



Central Spine

NEWSLETTER OF THE
CENTRAL ARIZONA CACTUS AND SUCCULENT SOCIETY

October 2016



An exceptional specimen in habitat of Loyd's hedgehog, Echinocereus x roetteri. Photo by Paul W. Hyder. This photo accompanies Javier F. Gurrola's article this month Echinocereus Jewels of the Jarillas.

**Be sure to visit CACSS on the web at:
centralarizonacactus.org the Society's web site
Facebook Central Arizona Cactus and Succulent Society
CACSS Swap and Shop a place to connect with members**

The news of Cynthia Robinson's death on October 4, 2016 has been very sad for all who knew her and volunteered with her. She was a long time member of both CACSS and CSSA and held numerous leadership positions over the years making many contributions to both clubs. She died unexpectedly at the age of 39 and will be greatly missed. I was especially looking forward to working with her, as she was the overall CSSA Program Chair for the 2017 Convention. I will miss her experience, insight and perspective as well as her friendship. The Board will shortly put a tribute in place in her honor.

I can now report that all of the leadership positions are in place for the CSSA convention being held here from July 26-30, 2017. Below are those positions and who is leading each one. Please give some thought to what you might like to work on and contact the appropriate leader.

2017 CSSA CONVENTION

CACSS Leadership Requirements

1. Sales Chair-Judy Tolbert jtolbertj10@gmail.com

Determine schedule for cashier and boxing volunteers needed for the sales activity. Provide volunteer requirements to volunteer coordinator. Provide volunteer training. Be on-site during sale hours.

2. Tour Chair-Jeanne Ann and Chuck Brush ckbrush@hotmail.com and jabmom2@hotmail.com

Coordinate local tours to the DBG, Boyce Thompson Arboretum, Garden Tour and Barnhardt Trail Hike. Arrange buses and departure and return times. Arrange box lunches and beverages, if appropriate for each tour.

Recruit tour bus leaders and provide volunteer requirements to volunteer coordinator. Get liability release forms for tours. Determine cost of each tour. With CSSA representative, develop pricing for tours.

3. Vendor/Sales Area Chair-Mike Cone imakepots11@hotmail.com

Assist CSSA site coordinator with set-up and tear down of vendor/sales area. Arrange boxes for the sale. Ensure phone lines are hooked up. Provide volunteer requirements to volunteer coordinator.

4. Convention Bag Chair-Cindy Capek cindycapek48@gmail.com

Design and acquire convention bags and contents. Provide volunteer requirements to volunteer coordinator.

5. Audio-Visual Chair-Eric Holst forex@cox.net

Coordinate audio-visual requirements with CSSA and the hotel. Be on-site for troubleshooting during convention.

- 6. Volunteer Chair-Dan Smith** smithdans@outlook.com
Provide overall volunteer coordination via Sign-up website for all CACSS volunteer positions required for the convention.
- 7. Auction Chair-Carol Parrott** caparrott21@hotmail.com
In concert with CSSA Auction Chair, decide area to display auction plants. Set up silent auction area. Determine volunteers needed and provide to volunteer coordinator. Be on-site during auction to assist.
- 8. Security Chair-Jim Oravetz** oravetz@cox.net
Determine security requirements for sales area, silent auction room, convention entry and lunch and dinner entry. Develop schedule. Recruit team leaders and provide volunteer requirements to volunteer coordinator.
- 9. Convention Program Chair-Nick Diomedede** nich.diomedede@gmail.com
Develop and print convention program.
- 10. Program Advertising Chair-Cricket Peterson** cricketpetrealtor@gmail.com Sell local advertising to pay for the program.
- 11. Registrar Support Chair-Nick Diomedede** nich.diomedede@gmail.com
Coordinate the design and printing of name badges, coupons, etc. in support of the registrar. Verify number of ribbons for badges.
- 12. Publicity Chair-Deb Keough** debra@cactusflowerdigital.com
Publicize locally the convention and sale, maximizing our media exposure. This includes internal and external publicity.
- 13. Speaker Support Chair-Natalie Melkonoff** nmelkonoff@asu.edu
Be available to greet and assist speakers during convention. Arrange speaker transportation to and from airport. (Light rail and hotel shuttle is available to and from the hotel. Communicate with the speakers to ensure they know their options and know when each is planning their arrival.) Arrange pick-up, if necessary.
- 14. Plant Gift Chair-Tristan Davis** minime8484@hotmail.com
Provide coordination of a plant gift for attendees.
- 15. CACSS Sales Chair-Sue Tyrell** styrrel@cox.net
Determine what items CACSS will sell. Develop cost and pricing. Get cash register and credit card machine. Coordinate sales area set-up and schedule cashiers. Provide volunteer requirements to volunteer coordinator
- 16. Packing and Shipping Chair-John Czaplicki** anasazijon@cox.net
Arrange packing and shipping services with a local mail store. Set-up area. Supervise activity the last day of the convention. Provide volunteer coordinator with volunteer requirements.

GEORGE ENGELMANN

By Scott McMahon

George Engelmann, also known as Georg Engelmann, (2 February 1809 – 4 February 1884) was a German-American botanist. He was instrumental in describing the flora of the west of North America yet very poorly known. He was particularly active in the Rocky Mountains and northern Mexico, with one of his constant companions being another German-American, the botanical illustrator Paulus Roetter.

published in 1860, and his latest on this subject shortly before his death. His two major works on cacti remain important today.

He was a founder and long-time president of the St. Louis Academy of Sciences, and encouraged the wealthy St. Louis businessman Henry Shaw to develop his gardens to be of scientific as well as public use. "Shaw's Gardens"

became the Missouri Botanical Garden. On a visit to England in 1857, he had consulted with William Jackson Hooker on the establishment of Shaw's gardens. He was also one of the original founders of the National Academy of Science. Engelmann Spruce (*Picea engelmannii*), Apache Pine (*Pinus engelmannii*), and Engelmann's Prickly Pear, *Opuntia engelmannii* are named after him.



In 1859, he published *Cactaceae of the Boundary* which studied cacti on the border of the United States and Mexico. He also made special studies of the pines, rushes, spurge, and other little-known and difficult groups, contributing numerous articles on them to the St. Louis Academy of Sciences, to the American Academy of Arts and Sciences, and to government reports. Material in his specialties that was collected by the federal government was sent to him for examination. He was one of the earliest to study the North American vines, and nearly all that is known scientifically of the American species and forms is due to his investigations. His first monograph on *The Grape-Vines of Missouri* was



Chris Ginkle, who took the photos says, "When photographing *Opuntia engelmannii* it is hard to guarantee with certainty that they are pure and not introgressed with another species. Many *O. engelmannii* looking plants in habitat are really hybrids. The ones in these photos from the Grand Canyon, at least, look pure to me. Only genetic testing can guarantee that."

NICK DIOMEDE

By Jo Davis

Nick proudly told me, “I’m an Italian from Brooklyn, New York.” He comes from a large family. He spent six years in the Navy, joining in 1978, two weeks after high school. He was stationed on submarine USS Groton SSN694 as a nuclear reactor operator.

“Moving to the Valley in 1988, I felt an immediate connection to the desert. The beautiful weather sure helped that,” he said.



Nick Diomede, club treasurer

Nick said he and a friend went to the DBG and happened upon a meeting of the CACSS. “We sat and listened to the speaker who gave a great presentation on plants, how they were grown and where they were from. I decided to join the club allowing me to find greater joy in the desert,” he said. “Being a member of this club has really been about the friendships I’ve formed, and how members have made me feel over the years.”

After being a member for awhile, “I decided to take on the task of serving as

the newsletter editor,” he said. “The members were so enthused with my first newsletter, I decided to go to computer graphic design school at Glendale Community College. Three years later, I had my degree.” Nick does a lot of graphic design work for the Society. He has designed the annual show and sale brochure and other items for that event, serves as technical advisor to the current newsletter editor, designed ads for the upcoming CSSA convention that the Society will host in July 2017, and many other items.

Nick has been on the Board for 2.5 years serving as treasurer keeping financial records for all of our events. He’s also the guy you see at the back of the room at every meeting taking the money for memberships and silent auction sales and other sale items.

“My first venture in growing succulents started with *Agaves*. I learned a lot from member Gard Roper who is an expert on these plants. Then I ended up loving *Aloes* because of their unique structure,” Nick said.

As most of us know, Nick has a huge heart when it comes to four-legged animals. He found a stray mature female dog walking down the street, and took her into his home giving her all the attention and love she needed. “I think everyone should have compassion for all animals, whether you have a pet or not,” Nick said.

THE ECHINOCEREUS JEWELS OF THE JARILLAS

Photos and Text By Javier F. Gurrola

This article takes us to a place that is about 40 miles slightly northeast from my home town of Las Cruces, New Mexico and across the Organ Mountains and White Sands Missile Range. In the immediate vicinity of Orogrande, New Mexico (Otero County), is a small

Cretaceous Period, and ended their push around five million years ago. They have weathered since to form the current topography we see today.

Pronounced “haree-yas,” the Jarillas are your typical Chihuahuan desert scrub



*Typical terrain and vegetation of the Jarillas with several cacti in the foreground including a large mound of strawberry hedgehog, *Echinocereus stramineus*.*

mountain range that lies in the northern portion of the Chihuahuan Desert. The Jarilla Mountains (approximately 32.425078, -106.103225) are composed of various upper Paleozoic sedimentary strata along with much younger intrusive igneous (granitic) rocks. These granites pushed themselves through the Paleozoic strata sometime after the

with *Larrea tridentata* (creosotebush), *Flourensia cernua* (tarbush), *Agave* sp., *Yucca* sp., and occasional stands of *Bouteloua eriopoda* (black gamagrass). In reference to the name of this mountain range (Jarillas), I was able to find two very different associations, both out of Mexico that are in reference to creosotebush itself and/or some species

of Cannabis. Whatever the case may be, don't expect to find large stands of hemp-like plants any time soon with respect to the latter meaning!

Unlike our previous visit to the Tinajas Altas, the plant life on this bit of Chihuahuan Desert is much more diverse. The average rainfall here is around 11 inches per year, making liquid water more available to a wider variety of plants, especially cacti. There are at least a half dozen species of chollas



of this article will be on a very special and unique aspect of the *Echinocereus* of this area.

Within the heart of the Jarillas is an ongoing laboratory genetic experiment. No, you won't find some mad half-crazed maniacal scientist mixing and testing exotic compounds or splicing together cactus genes to create monstrosities. Things are taking place much more subtly than that. Here, nature has made some very interesting GMOs of its own. A



Photos 2 and 3: The hybrid plants, Lloyd's hedgehog, *Echinocereus x roetteri*.

(*Cylindropuntia*) and prickly pears (*Opuntia*), three species of *Mammillaria*, up to three species of *Escobaria*, up to two species of *Coryphantha*, scores of *Echinocactus horizonthalonius* (turk-head barrel), *Ferocactus wislizeni* (fishhook barrel cactus), *Epithelantha micromeris* (button or ping pong ball cactus), *Echinomastus dasyacanthus* (Chihuahua pineapple cactus), *Glandulicactus uncinatus* (brown-flowered hedgehog), possibly *Peniocereus greggii* (night-blooming *Cereus*), and up to six species of *Echinocereus* (claret cups and hedgehogs). For a general treatment of the cacti of this region of the Chihuahuan Desert, please consult the "Additional References" listed at the end. The focus

"GMO" or Genetically Modified Organism is the term used to describe any organism whose genetic makeup has been altered either through selective breeding (e.g. hybridization) or gene manipulation in the laboratory. GMOs are typically thought of as originating outside the realm of natural non-anthropogenic chance and into the hands of human interference. Humans, whether conscience of it or not, have been altering the genetic makeups of plant and animal species for thousands of years, e.g. dog, cattle, beans, corn, rice, roses, etc. It is obvious that these alterations have mostly been done out of necessity for survival or for aesthetic purposes.

Nature's version of a GMO on the other hand is completely oblivious to what it's doing and makes these changes due to chance, and likely in response to some range of environmental factors. Evolutionarily this makes sense; otherwise, the alternative is to go extinct, which has been happening as long as there have been living things on Earth. So the natural process will tinker or experiment with genes to modify them to create new recombined forms or, if the selection pressures prove too great, the species in question simply dies out.

Echinocereus x roetteri (Lloyd's hedgehog cactus) is one such natural genetic experiment that is readily observable in the Jarillas (photos 2 and 3). This semi-species is known to be a hybrid between *E. coccineus* (red claret-cup cactus) and *E. dasyacanthus* (Texas rainbow cactus) photos 4 and 5 respectively. This interspecific hybridization experiment is

including white to lavender. Depending on the parent (seed producing) plant, the overall spination and rib arrangement (vegetative aspects) may lean more towards *coccineus* or *dasyacanthus*. In my experience though, the majority of plants tend to lean towards the *coccineus* vegetative type.

In order to experience the explosion of color these cacti in habitat display when they flower, you'll need to visit this area starting around early April to mid-May. Alternatively, you can check out *The Brilliant Echinocerei of Orogrande* by Martina and Andreas Ohr, a pictorial essay with several high quality photos of the dizzying array of *x roetteri* flower types in habitat.

So how is it then that *E. coccineus* and *E. dasyacanthus* hybridize to produce *E. x roetteri*? Without getting overly technical, let's make a few basic assumptions about



Photo 4: Parental species #1, red claret-cup, *Echinocereus coccineus*.
Photo 5: Parental species #2, Texas rainbow, *Echinocereus dasyacanthus*.



also carried out in other areas of south-central New Mexico and extreme west Texas. *E. x roetteri* has been known to science and horticulture for nearly 100 years. Their flowers can come in varying shades of orange, pink, red, and yellow

flowering plant (angiosperm) mating systems. Each plant is capable of producing vast numbers of reproductive structures (i.e. flowers), including several available stigmas with even more vast quantities of pollen. So, logically

angiosperms have ample opportunities to exchange genetic material by chance alone, even among different species. Furthermore, they are usually able to grow and reproduce normally with no apparent negative effects even with multiple sets of chromosomes (polyploidy). Polyploidy in angiosperms often results from hybridization. In sharp contrast, polyploidy in animals almost always ends with deleterious consequences. Simply put, angiosperms tend to hybridize more frequently than animals. Cacti are no exception! Natural hybridization in cacti may very well turn out to be a significant evolutionary mechanism. Intertwined with random genetic mutation, selective pressure stabilizers (e.g. factors that help maintain uniformity in a population), and natural selection, large-scale changes in the gene pool may over time change the distribution patterns of these three *Echinocereus* species in the Jarillas.

In the Jarillas, *E. coccineus* blooms earlier than *E. dasyacanthus*, by as much as a month in mid Spring. Not everyone, however, gets the memo and some plants of both species will either bloom earlier or later. By chance alone, compatible pollen grains get transferred to a suitable stigma, and voila, FIREWORKS, viable seed gets produced! The end result is a colorful pyrotechnic display of blooms that can be appreciated in a single day; the plants beheld having transcended an untold number of generations and settled in suitable spaces to achieve that instant snapshot. And wait, there's more. The hybrids themselves may not only be compatible with each other but also with the parental species. Promiscuous and without any inhibitions indeed! As long as there continues to exist this vast genetic soup of possibilities and environmental

factors are favorable, who knows how long *E. x roetteri* will persevere in nature or, possibly eventually take over.

Well, that's the second one in the books. I hope I have enticed you to visit this area...do it! It's really the only way to appreciate the spectacular light show of pastel hues and metallic lusters that these cacti exhibit. I have deliberately provided you with a lot of scientific knowledge, because as I have suggested in my previous article, it's my hope that you'll appreciate these plants more.

While you're in the vicinity, check out the impressive columnar stands of "White Sands" claret-cup (*Echinocereus triglochidiatus* v. *gonacanthus*) at White Sands National Monument (32.778819, -106.172547), and the various side roads at "Anthony Gap" along NM-404 with many cacti species wedged in among the limestone outcrops (32.010820, -106.521776). Many seed collection numbers come from this latter area.

Thanks again, until next time.

Reference:

Ohr, Martina and Andreas Ohr. 2009. *Das Farbspiel der Echinocereen von Orogrande (The Brilliant Echinocerei of Orogrande)*. Martina and Andreas Ohr, Germany. [German and English text]

Additional References:

- Dodson, Carolyn, and Robert DeWitt Ivey. 2012. *A Guide to Plants of the Northern Chihuahuan Desert*. University of New Mexico Press, Albuquerque, NM.
- http://cactiguide.com/distribution_display/?state=New%20Mexico

- Accessed 8/30/2016. From Cactiguide.com, this is list of cacti from New Mexico with photos.
- Konings, Gertrud and Ad Konings. 2009. *Cacti of Texas in Their Natural Habitat*. Cichlid Press, El Paso, TX.
- Powell, A. Michael, and James F. Weedon. 2004. *Cacti of the Trans-Pecos and Adjacent Areas*. Texas Tech University Press, Lubbock, TX.

GOD AND THE CACTUS

Submitted Lois Schneberger

From *The Power of One* by Bryce Courtney, 1989, page 154 which originally appeared in the January 1991 issue of the *Central Spine*.

If God would choose a plant to represent him, I think he would choose of all plants the cactus. The cactus has all the blessings He tried, but mostly failed, to give to men. Let me tell you how. It was humility, but is not submissive. It grows where no other plant will grow. It does not complain when the sun bakes it back or the wind tears it from the cliff or drowns it in the dry sand of the desert or when it is thirsty. When the rains come it stores water for the hard times ahead. In good times and in bad it will still flower. It protects itself against danger, but it harms no other plant. It adapts perfectly to almost any environment. It has patience and enjoys solitude. In Mexico there is a cactus that flowers only once every hundred years and only at night. This is saintliness of an extraordinary kind, would you agree?

The cactus has properties that heals the wounds of men and, from it come potions that can make man touch the face of God or stare into the mouth of hell. It is a plant of patience and solitude, love and madness, ugliness and beauty, toughness and gentleness. Of all plants surely God made the cactus in his own image? It has my enduring respect and is my passion.

SEASONAL CHANGES

By Sue Hakala

Now that temperatures are cooling off it's time to think about what's growing now and what needs to be put to sleep for winter. Check your newsletter indexes for information, and especially read the timely articles below. Go to the Society web site, click on newsletters on the left and find the newsletter you want by date.

Turn of the Seasons by Leo Martin, 9/02
Winterizing Your Adeniums by Tom Gatz, 11/14

For *Adenium* and *Plumeria* growers be sure to visit club member Dan Smith's web site: PlantsbyDan.com.



Cactus and Succulent Society of America 37th Biennial Convention

Tempe, Arizona

Celebrating the Beauty of the Desert™

July 26 to 30, 2017



Logo © Steve Plath, 2016 | Photo Credit ©Tom Gatz, 2016

Tempe, Arizona, a vibrant urban oasis located in the heart of the Greater Phoenix Metropolitan area, and the Central Arizona Cactus and Succulent Society will play host to the Cactus and Succulent Society of America's 37th Biennial Convention.

The Tempe Mission Palms, our convention hotel, located in the entertainment district of Tempe, is a luxury hotel with pool, exercise room, airport shuttle, valet parking and many other amenities. Our special convention rate is only \$89 per night plus taxes. A light rail stop to other adventures is just out the back door of the hotel.

The Sonoran Desert, a region rich in both habitats and species, will provide the backdrop for informative speakers, plant and pottery vendors, auctions, great food, and opportunities to visit desert plant habitats. The Central Arizona Cactus and Succulent Society is excited to be hosting the 37th Biennial Convention, and is working with the CSSA, to plan a fun, informative, educational and memorable experience. It's time to start planning your visit to Tempe!

World Class Speakers

Graham Charles, England
Joel Lode, Spain
Marlon Machado, Brazil
Peter Breslin, AZ
Mark Dimmitt, AZ
Chuck Hanson, AZ
Woody Minnich, NM
Ernesto Sandoval, CA
Marcia Tatroe, CO
Rob Wallace, IA
Bob Webb, Tucson, AZ
with more to come!

Great Plants, Pottery and More

Arid Lands
Cactus Data Plants
Carol Wichern Pottery
Desert Creations
J & J Cactus and Succulents
Plants of the Southwest
PW Plants – Peter Walkowiak
Rare Succulents – Petra Crist
Sandy Siegel Pottery
Steve Plath
Sticky Situation
with more to come!

Please visit us at the convention website: cssaconvention.com
for the latest information regarding speakers, vendors, daily schedule, and field trips.

WHAT'S A SEED DEPOT?

Text and Photo By Nicky Davis, CACSS Seed Depot Manager

As we learned at last month's CACSS monthly meeting, our club now has over 485 members and is growing each month. Some of you new members may not know about the Seed Depot, so I'd like to explain what it is, how it works and tell you about an exciting opportunity.

The Seed Depot works in tandem with the CACSS Propagation Education Group (PEG). PEG meets bi-monthly and is an informal discussion group that focuses on members sharing their knowledge, tips and personal advice about the propagation of cactus and succulents grown here in Arizona. We also share seedlings, cuttings and pups from our collections free to attendees.

The Seed Depot is an inventory of seeds donated by CACSS members, many of which are harvested from their own collections. Any CACSS member can donate their seeds (harvested and cleaned seeds, no pods accepted). You can bring them to me at the PEG meetings or the CACSS meetings in small envelopes or even baggies. There is a donation form on our website that you can print at home and fill out in advance. This form provides necessary information for the Seed Depot database, which helps me track the inventory for our listing. I also have forms available at the meetings if you don't have a printer available. Once I receive the seed donation, the seeds are split into packets of approximately 25 seeds each, labeled and inventoried.

I try to update the listing of available seeds within a couple weeks of each monthly CACSS meeting. I post on our CACSS Facebook page once a new listing is live, so if you haven't joined our Facebook page, please send your friend request.

To purchase seeds, please review the listing ahead of time and note which seeds you'd like. You may email me ahead of time to hold seed packets for you if you'd like. My email is nicky.davis4@gmail.com. I also have my iPad available at the meetings so you can review the listing.



Graptopetalum rusbyi seedlings

Seed packets are available for sale to any active CACSS member at \$1 each. If you donate seeds, you may purchase a packet for half price - \$.50 each. All proceeds go directly back to the club.

EXCITING SEED OFFER

We've had quite a jump in seed donations in the last couple of months, so thank you

to all who have taken the time to share your seeds with the club. To encourage more members to learn firsthand the joys of starting plants from seed, I will be passing out to every CACSS member that attends the November 19 PEG meeting a packet of seeds, FREE! Also, everyone at the meeting will be able to purchase additional packets at half price - \$.50! Please note that the genus/species of your free packet will be at the

discretion of my inventory overstock, so you will not be able to request what seeds you want. This is a great opportunity to try out your green thumb!

Also at the PEG meeting, Tristan Davis will give a review on quick and easy ways to start your seeds, so you don't want to miss it! Looking forward to seeing all of you soon.

PEG POINTS: What's Going on with the Propagation Education Group

NEXT PEG MEETING TIME: Saturday, November 19, 2016; 10 a.m. - noon in the Farrington 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).

2017 CACSS SHOW AND SALE

By Steve Mack, Show Chair

April 7 - 9, 2017 are the dates for our Annual Show and Sale. It seems a long way off but now is the time to start thinking about volunteering to help make this show a big success. If a plant is NOT in your possession by now it cannot be entered in the show. If a plant is in your possession start thinking about how lovely it would be entered in the show.

The initial Show and Sale meeting will be at noon, November 27 in the Farrenger room at the DBG. Tell admissions you are there for the CACSS Meeting, and they can direct you to the correct location (Garden admission will not be charged).

Looking for eager beavers that would like to help with all the tasks that need to be done to put on a great show. I have worked many shows but this is the first that I have tackled as the chair so I need your help. I will remind everyone next month as well but start working on those plants.

The demise of the beautiful Wallace Garden has got me thinking about what might happen to my plants when I am no longer able to care for them. Throughout the years, CACSS members have moved, been unable to care for their plants or have passed on. In the past, the Society has been asked to temporarily care for member's plants and/or to help find new homes for them. Some procedures have been developed and used to organize sales events in these circumstances. Below is a compilation of information I have had in my files that may help you in your planning. You may want to consider attaching instructions to your will to help your executor. Amend this document any way you choose.

WHO SHOULD I CALL?

The Society will always act to help with plant care. Your family/executor can find someone either through your designation or, by contacting the Desert Botanical Garden who will have a way of guiding someone to a Society contact person. Help can also be asked for on the CACSS Facebook page or, by using the "contact us" tab on the web site.

The goals of a sale are:

1. To save the plants.
2. To allow Society members a chance to obtain plants at very reasonable prices.
3. To earn income which can be used to further the Society's objectives.

SALE PROCEDURE

The first six people to volunteer to help with the sale will get to pick two plants before anyone else.

Members will be invited to come to leisurely look at the plants at (a designated time and date). The key is to come before the sale begins so you can see what's available, and be able to find it later in the day.

The rarest plants will be put on a table for a live or silent auction (during a designated time period). A minimum bid will be put on all plants. For a silent auction, bids will increase by a minimum of 50 cents. The person with the highest bid when the timer goes off will be able to purchase the plant for the bid price.

At a set time, everyone will be asked to go out to the front of the house and pick a number from a box. People will be allowed to reenter as their number is called. Numbers will be called in rapid succession. Everyone will be allowed to pick one plant, mark it sold, then go back out to the front.

After everyone has gone through once, we will do it again. After that, everyone will be allowed to pick from the remaining plants.

The majority of plants will be priced by pot size, not plant size: small \$3, medium \$5, large \$10. Some plants will be priced individually.

All plants must be removed that day. Some will be large and heavy. Come prepared to move them yourself.

Plants in the ground are for sale and will be marked with the price, be prepared to dig and move them yourself. Bring boxes, gloves, tongs, shovels, etc. marked with your name. A Dig Supervisor will assist in being sure all the plants are named.

Plant houses and benches, pots, soil, pumice, rock, tools, shade cloth, frost cloth, books, publications, etc. will be included in the sale and priced to sell.

The Society will dictate how payment (cash, check or credit card) will be made the day of the sale.

TATTOO

By Sue Hakala

These examples of cactus tattoos that I found on the web are pretty spectacular.

Do you have a plant tattoo? Send a close-up, in focus picture to cacsscentralspine@gmail.com and be featured in the Central Spine.



Once upon a time I did work for a paycheck.

Along the way came children, and then requests from the school asking for volunteers. Doesn't everyone take their lunch hour at 9 a.m. so they can volunteer?

It's not much time, and that's how it starts.

Rascally little kids taught me a lot. So eventually, I was ready to move up to the big time: The Phoenix Zoo. That meant animals and kids.

Instead of memorizing the entire inventory of zoo animals, I went with native animals. Less to learn. One small hitch; animal handling. One thing I learned for sure, never go to the grocery store after handling animals.

Eventually, I became confident enough to volunteer at the Desert Botanical Garden. Besides, it's right next door and I can do two things. I'm really working for free now.

As plants and staff became more compelling, I left the zoo and just moved over to the DBG. There was so much to learn. Everyone was very generous to share what they knew, from the directors to the deliveries and especially the public.

So in the end, reading books is great. Being an experienced volunteer who keeps learning adds even more value.

Fortunately for our club, with such a large membership, there are plenty of opportunities to volunteer. Pitch in a little bit at monthly meetings, or a little more for small special events. Then there is the spring show and sale, followed by our hosting of our national convention in July, 2017 where you will be hanging out with people from around the world. Everybody benefits.

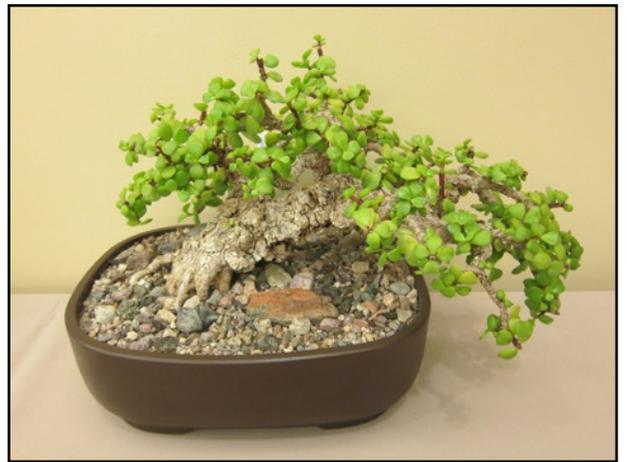
PS: I'm back with those ankle biters volunteering at a local grade school. They are a whole new world again.

Publication of material in the *Central Spine* does not imply agreement with the ideas expressed therein by any portion of the membership of the CACSS, nor does it constitute an endorsement or support for any portion of such material by the CACSS, or the *Central Spine*, regardless of any position or office held by the author. All such material represents a comment and/or personal opinion of the author.

PRIZE-WINNING PLANTS FROM OUR 2016 SHOW



Epithelantha micromeris v *greggii* Best Cactus of the Show
grown by Steve and Julie Plath.



Portulacaria afra 'cork bark' Judge's Choice -
Succulent grown by Steve and Julie Plath.



Lithops dorothea Best Aizoaceae grown by Cliff Fielding.



Kalanchoe crenate Best Junior Succulent grown
by Andrew Mahn. All photos by Sue Hakala.

WOWZER! The CACSS Facebook (FB) page grew over 9% in September. Our Page now has over 1,592 members from around the world and continues to grow. We sure could use more members of the Society to participate on our FB page. Just saying! The CACSS FB page is a forum for all things cactus and succulent. The September FB



Echinopsis by Tom Brigg

postings were varied and included comments and photos on the following: Big box stores gluing flowers on plants – (Really!?!); Desert Botanical Garden’s spotlight photos on plants in bloom; ideas for staging cactus and succulents; seed collecting techniques; and more.

There were numerous comments on the rains and the wonderful results they had on our cactus and succulents. The results were a full-on color blossom attack that continued into September. Here are a few of the cactus and succulents in bloom: *Stapelia*, *Ariocarpus*, *Echinopsis* (still), *Ferocactus* (still), *Adenium*, *Gerrandanthus*, *Pilocereus*, *Pereskia*, *Cleistocactus*, *Lithops*, *Mammillaria*, *Melocactus*, *Astrophytum*, *Orbea*, *Coryphantha*, and I guess I could go on but I won’t

In September, there were plant identification requests for one succulent and five cactuses. All six of the plants were identified. Once again, I would like to thank all of those FB participants for their plant knowledge and assistance in the cactus/succulent identification as well as all of the wonderful photos. Each month we feature a photo of a cactus and a succulent that CACSS members shared on the CACSS FB page. This month the cactus photo is the flower of *Echinopsis* from Tom Briggs. Anthony “Antman” Wray’s succulent *Lithops* photo is quite vibrant. Please enjoy.



Lithops by Anthony ‘Antman’ Wray

If you have any questions on the FB photos, contact the photographer via Central Arizona Cactus and Succulent Society FB page. Thanks to all CACSS members who contributed and/or joined the CACSS FB page. We have room for many more CACSS members. So, please take the time to become a member of the CACSS FB page. There is no charge and it is very easy to access, enjoy and participate in. You can find us on FB @ Central Arizona Cactus and Succulent Society

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Specializations include growing from seed, flora of Namibia, Lithops, other Mesembs, Melocactus, and miniature cacti and succulents of Arizona.

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Next newsletter issue submission deadline is **November 10**, 2016. Email all submissions to: Editor Sue Hakala at cacsscentralspine@gmail.com. Members are encouraged to submit medium resolution images of their plants with captions for inclusion in the newsletter when and where possible.
