

Native Plant Identification and Propagation Guide

**UC Berkeley
Strawberry Creek Restoration Program**

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GRASSES, RUSHES, and SEDGES

“Sedges have edges, rushes are round, grasses have nodes from their tips to the ground.”

Sedges have stems triangular in cross section, rushes STEMS are round in cross section, grasses are flat/oval in cross section and have hollows (STEM and LEAF).



Grass (nodes)

http://www.illinoiswildflowers.info/grasses/photos/rice_cutgrass2.jpg



Rush (round)

https://upload.wikimedia.org/wikipedia/commons/6/65/Juncus_effusus.jpeg



Sedge (edges)

<http://science.halleyhosting.com/nature/cascade/mtadams/sedge/carex/stipata/stipata1d.jpg>

Pacific reed grass *Calamagrostis nutkaensis*



IDENTIFICATION

- Up to 3 feet, evergreen, grow in clumps, leaves are tough and flat (1 cm wide)
- wet habitat, near beaches, woodland edges
- Alaska to San Luis Obispo, coasts.

PROPAGATION

- by seed does not require treatment. 8” plugs recommended with 4 seeds per tube. Peat moss, perlite, fir bark, sand.
- at maturity, seed is brown and can be collected May 1st – August 15th.
- strip by hand from inflorescence and keep dry and refrigerate.
- takes 21 days to germinate

<https://courses.washington.edu/esrm412/protocols/CANU.pdf>

Deergrass *Muhlenbergia rigens*

IDENTIFICATION

- leaves about 3 feet, evergreen, grows in clumps, narrow, pointed leaf blades
- flowers are silver and long about 2-3 feet
- Oregon-CA border to Mexico, east to Texas

PROPAGATION

- by seed (blooms June-September), no treatment
- start in flats in May, plant in Fall
- once established (2yrs) can be divided in winter with a sharp spade and transplanted.

FUN FACTS

- stems used by native Americans for coil baskets, seeds ground up for corn meal
- does not “seed around” and become invasive like pampas grass



[http://calscape.cnps.org/Muhlenbergia-rigens-\(Deergrass\)](http://calscape.cnps.org/Muhlenbergia-rigens-(Deergrass))



Purple Needlegrass *Nassella pulchra*

IDENTIFICATION

- occurs on west coast ranges and central valley foothills
- densely tufted, numerous basal leaves, leaf blades smooth to finely hairy
- conspicuous purple awns

PROPAGATION

- 2-4 week window for seed collection in mid- to late-Spring
- while getting established in first year, less competition is good because grows slow.
- Seeds

FUN FACTS

- grows well on disturbed soils, clay soils, “droughty” soils
- awns of the seed twist and untwist to drill seed into the soil

https://plants.usda.gov/plantguide/pdf/pg_napu4.pdf



Common Rush *Juncus patens*

IDENTIFICATION

- evergreen with a fountain-like form
- flower cluster on side of plant
- thin, grooved, and slightly waxy leaves
- what would be “blades” take the form of round brown sheaths near the base of the stems

PROPAGATION

- seed (blooms spring to fall) to be placed atop soil with a light covering of soil
- consistent soil moisture is key as well as sun
- once 4 inches high, can be transplanted

FUN FACTS

- tolerates no drainage and seasonal flooding, a variety of environments

<http://www.outsidepride.com/seed/ornamental-grass/juncus/juncus-patens.html>



Santa Barbara Sedge *Carex barbarae*

IDENTIFICATION

- basal sheaths are red-spotted to purple
- flower spikes that droop slightly and are about 2-4 inches long
- evergreen and grows in wet habitats
- longer than Foothill Sedge

PROPAGATION

- naturally propagation through rhizomes, can separate the plants between spring and early summer. Seeds are also produced.

FUN FACTS

- rarely fruits and most are sterile

[http://calscape.org/Carex-barbarae-\(Valley-Sedge\)?srchr=sc587d91bb18855](http://calscape.org/Carex-barbarae-(Valley-Sedge)?srchr=sc587d91bb18855)



Foothill sedge *Carex tumulicola*

IDENTIFICATION

- shorter than the Santa Barbara Sedge
- flowers are cream colored

PROPAGATION

- division or seed. When flowers are brown in late summer or fall, collect seeds

FUN FACTS

- does better in well draining soils; can tolerate drought

[http://calscape.org/Carex-tumulicola-\(Foothill-Sedge\)?srchr=sc587d96749c468](http://calscape.org/Carex-tumulicola-(Foothill-Sedge)?srchr=sc587d96749c468)

<https://courses.washington.edu/esrm412/protocols/CATU3.pdf>

LOW GROWING HERBACEOUS PERENNIALS



Douglas Iris *Iris douglasiana*

IDENTIFICATION

- 1-2 ft long, flat evergreen leaves. Perennial
- flower is typically blue but can range to creamy white or yellow

PROPAGATION

- rhizome divisions in late fall/ early spring
- seeds (collected from large capsules) to be planted in early fall

FUN FACTS

- *Iris* is Greek for “rainbow,” referring to the colors of the flower

http://www.wildflower.org/plants/result.php?id_plant=IRDO



Coral Bells *Heuchera*

IDENTIFICATION

- purple veined green leaves that are large and form a rosette pattern
- 2 ft long pinkish flower stalks that are shaped like bells

PROPAGATION

- seed or cuttings. For cuttings, cut an offshoot with a woody stem that has leaves growing off it. Remove part of the bottom of stem and the larger leaves at base. Plant in potting soil

FUN FACTS

- commonly planted for the leaves themselves!

http://www.wildflower.org/plants/result.php?id_plant=HEMA4,

<http://tmousecmouse.blogspot.com/2010/10/propagation-for-incompetent.html>



Wild ginger *Asarum*

IDENTIFICATION

- densely low-growing perennial
- shiny dark green leaves have a heart shape

PROPAGATION

- rhizome division in early spring or fall. Do so by uprooting root ball and slicing into two pieces, leaving some leaves attached.

FUN FACTS

- when leaves are crushed they emit a lemon fragrance

<https://courses.washington.edu/esrm412/protocols/ASCA2.pdf>



Elk clover *Aralia californica*

IDENTIFICATION

- green, compound leaves with 3-5 leaflets

PROPAGATION

- collect seeds in summer and sow in fall
- cuttings can be taken in summer of about 10 in, strip 1/3 of leaves and plant upright in soil

FUN FACTS

- belongs to Ginseng family and can be used as a tonic

<http://homeguides.sfgate.com/propagate-aralia-25217.html>



Hedge nettle *Stachys bullata*

IDENTIFICATION

- 1-2 ft flower stalk with pink flowers
- does not sting

PROPAGATION

- plant seeds in late spring or early summer.

FUN FACTS

- decoction of roots can be gargled to help a sore throat

<http://www.pfaf.org/user/Plant.aspx?LatinName=Stachys+bullata>



Bee plant *Scrophularia californica*

IDENTIFICATION

- leaves are triangular with toothed margins, opposite pairs on square stem
- pink mahogany small flowers

PROPAGATION

- Seeds in late spring to summer, plant in fall

FUN FACTS

- significantly attracts bees

<http://calscape.org/Scrophularia-californica-0>



Cow Parsnip *Heracleum lanatum*

IDENTIFICATION

- stem is around 6 ft tall with large white flowers in the form of umbels on top
- leaves take a rosette pattern
- thrives on stream banks

PROPAGATION

- collect seeds when fruit capsules turn tan in late summer
- seeds must be soaked to leach out chemical inhibitors
- outplant in early fall after 1.5 years

FUN FACTS

- this plant is part of the Carrot Family, Apiaceae

<https://courses.washington.edu/esrm412/protocols/HEMA8o.pdf>

Woodland strawberry *Fragaria vesca*

IDENTIFICATION

- leaves are an inch or less long and have toothed margins
- produces small edible strawberries and small white flowers

PROPAGATION

- seeds mature in summer
- sow seeds in spring
- does best in shady, moist areas

FUN FACTS

- not only are the berries delicious, the leaves can be used fresh or dried to make tea



<http://www.pfaf.org/user/plant.aspx?latinname=Fragaria+californica>



Narrowleaf milkweed *Asclepias fascicularis*

IDENTIFICATION

- white flowers take an umbrella shape atop a 3-5 ft high stem.
- leaves are narrow arranged whorled

PROPAGATION

- seeds to be collected before the pods are split open in summer
- sow seeds in fall, with a higher germination probability the sooner they are planted

FUN FACTS

- the seed fibers can be made into yarn and woven into clothing
- monarch butterflies have co-evolved with milkweed as the plant produces toxins that are also present in the monarch caterpillar, making it unpalatable to predators

https://plants.usda.gov/plantguide/pdf/cs_asfa.pdf



Sticky Monkey Flower *Mimulus aurantiacus*

IDENTIFICATION

- as the name suggests, the stem and leaves are sticky
- flowers are trumpet shaped and golden

PROPAGATION

- seed or cuttings
- for softwood cuttings: gather non-flowering shoots at beginning of day
- cut a 4 in shoot from the base by a bud and remove lower leaves then plant and keep moist

<https://www.anniesannuals.com/plants/view/?id=3737>



Western chain fern *Woodwardia fimbriata*

IDENTIFICATION

- can grow 5-9 ft tall
- leaf form produces a chain-like appearance

PROPAGATION

- spores to be collected in summer, when planted will germinate in 3-4 weeks
- or rhizome division

FUN FACTS

- largest North American endemic fern

<http://depts.washington.edu/propplnt/Plants/Woodwardia%20fimbriata.htm>

SMALL/MEDIUM BUSHES

Ceanothus Anchor Bay *Ceanothus gloriosus*



IDENTIFICATION

- in partial shade inland to full sun coastal
- lowering clusters of blue blossoms in spring with holly-like, toothed leaves
- dense ground cover that can reach 3 ft tall

PROPAGATION

- by cutting or seed after a dry period.
- seed: hot water then 3 months stratification

FUN FACTS

- do not water or it will suffer greatly; needs well-draining soil
- do not pry or prune roots; will suffer if roots are handled

[http://calscape.org/Ceanothus-gloriosus-\(Point-Reyes-Ceanothus\)?srchr=sc581d203a1c0aa](http://calscape.org/Ceanothus-gloriosus-(Point-Reyes-Ceanothus)?srchr=sc581d203a1c0aa)

http://www.smgrowers.com/products/plants/plantdisplay.asp?plant_id=1755



Trailing Snowberry *Symphoricarpos mollis*

IDENTIFICATION

- spreading low shrub with pink flowers in June and white berries
- shade tolerant/intolerant
- found in meadows, grasslands, forests

PROPAGATION

- take hardwood cutting in late summer or early fall and put in soil. if seed, need two winters to germinate

https://c2.staticflickr.com/4/3453/3991651061_c79059e53f_z.jpg?zz=1



Creambush *Holodiscus discolor*

IDENTIFICATION

- deciduous shrub that grows to 4-5 ft and has cream colored clusters from May-July
- partial shade inland to full sun coastal

PROPAGATION

- September to October. Fruit should be collected while the flower clusters are dark brown. Seed must be either sown in the fall or undergo a cold, moist stratification for 15 to 18 weeks

FUN FACTS

- can tolerate wide range of moisture conditions

http://www.goert.ca/propagation_guidelines/shrubs/holodiscus_discolor



Pink honeysuckle *Lonicera hispidula*

IDENTIFICATION

- deciduous shrub with pink flowers
- grows in full sun to shade; grows sturdily in many places like a vine

PROPAGATION

- make approx. 4 inch cutting, keep it moist and cool

FUN FACTS

- makes great for a bird garden!

http://www.laspilitas.com/images/grid24_24/7515/s/images/plants/398/Lonicera_hispidula-3.jpg



Huckleberry *Vaccinium ovatum*

IDENTIFICATION

- likes moist shade
- grows 2-3 ft and has spring flowers, fall berries

PROPAGATION

- take cuttings in autumn. cut woody area and plant in soil with perlite mix

FUN FACTS

- can do well under redwood canopies
- edible fruit

http://www.laspilitas.com/images/grid24_24/5933/s/images/plants/683/Vaccinium_ovatum-2.jpg



Coffeeberry *Frangula californica* *(previously Rhamnus californica)*

IDENTIFICATION

- evergreen shrub that can grow to 8 ft with small spring flowers and red berries that later turn black
- sun or shade

PROPAGATION

- take cuttings and put in soil

FUN FACTS

- good landscaping plant because grows very neatly and slightly; super versatile overall in all soil types

https://upload.wikimedia.org/wikipedia/commons/thumb/9/91/Rhamnus_californica_californicaIMG_6024.jpg/280px-Rhamnus_californica_californicaIMG_6024.jpg



Thimbleberry *Rubus parviflorus*

IDENTIFICATION

- 1-2 ft shrub with maple like leaves and gray flaking bark
- flowers are white in late spring and fruits are like red raspberries in fall
- found in sun to partial shade near water

PROPAGATION

- follow general cutting methods

http://www.nwplants.com/business/catalog/rub_par.html



California blackberry *Rubus ursinus*

IDENTIFICATION

- found in sun to partial shade
- sets of three leaves, needle-like thorns; white flowers late spring and summer, fall berries

PROPAGATION

- follow general cutting methods

FUN FACTS

- irrigation: likes more water but can tolerate dry soils
- put in moist places such as stream banks, canyons, woodland understory



Red flowering currant *Ribes sanguineum*

IDENTIFICATION

- tolerates deep to partial shade; generally does well in most conditions
- early spring bloom of pinkish red flowers with dark fruit in fall
- maple like leaves and can grow to 6 ft

PROPAGATION

- take softwood cuttings; roots in 4-6 weeks

FUN FACTS

- although drought tolerant, plant near more moisture, and can grow in clay-dominant soil

http://www.goert.ca/propagation_guidelines/shrubs/ribes_sanguineum



Twinberry *Lonicera involucrata*

IDENTIFICATION

- tolerates full sun but better in shade; best in moist areas, great under wood canopy, in riparian zones, and bogs
- deciduous shrub that usually reaches 6 ft and has yellow flowers with berries ripening in July

PROPAGATION

- for winter, follow the protocol for hardwood cuttings; for spring, use softwood

FUN FACTS

- valuable shrub for streambank erosion control and restoration of riparian areas!

<http://blackfootnativeplants.com/wp-content/uploads/2012/01/Twinberry-Honeysuckle.jpg>



Rose *Rosa californica*

IDENTIFICATION

- prefers sun in Northern California
- grows about 4-5 ft, has thorny stems, and pink flowers all summer
- can do little to no irrigation

PROPAGATION

- select pencil thick shoots in early autumn that are about 20 - 25cm long and plant them in a sheltered position outdoors or in a cold frame

http://practicalplants.org/wiki/Rosa_californica

LARGER SHRUBS/TREES



Toyon *Heteromeles arbutifolia*

IDENTIFICATION

- can grow upwards of 10 ft in full sun but tolerates full shade
- has wide white flowers in the summer but red berries in the winter

PROPAGATION

- cut ~5 inch tips of semi ripe wood in the early summer, strip off lower half of leaves, and dip into a rooting hormone. Keep in pots, water often

FUN FACTS

- it is very drought tolerant and will do well in any soil

https://www.sanelijo.org/sites/sanelijo.org/files/images/plant_guide/Heteromeles/Heteromeles_arbutifolia9_0.jpg



Pacific wax myrtle *Myrica californica*

IDENTIFICATION

- can grow up to 30 ft in full sun to partial shade
- has waxy, shiny leaves and female flowers that will bear brown-purple berries in fall

PROPAGATION

- research from UC Davis shows that cuttings of wax myrtle are very hard to propagate

FUN FACTS

- Irrigation: quick draining soil; drought tolerant
- Sometimes also referred to as California Bayberry

<https://ucanr.edu/repositoryfiles/ca1912p10-59175.pdf>



Red twig dogwood *Cornus sericea*

IDENTIFICATION

- deciduous shrub that likes to spread out and can grow in partial shade 6-12 ft tall
- has noticeable red stems and white blossoms in May and June and pea-sized berries

PROPAGATION

- take hardwood cuttings

FUN FACTS

- irrigation: moister soil
- also referred to as red osier dogwood

http://goodnightdesign.com/wp-content/uploads/2013/04/Cornus_sericea_foliage.jpg



Buckeye *Aesculus californica*

● IDENTIFICATION

- it likes full sun to partial shade and blooms from March-May
- distinct cluster of 5 large leaves
- near rivers or creek for moisture in soil

PROPAGATION

- By seed, best sown outdoors or in a cold frame as soon as it is ripe. The seed germinates almost immediately. The seed must not be allowed to dry out. Stored seed should be soaked for 24 hours prior to sowing. It is best to sow the seed with its 'scar' downwards. Softwood cuttings take very easily

FUN FACTS

- great for butterfly gardens!

<http://www.msnuceus.org/watersheds/mission/images/buckeye.jpg>



Big leaf Maple *Acer macrophyllum*

IDENTIFICATION

- likes full sun to partial shade as it can grow to more than 50 ft tall
- blooms from April-May and has characteristic maple leaf shape
- good in serpentine and clay soils with moisture; can't do too much heat

PROPAGATION

- Collect seeds in fall, gather them as late in the season as possible but before the rains begin. Can sow seeds directly into a cold frame. Many seeds don't survive storage. Sow in February or March. Allow the seedlings to remain in their mulched beds for at least two years before attempting to transplant

http://www.nwplants.com/business/catalog/ace_mac.html