This month, enjoy club member Cliff Fielding’s article on his recent trip to the Atacama Desert in Chile. In the above photo, he is giving scale to an enormously healthy clump of Copiapoa solaris with the Botija Peak in the background.

Be sure to visit CACSS on the web at: centralarizonacactus.org the Society’s website. Facebook Central Arizona Cactus and Succulent Society CACSS Swap and Shop, a place to connect with members.
In November of 2017, we traveled to Chile again for a revisit to some wonderful cactus habitats. This trip included as many cactus as I could pack into a modest trip. We saw many *Copiapoa*, *Eriosyce*, *Eulychnia*, and *Neochileanias* (an old but justifiable name). November is spring time in the southern hemisphere, so we were also treated to a number of blooming bulbs and other plants like *Calandrinias* and *Cistanthe*.

This was an incredibly beautiful and special trip as the northern part of Chile had gotten some very good rain earlier in the year and was not nearly as parched as it can be. As a side note, I traveled again to Chile this past August, in their mid winter, but the land was much drier.

We also visited some small islands off the coast to see both plants and animals including whales and penguins. We took a short detour to the infamous San Jose mine where 33 people were trapped half a mile underground in a mine collapse. This was a story with a very happy ending as all 33 survived the unbelievable two month ordeal. I look forward to sharing this program with the Arizona club.

About Kelly… As a function of his work at Altman plants, Kelly is charged with finding and creating new and different plants. His hybrid *Aloes* and *Agaves* are well known in the industry and are collected by enthusiasts.

Kelly is a manager of succulent plant development for Altman Plants, the largest producer of succulent plants in the country. His inclination has been towards *Agaves*, *Aloes*, *Echeverias* and *Dudleyas*, but there are many more plants that have garnered his attention. As part of his life’s work, he has introduced many succulents and created many cultivars that have been nudging their way into gardens and patios.

Although his study focus in college was physics, the love of plants continued to steer him towards horticulture as a career. He has travelled extensively worldwide documenting plants and collecting seed and pollen for propagation and hybridization.
The new year is now upon us and that means preparations are underway for the Central Arizona Cactus and Succulent Society’s (CACSS) 2019 Annual Show and Sale. This is our society’s most popular educational and social activity, continuing to draw crowds to the Desert Botanical Garden (DBG) and the CACSS. The show gives members an opportunity to exhibit their favorite plants and present educational displays on growing, horticulture and conservation. Our Show and Sale helps spread the word about the joys of growing unique cacti and succulents while serving as a forum for discussion and learning the latest horticultural trends. If you enjoy your cacti and succulents, know that others will enjoy them also.

The 2019 CACSS Show and Sale will be held in Dorrance Hall and Boppart Courtyard on April 5, 6, and 7. Daily event times are 9 a.m.-5 p.m. Friday and Saturday, and 9 a.m.-4 p.m. on Sunday. Plants need to be brought to Dorrance Hall on Wednesday, April 3 between the hours of 7 a.m.-5 p.m. (firm) for entry and show staging. Judging takes place on Thursday, April 4, with the Show and Sale opening to the public Friday, April 5, through Sunday, April 7. Our event concludes Sunday, April 7, at 4 p.m., at which time show plants and educational exhibits may be removed.

During the weekend of April 5-7, Dorrance Hall will be full of our members’ amazing, unique and (sometimes) bizarre plants. While this is a judged show, reasons for displaying and sharing your plants extend far beyond competition. Yes, there are those members that are competitive, professional, or lifelong growers with perfect large plants and pottery to match. While one can be intimidated by seeing plants of this caliber, one needs to realize that, for novice growers, our plants will not be judged against these plants. Plants are placed in categories depending on the experience of the grower and judged as such. Visitors will get to view all the wonderful plants and see a diversity of plants that they might never have known existed. Visitors can look to these plants and the growers for inspiration and motivation for their own collections.

For the novice, or even someone who has never shown plants before, you can look to this experience as an opportunity to showcase some of the plants you love and have cared for (at least six months). Our plants will be judged and awarded a ribbon (or not), and that will be ok. That step taken to enter the show is a first step to becoming a better grower. All weekend, cacti and succulent judges and experts will be available to talk with you and answer your questions or comment on your plant. Other members will want to share their growing experiences and there will always be admirers wanting to compliment you on your plant.
Then next year, and thereafter, you will not only be more enthusiastic about entering the show, but more importantly, take growing your plant collection to a higher level. Do not be shy. Do not be intimidated. Do not think your plants are not good enough. Think of this event as an opportunity to share the plants you are passionate about. This is why visitors come to our annual show. So start dusting off that collection and look for those plants you might want to exhibit and get them ready. Not sure what plants to exhibit? Invite a fellow member over to help you choose. This is one of those events you will look at years later and say why did I not do it sooner.

Registration for exhibition number and exhibition cards can be done at the January, February or March CACSS meetings, or contact Jeanne Anne or Chuck Brush at 480-982-3899 or email to jabmom2@hotmail.com.

Remember, both sections of exhibitor cards must be filled out completely with your name, exhibition number and plant name. If you are unsure of the plant name, leave it blank. Plant experts and references will be available Wednesday to assist you with identifying your plants and the category they are to be placed in.

Exhibitors will register as Junior Novice, Novice, Advanced, or Master division. Ribbons are awarded within each division and plants are exhibited in divisions based on the number of blue (first place) ribbons previously awarded. Plants are considered only in the same division and judged at the same level.

- Junior Novice (green entry cards): to age 18
- Novice (yellow entry cards): 0–24 blue ribbons
- Advanced (pink entry cards): 25–99 blue ribbons
- Master (white entry cards): 100 or more blue ribbons

Customers enjoying the incredible variety of plants to buy at the sale. Photos by Sue Hakala.
A non-competitive exhibition is an option for those wishing to share their plants without having them judged. Just let us know when you register for an exhibition number.

Education is an important part of our society's mission. An educational display is a visual presentation of information that can excite and engage the viewer's interest, stimulate thought and motivate the viewer to learn more about the subject. We love to have members present educational displays showcasing cacti and succulents. This would be an ideal way to show off your creativity and passion. While it does take work, it is fun and always a betterment for our society.

In addition to our show is the sale event. There will be many vendors selling their unique plants, pottery and art items. This is one of our main money-makers for the club, and a terrific opportunity to find that special plant or unique pottery that might have been alluding you. We are always in need of newspaper and various size boxes for customer purchases to transport plants home. If you can start collecting boxes, it will be much appreciated. You can bring them in anytime during the setup or the show.

Our annual CACSS Show and Sale is a large undertaking that could not exist without the hundreds of volunteer hours needed to make this an extraordinary and successful event each year. Volunteering is a great opportunity to get to know your fellow club members and learn more about the plants we love. Many volunteer positions need filling from Wednesday through Sunday. Volunteer registration will be on the club's website and be available soon with an email blast announcing when the link is active.

With the many different positions and times available, we hope our members can find something they like to do, at a time they are available. Positions include cashiers, assistant cashiers, credit card sale operators, educators, floaters, greeters, holding area monitors, and potting up purchases. This event takes a large community effort. If you volunteer your time, we ask that you please fully honor your commitment. If you do not see an opportunity listed, please contact co-chairs Tom Young or Nick Diomede (see below) to share where you can assist.

Some final notes:

- We are asking members who have won trophies in 2018 to please return them. They can be brought to either the January, February or March CACSS meetings or contact Lois Schneberger at 480-946-8373 to make other arrangements.

- Please remember the Garden’s policy with regards to dogs is: “Pets and therapy animals are not permitted in the Garden. Certified service dogs only." The DBG rangers will be enforcing this rule.

- As always, if you have any questions, please reach out to the co-chairs: Thom Young 480-460-0782 | te.77@q.com or Nick Diomede 602-772-8282 | nich.diomede@gmail.com. (It is nicH, not nick.) If we cannot answer your questions, we will get you in touch with someone who can.
Edmund B. Hunt, 73, of Chandler, AZ, passed away December 12, 2018, after the sudden worsening of a recently-diagnosed respiratory illness. He was born May 20, 1945, in Dublin, Ireland to Stephen and Eileen (Curran) Hunt. His family came to the US on the HMS Britannica on a five-day voyage through the stormy North Atlantic, arriving at Ellis Island in 1952.

He grew up in Chicago, graduating from St. Ignatius College Prep before attending Loyola University where he earned a bachelor’s, then master’s degree in history. He
completed his Ph.D. at Ohio State University in 1974, focusing on ancient history. At Northeastern Illinois University, he discovered his passion for gifted and special education, earning a second master’s degree in education, and embarking on a nearly 30-year career in NEIU’s Department of Special Education.

Ed retired in 2007 and moved to Arizona five years later. He fully embraced retirement and spent his time gardening, making pottery and fighting the good fight online. He turned his backyard into an oasis of cacti and succulents, ultimately serving as a board member for the Central Arizona Cactus and Succulent Society for four years. He turned his garage into a pottery studio. Most of those he left behind have at least one pot he made.

He is survived by his daughters, Cassandra, Marie and Stephanie Hunt, his youngest brother, Kevin (Eamon) Hunt, three grandchildren, two great grandchildren, two fond ex-wives, Roxanne Munch and Kay Crowley, and many nieces, nephews, cousins, and friends. He will be remembered by all for his kindness, advocacy, wisdom, and wit.

We first met Ed on one of the California plant buying bus trips. He was clearly a beginner at the time, but approached his new hobby with unbounded enthusiasm. He rapidly transformed the landscape of his yard into an arid-land garden. As we got to know him, we became great fans and collectors of his Hellmouth Pottery, which he sold at the CACSS Show and Sale and the Boyce Thompson Arboretum Plant Sale. He experimented with glazing techniques and achieved many striking color and glaze variations. Eventually, we would joke with him that we bought so many pots that we have the largest collection of his pottery west of the Mississippi River. We will miss his intelligent conversation, sharp wit and personal kindness.

A private memorial will be held at his home in Chandler, AZ, and a second memorial in Chicago will be planned for the spring. In lieu of flowers, please consider a donation in Ed’s name to Corbin’s Legacy (https://secc.az.gov/corbins-legacy), The Desert Botanical Garden in Phoenix, or the ACLU. The family would like to donate a plaque in Ed’s memory at the DBG and will accept donations for it (https://www.dbg.org/support/tributes.)

Please join Ed's family at an open house January 20, noon-6 p.m. at Ed's home 2894 East Westchester Drive, Chandler, AZ 85249.
January Meeting will be Agave Extravaganza #3!

We will meet January 12, 2019, 9-11 a.m. in the Whiteman Conference Room (Webster Building) at the DBG.

It’s that time of year again with PEG for what has turned into a popular tradition: Agave Extravaganza! This will be the third year we have held an all-out Agave PEG meeting.

As usual, there will be TONS of give-aways. We had 41 species and almost 100 total plants that were given away at last year’s Agave Extravaganza. It looks like we will have at least the same this year, including some new species that we haven’t had previously. And, as has also become a tradition, we will be having a special drawing for an extra-special surprise Agave that everyone will surely wish to add to their collection. In past years, the drawings included these special Agaves: Agave albopilosa, Agave rzrewdowskiana, and Agave chazaroi.
Of course, in addition to the give-aways and drawings for plants, we will also share our experiences with Agaves, and help answer any questions from attendees about growing these plants in the Valley. Of course, because it’s well, me, you are sure to learn a little bit of science about the Agave family along the way.

So, don’t miss out on what is always the most well-attended and popular PEG meeting of the year! And remember, if you plan on attending, feel free to bring in any extra Agaves and Agave pups from your own collection and/or you can even bring your own special Agaves for Show-and-Tell.

Mark your calendars for the 2019 PEG meeting dates as follows:

- January 12, 2019
- March 9, 2019
- May 18, 2019
- July 20, 2019
- September 21, 2019
- November 23, 2019

All meetings will be held from 9 a.m.-11 a.m. in the Whiteman Conference Room in the Webster Building of the Desert Botanical Garden. Entrance to the garden is free for attendees; simply inform the admissions person that you are there for the CACSS PEG meeting and they will direct you to the proper location.

For those that have yet to attend a PEG meeting, PEG meetings are an informal gathering of CACSS members and guests where everyone is invited to participate (we meet in a conference room with a big table). A general topic related to cacti and succulents is usually selected for each meeting, but the group is encouraged to discuss any relevant topic regarding cacti and succulents and ask any questions they might have.

NOTE: Topics for each meeting will be determined closer to the actual meeting dates to give CACSS members the opportunity to request certain topics. Topics will be announced on the CACSS Facebook page and in the CACSS newsletter ahead of time.

I look forward to seeing our attendance to PEG meetings continue to grow in 2019.
I live in one of the great deserts of the world that is loaded with magnificent old cactus specimens. Why would I want to travel almost 6,000 miles, taking 35 hours, just to get to another desert with cactus that I have growing in my backyard? I have been asked this very question by many people when they learn of my trip. I will attempt to answer this question as well as share four interesting observations that have added to my understanding of the cactus growing there. I am not an expert, and the information is only of a casual observer over a single short visit.

Why go to the expense and difficulty of visiting the Atacama? For anyone who loves seeing plants in habitat, the answer is obvious. For those of you that have not been out to see plants in habitat, the answer is more difficult. I grew up in the Midwest where the image of a saguaro is found stylized in cartoons and ads for Mexican food. If you had only seen these images, a 10-20-year-old seedling grown in a pot, or a photo of them in the desert, you would be completely unprepared to see a real saguaro. It takes your breath away to stand next to a giant 60-foot tall multi-armed saguaro in Saguaro National Park, with thousands more of them covering the mountains and valleys around you. Visiting the Atacama is like that. In the wild and in cultivation most *Copiapoa* grow...
very slowly. I have many of these plants growing in my collection, have viewed countless pictures of the plants in habitat, and I have seen 45-year-old field collected plants growing in collections. None of this prepared me for seeing the plants in habitat. Most of the cactus in habitat were very old, often forming enormous clusters or attaining a very large size. Growing long-term on the edge of survival has produced colorful, thorny and tortured plants that look almost nothing like cultivated plants. It was a fabulous adventure seeing and learning about the plants in their habitat.

The objective of the expedition was to see and film as many Copiapoa species as possible on the 11-day trip. Cactus experts and world travelers, Woody Minnich and Kelly Griffin, organized and lead the trip. The 18 other members included Doug Dawson, Steven Bract, a few other Copiapoa lovers, and a crew from the Cactus Store in NY and LA that were shooting a documentary on the desert and the cactus. To see as much as possible, we stayed half the time in very nice hotels and the other half camping off the road. The camping was mostly very primitive, but in spectacular locations.
The Atacama Desert is one of the best deserts to visit to see plants. It is considered the driest desert in the world, with parts receiving no rain for as long as records have been kept. The cactus are found only along a narrow band 600 miles long by a few miles wide on the coast of Chile. The main plants of interest are the *Copiapoa, Eriosyce* and *Eulychnia*. The plants in the Atacama are considered to be in grave danger from climate change. The average rainfall is less than three-fourths of an inch of rain each year. Records going back 100 years show only slightly more rain in the past, with a long dry period from 1950 to 1970. As the desert becomes drier, the cactus start to die and stop reproducing. The prolonged dryness leads to very slow growth in the cactus that survive. It is speculated that if the trend continues, the cactus will eventually die off.

Observation #1  A surprising number of the *Copiapoa* species are growing in vast numbers. When you read about *Copiapoa*, it often gives the impression that climate change and lack of rain would yield only a few widely scattered plants. When we visited the core populations of *C. haseltoniana, cinerea, longistaminea*, and *dealbata* species, there were thousands and thousands of them. The *C. dealbatas* were so dense in some places they covered almost every square inch of the hillsides. As expected, some were not as numerous. A quick search for *C. tenuissima* was futile. Where there had been *C. desertorum* in great mounds, there were none left. Amazing huge mounds of *C. solaris*, that must be of extreme age, were very numerous on one hill. A few miles down the road the mounds of *C. solaris* were almost all dead.

*Woody Minnich next to a very old Eulychnia.*
Observation #2  They are not all show plants. When you see pictures of Copiapoa in habitat they are always of the best plants with the tightest growth from the best angle (like the pictures in this article). Theses photos may not be representative of what most plants of the species look like. There are many magnificent plants well worth taking a picture of (I took over 6,000 photos on the trip), but they are not all “perfect.” Copiapoa cinerea, longistaminea, krainziana, marginata, coquimbana, echinoides, and others will all get tall with age. To survive with little water, the growing part of the plants will only be on the top. So, you will see magnificent beautiful heads sitting on long stems that are no longer supporting photosynthesis and look dead. These plants are probably extremely old and very stressed by the harsh conditions.

Observation #3  They all look the same! This is really me saying that there is a lot of variations within a species, and it is often difficult to know what you are looking at if you did not have a field guide. C. cinerea and C. krainziana grow near each other on one of the hills we visited. Where the cinereas stopped and the krainzianas started was not within my observational capabilities. Shultz, author of Copiapoa 2006, says visitors often think they have found a new species of Copiapoa. I found at least three new species. However, Shultz assures us no new species have been found despite rigorous searching. Even with the field guide and many photos and the exact locations, I still don’t really know what species are in some of my photos. This is also a highlight of visiting the Atacama, around every corner is a slightly different plant offering a beautiful variation of a favorite species.

Observation #4  The fog Camanchaca is not like the typical ground fog that can produce a heavy condensation. It is a very consistent layer of thin clouds at about 1,000 feet that helps maintain high humidity and reduces the intensity of the sun. It does not produce condensation unless you are in the cloud. It is thought to be the primary reason the plants are able to survive. Where the fog zone ends there are no cactus, except for a few populations that continue to grow above the fog. It is speculated that the cloud layer protects the plants from losing water and allows them to be in a sort of stasis until the next rainfall occurs. It is also speculated they may draw moisture from the air. The answer to how these huge plants are able to survive with so little rain did not reveal itself on this trip.

I encourage each of you to get out and see cactus plants growing in habitat wherever it may be. If you get the chance to visit the Atacama Desert, don’t pass it up. It will be the experience of a lifetime.

PURCHASED: I got it as the winning bid at a regular meeting silent auction. It was donated by Doug Dawson and seed grown.

POT: It's in a ceramic pot purchased from B & B Cactus Nursery in Tucson.

FERTILIZER: I use the club fertilizer, Prosol, 10-16-38 quarter strength, spring, summer and fall.

POTTING MEDIUM: It's in 50 percent pumice and 50 percent Black Gold Cactus Mix.

SUN EXPOSURE: It's grown in full sun all day with 30 percent shade cloth all day in summer (as soon as stress is evident).

WATERING: It's watered when dry, spring, summer, fall, and rarely during winter.

FROST PROTECTION: It gets frost cloth.

SPECIAL NEEDS: This is an easy cactus to grow. I live at 2,000' elevation which usually means I get 10 degree cooler nights, summer and winter than Phoenix does.
Best Novice Cactus of the 2018 Show: *Astrophytum myriostigma v. quadricostatum.* Grown by Rita Gosnell.

Purchased: I got this from Steve Mack around 2013.

Pot: It’s in a concrete (heavy as sin) pot from The Plant Stand. I liked the square planter to match the four-sided cactus.

Fertilizer: I use the club fertilizer, Prosol, 10-16-38 quarter strength spring, summer and fall.

Potting Medium: It’s in 50 percent pumice and 50 percent Black Gold Cactus Mix.

Sun Exposure: It’s grown in full sun all day with 30 percent shade cloth all day in summer (it goes under as soon as stress is evident).

Watering: It’s watered when dry, spring, summer, fall, and rarely during winter.

Frost Protection: It gets frost cloth.

Special Needs: This is an easy cactus to grow. I live at 2,000 feet elevation which usually means I get 10 degree cooler nights, summer and winter, than Phoenix does.
December saw the Central Arizona Cactus and Succulent Society Facebook page grow by 54 members, ending the year at 4,304 members!

December postings followed two main themes: Rain with freezing nighttime temperatures and holiday cactus craziness.

Popular postings this month included:

- Cactus Themed Holidays. Fun pictures and posts of cactus related items included cactus themed art, paintings, ornaments, Christmas trees, cards, vases, coloring books, sweaters, sweatshirts, dryer buddies, calendars, and jewelry. It seems cactus related items are all the rage. Many people posted photos of decorated cactus in their yards and shared Christmas and New Year greetings.

- Thank you, Cricket Caires-Peterson, for posting photos of the annual CACSS Christmas Party.

- Cold weather concerns multiplied as the nighttime temperatures went below freezing. Questions included: Why are my plants changing colors? Should I move my plants inside? What should I do when there are several days of freezing weather and rain? How can I protect my plants from a freeze?

- There were 15+ requests for plant identification.

- Ken Luiten’s December 1 posting included photos of a recent project; a pumice box created from an old crate. The box has a divider making space for two sizes of CACSS

Cactus of the Month: Thom Young’s photo of Tephrocactus alexanderi geometricus.
• of pumice. Ken reminded everyone that the pumice pile is one of many benefits of being a CACSS member.

• Nic Rodrigues posted photos of a patio plant shelving project he completed. Eric Lundberg posted photos of a large greenhouse he is currently building on his beautiful property.

• A heartfelt post by Lee Brownson thanked members for the honor bestowed upon him of CACSS “Lifetime Member.” Congratulations, Lee!

• An out-of-town visitor asked if this was a good time of year to visit the Desert Botanical Garden. Glowing recommendations were given for visiting the garden and Boyce Thompson Arboretum anytime of year.

• A fascinating post, by Veronika Countryman, of Cholla spines included microscopic photos of their sheaths.

Each month a photo of a cactus and succulent posted by CACSS Facebook members is selected. The CACSS FB Cactus of the Month was taken by Thom Young and posted December 5. His photo of Tephrocactus alexanderi geometricus illustrates the changing colors experienced by many cacti when temperatures drop.

Succulent of the Month was posted December 16 by Rick Rosenberg of a Ficus petiolaris, Sonoran rock fig.

The photo with “most likes” (298) AND “most shares” (60) was an incredible 180 degree panorama called A Cactus Sunset by Eric Lundberg, posted December 15.

Thank you all for sharing your lovely photos.

If you haven’t posted before, we would love to see your plants!

You can join the CACSS FB page at:

https://www.facebook.com/groups/cacss2/

Succulent of the Month: Rick Rosenberg’s photo of Ficus petiolaris.
FAVORITE TOOL

Photo and Text by Tom Gatz

Drywall tape, available at Home Depot or any hardware store, prevents potting mix from washing out the drain hole in our pots, and provides better drainage than newspaper, coffee filters or window screen. Added bonus: it is sticky and adheres to the pot. Just be sure to fold over the cut end of the roll or you will never find it again.

DUES 2019

By Membership Chair Beth Kirkpatrick

If you have not paid your 2019 dues, they are now overdue. There are three easy ways to pay:

1. You can go to our website www.centralarizonacactus.org and pay via PayPal or credit card.

2. You can download and print the membership form and mail it to our P. O. Box.

3. You can pay at the January 27 meeting.

If you have any questions about your membership status, please contact Beth Kirkpatrick, membership chair, at bethalia@gmail.com or centralarizonacactus@gmail.com.
Elton has been identified by the Cactus and Succulent Society of America as a master grower. His care tips are reprinted here with his permission.

A shallow pot is needed for *Mammillaria humboldtii*, even for a large plant that is over 16 inches in diameter. Keep the pot and soil shallow. I have seen some people have a deep pot saying that it is all they have. They say that they have only a few inches of soil and rock under the rest.

Using a deep pot and putting rock in the bottom is asking for trouble for the rock holds water. When I refer to a shallow pot, I mean nothing deeper than 3.5 to 4 inches at the most. The stems need topdressing under them to keep the plant off the soil which will keep the spines white. Stems laying on the soil have the tendency to absorb minerals out of the soil, and that makes the white spines stain dark colored.

Give lots of light, but do not burn the plant with too much sunlight. In my greenhouses, the plants can get too warm and can even cook under the white spines. Water, then allow the soil to dry before watering again. Watering too often will allow the soil to remain damp too long and the roots will rot killing the plant.
A member asks: How to I deal with/prevent spider mites?

These mites are tiny and hard to see with the naked eye. To confirm their presence, hold a sheet of white paper under a leaf and rap the stem several times. Mites will fall on the paper and move around. In heavy infestations, they form dense clusters and spin fine webs on the undersides of leaves and among spines. They like hot, dry environments and prey on water-stressed plants sucking out plant juices. Spider mites aren’t picky, liking all plants, but especially fruit trees, cucurbits, tomatoes, roses, houseplants, and your most prized plant. In addition to the bugs and webs, watch for stippled leaves with yellow fading to a bronze color. I found them on two of my *Mammillarias* last summer. Steve Plath identified what they were as I had never seen them on cactus before. Severely infested plants can die. One of my *Mammillarias* did and I would not have called it a severe infestation.

There are many generations of spider mites in a year. In a warm climate like ours, reproduction goes on nonstop all year. Spider mites can overwinter as adults or as eggs on host plants.

Blast spider mites off with a strong stream of water to dislodge them from your plants. Soapy water applied every 7–10 days will help. Remember to get it on the undersides of leaves and spines. Keep in mind though, this will kill off many of them, but the strongest Amazonian ones will still be clinging to your plant. You must be diligent about blasting them repeatedly. I submerged my plants in water for an hour too.

Spider mites are resistant to most pesticides. Using pesticides most likely will kill their natural enemies, lacewings among others. Then, spider mites will increase uninterrupted thanks to their short life cycle. Plant small-flowered nectar plants, like alyssum and dill, to attract natural enemies when possible.

If you suspect them on a plant, isolate your plant immediately as spider mites will wander and lay eggs as they go. I inspected all my plants with extra care, but in spite of that, I found the mites on an herbal rosemary on the opposite side of the yard. I treated that plant with the hose blast several times too. I repotted the *Mammillarias*, and threw the soil away. Don’t put in a compost heap as the eggs will hatch and love it. Eventually, the mites all died, but it took awhile.
My wife Tammy and I are hosting our twelfth annual open garden and cactus social February 16, 10:30 a.m.-3 p.m. at 16819 South 15th Avenue, Phoenix. This is an excellent forum to meet other plant lovers and to discuss your favorite plants. You will see a bunch of African bulbs, hundreds of seedlings, collector cactus, and a whole mess of mesembs. Most of the plants are seedlings or young plants. All members and non-members are welcome to spend a pleasant afternoon in the warm February sun. We will serve a few snacks and drinks.
Each year, CACSS members are asked to nominate members who have made significant contributions to the Society’s purpose. These people have been involved in many activities in diverse capacities over many years, and have contributed to the education of members and the public on cacti and other succulents. Cathy Babcock and Lee Brownson attained Honorary Lifetime Membership in 2018 and were recognized at our holiday party in December.

Cathy served as society president in 1999, vice-president in 1998, treasurer in 1997, and was in charge of programs and workshops in 1998. She has hosted a number of club and special speaker tours through Boyce Thompson Arboretum, as well as hosting open gardens at her home. She has written plant articles for our website and newsletter and has spoken at our meetings on Aloe, South Africa, the influence of weather patterns on plants, and the Wallace Garden. She has also been a member of CACSS for more than 20 years. Thank you, Cathy, for your many contributions to our society.

Lee served as society president in 2004-2005, was vice-president in 2009-2011, and was in charge of programs and workshops in from 2008-2011. He led plant rescues in 2005-2006 and was website coordinator in 2006-2007. He was the original host for our pumice pile for a number of years, and also hosted numerous open gardens at his home. As director of Wallace Gardens, he hosted a number of club tours. He has written articles for our website and newsletter, and regularly donates plants for our silent auctions. He has been a member of the society for over 15 years. Thank you, Lee, for your many contributions to our society.

When you receive the email this year to nominate someone for an honorary lifetime membership, please consider nominating a worthy member, as it is important to recognize those who have committed to sustained leadership and service to our society’s goals. The criteria for this honor will be included in the email.
DESER T BOTANICAL GARDEN ALOE CLASSES

ALOE FOR DESERT LANDSCAPES
Join Starr Urbatsch, manager of the Agavaceae, Aloeaceae and non-cactus succulent plant collection at the Desert Botanical Garden, February 10, 2-4 p.m., members $30, non-members $38. She will discuss the many varieties of Aloe that are best suited to harsh desert summers. Learn about placement, sun tolerance, frost hardiness, and watering needs. Choose right and you can have something blooming all year.

ALOES IN COLORED PENCIL
Explore simple techniques to illustrate the bold flower colors and varied greens of Aloe with colored pencils in this class at the Desert Botanical Garden, Wednesdays in February, members $120, non-members $150. All levels welcome.

Aloe arenicola is an unusual Aloe that grows near sea level in sandy, bushy flats along the western coast of South Africa. As can be easily seen, juvenile plants have leaves which are linear, whereas mature plant heads form rosettes. I took the photo October 8, 2014, south of Kleinsee, not far from the Atlantic Ocean. By Doug Dawson.
Our Holiday Party was a great success. A special thank you goes to Sue Glenn for coordinating the meal (seen below adding up the bills), Ric Lopez for providing the centerpieces, and all the volunteers who helped make this a great event.
CSSA OFFICERS AND BOARD OF DIRECTORS 2019

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CACSS PROGRAM AND COMMITTEE CHAIRS 2019

Archivist/Historian:  Lois Schneberger
Audit Committee:  Mike Gallagher
CSSA Representative:  Mike Gallagher
Donations:  Jim Oravetz
Facebook Coordinators:  Dan Smith, Thom Young and Chris Ginkel
Fertilizer Sales:  Eric Holst
Holiday Party 2018:  Sue Glenn
Librarians:  Wendy Barrett, Nancy Mumpton
Mailed Newsletters:  Sue Tyrrel
Keeping in Touch with Members:  Jo Davis
Membership:  Beth Kirkpatrick
Newsletter:  Sue Hakala
October Auction:  Mike Gallagher
Plant Rescue:  open
Private Plant Sales:  Sue Tyrrel
Programs and Room Setup:  Gard Roper, Wayne Kramer
Propagation Education Group (PEG):  Tristan Davis
Pumice Sales:  Gard Roper
Refreshments:  Tara Richards
Research Grants:  Tristan Davis
Show and Sale 2019:  Thom Young
Website:  Beth Kirkpatrick
Website Technical Assistance:  Anna Rosa Lampis
### SPECIALISTS TO CONTACT WITH QUESTIONS

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**Nicky Davis**  nicky.davis4@gmail.com  
Manages the Seed Depot.

**Tristan Davis**  480-540-9540  
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Specializations include plant propagation, and heading PEG (Propagation Education Group).

**Doug Dawson**  480-893-1207  
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Specializations include growing from seed, flora of Namibia, Lithops, other Mesembs, Melocactus, and miniature cacti and succulents of Arizona.

**Mike Gallagher**  602-942-8580  
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Specializations include Aloes, Haworthias, columnar cacti, and Turbinicarpus.

**Chris Ginkel**  602-908-2664  
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Manages the Facebook CACSS Swap and Shop page. Co-manages the Facebook page.

**Eric Holst**  480-786-2010  
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Manages the fertilizer program.

**Dean Patrick**  480-759-0312  
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Specializations in softwood stem-cuttings, plant division and seed starting, rooting cacti, Agave and Aloe.

**Steve Plath**  623-238-3342  
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Specializations include general propagation and desert revegetation, Ariocarpus, Astrophytum, Cyphostemma, Echinocereus, Fouquieria, and Thelocactus.

**Gard Roper**  602-996-9745  
Manages the pumice pile.

**Dan Smith**  480-981-9648  
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Specializes in Adenium, raising Adeniums from seed, grafting and Adenium culture in general, and co-manages the Facebook page.

**Bob Torrest**  480-994-3868  
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Specializations include desert landscaping, unusual (including rare fruit) trees and shrubs, Aloes, Agaves, and columnar cacti.

**Sue Tyrre**  480-797-8952 or styrrel@cox.net  
Manages selling at meetings.

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Co-manages the CACSS Facebook page, 2019 Annual Show co-chair.

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**Anna Rosa Lampis** provides technical support.