

CACTUS COURIER

Newsletter of the Palomar Cactus and Succulent Society
The North San Diego County Cactus and Succulent Club

Volume 68, Number 4

April 2022

APRIL SPEAKER - PETRA CRIST

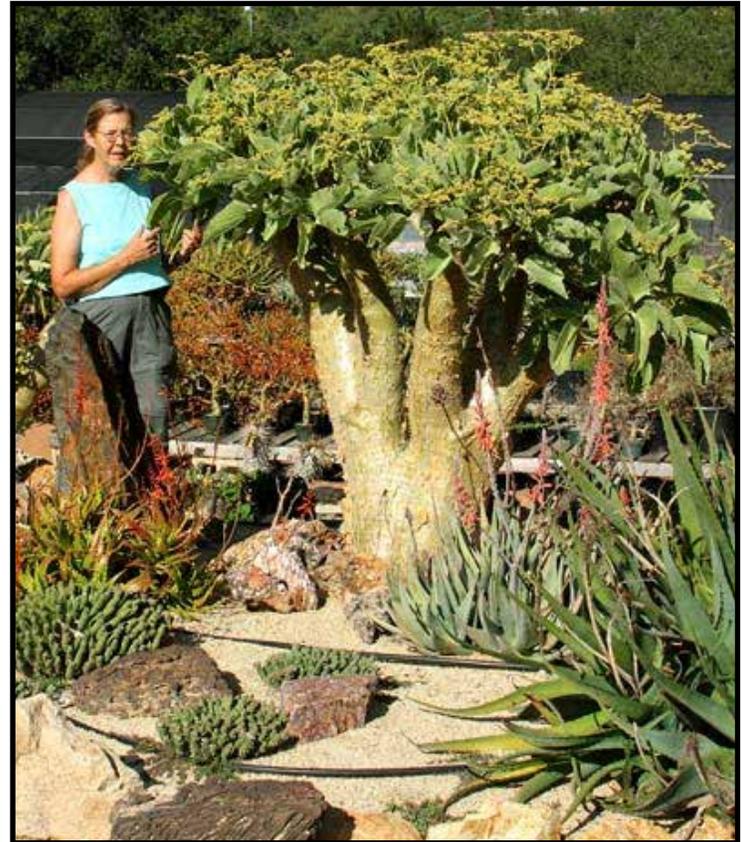
"Rainbow, a dream come true."

In the northern German town of Borcken, one of the most extraordinary castles was built by noble lords 900 years ago called the Gemen castle surrounded by a mighty forest. There also lived a young girl who enjoyed growing many plants on German windowsills. She didn't know cacti from succulents; she only knew she loved them. Fast forward many years, she left Germany in 1994 and landed in Whitter, CA where she purchased an existing nursery with rare succulents.

In 2015, with plants, dog, and husband in tow she moved to Rainbow, CA. In this presentation, we learn how a hobby went wild, slowly but steadily...how a young girl now a mature woman realized her dream: "Rainbow, a dream come true".

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Above: Petra Crist with *Cyphostemma*

Left: Rare Succulents Nursery

April 2022 Meeting Information

Fourth Saturday, April 23, 2022

11:00am - 2:45pm

Park Ave. Community Center, Escondido
(No access through the back gate.)

Masks are encouraged but not required.

Refreshments: You are invited to bring a ready-to-serve snack or dish.

The Plant of the Month is *Didierea*.

Brag Plant Table: Plants must be labeled and on the table **no later than 11:45am** to be judged. Please bring no more than 3 plants.

Exchange and Benefit Drawing Tables: Yes

Auction: Yes

Speaker: *Petra Crist / Rare Succulents*

APRIL 2022

President's Corner

BY ROBERT KOPFSTEIN

We can all generally agree what qualities make a steak rare, and there is agreement on the degrees of rarity: bloody, medium – and the French have the category "bleu" (blue) which means the center is absolutely raw, and often still cold.

I hope at this point I have not lost the vegetarians. . .

But what is it that makes a particular plant "rare"? For some plant lovers, this quality of rarity is not really important, but for curious collectors and those aficionados of plants who already have a sizable collection of the more commonly available specimens, a "rare" plant is really attractive.

Some years ago Lillian True in the Saddleback Valley Bromeliad Society gave me a definition of what constitutes a rare plant: "It is one that I do not already possess."

Yet there are some qualities that can earmark a plant as rare. Geography, growth habits, distribution, and human intervention all contribute to making any given genus or species "rare."

In California there are many plants that grow vigorously outdoors in our mild climate, for example *Crassula ovata*, to us the common jade. We use it as a low-water-use filler in our landscapes, and the specimens often reach the size of small trees. They bloom profusely in December/ January and provide us with an easy to care for, easy to root, rapidly growing succulent. In colder parts of the U.S. the jade is strictly a house plant, carefully grown and tended often in fancy pots.

These prized indoor jade plants usually suffer from not enough light and sun, and as a result are not as robust as their outdoor California cousins. Yet the prices for these plants at the Eastern nurseries are relatively hefty, as are the prices for other succulents that we might take for granted – echeverias, for example.

Today there is a brisk trade in cactus and succulents in Asia and Southeast Asia; some of it unfortunately is illegal. Stories are now emerging that even the drug cartels have discovered that dealing in plants poached from the wild can provide a very lucrative income. Because cacti are exclusively from the Americas they are considered rare plants in other parts of the world. Once I was in the conservatory of the Toulouse, France botanic garden where the guide very proudly showed me their "extensive" cactus and succulent collection. At best the specimens looked a bit on the weak side; not one of them would have taken a blue ribbon at one of our shows, but the local residents saw this collection as indeed rare.

How a plant grows may also contribute to its rarity. Geographical distribution aside, some plants are either very slow growers or they reproduce infrequently, with difficulty, or almost not at all. The monotypic giant saguaro (*Carnegiea gigantea*), emblem of Arizona, is a slow reproducer and usually does not grow much outside its native habitat. And if you do grow it you had best have lots of space: it grows to 12 meters tall. For saguaro seed to germinate the temperature must be 104 degrees Fahrenheit for four consecutive days followed immediately by a rain. And the seed has to be under a "nurse" plant like a creosote bush to provide protection for the tender seedling. Add this to a very slow growth habit -- the first "arm" appears only after 75 years – and you have an example of a rare plant.

Some plants are not reproducing naturally at all because they have lost their pollinators. On the Hawaiian island of Kauai there is a stem succulent, *Brighamia insignis*, that grows on the sheer cliffs of the mountain. Its pollinator, a native bird, is now extinct because of the coming of humans to the island. To rescue the species botanists were lowered on ropes from a helicopter with artists' brushes to hand pollinate the flowers.



Crassula ovata
Photo by Monica Mosack

APRIL 2022

President's Corner

(CONT. FROM PAGE 2)

The seed was then distributed to ex situ conservation sites (including the San Diego Botanic Garden) to be grown and propagated. As a result, *Brighamia insignis* will survive as a species, but likely in time it will go extinct in habitat, unless the plants are continually hand pollinated.

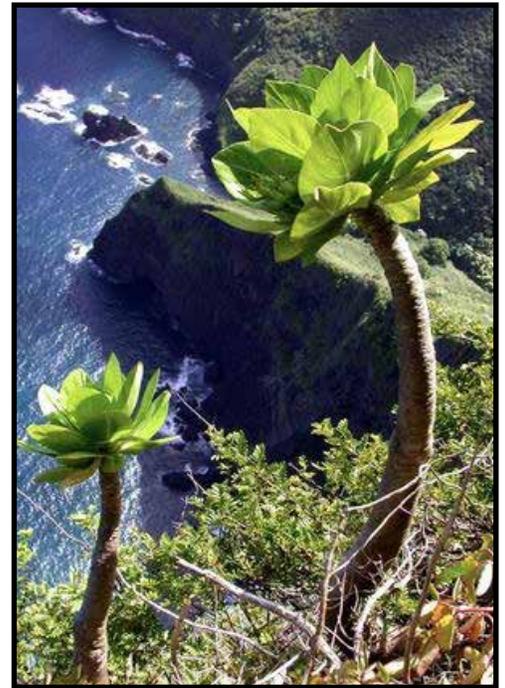
Another problem confronted by plants is having a finicky disposition. Their growing requirements are so specific that ex situ cultivation is either very difficult or nearly impossible. The boojum tree -- *Fouquieria columnaris* -- grows in northern Baja California. It does exist outside its natural habitat, but it is not widely cultivated; it is very slow growing, spiny, and planted in the ground it can grow to very large proportions. It is not really suitable for a small garden, so you seldom see it as part of someone's collection. Other plants are not easy to grow well: *Welwitschia mirabilis*, a succulent native to Namibia that can live up to 2,000 years, can be problematic in cultivation. Currently online seed is available for \$10 each. I have tried three times to grow seedlings, and three times I have failed miserably. The next time you are in Lowes garden shop don't bother to look for this plant.

Other plants have an extremely limited range in the wild. The boojums are to be found native only in the Sonoran Desert area of northern Baja. There is a member of the *Stapelia*-type stem succulents, *Duvaliandra dioscoridis*, which in habitat occupies an area of only 1,000 square meters on the island of Socotra off the coast of Yemen. This diminutive plant, listed as critically endangered, is decidedly underwhelming, but the flower is very attractive—and smelly. The *stapelia* group is pollinated by flies (no need to worry about these pollinators going extinct). In the Northern Territory of Australia there are a few species of cycads that call that area home. People have tried to grow them in other seemingly suitable locales; however these plants are so phosphorous sensitive that outside their native habitat they usually decline and die.

In the state of Hidalgo in central Mexico there is a huge manmade reservoir which inundated the habitat of the golden barrel cactus, *Echinocactus grusonii*. This beautiful plant is common in cactus and succulent gardens, but in the wild it is considered critically endangered and rare. Humans have had some really negative effects on other species of plants as well. As we saw in the February presentation at the regular PCSS meeting, the poaching of various species of *Dudleyas* has badly impacted several of the natural populations of these plants in California, Baja California, and Oregon.

On a more positive note, humans can artificially create rarity by hybridization of known species. There are now dozens of miniature aloes which are the result of crossing known species to create decorative plants small enough to be a part of any succulent lover's garden. Inter-generic crosses like the various mangaves (*manfreda* crossed with an agave) or the *dychonia* (*dyckia* crossed with *deuterochonia*) are relatively easy to obtain, but they are also not commonly seen in people's gardens. Often when a new hybrid comes on the market the cost to buy one is high due to limited availability, but with tissue culture these plants are eventually plentiful and affordable.

The quality of rareness seems to appeal to us. We revel in the strange and the unusual. In the nineteenth century showman P.T. Barnum made a fortune on this fact.



Brighamia insignis
www.usedvictoria.com



Mangave 'Falling Waters'
Photo by Monica Mosack

APRIL 2022
Garden Brags



Aloe marlothii
 Photo by Lorie Johansen



Aloe plicatilis
 Photo by Lorie Johansen



Echinocereus 'Hedgehog'
 Photo by Deborah Pearson



Astrophytum sp.
 Photo by Deborah Pearson



Photo by Irwin Lightstone

CSSA PHOTO CONTEST

To celebrate and contemplate the plants we love, the CSSA is holding a photo contest open to CSSA members and the minor children of CSSA members. For the theme of **“The Artistry of Cacti and Succulents,”** you are invited to enter up to three images.

There are two divisions; adult (16 years and older), and youth (younger than 16 years). Prizes will be awarded in each of the divisions.

α First Place: \$100.00 Gift Certificate from B&H Photo - Video, publication of the image in ‘To the Point’, and an 8 x 10 inch (approximate) print of the image.

α Second Place: \$25.00 credit toward purchase at the CSSA Seed Depot, publication of the image in ‘To the Point’, and an 8 x 10 inch (approximate) print of the image.

α Third Place: Publication of the image in ‘To the Point’, and an 8 x 10 inch (approximate) print of the image.

α Honorable Mention: Publication of the image in ‘To the Point’.

Deadline for entries is midnight PST, May 1, 2022. Contest is open to all CSSA members. Annual membership fee is \$20. As there are no entry fees, you have nothing to lose! For more information about entry and the specific contest rules please visit the CSSA website home page. http://cactusandsucculentsociety.org/photo_contest.html

APRIL

Plant of the Month

BY LORIE JOHANSEN

Didierea

Didierea is a genus of succulent flowering plants in the family Didiereaceae in honor of the French explorer and naturalist Alfred Grandidier (1836-1921).

Its habitat is a spiny forest-thicket ecosystem localized mainly on dunes composed of red sandy lime-free soil. This is one of Madagascar's most bizarre landscapes and is dominated by an entanglement of cactus-like thorny succulents, shrubs, and trees such as *Alluaudia procera*, *Pachypodium geayii*, *Delonix adansonoides*, *Euphorbia stenoclada*, *Adansonia za* and *Adansonia rubrostipa*.

This distinctive and isolated family in southwest Madagascar makes up for its small size by many features of botanical interest. Like the Cactaceae family to which it runs parallel in many ways, it resisted efforts to fit it into any system of classification. Now, however, anatomical features and the possession of the pigment beta-cyanin have sited it in Caryophyllales next to the Cactaceae, with which successful grafts have been made—an index of biochemical affinity.

Species of *Didierea* are dioecious, with male and female flowers on separate plants. The two known species are endemic to Madagascar. When a species occurs endemically, they only grow within a specific geographic location (i.e., an island, nation, country or another defined zone or habitat type). To export a single specimen from Madagascar, a CITES permit must first be applied for and approved. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an agreement to ensure that international trade in wild animals and plants doesn't threaten their survival.

Didierea trollii is one of two species in the entire genus. The species was named after Wilhelm Troll (1897-1978), a professor of botany at the University of Mainz and the founder of the botanical garden in Mainz, Germany. It is a low and slow-growing shrub with spiny, succulent stems that initially grow along the ground, bearing small deciduous green leaves when in active growth, eventually forming upright shoots that can reach heights of 10'. During growing season, shoots bear elongated, elliptical/obovate, small, deciduous green leaves. Grayish-white thorns cover the shoots. Flowers grow close to one another and are greenish white with pink stamens. It grows in Madagascar within the province of Toliara.

The second species is *D. madagascariensis*, commonly known as the octopus tree, a spiny succulent thorn-bush tree which can reach 12'-18' and appear as a spine-encrusted mass of branches. They may grow over 30 feet tall in habitat but rarely approach that in cultivation. Long, stringy, flexible leaves fall in winter and sprout in late spring or summer on brachyblast bases-- short, axillary, densely crowded branchlets. Related to other *Didierea* and *Alluaudia* species which also appear in Madagascar, these plants behave somewhat like the New World ocotillos.



Didierea trollii
Photo by Lorie Johansen



Don't Forget!

If you haven't renewed your membership by April 23rd this will be your last newsletter.

(Please see Richard Miller at the April meeting or click on the link to the membership form on page 11 of this newsletter.)

DIDIERIA

Plant of the Month

(CONT. FROM PAGE 5)

This plant is an example of convergent evolution. The New World cacti, African Euphorbias, and the Madagascar *D. madagascariensis* appear similar in appearance, being succulent, spiny, water-storing, and adapted to desert conditions. However, they are classified in separate and distinct families, sharing characteristics that have evolved independently in response to similar environmental challenges, and hence, a typical case of convergence.

Cultural Requirements: Hot full sun, excellent drainage, minimal irrigation beyond what mother nature provides. The only vulnerability is freezing temperatures. One grower on Dave's Garden reported his *Didierea* survived temps in the 20's with planting location on a slope with excellent drainage and full sun. *Didierea* take water while it is leafy during summer and should be watered less often when dormant during winter, which is the dry season in habitat.

Propagation: Cuttings of *Didierea madagascariensis* are difficult to root and seed is rarely produced in cultivation. However, areoles were grafted successfully onto rootstocks of the related species *Alluaudia procera* (easily raised from cuttings). Under warm humid conditions the graft united and formed a leafy head about 4" long in about 4 months and the rootstock was then severed near the union and re-rooted. *D. trollii* can form from semi-hardwood cuttings. Allow cut surface to callous over before planting.

I would like to close by thanking May Fong for giving me a rooted cutting of *D. trollii* in June 2021. It hasn't grown much if at all but it's alive! It's time to plant it in an area that will give it plenty of room to spread its octopus arms!



Didierea trollii
Photo by Lorie Johansen

RESOURCES:

<https://eurekamag.com/research/000/584/000584713.php>

<https://www.cactusexpert.org/world-of-succulents/the-didierea-family.html>

<https://succulent-plant.com/families/didiereaceae.html>

<https://www.cactus>

https://www.tourmadagascar.com/madagascar_trip_review/html

<https://www.cactusexpert.org/world-of-succulents/the-didierea-family.html>

<https://botany.cz/en/didierea-madagascariensis/>

Hint: Tap the last link in this list for some amazing photos of *Didierea* 'Octopus Tree'.

MARCH

Brag Plants

2022 March Brag Plant Winners

Novice Cactus

1st Karen Henderson Mammillaria nejapensis - 1

Intermediate Cactus

1st Kevin Smith Mammillaria mystax - 2

2nd Lois Walag Rhipsalis paradoxa

Advanced Cactus

1st Russel Ray Mammillaria parkinsonii - 3

2nd Robert Kopfstein Pereskia grandifolia v. violacea - 4

Novice Succulent

1st Kristie DeTar Euphorbia ferox - 7

2nd Kristie DeTar Aloe 'Delta Dawn' - 6

Intermediate Succulent

1st Charlyne Barad Crassula 'Morgan's Beauty' - 8

1st Alan Chamberlain Euphorbia caput-medusae

2nd Patti Nelson Aeonium 'Mardi Gras' - 9

2nd Lois Walag Ruschia pulvinaris - 10

3rd Don Nelson Agave / Manfreda hybrid - 11

3rd Kevin Smith Gasteria glomerata - 12

Advanced Succulent

1st Dean Karras Pelargonium xerophyton - 5

2nd Russel Ray Euphorbia mammillaris variegata - 14

3rd Russel Ray Euphorbia sp. - 13

Plant of the Month - Intermediate

1st Annie Morgan Sansevieria trifasciata 'Twisted Stem' - 15

2nd Annie Morgan Sansevieria cylindrica 'Skyline Spear' - 16

3rd Don Nelson Sansevieria sp.

Plant of the Month - Advanced

1st Wanda Mallen Sansevieria - 20

2nd Wanda Mallen Sansevieria - 21

2nd Wanda Mallen Sansevieria - 22

3rd Robert Kopfstein Sansevieria sp. cercinnea? - 23

Dish Garden - Intermediate

1st Monica Mosack Cactus dish garden - 19

2nd Brita Miller Sansevieria dish garden - 24

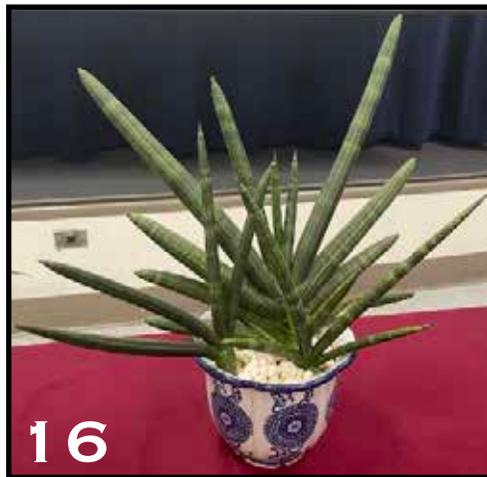
Dish Garden - Advanced

1st Dean Karras Dudleya pulverulenta, D. virens, D. brittonii - 17

2nd Moni Waiblinger Portulacaria afra, Haworthias fasciata - 18

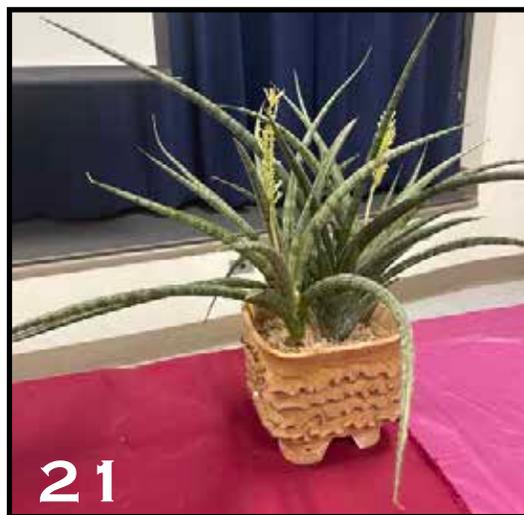


MARCH
Brag Plants
(CONT. FROM PAGE 7)



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MARCH
Brag Plants
(CONT. FROM PAGE 8)



2022 SOUTHERN CALIFORNIA EVENTS

April 23 - 24

SOUTH COAST CACTUS & SUCCULENT SOCIETY SHOW & SALE

9am - 4pm

Palos Verdes Art Center

5504 Crestridge Rd., Palos Verdes, CA

INFO: www.southcoastcss.org or 310-346-6206

April 24

CONEJO CACTUS & SUCCULENT SOCIETY PLANT SALE

9am - 4pm

558 N. Ventura Park Rd., Thousand Oaks, CA 91320

INFO: www.conejocss.com or conejocss@hotmail.com

April 24

HUNTINGTON PLANT SALE - Reservations Required

10am - 5pm

Huntington Botanical Gardens, 1151 Oxford Rd

San Marino, CA

INFO: 626-405-3504

April 30 - May 1

SUNSET CACTUS & SUCCULENT SOCIETY SHOW AND SALE

10 - 4pm

Veteran's Memorial Center - Garden Room

4117 Overland Ave., Culver City, CA

INFO: 310-822-1783

MAY 6 - 7

GATES CACTUS & SUCCULENT SOCIETY SALE

10 - 5 pm

Redlands Church of the Nazarene, 1307 E. Citrus Ave.

Redlands, CA 92374

INFO: <https://gatescactusandsucculentsociety.com/>

MAY 1

LONG BEACH CACTUS CLUB SALE

INFO: 310-845-6306

MAY 28 - 29

CENTRAL COAST CACTUS & SUCCULENT SOCIETY SHOW AND SALE

Sat. 28th 10am-5pm, Sun. 29th 10am-4pm

Nipomo High School

525 N Thompson Ave., Nipomo, CA

INFO: terrieleivers@gmail.com

JUNE 4 - 5

SAN DIEGO CACTUS & SUCCULENT SOCIETY – SUMMER SHOW & SALE

Balboa Park, Room 101, San Diego, CA

INFO: 858-382-1797

June 10 - 11

LOS ANGELES CACTUS & SUCCULENT SOCIETY – SALE

10th 6 - 8:30 pm, 11th 9 - 2:30pm

One Generation, 17400 Victory Blvd., Van Nuys, CA

INFO: www.lacactus.com

JULY 1 - 3

CSSA ANNUAL SHOW & SALE – Reservations Required

Huntington Botanical Gardens, 1151 Oxford Rd. San

Marino, CA

Plant sales start July 1st - July 3rd 10am - 5pm

Show opens July 2nd - July 3rd 10am - 5pm

INFO: 626-405-3504

JULY 22 - 23

ORANGE COUNTY CACTUS & SUCCULENT SOCIETY SUMMER SALE

Fri. July 22nd Noon - 6pm, Sat. 23rd 9am - 4pm

Anaheim United Methodist Church

1000 S. State College Bl., Anaheim, CA

INFO: 949-212-8417

AUG. 5 - 7

36TH ANNUAL INTERCITY SHOW & SALE

Reservations Required

SALE 9am-5pm daily, SHOW 6-7 and 9-5

La County Arboretum, 301 No. Baldwin Ave. Arcadia,
CA

INFO: 626-821-3222

SEPT. 3

HUNTINGTON BOTANICAL GARDENS SUCCULENT SYMPOSIUM

Reservations Required

9 - 3 pm

Huntington Botanical Gardens, 1151 Oxford Rd.

San Marino, CA

INFO: 626-405-3405

SEPT 4

LONG BEACH CACTUS CLUB ANNUAL PLANT AUCTION

INFO: 310-845-6306

OCTOBER

PALOMAR CACTUS & SUCCULENT SOCIETY FALL SHOW & SALE

TBA

INFO: EventCoordinator@PalomarCactus.org

NOV. 4 - 6

HUNTINGTON FALL PLANT SALE

Reservations Required

10 - 5pm

Huntington Botanical Gardens, 1151 Oxford Rd

San Marino, CA

INFO: 626-405-3405

Please print this event information if you would like to keep it handy. This is the only PCSS Newsletter that will contain this list of 2022 events.

CENTRAL COAST CACTUS
& SUCCULENT SOCIETY

2022 SHOW & SALE

NEW LOCATION

MAY 28&29



14TH ANNUAL SHOW & SALE

**NEW
LOCATION**

Nipomo High School
525 N Thompson Ave

Saturday, May 28 — 10 am to 5 pm
Sunday, May 29 — 10 am to 4 pm

Free admission & parking on-site
Experts available for questions
Rare plants & handmade pottery sale
Cash/check/credit cards accepted

For more details visit:
www.CentralCoastCactus.org
Central Coast Cactus
& Succulent Society

STATE AND LOCAL HEALTH GUIDELINES WILL BE OBSERVED OR EXCEEDED

PALOMAR CACTUS & SUCCULENT SOCIETY

BOARD OF DIRECTORS

Robert Kopfstein - President, Show Chair -
president@palomarcactus.org
Don Nelson - Vice-President, Program
Brita Miller - Past President, Meeting Set-Up
Teri Shusterman - Treasurer
Moni Waiblinger - Secretary
Charlyne Barad - Member at Large
Lorie Johansen - Member at Large, Guest & New Member
Ambassador, Plant of the Month Articles
David Buffington - Member at Large, Brag Points

OTHER VOLUNTEERS

Monica Mosack - Newsletter Editor
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membership@palomarcactus.org
Annie Morgan - Website and Facebook
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Dean Karras - Program, Plant Expert, Instagram
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Dennis Miller - Cash Register at Monthly Meetings
Sandy Wetzel-Smith, Bruce Barry,
Jamaye Despaigne & Ellen Pankuch - Refreshments
Barbara Raab - Librarian
Kevin Smith - Brag Table
Francis Granger - Guest & New Member Ambassador
Brian Magone - Exchange Table
Russel Ray - Photographer, Website, AV
Julie Kort - Name Tag Drawing Plants
Libbi Salvo - Monthly Meeting Set-up

Palomar Cactus & Succulent Society

The North San Diego County C & S Club!

MEMBERSHIP FORM

Click here for a printable form:

<https://www.palomarcactus.org/wp-content/uploads/2021/10/PCSS-Membership-Form-Rev-10-23-21.pdf>

Social Media

Website: www.palomarcactus.org

Instagram: [Palomar.cactus.succulent.org](https://www.instagram.com/palomarcactusandsucculentsociety)

Email: info@PalomarCactus.org

Facebook for admin notices:

[@Palomarcactusandsucculentsociety](https://www.facebook.com/palomarcactusandsucculentsociety)

Facebook group for members to post:

[Palomar Cactus and Succulent Society Group](https://www.facebook.com/palomarcactusandsucculentsociety)

2022 MEETING SCHEDULE

Date - Speaker and Topic - Plant of the Month

May 28th	Stephan Burger	Copiapoa Cacti of the Atacama Desert
June 25th	Member Festival	
July 23rd	Julian Duval	TBA Bonsai Succulents
August 27th	Picnic	
September 24th	Crystal	TBA Melocactus species, Propagation and Culture
October 22nd	TBA	TBA
November 19th	Ron Parker	TBA Chasing Centuries: Ancient Anthropogenic Agave Cultivars of AZ
December 17th	Holiday Party	