, secondary features, and local facts; the use of the Jepson Manual: Higher Plants of California (1993) and The Vascular Plants of San Luis Obispo County, California by Robert F. Hoover (1970) were employed for this section. Also included is the code for where in the various local State parks where each species can be found. For more details on status listings, habitat types, and park codes see the sections below.

For the purpose of this field guide we attempted to photograph as many species as possible found from 2002 to 2005. The anomalous rains of 2005, led to a fruitful year for discovery of obscure annuals, of which we included as many as possible in the guide. Overall, we feel our guide should help in the identification of plants commonly found in and around Estero Bay. As a rule of thumb, the specimens photographed here are merely an attempt at encompassing its true nature. To truly capture the essence of a plant in a photograph is nearly impossible. This is why we recommend being familiar with the 'Jepson Manual'. Knowing what a plant looks like is important, but knowing *why* you know is most important. You will only become familiar with this through acquaintance with the Jepson Manual: Higher Plants of California. With that in mind, have fun and enjoy!

Status Listings

CNPS The California Native Plant Society (CNPS) is a non-profit conservation organization dedicated to the preservation of native flora in California. The CNPS has

been involved in assembling, evaluating, and distributing information on special-status plant species in the state, as listed in the Inventory of Rare and Endangered Vascular Plants of California (2001). A list 1A plant is a species, subspecies, or variety that is considered to be extinct. A list 1B plant is considered rare, threatened, or endangered in California and elsewhere. A list 2 plant is considered rare, threatened, or endangered in California but is more common elsewhere. A list 3 plant is a species for which the CNPS lacks necessary information to determine whether or not it should be assigned to a higher list. A list 4 plant is a species of concern to be monitored but is considered at low risk.

SE/ST/SR These listings pertain to the State classification of Endangered, Threatened, or Rare in California. The California Department of Fish and Game (CDFG) has jurisdiction over threatened or endangered species that are formally listed under the California Endangered Species Act (CESA). The CESA is similar to the Federal Endangered Species Act (ESA) providing additional protection to listed species in California. The CESA is intended to conserve, protect, restore, and enhance listed species and their habitat. The CDFG maintains informal lists of "Species of Special Concern". These species are broadly defined as plants and animals that are of concern to the CDFG because of population declines and restricted distribution, and/or because they are associated with habitats that are declining in California.

FT/FE This provides the listing of Federally Threatened or Endangered species by the U.S. Fish and Wildlife Service (USFWS). An "endangered" plant or animal species is one that is considered in danger of becoming extinct throughout all or a significant portion of its range. A "threatened" species is one that is likely to become endangered within the foreseeable future. The USFWS also maintains a list of species proposed for listing as endangered or threatened which have been published in the Federal Register.

Habitats

Chaparral This community type in our region is technically referred to as maritime chaparral. Maritime chaparral occurs on old stabilized sand dunes away from the immediate coast and consists of highly endemic species (see California Vegetation by Holland and Keil, 1995). Chaparral is relegated to more exposed and drier sites than most other communities. They are often referred to as "hard chaparral" due to their woody, stiff nature as well as their dense entwined, sometimes impenetrable branching. Maritime chaparral can also be considered a "true shrubland" with the dominant plants ranging from a few centimeters to 2-3 meters. Decomposition of the foliage releases waxes and resins that coat the soil and hinder water penetration. This consequently results in not only water stress conditions, but also impedance of seed germination. Therefore, this community type is often found devoid of understory components with most of the sandy soil exposed between individuals. Common species found in our area include the highly endemic *Arctostaphylos morroensis* (Morro manzanita), as well as *Ceanothus cuneatus* (Buckbrush) and *Adenostoma fasciculatum* (Chamise).

Coastal Scrub Coastal scrub, or "soft chaparral," is most commonly associated with steep slopes and moderately xeric Mediterranean climate. These areas typically have a shallow soil profile and water is most commonly available in the upper horizons during the winter and spring. Many coastal scrub plants are semi-woody, many branched and drought deciduous. This community supports a canopy ranging from 0.5-2.5 meters on average, with a variety of understory forbs (see Holland and Keil, 1995). Coastal scrub

communities are adapted to fires; many coastal scrub species have volatile oils, can stump sprout, or have seeds that require fire scarification and enriched nutrient availability before germination can occur. In coastal scrub communities, both shrubby and herbaceous species are the most diverse and abundant in the years that immediately follow a fire. For the most part coastal scrub intergrades with many communities and can be recognized by *Artemisia californica* (California sagebrush), *Salvia mellifera* (Black sage), and *Mimulus aurantiacus* (Sticky monkeyflower).

Estuarine/Salt Marsh One of the most unique habitats in our area is the Morro Bay estuary. This community is a common stopover for many migrating birds as well as a permanent home to many others. Over time, the estuarine and salt marsh communities of California have been lost due to human disturbances, and now they are limited and scattered along the coastline (the largest being San Francisco Bay). Plants growing in and around the Morro Bay estuary are continually being inundated with saline conditions, while during periods of high rain freshwater drains down into the bay. For this reason, plants in this community must be salt tolerant as well as tolerance to submergence.

Grasslands Historically grasslands are thought to have covered 13 percent of the entire state of California (see Holland and Keil, 1995). However, because the soil is rich in nutrients and typically occurs in good climate, much has been lost to farming and cattle grazing. Many of the native bunchgrasses have been replaced by crops and non-native annual grasses of the Mediterranean. In our region grasslands form a mosaic with chaparral, coastal scrub, and oak woodlands. These communities are relegated to their respective soil types; for coastal grasslands these soils tend to be heavy clay soils. Because most of the primitive grasslands have been altered in some form, many of the wildflowers and secondary components have been listed as threatened. These include *Castilleja densiflora obispoensis* (SLO Indian paintbrush), *Calystegia subacaulis episcopalis* (Cambria morning glory), *Dudleya blochmaniae blochmaniae* (Blochman's dudleya), and *Layia jonesii* (Jones' layia).

Oak Woodlands This community type can vary depending on the dominant species of oak. In the Estero Bay area and most of the coastal edge of California, the oak woodlands are dominated by the coast live oak (*Quercus agrifolia*) and are thus classified as the Coast live oak woodlands. This community is typically composed of a dense canopy due to the increase in moisture along the coast. More inland, where the moisture becomes increasingly scarce, the canopy begins to develop in a more open fashion. The Los Osos Oaks Reserve in the town of Los Osos is a perfect example of the dense canopy form of this community. Human impacts to this community are wide ranging. For one, the number of oak trees has diminished substantially, due to the introduction of Eucalyptus trees and increasing human developments. In addition, there is a dearth of seedling recruitment by old growth oak woodlands. The profuse seed output of annual grasses, which has replaced most of the understory species of the oak woodland, has created a significant increase in resources. Consequently, this has increased the number of rodents and deer causing the predation of the acorn to increase resulting in low emergent seedlings. This effect is exacerbated in rangelands because not only are the acorns being lost but any seedling that has begun to develop is quickly eaten by cattle or deer. The future of the oak woodland may be in danger, once these old trees begin to die off without recruitment.

Riparian Zones These communities are classified as areas that line creeks, streams, and rivers. The vegetation is rather dense and cools the flowing water dramatically. In addition, the vegetation helps slow water flow as well as stabilizing the banks to control erosion. Most riparian zones are easily recognized because of their dense nature and their

occurrences along the meanders of most waterways. Human disturbances to this community, like most others, have been quite extensive. Damning of waterways has greatly reduced flow, making water availability lower in an area of a typical high water table. In addition, mismanaged grazing practices have removed the dense vegetation consequently increasing flow rate and causing destabilization of the creek banks. This has ultimately led to an increase in the rate of erosion. Typically, riparian communities are dominated by a confused mixture of overstory components including *Salix spp.* (Willow), *Umbellularia californica* (California bay laurel), *Sambucus mexicana* (Elderberry), and *Platanus racemosa* (Western sycamore). However, around the Estero Bay, *Salix lasiolepis* is the most common species found lining the watercourses. Beneath these small, dense trees are some subshrub species such as *Rubus ursinus* (California blackberry), *Lonicera hispidula* (California honeysuckle), and *Artemisia douglasii* (Mugwort).

Rocky Outcrops This designation can be considered a community, yet it should be treated as a community within a community. Rocky outcrops are areas where there are exposed rocks that have plants persisting. Plants survive here by making use of the cracks and crevices that accumulate nutrients and broken down parent material. The most common types of plant species found in rocky outcrops are ferns and dudleyas (see guide for details on specific plants).

Sand Dunes This community type is probably the harshest environment found in the Estero Bay. First, the salt spray and constant wind make it difficult for a plant to establish a large stature, especially in the regions of the dunes nearest the water line, resulting in less productivity. Second, because sand granules have a low surface area they lack the ability to hold water, creating conditions comparable to the desert. Lastly, the constant shifting nature of sand dunes hinders permanent establishment. As you move farther away from the water line, the sand dunes become more stabilized and the harsh conditions lessen their intensity. Coastal development, though, has destroyed much of the sand dune communities as has the introduction of exotics such as iceplant (*Carpobrotus spp.*) and European beachgrass (*Ammophila arenaria*). Iceplant and European beach grass has unnaturally stabilized dunes and in the process has replaced all the natives in a given area.

Park Codes

EB	Estero Bluffs
LOOR	Los Osos Oaks Reserve
MBSP	Morro Bay State Park
MDO	Montana de Oro
MSSB	Morro Strand State Beach

Ferns and Fern Allies

Blechnaceae Deer Fern family



Woodwardia fimbriata



GIANT CHAIN FERN

Habitat: Typically found near streams and springs

Notes: A conspicuous fern with giant leaves emanating from a single point in the ground. The elongated sori are arranged in a chain-like pattern. (LOOR, MDO)

Dennstaedtiaceae Bracken family



Pteridium aquilinum var. *pubescens*



BRACKEN FERN

Habitat: Diverse habitats; riparian zones as well as open dry chaparral/coastal scrub.

Notes: Leathery and quite large, this is one of the most widespread ferns in California. Can be toxic if ingested by humans and livestock. (EB, LOOR, MDO, MSSB, MBSP)

Dryopteridae Wood Fern family



Polystichum munitum



WESTERN SWORD FERN

Habitat: Shaded slopes, rocky outcrops.

Notes: This species is easily recognized by looking at an individual leaf blade. The base of the leaf is offset and leads up to a point, reminiscent of a sword. Each leaf blade is leathery and tough. (MDO)

Equisetaceae Horsetail family



Equisetum telmateia braunii

HORSETAIL

Habitat: Riparian zones, stream banks, seepage areas

Notes: Very distinct, with a feathery top when in bloom. Prior to flowering, the tips can be used to clean pots and pans, giving it a less commonly known nickname “scouring rush.” (EB, LOOR, MBSP, MDO)

Polypodiaceae Polypody family



Polypodium scouleri

LEATHER LEAF FERN

Habitat: Rocky outcrops, moist logs, places of heavy salt spray or fog drip

Notes: The leaves vary in size depending on the substrate; however, the leathery feel of this species sets it apart from the rest of the *Polypodium spp.* (MBSP, MDO)

Pteridaceae Brake family



Adiantum aleuticum

FIVE-FINGER FERN

Habitat: Shaded, moist, rocky zones.

Notes: Very distinct fern with leaves projecting out resembling an open hand. (MDO)

Ferns and Fern Allies



Adiantum jordanii

Habitat: Riparian zones, shaded woodlands

Notes: A very soft and fragile fern, this species is recognized by its thin black stems, fan shaped leaves, and leaf margins that are slightly rolled under. (MDO)



CALIFORNIA MAIDEN-HAIR



Pellaea mucronata

Habitat: Rocky, dry areas, mainly in chaparral

Notes: This species is easily identifiable with its dark brown stems and leaf segments reduced that come to a point. Uncommon to this region, yet it can be found in abundance in certain parks. (MBSP, MDO)



BIRD'S FOOT FERN



Pentagramma triangularis

Habitat: Shaded slopes, rocky outcrops

Notes: Easily identifiable with its signature gold dusted back. You must look carefully to find this plant due to its typical presence beneath dense shrubs. (MBSP, MDO)



GOLDBACK FERN

Selaginellaceae Spike-moss family



Selaginella bigelovii

SPIKE-MOSS

Habitat: Commonly seen moss on rocky outcrops, shaded or open

Notes: A low ground cover that inhabits exposed rocks. The flower parts are difficult to see and require microscopes for direct observation. (EB, MBSP, MDO)

Anacardiaceae Sumac or Cashew family



Rhus ovata

SUGAR BUSH

Habitat: South-facing slopes; chaparral

Notes: This species can be a shrub or small tree, often grown as an ornamental. (MBSP)



Toxicodendron diversilobum

POISON OAK

Habitat: Diverse habitats; oak woodlands, riparian zones, chaparral, some grasslands

Notes: Probably the most common and least recognized plant in California. It can be a vine, shrub, or small tree, but its signature look is “leaves of three” with the middle most having a petiole. Contact with this plant can cause serious skin irritation.

(EB, LOOR, MBSP, MDO)

Apiaceae Carrot family



Sanicula crassicaulis

Habitat: Open slopes, grasslands, chaparral

Notes: A very common component of most communities. This species is found very commonly off trails. It has many small umbrella-like clusters of flowers. The leaves resemble a large clover. (MBSP, MDO)



SANICLE

Asteraceae Sunflower family



Achillea millefolium

Habitat: Diverse habitats; from sand dunes to open chaparral

Notes: A distinct plant with a white to pink umbrella head of flowers and highly segmented leaves. The name “millefolium” literally means “a thousand leaves.” (EB, MDO, MSSB)



COMMON YARROW



Ambrosia chamissonis

Habitat: Beaches, coastal dunes

Notes: A matting plant, perfect for dune stabilization. In its fruiting stage, this species forms sharp burs used for seed dispersal. The flower stalks are brown and not very showy. (EB, MSSB)



BEACH-BUR

Dicots



Artemisia californica

Habitat: A dominant component of coastal scrub

Notes: Not technically a “sage”, this aromatic species is very common and forms the basis for typical California coastal scrub. (EB, LOOR, MBSP, MDO, MSSB)



CALIFORNIA SAGEBRUSH



Artemisia douglasiana

Habitat: Open to shaded, moist regions, often found in riparian zones.

Notes: Morphologically, this species looks nothing like its more dominant relative. However, the scent of the leaves is near identical, as well as the flowering structures. (EB, MBSP, MDO, MSSB)



MUGWORT



Baccharis douglasii

Habitat: Salt marshes, riparian edges.

Notes: This perennial subshrub typically has greater than fifty flowers per head. It is usually a tall stalk with finely toothed leaves. (MBSP, MSSB, MDO)



MARSH BACCHARIS

Dicots



Baccharis pilularis

Habitat: Coastal bluffs, oak woodlands, grassland communities.

Notes: Another of the common shrubs of California, this plant can be seen almost everywhere. This shrub has smaller randomly toothed, dark green leaves, and typically flowers in the fall, when small white wind-transported seeds can be seen. (EB, MBSP, MDO, MSSB)



COYOTE BUSH



Chaenactis glabriuscula

Habitat: Typically seen in dry places; dunes or other sandy areas.

Notes: The only yellow form of this genus, this annual can be identified by its “three pronged” outside petals and its basal dissected leaves. (MBSP)



PINCUSHIONS



Circium occidentale var. *compactum*

Status: 1B/None/None

Habitat: Coastal bluffs

Notes: Called a cobwebby thistle due to the cotton-like substance in its flower head, this rare variation of the prototypical *C. occidentale* is only found on coastal bluffs and dunes. The rugged nature of this environment causes it to become compact and low growing. The more common *C. occidentale* var. *occidentale* is quite large. (EB, MDO)



COMPACT COBWEBBY THISTLE

Dicots



Ericameria ericoides

Habitat: Stabilized sand dunes, inland sandy regions.

Notes: A common component of the dune communities in and around Morro Bay; this plant is quite easy to identify. The stem is white pubescent and the leaves are reduced, grooved, and crowded. (MBSP, MSSB, MDO)



MOCK HEATHER



Erigeron blochmaniae

Status: 1B/None/None

Habitat: Stabilized sand dunes.

Notes: The stem is minutely hairy and the flowers are blue with white. The leaves are evenly spaced and slightly folded appearing grooved. This plant is rare due to coastal development. (MBSP, MDO, MSSB)



BLOCHMAN'S LEAFY DAISY



Eriophyllum confertiflorum

Habitat: Can be found from stabilized dunes to mature chaparral.

Notes: Often confused with the real yarrow (*Achillea millefolium*), this species has 3-5 lobed reduced leaves, and bright yellow flowers. This plant does or does not contain ray flowers, depending on the location. A very common plant. (MBSP, MSSB, MDO)



GOLDEN YARROW

Dicots



Eriophyllum multicaule

Habitat: Coastal scrub, chaparral.

Notes: Typically seen in times of anomalously high amounts of rain. When seen in great abundance can result in a “carpet” of yellow flowers between large shrubs. More common in eastern San Luis Obispo County. (MBSP, MDO)



MANY STEM WOOLLY SUNFLOWER



Eriophyllum staechadifolium

Habitat: Coastal bluffs, stabilized dunes, coastal scrub

Notes: This subshrub is similar to *E. confertiflorum*, yet its much larger and highly dissected leaves makes for an easy distinction. (MBSP, MSSB, MDO)



SEASIDE WOOLLY SUNFLOWER



Gnaphalium bicolor

Habitat: Dry slopes, chaparral, coastal scrub, occasionally on stabilized sand dunes.

Notes: A very pungent smelling plant, almost citrus-like. Easily distinguished from other everlastings by its two-toned leaves; the upper surface is a bright green, while the lower is a densely hairy white color. (MBSP, MDO)



TWO-TONE EVERLASTING

Dicots



Gnaphalium californicum

Habitat: Dry slopes, chaparral, oak woodland.

Notes: Not as scented as *G. bicolor*, this plant is one of the most common everlasting found in California. Both sides of the leaf are dark green, and the heads can be pinkish, yet the majority of the time they are white. (EB, MBSP, MDO, MSSB)



CALIFORNIA EVERLASTING



Gnaphalium purpureum

Habitat: Disturbed areas, roadsides.

Notes: A distinct everlasting due to its brown and dead looking flowers and its all white pubescent leaves. Commonly found low growing, branching or not. (EB, MBSP, MDO)



CUDWEED



Grindelia stricta

Habitat: Coastal bluffs, tidal zones, sand dunes.

Notes: Called the gum plant because of the sap that forms on the top of a flower bud. This species has a rather stout stature and is commonly seen right on coastal bluffs. Two varieties intergrade in this region: var. *platyphylla* with its rounded leaf tips, and var. *stricta* which has acute leaf tips. (EB, MDO)



GUM PLANT

Dicots



Hemizonia congesta luzulifolia

Habitat: Grasslands

Notes: A common late season flower, this species is easily recognized by its white flowers with purple striping on the back. In addition, this plant is quite sticky throughout. (EB, LOOR, MBSP, MDO)



HAYFIELD TARWEED



Hemizonia increscens increscens

Habitat: Coastal grassland

Notes: The prevalence of this species in grasslands can give the assumption that is an introduced species. Fortunately, this species is an important component of the grassland community. The yellow petals have three lobes and the stamens are black. (EB, MBSP)



TARWEED



Heterotheca grandiflora

Habitat: Disturbed areas, sand dunes.

Notes: This species is a common disturbance follower and often signifies the first stage of a system going through succession. After the removal of exotic ice plant and beach grass on the Morro Strand State Beach, multitudes of this species became established. (EB, MBSP, MDO, MSSB)



TELEGRAPH WEED

Dicots



Jaumea carnosa

Habitat: Coastal salt marshes, coastal bluffs

Notes: A common component of the salt marsh community. It has fleshy leaves, and is generally a ground cover due to its weak stem. The leaves are simple and opposite each other. (EB, MBSP, MSSB)



JAUMEA



Lasthenia californica

Habitat: Diverse habitats; here in our area it is common to coastal bluffs.

Notes: In years of good rain, this species is abundant across California. It is rather conspicuous, with the base of the flower being flat and its signature yellow “aster” look. The leaves are fleshy only when found near the coast. (EB)



GOLDFIELDS



Layia glandulosa

Habitat: Open sandy soils.

Notes: This genus is easy to recognize due to its two rows of ray flower and the three lobes each ray petal exhibits. This particular species is generally found in decent rain years and is easy to identify from its white or light yellow color. (MBSP)



WHITE LAYIA

Dicots



Lessingia filaginifolia

Habitat: Diverse habitats; coastal scrub, grasslands, oak woodlands.

Notes: A variable species, some individuals can have white pubescent leaves while others are green and quite aromatic. Nevertheless, the signature look is the blue, white ray flower and yellow center. (EB, LOOR, MBSP, MDO, MSSB)



CALIFORNIA ASTER



Madia sativa

Habitat: Grasslands

Notes: This species of tarweed is quite sticky and has a resin-like aroma. The overall nature of the plant is tall (near 2 cm) and stalky, and the yellow flowers barely protrude from the phyllaries that house them. (EB, LOOR, MBSP, MDO)



COAST TARWEED



Malacothrix incana

Status: 4/None/None

Habitat: Sand dunes.

Notes: This species is rather rare due to increasing coastal development. It is the only perennial plant in this genus to have yellow flowers. The leaves are bluntly dissected, and the base of the flower has 3-6 rows of phyllaries. (MDO)



DUNEDELION

Dicots



Senecio blochmaniae

Status: 4/None/None

Habitat: Stabilized sand dunes.

Notes: A common plant found on the sand dunes, this plant is easily recognized by its single stem and long, wiry leaves. The flowers seem to mimic the leaves, the ray flowers being slender and bright yellow. Impacted by coastal development (MSSB, MDO)



SENECIO



Solidago confinis

Habitat: Riparian zones; streams, creeks, marshes.

Notes: This plant is not too common to this area, being more common south of here. It is distinguished by its panicle-like arms of small golden flowers. (MDO)



SOUTHERN GOLDENROD

Berberidaceae Barberry family



Berberis aquifolium var. *dictyota*

Habitat: Coniferous forests, oak woodland, chaparral.

Notes: This species is unusual to this area. It is found at the highest peak of Cerro Cabrillo, being most common in the Pacific Northwest. (MBSP)



OREGON GRAPE

Boraginaceae Borage family



Amsinckia spectabilis

Habitat: Sandy habitats, occasionally sand dunes.

Notes: Very common in good rain years, and is easily distinguished by its yellow tube flowers curling “like a caterpillar on a stick.” This plant has small bristles that give it a rough feel. (EB, LOOR, MBSP, MDO, MSSB)



FIDDLENECK



Cryptantha sp.

Habitat: Sandy soils, chaparral, coastal scrub

Notes: A common coastal scrub/chaparral “wildflower”. These small white flowers can be seen in great abundance after the rainy season. (LOOR, MBSP, MDO)



POPCORN FLOWER

Brassicaceae Mustard family



Cardamine californica

Habitat: Shaded sites, coastal scrub.

Notes: A common annual in shaded areas. It has white petals arranged in a cross, typical of this family. Occasionally, this species appears only with the flower stalk because the leaves are typically hidden in the dense thicket it emerges from. (MBSP, MDO)



MILK MAIDS

Dicots



Dithyrea maritima

Status: 1B/ST/None

Habitat: Sandy regions, sand dunes.

Notes: This species is very rare due to increasing coastal development. The flowers are quite unique; their cream-colored petals curve back. Hard to find, small, seasonal. (MDO)



BEACH SPECTACLEPOD



Erysimum insulare suffrutescens

Status: 4/None/None

Habitat: Stabilized sand dunes, sandy regions, Morro Rock

Notes: This species is considered by some as the true Morro Bay native, because this subspecies occurs only here. The species is identified by its yellow flowers slightly curved back, and the many branches each plant exhibits (MBSP, MSSB)



SUFFRUTESCENT WALLFLOWER

Caprifoliaceae Honeysuckle family



Lonicera hispidula var. *vacillans*

Habitat: Riparian zones, oak woodlands

Notes: This sprawling species forms part of the thicket seen in dense riparian zones. This species is identified by its honeysuckle-like flowers and the fused leaves around the stem. Another species sometimes seen in this area, *L. interrupta*, lacks the little glands on the flower found on *L. hispidula*. A very striking plant in bloom. (LOOR, MDO)



CALIFORNIA HONEYSUCKLE

Dicots



Lonicera involucrata var. *ledebourii*

Habitat: Perennially moist, coastal areas.

Notes: A plant identified by its twin flowers which ultimately become twin fruit, hence the name “twinberry”. A common plant in riparian zones of our region, and can be found wherever there is moisture. (LOOR, MBSP, MDO)



TWINBERRY



Sambucus mexicana

Habitat: Riparian zones, oak woodlands.

Notes: This plant is easily recognized by the blue berry it produces and the pattern of the leaves. The leaves are opposite each other with a slight fold down the middle of each one. Each leaf also has slight teeth on the margins. (LOOR, MBSP, MDO)



ELDERBERRY



Symphoricarpos mollis

Habitat: Rocky slopes, oak woodlands.

Notes: The leaves of this species are quite soft and hairy. It can be seen sprawling in the under story of an oak tree or climbing on and around rock outcrops. (LOOR, MBSP, MDO)



SNOWBERRY

Caryophyllaceae Pink family



Silene laciniata major

Habitat: Chaparral, oak woodland.

Notes: A very conspicuous plant when in bloom. This species is separated from another closely related species, *S. californica*, by having slender leaves throughout. (LOOR, MBSP, MDO, also White's Point in Morro Bay)



CATCHFLY

Chenopodiaceae Goosefoot family



Atriplex leucophylla

Habitat: Sandy areas, sand dunes.

Notes: A common coastal native. Overall, this species is white, with an egg shaped leaf. In the axils of each leaf is either a male or female flower, which are both found on the same plant. (MSSB)



ATRIPLEX



Atriplex triangularis

Habitat: Saltwater marshes and other perennially moist areas.

Notes: Sometimes mistaken by the foolhardy as a “weed.” The leaves are extremely triangular, as the name indicates, and the flowers are typical male and female, as are most *Atriplex*. Typically found around the Morro Bay Estuary. (MBSP, MSSB)



SPEARSCALE

Dicots



Atriplex watsonii



ATRIPLEX

Habitat: Sand dunes, salt marshes.

Notes: The leaves on this species are generally opposite unlike any other atriplex in this region. This species is also dioecious, which means that an individual plant is either a male or female, but never both on the same individual. (MBSP, MSSB)



Chenopodium californicum

CALIFORNIA GOOSEFOOT

Habitat: Coastal scrub, chaparral; generally sandy areas.

Notes: This perennial is commonly seen and passed off as a weed. Yet, this plant by its name is very much native. You will typically see this plant in a small bunch here and there, with its irregularly toothed triangular leaves spreading about. (LOOR, MBSP, MDO, MSSB)



Salicornia virginica



PICKLEWEED

Habitat: Salt marshes, alkali flats

Notes: The most common plant found in the Morro Bay estuary. This species is fleshy and reduced to nothing more than a persistent groundcover. It contains no true leaves, but its stems appear to branch much like a cactus. (EB, MBSP, MSSB)

Dicots



Suaeda californica

Status: 1B/SR/FE

Habitat: Fringes of coastal salt marshes, lagoon mouths, strands.

Notes: This rare plant can be seen in the margins of the Morro Bay Estuary as well on the coastal bluffs north of Cayucos. This succulent shrub has been listed as rare and endangered due to loss of estuarine habitat. (EB, MBSP, MSSB)



CALIFORNIA SEA-BLITE

Cistaceae Rock-rose family



Helianthemum scoparium

Habitat: Sandy areas, chaparral, rocky slopes

Notes: A unique and striking subshrub common in the maritime chaparral of this area. It has rose-like, yellow flowers and the plant itself is rather tidy in its shrub form.



PEAK RUSH-ROSE

Convolvulaceae Morning Glory family



Calystegia macrostegia

Habitat: Rocky slopes, coastal scrub, chaparral.

Notes: The most common morning glory in and around Morro Bay. This plant typically grows as a vine on shrubs and small trees, and their trumpet flowers are easily seen and abundant. The leaf itself is narrow and triangular, with the base showing two angles on each side. (EB, LOOR, MBSP, MDO)



MORNING GLORY

Dicots



Calystegia soldanella

BEACH MORNING GLORY

Habitat: Coastal foredunes

Notes: This morning glory is unique due to its location on the dunes. The leaf is kidney shaped, slightly crinkled, and more or less fleshy. This rare plant also exhibits a trumpet shaped flower typical of a morning glory. (MDO)



Calystegia subacaulis episcopalis

SAN LUIS OBISPO COUNTY MORNING GLORY

Status: 1B/None/None

Habitat: Coastal scrub, open grasslands

Notes: This morning glory is not a true vine like *C. macrostegia*. It is a compact ground cover most often found in native grasslands. The leaf structure differs from *C. macrostegia* due to a rounded leaf base and more round overall leaf shape. (EB, LOOR, MBSP)



Cornaceae Dogwood family



Cornus sericea

AMERICAN DOGWOOD

Habitat: Riparian zones.

Notes: This plant is often seen as a dense shrub lining creeks and streams. It is easily recognized by its signature and prominent vein pattern on the leaves. In addition the branches are reddish to purple. (LOOR, MDO)



Crassulaceae Stonecrop family



Crassula connata

PYGMY-WEED

Habitat: Open areas, rocky outcrops.

Notes: A common “belly botany” species, in that, it is difficult to see if one is not looking carefully. It is a little succulent that typically covers open spots in any community. (EB, LOOR, MBSP, MDO)



Dudleya blochmaniae blochmaniae

Status: 1B/None/None

Habitat: Open areas in clay grasslands or rocky outcrops.

Notes: Another “belly botany” specimen that is also difficult to see and also a rare find. The foliage is miniature and spoon shaped, while the flowers are rather apparent; the petals are white with a pink stripe. (EB, MBSP, MDO)



BLOCHMAN'S DUDLEYA



Dudleya caespitosa

DUDLEYA

Habitat: Coastal areas, rocky outcrops, including dunes and Morro Rock.

Notes: A compact dudleya when compared to *D. lanceolata*, this is a common plant seen on coastal bluffs and rocky outcrops, in our area. When in flower this species is quite striking with bright yellow flowers. (EB, MBSP, MDO)



Dicots



Dudleya lanceolata

Habitat: Rocky outcrops

Notes: This species is quite distinct with its lance shaped leaves, hence the name *lanceolata*. Sometimes difficult to separate from *D. caespitosa* because the two readily hybridize, such as on White Point. Nevertheless, the leaves are a distinguishing character. (EB, MBSP, MDO)



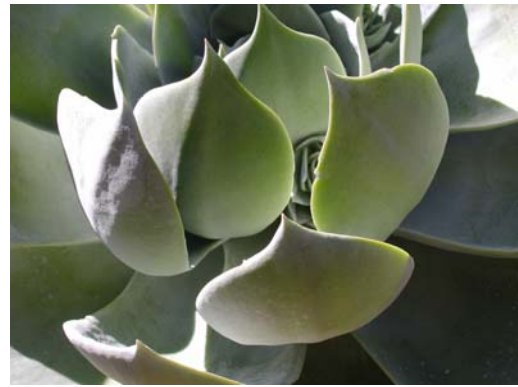
DUDLEYA



Dudleya pulverulenta pulverulenta

Habitat: Rocky outcrops more inland

Notes: A very distinct dudleya in size and shape of the leaves. The leaves are largely spoon shaped with a soft point to the tip, and chalky substance on the leaves. (MDO)



CHALK LIVE FOREVER

Cucurbitaceae Gourd family



Cucurbita foetidissima

Habitat: Sandy, gravelly areas.

Notes: This vine is not very common to this area, however it can be found in Shark's Inlet in Montana de Oro. The leaves are angled and finely toothed as well with an malodorous to them. The fruits resemble a gourd. (MDO)

CALABAZILLA

Dicots



Marah fabaceus



MAN-ROOT

Habitat: Coastal scrub, chaparral, oak woodlands.

Notes: Common plant seen in most areas, this vine has a distinct leaf pattern. The fruit is also distinct; forming a ball armed with flexible prickles. (EB, LOOR, MBSP, MDO, MSSB)

Cuscutaceae Dodder family



Cuscuta sp.



DODDER

Habitat: Parasitic vine found on all plant forms.

Notes: This parasite can be mistaken for human litter. The orange coloration makes it quite noticeable. Identification to the species level is quite difficult due to the microscopic size of the reproductive structures. (EB, LOOR, MBSP, MDO, MSSB)

Ericaceae Heath family



Arctostaphylos morroensis



MORRO MANZANITA

Status: 1B/None/FT

Habitat: Central Coast maritime chaparral

Notes: This species is endemic to our region and due to coastal development and the introduction of eucalyptus its range has become limited. It is now considered federally endangered. To identify, look for a petioled leaf and look inside a flower to see the pubescent ovary. (LOOR, MBSP, MDO)

Dicots



Arctostaphylos osoensis

Status: 1B/None/None

Habitat: Chaparral, oak woodland.

Notes: This species has been incorrectly reported as *A. cruzensis* based on old taxonomy. However, it has been correctly identified as a dominant species in the chaparral of Cerro Cabrillo. Look for clasping leaves around the stem and an ovary that is glabrous. (MBSP)



OSO MANZANITA

Euphorbiaceae Spurge family



Croton californicus

Habitat: Sandy area, chaparral, stabilized dunes.

Notes: A common component to most open and dry communities of this region. It is a distinct groundcover that stands out due to its gray-blue color. (LOOR, MBSP, MDO, MSSB)



CROTON

Fabaceae Legume family



Astragalus nuttallii var. *nuttallii*

Status: 4/None/None

Habitat: Rocky outcrops, sandy areas, coastal bluffs.

Notes: This plant is commonly found in our area. It can be spreading or erect depending on the location. The fruits are quite distinct because they inflate. This and other milk vetches are toxic to livestock. (EB, MBSP)



NUTTALL'S MILK VETCH

Dicots



Lathyrus vestitus

Habitat: Chaparral, oak woodlands, riparian zones.

Notes: This plant can be seen in Coon Creek as part of the riparian community. The flower is quite variable, but the majority have a purple banner and a white wings and keel. Typically seen as a vine on other shrubs. (MBSP, MDO)



SWEET PEA



Lotus heermannii var. *orbicularis*

Habitat: Coastal scrub, chaparral, coastal dunes.

Notes: A very common mat-forming plant in open and sandy areas. Overall, this species is overall very hairy which is an easy way to recognize it. (EB, LOOR, MBSP, MDO, MSSB)



LOTUS



Lotus scoparius var. *scoparius*

Habitat: Chaparral, coastal scrub, coastal dunes.

Notes: A common dominant component of dry and sandy areas in this region. Can be rather showy when in bloom with many tiny yellow pea shaped flowers. Another good identifying character is the three leaflets instead of one leaf. (EB, LOOR, MBSP, MDO, MSSB)



DEERWEED

Dicots



Lupinus arboreus

YELLOW BUSH LUPINE

Habitat: Coastal bluffs, dunes, and sometimes in coastal dune scrub.

Notes: The common name gives the impression that this should be yellow. However, in our area this species almost always exhibits purple flowers, while in Pismo and Nipomo this species is always yellow. Look for green leaves and a glabrous banner back. (LOOR, MBSP, MDO, MSSB)



Lupinus bicolor

MINIATURE LUPINE

Habitat: Disturbed areas.

Notes: A distinct annual lupine because of its hairy, miniature leaflets as well as miniature flower head. Mostly seen where sandy areas have been disturbed. (LOOR, MBSP, MDO)



Lupinus chamissonis

SILVER DUNE LUPINE

Habitat: Coastal dunes, coastal dune scrub.

Notes: A very striking and apparent plant of the coastal dune system. This species serves as a larval food source for the Morro Blue butterfly. The flower is quite fragrant and purple, while the leaflets are silvery hairy and the petiole is shorter than a single leaflet. (MBSP, MDO, MSSB)

Dicots



Lupinus hirsutissimus

Habitat: Rocky outcrops, burn sites.

Notes: This annual lupine has many tiny stiff hairs which do not sting. This plant is also identified by its magenta colored flowers. (MDO)



STINGING LUPINE



Lupinus nanus

Habitat: Disturbed areas, grasslands.

Notes: A very striking wildflower, with its petals a mix between blue and white. This is an annual species common after a decent rainy season. (EB)



SKY LUPINE



Lupinus succulentus

Habitat: Disturbed areas, grasslands.

Notes: One of the most common wildflowers seen in the spring. This species is identified by its succulent-like leaflets that are quite broad and all purple flowers. (EB, LOOR, MBSP, MDO)



ARROYO LUPINE

Dicots



Trifolium depauperatum* var. *truncatum

CLOVER

Habitat: Grasslands, coastal bluffs, coastal woodlands.

Notes: This species can be recognized by the inflated red corolla. Beneath the flower-head this species has an involucre bract with all of the lobes free. When in great abundance this plant is quite striking. (EB)



Trifolium fucatum

CLOVER

Habitat: Open grasslands, coastal bluffs.

Notes: This species is very easy to recognize due to its largely inflated white flowers and the large clover leaves. As with *T. depauperatum*, this species has an involucre bract with free and open lobes. (EB)



Trifolium monanthum* var. *monanthum

CLOVER

Habitat: Mountain forests near streams.

Notes: This plant was found recently at Estero Bluffs, which is anomalous to this area. This species is identified by the 1-6 white trumpet flowers per flower head; this is one of the only clovers to exhibit these characters. (EB)

Dicots



Trifolium willdenovii

Habitat: Heavy soils, serpentine derived soils.

Notes: Common clover seen in good rain years. The involucre bract beneath the flower on this species is fused into a ring and finely lobed. The flower is magenta with a white tip. (EB, MBSP, MDO)



CLOVER

Fagaceae Oak family



Quercus agrifolia var. *agrifolia*

Habitat: Oak woodlands, chaparral.

Notes: Common tree seen in drainages on dry slopes as well as forming dense woodlands near the coast, including Los Osos Oak and the Elfin forest. This species is recognized by its broad leaves and hairy “armpits” (hairs between the veins) in the undersides of the leaves. Can be shrubs when found in chaparral (LOOR, MBSP, MDO)



COAST LIVE OAK



Quercus wislizeni var. *frutescens*

Habitat: Chaparral

Notes: This species is not normally found in our area, yet there is a single individual occurring in the grasslands of the Los Osos Oak Reserve. The sharp spines on the leaves can be quite painful. (LOOR)



INTERIOR LIVE OAK

Frankeniaceae Frankenia family



Frankenia salina

Habitat: Salt marshes, alkali flats

Notes: Common component of the Morro Bay estuary. Identified by the rolling of the leaf margins. Flowers are small and can be white, pink, or purple. (EB, MBSP)



FRANKENIA

Garryaceae Silk Tassel family



Garrya elliptica

SILK TASSEL

Habitat: Seacliffs, sand dunes, chaparral

Notes: This plant can be as tall as tree, and is often confused with *Lithocarpus densiflorus* (tan oak). The leaves are quite hairy, appear gold. In addition, they are wavy. The most distinct character is the brown “silky” tassels that hang down. (MDO)

Grossulariaceae Gooseberry family



Ribes malvaceum var. *viridifolium*

Habitat: Chaparral

Notes: This gooseberry lacks the nodal spines typical of the genus, and its signature clustered, palmately lobed, leaves are quite evident. This gooseberry has large open branches of pink flowers that hang down and can be quite striking in the spring. (MDO)



CHAPARRAL CURRANT

Dicots



Ribes menziesii

Habitat: Oak woodland under story, chaparral

Notes: This beautiful plant can be quite painful to touch due to its three spines per node. In between each node they also have small, stiff bristles. The leaf can be quite variable depending on the habitat, yet all slightly sticky and pubescent. (LOOR, MDO)



CANYON GOOSEBERRY



Ribes speciosum

Habitat: Coastal scrub, chaparral

Notes: This species is quite unique and very striking when in bloom. It can become quite large and, as with the *R. menziesii*, has nodal spines and bristles on the stem. (MBSP, MDO)



FUSCHIA-FLOWERED GOOSEBERRY

Hydrophyllaceae Waterleaf family

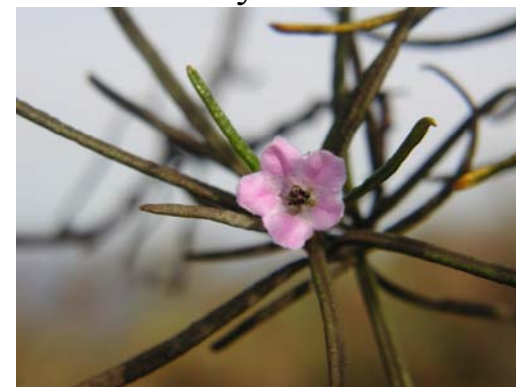


Eriodictyon altissimum

Status: 1B/SE/FE

Habitat: Chaparral, restricted to the Irish hills behind Los Osos and San Luis Obispo

Notes: Truly a treat when seen in its natural setting, this species has only been documented in six different locations in small numbers. Labeled Federally listed as rare and endangered, this plant emerges from mature stands of chaparral. (MDO)



INDIAN KNOB MOUNTAINBALM

Dicots



Nemophila menziesii

Habitat: Chaparral

Notes: Much different than the species found as an under story component of oak woodlands. Particularly, found light purple and lacks the black dot on each petal. (MBSP)



BABY BLUE EYES



Phacelia viscida

Habitat: Coastal scrub, chaparral

Notes: This plant is quite beautiful and as the name implies its leaves can be quite sticky. Found most commonly off the Islay creek trail in Montana de Oro State Park.



STICKY PHACELIA



Pholistoma auritum var. *auritum*

Habitat: Oak woodlands, riparian zones

Notes: The leaves of this species are quite unique; they are deeply lobed, they clasp the stem, and have tiny hooked prickles. (LOOR, MBSP, MDO)



FIESTA FLOWER

Lamiaceae Mint family



Monardella undulata

Status: 4/None/None

Habitat: Sand dunes, coastal scrub

Notes: This beautiful annual has the aroma of a strong mint. It is easy to identify by its signature wavy margined leaves. Rarely seen, this plant can be quite abundant during years of good rain. (MBSP, MDO)



CURLY-LEAVED MONARDELLA



Salvia columbariae

Habitat: Chaparral, coastal scrub

Notes: This small annual can be seen in great abundance in years of good rain. This is a very unique sage in that it has a dense, soft spike of blue flowers, and the leaves are deeply lobed. (MBSP, MDO)



CHIA



Salvia mellifera

Habitat: Coastal scrub, chaparral

Notes: A very common shrub found in the coastal scrub and chaparral. The leaves are firm and have a strong sage smell to them. The flowers can be white, pale blue, or lavender. (LOOR, MBSP, MDO, MSSP)



BLACK SAGE

Dicots



Salvia spathacea

Habitat: Oak woodland, coastal scrub, chaparral; can be open or shady

Notes: This species is quite sticky to the touch as well as sweet smelling when compared to other salvias. If you carefully remove a flower from the plant, you can taste the sweet nectar that is a favorite of hummingbirds. (EB, LOOR, MBSP, MDO)



HUMMINGBIRD SAGE



Satureja douglasii

Habitat: Oak woodland, dense chaparral, coastal scrub

Notes: A common vine found in oak woodlands, this species has leaves that smell like a mint tea. (LOOR, MBSP, MDO)



YERBA BUENA



Stachys bullata

Habitat: Oak woodland, shaded coastal scrub, chaparral.

Notes: A common forb seen in oak woodlands, this species does not sting like other nettles. Their soft, hairy leaves are paired up and down the stem and the flower head is pink to magenta. When crushed the leaves emit an interesting and unfamiliar smell. (EB, LOOR, MBSP, MDO)



HEDGE-NETTLE

Lauraceae Laurel family



Umbellularia californica

CALIFORNIA BAY LAUREL

Habitat: Riparian areas, canyons, chaparral.

Notes: This large tree is a common overstory component of riparian areas as well as wooded slopes. The foliage is quite aromatic and can be used in cooking. The alternate leaves are long and slender. (LOOR, MBSP, MDO)

Lennoaceae Lennoa family



Pholisma arenarium

SAND FOOD

Habitat: Dunes, sandy areas.

Notes: This species is a root parasite common to various shrubs of the family Asteraceae. At first glance, this species looks fungus-like. (MBSP, MDO)

Malvaceae Mallow family



Malvella leprosa

ALKALI-MALLOW

Habitat: Alkaline soils

Notes: Considered by many as a noxious weed, this low growing plant is actually a thriving California native. The leaves are geranium-like and are slightly soft white. The flower is cream white and appears twisted or rolled up. (MBSP, MDO)

Dicots



Sidalcea malviflora



CHECKERBLOOM

Habitat: Open dry areas, mostly grasslands, road sides

Notes: A common roadside wildflower. They exhibit two types of leaves; dissected at the base and reduced entire near the flower. The flower itself can be quite variable. Look for a many pronged style emanating from the center of the flower. (MBSP, MDO)

Myricaceae Wax Myrtle family



Myrica californica



WAX MYRTLE

Habitat: Sand dunes, coastal scrub, riparian areas

Notes: This is a robust evergreen, mid-size tree. The leaves are a glossy green, scented, and crowded among the stem. The tip of the leaf is slightly pointed. (MBSP, MDO)

Nyctaginaceae Four O'Clock family



Abronia latifolia

SAND VERBENA

Habitat: Seashore, sand dunes

Notes: Typically found in the fore dunes of our region. The leaf is as long as it is wide and the flower heads themselves are yellow. This species and others in the same genus are mat-forming and can deal with the shifty nature of sand dunes. (MSSB, MDO)

Dicots



Abronia maritima

SAND VERBENA

Status: 4/None/None

Habitat: Sand dunes

Notes: The leaves are longer than they are wide and the flowers are typically a wine red. Forms a mat which helps stabilize coastal foredunes. (EB, MDO, MSSB)



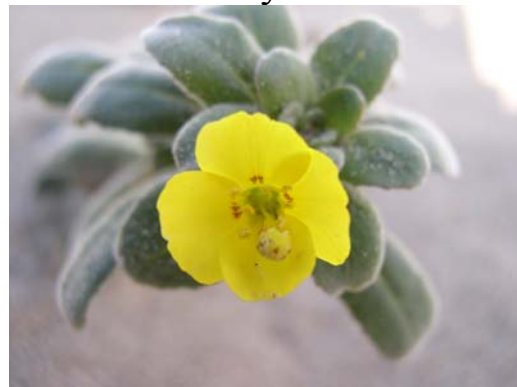
Abronia umbellata

SAND VERBENA

Habitat: Sandy areas, old stabilized dunes.

Notes: The flowers are a happy medium between pink and magenta. The leaves are thin and form a mat between the shrubs of maritime chaparral and dune scrub. (MBSP, MDO)

Onagraceae Evening Primrose family



Camissonia cheiranthifolia cheiranthifolia

BEACH EVENING PRIMROSE

Habitat: Sandy areas, coastal sand dunes

Notes: A very abundant and striking dune species. This plant forms a mat of gray-green leaves with bright yellow, 4-petaled flowers at the tips of each branch. (EB, MBSP, MDO, MSSB)

Dicots



Camissonia micrantha

SUN CUP

Habitat: Sandy areas, coastal sand dunes

Notes: The flowers are quite small, but similar to *C. cheiranthifolia*. It forms a center and projects itself outwards as it grows. The flowers are found at the tip of each projection. As the plant ages, the foliage begins to become red. (LOOR, MBSP, MDO, MSSB)



Camissonia ovata

SUN CUP

Habitat: Grasslands, heavy clay soils

Notes: The tip of the ovary (center of the flower) is slender; this species is the perennial bulb form of this genus. At full bloom, the petals appear to peel all the way back to show off its inner flower parts. The leaves are large, wavy and have hairy margins. (LOOR)



Clarkia purpurea quadrivulnera

FOUR-SPOT

Habitat: Grasslands, coastal scrub

Notes: This particular species is commonly seen around the Morro Bay estuary. The individuals found in our area do not exhibit the dark purple spot on each flower petal as it does elsewhere. The flower buds are erect, as is the plant. (LOOR, MBSP)

Dicots



Epilobium canum canum

Habitat: Chaparral, coastal scrub

Notes: This striking plant can be found growing above the chaparral. The deeply red flowers resemble a typical ornamental fuchsia. Commonly seen in late summer. (EB, MDO)



CALIFORNIA FUSCHIA



Oenothera elata hookeri

Habitat: Coastal sand dunes

Notes: This is a common species found in the dunes of the strand. Appears similar to *C. cheiranthifolia*, however, this plant is tall rather than sprawling. Another good characteristic is the 4 lobes on the stigma. (MDO, MSSB)



EVENING PRIMROSE

Orobanchaceae Broom-rape family



Orobanche fasciculata

Habitat: Root parasite, most often on *Artemisia sp.*, *Eriodictyon sp.*, and *Eriogonum sp.*

Notes: This root parasite can be identified by its branching nature and the dull, yellow flowers. The actual stem of the plant can be quite thick and can extend far into the soil. (MBSP)



CLUSTERED BROOM-RAPE

Paeoniaceae Peony family



Paeonia californica

PEONY

Habitat: Chaparral, coastal scrub, shady areas

Notes: A very unique species, the Peony can be easily identified by its random segmentation of the leaves. The deep red flowers are rather unique, as it is quite fleshy and barely opening. (LOOR, MBSP, MDO)

Papaveraceae Poppy family



Dendromecon rigida

BUSH POPPY

Habitat: Open slopes, burn sites

Notes: This tall shrub is typically found after a fire has occurred in chaparral. As the chaparral begins to mature this species begins to decline in abundance. The flowers are yellow, poppy-like, and are readily seen when in full bloom. (MBSP, MDO)



Eschscholzia californica

CALIFORNIA POPPY

Habitat: Grasslands, coastal scrub, roadsides

Notes: The California poppy is not only our state flower but also is the most recognized. When in great abundance, this species can light up an area with brilliant orange colors. (EB, MBSP, MDO, MSSB)



Dicots



Platystemon californicus

Habitat: Grasslands, chaparral, burned slopes

Notes: Not commonly seen in our area, yet in 2005, after anomalous rains, this species was seen in a mature stand of chaparral in Morro Bay State Park. The flowers are poppy-like and alternate with white and yellow petals. (MBSP)



CREAM CUPS

Platanaceae Sycamore family



Platanus racemosa

WESTERN SYCAMORE

Habitat: Riparian areas, oak woodland.

Notes: This tree is easily identified by its smooth almost white trunk and its signature 5-lobed palmate leaves. Most habitats containing this species are considered sensitive due to increased destruction of riparian zones and mature woodlands. (LOOR, MBSP, MDO)

Plumbaginaceae Leadwort family



Limonium californicum

Habitat: Sand dunes, salt marsh

Notes: Its exotic relative, *L. perezii*, which is similar, is commonly seen as roadside landscape. The species shown here is the native. Commonly seen sprouting in and around the Morro Bay estuary. (MBSP)



SEA LAVENDER

Polemoniaceae Phlox family



Eriastrum densifolium densifolium

ERIASTRUM

Habitat: Coastal sand dunes, open slopes

Notes: This eriastrum is a common plant found where the soil is very sandy and the vegetation is rather open. The blue flowers are quite obvious and rather showy. Our particular subspecies has leaves that are not lobed and are sparsely hairy. (MBSP, MDO)



Navarretia squarrosa

SKUNKWEED

Habitat: Chaparral, open disturbed areas

Notes: This distinct species is quite aromatic; the smell is similar to a skunk, yet less offensive. The flower heads are harmless, yet look quite painful. The flowers are a deep to light blue and the stamens do not protrude from the flower tube. (MDO)

Polygonaceae Buckwheat family



Chorizanthe angustifolia

SPINEFLOWER

Habitat: Sandy areas

Notes: This spine-flower is a common groundcover seen in sandy areas around Morro Bay. If you look close enough, you will see hooked spines on the ends of the involucres and the flowers are barely open. (LOOR, MBSP, MDO)

Dicots



Eriogonum fasciculatum

Habitat: Coastal scrub

Notes: This buckwheat occurs on the fringes of the estuary at Cerro Cabrillo. The leaves are linear, short, and rolled under. The flower head is composed of tiny pink to white flowers. (MBSP)



CALIFORNIA BUCKWHEAT



Eriogonum parvifolium

Habitat: Sand dunes, sea bluffs

Notes: This buckwheat is easily distinguished by its short, triangular, and fleshy leaves. The undersides of the leaves are also densely hairy. Their small white (or pink) flowers form a dense umbrella above the foliage. (EB, LOOR, MBSP, MDO, MSSB)



COASTAL BUCKWHEAT



Mucronea californica

Status: 4/None/None

Habitat: Chaparral, coastal scrub; sandy areas

Notes: A common groundcover found in the sandy substrates surrounding the estuary. If you look closely there are 2-3 flowers per involucre, separating this from *Chorizanthe sp.* (LOOR, MBSP, MDO)



CALIFORNIA SPINEFLOWER

Dicots



Pterostegia drymarioides

Habitat: Shady moist environments

Notes: A groundcover that seems to persist during the rainy season. The flowers are too small to observe with the naked eye, but the best distinguishing mark is the opposite, heart-shaped leaves covering the ground. (EB, LOOR, MBSP, MDO)



PTEROSTEGIA

Portulacaceae Purslane family



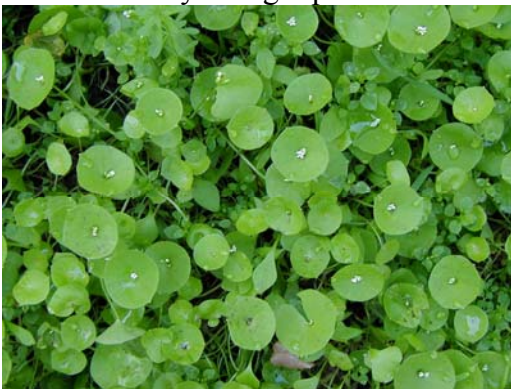
Calandrinia ciliata

Habitat: Grasslands, sandy areas

Notes: This annual wildflower is common in most years. The leaves are slightly fleshy and the small yet bright pink flowers are readily visible. (EB, LOOR, MBSP, MDO)



RED MAIDS



Claytonia perfoliata

Habitat: Oak woodlands, moist shaded areas

Notes: Miner's lettuce is a common understory component of oak woodlands. It is slightly fleshy and forms large disks from which the tiny flower stalks emerge. In addition, as the name implies, this species is edible as a green. (EB, LOOR, MBSP, MDO)



MINER'S LETTUCE

Primulaceae Primrose family



Dodecatheon sp.

SHOOTING STAR

Habitat: Grasslands

Notes: A very unique wildflower. The leaves are basal and a single flower stalk emerges from the center. The flowers are pointed down with the pink petals pointed to the sky. The stamens are fused around the stigma which points downwards. (MBSP)

Ranunculaceae Buttercup family



Delphinium parryi

LARKSPUR

Habitat: Chaparral

Notes: A brilliant flower by the authors observed only once in Morro Bay State Park. The flower is deep blue with a spur coming out of the back of the flower. (MBSP)



Ranunculus californicus

CALIFORNIA BUTTERCUP

Habitat: Grasslands, oak woodlands

Notes: A common grassland wildflower. All parts of the flower are bright yellow; there are many petals per flower as well as many stamens. The leaves are generally lobed and relegated to the base of the plant. (EB, LOOR, MBSP, MDO)

Dicots



Thalictrum fenderli

Habitat: Riparian areas, moist shaded slopes

Notes: The easiest way to identify meadow rue is to crush the foliage, the smell is quite rank. The flowers are a large panicle of white to green flowers. (MDO)



MEADOW RUE

Rhamnaceae Buckthorn family



Ceanothus cuneatus

Habitat: Chaparral, rocky dry slopes

Notes: This dominant component of our maritime chaparral can be quite rough to walk through. In the winter, the ends of each branch are covered in small white (slightly purple) flowers that are quite fragrant. (LOOR, MBSP, MDO)



BUCKBRUSH



Ceanothus griseus

Habitat: Coastal scrub, closed cone pine forests

Notes: A common shrub lining the riparian areas of Montana de Oro State Park. The leaves are evergreen and much larger than *C. cuneatus*. The flowers form dense clusters of deep blue. More common in northern California. (MDO)



CARMEL CEANOTHUS

Dicots



Rhamnus californica californica

Habitat: Coastal scrub, chaparral, oak woodland

Notes: Common in a variety of habitats found in our area. The veins of the leaves are quite apparent as are the red to black berry which form after flowering. Our subspecies of coffeeberry has leaves that are dark green on top and yellow on the undersides. (LOOR, MBSP, MDO)



CALIFORNIA COFFEEBERRY



Rhamnus crocea

Habitat: Coastal scrub, chaparral, oak woodlands

Notes: This species is commonly mistaken for a *Ceanothus sp.* because of the reduced nature of the leaves. However, this species can be separated from *Ceanothus sp.* by the red berries which form after flowering. (LOOR, MBSP, MDO)



SPINY REDBERRY

Rosaceae Rose family



Adenostoma fasciculatum

Habitat: Chaparral, dry slopes.

Notes: A very common plant found in chaparral. This species forms dense thickets that are almost impassible. The leaves are much reduced and clustered on the stem, and the white flowers form on the ends of the branches. (LOOR, MBSP, MDO)



CHAMISE

Dicots



Heteromeles arbutifolia

Habitat: Chaparral, oak woodlands

Notes: A very striking tree when the bright berries can be viewed. The leaves are quite leathery and the margins are sharply toothed. Its form can vary from a shrub to a tree. (EB, LOOR, MBSP, MDO)



TOYON



Holodiscus discolor

Habitat: Oak woodland, riparian zones

Notes: This beautiful plant is a particular favorite of a few botanists in our county. Overall, this shrub is more or less hairy, the leaves are toothed, and the panicles of clustered white flowers hang down and are quite striking. (MDO)



OCEANSPRAY



Horkelia cuneata

Habitat: Old sand dunes, coastal scrub, chaparral

Notes: Horkelia is a common understory component of many habitats in our area. It forms a dense mat in open sand. The leaves have a slight resin-like smell to them when crushed. (LOOR, MBSP, MDO)



HORKELIA

Dicots



Potentilla anserina pacifica

Habitat: Perennially moist areas, coastal sand dune swales

Notes: This species makes up most of the wetland vegetation between the back and fore dunes of the Morro Strand State Beach. The flowers are bright yellow and are readily visible. (MSSB)



CINQUEFOIL



Prunus fasciculata* var. *punctata

Status: 4/None/None

Habitat: Sandy areas, maritime chaparral, oak woodlands

Notes: This species is common to creosote bush woodlands, yet we have a coastal low growing variety. The stems are rigid and almost spine-like and the much reduced leaves are hairless and the margins are entire. Threatened due to coastal development. (MBSP, MDO)



DUNE ALMOND



Prunus ilicifolia ilicifolia

Habitat: Canyons, slopes, chaparral

Notes: The leaves of the Islay berry are quite distinct with their shiny, evergreen color and the wavy nature they exhibit. The plant itself can be a dense shrub or a small tree and produce red berries after flowering. (LOOR, MDO)



ISLAY BERRY

Dicots



Rosa californica

Habitat: Moist areas, oak woodlands

Notes: Our native rose, this plant is quite beautiful when in bloom. It forms a thicket and the stems contain spines that are strongly curved. This species can be found in most oak woodlands and riparian areas as an understory component. (LOOR, MBSP, MDO)



CALIFORNIA ROSE



Rubus parviflorus

Habitat: Riparian areas, moist slopes

Notes: This species is rather obvious with its erect stature, five lobed palmate leaves, and its pink flowers. The fruit is similar to raspberries except they are more puberulent. This species is closely related to our California blackberry. (MDO)



THIMBLEBERRY



Rubus ursinus

Habitat: Riparian zones, shrublands, oak woodlands

Notes: A common thicket found in riparian zones and other perennially moist areas. To distinguish this species from poison oak (both have leaves of three) look for leaves of three and prickles on the stem. The fruit are very much edible. (EB, LOOR, MBSP, MDO)



CALIFORNIA BLACKBERRY

Salicaceae Willow family



Populus balsamifera trichocarpa

Habitat: Riparian areas

Notes: The leaves of *P. balsamifera* has finely serrated margins and the overall leaf shape is generally round to oval. (EB, LOOR, MBSP, MDO)



BLACK COTTONWOOD



Populus fremontii fremontii

Habitat: Riparian areas, dune swales

Notes: In contrast to *P. balsamifera*, the leaves of this species are more or less triangular and the margins are coarsely serrated. This species is a common component in many drainages and riparian areas. (EB, LOOR, MBSP, MDO, MSSB)



FREMONT COTTONWOOD



Salix lasiolepis

Habitat: Riparian areas

Notes: This is probably the most common species found lining creek sides and riparian areas. They have long slender leaves that are green on the upper surface and white to light green on the bottom. (EB, LOOR, MBSP, MDO, MSSB)



ARROYO WILLOW

Scrophulariaceae Figwort family



Antirrhinum multiflorum

Habitat: Rocky outcrops, disturbed areas

Notes: Seen in Montana de Oro State Park on the rocky outcrops near Islay Creek. This perennial (sometimes annual) has calyx lobes that are unequal and pale pink flowers that wither on the lower lip. Overall, this plant is quite sticky and hairy. (MDO)



SNAPDRAGON



Antirrhinum nuttallianum subsessile

Habitat: Coastal dunes and rocky outcrops.

Notes: Historically, this species has only been documented in our area on White's Point. The plant is rather sticky all over and the small, lavender-blue flowers are quite striking. (MBSP, White's Point)



SNAPDRAGON



Castilleja affinis affinis

Habitat: Chaparral and coastal scrub; root parasite

Notes: This beautiful and elegant species can be found on the roadsides of Montana de Oro State Park. Because of its soft nature and beautiful colors, this species aptly gets the name "Indian paintbrush." This is the most common species of the paintbrushes in our region. (MBSP, MDO)



INDIAN PAINTBRUSH

Dicots



Castilleja densiflora obispoensis

Status: 1B/None/None

Habitat: Grassland; root parasite

Notes: This subspecies of *C. densiflora* is endemic to the native grasslands around the San Luis Obispo area. The SLO paintbrush has white tipped bracts and yellow tipped corollas. Most often occurring in open patches of grasslands. (EB, MBSP)



SAN LUIS OBISPO PAINTBRUSH



Castilleja exserta exserta

Habitat: Grasslands and coastal scrub; root parasite.

Notes: Probably the most showy of all the Indian paintbrushes, the *C. exserta* adds a florescent purple to the landscape. This species can be single stemmed or found with many branches. (LOOR, MBSP, MDO)



PURPLE OWL'S CLOVER



Castilleja foliolosa

Habitat: Rocky outcrops, chaparral

Notes: In our area, this plant is only found on Portola Point in the Morro Bay State Park. An interesting note about this species is that it is commonly colored orange-red. However, the coastal conditions are thought to cause the bright yellow coloration. (MBSP)



WOOLLY INDIAN PAINTBRUSH

Dicots



Collinsia heterophylla

Habitat: Diverse habitats

Notes: A common and striking wildflower occurring in Morro Bay State Park. The flowers are quite unique. The flowers are mostly white with a purple-tinged lower petal whorled around the stem. (MBSP)



CHINESE HOUSES



Cordylanthus maritimus maritimus

Status: 1B/SE/FE

Habitat: Coastal salt marshes

Notes: This rare species, according to the venerable Robert F. Hoover, was once found all over the shores of Morro Bay. Today, it has been found only in small patches on the Sandspit, Sweet Springs, and Shark's Inlet. The plant is similar to a paintbrush, except the tip of the flower beak is closed. (MDO)



SALT MARSH BIRD'S-BEAK



Linaria canadensis

BLUE TOAD-FLAX

Habitat: Diverse habitats

Notes: After the anomalous rains of 2005, this species was commonly seen widespread. This small annual has multiple small, violet-blue flowers each containing a strongly curved spur on the back. (EB, LOOR, MBSP, MDO)

Dicots



Mimulus aurantiacus

Habitat: Rocky outcrops, coastal scrub, chaparral

Notes: A very common shrub found in the surrounding hills. The plant is sticky throughout, as are the flowers. Some people believe the inside of the flower resembles a monkey's face, hence the name "monkeyflower." (EB, LOOR, MBSP, MSSB, MDO)



STICKY MONKEYFLOWER



Mimulus cardinalis

SCARLET MONKEYFLOWER

Habitat: Riparian areas, stream banks

Notes: A small perennial which has only been seen in a drainage near the twin bridges on South Bay Blvd. The flower is red and resembles a typical monkeyflower. The leaves have 3-5 palmate veins. (MBSP)



Mimulus guttatus

Habitat: Moist areas, rocky outcrops

Notes: This annual is usually seen when there is perennial moisture. The flowers are bright yellow and inside the throat are red spots, which is a good character to positively identify this species. (MBSP, MDO)



MONKEYFLOWER

Dicots



Scrophularia californica californica

Habitat: Riparian areas, chaparral, roadsides

Notes: This plant is distinguished by its flower. It appears like two people are watching an opera from the balcony, because of the top lid and the two yellow stamens. From this, it is less commonly known as the “Figaro plant.” The plant itself is erect and rarely exhibits intricate branching. Their triangular leaves are opposite each other and have slightly serrated edges. (EB, MBSP, MDO)



FIGWORT

Solanaceae Nightshade family



Solanum douglasii

Habitat: Coastal scrub, chaparral, oak woodlands

Notes: This native member of the potato family can be found in most habitats in our area. It is recognized by its white flowers; their white petals form a slight ring around yellow stamens, that are fused around the ovary. (EB, LOOR, MBSP, MDO, MSSB)



NIGHTSHADE



Solanum xanti

Habitat: Oak woodland, coastal scrub, chaparral

Notes: Purple nightshade is very easy to identify due to its petals fused around the stamens and ovary. The flowers can be dark blue to lavender. The leaves are simple and are also softly pubescent. (LOOR, MBSP, MDO, MSSB)



PURPLE NIGHTSHADE

Verbenaceae Vervain family



Verbena lasiostachys var. *lasiostachys*

VERVAIN

Habitat: Open, dry, or moist areas

Notes: Resembling a plantain, this plant is soft hairy overall with a stalk of small blue to lavender flowers. Commonly seen spread out in open patches of grasslands and coastal scrub. (MBSP, MDO)

Violaceae Violet family



Viola pedunculata

JOHNNY JUMP-UPS

Habitat: Grasslands, chaparral, oak woodlands

Notes: A very common wildflower seen emerging in the early spring. Can form dense patches, this species has unequally lobed yellow flowers with brown streaking in the inner portion. (EB, LOOR, MBSP, MDO)

Monocots

Iridaceae Iris family



Iris douglasiana

Habitat: Grasslands near the coast

Notes: This gorgeous flower was once found near Hazard Canyon, but is now thought to be extirpated. The flowers are deep lavender, with the petals and sepals each forming a whorl of 3. The leaves are long and slender arising from rhizomes, not bulbs. (MDO)



IRIS



Sisyrinchium bellum

Habitat: Grasslands and oak woodlands.

Notes: The grassy looking nature of this plant combined with its deep purple flowers is the basis for its common name. In years of good rain, grasslands near the coast explode with the purple from this flower. In dense patches, white mutants can also be seen. (EB, LOOR, MBSP, MDO)



BLUE-EYED GRASS

Juncaceae Rush family



Juncus acutus leopoldii

Status: 4/None/None

Habitat: Coastal dune swales and salt marshes

Notes: This large and tufted species can be seen on the fringes of the estuary as well as in between the back and fore dunes of the Morro Strand State Beach. The spiny tips of the slender yet thickly rounded leaves can be dangerous to the eyes. (MBSP, MSSB)



SPINY BULRUSH

Liliaceae Lily family



Bloomeria crocea

Habitat: Grassland and oak woodlands.

Notes: A very striking wildflower seen in grasslands. The petals are bright golden yellow with a brown stripe down the middle of each one. The overall look of the plant is a single leaf and a single stalk of many flowers arising from the ground. (MBSP, MDO)



COMMON GOLDENSTAR



Calochortus clavatus var. *clavatus*

Status: 4/None/None

Habitat: Rocky outcrops, chaparral; commonly found on serpentine

Notes: This beautiful and uncommon lily can be found on Black Hill. This golden yellow flower is quite large and is seen atop a zigzag stem. The inside of the flower has small hairs surrounding a nectary and deep purple anthers. (MBSP)



CLUB-HAIRED MARIPOSA LILY



Chlorogalum pomeridianum

SOAP PLANT

Habitat: Grasslands, coastal scrub, chaparral, coastal bluffs.

Notes: This plant can be recognized by its wavy margined leaves. The flowers of this plant only open in the evening and usually close again by morning. The bulb of this plant can be used as lather, hence the name soap plant. (EB, MBSP, MDO)

Monocots



Dichelostemma capitatum capitatum

BLUE-DICKS

Habitat: Grasslands, coastal scrub, chaparral, oak woodlands

Notes: A very abundant species seen in the springtime. Typically described as a single stalk of bell shaped purple flowers radiating from a single point. In addition, this species usually has 2-3 leaves emanating from the ground. (EB, LOOR, MBSP, MDO)



Fritillaria biflora

CHOCOLATE LILY

Habitat: Grasslands, rocky outcrops

Notes: Very unique and striking species. The plant arises from a bulb and as it begins to flower the stem begins to curve downwards. The chocolate brown (sometimes greenish purple) flowers hang down like bells. (MBSP, MDO, Morro Rock)



Smilacina racemosa

FALSE SOLOMON'S SEAL

Habitat: Riparian areas, moist slopes, oak woodlands

Notes: This species can be seen lining Coon Creek in Montana de Oro State Park. The leaves are large, thick, and they alternate up the stem. The flowers are white and very small. (LOOR, MDO)

Monocots



Trillium angustipetalum

WAKEROBIN

Habitat: Riparian areas, chaparral, foothill woodlands

Notes: *T. angustipetalum* can be found lining Coon Creek in Montana de Oro State Park. A very interesting looking species; there are three dark spotted leaves and where they come together the flower can be seen. The petals are purple and slender. (MDO)



Yucca whipplei



YUCCA

Habitat: Coastal scrub, chaparral, and dry exposed slopes.

Notes: Not found in Morro Bay. Commonly seen in the Santa Lucia range especially in the hills surrounding Cal Poly, San Luis Obispo University. Walking through a stand of these species can be quite painful due to the sharp pointed tips on the leaves.



Zigadenus fremontii

DEATH CAMAS

Habitat: Grasslands, rocky outcrops, oak woodlands

Notes: The name “Death Camas” was derived for this genus by its original discoverers, the Lewis and Clark expedition. They ingested the bulbs and became quite ill. This particular species has small white flowers that are arranged in a panicle. If the stamens are shorter than the petals, then it is *Z. fremontii*. However, if the two structures are equal then it is the less common species *Z. micranthus* var. *fontanus*, also known to be in our area. (MBSP, MDO)

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