

Volume 44 Number 4

April 2009

ESPINAS Y FLORES

The Newsletter of the San Diego Cactus & Succulent Society
Affiliated with the Cactus & Succulent Society of America



**Program: Guillermo Rivera on Cacti from Peru,
Land of the Incas**

Plant of the month: Stan Yalof on Hallucinatin' Cacti

**Saturday, April 11, 1:00pm
Casa Del Prado, Room 101
Balboa Park**

PRESIDENT'S MESSAGE

Spring has finally sprung and while the mornings are still a bit chilly in Santee, we had low nineties in the backyard yesterday and when I returned from the Wild Animal Park I managed to stay out in the heat the rest of the day repotting plants, washing pots, and catching up. Nothing better than going to your happy place!

Last month's meeting featured our usual great items of interest. The sales area hosted three new potters, Richard Shaw, Jerry Garner and Elizabeth Woolrych, who's pottery was different from what we have experienced in the past. The Parr's ran the Benefit Drawing, which included Mr. Fertilizer items

along with some nice plants. Michelle Heckathorn handled the plant exchange table and a lot of us took home new goodies. And Rudy made the coffee and set out the snack for break time.



Claret cup colored blooms from the President's yard

The Gasteria presentation was made easier for me due to the questions asked and the comments shared. The aha! for me was when Brian Kimble said

that you could grow Gasterias from leaf sections, so one leaf could be cut into sections and in theory all of them could provide pups. So I'm going to try that next time I transplant.

Brian Kimble took us to the Guadalajara area in southwestern Mexico. His talk and slide show featured some newly discovered Echeverias and Agaves. Brian was down in this area in November 2008 with Kelly Griffin, and they accompanied Mexican botanist Miguel Chazaro on an outing to see the Agave named after him. They also visited with Martin Kristen and Julia Etter, whose web sites on the Agave family and the Mexican members of the Crassulaceae have earned praise from succulent enthusiasts (see www.agavaceae.com and www.crassulaceae.com.) Thanks for the trip Brian.

On the cover: Our speaker, Guillermo Rivera, at Machu Picchu, Peru

During the business portion of the meeting I shared some things that the Board is working on. The one that got the most response was the announcement that there would be a member's only shopping time from 9 to 10 on Saturday morning of the Summer Show and Sale. So make sure your membership is up to date – you don't want to miss out on this. Speaking of the Summer Show and Sale Susan Hopkins will be passing the volunteer sheet around at the April Meeting. Be sure to sign up. There is no way we could manage an event like this without lots of help from the club members – keep in mind the end of the year drawing for volunteers only.

Speaking of Volunteers, at the break I also announced that Kathy and Steve Harris were stepping down as editors of our newsletter. At the break I was treated to my favorite kind of news (good) and the news is that Carol and Paul Maker have stepped up and will be taking over as our editors. They have past experience as the editors of the San Gabriel Club newsletter before they moved here. The editors are planning a smooth transition and are giving each other lots of support. I haven't seen Kathy look this happy in a long time.

The March Board meeting was held at the DeMerritt's house. We discussed the vendor survey for the Winters Show. It will go out by e-mail. This is in support of my Strategic Tactic to Improve Sales Venues. We discussed the June show and have already taken actions on advertising. Don Hunt will be making the Trophy Pots. I received e-mail from Tom Knapik regarding his need to bow out of this years Show Chair position. Peter Walkowiak will take on the Chair role. Sales agreements will go out before I leave for the convention.

A discussion on the sale of field collected plants was initiated and the board felt that the topic should go out to the membership for discussion. It has been the policy of this organization that it is not appropriate to sell or show field collected plants. I would like those of you who feel strongly about this to e-mail me with your thoughts. This is not a policy change that will be taken lightly and I would like to hear what you have to say. My e-mail is c.miller@cox.net.

When you receive your newsletter many of us will be on the road to Tucson for the CSSA Convention. We will work hard to gather information to make putting on the convention here in 2011 easier. We will also have a good time, take pictures and bring back our experiences to share with all of you.

Happy Spring!

Chris Miller
29 March 2009

HALLUCINATIN' CACTI

By Stan Yalof

The picture to the right shows a Peruvian oracle god holding a San Pedro cactus, a bearer of hallucinogenic mescaline (see photo). Hallucinations are a sensory experience that exists only in the mind. From the earliest recorded time, humans have cautiously sampled plant roots, vines, seeds, flowers, bark, and tissue. Shamans have administered mixtures of plant medicinals, some being poisonous if taken unjudiciously. These plant products produce pain reducers (analgesics), anti-malarials, poisons, and hallucinogens.



Hallucinogenic Cacti
A Peruvian oracle god is shown holding a psychedelic San Pedro Cactus.

Hallucinogens were a big ticket item for religious leaders, as a love potion and to provide visions and insights. The alkaloid chemical group holds many physio-active compounds

such as nicotine, caffeine, quinine, strychnine, dopamine, morphine, and mescaline. Note the "ine" suffix, denoting one or more nitrogens in the compound.

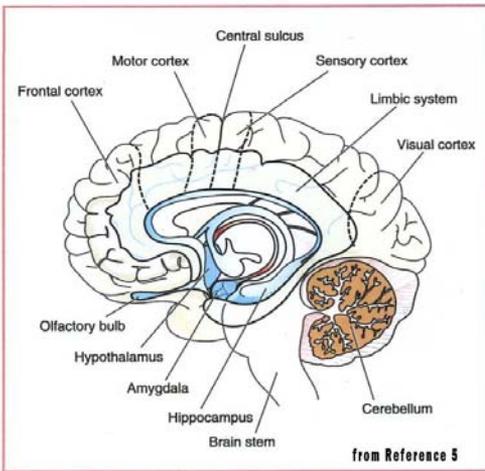
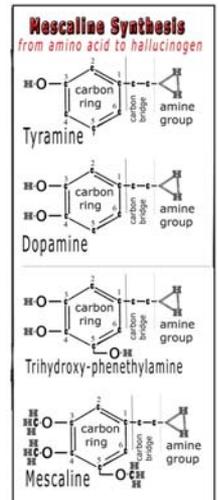


Figure 2 This view of the human brain shows the structures that make up the limbic system, a portion of the brain that is important for feeling and interpreting emotions. The amygdala recognizes angry or fearful facial expressions, assesses danger, and elicits an appropriate response. Interestingly, smell signals go to the limbic system, where the odors may cause specific emotional responses and memories.



Not many of these compounds make you see sound or hear color or alter a perception of reality. Foremost among blue ribbon

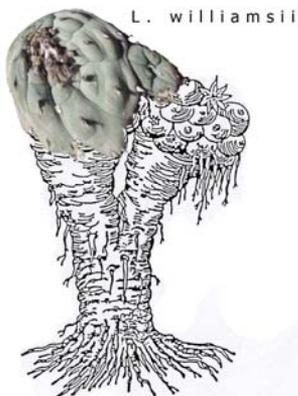
hallucinogens are several alkaloid bearing cacti and certain mushrooms.

In my opinion, they are physically harmless and non-habit forming, so also sayeth the World Health Organization. Heroin and nicotine, however, are addictive.

Mescaline bearing peyote (*Lophophora williamsii*) is the gold standard for hallucinogenic cacti. In college I was assigned a study on its effects. I interviewed several users. One that I vividly recall was a jazz trumpeter who kept peyote in a crate under his refrigerator. His story was that while he played under its influence he couldn't separate his personality from that of his trumpet or his music. He was part of the music. The reason for this confusion is that mescaline targets and stirs up the amygdala, a gland that integrates the senses with the conscious personality. San Pedro (*Trichocereus pachanoi*) also bears mescaline, but I believe in lower concentrations. In addition to mescaline these plants produce at least 40 compounds as a variation on the mescaline theme (see reference). Years ago, in the mercado of a small Mexican town near



Stan with a *Trichocereus pachanoi*, San Pedro cactus



Monterrey I saw peyote piled up in a bin. From a distance I thought they were brussels sprouts. They have become much less common. Good cultivation should leave the stem and roots intact to encourage a next generation.

Starting with the amino acid Tyrosine, a million plant cells turn out these compounds. Synthesis takes about 10 steps and is performed quickly, efficiently, and without heat in a few seconds or even less. In a laboratory this would take several days, stepping through intermediate products, with a final low yield, making many lab medicinals costly. And how and

why did mescaline evolve from Tyrosine? That's another story for another time.

Reference: Cactus Primer, Arthur C. Gibson & Park S. Nobel, Harvard Press, pp 191-2.

OUR SPEAKER, GUILLERMO RIVERA

I want to take this opportunity to let everyone know that Guillermo Rivera will be our featured April speaker. He is great fun and will no doubt have a real interesting power point program on Peru. He is a native of Argentina and he runs a great Eco tour company called CACTUS EXPEDITIONS. He is very knowledgeable about South American plants. I dare say those people that know him, like him and those that do not.... will.

Guillermo was born in Argentina. He received his education in Argentina, Vermont, and California, receiving a BS degree and PhD from University of Cordoba, Argentina he also earned a Marine Biology Master from Northeastern University, Boston. Guillermo worked as a researcher for 6 years at University of Cordoba, with more than 20 articles in Scientific Magazine, (including a co-authorship in Nature). He also worked as a researcher for National Park Service in the U.S. Virgin Islands.

He is the owner of *Cactus Expeditions - Argentina Birdwatching*, a company that started in 2001 doing Nature Tours in South America. – Kelly

MARCH 2009 - BRAG TABLE WINNERS

Judged by Brian Kemble

Cactus

- 1st Place, Peter Walkowiak - *Oroya neoperuviana*
- 2nd Place, Peter Walkowiak - *Echinocereus knippelianus*
- 2nd Place, Judy Walkowiak - *Uebelmannia pectinifera*
- 3rd Place, Judy Walkowiak - *Mammillaria elongata*
- 3rd Place, Peter Walkowiak - *Echinocereus mojavensis*

Succulents

- 1st Place, Terry & Collette Parr - *Pseudolithos cubiformis*
- 2nd Place, Peter Walkowiak - *Euphorbia inermis v. huttonae*
- 2nd Place, Rudy Lime - *Pelargonium appendiculatum*
- 3rd Place, Allen Clark - *Gasteria baylissiana*
- 3rd Place, Allen Clark - *Gasteria glomerata*

Submitted by Candy Garner

VOLUNTEERS

Volunteer – a person who voluntarily offers himself or herself for a service or undertaking.

Voluntary – done, made, given or undertaken of one's own free will.

The success of our shows, sales and other events is due to the time and effort put in by volunteers.

Some of the benefits of volunteering are that you get to know your fellow club members, you learn what is involved in setting up sales, you learn how the sales are organized, and you meet and get acquainted with the vendors.

At show time, you meet the judges and learn some of the criteria for judging show plants. This can be valuable information for preparing your own plants for show. Interacting with the public, helping them learn about cactus and succulents, can be a fascinating experience. There are a lot of eccentric characters out there!

If you volunteer, you'll have your name mentioned in the newsletter, you'll receive a coupon for a discount on your next club purchase and you may even be selected as Volunteer of the Year.

Being a volunteer involves a lot of hard work, can be a learning experience and can be a lot of fun. Know that your time and effort are greatly appreciated.

So please volunteer for the next event!

-Susan Hopkins, SDC&SS Volunteer Coordinator

Please address correspondence to:
The San Diego Cactus & Succulent Society
P.O. Box 33181
San Diego, Ca 92136-3181

Website: www.sdcss.com

FRIED LIVER WASH OR BUST!

By Allen Clark

In February, I had the opportunity to see Joshua Tree National Park for the first time, as an extension of a trip to help a friend in Palm Springs celebrate his 55th. It was a beautiful day, clear and cold. I drove north out of Palm Springs on SR62, heading toward Twentynine Palms. The town of Joshua Tree is a typical one on this route. At Park Boulevard there's a sign toward the park Visitor's Center, about a block to the right. The rangers were very helpful in explaining the different routes around the park, and the various interesting features. They also provided an excellent map and a number of brochures.

I explained that my primary interest is in the plant life, although I've also been fascinated by the geology of the place in photos I've seen. My ranger reiterated what I already knew: I was about a month early for the desert bloom. That was all right,



Monzogranite

though: I considered this trip a reconnaissance exercise the better to plan future visits. As it turned out, I was not able to get back over in March to see the flowering. But next year is another year. If you're planning a trip, I advise calling the Visitors Center for updates on weather, flowering periods or other information: (760) 367-5500

The geology of this large park is interesting enough in its own right to justify a visit in any season. The San Andreas Fault runs through the Coachella Valley northwest to southeast along the Little San Bernardino Mountains. The park overlaps the transition zone between the Mojave and Colorado Deserts. The Colorado is itself part of the much larger Sonoran Desert. This confluence provides a huge amount of biodiversity among plants, animals, birds and reptiles.

I was told that a good way to see the full range of plant life is to drive from either the Joshua Tree Visitors Center or the Oasis Visitors Center at Twentynine Palms roughly south into the Cottonwood Mountains, where the road intersects with US10 east of Indio. The north-



western part of the park is in the Mojave. Joshua Trees are abundant. The fascinating scattering of huge rocks that protrude from the flat desert sets them off. Indian legends have said that they were the playthings of giants. Modern geologists tell us that they are monzogranite, igneous in origin, and were produced eons ago by magma. Over time, these deposits rose and intruded through the overlying gneiss. As a result of gradual cooling, cracks formed horizontally and vertically. The granite continued to uplift, where it came into contact with groundwater that softened the edges and widened the fissures. Eventually the surface soil eroded, exposing the giant rock formations that are so impressive today.

Settlers have also left their mark on the area of the park. Native Americans were the first to dwell near the oases. The Oasis of Mara is now the home of the park headquarters and the Oasis Visitors Center. During the nineteenth century, homesteaders from the eastern U.S. arrived in the area. Very few were successful in sustaining themselves. Bill and Frances Keys were among the few. Their ranch remains, and is worth seeing. There is a ranger-guided walking tour, and an interesting story to go with it. There are also a number of abandoned mines. Visitors are prohibited from exploring them. One has been preserved as a site of interest. The Lost Horse Mine is accessible via a four-mile roundtrip trail. Many other features in the park are off-road, and can be reached by trails of varying difficulty. One such destination is Ryan Mountain, which at 5,458 feet has lookout points toward Queen, Lost Horse and Pleasant Valleys. Visible right at the roadside is the Cholla Cactus Garden. Yep, you guessed it: our favorite Sonoran desert comedians, the plants seemingly in a huge convention. I have never seen such a density before.

Continued next page —————>

Throughout all my travels in North America, I've always been fascinated by place names. It's often the Indian names that have an amusing sound to my European ear: Dosiwallips and Humptulips in Western Washington are a good example. In Pennsylvania, such places as Intercourse and Blue Balls have caused snickering for generations. Joshua Tree has lots of interesting place names, most of which hint at their story. However, one truly stopped me cold (sorry, no photo to prove it). I hope on a return trip to learn the story behind Fried Liver Wash. Of course, if you beat me over to Joshua Tree, you can scoop me on the story and write a piece of your own for *Espinas y Flores*.

AGAVE SYRUP

At the March meeting, my fellow member and friend, Bev Grant, approached me with a recipe calling for "agave nectar", also known as agave syrup. She said she had never heard of such a thing. Well, I've been using agave syrup in place of sugar or artificial sweetener for a while now. It is delicious! I have hypoglycemia so I'm sensitive to sugar, but this natural sweetener does not cause my blood sugar to plunge like regular sugar does.

To make agave syrup, sap is extracted from the 'pina' (core of the Agave plant), filtered and heated at low temperature to break down the carbohydrates into sugars. The taste is very mild and not overwhelming. The syrup is sweeter than table sugar so 3/4 cup agave syrup is equal to about 1 cup sugar. I've found agave syrup locally at Trader Joes, Sprouts and Henry's.

Bev gave me this recipe which uses two Agave products:

Mango-Agave Sorbet

4 cups cubed peeled ripe mango (about 3 pounds)
1/2 cup fresh orange juice (about 3 oranges)
1/3 cup fresh lime juice (about 3 limes)
1/3 cup tequila (Bev's favorite ingredient!)
3/4 cup light agave nectar
1/3 cup water

1. Combine cubed mango, orange juice, lime juice, and tequila in a food processor; process until smooth. Pour mixture into a bowl. Stir in the agave nectar and 1/3 cup water. Cover and chill for 2 hours.
2. Pour mixture into the freezer can of an ice-cream freezer; freeze according to manufacturer's instructions. Spoon sorbet into a freezer-safe container; cover and freeze 8 hours or until firm. Yield: 8, 1/2 cup servings.

From Cooking Light, March 2009

~K.H.

FROM FEATHERS TO SPINES

by Frank Lozoya

In the last few weeks I was asked “nicely” to write an article for our club’s newsletter. After a while, I started realizing that the short time I have been in the club I did not have the experience or knowledge on this large subject that this hobby necessitates to be even partly successful.

WHY DID I EVER VOLUNTEER???

Well, one morning I awoke rather early (4 a.m.) and as I lay there, it finally dawned on me...”both ways”. I had done something similar a few years back. I had taken on the hobby of breeding and raising exotic finches. They were from Africa, Asia and Australia, and for this hobby I built two aviaries.

Well, how convenient, some experience and a small bird aviary. Birds lay eggs and cactus have pups. So, now I am in the process of revamping a bird aviary into a greenhouse. When I first built the aviary, it had to be very sturdy in order to keep rodents out and birds in. At the present time I am adding a 5’ x 15’ addition.

These plants with their amazing architecture and color have some kind of magnetic attraction for me, and I keep buying some every time I am around them. I about 1 ½ years I have purchased about 45 plants, and that does not count the ones for Joan. After seeing some of the large collections that our members have put together –

I’M WONDERING IF THE GREENHOUSE WILL EVER BE BIG ENOUGH???

With two different hobbies having so many similarities, for instance – where do they originate – what temperatures are they used to living in – what do they eat (oops, that’s only for the birds). Yes, I know plants assimilate with the help of the sun. But, of course, I still have a multitude of questions to be answered in order to have a healthy collection.

After I reach the point of expanding the greenhouse and placing the plants in their proper location, then I guess the next step is to see if I can grow from seed – like my vegetable garden.

The most confusing part of this is retaining the names for such a large variety of plants and worse yet, how in the world do you pronounce them.

And if it ever gets too bad, then we will jump in the RV and head for the desert and we will sit and enjoy and watch the cactus grow.

WHAT'S THE STATUS?

By Chris Miller

Plant Insurance at the Wild Animal Park

The Witch Creek Fire two years ago was an eye opener for the Zoological Society in San Diego. Park of the Wild Animal Park was burned and they are busy replace some outlying structures and some shade trees in field exhibits.

The Horticulture Departments from the WAP and the Zoo spent the last two years working on a solution to the issue of replacing the plant material in both locations due to natural disasters.

In looking at their asset protection plan they have taken the following steps:

- Defined the WAPs and Zoo's living assets
- Reviewed the ZSSD Mission and Vision
- Analyzed the current protection efforts being made
- Investigated programs at other institutions

The plan involves six steps:

1. Create a Botanical Management Plan. The personnel from the Horticulture Department have been visiting other Botanical Gardens, including The Living Desert, The Huntington Botanical Gardens and Rancho Santa Ana Botanical Garden, learning how they manage their plant collections.
2. Increase collection populations through propagation. A green house has been set aside to start propagating rare and endangered plants that couldn't be purchased if lost.



3. Distribution of plant material in Park and at the Zoo and to other Botanical Gardens, with an exchange agreement, in case plants are destroyed.

4. Use the CRES Seed Bank to bank seeds. Currently the seed bank is only collecting native plant seeds. The Horticultural Department will start collecting seeds for both propagation and storage.



5. Grow landscape plants. Using the green house and newly replace open shade cloth growing area, the WAP will grow the more common landscape plants, so they can be replaced without the cost of purchasing them.

6. Continue monetary insurance to cover transportation costs of bringing back plants from other Botanical Gardens

The SDCSS part in the plan will probably be to provide some plants, like the Boojum trees to other Botanical sites from our two gardens and provide seed to the seed bank. A small price to pay to for a little plant insurance.

Be sure to come out and visit the Old World Succulent Garden this month, the Aloes are in bloom there and through out the park.



Jim Deforest and Janet Svoboda - still happy after a morning of weeding.

CARO DESERT NURSERY

PLANT AUCTION APRIL 18, 2009

These are exciting times at the Caro Desert Nursery. Auction #2 is just around the corner, and we have already started photographing the 103 plants that will be up for auction.

Please visit www.CaroDesert.com to see the photos that are done at this time. Check back often, as we will post more photos as they are done.

There is a new bid form and plant list. Both are now posted on the web site.

We apologize for any confusion about the auction held at the nursery on March 21st. This auction did not contain any Caro Desert plants. Woody Minnich held the auction here for our pal Mike Hackett. It was a successful auction and now we can concentrate on our Auction #2.

One major difference from Auction #1 is that this time we will not ship out of the U.S.A. Sorry, there will be no exceptions.

We would like to invite you to come to the Caro Desert Nursery to see the plants in person. We believe our photography is pretty good. We do our best to show a true representation of the plants. Still, the live plants, seen in person are so much more beautiful than any photo ever could be. Southern California is really beautiful this time of year. Just call first to be sure we are available.

Please visit our website for additional information.

Your Pals at the
Caro Desert Nursery

www.CaroDesert.com

This gorgeous *Hesperocallis undulate*, aka Desert Lily or Wild Ajo was spotted by Juergen Menzel near Font's Point in Anza-Borrego State Park, early March.



UPCOMING EVENTS

2009

Apr 18&19: Coronado Flower Show. There will be a cactus & succulent display booth. Info: Jeanne Bowers, 619-435-5474 or meb92118@sbcglobal.net.

Apr 19: EarthFair 2009, 10:00am - 5:00pm, Balboa Park. SDCSS will be selling plants.

Apr 25: Spring Garden Festival at the Water Conservation Garden at Cuyamaca College, 12122 Cuyamaca College Drive West, El Cajon. Info: 619-660-0614, www.thegarden.org.

May 2&3: Palomar Cactus & Succulent Society plant sale, Saturday 9:00am - 2:00pm, Sunday 10:00am - 2:00pm. Palomar College Arboretum, 1140 West Mission Road, San Marcos.

May 8-10: San Diego Zoo Garden Celebration. Between 10:00am and 3:00pm each day there will be water conservation events including crafts, special tours, displays, and entertainment. Info: 619-685-3291 or www.sandiegozoo.org.

May 9: Gates Cactus & Succulent Society Show, Sale and Green Faire, 9:00am-4:00pm, Jurupa Mountains Cultural Center, 7621 Granite Hill Drive, Glen Avon.

May 17: Huntington Plant Sale, 10:00am-5:00pm, Huntington Botanical Gardens, 1151 Oxford Road, San Marino. Info: 626-405-2160.

Jun 6&7: SDCSS Summer Show & Sale.

Jun 25-28: CSSA Annual Show & Sale, Huntington Gardens, 1151 Oxford Road, San Marino, CA. Info: 626-405-2160 or 2277.

Aug 15&16: 24th Annual Intercity Show and Sale. L.A. County Arboretum, 301 No. Baldwin Ave., Arcadia. Info: Tom Glavich 626-798-2430 or Barbara Hall 818-368-6914.

The due date for submission of articles for Plants of the Month, information on the program/speaker, letters, regular columns, brag table winners, and the President's Message will be the 15th of each month preceding the next issue. All submissions are to be made to the Editors. Please email your articles to Paul & Carol Maker at PDMaker@roadrunner.com and pac.maker@roadrunner.com.

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STANDING COMMITTEES & SUB COMMITTEES

Education, Conservation & Exhibits

Conservation: Joe Kraatz & Herb Stern

Brag Table: Candy Garner

Plants of the Month: Don Hunt

Summer Show: Peter Walkowiak

Winter Show: Peter Walkowiak

Historian: Terry Parr

Library: Don Hunt, Chris Miller, Jeanette Dutton, Steve & Kathy Harris

Exchange Plants & Seeds: Michelle Heckathorn & Sara Schell

Sales, Meetings, Plant Sales & Supplies

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Mailing: Jean & Bill O'Daniel

Annual Sales: Chris Miller & Joe Kraatz

Auction & Holiday Plants: Lee Badger & Tom DeMerritt

Monthly Plant Sales: Joe Kraatz & Lynn Elliott

Monthly Supply Sales: George & Jerry Plaisted

Benefit Drawing Table: Collette & Terry Parr

Publicity: Tom DeMerritt & Joe Kraatz

Programs: Kelly Griffin

Reception: Susan Hopkins & Judy Walkowiak

Monthly Regalement: Rudy Lime, Susie White

Picnic Regalement: Laura & Tom DeMerritt

Hospitality: Sara Schell

Liaison

Balboa Park Desert Garden: Susan Hopkins

CSSA Affiliate Rep: Peter Walkowiak

Quail Botanical Gardens: Phyllis Flechsig

SD Botanical Garden Foundation: George Plaisted

SD Floral Association: Elizabeth Glover

SD Wild Animal Park Baja & Old World Gardens: Chris Miller

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