

January 2017



Puya raimondi is the largest Bromeliad in the world with one of the largest flower clusters of any plant on the planet. It is an endangered species that is being kept alive in only a few places outside its native Andes range. In this issue, Scott McMahon explains to us how this plant was named, and shares his experience in viewing it in habitat.

Andy Siekkinen will be presenting our program on Sunday, January 29, at 2 p.m.

The *Bromeliaceae* is a New World family of plants that is extremely diverse in the ecological niches it fills—which I like to think of as bridging the worlds of orchids and cactus. This talk will give an introduction to the family and an overview of its several succulent genera. Living in many different climates and with different



Andy with Tillandsia seleriana on a pine tree in Chiapas, Mexico.

sizes and shapes, they range in size from 2" to over 10' in diameter. In other words, plants that are comfortable growing on a windowsill to those that can cover a whole hillside. A particular focus will be plants that are generally smaller and well-suited for growing in pots in any cactus and succulent collection and that can be moved for protection in the winter.

Andy was originally trained as a nanoparticle chemist, but always had a bit of a plant problem. The problem got notably worse after moving to San Diego



Sincoraea burle-marxii is a beautiful species that produces an incredible red flush in the center of its leaves when it blooms drawing in the hummingbirds to the small white flowers.

10 years ago. He then started to explore Mexico around eight years ago. With a career change encouraged by the Great Recession, he started spending more time traveling throughout Mexico searching for bromeliads and leading tours with his company, *Eagle Eye Adventures*.

As he found the published information on the genus *Hechtia* severely lacking, and as he was discovering more species, things got a bit more serious. He started the first steps of his systematic research at San Diego State University a couple of years ago and joined the Botany program at Rancho Santa Ana Botanic Garden/

Claremont Graduate University this past fall. While headlong into studying the genetics and finer points of *Bromeliad*

taxonomy, he still loves cultivating plants and knows that much can be learned from watching the plants grow.



Dyckia goehringii is a unique species in the genus producing offsets on short, stout stolons.



Orthophytum gurkenii is a species that has the charisma of a hybrid. With the distinct banding on the leaves, this Brazilian species is always an eyecatching plant.



Hechtia isthmusiana is quite a mouthful to say, but is a relatively small species and can flush amazing colors when grown hard.

CACSS RESEARCH GRANT PROGRAM A New Program for Funding Research by Tristan Davis

As a 501(c) 3 non-profit organization, one of the goals of the Central Arizona Cactus and Succulent Society (CACSS) is to increase the knowledge and conservation of cacti and succulents through education and support of research activities in the field and in cultivation. To help meet that goal, the CACSS is initiating the CACSS Research Grant Program that debuts January 1, 2017.

The goal of the program is to encourage the study of cacti and succulents by financially contributing to research projects approved by the CACSS.

Who can apply for grants?

Anyone is eligible to apply for grants from the CACSS; there is neither a society membership requirement nor an age requirement. Institutional affiliations are preferred, but not required. The CACSS encourages all sizes of projects and also encourages those that have never done research to apply.

For how much are grants awarded?

A maximum of \$2,000 may be awarded per application. Partial funding may be offered where appropriate.

When is the grant period?

The program will be run year-round and will accept applications at any time. Although the program has no stipulation regarding how much will be funded overall each year, if the amount of funds for a given year has reached an amount the board deems sufficient for the calendar year, the program will be suspended until the following calendar year. Any applications received at the time of the suspension will be returned to the applicant with an explanation and offer to resubmit the following year.

All of the program guidelines, as well as an application template, can be found on the CACSS website at http://centralarizonacactus.org/index.php/research-grants/

One of the primary intentions of this program is to not only encourage scientific research, but also to also educate our CACSS members about the scientific process as well as cacti and succulents in general. All funded projects, therefore, will be required to share their findings with our club through newsletter articles, meeting presentations, and/or educational exhibits at our annual show and sale. We hope this project brings scientific research closer to all society members and encourages us all to contribute to our knowledge of these wonderful plants.

PEG POINTS - The Latest from the Propagation Education Group Text and Photos By Tristan Davis

Just in time, I've been able to finalize the dates and times for the 2017 PEG meetings. As usual, they will be held every other month on Saturday mornings towards the middle of each month, starting in January.

NOTE: To accommodate the DBG room availability, all PEG meetings will now start at 9 a.m. instead of 10 a.m., and will now end at 11a.m. instead of noon.

All 2017 PEG meetings will be held in the Whiteman Conference Room in the Webster Building of the Desert Botanical Garden. All CACSS members and guests are welcome. Garden admission is free, just tell them you are there for the meeting.

The 2017 schedule is as follows:

- January 21: Propagating Stinky Plants!
- March 18
- May 13
- July 15
- September 16
- November 11

As usual, PEG meetings will be informal gatherings to share plants and information about propagation; however, we will try to identify a general topic of discussion at each meeting.

The January meeting topic will be all about propagating *Asclepiads*. Also, known as stapeliads or just plain stinky plants (due to their odiferous nature), we will discuss some methods of propagation

and growing tips. We will also have several *Asclepiads* available for FREE. Bring some cuttings of your own *Asclepiads* to show and share with fellow club members.



Stapelia gigantea above and S. leendertziae below represent the diversity found in the Asclepiads.



As a special surprise, we will have a contest in which everyone can participate that will entail propagating mystery *Asclepiads*. Don't miss out on the fun or the learning. Hope to see you all there!

Our club has many resources for learning about *Asclepiads*:

You can find related articles appearing in the *Central Spine* on the CACSS website by month and year.

- Hand-pollinating Stapelia Plants by Grant Meyer, 1/16
- Stapelia flavopurpurea: A Sweet Starfish Flower by Mark Dimmitt, 8/11
- Stapelias: Growing Stapelias in Phoenix by Leo Martin, 10/98
- Stapelias: On the Dry Side by Timothy Chapman, 6/92
- Stapeliads by Leo Martin, 10/00
- Stapelias and Mealy Bugs- Preventing Infestations by Sue Hakala, 8/08

Our library has the two-volume set titled: *Stapeliads of Southern Africa and Madagascar* by Peter V. Bruyns, and *Stapeliads (Refreshed)* by John Pilbeam.





From left to right and top to bottom: S schinzii, Orbea lutea ssp lutea, Huernia hallii, and Huernia osculata.





Second Edition, 2015, Editors M.A. Dimmitt, P.W. Comus, and L.M. Brewer. Arizona-Sonora Desert Museum and University of California press, 575 pages. New \$35.

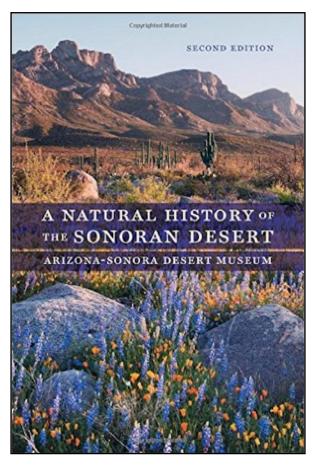
A Natural History of the Sonoran Desert is the perfect book to track down answers to questions about our desert and its' wild inhabitants. First published in 2000, this second edition includes four new chapters: Sky Islands, Sea of Cortez, Conservation Issues in the Sonoran Desert, and Pollination in the Sonoran Desert. It also has updated information, including the latest scientific names and

current species numbers of our Sonoran Desert plants and animals. Several Desert Botanical Garden (DBG) staff and volunteers assisted with updating this new edition, and former DBG volunteer and research assistant, Patricia Comus, helped edit both editions.

If you don't have the first edition and want to have the latest information about the Sonoran Desert, this is a must-have book. If you already have the first edition, should you spend

\$35 for this updated edition? It depends. I just finished a quick read of the new edition and did some comparisons with the old one. The updated information is sprinkled throughout the text (more in

some chapters, less in others). Many of the changes deal more with new taxonomic classifications, changes in scientific names and species numbers, and perhaps less with new information about life histories of the plants and animals. This is not a criticism, rather it is a testament to how complete and thorough the first edition was and remains.



Most of the general information is still current, while the scientific names and numbers and percentages have been updated. So we now learn that the saguaro is actually 75-85% water (not the 90% stated in the first edition) and that each saguaro fruit has an average of 3,500 seeds (not 2,000). The total number of described species of cacti is now 2,050 (up from 1,800) and the number of flowering plants is now 330,000 (up from 300,000). This level

of detail is probably not all that crucial to most readers. Of course, if you are a natural history book nut like me, you will certainly want to buy this new edition. There are quite a few new facts in this edition that should be of interest to general readers. For example, this new edition covers the effects of climate change on the Sonoran Desert (some plants are flowering up to two weeks earlier), warns us about the hazards to humans from agave sugar (90% free fructose) and castor beans (ricin), describes the potential benefits of Gila monster saliva (it contains a hormone that promotes the production of insulin), and gives tips on escaping Africanized bees (cover your face with shirt to protect your eyes, hold your breath and get indoors).

On another ominous note, it shows an increase in the acreage of invasive buffelgrass in Sonora from 470,000 acres, when the first edition was published 15 years ago, to five million acres today. We now know that boojums can grow up to two feet in wet years but "only" live about 100 years, most of our monsoon rain actually comes from the Pacific, not the Gulf of Mexico, and spadefoots are not really toads, can live up to 20 years, and adults can survive for almost a year on just one big meal of termites.

There is one minor change I might suggest on page 185. It says that saguaro seeds pass undigested through the white-winged dove gut intact. While

this is true for bats, thrashers, woodpeckers and cactus wrens with gentler guts, doves have powerful digestive systems and likely no saguaro seeds survive passage through their gizzards. On page 393 it correctly states that white-winged doves drop some seeds when regurgitating food to their young; so some seed is dispersed. However, for every seed they drop, they consume hundreds of others.

The four new chapters are really good but fairly short (the Sea of Cortez chapter is one and a half pages in length). The new chapter on Sky Islands has some impressive statistics. These sky islands support one third of all snake species found in the U.S. The Chiricahua Mountains alone support one third of all bird species in North America and 500 species of bees are found in the Chiricahuas and surrounding valleys. The new chapter on Conservation included the importance of natural areas to humans, citing studies that show patients heal faster if they have contact with nature; even a view of a tree through a window is beneficial.

We can be grateful to the Arizona Sonoran Desert Museum and all of the editors and contributors to this book for meticulously updating this invaluable resource. I know that I will use it often. ANTONIO RAIMONDI By Scott McMahon, *Cactaceae* collections manager at the Desert Botanical Garden

How many of you have visited another country and returned home wanting to know more about the places you have seen? Cities and states, rivers and mountains often are named in honor of people in that country's history. So too are cacti and succulents named for explorers, botanists and even members of royal families, who sometimes financed early expeditions. The names Palmer, Engelmann, Brandegee, Watson, Standley, and Gentry can be found on southwestern and Sonoran plants familiar to many of us.



Neoraimondia arequipensis in habitat by Scott McMahon.

When I was in Peru, I was able to see two spectacular plants named for Antonio Raimondi, an Italian-born Peruvian geographer and scientist. He was born in 1826 and immigrated to Peru in 1850 to become a professor of natural history. In 1856 he was one of the founding professors of the medical school at the National University of San Marcos,

founding the analytical chemistry department in 1861. Raimondi was passionate about everything his new country had to offer. He studied the geography, botany, geology, zoology, archaeology, and ethnography of Peru in a total of 18 extensive expeditions to all



Neoraimondia arequipensis forming a short shoot by Scott McMahon.

parts of the country. In 1875, his findings, a massive work, were published in *El Perú*, and republished numerous times over the next 40 years. The Raimondi Museum in Lima contains some of the collections from his journeys. Raimondi has had theaters, museums, schools, and institutes of higher learning named after him. There is a province (county) named Antonio Raymondi in the Ancash Region (state) of Peru.

As our bus traveled up and down Peru's coastal valleys we saw numerous cacti, one of the largest of which was *Neoraimondia arequipensis*. Named for the town of Arequipa in southern Peru, these cacti branch from the base, producing several massive stems up to over 30 feet in height and 16 inches thick.

N. arequipensis is not seen in the landscape here because of its sensitivity to frost, but the other species, *N. herzogiana* is growing here in a few spots in the Core Garden at the DBG. *N. herzogiana* grows in Bolivia, has a single trunk, and is more massive. Both exhibit an unusual feature in that the areoles continue to produce new spines and flowers each year, elongating over time. The areoles are axillary buds that, rather than growing out as branches, grow only slightly to form an organ called a short shoot. Normally areoles don't grow out at all in other cactus species.



This photo of Puya raimondii by Pepe Rogue gives scale to this amazing plant.

In the Parque Nacional Huascarán I saw the other namesake, *Puya raimondii* (see cover photo), the largest member of the Bromeliad family. These plants were growing at an altitude of 4,170 meters or 13,681 feet. The plants can be 10 feet tall after 40 years with a flower stalk 30 feet tall. It will produce more than 3,000 flowers and 6 million seeds after which it dies. *Puya raimondii* is listed as endangered and only a few populations exist.

Traveling is a learning experience, and as many of you know, the learning continues even after your journey is over.

The following definitions are taken from *Landscape Plants for the Arizona Desert*, a free publication available at your local library.

GENUS: One or more species of plants that share many characteristics. They usually have similar flowers and fruit. Genus is the first part of a plant's botanical name and is designated with a capital letter (and always italicized): *Mammillaria*, *Agave*, *Echinopsis*.

SPECIES: Plants that have different characteristics from other plants within the same genus. It is usually the second part of a plant's botanical name and the first letter is in lower case (and always italicized): *Mammillaria hahniana*, *Agave deserti*, *Carnegiea gigantea*.

CULTIVAR: A plant that is cultivated or developed and grown by nurseries (as opposed to occurring naturally in the wild) for its desirable characteristics. Cultivar is a combination of the words "**culti**vated **var**iety." An example: *Agave* 'Blue Glow.' Cultivar names are enclosed by single quotes.

COMMON NAME: A name that has no botanical standing. Common names are easier to spell and pronounce, but many plants have more than one common name or share the same common name, which can cause confusion about a plant's identity. Examples: barrel cactus, prickly pear.

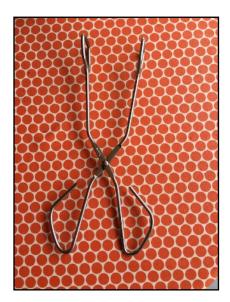


Agave 'Blue Glow' taken by Trio Nursery.

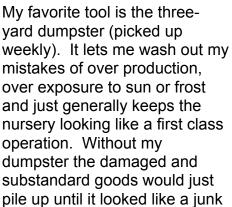
For other information about plants and their names, read the following articles previously printed in the *Central Spine*:

- •How are Plants Named? (no author), 8/99
- •How are Plants Named Part One: Why Two Names? by Leo Martin, 7/99
- •Pronunciation of Plant Names by Dylan P. Hannon, 11/98

A new monthly feature invites club members to submit their favorite tool for working with cactus and succulent plants. Contact the editor to submit yours.



My favorite tool is a pair of tongs—simple and old. They were my mother's, probably dating to the 1950's, and were originally intended for kitchen use. However, they are great for getting small cacti into pots without me or the cactus getting hurt. Deborah Robin





pile. I have become convinced that the difference between the average gardener and the master gardener is knowing when to give up on a losing situation: Scrap it and start something else. Unfortunately as I age I tend to recognize some of my mistakes from earlier years. It is strangely reassuring! Old friends are always the best. Jim Elliott, owner Arizona Cactus Sales, Chandler, AZ.

Diana Crummey, our program chair, and Mike Cone have worked very closely with the DBG to ensure Dorrance Hall is ready for us each month. Diana delivered a cake to thank the DBG team that does this for us. We are all very appreciative of the efforts they expend and the support they give.



FACEBOOK SHOP AND SWAP

Be sure to visit the Facebook CACSS Shop and Swap web site to connect with members. "I posted a desire to swap large pumice for small pumice on the site. Within 24 hours it was delivered to my house. I also posted a large clay pot for sale. It was sold the same day" Sue Hakala. Post your plant and gardening items to buy, sell or trade to members. It's free.

Material in the *Central Spine* may be reprinted by nonprofit organizations (unless such permission is expressly denied in a note accompanying the material) provided proper credit is given to the Central Arizona Cactus and Succulent Society and the author, and that one copy of the publication containing the reprinted material is sent to the editor at cacsscentralspine@gmail.com. Reproduction in whole or part by any other organization or publication without the permission of the publisher is prohibited.

Be sure to visit CACSS on the web at: <u>centralarizonacactus.org</u> the Society's web site. Facebook Central Arizona Cactus and Succulent Society

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

Wendy Barrett and I want to thank our book carriers who helped us in 2016: Jeanne Ann and Chuck Brush, Pam Edsall, Cindy Capek, Rita Gosnell, Heather and Eric Holst, and Adam Humphreys. Without them, we would not be able to display so much of our library collection at every meeting.

CACSS library has the following titles on our January 29 speaker's topic of Terrestrial *Bromeliads*:

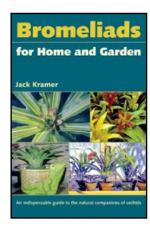
- Bromeliads for Home and Garden by Jack Kramer
- Bromeliads for the Contemporary Garden by Andrew Steens
- · Bromeliads in Color and Their Culture by Victoria Padilla
- Bromeliads in Cultivation, Volume 1 by Catherine and Robert Wilson
- Bromeliads, Tropical Air Plants by Bill Seaborn
- Air Plants: The Curious World of Tillandsias by Zenaida Sengo

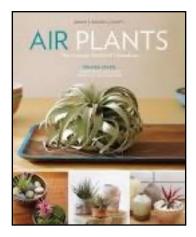
We also have a copy of the excellent book *The Bold Garden: Lessons from the Ruth Bancroft Garden* by Johanna Silver which was discussed in our last newsletter.

Our library is looking for members who would be willing to read one of our books and then do a short book review for the newsletter. We currently have a new title: *Home Gardener's Guide to Growing Desert Roses* that would be a good start. If you are interested, I will have the book at the January meeting and you will have the first checkout!

PLEASE REMEMBER: Members are allowed to have out 2 items at a time from the library for 2 months. We now have a labeled large red bin on a library table for library returns. When you return your items, be sure to put them in the bin or hand them to a librarian. Do NOT just set them on the library tables.

Please return your items in a timely manner. If there are extenuating circumstances, please contact Librarians Wendy Barrett (wbarrett@cox.net) or Nancy Mumpton (nancy.mumpton@gmail.com).





- January 29 Andy Siekkinen graduate researcher TOPIC: Terrestrial Bromeliads: A Family with Succulents Often Overlooked by the Cactus and Succulent Community
- February 26 Karen Zimmerman succulent plant propagator The Huntington Desert Collections TOPIC: Aloes on My Mind: Exploring Aloe Hybrids One Generation at a Time
- March 26 Lucas C. Majure, Ph.D. biologist of new world succulents, Desert Botanical Garden TOPIC: Systematics of the Cacti of Cuba and Hispaniola
- May 21 Evan Meyer assistant director of Mildred E. Mathias Botanical Garden at UCLA TOPIC: Conserving Plants on a Changing Planet
- June 25 Peter Breslin CACSS member TOPIC: New Tools to Save Vanishing Plants: Cutting Edge Conservation Biology Strategies for the Cactaceae
- August 27 Cliff Fielding CACSS member TOPIC: Atacama Extreme Desert, Amazing Plants
- September 24 Jon Rebman, Ph.D. curator of botany, San Diego Natural History Museum TOPIC: The Flora of Baja California Sur (with an emphasis on new botanical discoveries and succulent plants)
- October 29 Silent Auction held in Dorrance Hall at the DBG
- November 19 Panayoti Kelaidis, senior curator and director of outreach, Denver Botanical Gardens TOPIC: Cacti and Succulents from Botanical Gardens around the World



Sincoraea rafaelii flower by Andy Siekkinen.

Join Cliff for his tenth annual open garden and cactus social at 16819 S. 15th Avenue, Phoenix. There will be 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. Everyone and their guests are welcome to spend a pleasant afternoon in the warm February sun. There will be snacks and drinks. See you there. 602-625-5186









Just some of Cliff's beautiful collection. *All photos by Cliff.*

FACEBOOK By Thom Young

Still growing! The CACSS Facebook (FB) page grew over 4% in December. Our FB page now has over 1,846 members from around the world. Take the leap and join the CACSS FB page. The desert flora and fauna is alive and well in the wild, in our homes and around the world. Read on to find the many reasons for joining our FB page. The CACSS Facebook page is an open forum on cactus and succulents with a variety of commentaries sprinkled in, including requests on cactus and succulent IDs. Oh yeah, the photos are great and truly tell a colorful story.



Dana Johnson's Trichocereus species in a Talavera chicken.

In December, there were plant identification requests for six (6) succulents (non cactus) and eight (8) cacti, twelve (12) of the fourteen (14) plants were identified. Two succulents

(non cactus) were not identified as of this writing.

Everyone should get a copy of the January issue of *Phoenix Home and Garden* magazine. Tom Gatz and his garden are featured. Tom is a member of the CACSS and is well known around DBG for his volunteer efforts and treasure trove of plant knowledge.

Here are the many cacti and succulents in bloom that were posted on our December FB page: Mammillaria theresae, Ophthalmophyllum limpidum, Aloe, Adenium, Lithops, Ferocactus latispinus, Schlumbergera 'Madame Butterfly,' Senita, Kalanchoe, Neoporteria (Neochilenia) wagenknechtii, Plumeria, Caralluma, Faucaria tigrina, Delosperma, and Micranthocereus flaviflorus. The posted photos were absolutely beautiful! A secondary benefit is the assist in plant identifications.

Here is a sampling of other topics and requests from our December FB page postings:

- CACSS Holiday Party
- Hybridizer Kelly Griffin's Agave garden video tour
- A request was made to "Help me design my yard"
- Cactus and Christmas home lighting
- Growing techniques for Bursera cuttings.
- Caterpillars ID'd as the Rustic Sphinx Moth
- Desert garden design ideas
- California Bloomin' Botanic Gardens bus trip offered by Tohono Chul Park in Tucson

- Post for the online Hoya Journal
- Huge rain for parts of Arizona in December
- And much, much more... come take a look on the Central Arizona Cactus and Succulent Society's FB page



Anthony Wray's succulent photo of Titanopsis hugo-schlechteri.

To our FB members, thank you for their plant knowledge and assistance in the cactus/succulent identification as well as all of the wonderful photos posted. Each month we feature photos of a cactus and a succulent that CACSS members shared on the CACSS FB page. This month's cactus photo is Dana Johnson's

Trichocereus species in a Talavera chicken. The succulent photo of the month is from Anthony Wray, Titanopsis hugoschlechteri. Please enjoy.

Do you have questions on the FB photos? Please contact the photographer via Central Arizona Cactus and Succulent Society FB page. Thanks to all CACSS members who contributed and/or joined the CACSS FB page in December. We have room for many more CACSS members. Please take the time to become a member of the CACSS FB page. There is no charge and it is very easy to access, enjoy and participate in our FB page. You can find us on FB @ Central Arizona Cactus and Succulent Society. We would love to see your cacti and succulent photos and answer any questions you may have.

The Holidays have passed and the cool weather has settled in and the New Year is upon us. Hope all of you had wonderful holidays and all are healthy. It can only mean that the Show and Sale is upon us.

What does it mean to show your plants? Basically, it is a desire to share your favorite babies. Don't think of it as a competition, but rather that you have a plant that you have raised for more than six months and others might like to see what you have. There are three divisions, so judges will only compare plants at the same level. You are competing against others in your division. Rules and classifications are on the club website.



The show will be April 7-9, 2017. It is not possible without the volunteers that work to make it happen. Volunteer positions and times are available on the internet at centralarizonacactus.org. Click on the tab for the annual show. Volunteering for the show is a great opportunity to get to know your fellow club members and more about the plants.

Everyone! Please consider showing at least one plant and volunteering to help with the show and sale. You will be hearing more about this every month.

There will be a volunteer meeting, if you want to help, Sunday, January 29, at noon

in Farrington Hall at the DBG, to get ready and see how we are coming along. All please consider attending. If you have any questions, ask. There are no stupid questions except the one that goes unasked. If you come to the meeting just let DBG admissions know and there is no fee.

Award-winning plants from the 2016 show. Above Adromischus maculatus, Best Advanced Succulent grown by Sue Hakala and Aloe hybrid collection, Best Succulent Collection grown by Gard Roper.



Happy New Year! It is that time of new beginnings and I am pleased to inform you that we have a new and improved website. The internet address remains the same, www.centralarizonacactus.org. There is still additional design work that needs to be done to make it more



Dyckia 'Jane' by Andy Siekkinen who presents our program this month.

compelling, but all of the information that was on the old site is on our new site as a starting point. There is also one new addition. There is a new category called Research Grants which contains information on our new program initiated

by Tristan Davis to give worthy applicants grants for research on cactus and succulents.

Our new website will be a more visually interesting site, allows for new capabilities to be added and is much easier to maintain. As your current webmaster, I am very happy about this and would like to thank Brooke Biltimier, who developed the site and Nick Diomede, who provided ideas for the design.

I am pleased to inform you that Tara Richards, a new member this year recently moving from Michigan, is taking over the hospitality function at our monthly meetings from Kat Hanna. Thank you Kat and Tara. Stop by the table and say hi to Tara.

Diana Crummey, our program chair, is retiring from that position at the end of the year. It is not too soon to begin lining up programs for 2018, so I am seeking a new program chair to take on that responsibility. Diana has a big notebook full of ideas and has documented her processes so there is a good starting point to begin seeking new speakers.

Please contact me if you are interested. I'm looking forward to all of the interesting programs Diana and her team have arranged for us this year. Thank you, Diana, Lee Brownson, Chuck and Jeanne Ann Brush, Cathy Babcock, and Monte Crawford.

ARE YOU A CACTOMANIAC?

From the Desert Botanical Garden

Cactomania: 1) An intense appreciation for cacti and other desert flora; 2) Activities celebrating the wonders of cacti and other plants of the Sonoran Desert.

Cactomaniac: 1) An individual affected by cactomania; one with a thirst to learn more about desert plants; one who promotes cacti and other desert plants and joyfully shares this passion with others.

You're invited! become a registered Cactomaniac today!

Consider this: cacti are one of the most imperiled life forms on the planet. Last year, one of the oldest and most respected conservation organizations in the world, the International Union for The Conservation of Nature (IUCN), announced that the cactus family is among the top five most threatened groups of organisms on Earth, along with corals and amphibians.

For 77 years, the Desert Botanical Garden has collected, studied and displayed cacti and other desert plants for their beauty and significance, and to teach our community how to protect them.

In the 1950's the first Cactomaniacs were Garden volunteers celebrating the rich variety of Sonoran Desert plants. They collected and cultivated cactus in order to protect and preserve them for generations to come.

To celebrate them we have launched Cactomania, a year-long series of events and activities to bring people together who love and want to protect cacti.

Help the Desert Botanical Garden conserve and protect the Sonoran Desert. Go to dbg.org/cactomania watch the short video and sign up.

CACSS PROGRAM AND COMMITTEE CHAIRS 2017

Archivist/Historian: Lois Schneberger Audit Committee: Mike Gallagher

Board Nominations: Mike Cone, Nancy Mumpton and Wayne Whipple

CSSA Representative: Mike Gallagher

Donations: Jim Oravetz

Facebook Coordinators: Dan Smith and Thom Young

Fertilizer Sales: Eric Holst Holiday Party 2016: 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 Rescues: Lucy Rand
Private Plant Sales: Sue Tyrrel

Programs and Room Setup: Diana Crummey

Pumice Sales: Gard Roper Refreshments: Tara Richards Show and Sale 2017: Steve Mack

Website: Beth Kirkpatrick

Central Arizona Cactus and Succulent Society PO Box 63572 Phoenix, AZ 85082-3572

Next newsletter issue submission deadline is **February 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.