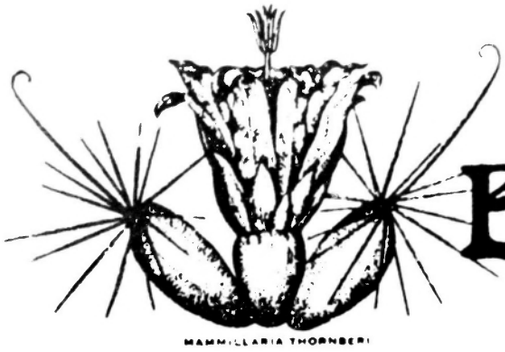

Espinas y Flores

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

Volume XXII, Number 4 April 11, 1987

APRIL MEETING

Saturday April 11, 1987

1:30 p.m.

Casa del Prado, Room 101, Balboa Park

Program: THE SUCCULENT FLORA OF THE CANARY ISLANDS

by Dr. John Tenhunen
Systems Ecology Research Group

This program will be an illustrated slide showing and featuring Aeoniums, Euphorbias and other succulents of the Canary Islands as well as other aspects of the vegetation of the islands.

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IN THIS ISSUE Page

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Deadline for the May Issue - April 25, 1987 - Thanks Mary

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NEWS NEWS NEWS - - - - - - - - - - -

Welcome to new members:

Mrs. Lynn Woodbury - Goleta, CA & Jessie Barkley - Alpine, CA

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Those who have volunteered to bring refreshments for the April Meeting:

Chloe Bajwa Melba Batchelor Evelyn Chatham Kathe Roberts Francis Richardson

Mary Ann Alexanderson B. Raczkowski Nita Cotten Reed Pierce Rose Robilotta

Fred Hutflesz Ellen & Bill Low Russel Evans Doris Rake Ethel Standish

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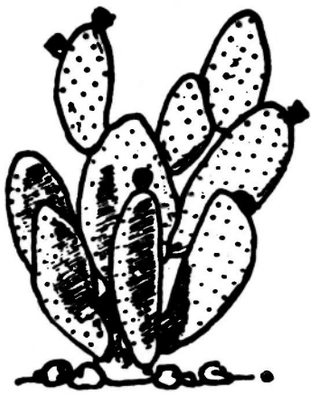
BRAGGING TABLE PLANTS



1st Place - Rudy Lime for his Fouquiera fasciculata

2nd Place - Bob Kent for his Mammillaria capensis

3rd Place - Dorothy Dunn for her Dudleya greenii "White Sprite"

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SHOWS SCHEDULED FOR APRIL AND MAY

April 11 & 12	San Diego Rose Society 60th Show (Balboa Park Club - Balboa Park)	Sat: 2pm-6:00pm	Sun:10am-5:30pm
April 25 & 26	San Diego-Imperial Co. Iris Soc. 22nd Show	Sat:11am-5:00pm	Sun:11am-5:00pm
May 10	San Diego Epiphyllum Society 17 Show		Sun:11am-5:00pm
May 16 & 17	San Diego Geranium Society 15th Show	Sat:Noon-5:00pm	Sun:10am-5:00pm

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more on Bonsai

Last month's workshop met with great success....many plants, participants, and much enthusiasm! Another workshop is scheduled thanks to Rudy Lime's generous donation of time and willingness to teach; the time will be noon until 1:00 P.m. Bring a plant and learn how to trim it for its own unique potential design.

For those who wanted the recipe for the cookies brought by Phyllis Flechsig to the January meeting, here it is:

PECAN BUTTER CRUNCH

Preheat oven to 350°; use center rack.

1/4 lb. butter
1 1/4 cup graham cracker crumbs
3 1/2 oz. (1 to 1 1/3 cup) shredded coconut
6 oz. (1 cup) semisweet chocolate morsels
6 oz. (1 cup) butterscotch morsels
1 15-oz. can Eagle Brand sweetened condensed milk
7 oz. pecan halves or pieces (2 cups)
(optional--candied cherries)

Line a 9 x 12 x 2" pan with aluminum foil. Press it in with a towel or pot holder; do not tear. Place butter in lined pan, place in warm oven until it melts; tilt pan to spread butter half way up the sides of the pan.

Sprinkle into the pan, evenly, in order: the crumbs, coconut, chocolate bits, and butterscotch bits. Pour the Eagle Brand evenly over all. Cover with pecans (place cherries at intervals, if you are using them).

Bake 5-10 minutes, reach into oven with a wide spatula, press the nuts in. Bake about 35-40 minutes altogether, till milk is a light golden color.

Cool to room temperature, invert, peel off foil, invert again on rack. Place on a cookie sheet, freeze at least 1 hour before cutting on board into 1-inch squares. Store in refrigerator.

CACTUS VISITATION

Anyone who would be interested in opening their garden to visitors at a time that is convenient to them please get in touch with Harold Richter. Phone 422-2588

Harold and Millie would like to have visitors most any time between 9am to 9pm. Please call to make sure they are home.

We will put in the newsletter anyone who would like to participate in this program.

VOLUNTEERS WANTED

The Botany Department of the San Diego Natural History Museum is looking for volunteers to assist in two curatorial projects related to succulent plants.

One project is the curation of a large photographic slide collection of cacti and succulents, donated to the Museum by the former Chairman of the Botany Department, Dr. Reid Moran, upon his retirement in 1982. This will be a very valuable reference collection, once it is properly curated. The Museum needs someone who would be willing to sort, label and refile the slides in a coherent taxonomic order (ie. agaves with agaves; the cacti and Crassulaceae organized alphabetically by genus, etc.). Last year the San Diego Cactus and Succulent Society provided the necessary funds to purchase the archival-quality storage files for these slides, and a four-drawer file cabinet in which to house them. Work was begun on the curation of the collection by a volunteer last summer, however, he was unable to complete the project.

The second project involves a large, scientifically valuable collection of herbarium specimens of Crassulaceae (mostly Mexican) collected by Dr. Moran over the past 30 years. These specimens need sorting, checking against Dr. Moran's field notebooks, and the typing of herbarium labels, in order to process them for incorporation into the main herbarium collection or distribution to other institutions.

Both of these collections represent valued resources to the Museum and to professional botanists, students and interested collectors of succulent plants. However, they are of limited use until they are properly curated. Neither task requires any expertise or specialized training in the field of botany, only an interest in succulent plants and a willingness to work on the project. Even a couple of hours per week would result in significant improvements to the two collections. Direction and guidance will be provided by the Botany Department staff. If you would be interested in working on either of these projects, and can spare a few hours during the week, please call Dr. Geoffrey Levin, Chairman of the Botany Department, or Jim Dice, the departmental assistant, at 232-3821 X229.

Succulent-of-the-Month

THE FOUQUIERIACEAE

By Dorothy Dunn

The members of the Fouquieria family, native to Mexico and the southwestern United States, apparently have no close relatives in the plant kingdom. In this respect they somewhat parallel the exotic Didieriaceae of Madagascar - in fact, Alluaudia procera (probably the most commonly cultivated of the Didieriaceae) is often referred to as the 'Madagascan Ocotillo'.

The family is composed of two genera: Fouquieria, with eleven known species, and Idria, a monotypic genus. Many taxonomists now routinely refer Idria to Fouquieria, feeling that there are not sufficient differences between the two to maintain Idria as a separate genus; however, the more fanatic devotees of Baja California flora usually cling stubbornly to Idria in the belief (sentimental rather than scientific!) that a plant so totally unique deserves its own generic status.

The genus Fouquieria was named in honor of Pierre Edward Fouquier, a professor in the Paris School of Medicine. Six of the eleven described species are generally referred to as "restricted endemics", and five of these six are known only from the general vicinity of their type localities. Six species (Fouquieria macdougalii, F. diguetii, F. burragei, F. leonilae, F. ochoteranae, and F. formosa) exhibit a dendroid, or tree-like growth habit, while three (F. splendens, F. shrevei, and F. campanulata) are typically 'ocotillo' in form. Only two species - F. fasiculata and F. purpusii - are true stem succulents. The flowers of most of the woody species (with the exception of F. burragei and F. shrevei) are red, orange-red, or salmon-pink, while the flowers of the succulent species are creamy-white. All show adaptations for several types of pollinators, including hummingbirds and nuerous insects. The fruit is an elongated capsule which may contain anywhere from three to sixteen whitish, flattened, winged seeds.

The feature which most noticeably sets the Fouquieriaceae apart from all other families of plants (with the exception of the Dideriaceae) is the method of spine production. Fouquierias (including Idria) develop two different sets of leaves, known as primary and secondary leaves. The primary leaves are deciduous with dry conditions; however, their petioles (leaf stems) remain on the branches and develop into heavy thorns. After these primary leaves have been shed, new ones never develop at the same position or on the same wood. The secondary leaves are borne in clusters in the axils of the spines and, in contrast to the primary leaves, new clusters of these secondary leaves can appear year after year at the same location from the same bud tissues.

The most familiar of the woody Fouquierias is undoubtedly F. splendens, the 'ocotillo' of our southwestern deserts. It appears further north than any other species, has the widest geographical distribution, and is one of the few species which can tolerate light frosts and snow. It can reach a height of 20 feet, and may have anywhere from 3 to 100 branches. The specific name splendens means "gleaming" and refers to the brilliant red flowers. F. campanulata is quite a variable species and ranges through the central Mexican highlands, growing at elevations of 4,000 to 6,500 feet. It also receives some snow and light frosts in its native habitat. F. shrevei is restricted entirely to gypsum soils in the Chihuahuan Desert; its type locality is Coahuila, an area of very low rainfall.

The more tree-like species include two Baja California species which are fairly well-known, and four mainland Mexican species which are still virtually unknown in cultivation. F. diguetii ('Palo Adán') is a shrub or small tree (to 25 feet tall) which occurs from about 20 miles north of Punta Prieta in Baja California south to Cabo San Lucas, reaching its maximum size in the Cape Region. Its growth form varies considerably throughout its range, and in mid-peninsula where it grows together with F. splendens some interesting intermediate forms have been observed. It flowers throughout the year, most prolifically after rains. F. burragei is known only from southern Baja California (from Mulegé south to La Paz, and up into the Sierra de la Giganta range). Vegetatively it is almost indistinguishable from F. diguetii, although it usually does not get as tall. The flowers are white. F. macdougalii, native to Sonora, Sinaloa, and Chihuahua, is a frost-tender species which forms a small tree to 25 feet, with flowers similar to those of F. diguetii. F. leonilae, F. ochoteranae, and F. formosa are little-known mainland Mexican species, with F. formosa having the widest geographical distribution.

Probably the two species of most interest to collectors of unusual plants are the two definitely succulent species, F. fasiculata and F. purpusii. F. fasiculata, the 'arbol de barril' ("Barrel Tree") is the type species of the genus and is known only from the mountainous regions of Hidalgo. It can reach a height of six feet, and produces its clusters of white flowers principally in February and March. Although it was first collected in 1803 it was not recollected until 1942. F. purpusii was discovered in 1907 and is still known only from three localities in Puebla and Oaxaca. It is closely related to F. fasiculata but is far less common.

Idria (or Fouquieria) columnaris, the fabled 'cirio' or "Boojum Tree" of central Baja California is the most specialized species in the family, and is the third of the true stem succulents. Its form is unique, often bizarre, and totally unmistakable. In a peninsula filled with "weirdos" of the plant kingdom, it is easily the most distinctive of the lot. According to Robert Humphrey in "The Boojum and its Home" (1974): "Idria occurs naturally only in one region of the world, the Central Desert of

Baja California and one small range of mountains adjacent to the Gulf of California 75 miles to the east in the state of Sonora. It is thus restricted not only to the Sonoran Desert, but to a limited portion of that desert." Scattered specimens first appear a few miles south of El Rosario and in mid-peninsula they sometimes form virtual forests in association with the cardón (Pachycereus pringlei). The Las Tres Virgenes volcano region represents the extreme southern extension of their geographic range.

The earliest common name for Idria columnaris was 'milapá', used by the Cochimí Indians. The later native name 'cirio', still in use, was first applied by the Jesuit padres, to whom the characteristic appearance of the plant suggested a 'cirio' or taper. The tallest known specimen on record measures 81 feet in height and is located in Montevideo Canyon in central Baja. Like all members of the Fouquieriaceae, plants may leaf out within 72 hours of a rain and when they become too dry the leaves turn yellow and fall. This cycle can be repeated several times during a year. The flowers are creamy-white, very aromatic, and attract a variety of insects.

Aphids are the principal pests on Fouquierias and Idrias, both in the wild and in cultivation. White flies can also be a problem in cultivation. These are not indoor or greenhouse plants - they are happiest and healthiest when grown outside in full sun, with plenty of air circulation. When in leaf and growing they appreciate generous watering. They are generally grown from seed but, according to a few experts, at least some of the species can be grown from cuttings.

In the wild these plants constitute an integral and essential part of the overall landscape, and some of the (obtainable!) species make interesting and unusual additions to cultivated desert gardens.

Literature consulted:

Coyle, J. and Roberts, N.C. — A Field Guide to the Common and Interesting Plants of Baja California

Henrickson, James: — An Introduction to the Fouquieriaceae (CSSA Journal, vol. 41, pp. 97-105)

Leaf Production and Flowering in Ocotillos (CSSA Journal, vol. 49, pp. 133-137)

The Succulent Fouquierias (CSSA Journal, vol. 41, pp. 178-184)

Humphrey, Robert R. — The Boojum and its Home (1974)

Kimnach, Myron: — Cultivation of Fouquieriaceae (CSSA Journal, Vol. 42, p. 183)

Nash, George V. — A Revision of the Family Fouquieriaceae (CSSA Journal, vol. 28, pp. 87-91)

Shreve, F. and Wiggins, I. — Vegetation and Flora of the Sonoran Desert (vol. 2, pp. 930-932)

Standley, Paul C. — Trees and Shrubs of Mexico (vol. 1, pp. 828-832)

CACTUS OF THE MONTH

REBUTIA

by Phyllis Flechsig

Small, attractive, free-flowering plants that will fit in a limited space--the Rebutias are deservedly popular. Add to that the ease of growing most of them, and it can readily be seen why they are favorites with many cactus growers.

The first named Rebutia was described by Karl Schumann in 1895: Rebutia minuscula. He named the genus for a French cactus dealer, P. Rebut. Later on, other botanists described the closely related genera Aylostera, Digitorebutia, and Mediolobivia; recent workers have lumped these under Rebutia, and by now more than 100 more-or-less valid species of Rebutia have been named. In addition, there are innumerable invalid names, horticultural names, and varieties. As you can see, the result is a good deal of confusion in their nomenclature, but even so there are many well known species for us to grow. Do not confuse this group with Sulcorebutia, whose plants are superficially similar but are thought not to be closely related to Rebutia.

All Rebutias are dwarf cacti, globular or cylindrical, producing offshoots from the base. Spines vary a great deal, from minute to long bristles, but hard, sharp spines do not occur. Flowers are borne in a ring around the base of a plant. Colors range from near white (uncommon) through yellow and orange to red or lavender. A few species, especially in the R. pygmaea group, have two-toned flowers in lovely shades of pink or salmon. Most Rebutias have small tubercles, arranged more or less into shallow ribs.

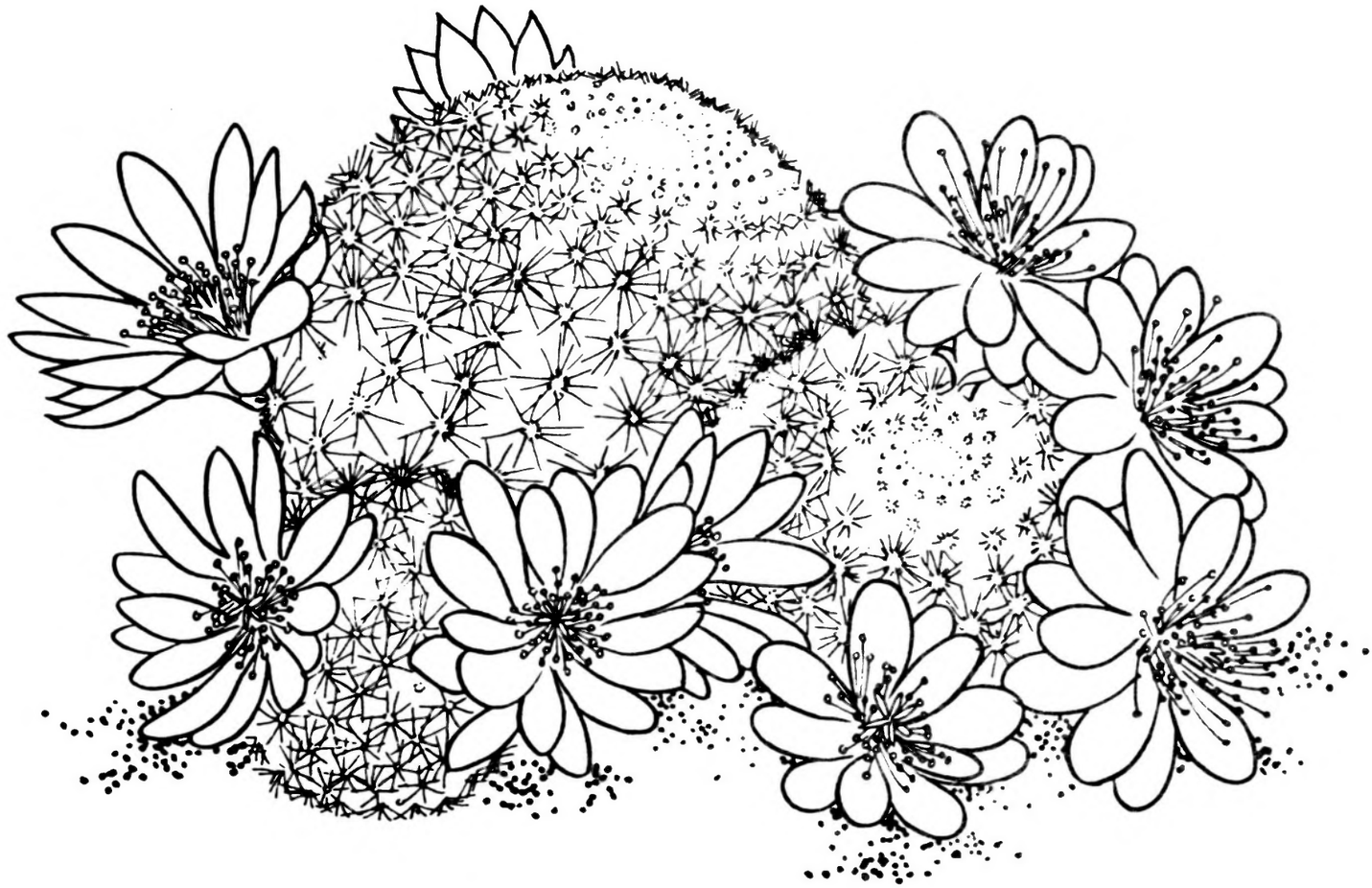
Culture is easy for most Rebutias, but they are definitely pot plants here, and are apt to disappear (or be eaten by garden pests) if put in the ground. They will take winter cold if they are dry, as they are native to high altitudes of the east slope of the Andes, growing there from about 5,000 to 13,000 feet above sea level, from Bolivia to northwest Argentina. They come from grasslands, not hot deserts, and need some shade. Many are self-fertile, and are easy to grow from seed, blooming while quite young; but seed must be very fresh. Propagation is also easy from offshoots, which usually detach easily.

Choice kinds to grow are, for example, R. heliosa, a lovely plant with tiny spines and orange flowers; it is less easy to grow than most others, however; the plant body should not ever get wet. Other choice ones: R. marsoneri, whose yellow flowers begin to bloom as early as January; R. kupperiana, with robust brown spines and large bright red flowers; R. violaciflora, with pink flowers; R. krainziana, with prominent white areoles, minute white spines, and large red flowers; and R. narvaecense, with pink and white flowers.

Chief pests to watch out for are mealybugs and spider mites. Mite damage makes the skin of a plant look tan and hard. Drench plants' roots annually with a systemic insecticide, or spray with insecticidal soap from time to time.

LITERATURE CONSULTED

Backeberg, C. 1977. Cactus Lexicon. Blandford: London.
Cullmann, W., E. Goetz, and G. Groener. 1986. The Encyclopedia of Cacti. Alphabooks: England.
Fearn, B., and L. Pearcy. 1981. The Genus Rebutia. 1895-1981. Abbey Brook Cactus Nursery: England.



If you need a ride to our Club meetings or would like to share a ride, please give your name, phone number, and the area in which you live to our President, Martin Mooney before the next meeting and he will try to match you up with someone in your area.

San Diego Cactus & Succulent Society

Bus Trip To
Anza-Borrego Desert State Park

25 April 1987

$11.00 Each

7:00 AM Depart parking lot (south) back of organ pavilon, Balboa Park

9:00 AM Arrive Anza-Borrego Desert State Park headquarters

11:00 AM Depart for Borrego Palm Canyon Campground

11:30 AM Arrive Palm Canyon; Lunch, take a self-guided nature trail to a small picturesque waterfall surrounded by California fan palms. 1.75 miles round trip, fairly easy going, will take about 2 hours to complete.

2:00 PM Depart for Yaqui Pass Primitive Camp

2:30 PM Arrive Yaqui Pass; Take a self-guided nature trail. You will have an opportunity to touch listen to, and smell, as well as see many unique and fascinating desert plants and animals. About 1 mile round trip, easy going will take about 1 hour to complete.

4:00 PM Depart for San Diego

6:00 PM Arrive parking lot back of organ pavilon

Some plants and animals native to the park you MAY or MAY NOT see; Ferocactus acanthodes, Agave deserti, Dudleya saxosa, Euphorbia eriantha, melanadenia, Fouquieria splendens, Mammillaria dioica, tetrancistra, Opuntia acanthocarpa v. ganderi, basilaris, bigelovii, chlorotica, echinocarpa, phaeacantha v. discata, ramosissima, Washingtonia filifera, Yucca schidigera, whipplei. Bighorn sheep, kangaroo rat, antelope, ground squirrels, fox, coyote, jack rabbit, ring tail cat, bobcat, lion mule deer, more than 150 varieties of birds, scorpions, tarantulas and RATTLESNAKES.

Bring what ever it is you wont to drink, LOTS OF IT, your lunch, a hat and good walking shoes.

Our route will be out highway 8 to 67 and Ramona, 78 to Santa Ysabel, 79 to S-22 to the park. Comming back by way of S-3 to Julian, 79 to 8 and San Diego.

Bob Kent will be the Botanical guide

BUS CAPTAIN
Mitch Bahr
4945 Diane Court
San Diego, Ca. 92117
571-0912

Please insert in the APRIL newsletter.

PHOTO OPPORTUNITY/WORKSHOP APRIL 18th at 1:00p.m.

Sean Minogue will be hosting a photo opportunity and botanical photography workshop at his home in National City, on Saturday, April 18th at 1:00 p.m. The event is open to members of the San Diego Epiphyllum Society, San Diego Cactus and Succulent Society and the San Diego chapter of the U.C. Extension Master Gardeners.

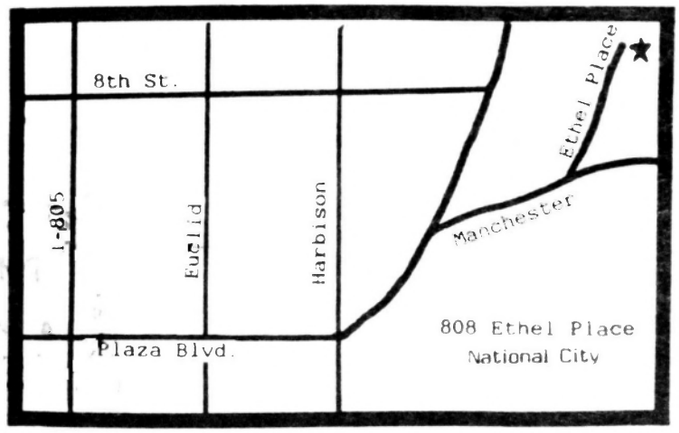
The purpose of the workshop will be to offer an introduction to set-up, lighting and composition of plant and floral studies. Instuction and demonstartions will be given by noted art photographer Joseph Janes.

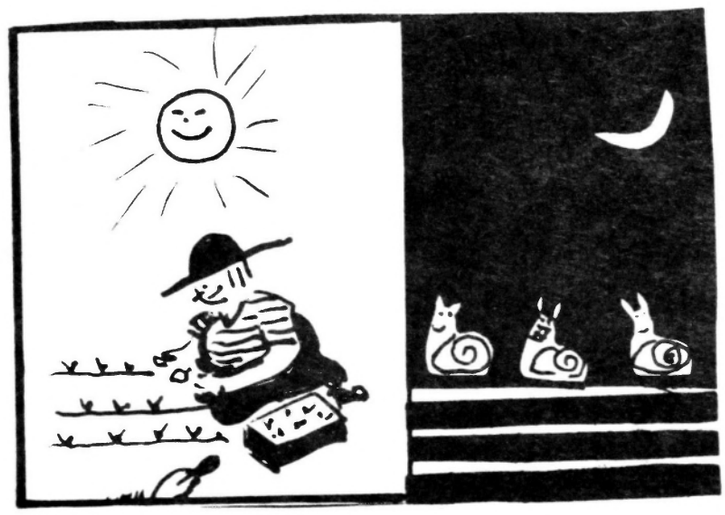
Along with John Noble of Noble Design and Set Construction, Mr. Janes will help participants to combine their favorite plants and flowers into beautiful photographs. Noble Design will supply backdrops, pedistals, fabrics and some lighting equipment.

Those attending should bring a camera (with or without flash) and plenty of film. They should also bring <u>any</u> plants or blossoms they would like to photograph.

For more information please call:
Sean Minogue, 475-4478

Top of hill.
End of cul-de-sac.
Map not to scale,
some streets omitted.





SAN DIEGO CACTUS & SUCCULENT SOCIETY

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Vice President - Bud Aubuchon
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Reception: Perlso Lewis and Ethel Standish
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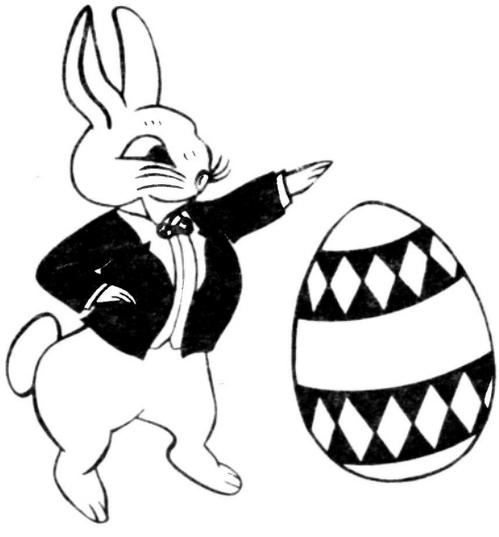
Representatives:
Balboa Park Desert Garden - John Pasek
Quail Botanical Garden - [illegible]
S.D. Botanical Garden F[illegible]abeth Glover
S.D. Floral Association - [illegible]
Liaison & Publicity: Cathy & Sandy Frost
Program: Joan Johnson
Jim Dice
Joe Clements

The San Diego Cactus & Succlulent 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 p.m. in Room 101, Casa del Prado, Balboa Park. Board of Directors meetings are held after the general meetings. Annual dues are $8.00 per single member per year. $2.00 for each additional member of a household within a family. Single copies of Espinas y Flores are 60c.

Editor
Mary Aubuchon
1058 5th Avenue
Chula Vista, CA 92011



FIRST CLASS

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