NEW MASTHEAD

When I became editor of the *Central Spine* in January 2016, I knew right away that I wanted a special and unique masthead. We are in the heart of cactus country, and I felt that the masthead should reflect central Arizona plants, and have a modern vibe.

My newsletter technical advisor and patient trainer, Nick Diomede, brainstormed possibilities with me. It wasn’t until I saw the beautiful logo designed and drawn by Steve Plath, for the upcoming CSSA 2017 conference that our Society is hosting, that I knew I found the source for what I’d been seeking.

Steve has done so much for your club through the years including presenting workshops and programs and giving endless advice to anyone who asks (and I’ve asked a lot). He has served on our board and as president, worked with others to coordinate our annual sale and served as a judge for the show. He has exhibited (along with his wife Julie) spectacularly grown plants in our show, and more, so much more. I hoped he would be receptive to one more task.

Steve Plath has been working in the desert southwest doing assorted ecological restoration projects for the past 22 years. It has afforded him many opportunities to see native cacti and other succulent plants in habitat. That combined with his artistic eye made him the perfect candidate for this challenge which he willingly accepted.

I hope you like the masthead as much as I do. Be sure and thank Steve for the unique drawing, and Nick for choosing the perfect typeface and arranging it all so beautifully.
Creating a Global Treasure, Combining the Collections of Boyce Thompson Arboretum and Wallace Desert Gardens.

Mark’s talk will cover not only the challenges in moving 6,000 plants 75 miles to their new home but why this will help Arizona become the center for arid land plant conservation and research.

During his seven-year tenure as executive director, Boyce Thompson Arboretum (BTA) has expanded and been recognized in many areas. Membership at BTA has grown from 2,700 to almost 5,000 members. Earned income has increased by 18% to represent 50% of total revenue. Total revenues are anticipated to increase from $1.6 million to over $2.7 million this year.

Several major projects have been completed, such as the Australian Pavilion Area, the Australian Seep, Australian primitive plant area and the framework for the South American exhibit. Numerous upgrades have also been completed such as a $1.7 million parking renovation. In addition, Mr. Siegwarth has been involved in two grant-funded rescue efforts of the federally listed endangered Arizona hedgehog cactus and one restoration project (see below). Another project, as part of the United States Department of Agriculture Hatch Projects, Mr. Siegwarth and BTA are evaluating the potential of over 40 different species of oak trees for introduction into the Arizona landscaping trade. This project was also in response to the Botanic Gardens Conservation International’s North American Oak Tree Initiative.

The Arboretum, accredited by the American Association of Museums, is busy at work on several projects for the future. One of these projects is the massive effort to save the Wallace Desert Gardens by moving the
collection of 6,000 plants to the grounds of BTA. This gift, with an estimated value of over $8 million, will create an unprecedented garden of arid land plants from around the world. With over 4,300 species, Botanic Gardens Conservation International estimates this plant diversity will place BTA in the top 100 gardens globally.

As gardens focusing on arid land plants are rather unique, over one fourth of the collection is held in fewer than 10 gardens globally with a significant number representing threatened species.

Boyce Thompson Arboretum has been accredited by the North American Plant Conservation Consortium for their oak collection and their Desert Legume Seed Bank Program (DELEP). This accreditation not only recognizes the national significance of the collections but also curation of the collections at the highest professional level. Mr. Siegwarth is currently at work on two additional collections for accreditation.

A portion of the DELEP has been accepted to be backed up at the Global Seed Vault in Svalbard, Norway, one of only three institutions from the USA to have been accepted for storage. The Arboretum also co-hosted the 2013 American Public Garden Association national conference.

Mr. Siegwarth also serves as editor for the journal *Desert Plants* and on the editorial committee for *The Legumes of Arizona: An Illustrated Flora and Reference*.

Mr. Siegwarth holds a master in public policy degree from the Kennedy School of Government at Harvard University, and an undergraduate degree in economics from Miami University in Oxford, Ohio. Mr. Siegwarth served seven years in the United States Marine Corps as an officer and helicopter pilot.

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Mark will be bringing 100 endangered *Echinocereus triglochidiatus var. arizonacus* or Arizona hedgehog to sell at the meeting for $10. Please bring exact change if you can.
This has been a challenging summer for our plants. July was the fifth hottest on record, and this enduring heat prevents some of our plants from metabolizing so they struggle or just collapse. I have lost some very nice plants and the summer is not over! I’m looking forward to the cooler weather we will enjoy on our California bus trip. With the demise of some of my plants I now have room for more, so with the bad comes some good!

The CACSS board has been reviewing our CACSS purpose and discussing whether we are meeting our purpose with our current activities and projects. We are currently going through a process of mapping our activities and projects against our purpose to see where we stand.

As a refresher for all of you what follows is our purpose as stated in our bylaws, which can be found on our web site.

“The purpose of the Society shall be: (a) to learn how to grow and study cacti, other succulents and associated xerophytes, (b) to foster, disseminate and advance the knowledge and propagation of cacti and other succulents, (c) to promote interest in those plants among the members and the public at large, (d) to support conservation programs which protect cacti and other succulent plants and their habitats, (e) to support the Desert Botanical Garden of Phoenix, Arizona, and other organizations of similar purpose, (f) to hold public meetings for study, to which anyone interested in these plants is invited, and (g) to provide the opportunity and place to exhibit plants.”

We are always interested in hearing from you about new activities or projects we should take on as a society. To do this we will need to devote leadership, time and perhaps money to these efforts. Leadership is key; so as you think about new things you want us to do, please also consider taking on a lead role in spearheading these projects or activities. Committed leadership is critical to the success of our society. That said, I would like to thank Sue Hakala for leading the effort to index all of our newsletters, Chris Ginkel for leading the way on our new Facebook Swap and Shop page, Nicky Davis for taking the lead on our seed depot, and Linda O’Connor for leading our T-Shirt purchase for members and for volunteering to hem all the tablecloths for our show. Ruth Jolly has volunteered to be our CSSA affiliate representative. She is a brand new member and is “jumping in with both feet.” That’s the spirit! Thanks Ruth, you will find that we are a great group of folks!
Wendy Barrett grew up in upstate New York. She moved to Oklahoma, living there for 22 years, and majored in botany in college. She moved to Arizona in 1988.

“My family always liked gardening. I got interested in plants in high school. Elephant ear was my very first plant. I was attracted to cactus and succulents, did xeriscaping, and made my own pots for my African violets,” Wendy said. She presently has over 100 succulent plants that she tries to take care of.

She became a member of the Desert Botanical Garden attending the plant sales twice a year. She read about the CACSS posted in the plant guide, and decided to become a member.

“When Paul Schueneman gave up the position as librarian, I thought I was strong enough to carry the books. I asked Nancy to help as co-librarian as she had a lot of experience as a professional librarian,” Wendy said. “Also my mother was a librarian.”

“I enjoy being a member of the Society as the lectures are very interesting, and, of course, the bus trips are a lot of fun,” she said.

Nancy Mumpton is from Rome, New York in farming country. She moved to Arizona in 1981 because of her husband’s employment.

Her parents got her interested in plants. Nancy’s mom loved African violets, and her dad enjoyed outdoor gardening. “It’s kind of in my genes,” Nancy said.

“After 25 years of trying to grow non-desert plants, I decided to try what grows well here. My first plant was Aloe
variegata. At present, I have 400 plants that I take care of,” she said.

“I had no idea there was a cactus and succulent society in the Phoenix area until seven years ago. I joined the DBG, and found out about the society through an article that I read,” Nancy recalled. “I decided to volunteer as co-librarian when Wendy asked me. I have 28 years of experience working in libraries as a cataloger in technical services.”

Nancy serves as treasurer of the Sun Lakes Garden Club, and volunteers at the Mesa Public Library once a week in on-line sales.

“I love all the members and that they have the same obsession I do. I enjoy our speakers, and all the activities the society puts on throughout the year,” Nancy said.

The indexing project began with a comment (or shall we say sly suggestion) from Gard Roper. I was helping him put together publicity for our annual show and sale during one of the years when he was chair. We needed pictures of plants, and didn’t have ready access to any. Gard said, “You know Sue, we really need an index of photos that have been in the newsletter so we can pull from them for our publicity needs.” I readily agreed with him.

You may know that Gard is a psychologist. He knows me well enough to know that I’m motivated by anything that somehow relates to education. “When you go through the newsletters to do this, wouldn’t it be great to make an index of the articles too?” he suggested. The idea was born and the seed was planted. I began the indexing journey.

To develop a format, the Cactus and Succulent Society of America’s indexes were examined as were indexes of other organizations. I knew that I would need someone very dedicated to help with proofreading such detailed documents. I asked participants at a PEG meeting if anyone had any interest in taking on the job. Lauren Marks, then a new member, shot her hand up and said, “I’d be happy to help.” Oh if she only knew what she was getting into. She stayed with me all the way through. Thank you Lauren.

One thing I learned as I matured in my career, is that the more input the better the outcome for an immense project such as this. I formed a group to discuss the issues with Mike Gallagher, Lauren Marks, Beth Kirkpatrick and Lee Brownson. We discussed style, topics and organization. Then, members were asked for input, and many great ideas were submitted. Literally every suggestion has been incorporated.

After a year of slowly and carefully going through every newsletter since 1975 that could be found, the project is complete. Whew! I’m volunteering to keep adding to the indexes since it now only takes about 20 minutes a month.

I’ve already found the indexes to be a tremendous source of information, and know that you will too. These undoubtedly are not perfect documents, as careful as we were. If you find something that isn’t right—whatever it is—let me know and I’ll correct it. Email me at CACSScentralspine@gmail.com. The more eyes the better to make this the best resource ever.

All indexes have been emailed to members. If you don’t receive email, know that a copy of the indexes is being kept in the CACSS library for checkout. Eventually the indexes will be placed on the web site for universal access.

Enjoy!

P.S. Forty more newsletters have just been found.
USING CHOLLA IN YOUR LANDSCAPE: IT’S FOR THE BIRDS! Photos and Text By Michelle Schrade

Thirteen years ago, my husband and I had our home built in the far northwest Valley. I was thrilled to have the opportunity to create a garden from nothing. Our lot was in the foothills of a mountain range and had very little soil but large deposits of caliche and rock. As an avid birdwatcher and lover of wildlife, it was important the majority of plantings in our yard offered food sources, shelter and nesting sites for native birds and animals.

Our landscaper planted several varieties of trees and cacti. I left most of the cacti choices to him since I was not very knowledgeable at the time. The only genus I knew I had to have was Opuntia or cholla as it is commonly referred to. I wanted a cholla planted in my yard because it is the preferred nesting site of the curve-billed thrasher, one of my favorite native birds. Cactus wren and verdin also nest in cholla, and it was my goal to observe these birds raising nestlings in our yard.

A small specimen of staghorn cholla or Opuntia versicolor, was planted in our side yard in 2003. I moved it to the front yard a year later since it was in the way of foot traffic. Our yard faces west and takes the full heat of the afternoon sun. The staghorn cholla has thrived in its new location, growing to a height of over five feet, which is ideal for nesting birds. I was pleased to find its flowers are a beautiful magenta and can be quite prolific. Its segments take on a deep purple hue when heat or cold stressed. Its forked branches resemble deer antlers and they grow in a lovely tree form up to 6-12 feet tall and 5-6 feet across.

Verdins were the first bird to choose our staghorn cholla as a nesting site. These little grey birds, with yellow heads and cinnamon colored shoulders, have nested in its branches twice. Verdins build several nests in their territory. Only one is used for raising young while the other, smaller nests, are used for roosting. These domed, woven nests of twigs are readily found in thorny desert trees, shrubs and cholla.

Last year, I was rewarded with my dream bird! A pair of curve-billed thrashers
began building a nest of medium-sized thorny twigs in the staghorn cholla in March. Over the next 4 months, the pair managed to successfully raise 3 batches of babies, for a total of 6 birds leaving the nest.

The opportunity to watch the pair select a site, court, lay eggs, hatch eggs, and feed their young, not once but three times, was quite an experience. Many of our neighbors were curious and sneaked peaks in the nest from time to time and frequently asked for updates. The thrashers came back to the same nest this year but the story has not been as happy. Two failed nesting attempts have led to the abandonment of the nest. Such is the way of nature.

Cacti are used in landscapes for many reasons including, interesting form, beautiful flowers, color, uniqueness, and rarity. One reason, which may fly under the radar of many folk, is using cacti in landscape for the needs of wildlife. Saguaro, with their majestic silhouette, and prickly pear, with their variety of colors and prodigious flowers, are very popular in desert landscapes. Most people are not aware, by having cacti in their yards, many desert creatures benefit from their nectar, fruit and habitat.

*Opuntia* are underutilized as a landscape plant. Many people have a negative connotation of cholla, because the only species they have run into (pun intended) are teddy bear cholla or *Opuntia bigelovii*. Anyone who has hiked in the Arizona desert has more than likely seen or felt one of these notorious plants. Their segments are prone to breakage and litter the surrounding desert floor. The pieces are lethal because the spines are very dense and sharp causing them to stick to clothing and skin with extremely painful results.

This is unfortunate because the genus *Opuntia* has many beautiful and functional offerings for a variety of uses in desert landscaping. Besides being a bird habitat and fruit producer for wildlife, they make a nice focal point in a desert garden when planted near the tops of berms. They are the only cactus with papery sheaths covering their spines. The sheaths are often bright and colorful. When cholla are backlit by the rising or setting sun, the spines seem to glow. *Opuntia* come in a variety of pleasing shapes, sizes and colors. They are very resilient plants and can handle afternoon sun. Many people use cholla.
for home protection, planting them under windows and along fences.

Below is a list of cholla that thrive in the greater Phoenix area along with a few reasons why you might consider using them in your landscape. All of these Opuntia do best planted when in full sun and quick-draining soil. Here are some to consider.

Staghorn cholla or Opuntia versicolor: Nice tree-like shape, great nesting habitat for birds, flower colors vary from yellow-green, red bronze to purple. Branches take on a purple hue in winter and during drought.

Silver cholla or Opuntia echinocarpa: With pale-green or yellow-green blooms and beautiful silver spines, this cholla has extreme heat tolerance. It grows in a bushy, short-trunked form up to five feet. It is especially striking in mass plantings.

Buckhorn cholla or Opuntia acanthocarpa: Light green in color, long-jointed with bright yellow, orange, pink or red flowers, it comes in five variations: acanthocapra, coloradensis, gander, major, and thornberi. This cholla is an excellent bird habitat with heights of 3-10 feet.

Pencil cholla or Opuntia arbuscular: A less thorny cholla, with narrow stems and a smooth appearance. It has a deep green color and grows up to six feet with yellow to orange flowers.

Diamond cholla or Opuntia ramoissima: Grows up to three feet with ultra-long spines and narrow blue-green segments. The spines are white and its yellow sheath makes it look two-toned. When backlit, its spines appear to glow.

Teddy bear cholla or Opuntia bigelovii: Grows up to six feet with dense, furry-looking arms. The spines glow in the sun and it is notorious for its easily detached segments which stick unsuspecting hikers and critters.
We will be selling the Central Arizona Cactus and Succulent Society T-shirts at the August and September meetings. There will be three choices of shirts: round neck $12, V-neck $15 and polo $17. The polos come in sizes for men and women. All shirts will be $2 more for 2X, and $3 more for 3X to 5X. You may pay by credit card, check or cash.

A special thank you goes to Sue Tyrrel who did all the work organizing this the first time. The amazing, intricately done artwork is by Diana Crummey. The shirts are by Gilden. The shirts are made by Lucky Thread, a locally run company in Ahwatukee. There are a multitude of colors from which to choose. The logo looks best on bright colors. We will also have samples on display.

The shirts ordered in August will be ready for pickup at the September meeting; the shirts ordered in September will be ready in October. We will not be selling them again until sometime in 2017, so order now! This is a shirt that can be worn all over the world!

And now the fine print: No returns or refunds. Shirts that are not picked up will not be mailed. After three months, they will be resold or raffled.

One of the cactus beds at the Huntington Botanical Gardens to be seen on the CACSS bus trip August 12-14.
We’re still growing. The CACSS Facebook (FB) page grew 7% in the month of July. Our FB page now has over 1,345 members from around the world. The page is a forum for all things cactus and succulent related: discussions, identification, cactus and succulent photos, new use, and planting ideas.

The theme in July FB postings centered on the excessive heat and ways of assisting your cactus and succulents with coping mechanisms. The most obvious heat remedy suggested is to bring the plant into your home, if possible. As usual, the posts included various discussions on plant pests, requests for plant IDs, plant health assistance and wonderful photos of our collections.

July had many photos of plants in bloom. Here are a few of the named cactus and succulents: Rebutia, Matucana, Astrophytum, Thelocactus, Adenium, Gymnocalycium, Echinopsis, Euphorbia and many more. In July, we had plant identification requests for 8 succulents and 1 cactus that was not identified. Thanks go out to all of those FB participants and their plant knowledge that assisted in the cactus and succulent identification.

Each month we usually feature a photo of a cactus and a succulent that a CACSS member shared on the CACSS FB page. This month we only have a cactus photo. It is from Lori A. Johnson with a beautiful plant and bloom of Mammillaria grahamii.

Lori A. Johnson’s Mammillaria grahamii.

If you have questions on the FB photo, please contact the photographer via the FB page. A big thank you goes out to all of the CACSS members who contributed and/or joined the CACSS FB page. We have room for many more of our CACSS members. So, please take the time to become a member of the CACSS FB page. There is no charge and it is very easy to access and enjoy. You can find us on FB @ Central Arizona Cactus and Succulent Society.
PLANT SUBJECT MATTER SPECIALISTS TO CONTACT WITH QUESTIONS

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

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

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

- **Chris Ginkel** 602-908-2664 | chrisginkel@gmail.com
  Manages the CACSS Swap and Shop page on Facebook.

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

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

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

- **Bob Torrest** 480-994-3868 | robertst9114@msn.com
  Specializations include desert landscaping, unusual (including rare fruit) trees and shrubs, Aloes, Agaves, and columnar cacti.

- **Thom Young** 480-460-0782 | te.77@q.com
  Co-manages the CACSS Facebook page.
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CACSS is an affiliate of the Cactus and Succulent Society of America.

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