Redbud’s Online Fall Plant Sale! Volunteer!

By Carol Thompson

Yes, we are having a fall plant sale and yes, it will take place online again.

Why online this fall? Two reasons: first, because of a significant surge of the coronavirus Delta variant in our counties, we want to avoid as much interpersonal contact as possible. Second, when an in-person sale is held, approximately 50 to 60 percent of the proceeds go towards expenses, and the sale requires 80 to 100 volunteers.
Two Days Just for Members
September 29 and 30, we’ll have special sale days just for members. Details will be on our Plant Sale page. Our online store, at cnps-rebud.square.site will show up only once the sale begins.

To assure you’re eligible for the members-only sale, check that your CNPS membership is current through October. You’ll find your membership “expiration date” on your membership card, at the back of your latest issue of Artemisia or Flora magazine in the upper left, or if you log in to “MyProfile” at https://www.cnps.org/. (If non-members try to order during the members-only sale, their orders will be refunded and their plants put back on the shelf.)

If you’re not a member now, or if your membership will expire before mid-October 2021, please go to our website, and click the “Join/Renew” button at top right, as soon possible to allow time for processing your membership. Don’t wait until just a day or two before the sale! Join or renew asap — by September 15 at the latest — so we can confirm your membership in time for the sale. Thanks!

Sale to General Public
On October 1 and 2, the Redbud store will be open to the general public (and members). We’ll post information about the sale and the store on our Plant Sale page and on Facebook.

Start Your Plant Lists
At least one week before the member sale begins, we’ll post a preliminary plant list on our Plant Sale page. You can start now to build your own list of plants you want to purchase, then refine it once the plant list is posted. You can use Calscape to start plant lists for specific areas of your property and a plant list for the upcoming sale. For step-by-step directions on how to create plant lists in Calscape, see Step 4 in the Redbud Chapter’s downloadable Guide to Calscape.

Our Online Plant Sale Needs Volunteers
An online sale requires fewer volunteers than an in-person sale. As happens with most organizations, however, a core group puts the event together. Many of the same members volunteer to help at every sale. Though we welcome their repeat participation, we’d love to see some new people help out this fall. Helping at the plant sale is fun and satisfying!

We are looking for folks for two main types of volunteer positions:
- Filling customer orders by pulling and boxing up plants
- Carrying boxes of plants to customer vehicles

Ames Gilbert
We anticipate needing up to six people on **Wednesday, October 6** and six people on **Thursday, October 7** to pull plants and box up orders in two shifts (three people per shift on Wednesday and three per shift on Thursday); each shift is three hours. On **Friday, October 8, and Saturday, October 9**, eight people are needed over four shifts (two people per shift) to help load boxes into cars; each shift is three hours. All four days (Oct. 6-9), the shifts are 10 a.m. to 1 p.m. and 1 to 4 p.m. Customers will choose a pickup time when they purchase their plants.

*Spicebush (Calycanthus occidentalis), common yarrow (Achillea millefolium) and more growing at Redbud’s nursery.*

We also need volunteers for the following tasks (Shift times still to be determined):

- **Sep. 20, 21, 22 or 24** (one day only; we don’t yet know which date): 1 or 2 **drivers** with van, large SUV, or covered truck (i.e., with a camper shell) to transport plants from Floral Native Nursery in Chico to the Redbud CNPS Nursery in Grass Valley. Also need 1 or 2 **co-pilots to help load and unload plants**. Please indicate which two dates work best for you when you email.
- **Thursday, September 23**: 3 people to **unload and arrange the plants** being delivered from Suncrest Nurseries.
- **Tuesday, Oct. 5**: 3 people to **apply colored dots** to all pots to indicate sizes, as well as check that all plants are in alpha order and have labels. The shift will be 10 a.m. to 1 p.m.

If you volunteer for October 6 through 9, then the day you volunteer you may take home the plants you ordered online. (As a result, you need not sign up for a specific pickup time on the Redbud signup.com site when you pay for your plants). If you volunteer for October 5 or earlier, you’ll still need to sign up for a plant pick-up time on October 8 or 9. Volunteers who work a minimum of 2.5 hours will have the opportunity to return to the nursery on October 9 to receive a free packet of mixed locally native wildflower seeds and choose a free plant from those not purchased during the online sale.

If you can help any of the days indicated, please email Carol at volunteer4redbud@gmail.com no later than September 13 and indicate which shift (or shifts – yes, you may sign up for multiple shifts, either on the same day or separate days) you can help. If we don’t hear from enough people by September 10, don’t be surprised if you hear from us! We look forward to seeing you in October.

**Other Items Available at Online Plant Sale**

As you start to think about what you want to get at our fall sale, keep in mind that our Redbud online store will also have available for sale merchandise beyond plants. This includes our Redbud books, other native plant books, Redbud T-shirts, “Native Plants Grow Here” signs, native plant posters, and more. You’ll also be able to purchase new and renewal memberships and make donations to CNPS.
Featured Plants for Redbud’s Fall Plant Sale 2021
By Nancy Gilbert, Redbud Chapter Horticulture Chair

Our Redbud Chapter’s 2021 Fall Plant Sale will feature a diversity of California native plants, with an emphasis on regionally native plants that our chapter’s native plant growers have propagated from locally sourced seeds and cuttings. We will also offer some of the best and most beautiful native plant cultivars, which we purchase from wholesale nurseries. Featured here are some of our favorite and most useful plants, most of which are local natives and difficult to find in nurseries.

Hummingbird Favorites
• California fuchsia (*Epilobium canum*)
California fuchsia, a member of the evening primrose family, is an herbaceous perennial growing throughout much of California. It is easy to grow, prefers full sun, and requires occasional summer water. The height is from 1 to 3 ft, and leaf color varies from green (our local ecotypes) into blue-green and silver among the myriad forms in cultivation. It generally goes dormant during the winter months, when dead foliage should be pruned back.

Because it forms rhizomes, it will slowly spread to make a nice big patch. Its profusion of bright scarlet, funnel-shaped flowers appears in late summer and autumn, when most other native plants are finished blooming. You probably cannot find a better California native plant for attracting hummingbirds than California fuchsia. Watch for Carpenter bees robbing nectar from the flowers; if you are lucky, you may see California Dogface butterflies visiting for the nectar.

• scarlet monkeyflower (*Erythranthe cardinalis*)
Scarlet monkeyflower is a fast-growing, herbaceous perennial in the lopseed family, sprawling up to 2 ft h. x 3 ft w. It makes its home near seeps, springs and creeks; in the garden, it prefers full sun to partial shade with ample moisture; it looks better and blooms profusely with pruning back and deadheading in summer.

Its stunning and nectar-rich red to orange flowers with yellow throats and protruding stamens are designed for pollination by hummingbirds. The soft and downy leaves are sticky to the touch. It does well in large pots, inviting hummingbirds to your patio or deck. It is an excellent candidate for rain gardens.

The Redbud plant sale will feature all these hummingbird favorites — left to right: California fuchsia (*Epilobium canum*), scarlet monkeyflower (*Erythranthe cardinalis*), and scarlet monardella (*Monardella macrantha ‘Marian Sampson’*). Observe what they have in common — bright vermillion coloration and long tubular flowers.
• **scarlet monardella** (*Monardella macrantha ‘Marian Sampson’*)
  This choice, mat-forming perennial is an outstanding performer in rock garden and containers. In the landscape, plant it in well-drained soil and give it partial shade if possible, such as cast by pines and oaks. In our area, it performs best with occasional summer irrigation. This cultivar of scarlet monardella was propagated from a gorgeous plant found in the Santa Rosa Mountains of Southern California.

  It is surprisingly cold hardy and disease resistant, growing reliably in our area. It is usually longer-lived in containers and is easily propagated from cuttings and division. All parts of the plant are deliciously fragrant and it blooms all summer long. The brilliant red flowers are a hummingbird magnet. It is fantastic in a large pot on your deck or patio; as a bonus, it is considered deer resistant.

### Pollinator Favorites

• **coyote mints** (*Monardella villosa and M. sheltonii*)
  These two dependable, attractive and drought-tolerant local natives appear quite similar and both feature pleasantly aromatic foliage and flowers, require good drainage, are best in full sun to light shade, and are deer resistant. They require no summer irrigation once established but will go summer dormant with no summer water; they look better and are more fire resistant with occasional, deep summer watering.

  Both coyote mints are mounding sub-shrubs in form, growing to about 2 ft h x 2 ft w and slowly spreading by rhizomes. *M. villosa* has soft, lightly fuzzy, grayish-green leaves, whereas *M. sheltonii* has fewer hairs on leaves and stems. They both sport lovely, purple-to-lavender pom-pom shaped flower heads that attract many pollinators such as butterflies, wasps and bees. You can make a tea from its leaves; indigenous Californians used these plants as a remedy for stomach upset, respiratory conditions, and sore throats.

• **common yarrow** (*Achillea millefolium*)
  Yarrow is a variable, widespread, and adaptable perennial in the sunflower family. Our local ecotype sports white flower heads in a flat-topped cluster held 1-3 ft. above the highly dissected, fern-like leaves. Many cultivars with flowers of widely varying colors are available in the nursery trade. This very drought-tolerant native also thrives with summer watering; you can plant it as a low water use lawn alternative, as it spreads by rhizomes and can be mowed much like grass lawns.

  Common yarrow is very attractive to a wide array of pollinators and beneficial insects. This tough species should be included in any pollinator garden. It was brewed as a tea to treat fever, colds, flu, and stomach aches by Native Americans.
• **western columbine, crimson columbine** (*Aquilegia formosa*)
Western columbine, a member of the buttercup family, is a widespread and attractive perennial having nodding flowers with red sepals and bright yellow petals. The upward pointing red spurs are very distinctive and nectar rich. It has bright green, divided leaves and when in flower is up to 3 ft tall.

Western columbine grows near streams, seeps and in moist areas of woodlands, so it requires moderate summer water and partial shade to perform well. It reseeds freely if you don’t deadhead the seed pods. It’s perfect for a rain garden and in moist garden areas where it attracts many pollinators, including butterflies, bees and hummingbirds. Bumblebees and carpenter bees will rob nectar by chewing holes in the flower spurs.

**Specialist Butterfly Larval Host Plants**

• **showy milkweed, narrow leaf milkweed, and kotolo milkweed** (*Asclepias speciosa, A. fascicularis and A. eriocarpa*)

By now, most folks know that *Asclepias* species are the larval host plant for our fast-disappearing monarch butterflies, so include our **locally native** milkweeds in your landscape to assist in their survival. Planting milkweeds native to our region is important, as they co-evolved with western monarchs. All three of these milkweeds are excellent pollinator plants, are deer resistant, water thrifty, and tolerant of full sun and heat. These tall and distinctive perennials are winter dormant. Milkweeds spread by windborne seeds and underground runners, so plant them where they have room to roam.

Showy milkweed has the ‘showiest’ and most fragrant flowers, but all three species sport attractive umbels of blossoms. Kotolo milkweed has large, silvery and very hairy leaves, which repels those nasty oleander aphids that sometimes attack milkweeds. It is also the most heat and drought tolerant of this trio. Narrow leaf milkweed is the most widespread species in California, growing in both dry and moist situations.

*Monarch butterfly on showy milkweed (Asclepias speciosa)*

Nancy Gilbert
• **California false indigo** (*Amorpha californica*)

The California dogface butterfly has been the California state insect since 1972; its larvae feed on only one plant species, California false indigo, a member of the pea family. If this is not enough to induce you to include this plant in your garden, consider its unique beauty.

It is an open, feathery-looking, deciduous shrub with pinnately compound leaves and spike-like racemes of purple flowers with bright orange anthers that invite a variety of pollinators to visit them. *Amorpha* grows in a fountain-like form up to 10 ft tall, spreading by underground runners to form a loose colony. It prefers partial shade with occasional summer water and is rarely available in nurseries, due to being difficult to propagate and slow-growing.

**Five-Star Shrubs**

• **Western spice bush** (*Calycanthus occidentalis*)

Western spice bush is a large, deciduous shrub, growing to 8 ft or more, is native to stream sides and moist woodlands in the central and northern Sierra Nevada. It is a fast-growing, very attractive shrub which is adaptable to many soil types and prefers partial shade with moderate water in the garden. It is deer resistant.

Spice bush gets its name from its aromatic foliage, stems, leaves and flowers, which have been described as resembling camphor, red wine or fruit. The large, oval leaves are dark green, turning yellow in autumn. The flowers, which bloom during the summer, are dark red to maroon colored and float like water lilies at the end of the stems. They are pollinated by fruit flies and beetles. It has attractive, woody, urn-shaped seed pods. Indigenous Californians coppiced the shrubs to encourage long, straight shoots which were cut and used for basketry, arrow shafts and lances.

• **California coffeeberry** (*Frangula californica*)

Of the six subspecies of coffeeberry, this one is quite common in our area. This very tough and adaptable, evergreen shrub, grows in chaparral, open woodlands, and forests. It is extremely drought tolerant and grows in both full sun and partial shade. Height is variable, from 6 to 10 ft tall, and easily controlled by pruning out older branches at ground level, which stimulates new stem growth.

The narrowly oval, leathery and finely hairy leaves are blue-green in color with a velvety feel. The inconspicuous flowers are yellow-greenish and nectar-rich, attracting many and varied pollinators. The berries ripen from green to red to black and are prized by birds. It is somewhat deer resistant and recovers well from browsing. The fruit resembles those of coffee and pioneers ground the seeds to make a coffee substitute, which is reputed to be very bitter.

*Female Western Tanager enjoying the fruits of a coffeeberry*
• **Lemmon’s ceanothus (Ceanothus lemmonii)**
This is the most commonly seen local ceanothus that has deep blue flowers. It is a low-growing, spreading evergreen shrub to 3 ft tall, with small, crinkly green leaves and bright blue flower clusters. It is native to sunny slopes and open woodlands, does well on disturbed sites and fixes nitrogen in the soil, making it an excellent restoration plant. Like most Ceanothus, this drought-tolerant native can survive with no summer water once established, shedding many leaves to save moisture in late summer. It needs good drainage.

Lemmon’s ceanothus is a show-stopper when completely smothered in blue blossoms in spring; it also has conspicuous gray-white bark. Butterflies, bees, wasps and beetles mob the flowers, and birds relish the seeds. Deer browse it, but it recovers well if protected while young and unless repeatedly browsed heavily. Planting them on steep banks controls erosion and reduces deer browsing.

**Beautiful, Small Accent Tree**
• **Pacific dogwood, mountain dogwood (Cornus nuttallii)**
With its spectacular white flowers, bright green leaves, beautiful autumn foliage, bright red fruit clusters, and attractive growth form, this deciduous tree is stunningly beautiful in all seasons. It usually occurs as an understory tree among black oaks, madrones and mixed conifers, preferring partial to deep shade. They do best in well-drained soil that is cool and high in organic matter. Once well-established, they do not require summer water if planted in their preferred habitat, but enjoy occasional summer water in well-drained soils. It is a breathtaking specimen in a woodland garden.

The true flowers are small, yellow-green, and crowded in a head at the center of the surrounding large white bracts. When in full bloom, the flowers appear to be floating in the air as they sit atop their slender stems. When autumn arrives, the leaves turn shades of yellow, pink and red, making them a forest standout. Many birds and mammals seek out its ornamental bright red, compound fruit clusters.

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**The Centennial Wetlands:**
**A Unique Nevada County Resource – Don’t Let Uncontaminated Wetlands Be Destroyed**
**By Jeanne Wilson, Redbud Chapter President, and Gary Griffith, Board Member, Wolf Creek Community Alliance**

As part of its quest to reopen the Idaho Maryland Mine, Rise Gold, dba Rise Grass Valley (RGV), has submitted a voluntary plan to clean up the toxic legacy of mine waste deposited at the Centennial site by the prior Idaho-Maryland Mine. We support cleaning up the contaminated tailings and mine waste to ensure that heavy metals such as arsenic and cadmium no longer threaten our community and our environment.

RGV has submitted, and the Department of Toxic Substances Control (DTSC) has reviewed, a Remedial Action Plan (RAP) with five options for cleaning up the site. Unfortunately, each of the five options, including the one
selected by DTSC, calls for destroying all the wetlands on the Centennial site as well as 70 percent of the associated upland Montane Riparian vegetation community.

In fact, in the selected plan, more than two-thirds of the wetland and riparian areas — approximately 25 acres — would be destroyed not because they are contaminated with toxins but instead because they are free of contamination and thus suitable for use as “clean fill.” None of the options proposed by RGV and considered by DTSC would preserve any of these healthy and ecologically important wetland and riparian areas.

**Representative Plants of the Centennial Wetlands**

*Fremont poplar (Fremont cottonwood)* needs constantly moist soil.

*Stream orchid (Epipactis gigantea)* almost always grows near water.

*Greensheath sedge (Carex feta)* grows where water tends to pool and on streambanks.

*Sierra milkwort (Polygata cornuta)*, a perennial endemic to California, most commonly lives near water.
Clearly, the real goal here is to destroy these uncontaminated wetlands, so that RGV can bury 80 percent of the Centennial site under thousands of tons of waste from the reopened mine. Gaining approval to destroy the wetlands as part of the DTSC remediation plan would also have the result that, by the time the environmental review of the mine itself is under consideration, no wetlands would be left to protect. By excluding from the RAP any alternative that would preserve the wetlands, and instead using DTSC approval of its plan as authorization to dredge and fill the uncontaminated wetlands into oblivion, RGV hopes to escape any meaningful environmental scrutiny.

There is no justification for this wanton destruction of federally, state, and locally protected wetland and riparian resources; the mandates to avoid and conserve these precious natural resources have been ignored.

Nevada County needs to hear from you to stop this from happening.

**Wetlands Are Protected Natural Resources Crucial to a Functioning Watershed**

The Centennial wetlands and riparian areas play critical roles in our well-functioning watershed. Their contributions benefit our Nevada County communities as well as plant communities. These include:

- filtering water and improving water quality
- recycling nutrients and creating soil
- providing sustained dry-season flows
- reducing erosion and flooding
- improving air quality and sequestering greenhouse gases
- reducing excess heat and increasing resilience to climate change

Because of their key ecological roles, these native plants, their vegetation communities, and the marshes, meadows, and riparian areas where they grow merit full protection under federal, state, and local law. Wetlands are defined by their vegetation — they are areas “inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions” *Federal Clean Water Act, Section 404*).

As shown later in this article, the Centennial site is home to thriving wetland and montane riparian vegetation communities, including two dozen species of trees, shrubs, perennials, and grasses, rushes, and sedges.

Not by accident are the wetlands and riparian areas surrounding the former Centennial East and West mine tailing ponds now the source of **clean** soil that is coveted as fill. Cleaning the water is one of the invaluable functions of wetlands and riparian areas. Water is slowed while passing through the wetlands, allowing sediments (soil and pollutants such as heavy metals) to settle. Roots of wetland plants bind and remove sediments and contaminants from the water. In the Centennial wetlands, most of the soil is clean, meaning that for decades, the wetlands have been doing the job of removing the toxins and concentrating them in just...
a few small areas. Having largely cleansed themselves and the surrounding riparian areas of contaminants, the
wetlands are now targeted by RGV as its cheap and convenient source of clean fill.

The Importance of the Wetlands, and Riparian and Upland Areas of the Centennial Site
The Centennial Wetlands portion of the Idaho-Maryland Mine site, little disturbed for more than 70 years, has
recovered from earlier mining devastation to become an ecologically rich and diverse area and an essential
part of the Wolf Creek watershed. This is a remarkable characteristic of native plant communities: given
enough time, they can heal themselves and recover even from extreme, prolonged disturbance — but only if
the disruption and damage ceases. The healing process at this site has encompassed a period of more than
seven decades.

After decades of regeneration, native plants of the Centennial site are well established and amazingly diverse.
Eighty species of California native plants have been identified on the Centennial site, more than two-thirds of
all species found there; of those identified species, 25 are wetland and riparian associated species. Seven
different native plant vegetation communities have been found at Centennial, a remarkable range in just 56
acres. These vegetation communities include wet meadows, freshwater marsh wetland, and grasslands;
montane riparian, montane hardwood conifer, montane hardwood, and chaparral.

The Centennial site is home to hundreds of mature native
trees from 12 species: madrone (Arbutus menziesii),
Macnab’s cypress (Hesperocyparis macnabiana), incense
cedar (Calocedrus decurrens), Semota oak (Quercus garryana
ssp. semota), big leaf maple (Acer macrophyllum), Fremont
cottonwood (Populus fremontii), mountain dogwood (Cornus
nuttallii), willow (Salix ssp.), white alder (Rhamnus alnifolia),
Sierra plum (Prunus subcordata), and two species of pine; it
has only one species of non-native tree. In all, 92 percent of
tree species at the site are native.

Similarly, 19 species of native shrubs grow at the
Centennial site. In addition to the endangered Pine Hill
flannelbush (Fremontodendron decumbens), these shrubs
include two species of manzanita, three species of
ceanothus, two species of willow, two species of coffeeberry
(Frangula ssp.), coyote brush (Baccharus pilularis), California
yerba santa (Eriodictyon californicum), hollyleaf redberry
(Rhamnus ilicifolia), chaparral pea (Pickeringia montana),
mountain silk tassel (Garrya fremontii), and creek dogwood
(Cornus sericea); only three non-native shrubs grow there.
More than 85 percent of shrub species are native.

In addition, the site is home to 13 species of native perennial
grasses, rushes, and sedges, and eight native annual herbs
and grasses. There are 25 species of native perennial herbs, including the stream orchid and Humboldt lily (a
sensitive species), and six geophytes: two species of native onion, two species of Brodiaea (one sensitive), one
species of Triteleia (Triteleia hyacinthia), and soap plant (Chlorogalum pomeridianum).
Perennial herbs also include hundreds of showy milkweed plants, host plant for the endangered monarch butterfly. This stand, likely one of the largest local populations of milkweed in Nevada County, would be eliminated under the proposed cleanup plan, as would the stream orchids and many other wetland plants.

Native species predominate by far at the Centennial site, not only in the number of species but in plant mass. Many of the hundreds of individual mature native trees are up to 60 to 100 feet tall or more. None of the four species of non-native trees and shrubs is as tall, robust, or numerous as their native counterparts. Non-native plants, almost exclusively small annuals and perennials, are in the minority.

**Centennial’s Uncommon, Sensitive, and Rare Plant Species**
The Centennial site supports several uncommon, sensitive, and rare species, including the stream orchid (*Epipactis gigantea*), Sierra brodiaea (*Brodiaea minor*), Humboldt lily (*Lilium humboldtii*), and the endangered Pine Hill flannelbush (*Fremontodendron decumbens*).

These and other native species growing at Centennial are not found in degraded sites overrun by non-native and invasive plants. They are often slow to mature and adapted to a narrow range of specific conditions. For example, Humboldt’s lilies can take up to ten years to mature. Stream orchids (*Epipactis gigantea*), an uncommon species and one of our largest native orchids, grows only in wetlands, streams, or ponds. Macnab’s cypress (*Hesperocyparis macnabiana*) and chaparral pea (*Pickeringia montana*) grow in gabbro soils.

This diversity, including uncommon, sensitive, and rare plants species, is indicative of thriving native plant communities that are part of a healthy watershed. The native plant communities at the Centennial site are clearly flourishing.

**Proposed Mine Cleanup Would Destroy These Wetlands**
Cleaning up the poisonous waste of the old Idaho Maryland Mine requires several steps: Excavate contaminated mine waste, consolidate it in one area, and use clean fill to cap consolidated waste and backfill excavated areas. In the selected proposal, all of the needed fill, over 129,000 cubic yards of clean, uncontaminated wetland and riparian soil, will be dug up from the wetland and associated riparian areas, then used to backfill excavations left from the removal of contaminated waste and to cap consolidated toxic mine tailings.

To justify the destruction of wetlands, DTSC uses a simple “negative declaration” resulting in a determination that the cleanup will have no unmitigated negative impacts. Unlike a full environmental impact review — such as that being used in reviewing the proposed mine itself — the DTSC process offers far less opportunity for public input and requires a significantly lower threshold of “proof.”

DTSC declares, without discussion, evidence, explanation, or justification that replacing the wetlands after they are destroyed — or paying for wetlands somewhere else — would be adequate mitigation/compensation, and further that there is no need to determine the cost of an appropriate mitigation/compensation.
compensation until after the approval of the RAP. This enables DTSC to assign no value to the wetlands in calculating the cost of the different remedies, which is clearly contrary to law.

Unfortunately, the legal protection that these wetlands, riparian areas, and native plant communities are due has been undermined by the use of this truncated and inadequate review process for the cleanup plan, with the result that DTSC has disregarded their value and dismissed their crucial importance to the health of our ecosystems.

As it turns out, this process benefits RGV’s overall mine plans by:

- Eliminating all Centennial wetlands and 70 percent of associated riparian areas without consideration of any remedial plan that would save the uncontaminated portions of these resources
- Avoiding strict federal, state, and local protections for wetlands during the environmental impact review of the mine project itself, as those wetlands will already have been destroyed
- Literally laying the groundwork for RGV to use 80 percent of the 56-acre Centennial site as a dumping ground for waste from the reopened mine if it is approved.

The Remedial Action Plan process should not, however, be used to avoid consideration of the real impact of wetland destruction, nor should it relieve RGV or the DTSC of the responsibility for proposing and reviewing options that preserve uncontaminated wetlands. In fact, an alternative that protects the wetlands instead of destroying them is readily at hand and simply has been ignored.

An Alternative Cleanup Plan that Preserves the Wetlands

Instead of using the uncontaminated wetlands and riparian areas for clean fill, RGV could easily obtain fill from offsite. This alternative was never proposed, considered, or evaluated for feasibility, efficacy, or cost. Two thirds of the total area of the protected wetlands and associated riparian areas are uncontaminated (approximately 25 acres). This means that much or most of the protected wetlands could be preserved. Though trucking in fill from off-site could increase RGV’s cleanup costs, this factor would need to be weighed against the cost of restoring or protecting wetlands elsewhere, and against the value of retaining irreplaceable wetlands unique to this area.

The failure to present and consider any option that would preserve uncontaminated wetlands makes the DTSC review process fatally deficient. As such, we are asking that DTSC revise their Remedial Action Plan to include options that save the uncontaminated wetlands, not destroy them.

Asking for responsible cleanup of the contaminated site does not imply support for the re-opening of the mine itself. That is a separate issue. Rather, it supports both the concept that contamination cleanup should happen and that this cleanup must use methods that support both our community and the natural ecosystems.

Help protect the Centennial wetlands by submitting your comments to:
Dean Wright, DTSC Project Manager, 880 Cal Center Drive, Sacramento, CA. 95826
916-255-3591. Dean.Wright@dtsc.ca.gov.
Deadline to file comments is September 24.
Native Plants and Fire
Part 1: Native Plants Live With Fire
By Chrissy Freeman

When we visited Glacier National Park several summers ago, the first thing I asked a ranger was, “Where are the best places to see wildflowers?” He quickly replied, “Where there have been fires.”

Those areas did have great swaths of blackened trees. We also saw wondrous displays of wildflower species and colors. Their seeds opened by fire heat, the soil enriched by ash from burned trees, and the mountainsides opened once again to more sun, the wildflowers grew vigorously. Their turn had come once again.

Native Ecosystems Need Fire
A similar cycle occurs in our local areas when they experience fire, as long as human activity has not knocked natural systems out of kilter.

“Lightning and human-caused fire ignitions occur frequently in the area. Vegetation grows, dies and produces organic matter. Fire consumes organic matter, kills some vegetation, stimulates many types of plants, and recycles nutrients. Without fire to perform these functions at the intensities and frequency under which they evolved, ecosystems can fall out of balance.”¹

When fire takes out all or part of a forest, as did the River Fire in the Bear River drainage this summer and other fires across Nevada and Placer Counties in recent years, many changes happen that benefit native plants:

- Heat opens up cones of several local conifer species, releasing their seeds.
- Some native seeds are fire-activated by heat, smoke, or post-fire soil nutrients.
- Fire removes the overstory and permits sunlight to reach the soil.
- Wood ash increases nutrient levels in the soil.
- Non-native grasses and other invasive plants are killed. They may return with less vigor or (a detriment to native plants) greater vigor.
- Surviving trees grow stronger and bigger, without competition from undergrowth and weaker trees.

¹ Community Wildfire Protection Plan, Nevada County, California, updated April 2016.
• Fire kills off diseases and pests that can otherwise devastate landscapes. According to CalFire, “More trees die each year from insect infestation and disease than from fire.”  

Though we think most often of wildfires in forests, other habitats also experience and need fire. In chaparral habitats, for instance, manzanita, ceanothus, and scrub oak have fire-activated seeds. As resinous plants, they increase the potential for the fire they need.

Fire Severity and Recovery

Woodland adjoining Highway 174 experienced low-intensity fire in the recent River Fire. Trees are singed. In medium-intensity burn, some trees survive. Results of a high-intensity fire in Southern California

The regeneration trajectory for native plants after a wildfire depends on the severity of the fire:

• In a low-intensity fire, native trees are singed but often not killed; fire burns primarily along the ground. Trees no longer have to compete with underbrush; as burned residue breaks into nutrients, established trees grow stronger, bigger, and healthier. Mature trees may drop leaves because of the fire but continue to provide food (e.g., for insects) and protection for native fauna.
• A moderate-intensity fire reaches the canopy, causing more tree mortality. Open spaces emerge, and sun-loving pioneer species appear the following spring, followed in subsequent years by shrubs and new young trees.

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Where fire kills all or virtually all the trees, **high-intensity** burning has occurred. Extreme heat has a devastating effect on the mycorrhizae and soil bacteria that make nitrogen and other nutrients available to plants. The soil damage may take decades to recover (if left undisturbed) or be so intense that, coupled with climate change, the habitat changes type; a former forest may regrow into chaparral. Though chaparral naturally burns hot, historically the fire interval was significantly longer than it is today. Too many fires in too short a time span can destroy chaparral plant communities so the area converts to grassland, usually primarily or wholly non-native grasses and other weeds. If fire does not return too often, many chaparral plants recover or reseed and benefit from the reduction or elimination of invasive weeds.

Often, in habitat recovery, fire-following plants come first. (So, too, do fire-following fungi.) They help heal the land by generating deep roots quickly, which reduces erosion potential. Some of fire-following species fix nitrogen via bacteria on their roots. Plants such as legumes (such as lupines and chaparral pea) fix nitrogen with Rhizobia bacteria, ceanothus species and bladderpod with Frankia bacteria. Many of us have seen fireweed (*Chamerion angustifolium*) spring up after fires in the mid- and high Sierra. It can quickly cover a slope with stalks 1 to 5 feet tall filled with bright pink to magenta blossoms.

Clarkias, lupine, poppies, and monkeyflowers also return. Annual grasses (sometimes native, too often not!) usually show up at this time. Interestingly, ferns and fungi are among early returnees to areas they have historically occupied.

Next come woody shrubs whose seeds or other reproductive mechanisms survived the fire. Some crown-sprout from roots not killed by the fire. These include toyon, deerbrush, and some manzanitas. Some partially-burned shrubs may resprout from remaining branches. Traditionally, in forested areas, trees then return. Hardwood trees with deep roots, such as many native oaks and the California buckeye (*Aesculus californica*), resprout. Finally, come pines and other conifers.

**Charcoal and Ash After Fire**

Forests (and other plant-rich habitats) have evolved with fire. Their nutrient cycles depend on fire to periodically make more minerals available to plants.

When fire burns trees and woody plant material incompletely, it yields **natural charcoal**. Charcoal is almost pure carbon, formed when wood (such as trees) burns incompletely in the absence of oxygen. This carbon tends to remain in the soil rather than releasing to the air, providing a carbon sink that can last centuries. Charcoal affects the biota in the soil and their effect on nutrient cycling, how plants receive and release energy. The charcoal provides a matrix for many kinds of life, including mycorrhizae, fungi, and microbes; this helps the soil absorb and retain moisture and retain nutrients.

When fire burns those materials completely, it yields **mineral ash**. This ash contains such soluble plant nutrients as potassium, phosphorus, calcium, and magnesium, released by the plants that died in the fire.
Though nitrogen is usually depleted into the air during a fire, ammonium produced by combustion often remains, particularly in low-intensity fires. This may quickly convert to nitrates. These nitrates have a positive effect, as they are quickly taken up by growing plants, but they damage water ecosystems.

Wood ash and smoke chemicals in soil after a fire may also create conditions that some native seeds require in order to germinate, after long lying dormant.

**Fires Are Different Today**

Until recent decades, high-intensity fire seldom covered more than 400 acres; now this occurs with increasing frequency. Seven of the 10 largest fires in California recorded history have occurred since 2019\(^3\), including the Dixie Fire, largest in California history and still growing at the time of this writing.

Today, human actions, not natural forces such as lightning, cause 95 percent of California fires.\(^4\) Most occur in areas where fires have been suppressed for decades, leading to fuel build-up that can mean fires burn hotter than fires before European colonization. These super-hot temperatures not only kill trees that would survive low-intensity fires but destroy both seeds and microscopic soil life. Where such human-caused conditions occur, they make fire recovery more difficult.

![Image of forest after fire](image)

Particularly in a high-intensity fire, overstory, shrub and understory plants that once slowed water on slopes are gone, so rain hits the ground hard. On slopes, nutrients and topsoil wash away more easily; that material may impact waterways, sometimes imperiling the health of plants and animals living in the water, in the burn area and downstream.

Moreover, climate change is turning western U.S. air, soil and plants hotter and drier than in the past; these factors are making fires more likely, faster, larger and hotter. Such fires may result in permanent loss of ecosystems. Scientists who compared forests that had burned early this century with those that burned late last century found that “The proportion of sites with no regrowth almost doubled after 2000, from 19% to 32%, coinciding with increasing temperatures and more droughts.”\(^5\)

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*Redbud News, September 2021*
Member Meetings Coming Up — Help Make ‘Em Great!
Help the Redbud Chapter plan two special member meetings for later this year. Our Redbud Chapter of CNPS will hold our biennial elections for chapter officers this fall. Unlike past member meetings in which we could talk with each other in person about a wide variety of subjects relevant to our chapter, we need to hold these meetings via Zoom.

In keeping with our bylaws, candidates for chapter officer positions are nominated at one meeting, and voting takes place at the next meeting.

The first meeting is October 28 at 7 p.m. Join field botanist and Redbud Vice President Shane Hanofee as he walks us through the major Plant Families of Nevada and Placer Counties.

The second meeting will be Nov 17, Wed. at 7 p.m. At this meeting, we’ll elect our next officers. A quorum of chapter members is required for the vote to be valid. Our panel of experienced native-plant gardeners will share successes and challenges in their Adventures in Native Plant Gardening. Bring your questions!

Can you help plan fun activities for these meetings? Email RedbudChapter@gmail.com. Contribute your ideas for events that are meaningful, fun, and interactive. We invite Redbud Chapter members to submit topics and/or speaker recommendations for future meetings. You could volunteer to work on the technical aspects of Zoom meetings or in creating programs or agendas! Share your ideas and willingness to join in event planning.

Train to Buy Plants Wholesale for Redbud
By Nancy Gilbert, Horticultural Chair

We’re looking for one or more lovers of native plants who’d like to train to become a plant buyer for Redbud plant sales. For our major plant sales, we may purchase upwards of 400 to 1000 plants wholesale from regional native-plant nurseries to increase the variety and number of plants available to our members and other customers.

I’m looking to share horticultural responsibilities...and you’d gain opportunities to become more familiar with native-plant nurseries, wholesale plant buying, and making decisions about plants to purchase for our sales.

Here are qualities we’re looking for (though don’t let lack of something stop you from reaching out):
- Current Redbud CNPS member; you’ll become part of the plant sale committee
- Have a good, basic knowledge about California native plants (used in landscape situations especially) and be eager to learn more
- Comfortable interfacing with wholesale nursery staff via phone and emails about setting up our orders, payment, deliveries, etc. Experience in nursery work and/or sales is useful but not required.
- Have sufficient free time and flexibility in September

Here’s what you’ll do:
- In tandem with me, during the month of September, select plants, place orders, contact nurseries with questions and delivery options.
● Help find drivers to pick up and deliver wholesale plants to our nursery site. (Carol Thompson, our volunteer chair, does the recruitment; we would just make sure they are a good fit for the role.)
● Learn the basics of what makes a plant ready for sale, and what makes it not sale-ready (and how to determine this).
● Assist with checking in delivered plants delivered to us.
● Help train and oversee volunteers who are preparing the plants for pick-up.

Think of how many more young, vibrant native plants you’ll get to see! Reach out to nativeplanthelp@redbud-cnps.org.

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## Upcoming Events

By Carol Thompson and Chrissy Freeman

**Redbud Chapter**

We’d love to hear your program ideas. We’re also looking for a new Programs Chair. Contact us at nativeplanthelp@redbud-cnps.org.

All programs are virtual. For more information, see our [Redbud Events page](#). Each live session will include time for audience questions.

**Oct. 28, Thu. 7 p.m.**

**Plant Families of Nevada and Placer Counties, & Member Meeting.** Chapter officer nominations, presentation, and special fun! Join field botanist and Redbud Vice President Shane Hanofee as he walks us through the major plant clades and families that occur in the north and central Sierra and their foothills. He’ll take us through the characteristics of a selection of the most common and species-rich families in the area, highlighting patterns that will help you recognize the plant life on your hikes and in your backyard. Members of these few families comprise the majority of the plant life here, so you’ll walk away being able to associate most plants you see with their family.
Nov 17, Wed., at 7 p.m. **Adventures in Gardening with Natives, & Member Meeting.** Chapter officer elections, native-gardening program, and special fun! Several experienced native-plant gardeners share their successes and challenges. Topics include gardening at various elevations, with various plant communities, and in both suburban and rural settings, as well as attracting birds and pollinators, deterring deer, and more! Bring your questions about gardening with natives! Come help us meet the quorum needed for elections! We’ll soon post information on how to view this program.

**Upcoming Events from Other Organizations**

**CNPS State**

- **Sep. 11**, Sat. 9 a.m. to 12:30 p.m. **Conservation Symposium: In the Hot Seat: The Flora and Fire.** The effects of fire on California ecosystems and the human environment, the role that legislation and the state budget play in decision making and the struggle to find solutions, and what CNPS volunteers are doing at the local level to ensure that habitats continue to be fire resilient reservoirs for biodiversity. Open to all chapter volunteers and others interested in conservation. Register in advance.

- **Sep. 14**, Tue. 7-9 p.m. **Containing Our Enthusiasm: Some Notes On Growing California Native Plants In Containers.** Presented by Steven Gerischer, Vice President of the Southern California Horticultural Society. Growing California Natives in containers can be challenging, but it can also be wonderfully rewarding. Understanding the dynamics of growing any plant in a container as opposed to the open ground goes a long way towards creating a healthy environment for your potted natives. Covering the basics about soil, drainage, sun and shade, watering and the different ways native plants can adapt to the confines of a pot or other container.

- **Oct. 7**, Thu. 5:30 p.m. **Native Gardening: Planting 101.** CNPS Naturehood Series. With winter rains around the corner, now is the time to plant natives in California! In this installment, we are featuring panelists who will discuss how to effectively plant natives that will lead to long-term success in your garden. The event is free, but please register in advance to be able to join live and ask questions.

- **Dec. 2**, Thu. 5:30 p.m. **Native Gardening: Watering 101.** CNPS Naturehood Series. How do you water like nature? As we enter the wettest time of year, we will hear from panelists about different watering systems, and watering tips and tricks to fake the rain for your California natives. The event is free, but please register in advance to be able to join live and ask questions.

**Virtual Programs From Other CNPS Chapters**

- **Sep. 21**, Tue. 7:30 p.m. **New Calflora Tools for CNPS Users.** Milo Baker Chapter. Cynthia Powell, Executive Director of Calflora, will focus on the use of new Calflora tools on a regional basis.


- **Nov. 16**, Tue. 7:30 p.m. **The Extraordinary Microscopic Relationship Between Arbuscular Mycorrhizal Fungi and the Roots of 90% of All Plants.** Milo Baker Chapter. Lorenzo Washington, PhD candidate in Plant and Microbial Biology, UC Berkeley.

- **Sep. 8**, Wed. 7:30 p.m. **San Mateo Habitat Garden with Rainwater Collection and Storage.** Santa Clara Valley Chapter. Elaine Salinger’s yard has been transformed from ivy and non-natives to an almost 100% native habitat garden over the last twenty years. She will illustrate how she and her husband
have done this while incorporating the following principle: What happens in the garden, stays in the garden. Register in advance.

- **Sep. 15**, Wed. 7:30 p.m. **The Distinctive Landscape of Blue Oak Ranch Reserve.** Santa Clara Valley Chapter. UC Berkeley’s Blue Oak Ranch Reserve is a nature reserve and biological field station located in one of California’s iconic landscapes: the oak savannah and woodlands of the Diablo Range. Zac Harlow, resident director of the Reserve, will discuss some of the flora and natural history that makes this region special. This talk will be live streamed on **YouTube** and on **Zoom**. (Zoom requires **advance registration**).

- **Sep. 9**, Thu. 7:30 p.m. **The Behr Essential Botany of Early Historic San Francisco.** Yerba Buena Chapter. Some of the earliest and most perceptive botanical observations and memories of Gold Rush San Francisco are the legacy of Hans Herman Behr, (1818–1904) a German medical doctor with more interest in botany, entomology, and anthropology than medicine. Behr’s first-hand observations of vanishing native San Francisco vegetation and early exotic plant introductions provide an unmatched window on the historical botany of San Francisco and the Bay Area. Talk by Peter Baye, a coastal ecologist and botanist with a life-long focus on coastal beaches, dunes, tidal marshes, and lagoons, and their connections to adjacent marine and terrestrial ecosystems. Register in advance.

- **Oct. 14**, Thu. 7:30 p.m. **Using Paintbrushes to Study Species.** Yerba Buena Chapter. The plant genus *Castilleja* (the iconic group of wildflowers more commonly known as “the paintbrushes”) is a very young and diverse group of plants found primarily in western North America. This talk will broadly cover the biology of *Castilleja*, what we do (and don’t) know about its evolution, and how Jacobs’ research is aiming to fill in the gaps. Speaker Sarah Jacobs, PhD, is assistant curator of botany at the California Academy of Sciences and Howell Chair of Western North American Botany. Advance registration required.

- **Nov. 11**, Thu. 7:30 p.m. **Annotated Checklist of the Vascular Plants of San Francisco.** Yerba Buena Chapter. Long before the digital age of geo-located photos, iNaturalist, Calflora, the Jepson eFlora, and The Jepson Online Interchange, the founders of the Yerba Buena Chapter of CNPS were busy documenting the native flora of San Francisco. The first edition of the checklist was released in 2010. This past year was the perfect opportunity to work on a major revision to the checklist. The third edition is now available online for free. Speaker is Mike Wood. Advance registration required.

**Center for Environmental Inquiry, Sonoma State University**

- **Oct 6**, Wed. 12-1 p.m. **Deep Dive: What’s Wrong with Fire-Safe Plant Lists.** Origins of fire-safe plant lists, issues with their claims, and how to work around their practical problems. More info. Register in advance.

**Environmental Forum of Marin**

- **Sep. 9**, Thu. 4-5:30 p.m. **Biodiversity: The Essential Survival Strategy for the Climate Crisis.** Forum 2021. Expert speakers discuss what biodiversity means and why it’s so important while exploring species migration in response to climate change, stresses on biodiversity, and what we need to do to protect biodiversity. Register in advance. $25.

Master Gardeners
El Dorado County Master Gardeners

- **Sep. 25**, Sat. 9 a.m. **Successful Gardening with Native Plants**. El Dorado County Master Gardeners. Do you love wildlife, pollinators, and birds, and would like to enjoy their activities in your landscape? Are you ready to lower your water bill, and spend less on fertilizers and pesticides as well? Alice Cantelow will teach you how to choose and add colorful, easy-care native plants to your garden. Register in advance. You will receive the link to join the online class in an email once you have registered.

Nevada County Master Gardeners  All workshops are on Zoom. Join each workshop from the NCMG website home page.

- **Sep. 11**, Sat. 9-10 a.m. **It’s Alive! Soil Building**. Nevada County Master Gardeners
- **Sep. 18**, Sat. 9-10 a.m. **How to be a Backyard Carbon Farmer**. Nevada County Master Gardeners
- **Sep. 25**, Sat. **Fall Plant Sale**. Will include some native plants. Demo Garden, on NID grounds, at 1036 W. Main St., Grass Valley. See [http://ncmg.ucanr.org/](http://ncmg.ucanr.org/) for hours.
- **Oct. 16**, Sat. 9-10 a.m. **Living with Deer as a Foothill Gardener**. Nevada County Master Gardeners

Placer County Master Gardeners

- **Sep. 11**, Sat. 10:30 a.m. **Wild Wanderers**. Placer County Master Gardeners. Watch out for plants that have a mind of their own about where they want to be – thugs, multipliers and invasives. Don’t plant a pest! On Zoom.
- **Oct. 9**, Sat. 10:30 a.m. **Lawn Replacement**. Placer County Master Gardeners. Are you tired of the work and costs that go into maintaining your yard? Are you in a new development and have a yard full of dirt and weeds? In either case, learn the easy steps to replace your lawn and enrich your soil. On Zoom.
- **Oct. 23**, Sat. 10:30 a.m. **Spring Bulbs**. Placer County Master Gardeners. Plant in the fall for a colorful spring garden. This workshop will discuss the basics of growing bulbs of all kinds, including buying, planting, caring, and naturalizing. On Zoom.
- **Oct. 30**, Sat. 10:30 a.m. **Composting and Mulching**. Placer County Master Gardeners. Learn the basics of backyard composting and how it can improve your soil. Learn how to get started and keep your compost pile healthy and discuss the benefits of using mulch to help keep your soil healthy and happy. Replay of November 20, 2020 presentation. On Zoom.
- If you are new to gardening with California natives, check out the PCMG program on [Gardening with California Native Plants](https://www.youtube.com/) that can be found on their YouTube channel. The link can be found on their website.

Nevada County Coalition of Firewise Communities

- **Sep. 7**, Tue. 5:30 p.m. **River Fire Recap & Wildfire Preparation and Evacuation**. River Fire Recap with Cal Fire’s Jim Mathias (& Sheriff’s office pending); most important steps to take for wildfire preparation and evacuation; review of best resources on the coalition’s website; before you walk out the door; what to wear when evacuating, and what if you are trapped in your car or on foot. Advance registration required.
UC Statewide IPM Program Urban and Community Webinar Series
Join us on the third Thursday of every month to learn more about pest identification, management, and using pesticides around the home and garden. This series is free and open to the public, but advance registration is required.

- **Sep. 16**, Thu. 1-2 p.m. **Identifying Insect Pests in the Home and Garden.** *Presenter: Elaine Lander, UC Statewide IPM Program.* Register in advance.
- **Oct. 21**, Thu. 12-1 p.m. **Controlling Ants Around the Home.** *Presenter: Dr. Siavash Taravati, Area UC IPM Advisor for Los Angeles County.* Register in advance.
- **Nov. 18**, Thu. 12-1 p.m. **Understanding Pesticides for Pest Management.** Register in advance.

Summary Calendar of Events
Details in listing for each organization. * indicates a Redbud event.

- **Sep. 7**, Tue. 5:30 p.m. **River Fire Recap & Wildfire Preparation and Evacuation.** River Fire Recap; most important steps for wildfire preparation and evacuation. Advance registration required.
- **Sep. 8**, Wed. 7:30 p.m. **San Mateo Habitat Garden with Rainwater Collection and Storage.** Santa Clara Valley Chapter. Elaine Salinger’s yard has been transformed from ivy and non-natives to an almost 100% native habitat garden over the last twenty years. Register in advance.
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- **Sep. 11**, Sat. 9 a.m. to 12:30 p.m. **Conservation Symposium: In the Hot Seat: The Flora and Fire.** CNPS. The effects of fire on California ecosystems and the human environment, legislature and budget influences, what CNPS volunteers are doing to ensure fire-resilience for biodiversity. Register in advance.
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- **Sep. 15**, Wed. 7:30 p.m. **The Distinctive Landscape of Blue Oak Ranch Reserve.** Santa Clara Valley Chapter. Zac Harlow, resident director of the Reserve, on the oak savannah and woodlands of the Diablo Range. live streamed on YouTube and on Zoom. (Zoom requires advance registration).
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● **Oct. 14**, Thu. 7:30 p.m.  **Using Paintbrushes to Study Species.** Yerba Buena Chapter. Biology of genus Castilleja, what we do (and don’t) know about its evolution. Sarah Jacobs, PhD, is assistant curator of botany at the California Academy of Sciences and Howell Chair of Western North American Botany. [Advance registration required.](#)

● **Oct 16**, Sat. 9-10 a.m.  **Living with Deer as a Foothill Gardener.** Nevada County Master Gardeners

● **Oct. 19**, Tue. 7:30 p.m.  **Gardening in Summer Dry Climates: Plants for a Lush Water-Conscious Landscape.** Milo Baker Chapter. Photographer Saxon Holt takes up on a tour of gardening in summer dry climates, via images from his new book.

● **Oct. 21**, Thu. 12-1 p.m.  **Controlling Ants Around the Home.** UC IPM Program. Presenter: Dr. Siavash Taravati, Area UC IPM Advisor for Los Angeles County. [Register in advance.](#)

● **Oct. 23**, Sat. 10:30 a.m.  **Spring Bulbs.** Placer County Master Gardeners. The basics of growing bulbs of all kinds, including buying, planting, caring, and naturalizing. [On Zoom.](#)

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● **Dec. 2**, Thu. 5:30 p.m.  **Native Gardening: Watering 101.** CNPS Naturehood Series. Various watering systems, and watering tips and tricks to fake the rain for your California natives. [Register in advance.](#)
News to Know: News About Native Plants and their Ecosystems

MineWatch NextDoor Group
For up-to-date info about the proposed Idaho-Maryland Mine project, join the MineWatchNC NextDoor group.

Placer County Water Agency Offering Lawn Conversion Rebates
PCWA is offering lawn replacement rebates of up to $1000 for conversion of residential and commercial properties to low-water plants. Their plant list of approved plants includes some native plants; they may approve other low- to moderate-use plants, including natives. Applicants must qualify and complete post-project inspection by Oct 31. (So there’s no time to waste!) For eligibility requirements or more information, call PCWA Customer Services at (530) 823-4850 or email rebates@pcwa.net.

Residents and Communities Step Up to protect California’s Monarch Butterflies
The Xerces Society’s habitat kit program in California has made possible over 140 habitat projects for monarchs and other pollinators. By the end of this fall, over 100,000 plants will have been planted, mostly west of our counties, in areas where the first generation of monarchs breed in the spring after leaving the coastal overwintering sites.

A Last-Chance Plan to Save Western Monarchs
Well-known butterfly ecologist Stuart Weiss of the Creekside Center for Earth Observation and former CNPS Executive Director Dan Gluesenkamp of the California Institute for Biodiversity have hatched a plan they call Monarch Head Start. It will include collecting and housing butterflies in ideal conditions for mating, egg laying, and the first several phases of caterpillar development, replicated at multiple locations in California. At the “very hungry” stage of the caterpillar’s life, they will be relocated to native milkweed growing wild in nature.

EPA Will Ban a Farming Pesticide Linked to Health Problems in Children
Celebrate an environmental win! The US Environmental Protection Agency has banned the use of the organophosphate insecticide chlorpyrifos on food crops. The ban takes effect in six months. The goal is to better protect children and farmworkers. Other species will benefit as well. This chemical has been shown to negatively affect the ability of sparrows to migrate; this could decrease their numbers. Evidence from other research has shown that this type of insecticide can negatively affect other wildlife as well. In potentially more good news in the future, the EPA will decide by 2022 whether golf courses, nurseries, and other non-agricultural applications can keep using chlorpyrifos.

Streams, Marshes, and Wetlands Protected from Draining Once Again
Another environmental win! A federal district judge has struck down a Trump-era ruling that scaled back federal protections for streams, marshes, and wetlands across the country. The judge wrote that policy of the former administration would have led to “serious environmental harm.” This decision will protect thousands of wetlands species.