Can you believe it? The first day of spring will happen shortly after our March meeting. There's a debate over the official start of the season, 3/20 or 3/21, but our plants don’t care.

We do care, however, about our Spring Show & Sale. We’ll talk about it during our meeting. Meanwhile, see the flyer in this newsletter (p. 8), and print & share it with your friends and business contacts. Many thanks to Sarah Martin for her striking design, and to Paul Albert for his great photo.

Lastly, here’s an opportunity to support our most significant regional display of cacti & succulents:

“The UCSC Friends of the Arboretum Board is seeking up to seven new members to fill current vacant seats until August 2020. Arboretum volunteers, UCSC students and staff, and community members interested in connecting people to plants and nature are invited and encouraged to apply. The Board primarily assists Arboretum staff in friend-raising, fundraising, event planning, and docent work. Members serve two-year terms, attend ten meetings per year, actively participate in subcommittees, and contribute volunteer hours to support various Arboretum programs and events. Being a Board member is a rewarding experience, an opportunity to collaborate with others dedicated to increasing the viability and visibility of our extraordinary Botanic Garden as an invaluable community resource. All applications submitted will be reviewed and interviews will be scheduled in late March.”

More information and a link to the application is available at https://arboretum.ucsc.edu/support/associates/aa-board/index.html

Contact: Amber Burke <aburke1@ucsc.edu>

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### Save the Date!

<table>
<thead>
<tr>
<th>MBACSS Meets</th>
<th>Board Meets</th>
<th>Future Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 17, 2019</td>
<td>March 17, 2019</td>
<td>Third Sundays</td>
</tr>
<tr>
<td>Gathering @ 12:00</td>
<td>Board @ 11:00</td>
<td>Veterans of Foreign Wars, Post 1716</td>
</tr>
<tr>
<td>Potluck @ 12:30</td>
<td>welcome to attend</td>
<td>Watsonville, CA</td>
</tr>
<tr>
<td>Program @ 1:00</td>
<td></td>
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</tr>
</tbody>
</table>
Minutes of the February Board Meeting
Reported by Sharon Lucchesi

Board Members Present: Tom Karwin, Jorge Quinonez, Lidia Hernandez, Mary Cross, Sharon Lucchesi, Sarah Martin, Naomi Bloss
Absent: Gary Stubblefield, Stan Verkler
Meeting called to order by Tom Karwin

Oral Communications
Linda McNally asked to announce two UCSC Arboretum events:
- “Giving Day” on 2/27/19, in support of the South African Garden at the Arboretum
- Community Garden Tour to be held in April.

Minutes of January 20, 2019. The Board approved the January minutes as published in the February issue of On the Dry Side.

Chairpersons’ Reports
Treasurer Lidia Hernandez provided the current financial report and described current issues for discussion.
- Outstanding checks issued by MBAC&SS to vendors will be re-issued as needed, with a fee for the re-issue.
- Members who provided raffle plants will be paid $2.50 per plant.
- Some speakers are not cashing their checks in a timely manner. For now, Sarah Martin will remind them to cash their checks. We will address future problems on an individual basis, perhaps by paying speakers in cash.

Membership Chairperson Mary Cross
The Board welcomed Mary Cross as the Society’s new Membership Chairperson. She reported that MBACSS has 96 paid members, and 81 previous members who have not yet paid their 2019 dues. She will remind those via email to make their dues payment, and advise them that they will no longer receive the monthly newsletter.

Sunshine Committee Chairperson Sharon Lucchesi
Happily, she had nothing to report.

Program Chairperson Sarah Martin
- Sarah reported that for the March meeting Brian Kemble from the Ruth Bancroft Garden will speak on Puyas.
- For the April meeting, Stan Verkler will speak on his recent trip to Namibia.
- Martin recommended a flat fee of $200 for speakers. The Board approved her recommendation.

CSSA Liaison Jorge Quínónez
Jorge reported that the flyer for the CSAA 2019 convention is now available. Dates, July 17-20th in San Luis Obispo

Old Business
The Central Coast CSS invited the Society to co-host the CSSA’s 2019 Convention, but has not asked the Society to accept specific responsibilities for the event. As previously discussed, the Society will encourage members to participate on an individual basis.

New Business
Discussion of Budget as proposed, including projected operating surplus. Education Allocation Fund discussed. Past allocations were to UCSC’s Arboretum and projection screen. Discussion continued to following meeting.

Many Name Badges are still waiting on their owners. We will remind members to pick them up.

Discussion of discontinuation of printed membership directory for distribution to members, due to cost and obsolescence. Membership data could be made available online as needed. Although privacy concerns remain.

Spring Show & Sale: Still need a Show Sales Chairperson. Show entry forms are being revamped. Show Categories are being updated to reflect changes in nomenclature.

April monthly meeting falls on Easter Sunday. After discussion, the meeting will indeed take place that day.

Adjournment at 12:15
ON THE DRY SIDE

Preview of March’s Program

Puyas: Bromeliad Royalty
by Brian Kemball

The Bromeliaceae is a large and diverse family found throughout South America as well as in the southern part of North America. Many of them are very popular in horticulture, and one (the pineapple) is an important agricultural crop.

I am referring to the genus *Puya* as “royalty” among this group because the species are large (including *Puya raimondii*, the largest of all bromeliads), and their inflorescences are very showy. Most plants in the genus are found along the Andes mountain chain, from Chile and Argentina in the south to Colombia in the north, with plants found from near sea level in Chile up to the treeless heights of the Bolivian and Peruvian Andes in the case of *P. raimondii*. Blue-green and purple-black are common flower colors in *Puya*, sometimes both in the same flower, but there is quite a range of colors to be found: yellow, green, pink, white and sky-blue.

Brian Kemble has not traveled to South America to see puyas in habitat, but he has long been fascinated by them and has been on the lookout for plants in flower for several decades. He is the Curator at the Ruth Bancroft Garden in Walnut Creek, CA, where some of his photos were taken, and he is also the VP of the San Francisco Succulent and Cactus Society.

*Note: In open nomenclature “aff.” indicates that available material or evidence suggests that the proposed species is related to, has an affinity to, but is not identical to, the species with the binomial name that follows.*
CSSA News

CSSA JOURNAL NO. 3, Fall 2018
Synopsis of Selected Articles

John Jacob Lavranos
CSSA Journal Editor Tim S. Harvey offers a personal tribute to his good friend, the late John Lavranos, natural historian, linguist, plant discoverer and describer, Fellow of the CSSA (1977) and recipient of the CSSA’s Myron Kimnach lifetime achievement award, 2013. Lavranos and collaborators described over forty Aloe species and fifteen species in other genera. Harvey notes: “One aspect that sets John aside from many of his peers was his tremendous generosity, his desire to share the plant material he found with other interested parties, institutional or otherwise.”

The Echeverias of the Chillón River Valley, Lima, Peru, including three new taxa
It wasn’t so many years ago that hobbyists were unaware of Echeverias south of Ecuador. This article by Guillermo Pino and Graciela Vilcapoma Segovia introduces the following Peruvian species: Echeveria deltoidea, E. fruticosa E. chichilensis var. chichilensis, E. chichilensis var. cantaensis and E. chichilensis var. backbergii. These are compared in a table with E. andicola, a similar appearing species.

Saving the Queens
Bill Thornton describes the rescue efforts of the Tucson Cactus and Succulent Society to save as many Peniocereus greggii var. transmontanus as possible before the planned expansion of the National Gypsum Company mine north of Tucson. Most of the plants are replanted at Pima Prickly Park, a cooperative venture of the Tucson club and Pima County Parks Department.

Curator’s notes on growing cacti, part I, soils and containers
This article by Andrew Gdaniec and Olwen M. Grace is the first in a new series to be featured on cultivation. Here the authors discuss the use of four different sizes of lava rock as a substrate for cacti and succulents. Along with the lava rock in their tests, heavy-duty plastic pots were ideal for the production of strong and healthy roots.

Cacti of northwestern Peru: the CSSA field trip of August 2016, Part II
James D. Mauseth chronicles a part of the CSSA field trip to Peru and highlights the following species along with habitat descriptions: Neoraimondia arequipensis, Armatocereus procerus, Trichocereus peruvianus, Espostoa nana, Mila pugionifera, Oroya borchersii, Austrocylindropuntia floccosa, Puya raimondii, Haagocereus repens, Tillandsia latifolia, T. purpurea, etc.

Additionally, the following articles are included: “A monstrose form of Stapelia engleriana” by Joseph A. Rard, “Pushing the Limits: landscaping with cacti and succulents; Echinocereus by Leo Chance, “An illustrated field guide as a tool for conservation of cacti species in the Brazilian Chaco” by Vanessa Gabrielle Nóbrega Gomes, Wellington Santos Fava, Paulo Robson Souza, Daniela Zappi and Andréa Cardoso Araujo, “Four of the world’s tiniest succulents grow together in Central Spain” by Ray Stephenson, “Chipping and Chemical Scarification Effects on Sclerocactus glaucus Seed Germination” by Nancy D. Riley and Terry Z. Riley and “Arecesocereus, a new subgenus of Cereus” by Michael A. Wisnev.

For many years the CSSA has offered research grants to applicants whose proposals and credentials have met the criteria for the advancement of science in the field of cactus and succulents. The typical awardee is a botanist, often a doctoral candidate, whose project involves travel and field work in a specific location, of a specific genus, species or an ecological study, ethnographic work, etc., whose results will be shared with the public through one of the CSSA’s publications, namely the Journal or Haseltonia. In many cases these individuals have gone on to careers that have continued to benefit the scientific and succulent hobbyist communities. In 2018 grants were awarded to researchers from the following institutions: Arizona State University, Universidad Nacional de Córdoba (Argentina), Adigrat University (Ethiopia), Gibraltar Botanic Gardens ‘Alameda,’ and Selby Botanical Gardens. Funds for these grants are made available from CSSA show and auction sales and from generous donations from the public. Your support is critical. Join the CSSA through its website: cactusandsuccultentsociety.org

The Cactus and Succulent Society of America (CSSA) is an international educational organization with over 1900 members. The society publishes a detailed quarterly journal that contains many articles about cactus and succulents, book reviews, etc. The CSSA also supports scientific research and fieldwork and special tours.

Individual Memberships dues are $50.00 per year plus $10.00 for each additional member of the household. Send name(s) address, telephone and e-mail address with a check made payable to the CSSA for the correct amount to: CSSA, Inc., c/o Gunnar Eisel, P.O. Box 1000, Claremont, CA 91711-1000, or visit https://cssa.myshopify.com/collections/join-cssa.
Cactus

Ferocactus, Echinocactus, Carnegiea

Echinocactus is a genus of cacti in the subfamily Cactoideae. The generic name derives from the Ancient Greek “echinos” meaning “spiny,” and cactus. It and Ferocactus are the two genera of barrel cactus. Members of the genus usually have heavy spination and relatively small flowers. The fruits are copiously woolly, and this is one major distinction between Echinocactus and Ferocactus. Propagation is by seed.

Perhaps the best-known species is the golden barrel (Echinocactus grusonii) from Mexico, an easy-to-grow and widely cultivated plant. Though common in the houseplant and landscape industry, the golden barrel has become very rare in habitat.

Ferocactus is a genus of large barrel-shaped cacti, mostly with large spines and small flowers. There are about 30 species included in the genus. They are found in the southwestern United States and northwestern Mexico.

Carnegiea

The saguaro (/səˈwɑːroʊ/) (Carnegiea gigantea) is an arborescent (tree-like) cactus species in the monotypic genus Carnegiea, which can grow to be over 40 feet tall. It is native to the Sonoran Desert in Arizona, the Mexican State of Sonora, and the Whipple Mountains and Imperial County areas of California. The saguaro blossom is the state wildflower of Arizona. Its scientific name is given in honor of Andrew Carnegie. In 1994, Saguaro National Park, near Tucson, Arizona, was designated to help protect this species and its habitat.

Succulent

Aeonium (tree houseleek) is a genus of about 35 species of succulent, subtropical plants of the family Crassulaceae. Many species are popular in horticulture. The genus name comes from the ancient Greek “aionos” (ageless). While most of them are native to the Canary Islands, some are found in Madeira, Morocco, and in East Africa.

The succulent leaves are typically arranged on a basal stem, in a dense, spreading rosette. A feature that distinguishes this genus from many of its relatives is the manner in which the flowers bear free petals, and are divided into 6 or 12 sections. Each rosette produces a central inflorescence only once, and then dies back (though it will usually branch or offset to produce ensuing rosettes).

Low-growing Aeonium species are A. tabuliforme and A. smithii; large species include A. arboreum, A. valverdense and A. holochrysum.
February’s Mini-Show Winners
Reports by Jeff Brooks, Photos by Paul Albert

Astrophytum asterias
Annie Wolf

Aztekium (?)
Cindy Trousdale

Dish Garden – Mixed
Cheryl Albert

Aloe capitata v. quartziticola
Linda McNally

Aloe descoingsii
Sharon Lucchesi

Aloe ‘Christmas Carol’
Paul Albert
MBACSS Calendar for 2019

Thanks to Jeffry Brooks for selecting cacti and succulent categories for each month's Mini-Show.
Thanks to Jorge Quiñonez for gathering information for the CSSA section of the Calendar.
Thanks, also, to Jorge Quiñonez for recruiting members to provide plants for our monthly raffles. This alternative to buying plants from local nurseries is intended to increase the variety of plants in our raffles and to engage members who are active propagators to share their bounty with other members. If you would like to participate in this new way, contact Jorge!

<table>
<thead>
<tr>
<th>Month</th>
<th>Program</th>
<th>Cactus Mini-Show</th>
<th>Succulent Mini-Show</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Stephen McCabe: Succulents under threat: Poaching, fires, disease, and climate affecting Dudleyas</td>
<td>Espostoa, Cereus, Pilosocereus, Cleistocactus, Polaskia</td>
<td>Dudley</td>
</tr>
<tr>
<td>February</td>
<td>J.D. Wilker: Amazing Adromischus</td>
<td>Ariocarpus, Astrophytum, Aztekium, Discocactus</td>
<td>Aloe</td>
</tr>
<tr>
<td>March</td>
<td>Brian Kemble – Puyas: Bromeliad Royalty</td>
<td>Ferocactus, Echinocactus, Carnegiea.</td>
<td>Aeonium</td>
</tr>
<tr>
<td>April</td>
<td>MBACSS Spring Show &amp; Sale</td>
<td></td>
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<tr>
<td></td>
<td>10 San Jose Street, San Juan Bautista, CA</td>
<td></td>
<td></td>
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<tr>
<td>April</td>
<td>Stan Verkler – Visit to Namibia</td>
<td>Rebutia, Sulcorebutia, Sclerocactus</td>
<td>Echeveria, Pachyphytum, Pachyvera, Graptoveria, Graptophytum</td>
</tr>
<tr>
<td>May</td>
<td>TBA</td>
<td>Mammillaria, Melocactus</td>
<td>Gasteria, Haworthia</td>
</tr>
<tr>
<td>June</td>
<td>TBA</td>
<td>Echinopsis, Obregonia, Aztekium</td>
<td>Epiphyllum, Rhipsalis, Ceropegia, Sedum morganianum, Hatiora</td>
</tr>
<tr>
<td>July</td>
<td>TBA</td>
<td>Opuntia, Tacinga, Miquelpuntia, Cylindropuntia, Micropuntia</td>
<td>Euphorbia, Monadenium, Jathropha, Pedilanthus</td>
</tr>
<tr>
<td>August</td>
<td>Country Store</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>TBA</td>
<td>Paordia, (Notocactus), Gymnocalycium, Blossfeldia</td>
<td>Crassula, Kalanchoe</td>
</tr>
<tr>
<td>10/5–6</td>
<td>MBACSS Fall Show &amp; Sale</td>
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<td></td>
<td>10 San Jose Street, San Juan Bautista, CA</td>
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<td></td>
</tr>
<tr>
<td>October</td>
<td>TBA</td>
<td>Copiapoa, Eriosyce, Escobaria, Pereskia</td>
<td>Pachyforms (Caudiforms, Pachycaulis)</td>
</tr>
<tr>
<td>November</td>
<td>TBA</td>
<td>Best of your collection! Must be in a 6” pot or smaller!</td>
<td>Aizoaceae Family: See SucculentGuide.com for qualifying genera.</td>
</tr>
<tr>
<td>December</td>
<td>Christmas Party</td>
<td></td>
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</tbody>
</table>

Plant Raffle Provider Schedule for 2019

<table>
<thead>
<tr>
<th>JAN</th>
<th>Peter Biersdorfer (42)</th>
<th>JUL</th>
<th>Stan Verkler (30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEB</td>
<td>Gary Stubblefield (20); Sarah Martin (10)</td>
<td>AUG</td>
<td>Stan Verkler (30)</td>
</tr>
<tr>
<td>MAR</td>
<td>Jeff Brooks (30)</td>
<td>SEP</td>
<td>Mary Cross (20)</td>
</tr>
<tr>
<td>APR</td>
<td>Naomi Bloss (30)</td>
<td>OCT</td>
<td>Sharon Lucchesi (10)</td>
</tr>
<tr>
<td>MAY</td>
<td>JQ (15); Stan Verkler (20)</td>
<td>NOV</td>
<td>Jorge Quiñonez (15)</td>
</tr>
<tr>
<td>JUN</td>
<td>David Kurtz (24-30) epí</td>
<td>DEC</td>
<td>n/a</td>
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MONTEREY BAY AREA CACTUS AND SUCCULENT SOCIETY

SPRING 2019
CACTUS & SUCCULENT SHOW & SALE

Saturday, April 13
9 AM - 5 PM
&
Sunday, April 14
9 AM - 4 PM

San Juan Bautista
Community Hall
10 San Jose St

FREE Admission
FREE Parking
CSSA Calendar for 2019

1/19 Desert Forum 2019 [free to members with club badges if arrive before 9:45 a.m.]
The Huntington Library, Art Collection and Botanical Gardens
1151 Oxford Road, San Marino, 91108

4/27-28 Cactus and Succulent Society of San Jose- 49th Spring Show & Sale
Hours: 4/27 (9:00 a.m. - 5:00 p.m.); 4/28 (9:00 a.m. - 4:00 p.m.)
Peterson Middle School, 1380 Rosalia Ave, Sunnyvale, CA 94087

5/25-26 Central Coast C&SS – Annual Show & Sale 2019
Hours: 5/25 (10:00 a.m. - 5:00 p.m.); & 5/26 (10:00 a.m. - 4:00 p.m.)
Ludwick Center, 864 Santa Rosa St., San Luis Obispo, CA 93401

6/9 Fresno Cactus & Succulent Society Show & Sale
Hours: 10:00 a.m. - 4:00 p.m.
Clovis Veterans Memorial District, 808 4th St, Clovis, CA 93612, USA

6/29-30 54th CSSA Annual Show & Sale
The Huntington Library, Art Collection and Botanical Gardens
1151 Oxford Road, San Marino, CA

7/17-20 CSSA Convention 2019
San Luis Obispo, CA (Information: http://cssaconvention.com/index.html)

8/31 Huntington Succulent Symposium
Hours: 8:00 a.m. – 5:00 p.m.
The Huntington Library, Art Collections, and Botanical Gardens, 1151 Oxford Rd, San Marino, CA 91108

10/12 Bakersfield Cactus & Succulent Society Show & Sale
Hours: 10:00 a.m. — 5:00 p.m
St. Paul’s Episcopal Church, 2216 17th St, Bakersfield, CA 93301

UCSC Arboretum’s Succulents

The UCSC Arboretum’s collections include the Succulent Garden, which has been an important attraction for decades. It is prominently located near the entrance to the Arboretum, across from Norrie’s Gift & Garden Shop. The Arboretum has been developing new areas for succulent plants, which is the subject of this brief report. The first new succulent bed lies among a grouping of boulders next to Norrie’s. This bed has been growing well and is worth a visit, even at its current young age.

Two new succulent beds are in development. The Arboretum recently launched a renovation of the South Africa Garden, to include a Succulent Rock Garden. This collection of succulents from South Africa will complement the existing collections, which focus on succulent plants from coastal areas of Mexico and California. The Succulent Rock Garden is scheduled for showcasing in September of 2019.

Another new succulent bed will feature Dudleyas growing in a cliff-like setting. We will report on the specific location of this display as we learn more about these plans; the Arboretum has an impressive collection of Dudleya species, so this collection will be an substantial presentation of this native California genus.
Members Update

We are still seeking a member to volunteer as Sale Chairperson during our upcoming Spring Sale. This responsibilities of position include coordinating volunteers who (a) accept payments for items they purchase and (b) box purchases for safe transport. This assignment is active only during the two days of the Spring Sale. It could be extended to the Fall Sale, if the volunteer chooses to continue in that role. To volunteer in this role, contact any board member.

We appreciate members’ inputs to this newsletter. For your reading pleasure, here are two interesting recent articles about our favorite plants, spotted by members

‘Yanked From the Ground’: Cactus Theft is Ravaging the American Desert

Spotted by Linda McNally

Succulent Smugglers Descend on California

Spotted by Paul Albert

Photo: No comment!

On the Dry Side
Monterey Bay Area Cactus & Succulent Society
http://mbsucculent.org