



Central Spine

NEWSLETTER OF THE
CENTRAL ARIZONA CACTUS AND SUCCULENT SOCIETY

OCTOBER 2019



CACSS members show off the free plants they won in a drawing at the last PEG meeting. Cliff Fielding gave an excellent presentation on growing *Copiapoas*, answering everyone's questions about these beautiful plants. A big thank you goes out to him and Tristan Davis (second from left, front row) for organizing such a great and educational meeting. *Photo by Tom Briggs.*

Plan to attend and brings plants and garden related items for our Annual Mega Silent and Live Auction on Sunday, October 27, 2 p.m., in Dorrance Hall.

The auction is in place of our normal monthly meeting. Please donate plants and garden related items to this club fundraiser. Bring them from 10 a.m. to 2 p.m.

Members, be sure to wear your CACSS membership badge when entering the Desert Botanical Garden for free entry to the Mega Auction. If you do not have your membership badge, you will be required to pay the Garden entrance fee, unless you are a member of the DBG.

A successful auction depends on plants and volunteers. The event requires volunteers for the following activities:

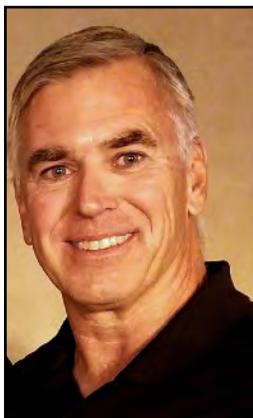
- 2 Greeters: assist with directions for donated plants and the Auction
- 3 Silent Auction Assistants: work the auction tables
- 3 Post Auction Assistants: assist the silent auction winners, clear tables, and other duties as required to close down the auction.

Please contact Chair Nick Diomede at nich.diomede@gmail.com (that's an h not a k in nick) or Thom Young at tey.77@q.com with any questions and to volunteer.



CACSS members making bids on plants, pots, etc., at the 2018 Mega Auction. Be prepared to find some treasures.

In November, we will hold our election for the 2020 officers and directors of our society. You will receive an email ballot the first week in November. Please vote! If you don't receive a ballot, please contact Dan Smith (smithdans@outlook.com) as he is managing our election process. The following people are candidates for the election.

**Chris Ginkel**—President

I moved to Arizona from Illinois in 1983. I have been growing cacti and succulents for over 50 years and studying them in the field for 35 years. I have a passion for both people and plants. I have previously served on the boards of two non-profits and currently help administer both the CACSS Facebook page and the CACSS Swap and Shop group. I hope to offer my experience to build upon the success established by all of our previous board members.

Eric Holst—Vice-President

Born in Mesa, I have lived my entire life in the Valley of the Sun. However, my introduction to plants came at an early age as I spent many summers at my grandparent's farm in the SW corner of Iowa. I know corn and soybeans are completely different than the cacti and succulents of the desert SW, but it still gave me an unknown (at that time) appreciation for plants. Shortly after meeting Heather, my wife, we joined the Desert Botanical Garden (primarily for the member plant sale day), and found it to be a fascinating place with plants that weren't sold at the big box stores. I really fell in love with *Euphorbias*. Although most are pretty wicked plants with nasty thorns and toxic sap, there is uniqueness to the species that I enjoy.

We chose to landscape our current home of 17 years with plants from the Sonoran Desert and other deserts around the world. Heather and I got involved with the CACSS approximately four years ago when we attended a meeting with Mark Dimmitt speaking about *Adeniums*. Now, that is her obsession with over 100 plants in pots. The rest is history for me. First, it was taking fertilizer management responsibilities from Gard Roper, and then it was becoming the AV chairperson for the meetings, translating into the AV chair for the 2017 and 2019 national CSSA conventions. I am excited to see what the future brings.



Judy Tolbert—Treasurer

My grandparents sparked my love of gardening. Raised in northern Nevada, I left home after graduation to join the Air Force. I eventually met my husband and began a career as a military wife and the mother of two lovely daughters. When I came to Arizona, I enrolled in the Maricopa Master Gardener program and was certified in 1998. I attended classes in the Urban Horticulture Program at MCC to expand my knowledge. After retiring from a career in accounting and finance, I became active in the Arizona Federation of Garden Clubs and served in several board positions.

I have been a member of CACCS for the past four years and have served on the CACSS Board for two plus years. The many great people in CACSS, who continually help me to learn about succulents, have inspired me in a whole new direction.

Heather Holst—Secretary

Like most people in Arizona, I'm not actually from here. I grew up in a Massachusetts family that gardened as a sport. But, after one too many winters in Boston playing hide and seek with the snowplows and tow trucks, I decided it would be nice to take a break for a couple of years and attend grad school at ASU. After getting a job (I'm an aerospace engineer) and meeting my husband (Eric, the fertilizer guy), I found myself still here so I joined the Desert Botanical Garden and started accumulating plants.

The collecting started out innocently enough, but one year, back under the tent, I found an *Adenium*. I bought just the one plant which I promptly killed. But being stubborn, I bought another one. I killed it too, but learned enough that a third one survived. So now it needed friends and the one turned into a dozen. Then I read a book about how to propagate them. A dozen turned into many more and we had to buy a greenhouse. Finally, in 2013 I joined the CACSS and somehow found myself serving as secretary for the last couple years. But unfortunately, I can't buy any more plants until we get a bigger greenhouse.



Tom Briggs—Director

I've been a CACSS member since 2016 and brought my two children into the society as well. Before that, I started collecting cactus in my teenage years back in upstate New York; not exactly ideal growing conditions. My interest in cacti and plants in general lead me to pursue a bachelor's degree in Landscape Architecture from Arizona State University. I've been a continuous member of the DBG since I started college in 1998. It's been a pleasure to learn so much from all the knowledgeable members of this society and to share my interest in cactus and other desert adapted plants. In addition to my love of plants, I've also been a past

member and president of the Greater Phoenix Pond Society and a multi-term president of the HOA in my old neighborhood in Phoenix. (Don't hate me for this. I worked to resurrect the landscape standards to green up the stucco box neighborhood, along with updating the common area parks.) I believe my love of plants and past experiences working with other people in the GPPS and an HOA would be well suited to working with the board of the CACSS to preserve our great group and continue its efforts into the future. I look forward to this opportunity.



Russ Faust—Director

I am currently a board member completing my first term. It has been very rewarding to be involved with the board, developing and accepting new ideas to expand our exposure and outreach efforts to grow our organization. I have established very rewarding relationships through working on our business activities and volunteering at various cyclical events. I look forward to interacting with all our members and working toward assisting this organization through our mission statement in each area locally and nationally. I will continue promoting the CACSS at every opportunity.



Celeste Gornick—Director

In 1977, my family moved to Arizona. The first home I lived in had an all native plant garden, and I got hooked on cacti and succulents.

My first year as a member of the CACSS was 1996. I have been privileged to served on the Board of Directors, 2004-2006, and was elected to serve as treasurer in 2007.

I was an active member in the CACSS Rescue Program. I also participated in the Tucson Cactus and Succulent Society Rescue Program, and have been a member of TCSS for many years.

I am a graduate of the Desert Botanical Garden Desert Landscape Class of 2002-2003.

Stan and Joan Skirven, Damen Billings, Jim and Electra Elliott, and many others who were members when I was a “newbie” in the club have inspired me. I would love to see our club tradition continue to educate both our own members and the public about the many benefits of growing cacti and succulents in the Sonoran Desert.

Lois Schneberger—Director

I welcome the opportunity to again be of service to the CACSS in a governance capacity. I have been a society member for about 16 years. In my second or third year, Ingrid Swenson encouraged me to get involved in the society by running for a director position on the Board in 2005. Following that experience, I ran for secretary and served in that capacity for five years. In 2013, I was appointed the society's historian and continue in that capacity. I set up the official archive for the society in that first year. In addition to governance contributions, I have been actively involved in the planning of the Annual Show and Sale, including serving with Gard Roper as the chair of the Show and Sale in 2011-12. I have also contributed over 2,000 volunteer hours to the Herbarium at the Desert Botanical Garden.

I moved to Arizona in August 1998, and when I purchased my house in 2008, I knew that mowing grass was not going to be a part of my future. The first plants in the landscape were *Aloes*. There is a saying that “the rest is history.” That period of history ended in August 2019 when I moved to Friendship Village.

Jim Oravetz—Director

Jim did not submit a bio. He is our current president.

Pam Edsall—Director

Pam did not submit a bio.

FALL GARDEN FESTIVAL

Maricopa County Master Gardeners and Metro Tech High School present the Fall Garden Festival, Saturday, October 26, 2019, from 8 a.m.-1 p.m., at Metro Tech High School, 1900 W. Thomas Road, Phoenix. Admission is FREE and open to everyone.

Please bring cash or check for purchases. Parking is available on the Thomas Road side of the school.

Enjoy:

- Plants grown by U of A Maricopa County Master Gardeners, Metro Tech students and invited growers offering cactus and succulent plants.
- Food, crafts and more from Metro Tech student clubs.
- Crafts and garden accessories from garden clubs and vendors.
- Prize drawings.
- Garden related rummage sale.

Best seedling of the 2019 Annual Show: *Astrophytum caput-medusa*. Grown by Ken Luiten.

PURCHASED: These plants were grown from seeds that were sown in March 2018. Because this species is relatively new to cultivation, seeds can be difficult to track down. If you can find a vendor with some in stock, make a purchase before they sell out!

POT: The seeds were initially sown in a 3.5" plastic pot and germinated inside a 1020 humidity dome. At 1 year of age, they were transplanted out into 5" plastic pots where they will likely remain for the next 2-3 years.



FERTILIZER: To date, these seedlings have not received any fertilizer. In the next year, they will be introduced to periodic fertilizing with a diluted Pro-Sol solution (or whatever is handy).

POTTING MEDIUM: All of my cactus seedlings, including these *Astrophytums*, were germinated in predominately inorganic media comprised mainly of desert loam and wash sand. Prior to sowing, the media was sterilized. When the seedlings were moved to larger pots at the 1 year mark, a more organic, unsterilized soil mixture was used comprised of 2 parts desert loam/wash sand, 2 part cactus soil and 1 part small grind pumice.

SUN EXPOSURE: These seedlings, as with the majority of my seedlings, were germinated indoors under T8 fluorescent tube lights. After they were up-potted, they were transferred to higher intensity T8 LED tube lights. At the two year mark, they will likely be introduced to filtered sunlight outdoors.

WATERING: As with the majority of cactus seedlings, these seeds were kept damp for the first few months of life inside an enclosed germination chamber for the first year. Prior to germination, the soil was misted every day. After germination, the pots were bottom watered as needed.

The damping-off rate of these *A. caput-medusa* has been higher than most other *Astrophytum* species in my collection, so it would appear that they might prefer less moisture than others. Or perhaps they are simply a more delicate species. After moving out of the germination chamber, they were bottom watered once per week when the soil was dry and damping-off had nearly stopped.

FROST PROTECTION: As seedlings, they must be protected from frost. However, because these have been grown indoors, this has not been an issue.

OTHER COMMENTS: Growing *Astrophytums* (or any cactus/succulent) from seed is a rewarding process that I would recommend to everyone. *Astrophytum*, as a genus, are generally very good 'starter' seeds for those new to seed growing. Germination can be expected in 5-10 days, and subsequent growth is relatively fast. *A. caput-medusa* has proven to be the most difficult *Astrophytum* I've personally grown from seed. Due to the relative 'newness' to cultivation, there are many conflicting accounts of how to best grow them. I have found them to be slow growers at a young age, temperamental to moisture levels and expensive to obtain as seeds. That said, don't hesitate to give them a try.

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Judges' Choice for a Best Succulent of the 2019 show: *Dudleya greenii* 'Anacapa.'
Grown by Sue Tyrrel.

PURCHASED: I purchased this plant from Waterwise Botanicals in 2016.

POT: It was in a plastic pot for about a year. Once the plant survived a Phoenix summer, it was put in a ceramic pot.

FERTILIZER: I fertilize once in the spring and then as it cools at the end of summer. I use the CACSS fertilizer.



POTTING MEDIUM: I use Uni Grow potting soil, pumice and earth (yes, the stuff from the ground).

SUN EXPOSURE: Most of the year, this *Dudleya* lives on the east side of my house. It will get the full sun until around 10 a.m. then it's in 50% shade. In the summer, it sits inside in an east window with no shade.

WATERING: I water outside once a week, unless there is rain, less often when it is quite cool. In the summer in the house, it's watered once a week with less quantity.

FROST PROTECTION: This *Dudleya* gets some amount of protection from the shade cloth, but that's it.

SUMMER PROTECTION: When evening temperatures head

toward 90F, the *Dudleya* comes inside. It will remain inside until the evening temperatures consistently stay below 90F.

Best *Euphorbia* of the 2019 show: *Euphorbia gymnocalycioides*. Grown by Scott McMahon.

PURCHASED: I got this online about five years ago. It was a small plant from seed, and very hard to find.

POT: It grows in a glazed pot.

FERTILIZER: I use the club's 10-16-38 fertilizer.

POTTING MEDIUM: Uni Gro or Tank's coir based mix cut with 50% pumice.

SUN EXPOSURE: I grow this in the greenhouse and provide some cooling in summer with swamp coolers.

WATERING: I water the collection once a week in the summer, once a month in the winter, except for the *Mesembs*.

FROST PROTECTION: It needs supplemental heat during low temperatures.

SPECIAL NEEDS: Keep this in a small pot with lots of drainage. These are rare.

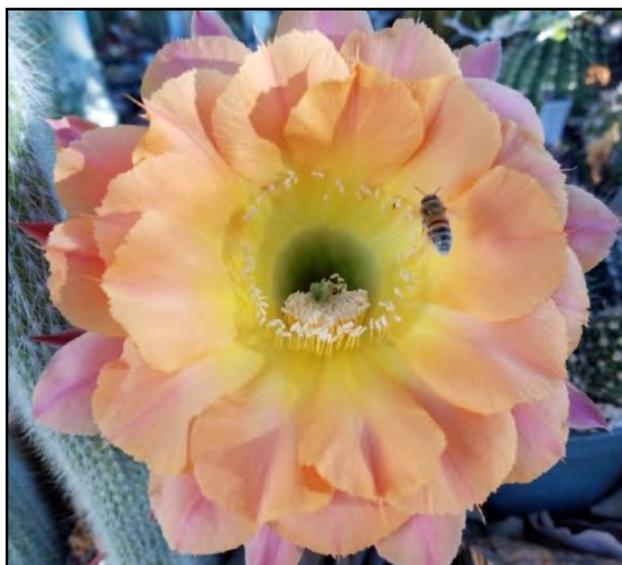


Membership in the Central Arizona Cactus and Succulent Society Facebook page has grown to 5,247 members. You can join the CACSS FB page at: [https://www/facebook.com/group/cacss2/](https://www.facebook.com/group/cacss2/)

New this month:

- CACSS members Celeste Gornick and Ken Luiten are added administrators of the FB page. They join Thom Young, Chris Ginkel and Dan Smith in the herculean task of monitoring our popular page. The page gets over 3,000 postings a month. Welcome!
- Cooler weather was ushered in by several days of rain showers. Time to take down the shade cloth and bring out the succulents! Members have been busy repotting plants and replacing plants that did not survive the summer.

Each month a photo of a cactus and succulent posted by CACSS FB members is selected for recognition (see below). Post with Most Likes: *Rainstorm in the Desert*, posted September 27 by Joshua Dubuc with 295 likes.



Succulent of the Month: left, Jatropha berlandieri posted September 28 by Ethan Bush, and right, Cactus of the Month Echinopsis 'For Norma' posted September 20 by Chris Ginkel.

Now that you have joined the CACSS, you won't want to miss the opportunity to visit a longtime member's garden located in North Phoenix/Scottsdale, on Saturday, November 2, 2019. The hosts will show you their stunning plant collection and provide you with valuable growing information. You will meet other new members as well as learn more about the club's resources and activities.

An email will be sent to new members approximately two weeks before the event requesting an RSVP no later than one week prior to the event. Mark your calendars for this fun Saturday morning.

TUCSON CACTUS AND SUCCULENT SOCIETY

Be sure to read the TCSS newsletter this month at tucsoncactus.org.

Jason Wiley presented their program this month on *Desert Moonlight Garden Plants* (night blooming cactus and succulents). In the newsletter, he provided an extensive spreadsheet on plants for you to choose from, ranked by how good they really are, and oh, so much more. You won't want to miss it. What a great reference.

TCSS now has nearly 1,400 members and has rescued almost 100,000 desert plants.

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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
Instagram

My oldest plant is a *Gasteria* sp. something. I acquired it in Connecticut (circa 1975) where I lived prior to moving to Arizona in 2014. In Connecticut, it was placed under fluorescent lights by the door to the walk-in cellar. Everyday I would come home, look at the *Gasteria* and say, “I gotta water those things.” It hardly ever happened.

Every once in awhile, I would pull off the dead parts and water the plants. After 20 years, the *Gasteria* was moved to another house in Connecticut and eventually to Arizona. In the second house in Connecticut, my plants were kept in an unheated sunroom that got little sun. The temperature in winter would drop to 50 degrees and sometimes lower. It is hard to say how big the plant would be if I had watered it more often or had not removed countless pups, but here it is.

I have pups of the *Gasteria* growing today, and it is a true survivor.



It was lonely in Connecticut, but here in Arizona it is among a bunch of other succulents and is thriving. It lives in a sunroom here—one that does get sun—along with the orchids I brought from Connecticut. The orchids are under lights while the *Gasteria* is on the floor near the lights. It is a miracle what a little (or a lot) of neglect can do.

DESERT BOTANICAL GARDEN PLANT SALE

Cactaceae Collections Manager Scott McMahon

By Desert Botanical Garden

Hello, fellow CACSS members. The DBG Fall Plant Sale is October 18-20, and we could use your help! Due to the high number of people who come to the plant sale, our staff gets overwhelmed trying to answer questions and finding plants for them. We need extra help from people who have some knowledge of cacti and succulents.



If you would like to volunteer, please come anytime after 7 a.m., Friday through Sunday, and check in at the volunteer tent at the far end of the lot, plan to stay to closing at 5 p.m., if you can. Be sure to wear your CACSS badge. Our busiest times are Friday and Saturday mornings. You choose where you want to work. I know many of you don't consider yourselves "experts," but even a little information about these fascinating plants goes a long way for someone who is new here and just getting started with their collection. Even pointing customers in the right direction to the plants they're asking about will take some of the pressure off our staff. I guarantee some of you will learn a lot about cacti and succulents just from this experience! Thanks!



Upper left: Club member Tom Gatz gives advice, right, Wendy Barrett helps a customer, and left, just a small sample of plants offered. Photos by Sue Hakala.



A member asks: How do I get rid of the little flying bugs that emerge from the soil after watering?

Fungus gnats are the most common (and annoying) pests. They can infest any plant that is growing in soil. You will notice the plant bugs crawling out of the potting soil or flying around your plant when you water or otherwise disturb the soil. I find they fly right into my face.

Fungus gnats are tiny black flying bugs that live and breed in the soil. Adult gnats will lay eggs in the soil, and the larvae (tiny white worms that are barely visible to the naked eye) will feed on roots and other organic matter in the soil.

Fungus gnats will not kill your plants. Fungus gnats are mainly just a nuisance and are rarely destructive to the plant. Sometimes they can cause root damage if the infestation is heavy, but normally fungus gnats only eat rotting roots.

A fungus gnat infestation can come from anywhere. The most common ways fungus gnats get into your house are either in the soil of a newly purchased plant, or in a bag of potting mix that you bring indoors. Fungus gnats can also come in with a plant that was outside during the summer.

They are difficult to eliminate if you have a large number of plants. The adults can easily fly or jump from one plant to the next, laying eggs wherever they find moist soil. Adults only live for a few days. So, once all the larvae are dead, your fungus gnat problem will go away. There's no need to resort to toxic synthetic pesticides, fungus gnats can easily be fought using all natural pest control remedies.

1. Control soil moisture. Fungus gnat larvae thrive in moist soil, and they can't survive in dry soil. Make sure you never overwater your plants.

2. Water plants from the bottom. Fungus gnat larvae live in the top inch of the soil which tends to stay pretty moist when you water plants from the top. Bottom watering plants will make it easier to maintain dryer top soil without risking the overall health of the plant. Never allow your plant to sit in water for too long. Dump out any remaining water after about 30 minutes of soaking.

3. Use yellow houseplant sticky stakes. Putting a yellow sticky trap near the plant is a safe pest control method that will attract and capture the adult fungus gnats. It will keep them from flying around to other plants and laying eggs.

4. Apply organic pest control products. Pour a neem oil mixture into the top of the soil to kill gnats in potted plants. This natural gnat pesticide treatment should be effective after a few applications. Neem oil reduces insect feeding and acts as a repellent. It also

interferes with insect hormone systems, making it harder for insects to grow and lay eggs.

5. Remove the gnat infested soil. Throw out the soil and replace it with new, sterile potting soil, and don't put the old soil in a compost bin. Replacing the soil will remove fungus gnat eggs and larvae. Just keep in mind that gnat eggs in soil could still hatch and mature after you remove the soil from your plant, so make sure you take the old soil outside to the trash.

6. Store unused potting soil in a sealed container. Open potting soil bags can also be a breeding ground for fungus gnats and others.

7. Never reuse potting soil. It's tempting to pinch pennies by reusing potting soil, but you're just asking for trouble. Always use a fresh, sterile potting soil mix when repotting your plants.



Club member Pam Edsall treats us to a photo of her *Mammillaria mazatlanensis* that had a bloom 175 flowers smelling like strawberries.

PEG WORKSHOP ON COPIAPOAS



Cliff Fielding presented an excellent workshop for PEG attendees on growing *Cylindropuntias*. Cliff brought in plants from his collection (left), and received permission from the Desert Botanical Garden to exhibit plants from the Fred Katterman Collection (below). Photos by Kim Andrews.

