

# Espinas y Flores

BULLETIN OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY  
Affiliate of the Cactus and Succulent Society of America, Inc.

XVIII, Number 3

March 12, 1983



MARCH MEETING  
Saturday March 12, 1983  
1:30 PM  
Casa Del Prado, Room 101, Balboa Park

### PROGRAM

*Chilean Plants: See what yours may look like  
500-1000-2000 years from now!*

*by Ed and Betty Gay*

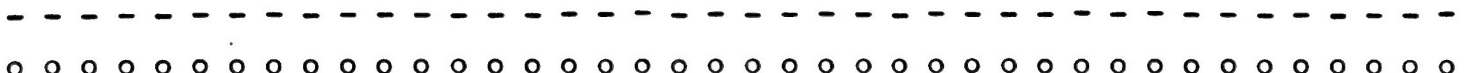
*The Gay's are explorers and photographers of excellence.  
In addition to travelling and photography, they propagate  
plants for sale in their nursery, Cactus Ranchito, in  
Tarzana, which is also a unique botanical garden.*



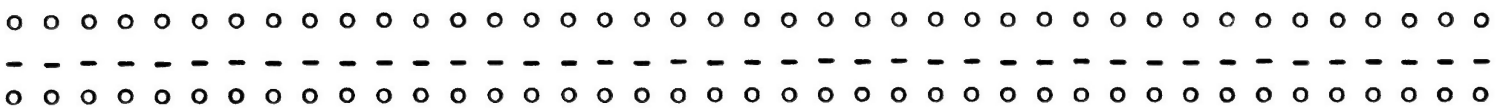
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DEADLINE FOR APRIL - - - MARCH 28, 1983 - - -



NEWS NEWS NEWS NEWS NEWS NEWS  
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Welcome to new members--

Debbie, Andrew & Thelma Cann of La Mesa -- Pauline M. DeFields of San Diego  
F.S. McPride of LaMesa -- Jack Schlotte of Jamul -- Sarah Manel of LaMesa  
Louis & Virginia Cutrona of Del Mar -- Eva Duquette of San Diego

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Brassin Table Winners for February

- 1st Dorothy Dunn for her Morgan's Beauty
- 2nd Bud Aubuchon for his Orova peruviana
- 3rd Joan Johnson for her Echinocereus viridislorus v. Davisii

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Each Saturday morning 10:30 till noon, free garden classes are held in Room 104 at Casa Del Prado, sponsored by the San Diego Botanical Garden Foundation. Come and enjoy the classes.

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ORDER NAME TAGS FROM PERLSO LEWIS at the Welcome desk. They are \$3.00 each. You will receive yours the following month.

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Joe Clements and Bud Aubuchon were elected by the board to fill the vacancies left by Warren Buckner and Dr. Leroy Phelps -- Congratulation

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In memory of her brother, Judith Hannula donated Gentry's ACAVES OF CONTINENTAL NORTH AMERICA to our library. We thank her very much.

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Those who have volunteered to bring refreshments for March are:

Phyllis Flechsig - Eileen Smith - Brunhilde Grothe - Anna Cornett - Violet Rillo  
Ethel Standish - We could use a few more contributors for this month -

Thanks in advance

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- V I P TABLE- A FREE 'sales table' plant will given to whomever sets up the VIP table for the month, beginning in March 1983
- Thank you to Bob & Beverly Kent for the display of Haworthias on the VIP table in February. We are most appreciative and it was so educational.

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NEWS FROM THE LIVING DESERT RESERVE

Saturday, April 16, 1983 - 9:00 a.m. to 3:00 p.m.  
LIVING DESERT RESERVE, 47-900 South Portola, Palm Desert, CA

Native Desert Plant Sale, featuring flowering trees, shrubs and bedding plants unknown to commercial nurseries and growers. Especially suited to the lifestyle and climate of the desert, these plants have LOW water and maintenance requirements. Desert willow, chunarosa, encelia, sweet acacia, desert lavender, verbena, desert marigold and palo verde are some of the varieties that will be for sale to benefit the native desert plant propagation programs at the Living Desert. Information sheets care and maintenance, as well as colorful books on desert plants will also be available. For further information, phone (619) 346-5694

## Succulent of the Month

### THE GENUS DUDLEYA

Dorothy Dunn

The genus Dudleya was erected by Britton and Rose in 1903 and commemorates the name of William Russell Dudley, who was Professor of Systematic Botany at Stanford University from the date of its founding until 1910.

Dudleyas belong to the very large Crassulaceae family, and are native to the far western part of the United States and Mexico. Many species which we now recognize as Dudleyas were at one time included in Echeveria. There are now about 40 recognized species in the genus (Jacobsen lists 43), plus numerous varieties, sub-species, and hybrids. The earliest known species of what is now Dudleya was described by the botanist Adrian Haworth in 1803 as a Cotyledon. The second species was described in 1811, and the third and fourth simultaneously in 1840. These are now two of our most familiar San Diego County Dudleyas, D. pulverulenta and D. lanceolata, although they were both originally described as Echeverias. Britton and Rose selected D. lanceolata as the type species of the genus, considering it to be the most representative at that time.

The genus consists of three sub-genera: Dudleya, Stylophyllum, and Hasseanthus. While Dudleyas have broad leaves and wide-open flowers, Stylophyllums (the name means "pencil-leaved") are characterized by narrower, often cylindrical leaves which are - theoretically - edible, with an acrid but delicate flavor, and their flowers are five-pointed stars, much like Sedum flowers. Stylophyllums are closely related to the Germanias and Sedums. They are native only to the coast region of California and the adjacent islands. San Pedro is approximately their northernmost boundary, while they extend south into the northern half of Baja California. Both Dudleyas and Stylophyllums possess a thick, woody, almost caudex-like stem, and their dry, dead leaves are persistent. Hasseanthus can be recognized by its bulb-like underground corm, resembling Gladiolus, and the fact that the plant generally dries up and is leafless during the summer and fall.

While the range of Dudleyas is fairly comprehensive, extending down the Pacific Coast from Oregon to the tip of Baja California, including all the adjacent islands, and inland into Nevada, Utah, and Arizona, the individual species generally have a very limited distribution. They may be found clinging to sheer, vertical cliffs with their roots in crevices, or growing under the protection of coastal scrub. Particularly striking in habitat are D. pulverulenta, which presents an almost incongruous contrast against the hot, dry, barren hillsides where it is usually found in Southern California, and D. brittonii, whose spectacular habitat is virtually restricted to the purplish cliffs of La Mision about halfway between Tijuana and Ensenada, where it literally cascades down the sheer rock walls. In Baja, it is not unusual to find three or four species growing quite close together in one locale, and some interesting hybrids have occasionally resulted from this proximity. 3

Recent outstanding additions to the genus include two Baja California species, D. pachyphytum and D. campanulata. D. pachyphytum is a very distinctive plant, native only to Cedros Island, where it grows in association with another spectacular Cedros Island endemic, Ferocactus chrysacanthus. It was first discovered in 1971, and described by Reid Moran in 1980. Other Cedros Island Dudleyas include D. acuminata and D. albiflora. D. campanulata is endemic to Punta Banda, where it has been found only on the south coast, mainly on west-facing seacliffs. Although it was just published in 1978 by Reid Moran, he believes it actually dates back to 1934 when Don Skinner presented him with a Dudleya of unknown origin. Four other Dudleyas grow on Punta Banda: D. attenuata ssp. orcuttii, a branching form of D. brittonii, D. anomala, and D. lanceolata.

In cultivation, most Dudleyas are not difficult to grow. They do quite well in either pot or open-ground situations, preferring a little shade and a well-drained soil. Although they are winter growers, they probably should be kept a little on the dry side most of the year. Most species go somewhat - to very! - dormant in the summer after their spring blooming period, and at this time some species (notably D. pulverulenta) appear almost dead, with many dry but tenacious lower leaves. When watering, try to avoid splashing the leaves, as this tends to wash away the beautiful chalky "bloom" which is so typical of many Dudleyas.

There is one serious pest which afflicts plants growing in the wild, and this is a stem-borer which can eventually kill the plant if not checked. Collected plants should be thoroughly cleaned and examined to make sure they are free of all traces of this pest. Aphids are a slightly lesser evil; they usually arrive as soon as the buds appear on the flower stalks, but are fairly effectively removed with an insecticidal soap solution or even a strong spray of water.

Propagation is by seed, division of clumps, or stem-cuttings. The latter method can be somewhat difficult as many species continue to grow and split dichotomously from a single woody (and tough) stem. While this means of propagation sometimes results in a rather drastic mutilation of the plant, most Dudleyas are quite hardy and manage to survive the operation.

#### Literature consulted:

- Brown, J.R.                    Succulents for the Amateur, pp. 89-90  
Johansen, D.A.                Contributions Toward a Monograph of the Genus  
   Dudleya (Cactus and Succulent Journal,  
   Vol. IV, nos. 2, 3, 5, 6, 7 - 1932)
- Moran, Reid:                   Dudleya campanulata, a New Species from Baja  
   California, Cactus and Succulent Journal,  
   Jan.-Feb., 1978
- Moran, Reid and               Dudleya pachyphytum of Isla Cedros, Mexico  
Benedict, Michael:            Cactus and Succulent Journal, May-June, 1981
- Skinner, Don B.               Stylophyllums (Desert Plant Life, June 1935)
- Skinner, Don B.               Stylophyllums with Flattened Leaves (Desert  
   Plant Life, August, 1935)

## Cactus-of-the-Month

*Thelocactus* (K. Sch) Br. & R.

The *Thelocacti* belong to a genus of medium-sized and more or less globular plants mainly native to the Chihuahuan Desert of North Central Mexico. The area includes the states of Texas and New Mexico in the U.S. and the Mexican states of Chihuahua, Coahuila, Nuevo Leon, Tamaulipas and San Luis Potosi. Two species are found south of the Chihuahuan Desert in desert areas of Querétaro, a variety of *Thelocactus bicolor*, *t.b. flavidispinus*, is a native of the borderlands of Texas, and another species comes from the western state of Durango. Generally they occur in a wide band from just north of Mexico City to just north of the U.S. border in Texas. In habitat they grow mostly on high, dry, rocky hilltops and sides and on grassy plains with scattered trees and shrubs.

Plant bodies come in various shapes: low and depressed, i.e. *rinconensis*, *nidulans*, *phymatothele*, *hexaedrophorus*, *fossulatus* and *buekii*; globular, as in the *conothele* varieties, *saussieri*, *mcDowellii*, *tulensis*, *heterochromus* and *leucacanthus*; and ovoid-cylindrical as in the several varieties of *T. bicolor* and *hastifer*. Most species are singlestemmed but several species, especially *tulensis*, *leucacanthus*, *hastifer* and *sanchez-mejoradai*, offset readily and prefer to grow in clusters of numerous heads. Ribs are generally low, often divided into large and spiral tubercles of 4 to 7 angles, somewhat obscuring the ribs. The spines are usually quite long and in some species brightly colored as in *T. bicolor* as in *T. bicolor* and *T. heterochromus*, and in others equally long but roughened and fibrous as in *T. nidulans* and *rinconensis*. Flowering areoles bear a felted "long areole" extension toward the plant's apex from which the flower develops only on very young areoles. The flowers are large, conspicuous, campanulate and diurnal with shining petals of creamy or glistening white to bright yellow to pink to purple red and purple, depending on species. The ovary has a few scales with naked axils, the fruit is dry, scaly and dehisces from a basal pore. The seeds are usually black, large and finely tuberculate.

There seems to be considerable disagreement among authors as to the proper classi-

fication of *Thelocactus*. Britton and Rose considered the characteristics of *Thelocacti* as intergrading with the *Coryphanthaceae*. J. Borg agreed with them. Helia Bravo, in her recent book on the *Cactaceae* of Mexico, placed them in *Echinocactanae* as did Backeberg in his *Lexicon*, along with such numerous genera as *Ferocactus*, *Echinofossulocactus*, *Echinocactus*, *Sclerocactus*, *Leuchtenbergia*, *Pediocactus*, *Astrophytum*, *Ariocarpus*, *Homalocephala*, *Neogomesia*, *Echinomastus*, *Gymnocactus*, *Strombocactus*, *Obregonia*, *Toumeyia*, *Turbinicarpus*, *Aztekium*, *Lophophora*, and *Epithelantha*. Glass and Foster, in their *Cactus and Succulent Journal* articles of September and November 1977, state that other than the tuberculate ribs, which some other genera in the *Echinocactanae* share, "all other characteristics of stem, flower, fruit and seed point to the *Echinocactane*". *Thelocacti* are closely related to *Ferocacti*, *Echinofossulocacti*, *Gymnocacti* and *Turbinicarpi* (?).

Since most *Thelocacti* are natives of the Chihuahuan Desert, it's helpful to know something about general climate and soil conditions. This great desert area is an immense plateau of high elevation the Sierra Madre Occidental and the Sierra Madre Oriental in North Central Mexico, and generally from 4000 to 6000 feet in elevation. There are no permanent rivers, and the drainage systems are deficient. Winters are usually mild and dry though they can have cold spells with snow in the northern reaches. Seventy-five percent of the 10-16" average rainfall occurs between mid-June and mid-September. It's very hot for the 3 months before the rainy season and cooler when it's raining. Middle and late fall are moderate and the plants, which have withdrawn below the surface to escape the blistering sun, have become plump and happy. Therefore, the plants which have developed in that climate on exposed and rocky hillsides can be expected to be drought resistant and tolerant of cold, particularly when kept dry in winter. Because of the coarse and stony soil, often lacking in much organic matter, and the low humidity which usually exists, *Thelocacti* are not too tolerant of much dampness or overwatering. Having examined the soil's physical aspects in many locations, I know that they will grow better in fast draining soil of 1/3 organic matter or humus and 2/3 pumice

on decomposed granite or other coarse and gritty gravels. They will tolerate the cold of Southern California, and the heat too, but they should be protected from our winter rains. I prefer to keep them dryer than many other genera. But I try to keep the soil so loose that I can still water weekly when the daily high temperatures in my greenhouse go over 100°. The *Thelocacti* growing freely in the ground are watered monthly in our cactus patch.

With a little attention to their natural preferences in humidity and soil moisture control, they will be happy and flourish. And with the interesting body shapes and the wonderful skin textures and colors, their colorful spinations and their magnificent flowers, they are a fine addition to any succulent collection.

References Used:

*The Cactaceae* - by Britton and Rose, v. IV, page 6-13

*Cactus Lexicon* - by Curt Backeberg, p. 52, 487-491

*Cacti* - by J. Borg, p. 341

*Las Cactaceas de Mexico* - by Helia Bravo-Hollis, p. 136, 141

"The Genus *Thelocactus* in the Chihuahuan Desert" - Glass and Foster, *Cactus and Succulent Journal*, v. 49, 1977, p. 213-220 and p. 245-251

Joan Johnson



FLOWER SHOW SCHEDULE

Mar. 19 & 20	San Diego Orchid Show (Al Bahr Temple - Hiway 163 & Clairmont Mesa)	Sat: 10am - 10:pm Sun: 10am - 5pm
Mar. 19 & 20	Ikebana Internat'l Exhibit (Show)	Sat & Sun: 11am - 4:30 pm
Mar. 26 & 27	Balboa park African Violet Show	Sat: 1 - 5pm Sun: 10am - 4pm
April 10	Convair Garden Club Rose Show	Sun: 1 - 5 pm

NOTICE TO THE MEMBERSHIP

The officers and board directors of the SDC&SS, during the February 1983 meeting, proposed the following changes in the SDC&SS by-laws.

ARTICLE III - MEMBERS

Section 1 - Regular Members

Change                    d. Annual dues are due and payable on January 1 of each year. Members joining the society after September 30 will have dues paid through the following year.  
 Sentence underlined to be eliminated.     

Change                    e. Regular members will be dropped from membership if annual dues remain unpaid on February 1. (At the close of the February meeting). All rights and privileges of the society are lost to regular members for non-payment of dues.  
 Eliminate words underlined and substitute with words in brackets.

Please address your constructive criticism at the March 12, 1983 regular meeting. The SDC&SS board will vote on this issue in April 1983.

To obtain a copy of the SDC&SS by-laws, request same from me.

Thank you, Frank Thrombly.

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The Board of Directors have approved a new membership dues. As of April 1, 1983 the dues for a single member will be \$8.00 per year. There will be an additional \$2.00 for each member of a household within a family.

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Congratulations to John Myers - He has published his first book of short stories. John has written articles for the Esquinas v Flores and for the Palomar Cactus and Succulent Society. Good going John.



## ZOO INSTITUTE ANNOUNCES SPRING BOTANICAL LECTURES

### Zoo "Botany for Breakfast"/Wild Animal Park "Botany for Brunch"

The San Diego Zoo's popular botanical lectures series continues this spring with an expanded program which will highlight the Wild Animal Park's plant collection; as well as the Zoo's. Each lecture focuses on plant species in current cultivation which are adaptable to domestic landscapes, and emphasizes growth characteristics, landscape uses and cultivation requirements. Speakers are selected for their recognized expertise in the subject area and will be available to answer individual questions following each presentation. Actual plant specimens may be reviewed following a self-guided tour map which also includes an appendix providing further information and suggestions on how and where to obtain propagation material. Wild Animal Park tours will be personally guided.

At the Zoo, lectures begin at 8 a.m. and 10 a.m. in the Zoo's Rondavel room. \$6.00 fee includes continental breakfast. Non-Zoo members must also pay Zoo admission. Advance reservations are required. Call 231-1515, ext. 412.

At the Wild Animal Park lectures begin at 9:30 and 12:30 at the Park's Mombasa Pavillion. \$7.50 fee includes brunch. Non-Zoo members must also pay Wild Animal Park admission. Advance registrations are required. Call 231-1515, ext. 412.

#### MARCH --

- 13 - 9:30 & 12:30 - Botany For Brunch - "Baja California Garden" -  
Jim Gibbons, Wild Animal Park Horticulturist
- 26 - 8:00 & 10:00 - Botany For Breakfast - "Australian Myrtles of the  
San Diego Zoo" - Chuck Kline, Sea World Horticulturist

#### APRIL --

- 10 - 9:30 & 12:30 - Botany For Brunch - "California Native Garden" -  
Bill Knerr, San Diego Zoo Plant Propagator
- 23 - 8:00 & 10:00 - Botany For Breakfast - "Coral Trees of the San Diego  
Zoo" - Chuck Coburn, San Diego Zoo Horticulture

#### MAY --

- 15 - 9:30 & 12:30 - Botany For Brunch - "Protea Garden" -  
Cliff Severn, Protea Specialist
- 21 - 8:00 & 10:00 - Botany For Breakfast - "Ferns at the San Diego Zoo" -  
Phyllis Bates, Past Editor of LAIFS--Fern Society  
Journal.

# SAN DIEGO CACTUS & SUCCULENT SOCIETY

## OFFICERS

President - Frank Thrombley	
16333 Roca Drive, San Diego 92128	487-5544
1st Vice President - Dr. Leroy Phelps	
4094 - 36th Street, San Diego 92104	280-9690
2nd Vice President - John Pasek	
10283 Covina Place, San Diego 92126	271-0515
Recording Secretary - Susan Clements	
42251 Sixth Street, Temecula 92390	676-6126
Treasurer - Warren Buckner	
1744 Englewood Drive, Lemon Grove 92045	469-1391
Corresponding Secretary - Robert Kent	
16206 Rostrata Hill, Poway 92064	485-6104
Immediate Past President - Rick Latimer	
5990 Lake Murray Blvd., La Mesa 92041	463-1655

## BOARD OF DIRECTORS

Dorothy Dunn, Phyllis Flechsig, Madelyn Lee  
Dr. Ronald Monroe, Joe Clements, Bud Aubuchon

## COMMITTEES

### Activities:

### Audit:

Conservation: Dr. Ronald Monroe

Education: Cacti - Frank Thrombley and Dorothy Dunn

Succulents - Rick Latimer and Dorothy Dunn

Exhibits: Bragging Table - Shirley Berry

Historian: Rick Latimer

Library: Jack Schlotte and Carl McLeod

Membership: Warren Buckner

Open House: Frank Thrombley

Plant Exchange Table: John Roth

Plants & Supplies Table: John & Verna Pasek and Gerald & Eleanor Dice

Publication: Mary Aubuchon - 427-3388

Reception: Perlso Lewis and Ethel Standish

### Regalement:

### Representative:

Balboa Park Desert Garden - John Pasek

Quail Botanical Garden - Phyllis Flechsig

S.D. Botanical Garden Foundation - Elizabeth Glover

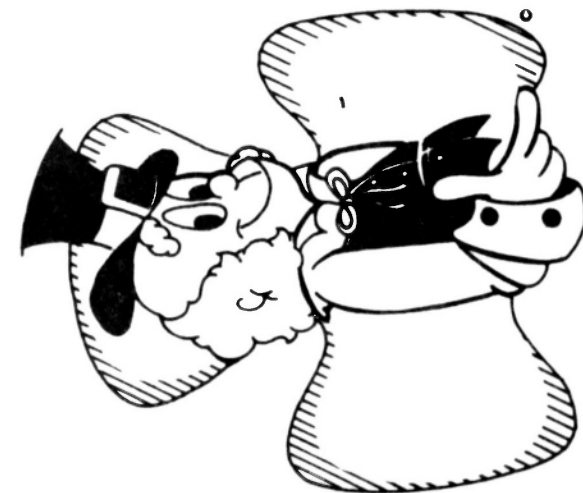
S.D. Floral Association - Verna Pasek

Liaison & Publicity: Robert Kent

### Orientation:

The San Diego Cactus & Succulent Society is open to all persons interested in Growing cacti, other succulents and exotic plants. Meetings are held the second Saturday of each month at 1:30 pm in Room 101, Casa del Prado, Balboa Park, Board of Directors meetings are held after the general meetings. Annual dues are \$7.00 per family. Single copies of Espinas y Flores are 60 cents.

Editor  
Mary Aubuchon  
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