CACSS members tour a spectacular southern California nursery on a club bus tour in 2012. See the article inside to learn about the upcoming 2016 August bus trip to the Los Angeles area. Photo by Wendy Barrett.

There is no meeting in May due to the Memorial Day holiday and scheduling conflicts with the Desert Botanical Garden. The next meeting is June 5 with Cathy Babcock. We resume our regular schedule on June 26 with David Yetman.
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WELCOME NEW MEMBERS
Demetrius Arquette | Jan Baltzer and Ron Sutton | Joan Baron | Steve Barlett | Michael Christensen and Gina Murea | Jarien Crumbley | Betsy Dowling | Tobey Erskine | Mario Garcia | Toma and Mary Gawron | Marlene Gold | Jeff Harris | Ron and Linda Hendrickson | Adam Humphreys | Dana Johnson | Babs Lester | Bill Reaney | Ali Reese | Loren Rodewald | Deb Sparrow | Natalie Tauvriac | Karen Wollscheid
We have had a wonderfully successful annual show and sale this month thanks to all of our dedicated volunteers and the folks who displayed their plants in the show. I heard from a number of people that the variety and the quality of the plants were especially nice this year. I saw many plant varieties that I had not seen before and some plants that are particularly hard to grow looking so good. I’m always inspired and think maybe I can grow some of these, too. I also always learn some good things from the educational displays, which I saw many folks studying.

We had a record-breaking year in terms of sales and that occurred in spite of the rainstorm that rolled in on Sunday afternoon. Nick Diomede, our treasurer indicates that preliminary numbers put us over $50,000 in gross sales, which is 12.25% better than we did last year. After all our expenses are tallied we will know what our profit is. I’m sure the Desert Botanical Garden will be very happy again this year as we split the profit from this sale 50/50 with them. They have been an incredible partner of ours over many years.

We owe a great deal of thanks to the many volunteers who made this happen. I would like to thank Judy Pique, president of CSSA; Raul Fuente and Scott McMahon, from the Desert Botanical Garden; and Steve Plath, from Signature Botanica for judging our show. I would also like to recognize a few folks who went above and beyond to ensure we had a very successful event. Dan Smith, the show chair and Mike Cone and Steve Plath, the sales chairs led this event and coordinated the volunteers. Nick Diomede, our treasurer and Emily Glenn, his able assistant, led the finance operation and were responsible for all the money. Lois Schneberger took care of all of the ribbons and awards and shared her expertise willingly. Jeanne Ann and Chuck Brush had key organizing roles for the show and Sue Glenn and Rita Gosnell provided the food and drink for the volunteers and vendors. Jo Davis was always on-site doing whatever needed to be done and wore us all out just watching her. I so appreciate all of our volunteers who so generously gave of their time and expertise to this important event.

I look forward to next year, when we get to do it again; but first I know there are many of you who need a good rest! Thank you
The CACSS Facebook page grew 14% in the month of March. Our Facebook page now has over 900 members from around the world. The CACSS Facebook page is a great forum for IDs of our plants, sharing photos, new ideas, giving and receiving information on cactus, succulents, and related flora and fauna. This month, discussions revealed an app that instantly identifies plants and flowers. Unfortunately, the overall reviews of the app were negative but, still a great idea for the future.

This month’s posts included various discussions, plant ID requests and wonderful photos of flowering Gasteria, hedgehogs, Mammillaria, Trichocereus, Gymnocalycium, Cleistocactus, and on and on. Each month we feature a photo of a cactus and a succulent that a CACSS member shared on our Facebook page. This month the cactus is Gymnocalycium bruchii in bloom from Cindy Keller Capek and the succulent is a Gasteria sp. from Grant Meyer.
A CACSS bus trip is being planned for August 12-14 to southern California. We will leave at 6:30 a.m. from the DBG parking lot on Friday, August 12 and return about 9 p.m. on Sunday, August 14. We will stay at the Oak Tree Inn in Monrovia on Friday and Saturday evenings. The bus trip will include a visit to Huntington Botanical Garden, the Inter-City Show at the LA County Arboretum, and to nurseries and growers in the area. This is a wonderful way to meet new people, get to know others better, get great plant advice, add interesting and unusual plants to your collection, and have a lot of fun. It is a great time, and the Inner-City Show is spectacular! The cost will be $200 per person sharing a double and $294 for a single. The hotel has a free continental breakfast but, other meals would be extra.
Payment is required to secure a room and seat on the bus. Please send the form below with a check made out to CACSS to Rita Gosnell, 25425 N. Bronco Trail, Scottsdale, AZ 85255 by June 5. If the person you are sharing a room with is not included in your submission, please add their name at the bottom of the form, so we'll know it is forthcoming. Please contact me with any questions at: 602-688-4339. See you on the bus!

Enjoy reading two articles about prior bus trips to California published in the Central Spine. Go to the CACSS web site, choose newsletters on the left side and scroll down to the articles:

CACSS Bus Trip to San Diego, by Jeanne Ann Brush, 6/12
Club Bus Trip 2010, by Sue Hakala, 9/10

CACSS CALIFORNIA BUS TRIP 2016 FORM
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Amount paid________________ Single____ Double_____
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Payment method: Check number______ Cash________ Credit card__________
The weather has turned warm with signs that summer will soon be on its way. What that means to Adenium lovers is that it’s time to drag their plants out of the garage, closet, bedroom or wherever they are kept during the winter season.

I am lucky enough to have a small greenhouse that allows me to protect many of my plants from the cold wet winters that we almost never have. Since I keep it somewhat heated, I often get growth during the winter months. Because the last several weeks have been extremely warm, my greenhouse gets to above 100°F during these warm afternoons. That allows me to do some watering but, I must be very careful.

Today I pulled a plant out of the greenhouse that was looking good but, I thought it needed a larger pot and it needed to be straightened. As you can see in photo 1, it was getting ready to blossom and photo 2 shows more buds forming. The plant looked healthy until I removed it from the pot. The more I looked, the unhappier I was. It had a serious rot issue. Since most of it was hardened off, it seems like it was healing itself. Possibly the above 100°F temperatures had helped it out. To make sure all the rot was removed, I had to make some drastic cuts. As you can see in photographs 3 and 4, about the only thing that remained was the outer shell. The pointed nose pliers are almost totally hidden as I checked the depth of the rot.
When I was confident that all the rot was removed, I sprinkled Bordeaux Powder, a fungicide, (photo 5) over the suspected rot area and I let it sit in a warm dry location for 3 days. I am confident that I caught the rot in time and this plant will be fine in a month or so, although a bit less hefty. It might actually have an interesting shape in a few years although I wouldn't recommend this method for shaping the plant.

![Photo 5](image1)

![Photo 6](image2)

Photographs 6 and 7 give you a feel for the size and shape of the plant. The pot has a 6.5” diameter.

![Photo 7](image3)

![Photo 8](image4)
Ten days later, this plant rewarded me with the blossom shown in photo 8. The condition of the blossom tells me that I didn’t harm the plant too badly. I was happily surprised to discover that it’s fragrant.

Some final thoughts about this event. I did not expect to have an issue with rot in my greenhouse, especially this time of year. Since I don’t know when this happened I might not have an issue but, it is something I will have to pay closer attention to in the future. Even though the plant looked fine from the top, I guess it pays to give them a complete checkup often. It also shows that a relatively healthy plant will not be significantly harmed by sitting bare root for a few days. Probably the most important thing to remember is clean your tools. Before and after I worked on the plant, I cleaned all my tools with a mixture of 10% isopropyl alcohol and water.

PEG Points: What’s Going on with the Propagation Education Group

By Tristan Davis

NEXT PEG MEETING TIME: Saturday, May 14, 2016; 10 a.m. - noon in the Whiteman Conference Room at the Desert Botanical Garden. Tell admissions you are there for the CACSS meeting, and they can direct you to the correct location (Garden admission will not be charged.)

Our last PEG meeting was a huge success! We had over twenty members show up for our Agave Extravaganza. Nicky Davis and I brought in over 30 species of Agaves for give-aways. Our group discussed various topics with regards to Agaves and their
relatives including how to propagate Agaves. Dean Patrick was the lucky winner of our drawing that gave away a beautiful *Agave rzedowskiana* described new to science in only 2003 (Photo 1).

All attendees had a great time and enjoyed the discussions and new information (Photo 2). The best part was that everyone went home with new *Agaves* for their collection. So, what did you miss out on? Besides free plants, we talked about all of the information included in this article.

**Propagating Agaves - Prickly Pups**
One of the most satisfying and easy groups of succulents to propagate are the *Agaves*. *Agaves* all belong to the same genus: *Agave* - though there are some that would split them into a couple of genera or combine with closely related genera like *Manfreda*.

*Photo 3 Agave weberi*

**Agave Diversity**
For the most part, *Agaves* are fairly easy for even the most uninitiated to identify on sight. *Agaves* typically grow in the form of a rosette; sometimes the rosette is big (*Agave weberi* Photo 3), and sometimes they are fairly small (*Agave toumeyana* Photo...
4). Some species even grow stalks and masquerade as a Yucca (*Agave karwinskii*). Many species have succulent, stiff leaves—often with painful teeth (*Agave colorata*)—but some have smooth, very soft (*Agave pedunculifera*) or very thin leaves (*Agave tenuifolia* Photo 5).

*Agaves* also run the gamut of hardiness. There are many species that are native to Arizona, including the low elevations, so they can shrug off even the worst that the Valley can throw at them. Many Mexican species are equally durable. Some species simply cannot handle the intense summer sun we get, and many species from more tropical climes struggle when it gets below 30°F. There are currently about 200 species of *Agave*, and they are found naturally from the U.S. to South America, though Mexico is particularly rich in *Agave* diversity. To top that off, new species of *Agave* are described regularly (I have one species in my collection that still doesn't have a name Photo 6).

Suffice it to say, the genus *Agave* has something for every collector, whether you have room or a desire for only potted plants or are looking for a centerpiece for your garden.

continued
Pupping Time

One of the best characteristics of many species of Agave is their habit of "pupping." A pup is a genetically identical clone of the parent plant that develops from runners from the parent underneath the ground. Pups can pop up right next to the parent plant, but can also pop up over a foot away! Pups quickly start to grow their own roots, even as they are still attached to the parent plant. Some species pup profusely (Agave macrocantha Photo 7), while others do not seem to pup at all (Agave albopilosa Figure 8). Some species that normally do not grow pups, do so once they start the reproductive cycle and begin growing a bloom stalk from the parent plant.
What is so great about Agave pups? Well, they are essentially brand new plants for those interested in propagating! Pups are much easier and faster than growing Agaves from seed. Once you see your Agave pupping, it's not long before you can separate the pup and have a new plant for your collection. Or better yet, for trading with your fellow Agavephiles (I just made that word up!).

**What's Next for PEG?**

Our next PEG meeting on May 14 will focus on **Grafting:** What is Grafting? Why Graft? How can I get started grafting? All these questions and more will be discussed. So come on down and do some learn'en!

**Don't forget to check out the PEG Seed Depot List now available online**

To access the list, go to [www.centralarizonacactus.org](http://www.centralarizonacactus.org). The Seed Depot list can be found towards the bottom right of the Home Page.

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**SELLING AT MEETINGS**

Policy adopted by the Board July, 2012

The CACSS invites members to sell plants from their personal collections at regularly scheduled monthly meetings under the following conditions:

- Selling space is limited to the surface of one eight-foot table.
- Any plants offered should be high quality and disease free.
- The minimum price of each plant will be $10 with 15% of gross proceeds remitted to the CACSS.
- The member selling plants or other items will be responsible for collecting the money and transferring the 15% to the club treasurer or their representative that day.
- If several members wish to sell their plants at a meeting, priority will be give to those who have not recently participated in sales activity.
- Members who wish to participate, MUST contact Sue Tyrrel at 480-797-8952 or styrell@cox.net for permission at least one week before the meeting.

There is no selling or advertising on the CACSS web site or facebook page.

**ATTENTION PHOTOGRAPHERS**

Would you like to see one of your photographs on the cover of the *Central Spine*? Images of central Arizona native plants are especially wanted but, all cactus and succulent subjects are welcome. Please forward images in medium digital format to Editor Sue Hakala at: CACSSCentralSpine@gmail.com.
Eight years ago, like many other plant people, I was hesitant to purchase any Lithops since I had killed my share in the past. I decided to try again and this time from seed. I succeeded with L. schwantesii, which seems to like our climate. Since then, I have grown nearly 250 species, subspecies, varieties and cultivars with a great deal of success. Phoenix is a much better place to grown them than many places in the world. However, some cautions are in order to prevent meltdowns, sunburn and other problems.

Tips To Help Lithops Survive Phoenix

1. Lithops like light, but one should not transfer them to full sun without giving them an adjustment period. In the hot Phoenix summer, most Lithops cannot survive full sun. In the hottest months, I keep mine in at least 40% shade due to my greenhouse conditions.

2. In the summer while they are dormant, they definitely do not want a full watering. I water most of mine about every two weeks in the evening but very scantily—only enough for the water to soak down about 1/2” deep. If you have a spray bottle, just 3 or 4 squirts for a four-inch pot is enough. During humid or cloudy August monsoon days, refrain from watering when in doubt. For me, L. ruschiorum is the most sensitive to over watering. L. leslei needs the most water.

3. During the fall before they bloom, it is good to give them a thorough watering all the way down to their toes. Of course, the soil must have excellent drainage, like almost all succulents. While blooming and when re-absorbing last year’s leaf pair, watering should be less. Once the old leaf pair is nearly absorbed, a good drink is in order as long as really hot weather has not hit. Note: It is important for the plant to re-absorb the old leaf pair. Some species are more stubborn than others on this point and, therefore, need water to be withheld for this to occur.

4. If Lithops are left out where birds can get at them, eventually the birds will peck them mercilessly.

5. Fertilizer seems to be unnecessary. A very weak fertilizing once in the spring and once in the fall probably would not hurt.

6. Lithops grow fine in a great variety of soil recipes. My mix usually has 2 parts sand, 2 parts pumice and 1 part plain old desert dirt from my yard. Do not use a
loamy mix as you would for tropical house plants. Do not use clay.

7. Be careful about taking cultivation advice from books whose main audience consists of gardeners in locations more humid or further from the equator. Everything is different there.

8. *Lithops* like some air movement. In your greenhouse or window, try to have a fan going nearby.

9. *Lithops optica* and especially *L. optica rubra* seem to be very sensitive to our high summer temperatures. I have developed the habit of bringing them in for the summer, watering them very little if any. They sit on a north windowsill by the kitchen sink. They go back out to the greenhouse about October 1.

10. I keep most of my *Lithops* in plastic pots like most of my other succulents. More frequent watering is needed in clay pots. Soil depth should be at least three inches deep due to our extreme heat. Most of mine have at least four inches of soil depth.

11. Pests: Birds are the worst. Sometimes crickets may take a bite, and, of course, keep rodents away. Mealy bugs don’t seem to bother my *Lithops* but, I sometimes need to be on the lookout for spider mites.

12. Can *Lithops* be successfully grown in the house? I have given many to a friend in Portland, Oregon. She grows them well on her kitchen counter with morning sun. Of course, they grow a bit taller than normal and may not bloom, but they still look nice.

13. Can they take frost? Probably, especially if they are dry. I have never yet lost one to frost.

14. Transplanting: They can usually be easily transplanted, and do not need their roots left out to dry like many cacti. Just do not water them much for the first week after transplanting.

15. They love rocky top dressing. In nature, many grow in quartz fields or in shallow crevasses of stony outcroppings.

16. If you buy them from a store here like Home Depot, etc., they were probably grown in California. It is usually best to repot them since the cardboard-like soil they come in is inappropriate for our conditions.

17. Do not fold, bend, spindle or mutilate them.

Enjoy reading other articles about *Lithops* written for the *Central Spine*:

*Lithops* (no author), 4/88
*Lithops* (no author), 11/99
*Lithops* found within Leo Martin’s “From Your President” column, 12/00
*Lithops N. E. Brown* by Leo Martin, 5/00
PLANT SUBJECT MATTER SPECIALISTS

• Tristan Davis  480-540-9540 | minime8484@hotmail.com  
Specializations include plant propagation, and heading PEG (Propagation Education Group).

• Doug Dawson  480-893-1207 | dawsonlithops@hotmail.com  
Specializations include growing from seed, flora of Namibia, Lithops, other Mesembs, Melocactus, and miniature cacti and succulents of Arizona.

• Mike Gallagher  602-942-8580 | mgallagher26@cox.net  
Specializations include Aloes, Haworthias, columnar Cacti, and Turbinicarpus.

• Dean Patrick  480-759-0312 | desertpatrick@cox.net  
Specialization in softwood stem-cuttings, plant division and seed starting (rooting cacti, Agave and Aloe).

• Steve Plath  (623) 238-3342 | sbotanica@inreach.com  
Specializations include general propagation and desert revegetation, Ariocarpus, Astrophytum, Cyphostemma, Echinocereus, Fouquieria, and Thelocactus.

• Dan Smith  480.981.9648 | smithdans@outlet.com  
Specializes in adeniums. raising adeniums from seed, grafting and adenium culture in general.

• Bob Torrest  480-994-3868 | robertst9114@msn.com  
Specializations include desert landscaping, unusual (including rare fruit) trees and shrubs, Aloes, Agaves, and columnar cacti.
Next newsletter issue submission deadline: May 10, 2016. Email all submissions to: cacsscentralspine@gmail.com. We encourage members to submit medium resolution images of their plants with captions for inclusion in the newsletter when and where possible.