Be sure to read Kim Andrews article in this issue on The Uniqueness of Mangaves. Pictured is Mangave ‘Pineapple Express.’
Join Dyana on January 12, at 2 p.m., in Dorrance Hall at the Desert Botanical Garden for our monthly program.

Botanical artist Dyana Hesson loves a good adventure. She was born and raised in the gold country of Northern California. As a kid, she was always happiest exploring outdoors and rarely settled down to read a book all the way through.

When Dyana’s father gave her his old 35mm film camera in elementary school, her skinned knees and grass-stained clothes gave way to a quiet appreciation of aesthetic beauty. She was interested in the landscape but more than just scenic vistas. At close range, the hues and contours of flowers and plants caught her eye. Some of the first things she photographed were the succulents growing in her mother’s garden.

A hard worker but a struggling student, Hesson found her gift of painting in an art class in college. She changed her major and studied art at Arizona State University where she developed her style of applying thin layers of oil paint with very little texture. After graduating with honors, Dyana combined her newly found skills with the work ethic of
her childhood, and soon art collectors eagerly invested in her radiant paintings. Her work has received national and local awards and is collected worldwide.

Dyana lives in Mesa, Arizona with her husband Randy, daughter Sydney and Jack Russell terrier Boon. She has a case of incurable wanderlust and a love affair with God’s creation.
The CACSS Annual Show and Sale introduced me to Mangaves, described as a cross of two genera within the Asparagaceae family, an Agave and a Manfreda. The unusualness of these plants captured my interest. One had blue-green soft leaves with reddish freckles and no puncturing terminal spines. The other had rigid leaves with terminal spines, but the color was indescribable sort of blue, green or gray with dark spots.

Greg Starr, of Starr Nursery, said these plants were low maintenance and would survive both our Phoenix heat and winter frost. He explained the colors intensify in ultraviolet light from the sun and become dull in shade. I purchased two varieties, 'Macho Mocha' and 'Pineapple Express.'

Now the research had to begin. The first known Mangave plants originated from Manfreda seeds collected in the wild in northern Mexico. The grower at Yucca Do Nursery noticed two seedlings different from the others in the seed lot. The adjacent proximity of the parents, the Manfreda growing near the Agave mitis (celsii) plants, explains how these two seedlings may have become so different. Crossbreeding in nature is rare because seldom do these plants bloom at the same time. These unusual plants were defined as bigeneric hybrids and named x Mangave 'Macho Mocha.' The proper way to designate a bigeneric hybrid is by placing an “x” in front of the genus name; however, it is often omitted to accommodate the ease of use, including alphabetizing.

Most of us are familiar with numerous Agaves, but Manfreda may need a brief introduction. Manfreda is a herbaceous perennial with 28 species naturally found in the southern U.S., Mexico and Central America. They form a widely spreading rosette of spineless leaves with margins finely dentate or smooth. Some are prized for the patterned reddish-purple spots on their leaves that are sometimes wavy. Manfreda clumps are drought-tolerant using crassulacean acid metabolism (CAM) and require well-drained soil for its root system consisting of a bulbous caudex with fibrous roots. Their tall, thin flower spikes are topped with flowers that are often fragrant and attract hummingbirds. Flowers are pollinated by moths and bumblebees, and the wind disperses the seeds. Unlike Agaves, most Manfreda can bloom multiple times during their lifespan. They look great in containers or rock gardens.
Manfredas are referred to by some as deciduous Agave, false Agave, false Aloe, and tuberose. They survive at lower temperatures but are evergreen in temperatures above freezing. Where temperatures drop below that, it becomes deciduous recovering quickly in spring. At maturity, the flower stalks of these plants can reach six feet tall. When grown in the low desert, place it in dapple light shade.

The Mangave’s durability is dependent upon its parents. If the parents can survive a specific zone or elevation, most likely the offspring will too. If the parents are not known, watching the plant is necessary to determine its needs.

BASIC CULTIVATION GUIDELINES
Soil: In a pot, use well-draining cactus/succulent soil amended with 50% pumice, coarse sand or perlite. A pot at least 12 inches deep is required if the cultivar has a bulbous root. In ground, sandy or rocky soils are preferred.
Water: Growth rate of a *Mangave* is greater than an *Agave* when watered regularly. Water deeply and regularly to avoid dormancy. If dormant or deciduous, greatly reduce water to avoid rot.

Exposure: Protect from afternoon sun when temperatures exceed 85°. Only permit morning sun in the low desert. Observe the amount of light needed to bring out its coloring without scorching.

Hardiness: Many are hardy to Zone 8 or 9 and may tolerate brief, light frosts. Verify the cultivar’s specific details. Several can overwinter well indoors near a sunny window or under grow lights.

Propagation: Gently remove pups and transplant. Some provide pups prior to flowering and others provide pups after flowering.

The two cultivars I purchased looked so healthy throughout our past harsh summer in contrast to other plants. I placed them on the southeast corner of my patio all summer with sun until about 2 o'clock in the afternoon. The two *Mangave* 'Macho Mocha' grew well with pups in both ceramic and terra cotta pots. The *Mangave* 'Pineapple Express' is solitary, surviving in a metal pot that was at first intended to be a temporary place but still is its home today. Amazing! All survived unblemished until the late autumn sun angle damaged a few *Mangave* 'Pineapple Express' leaves. Luckily, they are potted so they can be moved to find the right microclimate where there is enough light to produce their beautiful freckles and spots without frying them in too much sun.
Sue Hakala grows her *Mangave* ‘Macho Mocha’ in the ground on the north side of a sago palm. In the height of summer, when they show stress from the intense sun, she covers them with a 30% sunscreen that they appreciate. During the warm months, she waters slowly and deeply once every two weeks if there is no rain. In the cool months, she may water once a month only during a warm stretch if there is no rain. When the *Mangave* ‘Macho Mocha’ bloomed, the height of the bloom was taller than Sue. It took a year for the plant to die but provided a surprise of several runners offering young plants.

Many of us want native plants to be safe from poaching. Some breeders embrace the goal of developing plants that are more desirable than native plants as a means of protection. The nursery trade recognizes the potential of the *Mangave* as a low maintenance, uniquely ornamental plant with their interesting colors and unusual foliage. Many new varieties are becoming available, creating the perplexity of which to select. So many choices!

However, just as I start to understand these plants, things become a bit more confusing because the nursery trade is now producing multiple genera hybrids. Or should we just say crossbreeding within the *Agave* genus? Some taxonomists state genera that crossbreed so easily should be in one genus. Others want *Agave*, *Manfreda*,

*Manfreda maculosa photo from ASU.*

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Polianthes, Prochnyanthes, and Hosta as separate genera based on their structural differences. Breeders and taxonomists disagree among themselves. Molecular phylogenetic studies are now placing Agave, Manfreda, Polianthes, Prochnyanthes, and Hosta into the family Asparagaceae, subfamily Agavoideae. It is as if their DNA is reuniting lost relatives.

Even though taxonomy may be confusing and conflicting, I am excited about the possible unique outcomes of crossbreeding. Use your imagination when you look at an Agave or the Polianthes flowers. Will new cultivars of Agaves be grown in the northern states while new cultivars of Hostas move south? Who knows what the future holds.

ARIZONA GARDENER’S GUIDE

Mary Irish, a past director of public horticulture at the Desert Botanical Garden, has written one of my favorite reference books for dry climate gardening. Her Arizona Gardener’s Guide, written in 2001, is a very readable book of approximately 180 plants that are hardy enough to survive our desert climate. Each plant includes a color photo along with planting instructions, where and how to plant, growing tips, care, companion planting, and design.

There is also a chapter listing common pests and diseases. If you are new to growing plants in the desert, this book will be a big help. From Agave and cactus species to shrubs, perennials, trees, palms, and grasses, you won’t be disappointed when borrowing this book from the CACSS library.

Rich Zeh shares his Ariocarpus retussa var. frumdosus.
CACSS 2020 MEETING DATES

NOTE SOME DATE CHANGES

- February 16  Woody Minnich: 20 Years in the Atacama, The Land of the *Copiapoa*
- March 29  Jeff Moore from Solana Succulents
- April 1  Drop off plants for the Annual Show and Sale
- April 3-5  Annual Show and Sale open
- May 31  Jason Wiley: The Desert Moonlight Garden
- June 28  Monthly meeting
- July 26  Monthly meeting
- August 30  Monthly meeting
- September 27  Monthly meeting with Ron Parker
- October 25  Mega Silent and Live Auction
- November 22  Monthly meeting with Kelly Griffin

DUES 2020

By Membership Chair Beth Kirkpatrick

**If you have not paid your 2020 dues, they are now overdue.** There are three easy ways to pay:

1. You can go to our website [www.centralarizonacactus.org](http://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 12 meeting.

If you have any questions about your membership status, please contact Beth Kirkpatrick, membership chair, [berhalia@gmail.com](mailto:berhalia@gmail.com) or [centralarizonacactus@gmail.com](mailto:centralarizonacactus@gmail.com)
Sometime about 1976, I was living in the Philadelphia area, blissfully ignorant of cacti and succulents. An eccentric colleague at work was a plant fanatic and convinced me to buy a seed of *Cycas revoluta* (sago palm) to try to grow. I followed his instructions and was successful in having it germinate. Thus began the association of the plant and me for 43 years and counting.

In its formative years in an inhospitable environment, the cycad was an indoor, windowsill plant. In 1980, I moved (with Jeanne Ann and a daughter) to Indianapolis accompanied by a few houseplants, including the cycad. As it grew larger, it became a summer-outdoor plant. In 1984, we (including Mr. Cycad) moved to Nashville, TN. The cycad was growing, liking the semi-tropical Nashville summer heat and humidity, but was still a manageable size. In 1987, we (now two daughters) moved to Milwaukee where we stayed for 22 years. Although I was still ignorant of cacti and succulents, the cycad thrived in the brief Wisconsin summers and desert-dry indoors of Wisconsin winters. During this time, it grew into the current pot size (see photo). Needless to say, housing such a plant in a small colonial style house with two kids was a challenge.

In 2009, on retirement, we moved to Gold Canyon, the cycad with us. In its new environment, it grew very well except for setbacks when I forgot to water it. Periodically, I would remove offsets but didn’t try to propagate them. It currently lives in its old pot and soil in the shade of a citrus tree, gets regular irrigation, and a shot of Miracle Gro once or twice a year. The soil, if there is any left, has not been changed in 20+ years. Maybe one day I will get up the energy to wrestle it out of its pot and into the ground.
Happy New Year!

Our last get together in 2019 for the Central Arizona Cactus and Succulent Society was our Holiday Party on December 8. If you have never attended one of our Holiday Parties, then please consider joining us for one in the future. There is great food, games, prizes and a plant exchange. It also gives us an opportunity to socialize for a longer time than we can at our general meetings.

I hope all of your cacti and succulents are enjoying these winter rains and not suffering any adverse effects from the added moisture. All of this excess moisture should contribute to another tremendous wildflower show this spring.

If you have not done so already, please check out our group on Facebook. You can find us under CentralArizonaCactus. We currently have over 5,300 worldwide members, and I feel it is one of the best cactus and succulent groups on Facebook. We also have on Facebook a group called CentralArizonaCactus Swap and Shop. It is for paid members of our Society to buy, sell and trade cactus, succulents and related items with each other.

I am just one of many volunteers that contribute to making our Society great. I cannot thank enough the many volunteers who work behind-the-scenes to make everything run smoothly. While we do have many volunteers, more are needed. One opportunity to help will be at our Annual Show and Sale. We will be needing volunteers from April 1–5. An email will be sent out to all members providing a link to sign up to volunteer. Please consider donating a small amount of your time to help during that period. Any amount would be greatly appreciated. At a very minimum, please consider entering plants into the show. We can help you with any questions you may have regarding entering plants. The more entries that we have helps to contribute to a great show for all.

If you can't help during that period, there are also many other ways to help. Volunteers are needed at every general meeting to set up and then clean up after the meeting. Assistance is always appreciated with the silent auction. Other specific positions that need to be filled will be announced at general meetings and in the newsletter when needed.

Lastly, contributions to our newsletter are always needed and appreciated. Do not hesitate to ask me, any board member, our editor, or any other volunteer how you may help.

I look forward to seeing all of you at meetings throughout the year.
Alwin Berger (August 1871-April 1931) was a German botanist best known for his contribution to the nomenclature of succulent plants, particularly Agaves and cacti. Born in Germany, he worked at the botanical gardens in Dresden and Frankfurt. From 1897 to 1914, he was curator of the Hanbury Botanical Gardens, the botanical gardens of Sir Thomas Hanbury at La Mortola, near Ventimiglia in northwestern Italy, close to the border with France. After working in Germany from 1914 to 1919, Berger studied in the United States for three years before spending his final years as director of the department of botany at the Natural History Museum in Stuttgart.

His main work, *Die Agaven*, published in 1915, described 274 species of Agave, divided into three subgenera: *Littaea*, *Euagave* and *Manfreda*. He also recognized a new genus of cactus, *Roseocactus*, in 1925. The genera *Bergerocactus* (*Cactaceae*) and *Bergeranthus* (*Aizoaceae*) are named in his honor.

Be sure to visit CACSS on the web at: centralarizonacactus.org the Society’s website Facebook centralarizonacactus CACSS Swap and Shop Instagram
Next Meeting: *Agave Extravaganza IV: Agave vs. Aloe Smackdown* January 11, 9 -11a.m., in Dorrance Hall at the DBG.

Come one, come all to our fourth Annual *Agave Extravaganza*. We have tons of *Agaves* to give away (last year, we gave away well over 100 plants of almost 50 species). This year we will focus on a question many beginners have about *Agaves*; What is the difference between an Agave and an Aloe?

We are going to talk about these differences and similarities and will even have a few *Aloes* on hand to give-away, in addition to the *Agaves*.

We'll cover topics such as:

- What exactly is an *Agave* and an *Aloe*, and how many are there of each?
- Where are these plants from naturally?
- Which species are most commonly grown?
- Which species are recommended for beginners?
- Which species are recommended for more experienced growers?
How can Agaves and Aloes be propagated?

Feel free to bring your own specimens of Agaves, Aloes and relatives to show off. Additionally, this is a great opportunity to get rid of your Agave pups that have been crowding out your own Agaves and give them away to fellow attendees.

As usual, my sister Nicky and I will be doing our annual Agave pup cleanup at our houses and will bring all of the extras to be given away at the PEG meeting. That may not sound like much, but many of you know that my sister and I grow a LOT of Agaves.

Additionally, as is usually the case at PEG meetings, we will have several extra special giveaways of rather rare/uncommon/sought after species of Agave that will only be available to paid-up CACSS members. You must be paid up through 2020 in order to participate in the free raffles. So, be sure to renew before you arrive at the meeting; non-PayPal renewals cannot be accepted at the PEG meeting.

You never know what goodies we’ll have on hand. The last couple of years, we’ve raffled off the highly sought-after Agave albopilosa. I wonder if we’ll have another for the raffle? Plus, if you like the Queen Victoria Agave (Agave Victoria-reginae), you will REALLY love the recently described, and extremely rarely found in cultivation, Agave pintilla (sometimes referred to as the painted Agave), and dare I say it’s even more attractive than its cousin? I think so! We will have a beautiful example of this species as the most coveted of all to raffle off. This plant alone is worth way more than a CACSS membership, so be sure you renew for 2020 before the PEG meeting so you won’t miss out on the opportunity to own such a beauty.

You definitely do not want to miss this great opportunity to learn more about these fascinating plants. Plus, we guarantee that everyone will leave with a free plant.

Unlike the regular CACSS meetings, there is no reason to show up early to this meeting. Prior to the start of the meeting, my sister and I will be setting up and laying out Agaves all the way up to meeting time. However, if you have Agaves you are bringing to include in the give-aways, feel free to come by early to include them in the setup.

PEG meetings are informal meetings held bimonthly in Dorrance Hall at the Desert Botanical Garden. All 2020 PEG meetings will be held from 9-11 a.m. on the following mornings

- January 11
- March 14
- May 9
- July 18
- September 19
- November 21
These dates will also be added to the CACSS calendar on our website at www.centralarizonacactus.org. PEG meeting topics are announced closer to each meeting to allow for topics to be chosen based on participant interests, requests, acquisitions, and the latest in cactus and succulents.

IMPORTANT NOTE: The DBG has asked that attendees be sure to check in at the main entrance to the garden for all PEG meetings and explain you are headed to the PEG meeting. This allows the DBG to track how many attendees they have at the garden at any one time and for forecasting purposes. So, please do NOT enter in the side gate without stopping by the entrance first. You will NOT be required to pay an entrance fee if you are not a DBG member. Though you really should be. Totally worth it.

Agave pintilla by Walker Young.
THREE NEW HONORARY LIFETIME MEMBERSHIPS AWARDED IN 2019
By Beth Kirkpatrick

Each year CACSS members are asked to nominate members who have made significant contributions to the Society’s purpose and activities over many years in diverse capacities, and contributed to the education of members and the public on cacti and other succulents. Jo Davis, Dan Smith and Wayne Whipple attained Honorary Lifetime Membership in 2019 and were recognized at our Holiday Party in December.

Jo Davis is always there for anything that needs to be done for our club; she is a super volunteer and the heart of our club. She is the powerhouse behind Keeping in Touch with members who are experiencing challenges. For many years, we have seen her setting up for our meetings, selling raffle tickets, cleaning up, greeting people, and all sorts of other tasks that make our meetings and show and sale run smoothly. She has been chairman of our New Member Program and co-chaired or chaired our Holiday Party for a number of years. She has served as secretary and Show and Sale co-chair and has been a director for many years. Thank you Jo for your many years of service to our club.

Dan Smith has had a very visible presence in our club serving in many varied capacities. He was vice president for two years and Show and Sale co-chair for three years, as well as Show and Sale volunteer coordinator. He had served as a director for six years and was coordinator of the volunteer website for the 2015 convention. He has also served as our election website coordinator for four years. Thank you Dan for your many contributions to the success of our club.
Wayne has been a friendly presence at virtually all of our club events (meetings, open gardens, bus trips, show and sale, etc.) over the last several years. His attendance at the number of these events is impressive. He has served as our treasurer for five years and as our president for three years. While he was president, he enhanced the board’s professionalism and governance by documenting job descriptions for all key CACSS positions and board member qualifications. He initiated the *Board Book* to be supplied to all new board members, and initiated new policies and procedures for the board and membership. He has also hosted board meetings and open gardens at his home. Thank you Wayne for your many contributions to the success of our club.

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.

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**OPEN GARDEN**

Cliff and Tammy Fielding are hosting their 13th annual open garden and cactus social Saturday, February 15th, 10:30 a.m.-3 p.m. at 16819 South 15th Avenue, Phoenix. This is an excellent forum to meet other plant lovers and 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. It is now very fast and easy to get to the house by using the new freeway.
Preparations are underway for the Central Arizona Cactus and Succulent Society’s (CACSS) 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 2020 CACSS Show and Sale will be held in Dorrance Hall and Boppart Courtyard on April 3, 4 and 5. 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 1, between the hours of 7 a.m-5 p.m. (firm) for entry and staging. Judging takes place on Thursday, April 2, with the Show and Sale open to the public Friday, April 3, through Sunday, April 5. Our event concludes Sunday, April 5, at 4 p.m., at which time show plants and educational exhibits may be removed.

During the weekend of April 3-5, 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, we can look to this experience as an opportunity to showcase some of the plants we love and cared for (at least 6 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.

And 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 looking 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 or Chuck Brush at 480-982-3899 or by 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 (April 1) 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
- Advanced (pink entry cards): 25–99
- Master (white entry cards): 100 or more

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 would 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, with 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 their 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 are needed 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 Tom or Nick to share where you can assist.
Some final notes:

- We are asking members who have won trophies in 2019 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.
- And, as always, if you have any questions, please reach out to the Co-chairs: Thom Young (c) 480-460-0782 | te.77@q.com or Nick Diomede (c) 602-772-8282 | nich.diomede@gmail.com. If we cannot answer them, we will get you in touch with someone who can.

PURPOSE OF THE CENTRAL ARIZONA CACTUS AND SUCCULENT SOCIETY

The purpose of the CACSS is to:
- study, propagate and cultivate cactus and succulents
- educate members and the public
- aid conservation programs
- support the Desert Botanical Garden and other institutions

SAVE THE DATE FOR THE SONORAN CONFERENCE

The Tucson Cactus and Succulent Society will present the The Sonoran XIII Conference April 24-25, 2020. There will be speakers, workshops, vendor and rescue plant sales, silent auction, an excellent lunch and dinner, drinks, lots of fun, and more!
How do insects survive cold snaps, freezing temperatures, snow, and ice? There are about 900,000 known insects (350,000 are beetles), so they all have different strategies and timing for surviving adverse conditions. Insects enter an inactive state called diapause, triggered by the shortening days of summer and fall. Think of it as a reduction of metabolic activity or a pause in their life.

Each insect has its particular place to have this pause. Some snuggle in under bark, a leaf, a rock, a board, settle in an agave stalk, a hive, or your home. Others prefer to dig deep in the ground or to be in a cocoon or a chrysalis. Others like monarchs, painted ladies and some moths, prefer to migrate to a warmer place. Some native bees are nestled in my bee house.

Depending on the insect, they can be in diapause in egg, nymph, larva, pupa, or adult stages. They create a type of antifreeze in their body to protect them, feeding off stored fat at a metabolic rate about one-tenth of normal.

After a sufficient period of cold weather, known only to them, they will awaken when temperatures are just right in the spring/summer. So yes, your particular nemesis will still be there next spring.

Insects contribute much to keep the earth functioning properly. They serve as pollinators, as decomposers of dead animals, plants and manure, as food for others, and many other roles. Although it is nice to have a break from most of them during our cooler months, they will be back.
2019 was a great year for the Central Arizona Cactus and Succulent Society Facebook Page. We hit a huge milestone of 5,000+ members. We now have five administrators for the page. We recently changed our name from Central Arizona Cactus and Succulent Society to CentralArizonaCactus for our web presence.

I look forward to seeing what the New Year brings and wish you all a Happy New Year! You can join the CACSS FB page at: https://www.facebook.com/groups/cacss2/

Each month a photo of a cactus and succulent posted by CACSS FB members is selected.

Left Succulent of the Month: Aeonium arboretum var. atropurpureum posted on December 25 by Linda Branum Hoefner. Cactus of the Month: Mammillaria hahniana ssp. bravoae posted December 16 by Sue Hakala.

Spiny Sunset posted December 14 by Eric Lundberg with 505 likes.
SPECIALISTS TO CONTACT WITH QUESTIONS

Wendy Barrett  wbarrett@cox.net
Nancy Mumpton  nancy.mumpton@gmail.com
Co-librarians for CACSS collection

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

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

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

Chris Ginkel  602-908-2664
chrisginkel@gmail.com
Manages the Facebook CACSS Swap and Shop page. Co-manages the Facebook page.

Eric Holst  480-786-2010
heats@cox.net
Manages the fertilizer program.

Ken Luiten  520-780-2925
luit6987@gmail.com
Manages the Instagram page.

Dean Patrick  602-909-8530
desertpatrick@cox.net
Specializations in softwood stem-cuttings, plant division and seed starting, rooting cacti, Agave and Aloe.

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

Dan Smith  480-981-9648
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