CHAPTER MEETING

Tuesday, October 15; 7 p.m.
Room 104, Casa del Prado
Balboa Park

“Anstine-Audubon Nature Preserve
A Native Plant Success Story”
by
Becky Wilbanks

This discussion details the habitat restoration efforts that have taken place at the Anstine-Audubon Nature Preserve in Vista, Becky’s role with the Audubon Society, and the National Wildlife Federation (NWF) backyard habitat programs. She will discuss how the use of native plants has benefited birds and wildlife at Anstine, and its application to residential garden settings.

Becky Wilbanks, NWF-Certified Habitat Steward. Becky has been involved with the restoration of Anstine Preserve for the last 5 years. She currently works for the Imperial Girl Scouts Council as a Landscape Specialist, specifically for the development and implementation of native gardens at their Balboa site.

6:00-7:00 p.m. Natives for Novices.
FALL: PLANTING YOUR NATIVES by Will Johnson.
7:00 p.m. – refreshments, book browsing, and socializing.
7:30 p.m. – presentation.

FALL PLANT SALE
Saturday, October 12

The CNPS-SD fall plant sale will be on October 12 at the courtyard next to the Casa del Prado, across from the west entrance to the Natural History Museum in Balboa Park. The plant sale committee is always looking for help. We need volunteers on Friday, October 11, to help set up the sale and also on Saturday, October 12, at the sale.

Packaging and labeling seeds:
- Sunday, October 6, 9:00-12:00

If you’d like be involved with one of the chapter’s largest fundraisers, please contact Plant Sale Committee Chairs Carolyn Martus & Mary Kelly at plantsale@cnpssd.org

Explosion of spring flowers at the Anstine-Audubon Nature Preserve
This is an important time of the year for our chapter: the CNPS-SD Native Plant Sale is **October 12**. We have so many resources now to assist our members and others in selecting and growing native plants in our landscaping and the plant sale is an opportunity to begin the transformation. We have Greg Rubin and Lucy Warren’s book *The California Native Landscape: The Homeowner’s Design Guide to Restoring Its Beauty and Balance* that provides all the information that one needs to know about planting and caring for native plants in your yard. On September 28, we held our first daylong Native Garden Symposium on landscaping and maintaining native landscapes. We are hopeful that this will have stimulated people to purchase more native plants. In addition, last year we held the first Native Garden Tour in this region and showed examples of how native landscaping can be applied to actual yards and residential landscaping. With all of these resources, we hope that everyone is excited about using native plants in their yards. Now is the best time ever to do so.

The native plant sale is the primary fundraising event for our chapter. The income helps us give out mini-grants to local projects and programs for conservation purposes as well as horticultural and landscape activities. We also use it to pay for the printing of the wonderful newsletter and operations of conservation and horticultural programs. We hope to put on another native garden tour next year and it would be nice to have a solid financial basis for it. So, all of the stars are aligned for active native gardening and the best place to start is at the native plant sale.

Thank you and happy gardening with native plants.

~ Tom Oberbauer

**GARDENING WITH CALIFORNIA NATIVES**

**Gardening Committee**

The Gardening Committee will be meeting on October 9th at the home of Susan Krzywicki, 5750 Pray Street, Bonita, CA 91902.

We will be celebrating the successful *Gardening Symposium* - and thanking all our hearty volunteers. Extra thanks to the *Girl Scouts* and the *Friends of Balboa Park* for their support of this event.

The next big project is the 2014 *Garden Tour*. Steve Miller and Hei-ock Kim are doing a great job organizing the event. We will be working on lining up sponsorships, docents and organizing the logistics.

Our meetings are fun and lively and it is always great to see the interesting gardens! Greg Rubin’s garden last month was an eye-opener: collecting, conservation, beauty and charm.

Email me at gardening@cnpssd.org if you would like to be involved.

~ Susan Krzywicki, Native Gardening Chair

**Arne Wins for CNPS in the Cox Conserves Heroes Program!**

Cox Communications’ 5th Annual Cox Conserves Heroes program in San Diego has selected three people to receive awards. It’s their way of honoring the unsung heroes in our communities and supporting the organizations that matter to them. Created in partnership with The Trust for Public Land, CoxConservesHeroes recognizes local environmental volunteers and makes donations to local nonprofit organizations on their behalf.

Arne Johanson’s nonprofit of choice, California Native Plant Society (www.cnpssd.org), will receive $1,000.


As the first place winner, Barbara Palan’s nonprofit of choice, San Diego River Park Foundation (http://www.sandiegoriver.org/), will receive $5,000, promotion through on-air public service announcements and 20 volunteer hours donated by Cox employees.

CONGRATULATIONS TO ARNE JOHANSON AND THANK YOU FOR YOUR WORK ON REMOVING INVASIVE EXOTIC PLANT SPECIES AND RESTORING NATIVE PLANT COMMUNITIES!!!
Work Parties

Old Town Pre-contact Native Plant Landscape

Saturday, October 12, 1:00 to 3:00 p.m. Tend the Wetland at the Old Town Native Plant Landscape

If you won't be at the Fall Plant Sale, you are welcome to tend the Old Town Native Plant Landscape with us - we are always there on the second Saturday of every month. We'll tend the wetland native plants by pulling crabgrass and other weeds out of the cattails, yerba mansa, and bulrushes. In the upland area we will deadhead the robust gumplants and save some seed. We will also rake in other useful native seeds in a few places in the landscape. If you have a metal rake, please bring it! The rest of the garden will be in pretty good shape, resting and waiting for the rains to come.

The Native Plant Landscape illustrates some of the many useful plants that were part of the Native American daily life before the arrival of Europeans in the late 1700’s. Weavers’ rush and deergrass continue to thrive, so a basketry workshop is on the distant horizon. Shaw’s agave and narrow-leaf milkweed are spreading and growing, too. Perhaps by next summer we can harvest some of each and learn how to craft twine from their fiber.

The Landscape is at the far west end of Old Town State Historic Park, at the corner of Taylor and Congress Streets, opposite the trolley/train/bus station. If you come by public transit just cross the street; or if you drive, park for free in the shady CalTrans lot across Taylor Street from the Old Town Landscape: enter the lot at Taylor and Juan Street, park, then recross and walk toward the transit station. Turn left at the adobe sign and look for us under the trees. Have sun protection and bring bottled water, gloves, and hand tools - especially hand pruners and rakes - if you have any. If not, we have some tools to share. Questions? Contact Kay Stewart at fieldtrips@cnpssd.org

INVASIVE PLANTS

We will be ramping up again after a summer hiatus. If you have an interest in restoring open spaces, come and visit our special places and sense the satisfaction that comes with bringing them back to life. Contact Arne Johanson: invasiveplants@cnpssd.org or call 858-759-4769.

Point Loma Native Plant Garden: October 5 & 20, 9:00 a.m. – noon. Rain cancels; bring water; no facilities; tools/supplies provided. Usually the first Saturday and third Sunday of each month. Richard@sandiegoriver.org

Plant Photography Workshop with Phillip Roullard

The class session will be October 23, 2013, from 6:30 p.m. until 9:00 p.m. The class session will provide photography basics for those already familiar with photography fundamentals and those who are just learning. A field trip to practice what you learned will be October 26, from 8 a.m. until 3 p.m. or whenever people would like to leave. The workshop is limited to ten people so sign up early. Cost is $35. Please make checks payable to CNPS.

Please be familiar with your camera and know how to operate it before you participate in the workshop. Do not bring a brand new camera that you are not familiar with. Phillip will not have the time to teach people how to operate a camera. Read your owner’s manual before you attend the workshop so that you know how to operate your camera thoroughly.

A tripod is really a must when doing any kind of photography. Please borrow or purchase a reasonably priced, but sturdy tripod before the workshop. Phillip can provide the name of a camera store that sells good used equipment if you need to purchase a tripod.

To register for the class and get information on the location, contact Phillip Roullard at 619-698-9512 or proullard@sbcglobal.net.
**Baja Chapter of the California Native Plant Society has Inaugural Meeting**

The Baja California Chapter of CNPS was recently approved by the State Board of Directors following overwhelming approval by the Chapter Council. I recently joined CNPS Executive Director Dan Gluesenkamp and dozens of new chapter members for a special inaugural meeting. The new chapter was presented with a Certificate of Chapter Recognition at Friendship Park in Tijuana, Mexico, followed by a meet-and-greet and mini-symposium the following day in Ensenada. Members were invited to a special dinner that evening, with the traditional field trip to Valle de Guadalupe the next morning. Members of the new chapter are already actively discussing strategic directions and conservation issues affecting northern Baja, organizing field trips and other events, and doing a splendid job of becoming a CNPS chapter that we can all be proud of. I encourage all San Diego chapter members to consider attending some of the Baja chapter’s meetings and field trips coming up in the next months.

— Vince Scheidt, CNPS Board of Directors

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**Conservation**

**Senescence**

Apparently I missed a very good chapter council meeting in September, but the tidbits filtering south out of Trinidad inspired me to write. That, and Halloween is coming up this month. Time to write about the ghoulish and largely mythical afterlife of chaparral.

The issue is senescence, the undead idea that chaparral senesces into firewood as it gets old (less snidely, it’s the idea that chaparral stands "break up" as plants die and dead wood accumulates on live plants). This idea is commonly traced to a 1971 paper by Ted Hanes, and it has been embraced by firefighters as the reason why chaparral has to be managed (often with a bulldozer) to avoid becoming a fire trap. Senescence is a compelling idea, because old chaparral does naturally accumulate dead wood, and it’s quite visible. I’ve seen people break a sweat getting nervous about walking through such a "dangerous" area, as if all those dead branches would spontaneously ignite just to get them. Perhaps they think that flaming zombie trees are going to attack them or something.

This perception happens to be wildly misleading. Chaparral researchers have been trying to kill senescence for decades now, but it always pops up again like a movie monster in search of a sequel. Still, it’s interesting in looking at why people get it so wrong, so often.

Let’s go down the list of mistaken perceptions here. One problem is the idea that an abundance of dead wood means the plant is definitely dying. The problem with this idea is that plants routinely kill off their underperforming branches. In this way, they’re more like corporations than like humans: if a branch is shaded out or sick, the tree will kill it, and eventually it will rot off the tree. This naturally happens in every forest and shrubland in the world, but few forests build up the dead wood you see in chaparral. Chaparral is weird not because branches die, but because they decay so slowly. The lack of water and nutrients means that the decomposition rate is slow, so dead branches stay around for decades. In this way, chaparral is more desert than forest. Chaparral shrubs with dead branches may be perfectly healthy, it’s just that the decomposers can’t keep up with the natural turnover at what we think is proper rate. Believers in senescence apparently want only a few ornamental rotting logs in an otherwise clean understory.

A second issue is that when we deal with chaparral shrubs, we often mistake them for trees that only
produce new shoots aboveground. In fact, many chaparral species have basal burls that routinely grow new shoots. Twenty years ago, Catalina Island was a classic example of this. They had tree-shaped scrub oaks throughout their chaparral as the result of a century’s worth of grazing. When the goats were removed, scrub oaks all over the island looked like poodles: a few tree-like trunks with leaves six feet off the ground or so (out of range of the goats), a dense ball of tiny branches at the bottom, and a bare trunk in between.

The uber-rare Trask's mountain mahogany (Cercocarpus traskiae) was starting to show the same effects in 2008. For about a decade, island botanists had periodically measured the trunk diameter of these "small trees." When it was my turn, I was appalled, because many of these "trees" were dying or dead. Was the species going extinct? Hardly. There was a dense thicket of new shoots coming off the root crown on all of them. They'd spent a century hanging on in tree form, and now that those arborescent shoots were getting old and drought-stressed, the plants were sprouting new branches from the base. The problem was my perception of them as small trees, not their health.

Many chaparral plants routinely resprout from the roots, but if you don't have a decade's worth of data or personal experience, it's hard to see the pattern. Instead you see big branches dying and the whole plant is on the way out, when in fact the plant is just retooling its photosynthetic operations, just as it has for centuries.

But in some cases, the plants really are dying. What about those? Well, that's where things get interesting. Plants die all the time, and other species move into the gaps they leave. The switch from a single generation of disturbance followers to old growth inevitably requires that first generation to die, opening up gaps where other species can flourish. In chaparral, this gets a little more complicated, because many obligate resprouters (scrub oaks, toyon, cercocarpus, etc.) need shade as seedlings to establish themselves, but the openings let them flourish. If there's a seed source for the resprouters, they will colonize the edges of the gaps, gradually transforming the "senescent" stand into old growth. Even if resprouters don't colonize, other plant species colonize those gaps. This kind of gappy habitat is where researchers find rare plants and lichens on Del Mar Mesa. Old stands are often rich stands.

Of course, if you follow the firefighters' belief and destroy chaparral stands based on how much dead wood you see on a quick walk through, the transformation to old growth never happens. Obligate resprouters disappear from the landscape, as does a complex, poorly known community of decomposers that grow in their shade, breaking logs down into duff. Loss of old growth also causes loss of the birds, mammals, reptiles, amphibians, and insects that depend on the flowers, acorns, berries, bugs, and fungi that obligate resprouters produce, but apparently fear of fire trumps having wildlife around, at least for some.

Up in the northwest old growth forests, they say that decaying logs are more alive than they were when standing, and this is true. Wood is dead tissue, and while the branch is on the plant, only the cambial layers beneath the bark are alive. Wood will inevitably be eaten by fungi insects, and other critters, and that's when it truly comes to life.

In their weird way, senescent branches are even more alive than they were when they were healthy and a functioning part of the plant. They can be scary to the ignorant or misinformed, but they're worth having around if you want things to be truly wild.

Happy Halloween, everybody.

~ Frank Landis, Conservation Chair
When one thinks of the term monsoon, it is usually referring to India and Pakistan where summer rainfall can constitute anywhere from 12 to 50 inches or more of rain, where the rivers fill valleys and massive inundation occurs. In North America, the term monsoon often refers to the summer rainfall that occurs in Arizona where between 2.5 and 8 inches or more fall during summer, making up between 30 and 60% of the total rainfall. However, the monsoon also affects San Diego County. Borrego Springs receives an average of 4.5 inches of rainfall per season with about 20% falling in summer. Mount Laguna, one of the most reliable locations to see summer rainfall in Southern California receives 14% or on average 3.44 inches of rain during summer. However, that may vary significantly since Mount Laguna has received more than 10 inches in one day during the summer as part of Hurricane Kathleen in 1976, and Campo has received more than 16 inches in 24 hours during summer. Summer storms also aid in preventing fires later in the fall since the vegetation has more moisture after the rains.

San Diego indeed has a summer monsoon. The days when it rains in the mountains and desert are the days that San Diegans complain about heat and humidity. The best days for summer thunderstorms start out warm and humid and heat up to the high 80s or 90s in the mountains, up to 110 in the deserts and over 100 in the foothills. The heat stimulates instability and creates the beautiful towering white clouds to the east of the urban areas.

The summer of 2013 started off relatively cool with cool ocean water and cool air with lower humidity. It was still hot in the deserts, but except for one short but heavy storm in July, there was not much instability. That changed on August 25 with the remnants of Tropical Storm Ivo. On August 25, Cuyamaca received 2.5 inches, Julian 1.6 inches, Borrego Palm Canyon 1.77 inches, Coyote Creek over 3 inches and Agua Caliente County Park more than 2 inches in 30 minutes. Flash floods were widespread during this period; houses filled with mud in Borrego Springs and cars were washed off the road. Since then, the warm weather and unstable air has continued with additional rainfall in the mountains and mostly the central and northern part of the desert. Some of the desert locations such as Palm Canyon have had around 4 inches of rain, nearly equal to the entire seasonal total. (Last year, Ocotillo Wells received more than 2 inches in one afternoon when the normal for an entire season is less than 4 inches.) Mount Laguna has received nearly 7 inches for the summer as of this writing (mid-September) and is expected to get more.

The effect of the rain on the desert is profound. When there has been enough rain, a number of summer annual species germinate and several perennials are rejuvenated. With the temperatures at or above 100°F, they grow quickly. There are a number of these species in San Diego County.

I recall driving across the deserts following heavy summer rains back in the late 1970s. I looked forward to observing the results of this year’s rainfall. Only a week and a half after the heavy rains, reports circulated that the flowering was progressing in the desert, so on September 6, I made a trip with Mike Evans (CNPS-SD Board Member) and Richard Herrmann, a photographer. We were hoping to experience some of the summer rain ourselves as well since a flash flood watch had been issued for eastern San Diego County.

As we drove out through Santa Ysabel and north through the Valle de San Jose, which contains Warner Springs, we observed the clouds building by 11 a.m. As we drove down San Felipe Valley, the clouds were extensive and were developing vertically in anticipation of becoming thunderstorms. Earthquake Valley (now called Shelter Valley) was carpeted green, solid deep green. As was pointed out by Tom Chester, most of those plants were the introduced Portulaca oleracea (Pigweed). However, Bouteloua aristidoides (Needle Grama) also grew in their midst. Bouteloua is an interesting genus of grass that usually germinates and flowers during summer. Summer annuals require certain temperatures and moisture to germinate. There are quite a few species of summer annuals in Arizona, but their numbers decline as one proceeds west (Mulroy and Rundel 1977) The hills above Shelter Valley were actually green. The temperature while we were there was 99°F according to my car’s thermometer. One would think that plants growing in the desert would have adaptations for low rainfall and drought. However, the interesting thing is that these annuals don’t have to worry about drought because they only grow during the times that the soil is wet, even though that may only occur once every few years or more.

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1 The second half of Tom’s article about his trek to see big-leaf maples will be printed in the November issue so that he can share this desert article in time for you to go out to see the flowers.
The desert smelled wonderful, kind of like wet dirt and *Larrea tridentata* (Creosote Bush), which itself is supposed to have the odor of creosote but, in fact, is much sweeter. The slopes around the valley and just south of Scissors Crossing were covered with the summer annual *Pectis papposa* (Chinchweed), a small, low growing sunflower with the appearance of a somewhat succulent *Lasthenia* species (Goldfields). The *Pectis papposa* was beginning to flower and probably would not be at its peak until mid-September, but it is poised to carpet the ground with yellow, like goldfields do in spring. *Pectis papposa* was used for a variety of purposes by the natives in the region, such as medicines as well as flavoring and food. Other plants nearby were *Boerhavia triquetra* var. *intermedia* (Fivevewing Spiderling). It is a beautiful plant in the four o’clock family, with broad lower leaves and slender inflorescences with tiny, intricate, pink flowers on their ends. In places, it was growing en masse.

However, it was while stopped at Shelter Valley that we discovered the one downside of our mini-exploration. As soon as we left the air conditioned car, we were engulfed in clouds of tiny gnats. These gnats, at 1/16" of an inch long, were not much larger than the comma in the sentence above and they created a very high pitched whine as they flew into our ears and around our heads, and under my sunglasses. At the time, I thought they were just moisture loving gnats attracted to our eyes or perspiration and not biting insects, though I periodically felt tiny prickly sensations. Humid 100°F heat with swarms of whining gnats being breathed in and being bothersome around one’s face detracted a bit from our enjoyment. They were very annoying, but the best is yet to come.

In Blair Valley, the valley bottom toward the north side was thick with green plants. One was *Solanum elaeagnifolium* (Silverleafnettle), a gray leaved shrublet that, while picturesque, is unfortunately not native, but also *Sphaeralcea angustifolia* (Narrow-leaved Desert Mallow), a beautiful scarlet-flowered mallow that grew about a meter tall. It is a native that appears to favor the edge of dry lake beds. Thickets of *Boerhavia triquetra* var. *intermedia* grew there. *Hoffmanseggia glauca* (Indian Rush-Pea) usually grows with some partially dried pinnate leaves along the dry lake bed. However, after summer rains, it produces intricate yellow flowers in complex inflorescences at the end of flowering stalks. *Allionia incarnata* (Trailing Windmills) was just beginning to flower, with its trailing branches and rounded triangular leaves. *Bouteloua barbata* (Six Weeks Grama) growing on the edge of the dry depression is one of the more interesting grasses. Its flowers grow in rows so the inflorescences give the impression of a caterpillar. It, too, is a summer annual not usually found in spring.

There were at least two species of prostrate mat forming *Euphorbia polycarpa* (Smallseed Sandmat). While observing the plants, we also saw larvae of the White-Lined Sphinx Moth (*Hyles lineata*). The larvae are bright green and yellow with black markings, grow to nearly 3 inches in length, and have a thorn on their tail. They pupate later into large hummingbird-sized moths. The larvae were reportedly eaten by the native people since caterpillars are often mostly proteins and lipids. I have seen times in our desert when the ground appeared to be moving with them and the road was slick with their crushed bodies.

Mike and Richard returned to the car to escape the gnats, but I just dealt with them and continued photographing plants and sheets of rain that had spread out of the continuously growing clouds to the south, and watched for the bolts of lightning that we saw every few minutes. The crackle of thunder roared close overhead at times. Little did I know that Mike and Richard were smarter than I about the gnats.

A little farther down the road, I spotted *Senna covesii* (Coves’ cassia), a large yellow-flowered plant in the pea family with unpea-like flowers, growing in sandy soils on the side of the road. It is a perennial with pinnate leaves and five petaled flowers that has two flowering periods, in spring and in fall after summer rains. *Chilopsis linearis* (Desert Willow), with its pale white-lavender-pink pitcher shaped flowers, grew in the low areas and draws where it had the appearance of a weeping willow tree. It flowers in spring and late summer/fall. *Atriplex canescens* (Four-Winged Saltbush) was covered with its platelet like fruits. It is one of the plants that grows in the desert as well as along the coast.
The *Fouquieria splendens* (Ocotillo) were looking very healthy, all green with leaves, but it was too early for many flowers and only a few were seen. Down toward Agua Caliente was one of the other summer rain specialists, *Proboscidia althaeifolia* (Unicorn Plant or Devils Claw). It is an herbaceous perennial that has yellow flowers that look like *Mimulus* species (monkey flowers) but the fruits are long pods with a curved hook on the end. When they ripen, the pod splits into two hooked claw like structures, hence the common name Devil’s Claw. We also saw abundant *Dicoria canescens* (Desert Dicoria), a leafy green annual that grows like a shrub, that flowers both in winter and in fall after summer rains. Green and vigorously growing *Amaranthus fimbriatus* (fringed amaranth) was also very abundant along the sides of the road and in the Blair Valley area. The white flowered *Argemone minuta* (Prickly Poppy) was also in flower, growing in the midst of debris that flowed down some of the washes. We also saw *Penstemon centranthifolius* (Scarlet bugler) in flower in a couple of places. The descriptive name fits the 1.5 inch flowers well.

When we stopped to eat our lunch, Richard asked me what happened to my face. I looked in the mirror and saw that I looked like I had a bad case of Chicken Pox because my face was covered with red spots a quarter of an inch in diameter, even at the edges of my eye lids. My legs and arms had them, too. Apparently the gnats were biting me, but not too many bit Richard or Mike. The spots faded in a few hours, though they did not have any pain at that time.

At Ocotillo, it was overcast but 107°F as we headed up Mountain Springs Grade (Borrego Springs, a few miles north of Shelter Valley, reached 110°F that day). We had observed blue-black clouds to the west over the mountains the entire day. When we went by the back side of Mount Laguna, we could see it was the source of most of the rain and lightning. Rain began to fall as we neared the Sunrise Highway turnoff. Turning toward Mount Laguna, as I drove I steered to avoid fresh rock clusters that were scattered over the travel lane, having washed down in flowing rivulets of water from the road cuts. They appeared to be very fresh. Rain intensified as we rose up the mountain, but it was clear the major amount of rain had already passed. Checking the NOAA site on our cell phones, we found that Mount Laguna received an inch of rain and Cameron Station at the southern base of the mountain had significantly more. My goal was to find *Dieteria asteroides var. lagunensis* (Laguna Mountain Aster) on Morris Ranch Road. The forest was wet and fresh. The temperature was now 61°F only 20 minutes after we left Ocotillo where it was 107°F. Light rain was still falling. The lavender summer and fall flowering *Dieteria asteroides var. lagunensis* was in full flower and specked with droplets of rain.

We drove on northward through the Chariot Fire area where the *Quercus kelloggii* (Black oak) leaves on the scorched trees were all orange. Some shrubs had already resprouted since the fire and the rain.

Yes, San Diego County does have a summer monsoon season. It doesn’t happen this well every year, but the seeds are always ready and waiting. If you read this by mid-October, it will still be of interest to make a quick
pass through Shelter Valley and Blair Valley since the rain is still falling in the desert as I write this.

I also did some more research on the gnats. They are members of the genus *Leptoconops*, maybe both *Leptoconops torrens* and *Leptoconops knowltoni*. Known as biting midges, they are notorious blood suckers that leave excrutiatingly itchy welts that I am experiencing now. Fossils of similar species in amber have been found to be 140 million years old. The amazing thing is that their life cycle takes two years from egg to adult and they can diapauses for three years when summer rain is not favorable to them. Tiny gnats that are 5 years old are just additional indicators of the diversity of species in San Diego County. Everything I have read indicates that the adults are short lived and infestations last only a few days or a couple of weeks at most, so hopefully others will not have to deal with them if they drive to the desert to see our uncommon display of flowers this year. Long pants and a long sleeved shirt would have avoided 80% of the more than a hundred bites I have. I have experienced mosquito swarms on the coast and deerfly attacks in Cuyama in July, but I was not prepared for these gnats that live in warm moist sand. It is kind of fascinating to experience something completely new, even if it means suffering the stress of a hundred itches. It was still worth the effort seeing the flowers in Blair Valley, the lightning bolts zig-zagging out of the raining clouds, and the Laguna Mountain Aster in the cool Mount Laguna forest.

I would like to thank Richard and Mike for going with me and Tom Chester and Jim Dillane for stimulating the idea and making a list of plants that they saw. Go see the wonders of San Diego County and go often.

Thomas Oberbauer, Chapter President


### National Wildlife Refuge Week

National Wildlife Refuge Week is **October 13-19, 2013**. The event celebrates the richness of the 550 units that make up America’s National Wildlife Refuge System. Whether you prefer to study Earth science firsthand, admire the fall colors, thrill to a sky full of migratory birds, or explore a mountain trail, or learn about the resources that are part of the U.S. Fish and Wildlife Service’s (USFWS’s) conservation mission, you can find what you like at a National Wildlife Refuge! [Click here: REGION 8: It’s National Wildlife Refuge Week-Time to Get Outdoors!](#) for events.

Charlie Umberson working at the Native Plant Landscape in Old Town. Photo by Pat Fishtein.

Lorquin’s admiral (*Limenitis lorquinii*) on a lemondeberry (*Rhus integrifolia*) at the Native Plant Landscape. Photo by Pat Fishtein.

The CNPS-SD Newsletter is published 12 times a year. The newsletter is not peer reviewed and any opinions expressed are those of the author identified at the end of each notice or article. The newsletter editor may edit the submittal to improve accuracy, improve readability, shorten articles to fit the space, and reduce the potential for legal challenges against CNPS. If an article, as edited, is not satisfactory to the author, the author can appeal to the board. The author has the final say on whether the article, as edited, is printed in the newsletter. Submissions are due by the 10th of the month preceding the newsletter; that is, March 10 for the April newsletter, etc. Please send submittals to newsletter@cnpssd.org.

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MEMBERSHIP APPLICATION

___Student or Limited Income $25; ___Individual $45; ___Family or Library $75
___Plant Lover $100; ___Patron $300; ___Benefactor $600; ___Mariposa Lily $1,500

Name(s): _______________________________________________________________
Address:   _______________________________________________________________
Phone:    ________________________ e-mail: ________________________________ Mail check payable to

“CNPS” to: CNPS, 2707 K Street, Ste 1, Sacramento, CA 95816.

CALIFORNIA NATIVE PLANT SOCIETY
San Diego Chapter
C/o San Diego Natural History Museum
P. O. Box 121390
San Diego, CA 92112-1390

October 2013 Newsletter

Dedicated to the preservation of the California native flora

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