2019 Fall Native Plant Sale

Saturday, October 5, 2019

New Location!
Banner Community Guild
12629 McCourtney Road, Grass Valley
2 miles past the Fairgrounds going south,
keep to right

9:30 a.m. - 10:30 a.m. Member Appreciation
Sale
10:30 a.m. - 1:30 p.m. Open to All
Become a Redbud member and shop early!

The Redbud Chapter's annual fall plant sale highlights the amazing range of beautiful California native plants and makes them available to the public. Many have been propagated by our Redbud Chapter members from local sources or selected from Northern California native plant nurseries, making them very adaptable to our local conditions. Most of these plants are unavailable or difficult to find at nurseries or stores with garden departments, where most people shop for plants.

Native Plants for Beauty and Biodiversity
by Doreen Fogle

The theme of this year's Redbud Native Plant Sale is Native Plants for Beauty and Biodiversity.
What Is Biodiversity and Why Do We Need It?

Biodiversity is the variety of life on the earth or in an ecosystem. Every species has a role to play in each ecosystem, forming a web of life where everything is connected to everything else. Native plants are at the core of this web. Leaves of different plants have different chemistry. Most insects, especially the caterpillars of butterflies and moths, can eat only the plants with which they co-evolved, a process that developed over millennia.

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Male Western Tanager sitting on Cream Bush (Holodiscus discolor) with caterpillar. Both parents of this species feed chicks. In late spring and summer, this shrub is a profusion of flowers — cream-colored, naturally!

The insects eat the stored energy in leaves and convert it into protein. This rich, valuable protein feeds the rest of the food chain.

One of the primary consumers of these insects is the native birds. Almost all species of birds, including the seed and nectar eaters, rely on insects to feed their young. Without the insects, no birds.

So remember, native plants feed the insects, which feed the rest of the food chain.

Because most of the plants planted in landscapes are not native, they do not feed our native insects. Without native insects, our native birds or other insect-eating animals do not have enough food to reproduce or even survive, which reduces biodiversity. Landscapes filled with exotic, non-native plants reduce biodiversity.

We need healthy biodiversity to maintain a healthy ecosystem because it includes many built-in checks and balances. It allows ecosystems to adjust to disturbances such as extreme fires, floods, heat events, and even to keep insect populations in check. It’s like not keeping all your eggs in one basket. As the National Wildlife Federation says, "If a reptile goes extinct, a forest with 20 other reptiles is likely to adapt better than another forest with only one reptile."
In this current world with a changing climate, increased fire concerns, and loss of wildlife habitat, we need to protect our biodiversity. Every time we plant something, we make a decision that contributes to biodiversity or not. Every one of us can help our native wildlife by planting native plants.

**Delve into California's Native Plants at Redbud's October 5th Sale**  
by Jeanne Wilson, Redbud Chapter President

We’re eagerly looking forward to this year’s plant sale, where we’ll offer a huge array of beautiful California native plants. See our lead article, by Doreen Fogle, for information about why planting natives is so important for our ecology and for biodiversity. Among the pluses of native plants, many are fire- and deer-resistant. Local natives have the added advantages of being adapted to our climate and our soils.

**Tales of Plant Sale “Alumni”**

As we get ready for the sale, I think of all the wonderful native plants from past Redbud sales that now brighten my garden. Here’s a brief sampling of these plant-sale “alumni”:

*Planted in Fall 2016, these Mountain Strawberries grew from one plant to a 3 ft x 5 ft patch in less than 3 years. With delicious berries and low water needs, what’s not to like?*

*These showy Hartweg’s Ginger (from Fall 2017) grow in a decorative pot on the porch. This spring, each plant had 4 to 5 flowers that lasted several weeks.*

*Mock Orange (from Fall 2015) is a favorite for its profuse and fragrant blossoms in the spring.*

*California native bulbs are colorful, resilient, and fire safe. They bloom gloriously in spring, then go dormant until the next year — perfect for rock gardens next to the house. Shown here: Fairy Lantern, Fawn Lily, Bridge’s Brodiaea (all from Fall 2018).*

**We’ll Have a Wide Selection of Plants**

Choose from hundreds of vibrant, healthy native plants! Some are from wholesale nurseries, and some are carefully grown and tended by members of the Redbud Plant Propagation Group.

We offer native plants in a variety of pot sizes so gardeners can select those suited to their sites and their pocketbooks. In general, native plants grown in 4-inch, quart and one-gallon pots and in “deepots” (for deep rooted trees/shrubs), establish better and develop better root systems than those purchased in larger containers.

Check our Redbud website about two weeks before the sale date to view this year’s list. Meanwhile, the 2018 Plant Sale List will give you a general idea of what we’ll have this year.
Featured Plants for 2019

In 2018, we sold approximately 200 species of native plants. We’ll offer a comparable number of different species again. This year we are featuring the following woodland plants for you to consider, among many other choice species:

- **Snowdrop Bush**, *Styrax redivivus*: deciduous shrub for part shade, 4-12 ft tall by 4-6 ft wide. Its pendant white flowers have citrus fragrance and attract bees, and the leaves turn bright yellow for fall color.

- **Big Leaf Maple**, *Acer macrophyllum*: Large deciduous tree, varying in size, 30-100 ft tall by 40 to 65 ft wide, depending on habitat. Has huge leaves that turn to gorgeous gold in autumn and panicles of spring flowers that attract pollinators. Best growth and appearance with some summer irrigation.

- **Western Azalea**, *Rhododendron occidentale*: deciduous shrub for shade to part shade, 5-12 ft tall, forms pink flowers, with a heavenly fragrance. Needs occasional summer water on dry sites. One of California’s most beautiful shrubs!

- **Hartweg’s Wild Ginger**, *Asarum hartwegii*: low-growing evergreen perennial found in forest habitats. Beautiful heart-shaped leaves, often with white veins, giving the plant a marbled look. Ginger scented rhizomes and maroon flowers are at the base of the leaves. Attractive, but slow-growing groundcover for under our native trees.

- **California False Indigo**, *Amorpha californica*: deciduous shrub in the pea family that fixes nitrogen in the soil. Slow-growing, gradually spreading by rhizomes. Has pleasantly scented, spike-like racemes of purple flowers with long, protruding stamens. Host plant for our state butterfly, the California Dogface. Limited supply at the sale...an early-bird plant.

**Banner Community Guild — New Plant Sale Site!**
The Banner Community Guild (formerly the Banner Grange) is the new location for our plant sale this year. This venue offers us both indoor and outdoor space for the sale, nice indoor restrooms for everyone, good parking, and the location is easy to find and access.

Our chapter has replaced all the old, failing fluorescent bulbs in the main room of the Guild building with high efficiency LED lights, so our event and all other events held there will now have excellent lighting. We did this (thanks to our member Ames!) as part of our rental agreement with the Guild and in the spirit of improving this facility as a community asset.

Come share the excitement at our native plant sale — we look forward to seeing you October 5th!!

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**Volunteers Needed for Redbud’s Fall Native Plant Sale**
by Geoff McGinnis and Carol Thompson

Greetings to all Redbud Chapter Members and Plant Sale Volunteers!

Remember to save Friday, October 4th, and Saturday, October 5th, for the Redbud Chapter’s annual Native Plant Sale at our new location: Banner Community Guild, 12629 McCourtney Road, Grass Valley.

**Plan Now to Volunteer October 4th or 5th — or Both**

As the Volunteer Coordinators for the sale, we are asking you to plan now to save some time on either October 4 or 5, or on both days, to help the plant sale succeed. The sale needs your help with set up, with the sale itself,
with take-down and with cleanup. You'll find many jobs and shifts to choose from once we've uploaded all the jobs and shifts to Redbud's SignUp.com site (not yet live). You'll even see opportunities to help on the days leading up to the plant sale.

**Jobs We're Recruiting for Now**
A few jobs need to be completed significantly before the plant sale itself, such as Publicity for the plant sale. Please contact volunteer4redbud@gmail.com to help us get the word out, in ways such as the following:

- Co-chair Publicity; help manage radio, newspaper, and social media publicity and flyers
- Help update banners and signs -- this just needs organization, not art skills
- Help do Publicity in Placer County

Volunteering Brings Great Benefits!
Volunteering for the plant sale has many benefits. It's a great way to get to know other people interested in California's native plants and members of the Redbud Chapter. Some jobs can be an excellent way to learn about our native plants. You get a free one-gallon plant for volunteering and working a minimum of one 3-hour shift, plus folks who work the first shift on sale day get to do some early shopping (up to three plants)!

SignUp.com Will Be Ready Soon
In a few weeks, we'll have all the jobs and shifts available on our SignUp.com link for you to choose from. We'll send you a notice as soon as our link is ready for volunteer sign ups. When the time comes, please help us out by using our site to register for your shift(s). Doing so will make tracking slots that remain open much easier for us.

If you've been involved with the sale previously and prefer a particular volunteer position or positions, let us know now and we'll make every attempt to accommodate you. Although we have listed our individual emails below, using volunteer4redbud@gmail.com to contact us will keep all emails pertaining to the sale in one location.

Please reach out if you have any other questions about volunteering.

Your Volunteer Coordinators,
Geoff McGinnis, gmcginnis@live.com
Carol Thompson, lighthouse53@wavecable.com

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A Note to Our Cherished Members and Readers

Advocacy is a very important part of CNPS and the conservation of native plants. The Redbud Board of Directors wants to assure our membership that CNPS Redbud is not affiliated with any political party. We are an all-inclusive, non-partisan group that follows the CNPS Mission Statement and Advocacy Guidelines.

Sometimes there is a fine line between advocacy and politics, but we are doing our best to protect Redbud's integrity and credibility. Let us know what you think.

Thank you,
Redbud Board of Directors

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The Nativar Dilemma
by Shane Hanofee

If you've spent any time rummaging through the native plant selection at your local nursery (if they carry any natives), you've no doubt seen those native plant varieties with their names in single quotations. Perhaps it was Arctostaphylos 'Dr. Hurd' or 'Dark Star' Ceanothus. Well, why the quotations?
The Nature of Nativars
The quotation marks in the name differentiate cultivars from wild varieties. The term “nativar” is a blend of the terms “native” and “cultivar.” Simply put, a nativar is a recognized variety of a native plant that plant breeders have selected and cultivated for a specific feature. One particular nativar may grow more compactly, to meet the needs of native gardeners with little space; another has modified flowers or differently colored foliage for aesthetic reasons.

Fremontodendron 'Ken Taylor'—which is easier to grow, is shrubbier and shorter than the native of which it is a cultivar, Fremontodendron californicum (Flannel Bush). In front is Sonoma Sage 'Bee's Bliss', a cultivar of Salvia sonomensis. The cultivar tends to grow a bit taller and more vigorously.

Arctostaphylos 'John Dourly'

Whatever the case, a nativar must be propagated vegetatively, for example, by cuttings, rather than from seeds, to ensure that the propagated plants retain the characteristics of the parent plant. Using seeds to propagate nativars results either in the normal genetic changes that lead offspring to no longer resemble the parent, or, often, to the seed being sterile, much like a mule is the sterile offspring of a horse and a donkey.

Nativars and the Ecosystem
One potential problem with using nativars in your garden arises from the function of those plants in the ecosystem. If specialists breed a native plant for its unique and interesting flowers, what pollinators make of the changes? If the foliage is a different color from the original form of the plant, does that impact foliage-feeding wildlife?

This is a relatively new question, but a few groups are beginning to try to understand the issue. The Nativars Research Project is one of those groups. Primarily operating out of the Chicago Botanical Garden, the Nativars Research Project also has a branch in San Diego that focuses on the unique California flora. Their research has already yielded some interesting results.

So far, their work seems to indicate much nuance. Some plants bred for their flowers may produce more nectar and, therefore, attract more butterflies and other nectar feeders. With other species, butterflies seemed to prefer true natives to nativars, regardless of the amount of nectar. Similarly, changing stature, such as turning a shrub into a ground cover, seemed to have a mixed bag of results.
The only broadly applicable finding thus far has to do with foliage color. In every plant species studied, changing foliage color reduced foliage-feeding activity. This makes sense, as plant pigments are chemicals the plant uses to decrease foliage feeding. Introducing, for instance, anthocyanins into plant leaves to get purple coloration acts as a warning signal to leaf-munching critters that the leaf isn't palatable.

**Between Non-Natives and True Natives**

Much research remains before we fully understand the ecological effects of using nativars in a home garden. Suffice to say, planting a nativar is better than a non-native plant. People who plant natives for ecological reasons, however, may want to stick to true native species, those local to their area, ideally grown from genetically local stock, to get the most beneficial effects.

Nativars are becoming more popular in the nursery trade, as they are often easier to grow and more forgiving in home gardens than their truly native counterparts. They offer a middle ground between ignoring the impact of planting non-natives and focusing on reproducing the natural plant community.

**Sharing Your Observations about Nativars**

You can help further the research on this topic yourself. The Nativars Research Project allows you to sign up as an observer on their website, grow certain plants, and submit your observations of your own garden. Keep paying attention to this topic, as new insights come to light based on new research.

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**Switching Gardens**

by Leslie Warren

Slowly but surely, I am making the switch from a cut-flower garden to a native plant garden. Because I love to fill my house with vases of flowers, I felt I would be giving up something in this transition.

Indeed, I have given up gathering bundles of flowers for inside my home, but not because my native plants have fewer or less exciting blooms than the zinnias and roses I used to grow in profusion…it's because I've had a surge in populations of native butterflies and solitary bees of astonishing variety, and I am hosting a flurry of hummingbirds that are attracted to my native plants. *Rufous hummingbird feeding on Horsemint (Agastache urticifolia)*

I cannot bear to cut the native flowers, because I know they are providing critical nourishment to those native pollinators — nourishment my cut-flower garden didn't provide. The fascination of watching the native pollinators at work far exceeds the pleasure I once had in collecting cut flowers for my vases. I am so happy with my transition.
Fighting Aphids on Natives
by Chrissy Freeman

When I first encountered aphids as a young gardener, I thought aphids were aphids. In fact, for most of my vegetable-growing life, that’s what thought, as I mostly encountered them on my veggies, seldom on ornamentals. I know, I know...I might have fought pitched battles with them if I’d grown roses, but was a minimalist in the rose department, and the aphids on my roses mostly resembled those on the veggies, so I didn’t differentiate aphids. I washed them off with spray from the hose on multiple days. Sometimes the spray tore the zucchini leaves, but at least it was otherwise non-toxic.

Oleander Aphids on Milkweed
A couple of years ago, I started growing narrow-leaf milkweed (Asclepias fascicularis), so, wow, I really encountered a brand-new type of aphid. The stems of my milkweed got absolutely covered with aphids, not those run-of-the-mill green or gray aphids I occasionally see in my veggie garden but orange-colored oleander aphids.

What to do? Last year, by the time I noticed them, I left the milkweed covered with the aphids; there were too many to squish or remove by hand, and I hesitated to use a strong spray of water for fear that it would knock off monarch eggs. According to the Xerxes Society, “When monarch butterfly eggs and/or caterpillars are present on aphid-infested plants, there unfortunately is no aphid control strategy that will not also potentially impact monarchs.”

Also unfortunately, per Bonnie Bradt, entomologist and local Master Gardener who has long worked with milkweed and monarchs, “aphids can devastate milkweed when present in large numbers. The ‘honeydew’ they excrete encourages several species of fungi, commonly called sooty mold, to grow.” Of course, when eggs and caterpillars aren’t around, spraying and knocking off by hand are effective.

The milkweed seemed to do fine without my removing any aphids; it still had plenty of strength, leaves, and flowers (which eventually turned into milkweed seeds). I’ve read that aphids can reduce seed viability, but milkweed came up all over my yard this spring.

I’ve since heard you can cut to the ground milkweed that is seriously infested with aphids, and it will grow back, aphid-free. (Place trimmings into green waste recycling.) I’m going to consider doing that this summer as needed. The advisability of this would depend on how early in the season the aphids appear; earlier would give the plant more time to flower and set seed.

This coppicing approach is consistent with the top recommendation in likely the most reliable source of scientifically-based information on garden pests, the UC Davis Integrated Pest Management Department’s IPM website. Per their PestNote page about aphids, the best way to control aphids is to catch the infestation early; then “you can knock or hose them off or prune them out.” I’ve since learned that, of the 5000 aphid species, fewer than 10 percent are pests of crops or domestic plants. Of those, most have specific relationships with particular types of plants.
**Natural Pest Control**

Fortunately, several insects prey on oleander aphids — lady beetle larvae and adults, hoverfly larvae, and lacewing larvae — plus a couple of species of braconid wasps, according to the Xerxes Society. If you want lady beetles to help fight aphids, the Xerxes Society doesn’t recommend buying them. They say “there is little evidence that this is effective and there can be unintended ecological consequences to releasing insects.”

A more effective method may be to plant a large swath of locally native bunch grasses near your milkweed where local lady beetles might lay their eggs in a year or two. We put in a native meadow adjoining our milkweed, about two years ago, using three local bunch grasses – Idaho Fescue (*Festuca idahoensis*), Tufted Hairgrass (*Deschampsia cespitosa*), and Junegrass (*Koeleria macrantha*). Early this spring, I discovered it’s become an overwintering site for lady beetles. They seem to have completely eliminated the oleander aphids on the milkweeds in the pollinator garden. Here’s to ecosystems at work. (By comparison, I notice that oleander aphids are thick on narrow-leaf milkweed that has volunteered elsewhere, 30 to 40 feet from the meadow.)

**Invasion of Giant Aphids on Lupine**

Recently, one of our members reported finding huge aphids on three of her Silver Bush Lupine (*Lupinus albifrons*). At first, her plants were gorgeous, covered with buds, lush and healthy. Before the buds opened, however, giant grey-green aphids, at least twice the size of normal aphids covered every single stalk on these lupine plants. She suspected she might be seeing a new invader from the Pacific Northwest, lupine aphids. But according to entomology research, this genus has been here for at least two decades. One entomologist at UC Davis suspects that the wet weather this spring, alternating with warm weather, caused a significant uptick in this species in our area.

Believing in natural IPM, she hoped that lady bugs, parasitic wasps, or birds would intervene. Alas, the aphids won. Almost every bud died without blooming; the aphids had sucked all the liquid nutrition—and life—out of them. The plants looked in danger of dying as well. Our Redbud gardener started squishing aphids by hand, every single aphid.

Our Redbud member confirmed with another Redbud and with an entomologist that these were lupine aphids. The juices they absorb from the lupines are very alkaloid, which makes them toxic to aphid predators such as ladybugs. So, no predator species would help reduce infestations of lupine aphids. Larvae of hover flies (beneficial flies that look like bees) can, according to some studies, eat aphids and survive, so this may hold promise. Few predators would take this on, except when aphids are feeding on “sweet” lupine (those that cattle will eat).

Also, other lupines wouldn’t be safe. Sure enough; those same aphids soon attacked our member’s Broadleaf Lupine (*Lupinus latifolius*). (See photo above.) Our gardener offered this useful tip about how to dislodge the aphids, “You have to put a large zip-close bag under the stalk and bend it over the bag, because they let go and drop as soon as they feel you touch the stalk. I tap or shake the stalk, swiping the aphids into the bag.” She found this more efficient and less messy. Once lupine aphids get started on a patch of lupine, even if you remove them one year, be vigilant every spring, as these aphids winter over in the soil.

In general, lupines are aphid magnets. Researchers in England found not just the lupine aphid from the U.S. but 15 species of aphids attacking lupines.

**More Expert Advice**

Probably the best info I learned about fighting aphids is, if you see ants near your plants, take steps to get rid of them before aphids get established. Ants may carry or protect aphids, because they love the sweet “honeydew” aphids excrete. For situations other than tree infestations, the UC IPM Pest Note on ants recommends ant stakes or plastic bait stations. These methods rely on slow-acting chemicals; foraging ants stay alive long enough to return to the nest and feed others in the colony. Fortunately, such methods do not affect aphids or their natural enemies.

If you want to avoid any chemicals, natural remedies to try include spreading vinegar, lemon juice, cinnamon, or cayenne on the leaves of your at-risk plants. (Don’t use diatomaceous earth, as it can injure monarch caterpillars.)

**Added Dangers from Lupine Aphids**

Lupine aphids can also transmit several plant diseases, such as cucumber mosaic virus and bean yellow virus. If lupine leaves develop typical mosaic mottling, and you suspect the virus because aphids are present, then discard...
those plants. There is no cure for the virus, and aphids can transmit it from plant to plant, and to other species, such as cucumbers. The bean yellow mosaic virus attacks and kills legumes and other plants, including, of all things, gladiolus. All the more reason to get rid of any ants and fight off these aphids with recommended removal techniques as quickly as possible.

Lovely as lupines are, this fight against aphids brings up their more vulnerable side, as they tend to be more prone to viruses and fungi than many other natives, many species are toxic to humans and animals, and they're host to this super aphid with few natural predators. If you love those lupines, fend off the aphids!

**Redbud Brings Natives to Banner Community Guild Seed Swap**

*by Nancy Gilbert, Horticulture Chair*

The Redbud CNPS Chapter offered a striking and educational display at our tables for the Banner Community Guild’s annual seed swap on Saturday, March 16. We brought a new dimension to this seed exchange by featuring California native plant seeds and information about the native plants that grow from them.

This seed swap has primarily emphasized seeds of food crops, especially heritage, organic and open-pollinated seed. This year, our novel, informative and bright displays, complete with handouts, books, posters, CNPS publications, and plant and wildflower seeds, attracted attention and brought many interested attendees to our tables.

**Busy Day at Seed Swap**

Five Redbud chapter members tabled the event, which included a digital microscope where visitors could view different native seeds magnified on a laptop computer. We had a second computer for educating the public about the state CNPS and Redbud Chapter's websites, as well as to introduce people to CalScape.org, a user-friendly, horticulturally-focused CNPS website to help gardeners “restore nature, one garden at a time.”

This seed swap is open to the public and to families, and there was a diversity of people who came and went during the day. We at the Redbud table were very busy with many interested people wanting to know more about our organization, what we do, how to utilize native plants in their gardens and farms, and how to join. We sold and gave away a variety of native seeds, and sold several copies of our chapter books and posters.

**Sierra Buttes Wildflower Weekend**

*by Shane Hanofee*

The weekend after July 4, Redbud members convened on the San Francisco State University (SFSU) Field Campus outside Sierra City for a weekend of exploring various plant communities in the Sierra Buttes area. Set among mature conifer trees along the meandering North Yuba River, and with an adjacent spring that flows down a gently sloping hillside to the river, the field campus itself offers a variety of habitats and many interesting plants and wildflowers.

The camping area featured scattered groups of Slender Penstemon (Penstemon gracilentus), Mountain Coyote Mint (Monardella odoratissima), and low-lying mats of Brewer's Lupine (Lupinus breweri). Along the river, one could find Sierra Tiger Lily (Lilium parvum), Musk Monkeyflower (Erythranthe moschata), Streambank Bird's-Foot Trefoil (Hosackia oblongifolia), and Mock Leopardbane (Arnica dealbata) growing in breaks of Mountain Alder (Alnus incana) thickets and Red-Osier Dogwood (Cornus sericea). The small spring area contained the amazingly large Sierra Larkspur (Delphinium glaucum), Alpine Enchanter's Nightshade (Circaea alpina) as well as copious stands of Corn Lily (Veratrum californicum) and even a few Bog Wintergreen (Pyrola asarifolia).
Day Two, our Field Trip Leader, Diane Cornwall, led us on our first hike. Setting off from Lakes Basin Campground, we passed by ponds with the stalks of Buckbean (*Menyanthes trifoliata*) poking their white-frilled flowers out of the water and surrounded by Western Labrador Tea (*Rhododendron columbianum*) and White Bog Orchids (*Platanthera dilatata*). Dry stands of Huckleberry Oak and Pinemat Manzanita sheltered One-Seeded Pussypaws (*Calyptridium monospermum*), Paintbrushes (*Castilleja* sp.), Bridge’s Pincushion Plant (*Navarretia bridgesii*), and Whiskerbrush (*Leptosiphon ciliatus*) among their sprawling branches. Where water seeped through we saw Mountain Spirea (*Spirea splendens*), Twinberry Honeysuckle (*Lonicera involucrata*), Cascara (*Frangula purshiana*), and Rocky Mountain Maples (*Acer glabrum*).

And finally, we had lunch on a rocky outcrop overlooking a waterfall, offering entirely new specimens to admire, including Hot Rock Penstemon (*Penstemon deustus*), Leichtlin’s Mariposa Lily (*Calochortus leichtlinii*), Bear Valley Buckwheat (*Eriogonum ursinum*), and Sierra Stonecrop (*Sedum obtusatum*).

Then it was off to a montane chaparral ridge whose dominant shrubs of Greenleaf Manzanita (*Arctostaphylos patula*) and Currants (*Ribes* sp.) obscured small, seldom seen wildflowers such as the Dwarf Chamaesaracha (*Leucophysalis nana*) and pale blue Beavertail Grass (*Calochortus coeruleus*). The drive back to camp was spent admiring seas of Woolly Mule’s Ears (*Wyethia mollis*) and hunting seeps for Brewer’s Bishop’s Cap (*Mitella breweri*) with its small, delicate, alien-looking flower petals, as well as Sparse Flowered Bog Orchid (*Platanthera sparsiflora*) sporting tiny green flowers.

The final day had us exploring the wet meadows at Yuba Pass, impressed at the huge numbers of Alpine Shooting Stars (*Primula tetranda*) outlining where the draining streams ran their course.

We saw, poking above the vegetation, splashes of pink, blue, and white -- Little Elephant’s Head (*Pedicularis attollens*), Small Camas (*Camassia quamash*), and American Bistort (*Bistorta bistortoides*). Requiring closer examination and hugging the ground were petite but gorgeous plants, easily overlooked: Tinker’s Penny.
(Hypericum anagalloides), Harkness' Flax Flower (Leptosiphon harknessii), and Primrose Monkeyflower (Erythranthe primuloides).

Our last outing found us in the Jeffery Pine woodlands (Pinus jefferyi), where we saw large populations of Woodland Pinedrop (Pterospora andromedea) emerging from the pine duff. This plant is a mycoheterotroph, meaning it gets its food from parasitizing fungi in the soil, in this case from Rhizopogon truffles.

Here we also got acquainted with Pinewoods Horkelia (Horkelia fusca), Grand Collomia (Collomia grandiflora), and Lesser Wintergreen (Pyrola minor). Our exploration elicited a wonderful herbal odor, as it turned out we had stumbled on a patch of Oblong Bluecurls (Trichostema oblongum) not 2 inches high and yet so wonderfully pleasant smelling. And one of our group located a rather stately Catchfly (Silene sp.) whose identification still has us stumped weeks later.

The Sierra Buttes trip proved an enormous success. Our close-knit and sharp-eyed group of native plant enthusiasts had the privilege of discovering and appreciating a plethora of fascinating plants. To quote a "newbie" who wrote afterwards to her new friends, "What a weekend that was! Thanks for making my intro to the ‘Redbud Tribe’ so much fun."

Big thanks to the organizers and to Field Trip Leader Diane Cornwall for planning routes that allowed us to see such a diverse range of habitats and their flora!

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**Table Mountain Trip Report**

by Shane Hanofee

On April 9, Redbud members and friends took a field trip to Table Mountain outside Oroville to meander the area’s scenic and plentiful spring wildflower display. Led by Karen Loro, a group of about 25 arrived at the trailhead on a breezy morning after threats of rain and thunderstorms had twice postponed the adventure.

Once set out, we were treated to vast fields of Sky Lupine (Lupinus nanus) wafting their perfume, intoxicatingly sweet, to entice pollinators to their columns of flowers. California Goldfields (Lasthenia californica) outlined dark volcanic rock outcroppings with flushes of yellow, growing where soils were shallow. Bitterroot (Lewisia rediviva), Sierra Mock Stonecrop (Sedella pumila), and Cascade Onion (Allium cratericola) had just begun to flower among the rocks.
The white of Table Mountain Meadowfoam (*Limnanthes douglasii nivea*) lined ephemeral streams. Table Mountain is the only location to see this flower in the Sierra foothills. Purple Owl's Clover (*Castilleja exserta*) grew among the Lupines and patches of Whitetip Clover (*Trifolium variegatum*) where under the soil they have a hemiparasitic relationship in which Purple Owl's Clover obtains a certain amount of its nutrients from tapping into the roots of the nearby forbs.

We saw other Castilleja relatives scattered among the painted hills, including Valley Tassels (*Castilleja attenuate*) and Johnny Tuck (*Triphysaria eriantha*). Taw Manroot (*Marah watsonii*), was already showing its sparsely spined, pinstriped fruits.

Geophytes were also abundant with notable populations of White Brodiaea (*Triteleia hyacinthine*), Blue Dicks (*Dichelostemma capitatum*), and Prettyface (*Triteleia ixioides*). In moist, rocky areas near the ephemeral streams, close inspection rewarded those willing to take a hand lens and look with Crystalworts (*Riccia*) and Spikemosses (*Selaginella*).

The group made their way eventually to Phantom Falls where it cascades among outcroppings of columnar basalt. Cliffs lined with Red Larkspur (*Delphinium nudicaule*), Mountain Jewelflower (*Streptanthus tortuosus*), and Caterpillar Phacelia (*Phacelia cicutaria*) crumbled into stark debris piles of octagonal spires. Lunch and some discussion took place at a scenic outlook above the falls.

The return trip offered glimpses of scattered Bird's Eye Gilia (*Gilia tricolor*), Fiddlenecks (amsinckia sp.), and Popcorn Flowers (Plagiobothrys sp.). We spent some time noticing the yellow flowers and riparian growing habit of the Seep Monkeyflower (*Erythranthe guttata*) and the penchant for nearly vertical slopes and reddish purple coloration of its cousin, Kellogg’s Monkeyflower (*Diplacus kelloggii*).
Some folks observed and compared two species of violet – Goosefoot Violet (Viola purpurea) with its rounded leaves and the increasingly uncommon Douglas’ Violet (Viola douglasii) with its leaves deeply dissected.

Only able to scratch the surface of the botanical treasures of one of our area’s most unique locales, nevertheless we had the good fortune to observe dozens of species growing in fascinating ways and with a picturesque beauty that drops the jaw at first sight and keeps it dropped.

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Watersheds and Birds
by Rudy Darling

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For some reason I’ve been thinking a lot about watersheds lately. Perhaps it has something to do with April’s being the locally celebrated “Know Your Watershed” month, and I’ve led a couple of bird walks for this collaboration of local organizations dealing with watersheds and nature and have been the “bird expert” for a BioBlitz and a school group, and attended a fundraiser for the Wolf Creek watershed. Though the watershed concept seems intuitive to me (maybe it came from struggling with that Boy Scout conservation merit badge), apparently not everyone has an understanding of what a watershed is or why it is important.

Basically a watershed is the land area on which rain falls and eventually arrives at a common body of water, like a stream, river, lake, ocean, etc. Hmmm, that describes just about everywhere. Any watershed may be part of a larger watershed which may be part of an even larger watershed, etc. until it reaches the ocean. For instance, all the rain that falls on my little piece of heaven makes its way to Little Deer Creek (or a mine shaft). That flows into the Deer Creek watershed, which becomes a part of the Yuba River watershed, which joins the Feather River Watershed to become a part of the Sacramento River Watershed, through the Delta into San Francisco Bay and the Pacific Ocean. Heck of a journey! Anything I might do to my property, like use pesticides, spill motor oil, or use too much fertilizer, could eventually end up in the Pacific or anywhere in between. Watersheds are not limited by city limits, county lines, state lines, or even national boundaries – we’re all interrelated. Watersheds are extremely important to us humans. Much of our drinking water comes from surface water, the rest from groundwater, which is...
essentially an underground storage system for a watershed. For instance, much of Nevada City’s drinking water comes from that very same Little Deer Creek that I could inadvertently taint (fortunately for city residents, it is taken out above where my runoff could reach the creek). We also use watersheds for recreation, transportation, irrigation, fishing, scenery, electricity, etc. It is in our best self-interest to keep our watersheds healthy.

So I’ve been wondering this month, what does all this have to do with birds? For starters, birds, like humans, require water to survive. For about 50% of our migratory birds, U.S. wetlands are essential for breeding, refueling during migration, and/or winter survival. Even some of our permanent avian residents rely on streamside habitats. These often provide their own “microclimates,” often cooler and moister than the surrounding uplands, especially when the water has carved out deep ravines. South-facing slopes are often drier than the north-facing ones due to more direct sun and may have different species living on them.

Around our neighborhood, every little stream valley is staked out by one or more diminutive Pacific Wrens which may spend their entire adult lives in one small section of their little watershed, gobbling up the insects it fosters. Yellow Warblers and Yellow-breasted Chats nest in good riparian (streamside) vegetation, a habitat that has been mostly removed from California as its population grows. Rails, including our local Virginia Rail, Sora, and Black Rail require just the right sort of healthy wetland for their continued success.

And, of course, water is essential to the huge flocks of waterfowl that spend their winter in the Central Valley. Unfortunately, in the last century, 90% of those wetlands have been removed for agriculture and urban development. Thanks go out to the rice farmers for flooding their fields in the winter to partially replace the lost natural habitat. I hope you got a chance to check out the Tundra Swans northeast of Marysville this winter; quite a show! Because many birds are intimately tied to water and the varied habitats in a watershed, birds can be used as a bellwether of watershed health (think “canary in the coal mine”).

Birding guru, Roger Tory Peterson, put it like this: "Birds are an 'ecological litmus paper.' Because of their rapid metabolism and wide geographic range, they reflect changes in the environment quickly, they warn us of things out of balance, sending out signals whenever there is deterioration in the ecosystem..." Bird surveys over time can be used to track changes in a watershed’s health, changes in the climate (global warming effects), changes in land management practices such as restoration projects, changes in distribution, etc. Data from many long-term surveys is available to researchers.

These include the North American Breeding Bird Survey (U.S. Department of the Interior), which started in 1966, and National Audubon’s Christmas Bird Count founded in 1900. More recently, eBird holds promise for future researchers. Locally Sierra Streams Institute, among others, uses SFAS members and professional biologists to do bird surveys to assess trails and riparian areas before and after restoration efforts, public lands for the presence of sensitive species prior to management for fire prevention, preserved lands (Woodpecker Preserve, Hirshman’s Pond, Garden Bar Preserve, Rice’s Crossing Preserve, etc.) for species lists and general habitat health, etc. It’s a great way to get outdoors and investigate places one otherwise may never have experienced. I hope you can get out this spring and catch the excitement of bird breeding season. And maybe, just maybe, think a moment about what watershed you are in – at least until that next feathered attraction diverts your attention.

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**Upcoming Events**

Our “Passionate about (Native) Plants” Public Lecture Series

For more information, see our [Redbud Upcoming Events](#) page.

*All programs are 7 to 9 p.m. Socializing and member meeting begin at 6:30 p.m.*

(non-members welcome)

- **August 28, Wed.**  "Tahoe’s Spectacular Wildflower Trails"
  Julie Carville, Author, Botanist, Photographer
  Madelyn Helling Library, 980 Helling Way, Nevada City
Bi-Annual Election of Redbud Officers

During the member meeting portion of our August and September programs, we will be nominating and then electing the four Redbud Chapter officers: President, Vice President, Treasurer, and Secretary.

Currently, Jeanne Wilson is serving as President, and Susan Chalpin is Vice President. Two officers have recently been appointed by the Board to fill vacancies: Susan Dewar, Secretary, and Desiree Hennessy, Treasurer.

All four will be up for election or re-election. If you have any questions or are interested in being nominated/running for a Redbud Chapter office, please email Secretary@redbud-cnps.org. In the alternative, simply come to our meeting at 6:30 pm on Wednesday, Aug. 28th at the Madelyn Helling Library, 980 Helling Way, Nevada City. Interested in Redbud leadership, but want to find out what’s entailed? Anyone interested in serving as President Elect can apply to the Board be appointed to this one-year position as president-in-training with the option to stand for election next Fall. We also have other leadership positions open, including Field Trip Chair.

For more information, see the Redbud Chapter Bylaws.