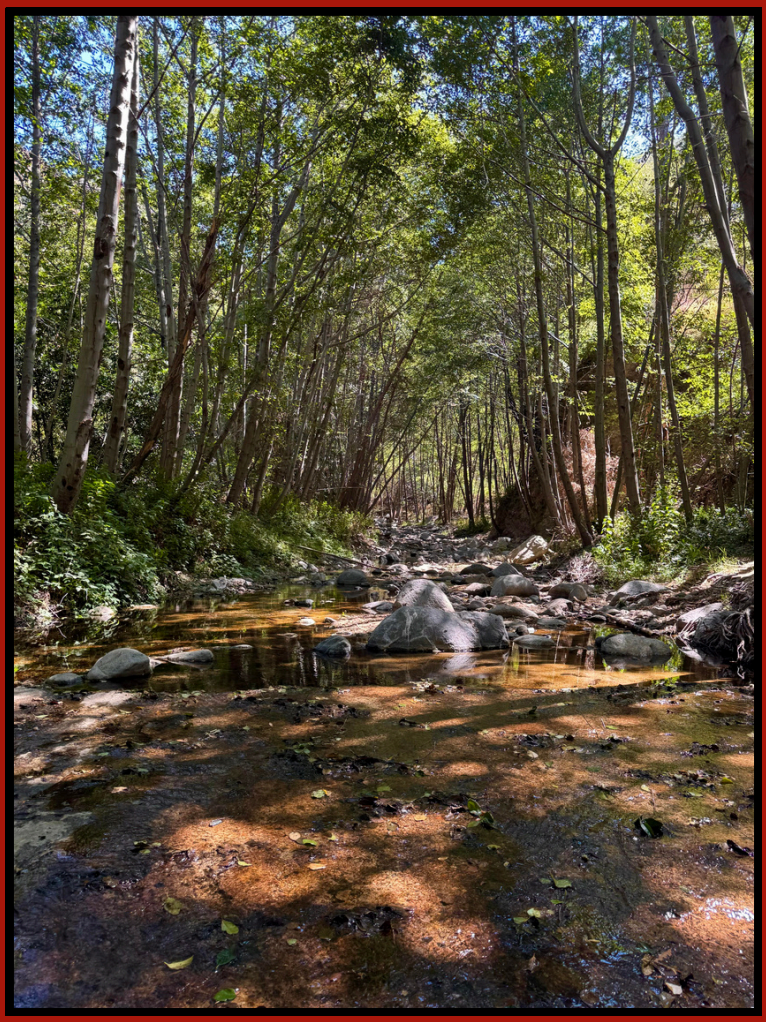


Plant Almanac

California Native Plants

Nature for All x Test Plot



Arroyo Seco (Gabrielino National Recreation Trail)

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Acknowledgements

This plant almanac was written by Nature for All's third cohort of Outdoor Education Apprentices.

We would like to start by acknowledging that we debated including the Indigenous names of plants. After much conversation and deliberation amongst the authors, we ultimately decided it would be immensely disrespectful not to include the ancestral names of our plant relatives. Because people, place, and plants are intertwined as much as past, present, and future, we thought it would be the best way to honor all California Native people, especially those individuals who breathed life into every syllable - those who have never been recognized.

Our gratitude goes to The San Gabriel Band of Mission Indians led by the Gabrieleno Tongva Tribal Council for their guidance and holding conversation about nuance, context and misapproriation.

We, the authors, would like to stress that certain plants were known by multiple names, some plant names are debated amongst linguists and tribal members, and some names have been lost to history. While we have curated this almanac with much integrity, this source is not definitive in this regard.

We would also like to thank Jen Toy of TestPlot, who brought this project to our attention, and for her oversight. Last but not least, we would like to thank our supervisors: Julio Soria, Jorge Solis-Cortez, and Brenda Kyle, who have worked alongside the authors throughout the process of writing this almanac in drafting, proofreading, and checking the quality.

We hope this almanac inspires you!

Environmental Careers Pathways



Introduction

What is Ecological Restoration?

Ecological Restoration is the process of improving a disturbed or damaged ecosystem. As part of greater conservation efforts, restoration aims to restore the functionality of a damaged ecosystem. There are many benefits to ecological restoration, such as regaining ecosystem services (e.g., clean air and water), improving mental health for local communities, and expanding green spaces.

One of the issues ecological restoration seeks to address is habitat fragmentation. Habitat fragmentation occurs when activities such as deforestation and urban development divide large habitat patches into smaller sections, which exposes the inhabitants to a variety of detrimental conditions, such as genetic isolation, edge effects, and more, all of which increase the risk of extinction. Habitat loss is one of the driving forces of decreasing biodiversity across the world, but ecological restoration seeks to remedy the issue by restoring the interconnectedness of ecosystems. This increases habitat connectivity, which is a measure of how well connected suitable patches of habitat are for wildlife to move through. In this way, and others, ecological restoration not only supports local ecosystems and communities of people, but also wildlife and other distant ecosystems that some species travel to.

Mediterranean Climate

One of the things that makes Southern California so unique is its climate. It is one of five regions in the world with a Mediterranean climate, which is mostly characterized by cool, moist winters and hot, dry summers, usually located on the western coasts of landmasses between 30 and 45 degrees north and south of the equator. This combination is conducive to species biodiversity, and as a result, Southern California is also one of 36 biodiversity hotspots in the world

Importance of Host Plants

Host plants refer to plants on which specific butterfly and moth species rely for survival. The level of reliance can vary for species, with some species being tied to a specific plant and others relying on a broader group of plants. A good example of host plants in Southern California is the Milkweeds. Western Monarch butterflies migrate up and down the West coast, laying their eggs on Milkweeds, and they return to Southern California/Mexico to hibernate. When those eggs hatch, the Milkweed serves as the caterpillars' only food source. There are many other examples of butterflies and moths that are reliant on a specific group of plants or maybe even a single plant. For this reason, habitat destruction/ fragmentation is one of the greatest threats to various butterfly and moth species.

What is Ethnobotany?

Ethnobotany is the study of how humans and plants have interacted with each other throughout history and in different societies. Specifically, how different cultures made use of native plants in their respective regions for different purposes, like food, medicine, or art. Indigenous groups often have the most accumulated knowledge of plant uses because of the generations spent with the plants and passing down the knowledge.

Understanding the ethnobotanical uses of a plant is vital for understanding its cultural significance and why certain plants are sacred to some groups. Moreover, it highlights the importance of protecting them and preserving the knowledge accumulated by indigenous groups. Unfortunately, there is some knowledge that has been lost as indigenous voices have historically been silenced and ignored by the powers that be. As a result, despite determined research, some plants covered in this almanac will be lacking indigenous names and/or ethnobotanical uses.

DISCLAIMER: Ethnobotany is here for educational purposes only. Please consult your own physician on any of these usages in regards to your own symptoms or medical condition.

Land Acknowledgement

We would like to acknowledge that we are on the traditional land originally and still cared for by the Tongva, Tataviam, Serrano, Kizh, and Chumash Peoples. We pay our respects to their elders both past and present as they continue their stewardship of these lands and waters. We acknowledge that settler colonization resulted in land control, disease, slavery, relocation, broken promises, genocide, and multigenerational trauma. This acknowledgment demonstrates our responsibility and commitment to truth, and healing and to elevating the stories, culture, and community of the original inhabitants of Los Angeles County. We are grateful to have the opportunity to live and work on these ancestral lands. We are dedicated to growing and sustaining relationships with Native peoples and local tribal governments.



Red Rock Canyon Park (Red Rock Trail)

Meet the Authors



Dylan Chau

Born and raised in the San Gabriel Valley, Dylan loves anything plants and animals, having a special interest in conservation. On his free time he keeps aquariums and likes to play sandbox games.



Isabella Muro

Local to Pasadena, Isabella is an outdoor enthusiast looking to make an impact in environmental sustainability, native plant communities restoration, and natural resource conservation.



Charlotte Maddela

They are from Los Angeles. Charlotte loves waterfowl, small mammals, and studies wildlfie connectivity.



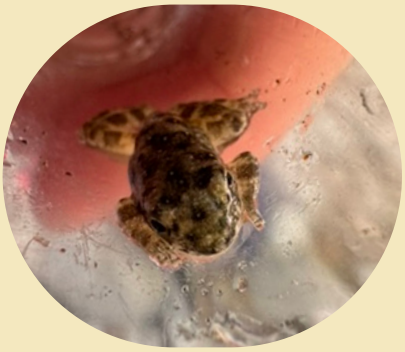
Fairuza Hidalgo

Born and raised in East Los Angeles. Spends time outdoors observing and studying wildlife & hiking new trails. Hopes to bring nature knowledge back to her neighborhood and to other minorities & communities.



Jonathan Campos

From Southeast LA, Jonathan Studied Environmental Science & Resource Management at CSU Channel Islands and graduated in 2025. His hobbies are reading, hiking, and learning about native plants



Nico Cho

They are from Greater Los Angeles. Nico only hopes this almanac will be of much help to the reader.

Common Yarrow

Chumash Name: Steleq' 'a' 'emet, Masteleq 'a pistuk

Achillea millefolium

Horticulture / Care

Full sun to part shade plant and once established can be drought tolerant. Water is appreciated and can extend bloom time and mitigate summer dormancy. Can tolerate many different soil types. Benefits from division every other year, performed by digging the plant out and splitting the different segments to become a new plant. It reseeds and spreads quickly, making it a good groundcover plant. Can mow every 4-6 weeks during warm months. The flower stalks get woody with age and should be cut right back to the ground after they are spent. Many different flower color varieties (most common being white) are available, and many different leaf shapes/growth forms.

Flower Close up



Hosted Insects

Painted Lady butterfly (*Vanessa cardui*)

Various Moths

Restoration Notes

Pioneer species, regenerates from rhizomes after fire. Resistant to deer grazing. Pollinator and beneficiary predator insect (insects that prey upon pest insects) attractant. Plants are good buffers against fire as leaves are not highly flammable. Western yarrow scored lowest for potential ignitability in a study of 14 species from boreal forests, where ignitability was measured as time to ignition. Can be used as a lawn subsitute and/or groundcover.

Reproduction

Seed (insect pollination), Rhizome

Dormancy

Evergreen; Summer Drought Deciduous



Ethnobotany

Known by many for its ability to slow or stop bleeding. Many Indigenous people across North America used this as a pain reliever, for fevers, to treat headaches, improve sleep, and as a flavoring for foods. Its anti-inflammatory properties are also recognized, and interestingly, it has also been used to treat ear infections in domestic pets. One of, if not the most amount of medicinal uses of a native plant by Native Americans.

Deerweed

Tongva Name: Mighali

Acmispon glaber

Horticulture

These plants love full sun and can tolerate most soils. Can be cut back in late summer or early fall to stimulate new growth. These plants typically live around 5-10 years, but some individuals have been found to live up to 20 years. Seed germinates relatively well, reaching flowering age in their second year. They maintain a long, arching, willowy branching appearance, and water during late spring can extend bloom period and leaf retention. However, do not add water during the heat of summer once established as they are not summer water-adapted. Leaf drop is normal during summer/drought conditions, and they will return with the winter rains.

Flower Close up



Hosted Insects

An important host plant for a variety of Lycaenid (Gossamer-winged butterflies, Blues) butterflies (up to 27 different species)

Restoration Notes

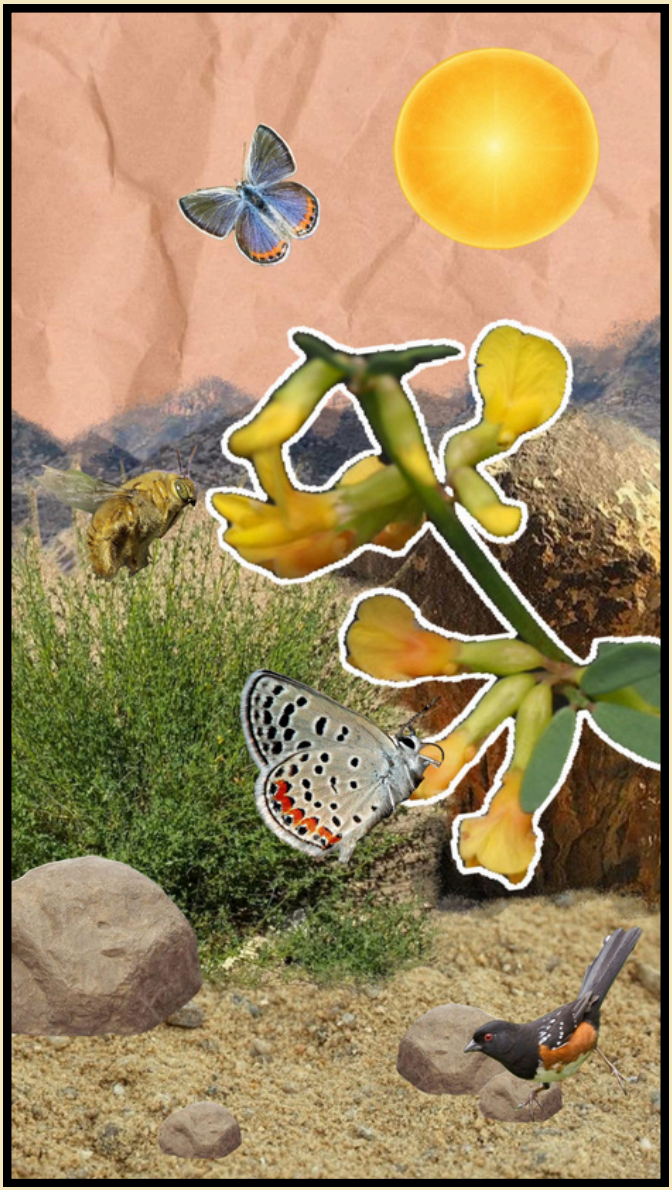
Pioneer species. Nitrogen fixing, fire follower, can dominate a scarred landscape for up to 5-10 years until larger plants mature and shade it out. Valuable food source for deer, especially in drought years or after fire. This is an important plant for native bees. Additionally, a vital forage plant for many Lycaenid (Gossamer-winged butterflies, Blues) butterflies, including the critically endangered Palos Verdes blue butterfly. Summer water will significantly reduce seedling survivability.

Reproduction

Seed (insect pollination, especially by bees)

Dormancy

Summer Drought Deciduous, Winter deciduous



Ethnobotany

Different tribes have used this plant for a variety of tasks: the decoction of foliage for coughs (Costanoan), food for livestock (Diegueno), fiber for building materials (Costanoan), for house construction (Costanoan and Cahuilla); roots for soap (Diegueno), infusion of plant taken to build blood (Mahuna), fortifier during and after pregnancy (Tongva)

Western Pearly Everlasting

Maliseet Name: Tomawey

Anaphalis margaritacea

Horticulture

Drought-tolerant, but occasional summer will extend bloom period and mitigate summer dormancy. Best in full sun but can tolerate partial shade. It is an herbaceous perennial that spreads through rhizomes underground, forming stands of erect 24" plants. Most soils fit this plant with a preference for sandy/gravely substrates. If kept irrigated in fertile soil this plant can overtake slower growing natives, control by taking out plantlets that spread from base

Flower Close up



Hosted Insects

American painted lady butterfly (*Vanessa virginiensis*)
Painted lady butterfly (*Vanessa cardui*)
Various moths

Restoration Notes

Dioecious (that is, individual flowers are either male or female, but only one sex is to be found on any one plant), thus both male and female plants must be grown if seed is required. Resistant to deer grazing. Mid to late summer bloomer. Great pollinator plant. Fire follower.

Reproduction

Seed (insect pollinated), Rhizome

Dormancy

Summer drought deciduous, Winter deciduous



Ethnobotany

Used by many Indigenous tribes across North America due to its large range. Common uses for this species included poultices for treatment of sores, boiling in tea or a steam bath for rheumatism, or smoked to treat colds. The plant is also among many native species used as a tobacco substitute. The flower heads are nice in dried flower arrangements.

California Sagebrush

Tongva Name: Horuuvar, Pawots
Chumash Name: We'wey
Artemisia californica

Horticulture

Looks happier with the occasional deep summer watering. Sagebrush tends to grow long bare stems with age and a hard pruning in early winter will keep it more compact. Pinching tips throughout the season will also faciliate this. Best in full sun by a border where people can brush up and smell the highly aromatic leaves and happy in most soil types (except serpentine) but prefers sandy soil and slopes. Attractive prostrate forms exist that can be used as a ground cover.

Flower Close up



Hosted Insects

Various moths

Restoration Notes

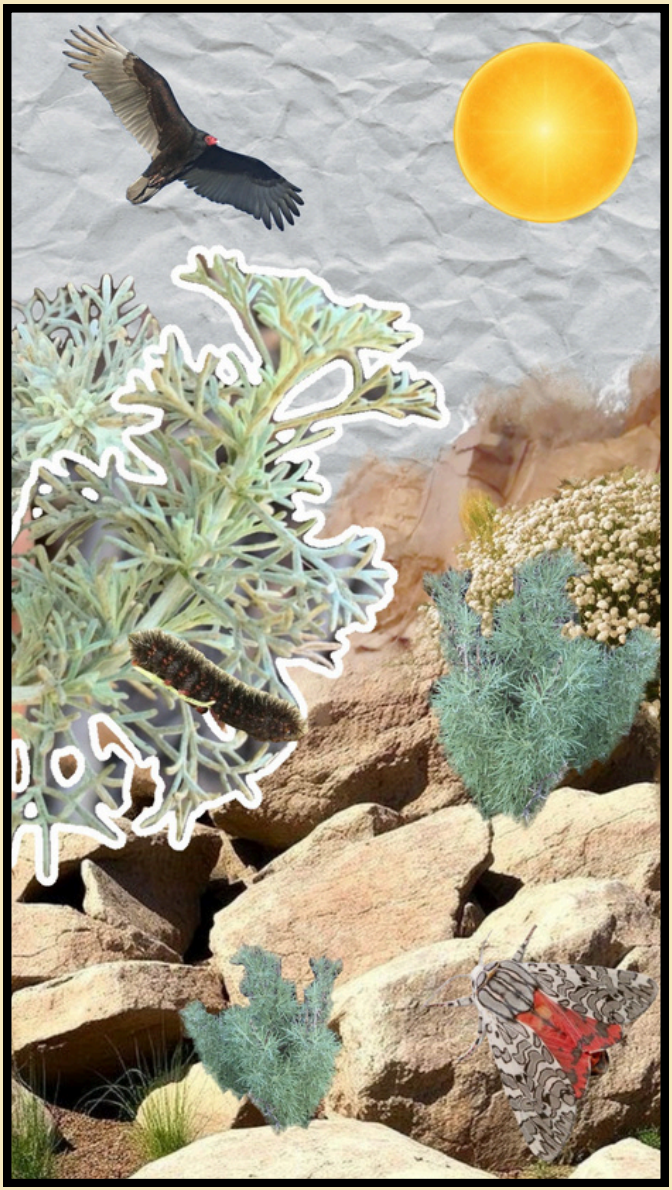
Pioneer species, Indicator species for restoration due to its importance and widespread nature in the sage scrub habitat. Found co-dominantly with California Buckwheat and Black Sage (plant friends!), High flammability index due to the volatile chemicals of its leaves, summer drought, deciduous habit, and fine-textured leaves.

Reproduction

Seed (Wind pollination and dispersal)

Dormancy

Summer Drought
Deciduous/Dormant



Ethnobotany

Leaves of California sagebrush have been used for smoking, in sweat-houses, and various other purposes. The Cahuilla used the plant to ensure the proper maturation of girls into women. It is said to stimulate the uterine mucosa, ensuring rapid childbirth and, if regularly consumed as a tea before the onset of each menstruation, to prevent menstrual cramps and alleviate menopausal trauma. Fresh or dried leaves were chewed to alleviate a cold. The Costanoan applied leaves to wounds or aching teeth for pain reduction, used a tea to bathe patients with colds, coughs, and rheumatism, or consumed leaves and used them as a poultice for the treatment of asthma. The Chumash used this to soothe poison oak. The Kumeyaay used this to soothe ant bites and rubbed it on themselves to disguise odor when hunting, and occasionally used the seeds for flour. Early miners used this to repel fleas and others have used twigs placed in shoes to treat athlete's foot.

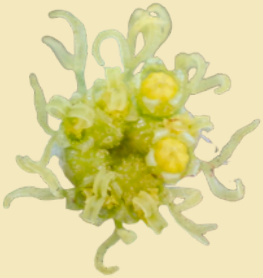
California Mugwort

Tongava Name: Kwiash
Chumash name: Molus
Artemisia douglasiana

Horticulture

This is a shade/partial shade understory plant that loves moisture but can tolerate dry shade as well. Full sun in some conditions if irrigated. This plant grows to 3' to 4' and spreads from a root base and can tolerate most soil types. Cutting the plant to the ground in the winter can benefit it.

Flower Close up



Hosted Insects

American Lady (*Vanessa virginiensis*)

Various moths

Restoration Notes

Pioneer species; fast growing and short-lived. Often, a riparian or moist area species will grow vigorously if given this habitat, but can tolerate drier conditions. Great for erosion projects. Native bees use the plant as nesting material. It is also said that this plant attracts predatory insects, which will decrease the number of pest insects. Many bird species enjoy their seeds.

Reproduction

Seed (wind and insect pollinated) or Rhizomatous (esp in wet areas)

Dormancy

Winter deciduous



Ethnobotany

Many Californian tribes burned mugwort leaves for its medicinal purposes, including promoting healthy sleep, invoking sacred dreams, and warding off wicked spirits. Inhaled smoke is used to treat ailments, including the flu, a cold, and a fever. The Chumash chewed mugwort to treat dental problems, including tooth pain and gum pain. Interestingly used as an insect repellent. Also been used as a sedative for nervousness and insomnia. Has many holsitic and ceremonial purposes.

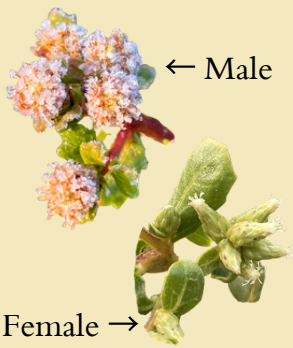
Coyote Brush

Kumeyaay Name: Samaall Kwsiyaay
Luiseno Name: Morwaxpish
Baccharis pilularis

Horticulture

Coyote brush can be pruned to a desired shape, or it can be coppiced, cut back to 6 inches in height, and will sprout from the base. As a native California plant, it is fire-adapted and will re-sprout after fires. Loves full sun and any soil type, probably one of the most adaptable California natives. Drought tolerant and can tolerate irrigation. Many different cultivars exist from low ground cover and in between to a large shrub.

Flower Close up



Hosted Insects

Rhopalomyia californica (Gall Midge)

Various Moths

Restoration Notes

Pioneer species; Dioecious plant with male and female flowers on separate individuals; the female plants produce fluffy white seeds with a pappus that aids in wind dispersal, while the male plants produce pollen to fertilize the female flowers. Nursery plants are usually male clones to avoid the fluffy plumes. Fire-resistant and can tolerate recycled water. Fairly long-lived as a shrub (over 50 years). Great pollinator plant. Mature coyote brush serve as nurse plants for Coast Live Oaks and can help non-native grasslands transition to later stages in ecological succession (i.e. non-native grassland to oak woodland). Prostrate groundcover form available for slope/bank stabilization.

Reproduction

Seed (Insect pollination,wind dispersal), Dioecious (male and female plants)

Dormancy

Evergreen



Ethnobotany

Boiled leaves were applied to the skin as a remedy for poison oak rash, other skin problems, and swelling. Used medicinally for hay fever, sinusitis, and headaches in Mexico. It was also used for stomach problems and as a general remedy by those with knowledge and experience, as the active compounds can be toxic if taken internally. Straight branches are used for arrow shafts and general construction.

California Brome

Bromus carinatus

Horticulture

Responds favorably to mowing in spring and summer. Likes full sun and can tolerate most soil types. Can withstand periodic drought but can look better with occasional summer water to mitigate summer dormancy.

Flower Close up



Hosted Insects

Umber Skipper (*Poanes melane*)
Common Roadside-Skipper (*Amblyscirtes vialis*)
Arctic Skipper (*Carterocephalus palaemon*)
Various Skippers and Moths

Restoration Notes

In the garden it has a reputation for being short-lived but readily re-seeds. It completes well with non-native weeds, and its sod-building root system makes it useful for erosion control. It is suited for slopes as it can withstand periodic drought. The long fine roots improve water infiltration and can be used in water collection areas.

Reproduction

Wind pollinated, Tillers

Dormancy

Summer deciduous



Ethnobotany

Seeds were often dried and ground into flour to make bread and other foods. California brome is an important forage species for livestock throughout its growing season and sometimes planted as a pasture grass.

Purple's Owl Clover

Tongva Name: Oyeli

Castilleja exserta

Horticulture

Can be left alone to reseed and go dormant in a meadow setting surrounded by native grasses. Planting with other wildflowers can be beneficial and look pleasing, especially since there can potentially be some parasitism on other species (Looks great with California Poppies, as the orange/yellow hues contrast greatly with the purple). Likes full sun and most soil types. Drought-tolerant, but occasional water can extend bloom.

Flower Close up



Hosted Insects

Bay Checkerspot (*Euphydryas editha bayensis*)
Variable Checkerspot (*Euphydryas chalcedona*)
Common Buckeye (*Junonia coenia*)
Various butterflies and moths

Restoration Notes

A partial parasite, it can get nutrients from the roots of nearby plants. As with most wildflowers, important pollinator plant. Purple owl's clover is an important host of the endangered Bay Checkerspot butterfly and a dozen other moth and butterfly species.

Reproduction

Seed (insect pollinated), Castillejas are partial root parasites that attach their roots to specific hosts

Dormancy

N/A (annual)



Ethnobotany

The Tongva had some medicinal uses, such as a decoction of roots for an eyewash and a decoction of either the roots or leaves to relieve coughs. The seeds were eaten and the raw leaves were used as dye on skin for ceremonial purposes. The flowers were worn as wreaths in Spring festivals.

California Lilac

Tongva Name: ‘Iishwey, Iswish

Ceanothus spp.

Horticulture

Avoid summer water (except during the first summer), soil amendments, and drip irrigation. Irrigate when the soil is dry during the first year of establishment. Some varieties tolerate pruning (avoid hard pruning) more than others. Plant in well-draining soil. Most varieties require full sun. Do not fertilize, as this will harm the soil microbes that interact with Ceanothus roots. Most common garden-tolerant cultivars include: "Concha," "Ray Hartman," "Julia Phelps" (small to medium tree) "Centennial," "Yankee Point" (groundcover).

Flower Close up



Hosted Insects

Pale Swallowtail (*Papilio eurymedon*)
Echo Azure (*Celastrina echo*)
Ceanothus Silkmoth (*Hyalophora euryalus*)
Various Butterflies and Moths

Restoration Notes

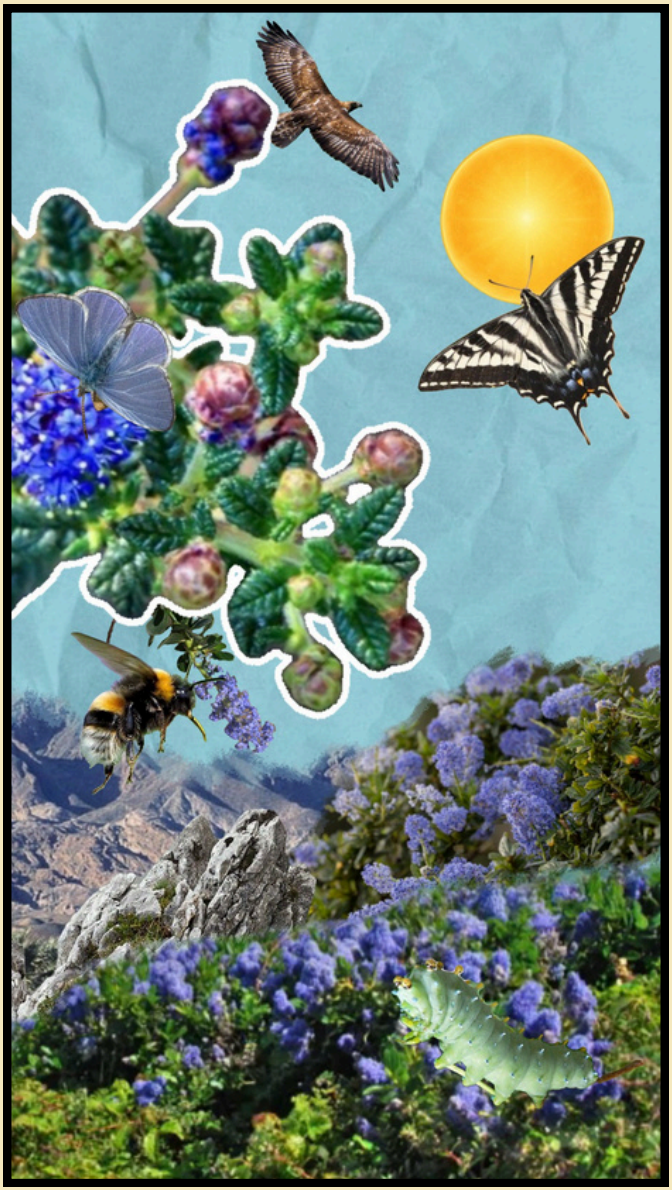
Ceanothus genus includes 60+ species, many native to California and comprising of a variety of forms, from groundcover to small tree. Can be popular with deer, especially if overirrigated. Great pollinator, and in spring can be seen covered in bees and other pollinators. Most species are EXTREMELY sensitive to summer watering, reducing lifespan or causing death.

Reproduction

Seed (insect pollinated)

Dormancy

Some varieties are deciduous, many common nursery species/hybirds/cultivars are evergreen



Ethnobotany

The seed is a food, and the flowers produce a fine lather when rubbed briskly on the skin. The leaves were used as tobacco, and the bark and roots as an astringent and tonic. The red roots also yielded a red dye. Ceanothus is still utilized for medical purposes. A blood coagulant and a tonic for coughs are derived from the plant. It has also been said to relieve poison oak, eczema, and rash.

Winecup Clarkia

Clarkia purpurea

Horticulture

If planted in containers it will need irrigation, but not if planted in the ground. Avoid overwatering. Deadheading may increase blooms. Likes full sun and can tolerate most soil types. A few flower pattern and color forms to choose from.

Flower Close up



Hosted Insects

White-lined Sphinx (*Hyles lineata*)
Clark's Day Sphinx Moth (*Proserpinus clarkiae*)
Pacific Green Sphinx Moth (*Proserpinus lucidus*)
Various moth species

Restoration Notes

Easy to grow, low maintenance annual. This plant grows in a variety of habitats and is adaptable to many soil types. Attracts pollinators and reseeds.

Reproduction

Seed (insect pollinated)

Dormancy

N/A (annual)



Ethnobotany

Indigenous Californians sowed Clarkia species and harvested the seeds to grind for food.

Elegant Clarkia

Clarkia unguiculata

Horticulture

Cut back or plant new seeds in the fall. If planted in fall, it will not need additional irrigation, but as with most wildflowers bloom period can be extended with some water. Likes full sun but also can grow in partial shade, one of the most shade-tolerant, commonly planted native wildflowers. Tolerates most soil types. Many color varieties and forms available.

Flower Close up



Hosted Insects

Clark's Day Sphinx Moth (*Proserpinus clarkiae*)
Mariposa Forester (*Alypia mariposa*)
Various other moth species

Restoration Notes

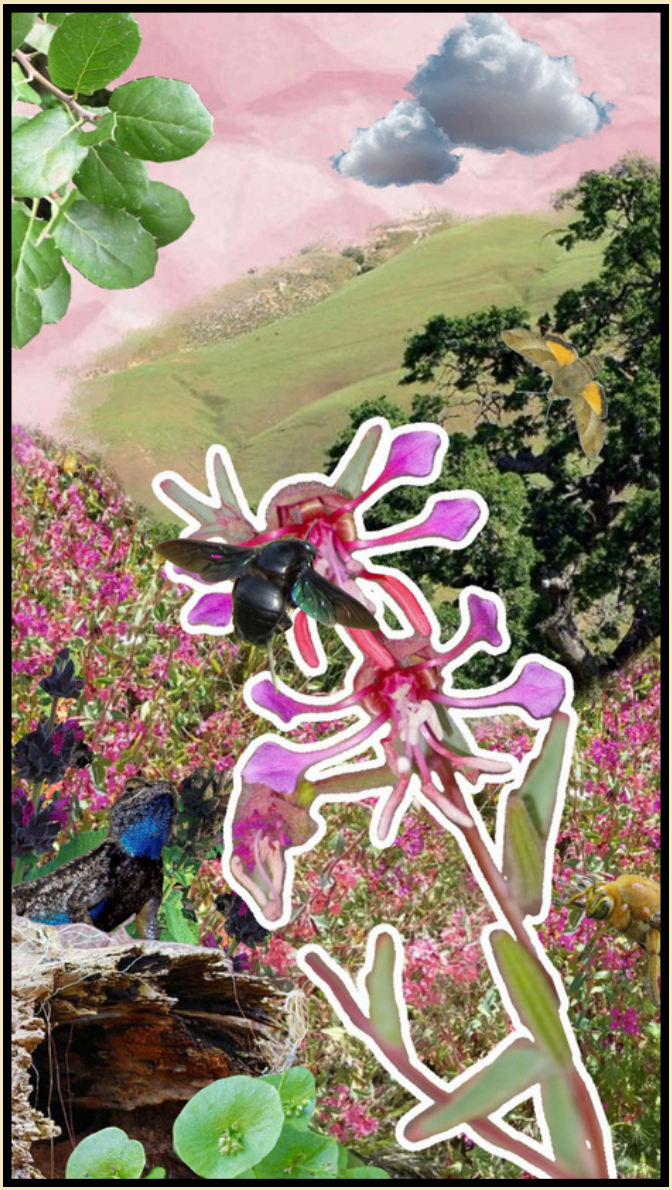
Annual, reseeds in Fall. Grows in woodland habitats in part shade. Pollinated by specialist bees in its natural habitat.

Reproduction

Seed (insect pollinated)

Dormancy

N/A (annual)



Ethnobotany

Indigenous Californians sowed Clarkia species and harvested the seeds to grind for food.

Miner's Lettuce

Tongva Name: Palsingili

Claytonia perfoliata

Horticulture

This is an annual broad leaf, almost succulent like plant that can reach up to 12 inches high. It grows best in highly shaded areas but tolerates full sun if the climate is cooler and wet. It will die out in the hot spring and dry summer but will return next year where seeds are dropped in the area. Soil should be consistently moist but not over watered, well drained and loamy. Grows in a diverse range of landscapes.

Flower Close up



Hosted Insects

Aphids, leafminers (*Liriomyza* spp.), whiteflies

Restoration Notes

Annual with mature leaves that are edible. Typically dies back during warmer seasons. Allow to reseed. The seeds produced provide important food for birds and attract a variety of native pollinators. Small flowers appear at center of leaves when matured.

Reproduction

Seed and self-pollination.

Dormancy

N/A (annual)



Ethnobotany

Miner's lettuce is one of many traditional foods of the Indigenous Chumash of California's central and southern coastal regions. It was said to be eaten raw or cooked, and a tea made of the leaves was used as a mild laxative or diuretic.

Turkey Mullein

Croton setigerus

Horticulture

This plant is a summer annual broadleaf plant that will die from frost and cold conditions. Turkey mullein will grow poorly in wet areas, requiring full sun and very little water once established. It's deep roots sustains it in extreme heat. Temperatures too low may result in increased susceptibility to root rot. Flowers on this plant will bloom from May to October and the plant will die at the end of the hot seasons returning the following year in late spring.

Flower Close up



Hosted Insects

Soybean Looper Moth (*Chrysodeixis includens*), California Tiger Moth (*Lecparctia californiae*), Gray Hairstreak (*Strymon melinus*)

Restoration Notes

Turkey mullein has thick and furry light green leaves. Often found in open, dry, disturbed locations. Birds, specifically turkeys and doves eat the seeds and help distribute them. There is an unpleasant odor caused by hairs on the leaves, which can irritate the skin and deters wildlife from eating it. The plant has a deep taproot to withstand dry conditions. Host plant to several native moths and butterflies. Insignificant flowers blend into foliage from Spring to Fall.

Reproduction

Seed, self pollination and insect-pollinated.

Dormancy

N/A (annual)



Ethnobotany

Turkey mullein was used by some Native Americans to stupefy fish so they were easier to catch. Various native tribes would utilize the plant to cure sore throats and coughs via smoking or teas.

Clustered Tarweed

Deinandra fasciculata

Horticulture

This plant requires full sun with little to no water. After it has been established, watering should not exceed once a month. This plant endures harsh, hot and dry conditions as well as in disturbed areas. Doesn't grow more than 3ft tall. The plant has long stems with sparse foliage. Fast draining soil is best. Seeds are best planted in the fall. The plant will grow from deep taproot as a basal rosette and the leaves will fall once it begins to flower.

Flower Close up



Hosted Insects

Moth (*Cyclophora dataria*), Spotted Straw Sun Moth (*Heliothis phloxiphaga*), Moth (*Chionodes nanodella*)

Restoration Notes

Pioneer species. Aromatic blooms late Spring to early Fall and is long blooming which is a reliable source for pollinators and bright yellow color in wildflower gardens. They grow in coastal sagescrub, chaparral, woodland, and grassland areas from sea level up to about 4000' elev. This plant is fire following. Many types of wildlife is supported by eating the plant. Tarweed exudes a resin that is said to prevent water loss in the hot dry summer.

Reproduction

Seed.

Dormancy

N/A (annual)



Ethnobotany

Several Hemizonia species were eaten by the Miwok, specifically the roots. They are considered to be an important part of their diet. The steam from boiling Hemizonia fasiculata was inhaled by the Kumeyaay to relieve headaches.

Sticky Monkeyflower

Diplacus aurantiacus

Horticulture

Sticky monkeyflower is a sub shrub with woody stems at the base. It prefers partial shade if inland and full sun when along the coast. Can tolerate various soil types but that is well drained and not over-watered is best for this plant. Over watering can cause root rot. Cutting back flowers and dead leaves can stimulate more growth and create longer blooming time. Monkey flowers can be propagated from cuttings.

Flower Close up



Hosted Insects

Common Buckeye (*Junonia coenia*), Variable Checkerspot Larvae (*Euphydryas chalcedona*)

Restoration Notes

Sticky monkeyflower is a great plant for attracting hummingbirds, their tube shaped flowers provide easy access to their nectar. Bright yellow flowers attract pollinators and is a host to several native butterflies. The resin on the plant helps retain its water making it drought tolerant. The plant will go dormant in the summer and likely lose all its flowers to conserve energy during the hot months. It is deer resistant and good for erosion control.

Reproduction

Seed; pollination by bees and hummingbirds.

Dormancy

Summer deciduous/ drought dormant.



Ethnobotany

The Miwok and Pomo Native Americans would use the flowers and roots for treatments of sickness similar to a cold but was particularly used for its antiseptic qualities as it was turned into a poultice or balm to aid the healing of minor scrapes and burns.

Southern Bush Monkeyflower

Diplacus longiflorus

Horticulture

Of the diplacus family, Southern Bush Monkeyflower is a perennial woody shrub that is found inland and can grow up to 3ft high and wide. Can be planted in full sun or in part shade, tolerates moist, fast draining soil. Will go dormant if not irrigated in the summer and fall. Flowering period can be extended by deadheading, but beware of cutting established stalks as it's lifespan can be reduced.

Flower Close up



Hosted Insects

Common Buckeye (*Junonia coenia*), Variable Checkerspot Larvae (*Euphydryas chalcedona*)

Restoration Notes

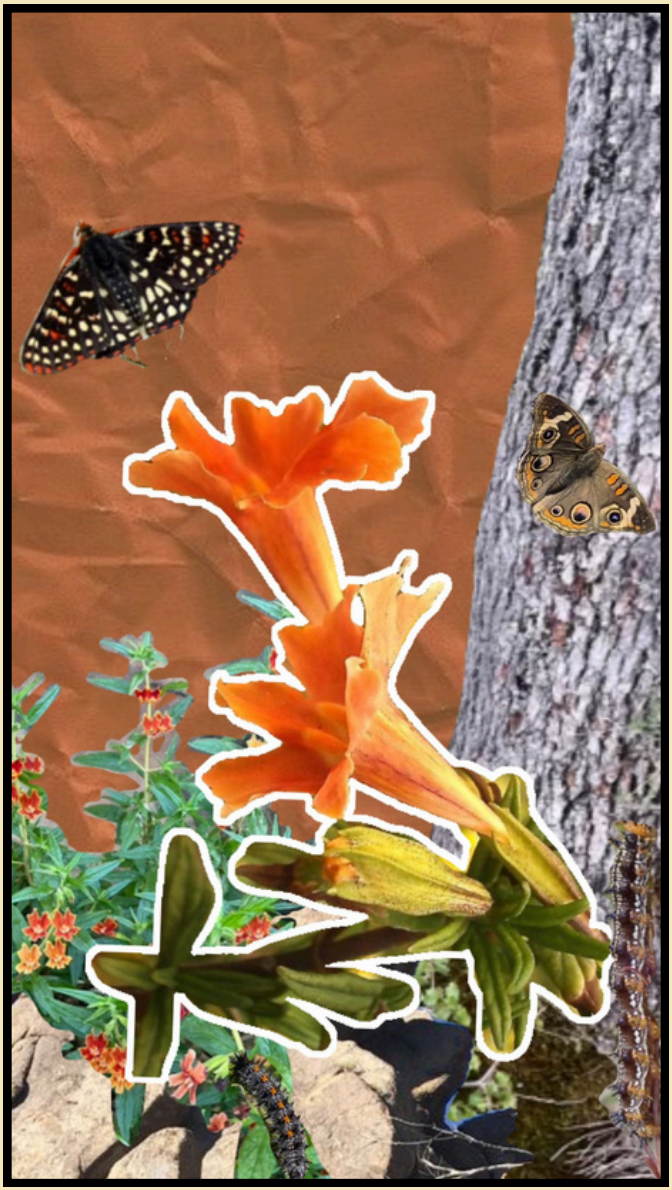
Deer resistant. If the conditions are fit the plant will return for several years once established. Color of flowers will vary based on it's conditions. It can recover from freezing temperatures, and drought resistant due to its resin covered leaves and woody stalks. Flowers are larger than those of other monkeyflower species. Performs better inland than other monkeyflowers. Attracts hummingbirds, native bees, butterflies and other native pollinators! Also good for erosion control.

Reproduction

Seed or propagation.

Dormancy

Summer deciduous/drought dormant.



Ethnobotany

The Kumeyaay tribe would use monkeyflower for medicinal purposes such as poltices for burns and wounds as well as to treat colds, coughs, flu and stomach disorders.

Blue Wild Rye

Elymus glaucus

Horticulture

This plant is a large perennial bunchgrass that can grow up to 5ft tall. Seed in Spring or Fall and keep the area irrigated. Control weeds during establishment. Can tolerate nitrogen fertilizers. Cut back to ground in late Fall.

Flower Close up



Hosted Insects

Woodland Skipper (*Ochlodes sylvanoides*)

Restoration Notes

Cool season bunch grass is tolerant of fire due to low heat transfer to roots. Excellent wildlife habitat for a wide variety of species. Good for reseeding disturbed areas. Good for riparian restoration, swales, and meadow plantings. Frosts and extreme heats induce dormancy. Fire follower.

Reproduction

Seed (self-fertile), wind distributed; Rhizomatous.

Dormancy

Drought dormant



Ethnobotany

Used by some Native American tribes as a cereal grain and for basketry.

Bush Sunflower

Tongva Name: Pa.akal

Encelia californica

Horticulture

A perennial shrub, fast growing and easy to establish. Grows best in full sun and can tolerate variety of soils including harsh and disturbed areas. Needs very little water once established, very hearty. Pruning at end of season in fall is recommended to avoid crowding of other species. It's natural habitat is in coastal scrub. Is seasonally dimorphic, large winter leaves will be shed and replaced by small drought bearing leaves in hot summer.

Flower Close up



Hosted Insects

Variable Checkerspot (*Euphydryas chalcedona*)

Restoration Notes

Pioneer species. Does not tolerate temperatures below around 20F. Good on slopes for erosion control and as a large groundcover. Popular in native gardens for its large yellow flower and because it is easy to grow. Attracts pollinators like butterflies and bees and will provide food for small birds once flowers die. Will become dormant in hot summer months to conserve energy.

Reproduction

Seed.

Dormancy

Evergreen/semi-summer dormant deciduous.



Ethnobotany

Bush Sunflower was a medicinal plant for the local Gabrielino/Tongva people. All parts of the plant were mashed and boiled to form a thick paste that was spread on aching joints; the paste was also dissolved in warm water as a soothing bath to decrease the pain of rheumatism.

California Fuschia

Tongva Name: Piinor ‘ahuungin

Epilobium canum

Horticulture

Easy to grow perennial that reseeds. Can be cut back in fall when flowering slows down and the plant begins to look scraggly. If planted near the coast or in cooler areas additional irrigation will not be needed after establishment. Easiest way to propagate is by seed or cutting

Flower Close up



Hosted Insects

White-lined sphinx Moth (*Hyles lineata*)

Restoration Notes

Can spread by seed in the landscape once established. One of the few natives that is often flowering in the heat of summer. Considered fire-resistant. Many cultivars available ranging in growth habit.

Reproduction

Reproduces by seed.

Dormancy

Winter deciduous



Ethnobotany

The leaves could be dried or powdered and applied topically to treat cuts, wounds, sores on both humans and livestock, as well as in treating poison oak.

California Buckwheat

Tongva Name: Wilakal

Eriogonum fasciculatum

Horticulture

Evergreen shrub. Tough and easy to grow, even in dry and poor soil. Does not require irrigation once established but will tolerate occasional summer water. Easiest way to propagate is by seed.

Flower Close up



Hosted Insects

Acmon Blue (*Plebejus Acmon*), Behr's Metalmark (*Apodemia virgulti*), Bernardino Blue (*Euphilotes bernardino*)

Restoration Notes

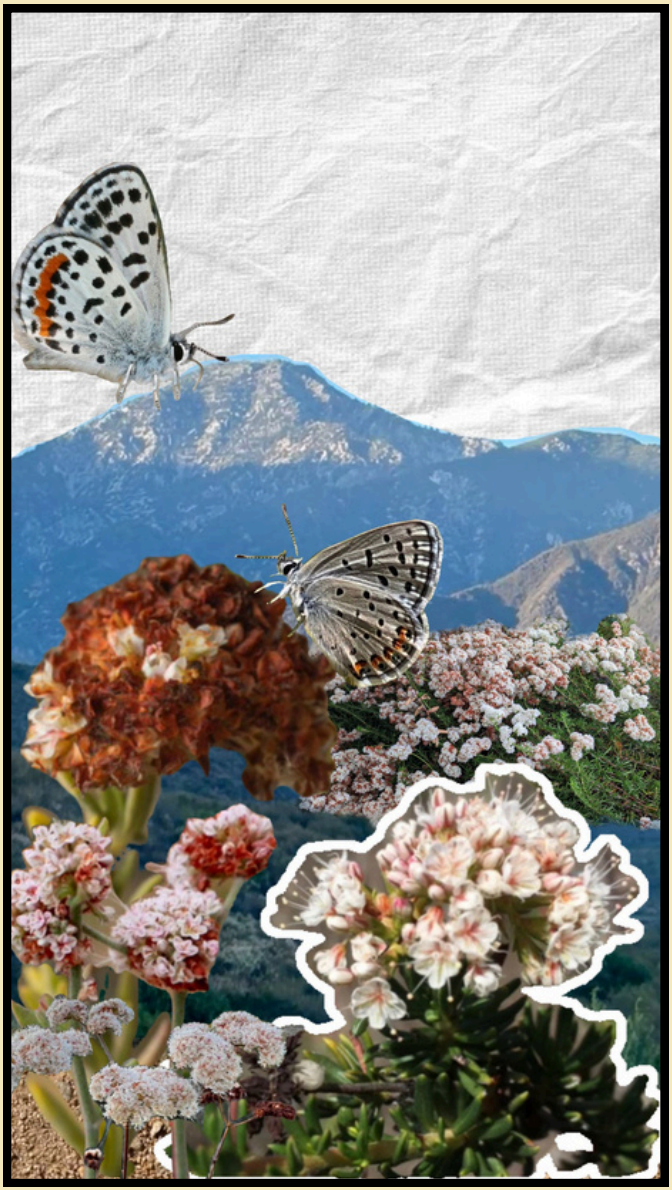
Pioneer species. Important keystone species for sagebrush ecosystems and habitat plant. The seeds feed many birds and small mammals and the flowers attract bees. Creates its own mulch by dropping its small leaves. Good for bank stabilization/ erosion control. Deer resistant.

Reproduction

Seed

Dormancy

Evergreen or semi-summer drought dormant.



Ethnobotany

The Chumash utilized this plant by boiling buckwheat leaves for a medicinal tea and baths to treat rheumatism, irregular menstruation, and stomach trouble.

Naked Buckwheat

Eriogonum nudum

Horticulture

Perennial forb/shrub. Easy to grow, tough perennial that requires very little water. Can grow in sand, clay or gravelly soils. Heat tolerant. Easiest way to propagate is by seed, if direct seeded in Fall.

Flower Close up



Hosted Insects

Gorgon Copper (*Lycaena gorgon*), Acmon Blue (*Plebejus Acmon*), Behr's Metalmark (*Apodemia virgulti*), Bernardino Blue (*Euphilotes bernardino*)

Restoration Notes

Flowers rise 5' above the low, spreading foliage, which forms a mat on the ground. The species supports various caterpillars as a host plant and attracts many birds in Spring with its seeds. Deer resistant.

Reproduction

Seed.

Dormancy

Dormant in summer, semi-deciduous



Ethnobotany

Native American Tribe Karuk utilized roots for gastrointestinal aid or abdominal ailments.

Golden Yarrow

Eriophyllum confertiflorum

Horticulture

Flowering perennial herb/short shrub. Fast growing and likes well-draining soil with little irrigation. Can be deadheaded to encourage blooms. Tolerates up to two waterings per month in the summer once established. Easiest way to propagate is by seed or cutting

Flower Close up



Hosted Insects

Wavy-lined Emerald Moth (*Synchlora aerata*)
Painted Lady (*Vanessa cardui*)

Restoration Notes

Part of a few different plant communities and can be an annual, perennial or small shrub. Tolerates clay and acidic soils. Attracts butterflies and other pollinators. Used in reseeding coastal sage scrub. Typical habitat is brushy slopes.

Reproduction

Seed.

Dormancy

Semi-summer/drought deciduous



Ethnobotany

Common yarrow but not limited to golden yarrow was mashed, poulticed, or steeped as tea. This plant was used for various ailments like coughing, headaches, and fever as well as a mild laxative, for toothaches or throat irritations. As a poultice it was utilized to reduce blood flow in wounds, and treat open sores and burns.

California Poppy

Tongva Name: Mekachaa

Eschscholzia californica

Horticulture

Low maintenance and drought tolerant. Easy to grow from seed if planted at the right time of year during rainy seasons of Fall or Spring. Can be used in poor soils. Requires full sun and well-draining soil. Tolerates low doses of fertilizer. Easiest way to propagate is by seed before rains or plugs/transplants.

Flower Close up



Hosted Insects

California poppy fairy bee (*Perdita interrupta*)
Mormon metalmark (*Apodemia mormo*)
Dotted Blue (*Euphilotes enoptes*)

Restoration Notes

State flower of CA. Attracts many native pollinators for it's pollen although not a source of nectar. Depending on conditions of drought or heat the flower and stem will die but the plants will become dormant. Spreads by self-seeding. Each slender seed capsule contains many seeds. Deer resistant. Grows well in disturbed places.

Reproduction

Seed

Dormancy

Summer deciduous



Ethnobotany:

The California poppy has cultural significance for various Indigenous tribes. Some considered the plant poisonous, but others used specific parts of the plant as both a food source and drug. The roots have been used as sedatives and pain relievers. The flowers, were chewed as a gum or candy, while the rich pollen of the flowers served as eye shadow or body paint.

Red Fescue

Festuca rubra

Horticulture

Drought-tolerant and shade-preferring mowable grass that takes a range of irrigation levels and soil types. If mowing, do so in the summer. Bunchgrasses generally need full sun to part shade and thrive in well-drained soils, tolerating diverse types from sandy to clay, but preferring low fertility and moisture.

Propagation:Division; Seed (Moderate)

Flower Close up



Hosted Insects

Field Skipper (*Atalopedes campestris*)
Umber Skipper (*Poanes melane*)
Mardon Skipper (*Polites mardon*)

Restoration Notes

Cool season bunch grass that can be used as a mowable groundcover, or left unmowed. Good for erosion control. Many cultivars are available as well as a few subspecies. Cold hardy to -10F. Many animals eat this plant, but it is deer resistant.

Reproduction

Reproductive strategy: Seed, rhizomes

Dormancy

Summer dormant



Ethnobotany

It is used as a pasture grass for livestock.

Beach Strawberry

Fragaria chiloensis

Horticulture

Evergreen, low-growing perennial that spreads by runners to form a dense groundcover. Grows best in full sun to part shade in well-draining soil, including sandy coastal areas. Produces white flowers in spring, followed by edible red berries. Tolerates moderate foot traffic and is deer-resistant.

Propagation: Division (root) plugs/transplants, seed

Flower Close up



Hosted Insects

Isabella Tiger Moth (*Pyrrharctia isabella*)

Clepsis Moth (*Clepsis fucana*)

Restoration Notes

Native to coastal dunes, bluffs, grasslands, and open coastal scrub, the beach strawberry is a useful groundcover in restoration plantings, especially in sandy or unstable soils where it helps reduce erosion. Its shallow but spreading habit stabilizes soils and supports wildlife communities along the coast.

Reproduction

Reproductive strategy: Seed rhizomatous (runners)

Dormancy

Evergreen; no strict dormancy



Ethnobotany

One of the wild strawberries gathered and eaten by Native peoples of the Pacific coast including the Pomo. Berries are eaten raw or dried, and other parts of the plant have been used traditionally for medicinal purposes. The eaves were used to brew teas with vitamin C, and the roots brewed teas for relief from stomach disorders. The roots can also be chewed to reduce gum inflammation and clean teeth.

Woodland Strawberry

Fragaria vesca

Horticulture

Perennial herb, evergreen and fully winter-hardy. Grows up to 1.5 ft tall, depending on light exposure. Prefers full sun to partial shade; flowers and fruits more abundantly with more sunlight. Avoid wet, clayey, or compacted soils. Tolerates occasional summer irrigation. Can be used as a groundcover under oaks or in woodland gardens.
Propagation: Seed (easy); cuttings

Flower Close up



Hosted Insects

Painted Lady (*Vanessa cardui*)

Two-banded Checkered Skipper (*Pyrgus ruralis*)

Restoration Notes

Valuable as groundcover under oaks and in native woodland restoration. Fruits and flowers support pollinators, birds, and small mammals. Drought-tolerant once established, and can thrive in well-drained soils.

Reproduction

Reproductive strategy: Seed runners

Dormancy

Evergreen; no strict dormancy.



Ethnobotany

Important part of local Native cuisines, including of the Muwekma Ohlone, Ramaytush Ohlone, Tamien Nation, and Amah Mutsun.

California Coffeeberry

Frangula californica

Horticulture

Evergreen shrub that is highly adaptable to a variety of soils and sun/shade conditions. Very low water use and tolerant of pruning. Can be used as a foundation plant, hedge, or natural understory shrub. Typically grows 6—12 ft tall, can form dense thickets, and provides habitat for birds and small mammals.

Propagation: Seed (easy to moderate)

Flower Close up



Hosted Insects

Orange Tortrix Moth (*Argyrotaenia franciscana*)

Restoration Notes

Native to oak woodland and chaparral. Provides food and cover for wildlife. Useful in habitat restoration, erosion control, and pollinator gardens. Drought-tolerant and can thrive in degraded soils.

Reproduction

Reproductive strategy: Seed plugs/transplants

Dormancy

Evergreen; no strict dormancy.



Ethnobotany

Gathered by West Coast Indian tribes for culinary as well as medicinal purposes. The bark has been used as a laxative.

Island Snapdragon

Gambelia speciosa

Horticulture

Evergreen perennial shrub with bright red tubular flowers that attract hummingbirds and butterflies. Thrives in partial shade, especially in hot inland areas. Tolerates clay, loam, rocky, or sandy soils. Very low water use once established, though occasional summer irrigation can improve flowering. Prune in winter to maintain shape and encourage new growth. Can be used as a large groundcover, on slopes, or as a shrub

Propagation: Seed (easy); cuttings.

Flower Close up



Hosted Insects

Common Buckeye (*Junonia coenia*)

Variable Checkerspot (*Euphydryas chalcedona*)

Restoration Notes

Pioneer species that attracts hummingbirds and butterflies. Flowers can bloom nearly year-round under favorable conditions. Useful for pollinator gardens, restoration projects, and erosion-prone slopes. Naturally occurs in coastal sage scrub and chaparral, adding ecological value for habitat restoration.

Reproduction

Reproductive strategy: Seed; cuttings

Dormancy

Evergreen



California Sunflower

Helianthus californicus

Horticulture

California sunflower tolerates dry to moderately moist soils once established, but flowers more abundantly with supplemental water. It requires well-draining soil to prevent root rot. Occasional deep watering or flooding can enhance flower production. Deadheading may encourage additional blooms. They require full sun.

Propagation: Seed (easy)

Flower Close up



Hosted Insects

Various Beetles (*Coleoptera*)
Various Butterflies and Moths (*Lepidoptera*)
Various Flies (*Diptera*)

Restoration Notes

California sunflower occurs naturally along stream banks, meadows, and freshwater marsh edges. It is Verticillium wilt resistant, spreads readily by rhizomes, and is valuable in restoration projects where pollinator support and soil stabilization are desired.

Reproduction

Reproductive strategy: Seed; rhizomatous spread

Dormancy

Winter-deciduous



Ethnobotany

Many California Indigenous groups used wild sunflower seeds (often H. annuus or smaller wild Helianthus) seeds were parched, ground, mixed with other seeds or grains, eaten by hand, or made into pinole (a mixture of ground seeds/flour) or cakes.

Toyon

Tongva name: Ashuwet

Heteromeles arbutifolia

Horticulture

Toyon is an evergreen shrub that is naturally drought tolerant once established and prefers little to no summer water. Occasional irrigation can improve appearance, especially in hot inland areas, where it tolerates some supplemental moisture. It commonly occurs in oak woodland habitats. They like sun or part shade.

Propagation: Seed (moderate)

Flower Close up



Hosted Insects

Pacific Azure (*Celastrina echo*)
Western Avocado Leafroller Moth (*Amorbia cuneana*)
Destructive Pruneworm Moth (*Orthosia hibisci*)

Restoration Notes

Toyon regularly grows over 10 feet tall, often taller than it is wide, and older individuals may reach 20 feet, sometimes forming a small tree. In summer, clusters of lightly scented white, rose-like flowers attract bees and butterflies.. Toyon is frequently used in restoration plantings due to its drought tolerance. Winter berry source for birds like Turdus migratorius (American Robin), Bombycilla cedrorum (Cedar Waxwing), Mimus polyglottos (Northern Mockingbird) and Thrushes (family Turdidae)

Reproduction

Reproductive strategy: Seed

Dormancy

Evergreen



Ethnobotany

Many California Indigenous tribes traditionally gathered toyon berries for food, including the Salinan, Maidu, Karuk, Sierra Miwok, Pomo, Luiseño, Hupa, Wappo, and Yuki peoples. The Yuki used leaves and bark to prepare medicines for pains and aches.

Telegraph Weed

Heterotheca grandiflora

Horticulture

Telegraph weed is a tough, low-maintenance plant that requires very little water and thrives in disturbed, compacted, or otherwise unsuitable soils. It is well adapted to full sun and does not require supplemental care once established. Plants are summer deciduous and often exhibit a sticky texture with a strong odor.

Propagation: Seed (moderate)
Seeds are lightweight and wind dispersed

Flower Close up



Hosted Insects

Gabb's Checkerspot (Chlosyne gabbii)

Native bees (Hymenoptera)

Restoration Notes

This species is a pioneer plant, commonly appearing early in succession following disturbance. While not typically used in ornamental gardens, it can be valuable in restoration projects and for attracting pollinators, especially bees. It is deer resistant and produces allelopathic chemicals that can inhibit nearby plant growth. Yellow flowers may be present for much of the year, with peak bloom in summer.

Reproduction

Reproductive strategy: Seed (wind dispersed)

Dormancy

Summer deciduous



Ethnobotany

The stems have been used to make small arrows by the Luiseno who are an indigenous people of southern California.

Goldenbush

Isocoma menziesii

Horticulture

Goldenbush is a hardy shrub adapted to full sun and well-draining sandy or rocky soils. It is drought tolerant once established and best suited to coastal sage scrub and chaparral habitats. Plants are sensitive to frost and generally prefer warmer coastal climates. Different varieties of I. menziesii occur across California and Baja California.

Propagation: Seed (easy)
Seeds are dry and adapted for wind dispersal

Flower Close up



Hosted Insects

White-lined Sphinx (*Hyles lineata*)
Sunflower moths (*Crambidae*)
Orange tortrix moths (*Tortricidae*)

Restoration Notes

Goldenbush is often found in disturbed and sandy soils within coastal sage scrub and related plant communities. It typically blooms from April through December with peak flowering in late summer to fall, providing nectar when many other species are done blooming. Its deep root system and low water needs make it useful for revegetation and erosion control..

Reproduction

Reproductive strategy: Seed (wind dispersed)

Dormancy

Semi-deciduous to evergreen



Southern Black Walnut

Juglans californica

Horticulture

Large deciduous tree that prefers moist soils, especially in riparian areas, but is moderately drought tolerant once established. Tolerates hot climates, smog, and clay soils, and can grow as a single-trunked or multi-trunked form. Winter pruning is recommended. Species produces walnuts that release juglone, a compound that can inhibit the growth of some plants beneath the canopy. Plant requires direct sunlight. Propagation: Seed (difficult); requires long cold stratification

Flower Close up



Hosted Insects

Wandering Tiger Moth (*Spilosoma vestalis*)

Restoration Notes

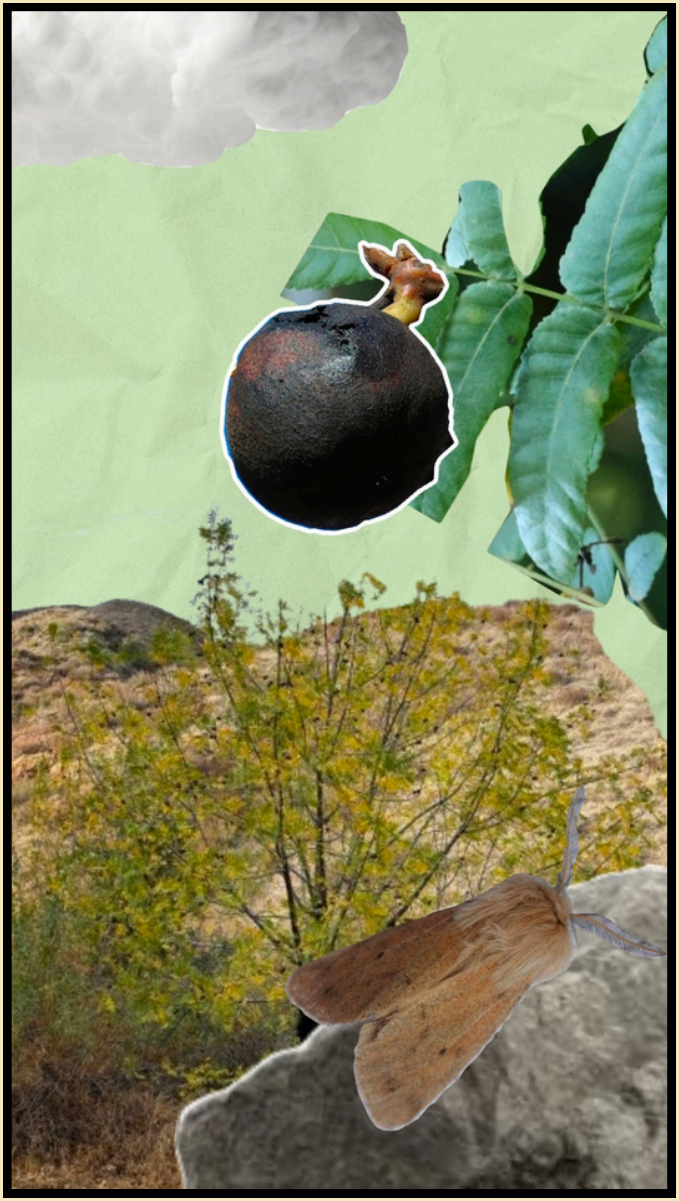
Southern black walnut is considered uncommon and locally threatened due to habitat loss. It is primarily found in riparian corridors, oak woodlands, and low mountain slopes. The species is valuable in restoration because it can resprout after fire, sometimes from basal burls. Food for and seed dispersal by Otospermophilus beecheyi (California ground squirrel) and Sciurus griseus (Western gray squirrel). Provides important shelter and cover for deer, birds, and rodents.

Reproduction

Reproductive strategy: Seed

Dormancy

Winter deciduous



Ethnobotany

The Chumash and Tongva peoples traditionally consumed native walnuts. The hard shells were used to make dice, and the bark was used in basket making.

Heart leaf Keckiella

Keckiella cordifolia

Horticulture

Heartleaf keckiella is a fast-growing, sprawling shrub that performs well in full sun to part shade across a variety of soils, especially well-drained sites. It tolerates some summer water and, in milder coastal climates, may remain semi-evergreen; under drought or cooler winter conditions it can be summer deciduous. It benefits from pruning in late summer or fall to maintain shape.

Propagation: Seed (easy); cuttings

Flower Close up



Hosted Insects

Butterflies (*Papilionoidea*)

Variable Checkerspot (*Euphydryas chalcedona*)

Restoration Notes

Heartleaf keckiella flowers from spring into summer with bright red-orange tubular blooms that provide important nectar for pollinators like hummingbirds. Its sprawling habit makes it useful in native plant gardens and wildlife restoration plantings, especially on slopes and in chaparral edges. It produces seeds that can also serve as a food source for birds.

Reproduction

Reproductive strategy: Seed

Dormancy

Winter semi-deciduous or deciduous



Tidy Tips

Layia platyglossa

Horticulture

Tidy tips thrives in full sun and is well adapted to sandy soils, though it prefers clay or loam. It is drought-tolerant once established but may benefit from supplemental irrigation during extended dry periods. This species readily reseeds and is easy to maintain in gardens and restoration settings.
Propagation: Seed (easy); plugs or transplants

Flower Close up



Hosted Insects

Bay checkerspot butterfly (*Euphydryas editha bayensis*)

Assassin bugs (*Reduviidae*)

Restoration Notes

Tidy tips is commonly used in habitat restoration projects due to its adaptability and wildlife value. Its dandelion-like seeds provide an important food source for birds, making it beneficial for supporting local ecosystems

Reproduction

Reproductive strategy: Seed

Dormancy

N/A (annual)



Ethnobotany

Tidy tips was used as a food source by several Indigenous groups, including the Cahuilla, Costanoan, and Mendocino tribes.

Fragrant Pitcher

Lepechina fragrans

Horticulture

Grows quickly. Good understory plant inland, or in partial sunshine along the coast. Can tolerate a variety of soils, including clay, but well-draining soil is best. Needs moderate water and some watering during summer to avoid dormancy. When grown without competition, it will become bigger than usual; moderate clipping during the growing season will help the plant grow upright .

Flower Close up



Hosted Insects

Tobacco Budworm Moth (*Chloridea virescens*)

Restoration Notes

Pioneer species. Good understory companion plant among Western sycamore and Western redbud trees, ribes, coral bells and Douglas iris. Its fast growth and attractiveness to hummingbirds make it a key part of a woodland style landscape. The leaves are fragrant and soft.

Reproduction

Seed (high success)

Dormancy

Evergreen



Ethnobotany

Tea can be made from its leaves to treat colds. Seeds can also be eaten after being ground and toasted.

Giant Wild Rye

Leymus condensatus

Horticulture

Is best in full sun but will tolerate partial shade. Thrives in fast-draining soils but will also tolerate heavier soils. Extremely drought tolerant native grass. Does not require summer water and will rot in the center if irrigated too much. Requires little maintenance; prune only to control size.

Flower Close up



Hosted Insects

Noctuidae family of moths
Robber flies (*Asilidae*)

Restoration Notes

Important for soil stability. Spreads by rhizome but can be contained. Companion plants include California Encelia, California Sagebrush (*Artemisia californica*), and Coyotebrush (*Baccharis pilularis*). It often hybridizes with Creeping Wild Rye (*Leymus triticoides*) to produce *Leymus x multiflorus*. The density of the grasses offer cover and shelter for small mammals, nesting birds, and predatory insects.

Reproduction

Seed (high success)

Dormancy

Evergreen



Ethnobotany

The Crow made mats from the stalks. The Cahuilla used the stalks for roofing and for ceremonial dances. They and the Payómkawichum (Luiseno) used fire-hardened stems as arrowshafts. The Klamath used the grains for food, and the Paiute and Shoshoni used leaf infusions as a wash for sore eyes and the edge of dried leaves to scrape granulated eyelids.

Pink Honeysuckle

Lonicera hipidula

Horticulture

Tolerates full sun to full shade and a variety of soils, including alkaline. Low maintenance climber. It is also drought tolerant after establishment. Best pruned during spring as not to disturb overwintering insects and spiders. Blooms around May and June, depending on elevation.

Flower Close up



Hosted Insects

Perittia passula (Moth)

Tetracis mosesiani (Moth)

Restoration Notes

The flowers attract many pollinators and insects. Birds will eat the berries in the fall. Pink honeysuckle is an adaptable and easy-to-grow native vine that is drought tolerant and deer resistant. Some companion species include Foothill Sedge (*Carex tumulicola*), Wild and Coastal Strawberries (*Fragaria vesca* and *chiloensis*). Pink honeysuckle can host *Phytophthora ramorum*, a pathogen responsible for sudden oak death

Reproduction

Seed (low to moderate success)

Dormancy

Perennial semi-evergreen



Ethnobotany

The hollow stems were used by the Pomo people as smoking pipes.

Silver Lupine

Tongva Name: Tahor Atatuma

Lupinus albifrons

Horticulture

Needs full sun. Prefers dry, sandy, well-draining soil with no additional compost necessary. Avoid summer water. May be picky about conditions. Blooms anytime between winter to summer.

Flower Close up



Hosted Insects

Hosts up to 50 types of butterflies and moths, including the endangered Mission Blue Butterfly (*Icaricia icarioides missionensis*)

Restoration Notes

May be found in a number of settings and habitats including chaparral or coastal sage scrub in seaside conditions on coastal terraces, bluffs, canyons or mesas, as well as open areas in coastal or foothill woodlands with evergreen forest. Lupines are in the pea family and are nitrogen fixing. Attracts many pollinators, including bees and hummingbirds. Deer resistant and fire follower.

Reproduction

Seed

Dormancy

Evergreen



Ethnobotany

The Karuk used a decoction of the plant as a steambath for stomach troubles. The Kashaya Pomo used the flowers in wreaths for the Flower Dance ceremony during the Strawberry Festival.

Arroyo/Succulent Lupine

Tongva Name: Tahor Atatuma

Lupinus succulentus

Horticulture

It prefers full sun and performs best in moist, heavy soils with medium to slow drainage. Requires moderate water, and occasional summer water after establishment (once or twice a month). They are the most water-tolerant of all lupines. Flowers in winter and spring.

Flower Close up



Hosted Insects

West Coast Lady (*Vanessa annabella*)

Restoration Notes

Seeds can be treated before planting by soaking in hot water. A legume, they are nitrogen fixing. The seeds, leaves, and stems are toxic, so ensure proper precautions before handling. Companion plants include Coast Live Oak (*Quercus agrifolia*), California Peony (*Paeonia californica*), and Miner's Lettuce (*Claytonia perfiolata*).

Reproduction

Seed (high success)

Dormancy

N/A (annual)



Ethnobotany

The Kashaya Pomo used the flowers in wreaths for the Flower Dance ceremony during the Strawberry Festival.

Coyote Mint

Monardella villosa

Horticulture

In regions with high temperatures, locate this plant in an area with all day part shade. Does best in well-drained soil. Drought tolerant, but bloom and foliage quality improve with some summer irrigation, particularly inland. These plants can be grown on a mound for better drainage. Light pruning helps maintain a neat appearance. Can be pruned lightly in spring (after insect emergence) to aid with growth.

Flower Close up



Hosted Insects

Up to 7 confirmed insects, including skipper butterflies (*Hesperiidae*)

Restoration Notes

Attracts pollinators, especially skipper butterflies who rely on Coyote Mint nectar. As skipper larvae develop on native bunchgrasses, plant near Purple Needlegrass (*Stipa pulchra*), California Brome (*Bromus carinatus*), and Giant Wild Rye (*Elymus condensatus*). Plant in groups of 3-7, spaced by 1.5 - 2 ft. apart. Deters deer, and a fire follower.

Reproduction

Seed (low and variable); best started in nurseries with well-draining soil.

Dormancy

Evergreen



Ethnobotany

The Cahuilla and Mahuna made tea with leaves for stomachaches. The Ohlone (Costanoan) made poultices which they applied to back cuts to draw out “bad blood” for pneumonia and other respiratory conditions.

Deergrass

Muhlenbergia rigens

Horticulture

Requires full sun but can grow in shade. Large, low water bunchgrass that prefers sandy soil, but will tolerate heavier soils. Does not require much water, and only needs summer water once a month after establishment. Can be pruned if unruly. Generally low maintenance.

Flower Close up



Hosted Insects

California ringlet (*Coenonympha california*)
Umber skipper (*Poanes melane*)
Overwintering ladybugs

Restoration Notes

Large and mounding. Provides habitat, cover, and food for animals. Good large scale groundcover. Useful for erosion prevention and streambank stabilization due to extensive root systems. Deergrass has also been found to remove chemicals in the soil from agricultural runoff, and possesses a high tolerance to salt. Deer resistant.

Reproduction

Seed (high success)

Dormancy

Evergreen



Ethnobotany

The Ivilyuqaletem (Cahuilla), Kumeyaay (Diegueno), Payómkawichum (Luiseno) used deergrass to make coiled baskets. The Apache and Hopi ate the ground seed meal. Zuni people would attach grass to the sticks of plume offerings to anthropic gods. Indigenous peoples in California would set fire to deergrass as part of their controlled burning practises.

Showy Penstemon

Penstemon spectabilis

Horticulture

Fast growing perennial preferring full sun that tolerates many soil types, but does best in well-draining soil. Does not require much water nor supplemental summer water if planted somewhere that retains some moisture. May be shorter lived when additional summer water is applied.

Flower Close up



Hosted Insects

None found

Restoration Notes

Can tolerate cold up to 0° F. Companion plants include California Sagebrush (*Artemisia californica*), Bush Sunflower (*Encelia californica*), and California Buckwheat (*Eriogonum fasciculatum*). Deer resistant and fire follower.

Reproduction

Seed (high success)

Dormancy

Evergreen



Ethnobotany

None found.

Bladderpod

Tongva Name: Takape ahots

Peritoma arborea

Horticulture

Requires full sun. Drought tolerant and adaptable to different soil types, including alkaline. Does not require much water before and after establishment. It has a high temperature tolerance ranging from below freezing to over 100° F. Needs weed control during establishment. Fast growing and easy to care for.

Flower Close up



Hosted Insects

Harlequin bug (*Murgantia histrionica*)

Restoration Notes

Pioneer species. Potential site requires thorough weeding prior to planting. Quail and other birds use bladderpod for cover and forage. Keeps fragrant yellow flowers on for a long time, which eventually become bladder-shaped seed pods. Deer resistant and pollinator attractant. Attracts harlequin beetles.

Reproduction

Seed (high success)

Dormancy

Evergreen



Ethnobotany

The Kumeyaay and Kawaiisu peoples would eat the seeds and flowers of bladderpod, boiling to remove the bitter taste. The Kawaiisu also cooked the flowers in dirt with hot rocks overnight until the flowers turned red. The Cahuilla prepared the pods similarly to the Kawaiisu, cooking immature pods in the ground with hot stones.

Lacy Phacelia

Phacelia tanacetifolia

Horticulture

Does best in full sun and well-draining sandy soil. Requires very little water and is drought tolerant. This plant has a fast growth rate. Can be cut back in fall.

Flower Close up



Hosted Insects

None found.

Restoration Notes

This plant has a taproot and dense fibrous roots. Attracts a variety of insects, including bees, hoverflies, and parasitoids. Fixes nitrogen, and quickly decomposes, providing nitrates for other plants and preventing nitrate leaching. Tiny hairs can cause skin dermatitis. Can host soil borne diseases (*Sclerotinia minor* and *Rhizoctonia solani*) and should not be planted with vulnerable plants. Deer resistant and fire follower.

Reproduction

Seed (high success); can potentially become weedy.

Dormancy

N/A (annual)



Ethnobotany

Cultivated as a crop around the world, and used as a cover crop in central and Eastern US and Canada.

White Rabbit-Tobacco

Pseudognaphalium leucocephalum

Horticulture

Hardy, drought-tolerant plant that thrives in well-drained soil, especially sandy and loamy. Prefers full sun to partial shade and can tolerate both shady and sunny conditions. Flourishes in a range of climates from temperate to subtropical, which makes it adaptable to changes. Prefers at least six hours of full sunlight daily.

Flower Close up



Hosted Insects

American Lady Butterfly Larvae (*Vanessa virginiensis*)
Everlasting Bud Moth (*Eublemma minima*)

Restoration Notes

Pioneer species. Managing fungal diseases by ensuring there is air circulation and no over-watering. Regular monitoring and maintaining cultural practices can help lessen the impact of aphids and powdery mildew.

Reproduction

Seed (Wind pollination and dispersal)

Dormancy

Summer Drought Dormant



Ethnobotany

Has been used as traditional medicine by many Indigenous peoples (names unconfirmed) in North America. This plant was brewed into teas for respiratory issues, like asthma, bronchitis, and coughs. It has also been used for heachaches, fevers, and gastrointestinal issues. Lastly, it was used as a poultice (bandage, ointment, etc,.) for wounds, sores, and skin irritations.

Coast Live Oak

Tongva Name: Wiit, Weht
Pechanga Name: Wi'áaşal
Chumash Name: Ku'u

Quercus agrifolia

Horticulture

Thrives in coastal environments and enjoys fog and mild winters. Prefers full sun to partial shade with well-drained soil. Drought-tolerant and low-maintenance. In the first year after planting, it is best to water once a week, then lessen it to once a month until it reaches about 10 ft tall. After, avoid watering during summer. Can survive both the annual summer drought that defines Mediterranean climates and cyclic climate extremes.

Flower Close up



Hosted Insects

California Sister (*Adelpha californica*)
Polyphemus Moth (*Antheraea polyphemus*)
Fruit-Tree Leafroller Moth (*Archips argyrospila*)

Restoration Notes

Keystone species throughout the coast and mountains of California. Fire-resistant. Usually recover from fire, but badly burned crowns, root crowns, or trunks require years to sprout. Provides shelter and food to thousands of species of insects, amphibians, reptiles, birds, and mammals.

Reproduction

Seed (Wind pollination and dispersal)

Dormancy

Evergreen



Ethnobotany

The Ohlone people would use the wood from coast live oak to make utensils such as bowls and mortars. The Kumeyaay would ground acorns for bread-making and the Cahuilla boiled acorns with water in order to make an edible mush. The Luiseño people would gather acorns and store them in grain houses for long term use. The Mahuna people would use the plant as a medicinal instrument to stop newborns bleeding bellies.

Lemonadeberry

Kumeyaay Name: Huutat (orange berries), Huusill (red berries)
Chumash Name: Walqaqsh Luiseño Name: Shoval
Tongva Name: Soraa'

Rhus integrifolia

Horticulture

Prefers full sunlight to partial shade. Thrives in well-drained soil but also grows well in sandy, medium loam or rocky soils. Requires low water levels and is low-maintenance. Once established, it can flourish without rinsing or flushing, surviving on whatever rainfall it gets.

Flower Close up



Hosted Insects

Walter's Silkmoth (*Saturnia walterorum*)
Caloptilia Ovatiella (*Caloptilia Ovatiella*)

Restoration Notes

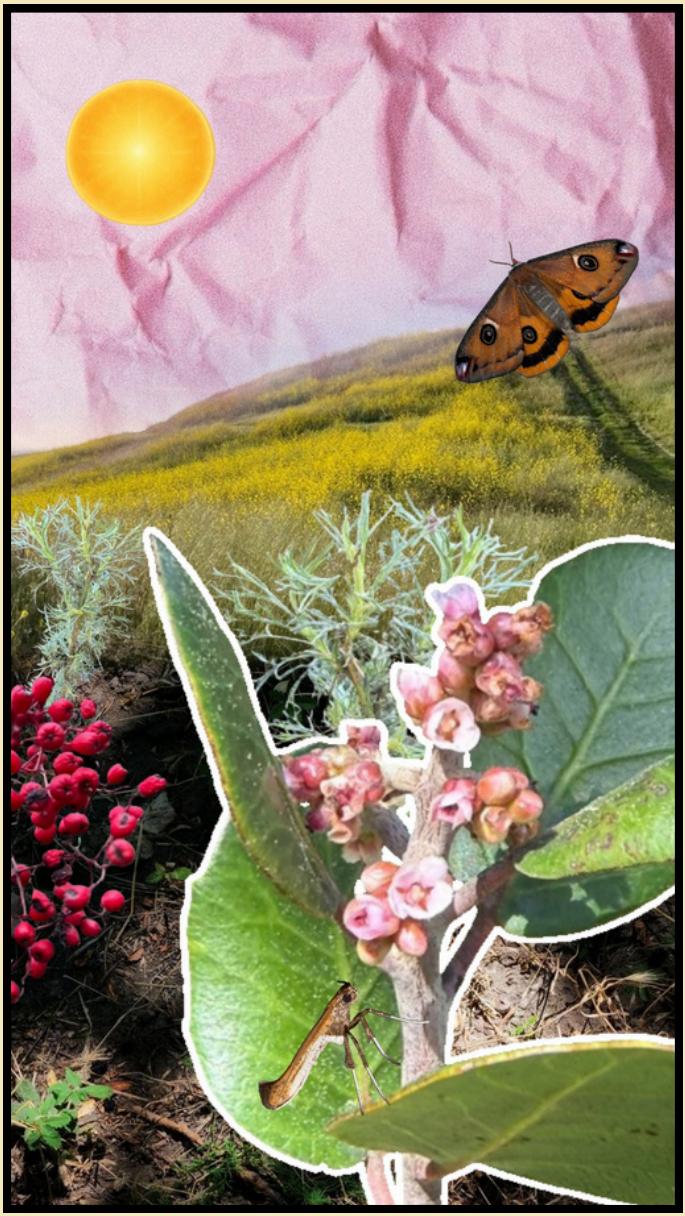
Good for erosion control. Fire and deer resistant. Berries are a source of food for birds and small mammals. The dense foliage provides habitat and shelter for various creatures.

Reproduction

Seed (Dispersed by birds), Rhizomes
Partially dioecious (male and female)

Dormancy

Evergreen



Ethnobotany

Native people including the Kumeyaay and Luiseño would prioritize using the berries to make drinks. The berries were pounded, dried, winnowed and then eaten; sometimes the berries were even eaten uncooked. The Kumeyaay would also place the leaves of the plant in the corners of their mouths to quench their thirst on long journeys, as well as ground the seeds to make a tea for sickness and a tea from the bark for right after a baby was born.

Fuchsia-Flowered Gooseberry

Tongva Name: Kochaar
Ohlone Name: ’Éeriniš Tíwwiš Laklak

Ribes speciosum

Horticulture:

Thrives in deep shade or partial shade. Can be watered once a month once established for summer irrigation. Casual watering during the summer keeps the leaves green but can go summer dormant in dry conditions.

Flower Close up



Hosted Insects

Tailed Copper (*Lycaena arota*)
Milbert’s Tortoiseshell (*Aglais milberti*)

Restoration Notes

Pioneer species. Found in shaded woodlands and chaparral, or seasonally damp slopes. Deer resistant. Its flowers are great for attracting hummingbirds, and the fruits for grosbeak and mockingbirds.

Reproduction

Seed, Hummingbird pollination (Through nectar feeding)

Dormancy

Summer Deciduous, Summer Semi-deciduous



Ethnobotany

The bitter berries were eaten by the Luiseño tribe. When it came to the spiny gooseberries, they would use a long stick to knock the berries into a basket. The spikey pricks on the fruit would be rubbed off with another basket or with rocks, or burnt over hot coal.

White Sage

Chumash Name: We'wey

Salvia apiana

Horticulture

Drought-adapted low-water shrub that prefers full sunlight. Requires well-drained, dry soils. Too much watering during summer months will likely kill the plant. Avoid over-watering seedlings and plants; plants will mildew if they experience too much humidity or shade. Pruning leaves and branches is recommended to activate new growth.

Flower Close up



Hosted Insects

California Pyrausta Moth (*Pyrausta californicalis*)

Volupial Pyrausta Moth (*Pyrausta volupialis*)

Restoration Notes

Pioneer species. Very valuable pollinator species. Good for erosion control.

Reproduction

Seed

Dormancy

Summer Semi-deciduous



Ethnobotany

The Cahuilla people would use white sage seeds in one of their main foods called, 'Pinole'. They would collect seeds with a seed beater basket and flat basket and then would be ground into a meal. The Cahuilla, Costanoan, Diegueño, Kawaiisu, and Maidu tribes used white sage seeds to clean and heal their eyes. Cahuilla women would drink an infusion of white sage roots after giving birth to remove afterbirth and promote internal healing.

Chia

Tongva Name: Pashí, Pashiiy
Ventureño Name: It'epeš
Salvia columbariae

Horticulture

Requires full sunlight, good soil drainage, and an enough amount of water to become established. Drought-tolerant. Can tolerate some moisture during the growing period but shouldn't be watered too often.

Flower Close up



Hosted Insects

California Pyrausta Moth (*Pyrausta californicalis*)
Volupial Pyrausta Moth (*Pyrausta Volupialis*)

Restoration Notes

Has adapted to dry conditions and soils of low fertility. It is one of the fire following species that increases in large amounts after a fire.

Reproduction

Seed

Dormancy

N/A (annual)



Ethnobotany

Chia was often harvested along with corn in the fields of the Nahua peoples of ancient Mexico. The Diegueño people would chew chia seed on journeys to keep up their strength; it was said that one tablespoon of seed was enough to give a person 24 hours of energy. The seeds were harvested by bending the stalks over baskets and beating the seeds out of the prickly heads with a seedbeater. The Cahuilla tribe would harvest the entire stalk and tie them into bundles.

Black Sage

Tongva Name: Kasili/Kasiile, Paa'or Yamaaxa'

Salvia mellifera

Horticulture

Prefers full sunlight and well-drained soil, especially sandy or rocky loam. Low moisture plant that requires no extra watering, once established. Common in hot, dry areas of the coastal sage scrub and lower chaparral. During the warmest and driest months, the black sage leaves are smaller and curl in shape, which helps to lessen water loss and increase survival rate.

Flower Close up



Hosted Insects

Gray Hairstreak (*Strymon melinus*)
California Pyrausta Moth (*Pyrausta californicalis*)
Volupial Pyrausta Moth (*Pyrausta volupialis*)

Restoration Notes

Good for dry slopes and erosion control. Fire adapted; it re-sprouts from the base after disturbance and self-sows in recovering soils.

Reproduction

Seed

Dormancy

Evergreen, Summer Deciduous, Summer Semi-deciduous



Ethnobotany

The Tongva people would ground the seeds into a meal and make seasonings out of the stems and leaves. Other tribes (names unconfirmed) would use parts of the plant to treat sicknesses like bronchitis and paralysis. They would heat the leaves and apply over the body, for earaches and sore throats

Blue Elderberry

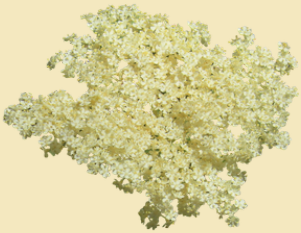
Tongva Name: Huukat, Ku.ut Hupa Name: Ch'iwhiwh
Tolowa Name: Luu-k'vm'

Sambucus nigra ssp. caerulea

Horticulture

Thrives in full to partial sunlight, on well-drained soil, especially clay, loamy, and sandy. Drought-tolerant. Fast- growing plant but pruning can easily keep it small or in shape. Once established, it is low-maintenance. It is best to harvest the flowers when they are in full bloom and fragrance, and clip the berries when they are fully blue and soft.

Flower Close up



Hosted Insects

Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)
White-lined Sphinx (*Hyles lineata*)

Restoration Notes

Deer resistant. Useful ground cover for stabilizing stream banks and destroyed sites. Usually planted because of its useful forage and cover, adaptability, and easy establishment. Provides food, cover, perching, and nesting for many western songbirds and other wildlife.

Reproduction

Seed

Dormancy

Winter deciduous



Ethnobotany

The Muwekma Ohlone tribe have a history of cooking or drying blue elderberry fruits before eating it, providing them with Vitamin C. The liquid extracted from boiling the leaves was used as a laxative and a cure for colds. They would use the branches to make instruments like flutes and whistles and the blossoms to make tea for curing fevers.

California Goldenrod

Solidago velutina ssp. californica

Horticulture

Prefers full sun to part shade, and best to keep moist in winter and spring, and dry in summer. Thrives in medium to fast-drained soil, requiring less watering once established. Occasional watering in summer will increase the bloom period. Can spread slowly in heavy clay but spread aggressively in lighter soils with regular watering. Important to provide plenty of space for spread.

Flower Close up



Hosted Insects

(*Phymata arctostaphylae*)

Restoration Notes

Deer resistant. Good erosion control. Attracts pollinators like bees and butterflies. The plants beauty and ecological benefits make it popular for low-water landscapes.

Reproduction

Seed (wind dispersed)

Dormancy

Evergreen



Ethnobotany

The Cahuilla tribe used California goldenrod to make a hair rinse and medicine for feminine hygiene. They also boiled leaves and used the extract to wash wounds and ulcers, and then would sprinkle powdered leaves on the wounds, which was also used for saddle sores on horses. Spanish Americans used the plant by mixing it with soap to make a plaster (bandage) to bind on sore throats.

Purple Needlegrass

Stipa pulchra

Horticulture

Thrives in many soils including, deep clay, disturbed areas, cut slopes, thin soils, and serpentine. When plant is moisturized daily, the sharp pointed seeds will self-bury into the soil. Is best to plant in the fall to take advantage of winter rains. Drought-tolerant once established and requires no summer irrigation.

Flower Close up



Hosted Insects

Common Ringlet (*Coenonympha california*)

Restoration Notes

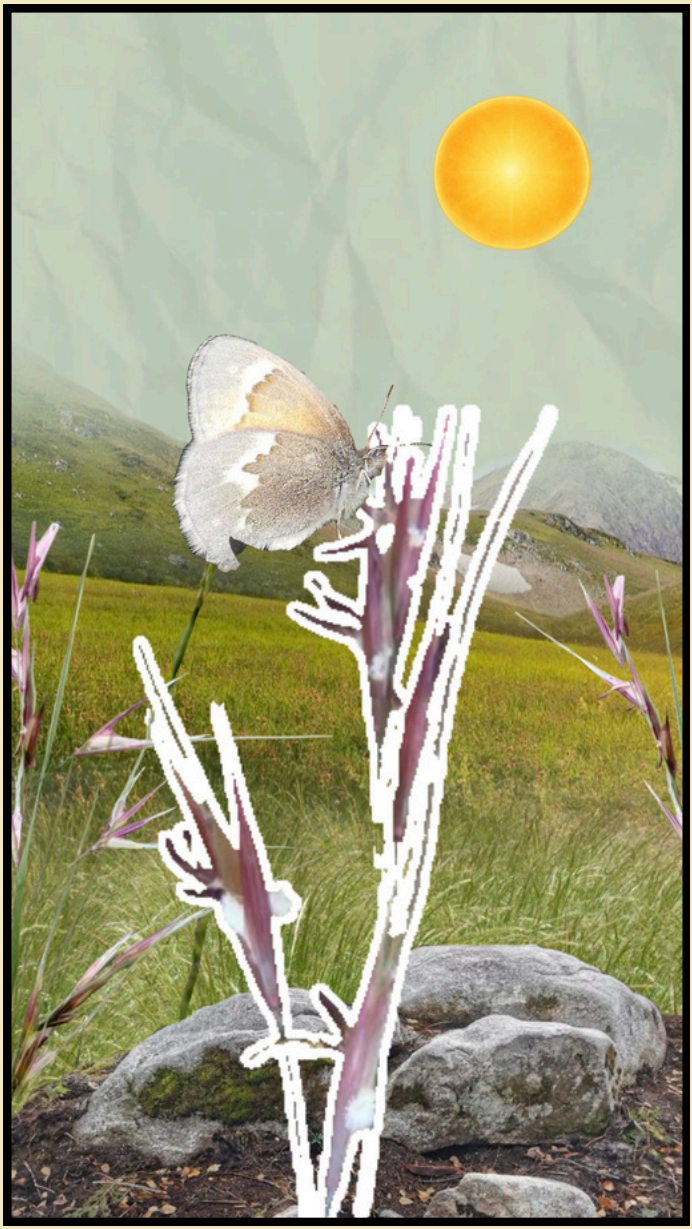
Deer resistant. Produces food for over 330 wildlife species, including deer and elk. Good erosion control plant because of its deep root system and tolerance to drought and poor soil conditions, and ability to establish on disturbed sites.

Reproduction

Seed (wind dispersed)

Dormancy

Evergreen



Ethnobotany

During the period of Mexican control in California, purple needlegrass was used for cattle grazing to support the cowhide and tallow industry. Native American tribes of California (names unconfirmed) would roast or grind the plant's seeds into flour for porridge. The stems were used for basket weaving and other traditional makings, along with being used as medicine.

Western Vervain

Chumash Name: Šixwapš'i'ašk'a' ('alapkaswa' dialect)

Verbena lasiostachys

Horticulture

Prefers full sunlight and well-drained soil, along with clay, loamy, or sandy soils, as long as enough moisture is provided. This plant can spread aggressively in moist areas and should be grown where it can be monitored. Western Vervain, when it's adaptable, can tolerate either wet or dry conditions, seasonal flooding, and drought.

Flower Close up



Hosted Insects

Common Buckeye butterfly caterpillar (*Junonia coenia*)
Fine-Lined Sallow (*Catabena lineolata*)
Gray Buckeye (*Junonia grisea*)

Restoration Notes

Pioneer species. Good for erosion control. Attracts pollinators like hummingbirds, butterflies, and others.

Reproduction

Seed; rhizomatous

Dormancy

Winter deciduous



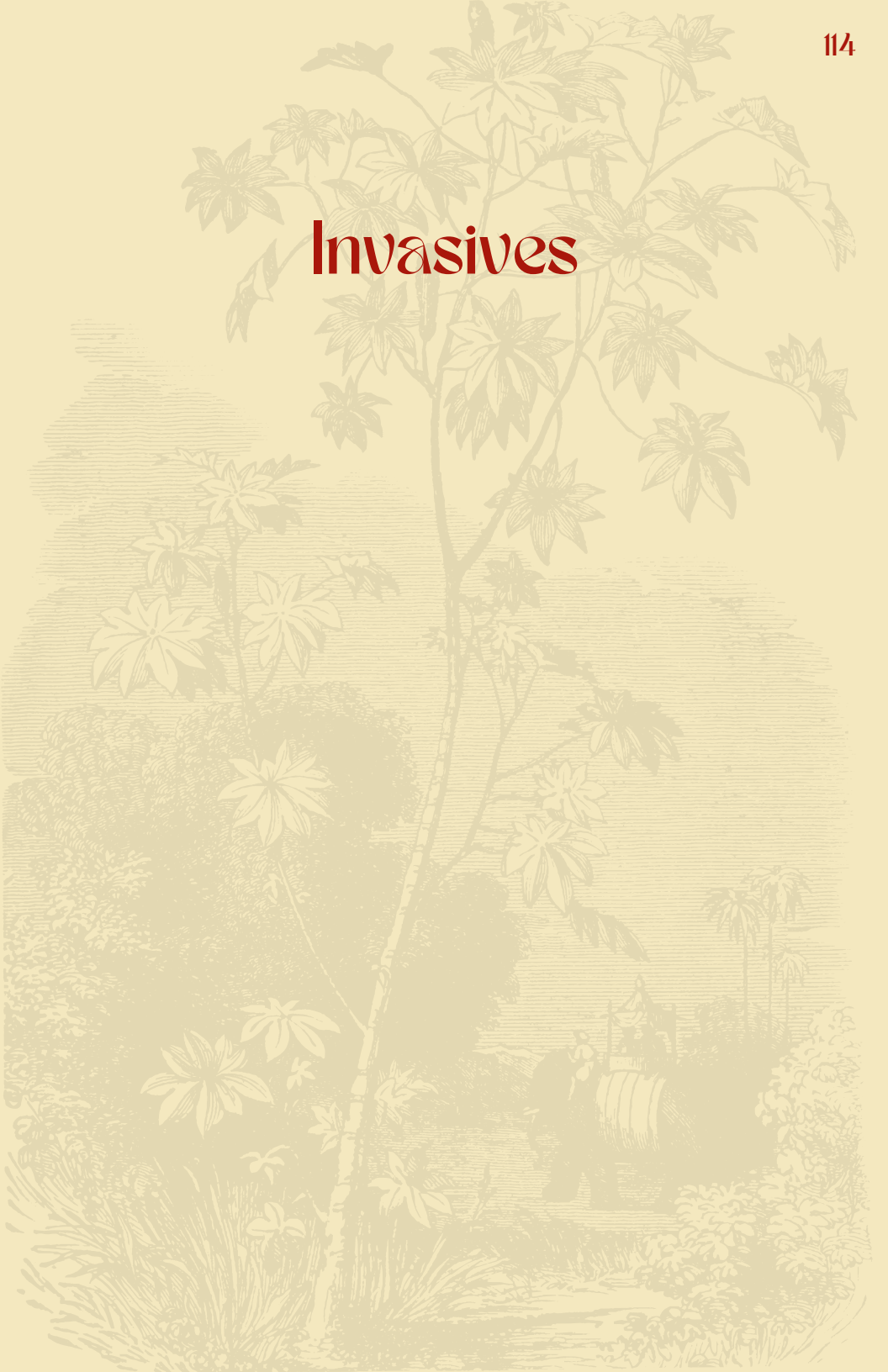
Ethnobotany

The Chumash people would boil the root with added sugar and then the extract/liquid was consumed for fevers. They would also strain the crushed leaves with water for washing hair in order to freshen the scalp.



Griffith Park (Mount Hollywood Trail)

Invasives



Tree of Heaven

Ailanthus altissima

Description

Deciduous tree which can grow up to 90 feet with large pinnate leaves and small white to greenish flowers. Flowers are ¼ in. wide arranged in branched clusters 3–5 in. long. Seeds are contained in large papery capsules. Bark, crushed leaves and flowers give off peanut butter/popcorn smell.

Close up



Habitat

Dry forests, riparian areas, roadsides, and disturbed areas

Restoration Notes

The best method for removal is hand pulling before roots have been established. Following establishment, complete removal of the stump/roots is the best option. Tree of Heaven is very common in disturbed areas because of its high tolerance to poor soil.

Spreading Potential

Reproduces by seed and prolific root sprouting when threatened. A single tree can produce up to 325k seeds in a single year. Roots also secrete chemicals which harm nearby plant growth



Invasive Origin

Native to eastern China. Was planted throughout the US during the nineteenth century because of it's tropical look, rapid growth, and resilience in urban environments.

Slender Oats/Wild Oats

Avena barbata/Avena fatua

Description

Slender and Wild Oats are annual grasses which grow to about 4 feet tall and have round, almost hairless stems. Leaves are flat, rolled into the bud and are up to 8 inches in length. Bloom from March- June and flower heads are open and branched. Have extensive fibrous root systems.

Close up



Habitats

Grassland, crop fields, orchards, vineyards, gardens, roadsides, other disturbed sites

Restoration Notes

Hand pulling and mowing are the best methods for removal. Tilling during germination prior to seed setting is also effective. Slender and Wild oats are pioneer species often being among the first species to appear in disturbed areas.

Spreading Potential

Slender and Wild Oats reproduce by seed. Species are capable of producing up to 10k seeds per year which are dispersed by wind and agricultural machinery. Seeds can also remain dormant in ground for many years.



Invasive Origin

Avena barbata is native to Asia and Mediterranean Europe and Avena fatua is native to Eurasia.

Black Mustard

Brassica nigra

Description

Black Mustard is an annual herb/forb which often grows 3-6 feet but can reach 12 feet high. Leaves lower on the stem are up to 10 inches long and are divided into 3 or 5 lobes. Leaves higher are smaller and less divided. Bright yellow flowers in clusters on small stems at the ends of main branches. Flowers are ~1/2 inch across.

Flower Close up



Habitat

Scrub & Chaparral
Grasslands
Riparian areas

Restoration Notes

Hand pulling is the best method for removal of Black Mustard. Shallow tillage prior to seed setting is also effective. Grazing by animals like cow, sheep, or goats can also be effective if the means are available.

Spreading Potential

Black Mustard reproduces by seed. Capable of producing more than 1k seeds yearly and seeds often accumulate into large seedbanks which can persist for many years.



Invasive Origin

Native to North Africa, temperate regions of Europe, and parts of Asia. Likely introduced to the US and California for the purpose of cultivation of its seeds.

Rattlesnake Grass

Briza maxima

Description

Rattlesnake Grass, also known as Big Quaking Grass, is a winter annual grass which can grow up to 3 feet. Possesses brown, nut-like, clusters of seeds that resemble a rattlesnakes tail. Clusters are present at ends of long, thin stalks .

Close up



Habitat

Coastal areas
Open grasslands
Disturbed areas

Restoration Notes

Hand pulling and tillage prior to seed production is an effective method. Grazing by livestock animals is also an option.

Spreading Potential

Rattlesnake grass reproduces by seed. Reach reproductive maturity in less than 2 years and dense infestations can produce more than 1k seeds per square meter yearly.



Invasive Origin

Native to Europe, North & South Africa, and Asia

Red Brome

Bromus madritensis ssp. rubens

Description

Red Brome is a cool season annual grass which grows 8-20 inches.. Leaves are flat and slightly haired. Stems tipped with green to reddish sharp awns 2-3 inches long.

Close up



Habitat

Scrub & Chaparral
Coastal Prairies
Grasslands
Riparian & Cismontane woodland
Riparian Scrub

Restoration Notes

Hand pulling prior to seed ripening is the best method for removal. Shallow cultivation following germination is another option.

Spreading Potential

Reproduce by seed. Reach reproductive maturity in less than 2 years and dense infestations can produce more than 1k seeds per square meter yearly. Awns can stick to clothes/livestock taking seeds long distances.



Invasive Origin

Native to southern Europe, northern Africa, and southwestern Asia. Establish in California by 1848 and naturalized by the 1890s.

Poison Hemlock

Conium maculatum

Description

Biennial forb which is entirely toxic to humans and animals when ingested. Handling can also cause contact dermatitis. Grows 3–8 feet tall with stout, hollow, purple spotted stems. Possesses a large white taproot resembling wild parsnips.

Flower Close up



Habitat

Chaparral, coastal prairie, marsh and swamp, riparian, disturbed areas

Restoration Notes

Hand pulling the entire taproot is the best method for removal. Gloves should be worn and other precautions taken as all parts of Poison Hemlock are toxic.

Spreading Potential

Reproduce by seed. Reach reproductive maturity in less than 2 years and dense infestations can produce more than 1k seeds per square meter yearly. Self and cross-pollinates for 3 or more months annually and seeds can remain viable for 3 or more years.



Invasive Origin

Native to Europe, North Africa, and Asia. Was introduced to the US as a garden plant sometime in the 1800s.

Fennel

Foeniculum vulgare

Description

Perennial herb which can grow up to 10 feet. Small yellow flowers which form umbrella shaped clusters about 4 inches across. Leaves, stem, roots, and seeds hairless with strong licorice scent.

Flower Close up



Habitat

Coastal scrub and prairie, chaparral, grassland, riparian areas, woodland, disturbed areas

Restoration Notes

Hand pulling/chopping before flowering is the best method of removal. Repeat slashing could be necessary.

Spreading Potential

Reproduce by seed and crown. Also resprouts when cut, grazed, or burned. Reach reproductive maturity in less than 2 years and dense infestations can produce more than 1k seeds per square meter yearly. Produces seeds for 3 or more months annually and seeds can remain viable for 3 or more years.



Invasive Origin

Native to southern Europe and the Mediterranean region. Has been present in California at least 120 years and likely escaped from cultivation.

Horehound

Marrubium vulgare

Description

Cool season perennial which can grow to 2 feet but is often a low shrub. densely hairy stems. Aromatic leaves .5- 2.5 inches with round-toothed edges.

Close up



Habitat

Pastures, fields, roadsides, rangeland, disturbed natural areas, ditches. Common in dry and overgrazed areas.

Restoration Notes

Hand pulling/hoeing is the recommended method for removal. Repeat treatments may be needed for new seedlings. Mowing prior to seed production can also be effective.

Spreading Potential

Reproduce by seed. Reach reproductive maturity in less than 2 years and dense infestations can produce more than 1k seeds per square meter yearly. Produces seeds for 3 or more months annually and seeds can remain viable for 3 or more years.



Invasive Origin

Native to Europe, Northern Africa, Southwestern and Central Asia.

Tree Tobacco

Nicotiana glauca

Description

Small tree/shrub which grows 6 – 20 feet. Blue-gray leaves 2-8 inches long. Tubular bright yellow flowers.

Close up



Habitat

Disturbed places, roadsides, urban waste areas, gravel quarries, landscaped sites, riparian areas, grassland, and woodland.

Restoration Notes

Hand pulling is recommended for smaller plants while use of a tool like a weed wrench is advised for larger plants. Treatment prior to flowering is effective.

Spreading Potential

Reproduce by seed. Dense infestations can produce more than 1k seeds per square meter yearly and produces seeds for 3 or more months annually. Also has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes and resprouts when cut, grazed, and burned.



Invasive Origin

Native to South America.

Castor Bean

Ricinus communis

Description

Semi-woody perrenial, shrub, or small tree, which can grow to 10 feet. Large shield-like leaves with 5-11 lobes. Hollow, red tinged stem with no hair. Male and female flowers present on the same plant and all lack petals.

Close up



Habitat

Roadsides, fields, riparian areas, and disturbed waste places

Restoration Notes

Hand pulling is recommended for individual and smaller plants. Tools like weed wrenches are effective for larger ones. Be sure to remove the bulk of the root crown to prevent regeneration. Every part of plant is toxic so wear gloves.

Spreading Potential

Reproduce by seed. Reach reproductive maturity in 2 years or less and produce seed yearly. Production sustained for 3 months or more and seeds remain viable for 3 or more years. Fragments easily and fragments can establish elsewhere while also resprouting when cut, grazed, and burned.



Invasive Origin

Native to temperate regions of Asia and Africa. Has been cultivated as an oil crop and ornamental, likely escaped from cultivation.

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Los Angeles River (Sepulveda Basin)



Coast Live Oak “The Majestic Oak” (CalBG)



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