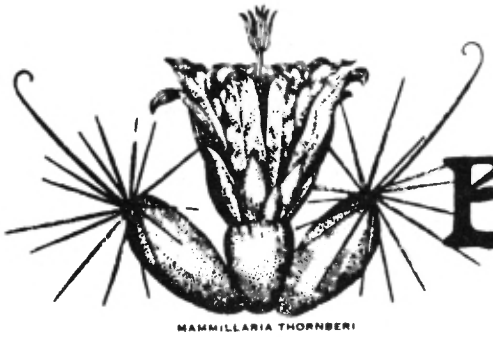


Espinas y Flores

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

Vol. XIV, No. 5. May, 1979

This month we are fortunate enough to have, not one, but two fine programs planned. The first, a special program sponsored jointly by the San Diego Cactus and Succulent Society and the Palomar Cactus and Succulent Society, is to be held:

Friday, May 4th, 1979
7:30 pm
Auditorium, San Diego Natural History Museum
(directly across Village Place from Casa del Prado)

This very special program will be a slide presentation and talk on succulents of the Canary Islands and also cacti and succulents of the Exotic Collection by Brian and Sally Lamb. Brian Lamb has authored numerous books and publications on succulent plants and is a director of the Exotic Collection, a large private botanical garden containing over 9,000 species of cacti and other succulent plants, in Worthing, Sussex, England. This promises to be a program no succulent enthusiast will want to miss.

Our regularly scheduled May meeting will be held:

Saturday, May 12th, 1979
1:30 pm
Casa del Prado, Room 101, Balboa Park

Panel Discussion:

The Cultivation of Cacti and Succulents

The program will consist of a panel discussion and question and answer session on the cultivation of succulent plants, conducted by some of our more knowledgeable members. In the past these sessions have been extremely helpful to many of us, and great fun as well. So bring along all your questions and fire away.

In This Issue . . . . . Page

THE AGAVES OF BAJA CALIFORNIA

As a special offer to our members, SDC&SS is offering the recently published monograph, *The Agaves of Baja California* by H.S. Gentry (see *Espinas y Flores* 14(3): 5 (March) or the latest issue of the *Cactus and Succulent Journal* 51(2): 62.), at the discount price of $7.00. If you would like to order a copy of this publication, please bring your check or money to the May meeting, or mail to:

Joan Johnson
3560 Lake Garden Drive
Fallbrook, CA 92028

MAKE CHECKS PAYABLE TO SDC&SS

Orders are restricted to local members (you must be able to pick the books up at one of our meetings — they will not be mailed) and will be accepted until May 14th, so don't delay.

CACTUS-OF-THE-MONTH

Buiningia

Dr. Ronald E. Monroe

The genus Buiningia was erected by Franz Buxbaum in 1971 when he noted various conspicuous divergences between Coleocephalocereus aureus (Ritter, 1968) and other members of that genus; the plants are named after A.F.H. Buining who later described one additional species and two varieties (Buining, 1971). Backeberg (1977) recognized only three species and two varieties; the last species which was described being B. purpurea (Buining and Brederoo, 1973). Thus, the plants belong to a small group which were only very recently characterized and it is quite possible that new discoveries await formal description.

The plants are low to medium-growing cerei (40 cm to 87 cm high) found growing on rocks in humus-filled depressions at rather low elevations (350-400 m) northeast of Minas Geraes, Brazil.

These cacti are caespitose and some branches may become prostrate, but most are erect. The ribs are 10-18 in number, straight and somewhat notched at the areoles. The spines are dense and long (to 7 cm long in B. purpurea) and often brilliantly-colored. Mature plants develop a unilateral cephalium of dense wool and thin, long bristles from which the flowers arise.

The flowers are not large or showy (ca.2.5-3.5 cm long) and usually greenish-yellow in color (except for B. purpurea which has purplish-red flowers).

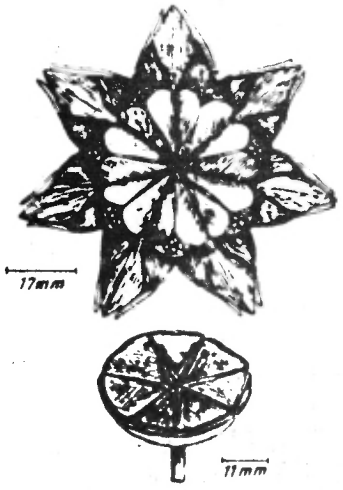
The smallest member of the genus is B. brevicylindrica (30 cm high), the tallest is B. purpurea (87 cm high) and the one with the prettiest spines is B. aurea (golden-yellow).

Like all cacti from the Minas Geraes area of Brazil, these plants prefer rather hot and humid environments and they should be protected from cold nights as they are not frost-hardy. A standard potting mix of supersoil-sand (1:1) is sufficient and the plants should not be allowed to completely dry out (water added once a week in the winter and twice-weekly in the summer is ideal providing that they are maintained in full sun in a greenhouse). During the growing season they should be fed a well-balanced fertilizer (Stern's Miracid®) twice monthly; however, more mature plants should be fed only sparingly on a low nitrogen-containing fertilizer (2-10-10, for example).

Propagation is via seed or from rooted cuttings and the usual pests can be controlled by spraying with Cygon .2E®.

References Cited

Buining, A.F.H. 1971. Krainz die Kakteen, CIV/1, June.
Buining, A.F.H. and A. J. Brederoo. 1973. Kakt. und Sukk. 24:121-123.
Backeberg, K. 1977. Cactus Lexicon. Blanford Press, Ltd., England.
Ritter, F. 1968. K.u.a.S. 19:158-160.



Diplosoma sp. Below: capsule closed. Above: wetted and open. ELISABETH JUNG.

SUCCULENT-OF-THE-MONTH

Flowering Carpet Mesembs

Rick Latimer

The order Centrospermae contains several families that have succulent members-the Cactaceae, Chenopodiaceae, Didiereaceae, Portulaceae, and the Mesembryanthemaceae. The red and yellow colors found in the flowers of this order are not the normal anthocyanins, but are caused by a special class of them called betalains. Two dated names for this family are Aizoaceae and Ficoidaceae. 99% of all Mesembs are indigenous to South Africa. The exceptions are a few species that have somehow gotten into California, Chile, the Arabian peninsula, the Mediterranean, Australia, and a few Atlantic islands. The family is divided up into four sub-families-Mesembryanthemoidea, Hymenogynoidea, Caryotophoroideae, and Ruschioideae. Herre includes 125 genera in this family, of which only 28 are not succulents of this month. Last year we Mesembs I=Winter Stones (e. g. Conophytum) and Mesembs II=Summer Stones (e. g. Lithops). In November we will have Mesembs IV= Shrubby Mesembs (e. g. Faucaria). Obviously there are simply too many genera this month to list them all. However, I do not expect the plant table filled up, since most are not grown. The succulents of this month are those Mesembs that are either grown more for their flowers or their ability to carpet an area (and prevent erosion) or both. Not too many of them are ever grown in a pot!

Contrary to the majority of the capsules of the flowering plants, those of the Mesembs open when wetted and close again when dried. The seeds are then shed only on rainy days, when they will germinate rapidly. During the dry periods, the seed capsules may remain firmly closed for years. In Cacti we note that fruits split open during the first dry season only and the seeds drop into cracks in the ground. Cacti do not germinate as rapidly.

Paul Hermann called the first Mesemb species Ficoides seu Ficus Aizoides Africana, because of the resemblance of their fruit to that of the genus Opuntia, around 1685. Among the first of the family to be named with "modern" terminology was Mesembryanthemum (Carpobrotus) edule. This genus is probably the first of this family that anyone encounters, as it is commonly seen in backyards and on highway embankments. The genus name derives from the Greek words 'karpos'=fruits and 'brota'=edible things.

Glottiphyllum derives from the Greek words 'glota'=tongue and 'phyllum'=leaf. G. linguiforma (Latin for tongue shaped) is an interesting species with yellow flowers.

I never really knew why "ice plants" were called that until I saw Gasoul (=Mesembryanthemum =Cryptophyum) crystalinum. This plant has water pockets on the outside of the stems, which look like ice crystals in the

Conicosia pugioniformis
Flower section & Ovary

sun. This plant has managed to take over certain areas along our beaches, all the way down Baja. This annual is considered choice by some and a weed by others.

Another crystalline annual is Dorotheanthus gramineus. The plants are not nearly so invasive and the flowers along with D.-bellidiformis are much showier. Colors of flowers can be white, pink orange, or red. A common name is Livingston Daisy.

Perhaps the most floriferous are species of the genera Lampranthus. The name means either bright or shinning flower, indeed they can hurt the eyes. Flowers are not coarse or separate as in Carpobrotus, but are massed together to form a continuous carpet. Also the stems and leaves are not as coarse as in Carpbrotus. Flowers can be white, yellow, orange, red, purple, magenta, lavender, or pink.

Another eye-blinder is Oscularia deltoides. The genus name means'a collection of little mouths'. The attractive bluish stems have succulent leaves similar to those of Faucaria.

Another common genus with textured leaves is Delosperma. This name means visible seed. Delosperma echinatum has dull white flowers and leaves with ~~tentacle-like~~ short, separate hairs.

A list of some rather obscure plants with attractive flowers are: Amoebophyllum angustum, Carpanthus pomeridiana, Conicosia pugioniformis, Caryotophora skiatophytoides, Cylindrophyllum tugwelliae, Eurystigma clavata, Herrea gydouwensis, Opophytum aquosum, Spalmanthus calycinus, and Vanzijlia annulata. Say that list fast ten times! A few wierd looking plants are Halenbergia hypertrophicum, Hydrodea sarcocalycantha (a halophyte), and Psilocaulon arenosum. Among the unusual would be listed Mestoklema tuberosum (ISI list this year) with, of course tuberous roots, long branches, and orange flowers; and Jensenobotrya lossowiana with branches that reach 100-200 years old in nature.

REFERENCES:

Herre, Hans, The Genera of the Mesembryanthemaceae.

Jacobsen, Hermann, A Handbook of Succulent Plants, V.III.

Rauh, Werner, "The Didiereaceae" CSSA Journal and Ashingtonia.

Storms, Ed, Growing the Mesembs.

Sunset Western Garden Book.

Wanted:Several Speakers with five to thirty slides. Object:To have a future program with more than one speaker and allow those members with just a few slides to show off their beauties. Must have sufficient response for successful program and to get idea of possible date of above projected program. Already have one taker, so lets add to first response. Slides will be shown from Society slide projector. Contact the Program Chairman=First Vice President=Rick Latimer-463-1655.

ANNUAL SHOW AND PLANT SALE

Plans for this year's Annual Show and Plant Sale, to be held June 2nd and 3rd, are proceeding on schedule, under the capable direction of Chairman Floyd Gable.

Awards for this year's show will be presented in the following categories:

Div. Ia — Indiv. Potted Cactus (Phillip Corliss Perpetual Plaque)

Div. Ib — Indiv. Potted Succulent (Ruby Falk Perpetual Plaque)

Div. II — Indiv. Grafted Plant

Div. III — Indiv. Crested or Monstrose Plant

Div. IV — Indiv. Crested or Monstrose Plant (Grafted)

Div. V — Bonsai or Caudiciform Plant

Div. VIa — Planters (rooted material): Dish Garden

Div. VIb — Planters (rooted material): Interesting Container

Div. VII — Hanging Plants

Div. VIII — Display of Miniature Plants

Best Educational Exhibit (CSSA Award)

Most Artistic Exhibit (Walter and Hazel Scott Perpetual Plaque)

Best Exhibit (Reuben Vaughan Perpetual Plaque)

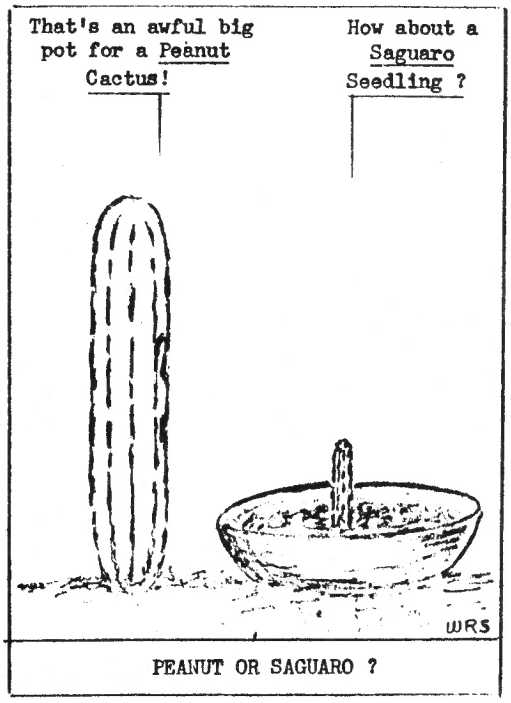
If you would like to put in a display at this year's show, or if you can offer some much-needed assistance in helping with the preparations, acting as hosts or hostesses, or watching the tables during this event, please contact Floyd Gable (448-8041).

Also, Carl McLeod is greatly in need of assistance in manning the plant sales tables for this event. If you can help with the plant sales, contact Carl at 279-2817.

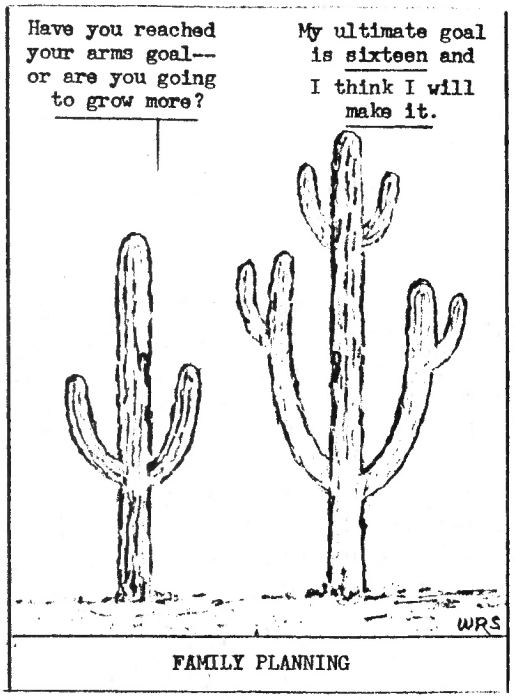
Any and all help will be greatly appreciated as we hope to make this our biggest and best show yet.

SAN DIEGO EPIPHYLLUM SOCIETY

The San Diego Epiphyllum Society will hold its annual show in Room 101, Casa del Prado, Balboa Park on Sunday, May 13th.



PEANUT OR SAGUARO ?



FAMILY PLANNING

GREEN THUMB SHOWS

The San Diego Wild Animal Park will host three Green Thumb Shows this month:

May 5-6: San Diego Epiphyllum Society
May 12-13: San Diego Bromeliad Society
May 19-20: San Diego Fuchsia Society

NEW PUBLICATIONS

Anza-Borrego Desert Guide Book by Horace Parker. Revised by George and Jean Leetch. Published by the Anza-Borrego Desert Natural History Association, Borrego Springs, CA. 1979. 154 pages, paperbound. $6.95.

SAN DIEGO BOTANICAL GARDEN FOUNDATION

The San Diego Botanical Garden Foundation will hold its Plant Sale on Saturday and Sunday, May 26th and 27th in Casa del Prado.

Pests of Succulent Plants

Part III. Mealybugs.

Dr. Ronald E. Monroe

The most common insect pest of succulent plants in any area of the country is the mealybug. They can be found on potted plants or on plants growing outside, and in Southern California they are quite active at any time of the year where they inflict subtle devastating damage to prize plants, often for several weeks before they are detected.

Systematics — The taxonomy of the mealybugs (Homoptera:Pseudococcidae) has been extensively reviewed by McKenzie (1967) who reported on the status of 35 genera and 193 species in California. Of this vast group are several species that are known to attack succulent plants:

a. Chorizococcus brevicruris (short-legged mealybug on asclepiads and cacti).

b. C. interruptus (Interrupted mealybug on Yucca sp.).

c. C. reducta (Agave mealybug on Agave sp.).

d. C. snellingi (Snelling mealybug on Yucca sp.).

e. C. yuccae (Small yucca mealybug on Yucca sp.).

f. Hypogeococcus spinosus (Spinose mealybug on cacti).

g. Phenacoccus echeveriae (Echeveria mealybug on Echeveria sp.).

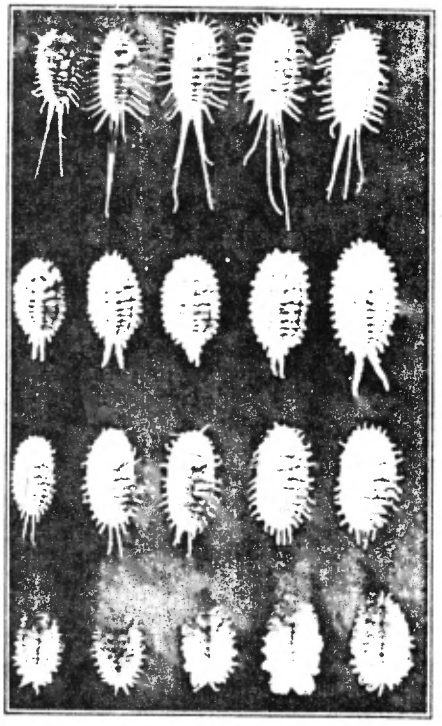
h. P. infernalis (Infernal mealybug on Fouquieria splendens).

i. Pseudococcus obscurus (obscure mealybug on Opuntia sp.).

j. Puto yuccae (Large yucca mealybug on Yucca whipplei).

k. Rhizoecus cacticans (Cacticans mealybug on CACTACEAE, Echereria sp and Crassulaceae).

i. Trionymus myersi (Myer's mealybug on Haworthia sp. and Aloe sp.).



Four common species of mealybugs. From top to bottom: the long-tailed mealybug, *Pseudococcus adonidum* (Linné); the citrophilus mealybug, *P. gahani* Green; the grape mealybug, *P. maritimus* (Ehrh.); and the citrus mealybug, *P. citri* (Risso). About 5 times natural size.

Thus, in California where most of the succulent nurseries are located, there are at least 7 genera and 12 species of mealybug which attack succulent plants.

Plant damage — Immature forms and adult females (the males do not feed) insert their slender mouth parts into the plant tissue and suck the sap. They are usually found in plant crevases or nearly hidden beneath spine clusters or between

leaves or on the roots where they are hard to detect but impart a whitish powder to the soil. However, they are often seen wondering about in plain view (on spines, leaves, etc.) and at this time one should suspect a high population elsewhere on the plant (high populations often induce migration).

Mealybug infestations are similar to all insect pest invasions in that damage is directly proportional to population density and the general health of the plant; however, they can be particularly devastating in the winter months when most succulent plants are resting and unable to supply the required sap and food nutrients required for damage repair.

Biology — Mealybugs, are whitish, slow-moving insects which, in the female stage, are elongate-oval, soft and usually covered with a mealy or cottony wax secretion. According to Metcalf et al. (1951), the short-tailed mealybugs reproduce by laying eggs and the long-tailed species reproduce via ovoviviparity. For those that do lay eggs, the females deposit their eggs in a compact, cottony, waxy sac; ca. 300-600 eggs are oviposited. After hatching the immature forms crawl over the plants and feed on the sap contents as do the adult females; after a short time they, too, begin to secrete the white, waxy body covering. After several moults, the adult female emerges and is ready to mate. The male mealybugs, however, form a white case or cocoon and change into a pupa. The winged male adult emerges later and flys about mating with females.

Control — Mealybugs are like most potted plant pests in that their greatest means of dispersal is via man himself. Therefore, when new shipments arrive a thorough examination of the whole plant is essential to keep mealybug introductions to a minimum.

Cacti, esclepiads, most enphorbias and haworthias are very tolerant to most insecticide sprays and these plants can be submersed in a solution of malathion or Cygon .2E. The latter insecticide is a systemic and it can be used as a spray anytime a plant becomes infested. Echeverias and pachypodiums, however, are very tender and do not take kindly to the inert ingredients accompanying insecticide concentrates; these plants should be washed thoroughly a few minutes after spraying (there are other plants which exhibit phytotoxicity as well as esheverias and pachypodiums so considerable care should be exercised the first time you spray a different kind of plant or one that is not well known to you. Some growers will drench the soil of a potted plant with Cygon .2E several times a year to control root mealybug, but seedlings should be spared this practice.

References Cited

McKenzie, Howard L. 1967. Mealybugs of California with taxonomy, biology and control of North American species. Univ. of Calif. Press, Los Angeles. 526 pp.

Metcalf, C. L., W. P. Flint and R.L. Metcalf. 1951. Destructive and Useful Insects, their habits and Control. McGraw-Hill, New York. 1071 pp.

DEAR ABBEY ——————— by JBM

Abbey Pottsbottom will answer questions of general interest from cactus and succulent hobbyists. Ms. Pottsbottom, a sensitive cultivator of succulents in her own right, is best known for her pioneering work on using opuntia spines in botanic acupuncture. Her far ranging knowledge and down-to-earth advice has solved many a difficult problem for her readers.

* * * * * * *

Dear Abbey,

I have been told on good authority that my plant is not only a xerophyte but that its flowers are hermaphroditic. Abbey, I was shocked. The plant, I will call it Gigy (not its real name) appears normal to me in every way and the flowers are beautiful but I am afraid of what my friends will say if they find out the truth. What should I do?

signed, Upset

Dear Upset,

Keep your cool and attack the root of the problem. Send a sample of the pot soil to your County Agricultural Agent for a physical, chemical and psychological analysis. Let me know what she/he comes up with. I care.

Dear Abbey,

You once suggested using organic bone phosphorus to improve the health of cacti. I have been burying fish bones around my plants with good results, in fact, I have asked all my neighbors to save their fish bones too. My problem is that this practice has attracted all the cats in the area and they are ruining my garden. What do you suggest?

signed, No Cat Lover

Dear No Cat Lover,

You have a choice of two simple solutions. First, you can completely enclose your garden with a wire fence that extends over the top of the garden as well. Remember that cats can climb ordinary fences and are rather clever at going through small openings. The second solution, and probably the simplest one, is to get a dog that hates cats. This should not be too difficult. If you use this approach you should be careful not to include any meat bones in your phosphate treatment for reasons that will be apparent to the dog. Good luck and keep up the good work on properly feeding your cacti.

Dear Abbey,

My stapelia flowers stink and draw flies. I don't like it. What can I do?

signed, Disgusted

Dear Disgusted,

The stapelia has a better reason for attracting flies than you do. As for "stink"— have you really thought about what the deodorant ads are saying about people!

Dear Abbey,

I have a Seticereus aurievillous and a Borzicactus icosagonus and, believe me Abbey, they are identical in every respect. Assuming that they are the same plant, would it be permissible to use the same name for both and if so, which name is preferred?

signed, Precise

Dear Precise,

You have wandered into the esoteric field of historical taxonomy. My readers know how I avoid overly scientific answers but this time I will make an exception. Plants are sensitive and respond to human speech and understanding as anyone knows who has kept up with modern research on the subject. If you have been addressing each plant by the names you have given me, I advise you not to change. Each of your plants will do better if it can maintain its identity. A change either way will have an adverse effect on the offended plant — don't risk it!

Dear Abbey,

I was recently given a box of Opuntia microdasys and was told to handle them with great care. I used a new pair of soft cotton gloves to carefully separate the pads and planted them on the slope behind my house. Now every time I use these gloves my hands itch for days afterwards. What should I do?

signed, Irritated

Dear Irritated,

Burn gloves.

Dear Abbey,

I have some good looking succulents and plan to enter them in competition at a flower show. However, I do not want to go to all the trouble unless I can be assured of at least one Blue Ribbon. You know and I know that just about anything can be "arranged" but I have no expertise in this particular field although I know my way around otherwise. Can you give me some tips?

signed, Name Withheld

Dear Name Withheld,

You have the wrong hobby. GET LOST.

NOTES & NEWS

A reminder that the following members have signed up to provide refreshments at the special May program on Friday night, May 4th:

Irma Adolphson, Sandra Buck, Evelyn Chatham, Rose D'Attilio, Eleanor Dice, Joan Fleer, Tom Hamecher, Jean Hapeman, Frances Johnson, Randy Jungers, Katherine MacDonald, Verna Pasek, Nancy Roth, Eileen Smith, and Ethel Standish.

Also, the following members signed up to provide refreshments for the regularly scheduled May meeting, Saturday, May 12th:

Helen Bowen, Amna Cornett, Rose D'Attilio, Judy Hannula, Frances Johnson, Rick Latimer, Sophie Loyland, Marcia Monroe, Nancy Roth.

Martin Mooney has selected, from among several suggestions, a new name for the former Member's Monthly Display Table: the V.I.P. (Very Important Plants) Table. Last month's display was a beautiful exhibit of succulent Euphorbias by John Pasek. May's exhibit will be a display of dish gardens by Katherine MacDonald.

Winners of the "Bragging Plant" competition for April were:

1st: Floyd Gable — *Crassula pillansii*
2nd: Martin Mooney — *Reichsteineria leucotricha*
3rd: Jerry Monroe — *Parodia saint-pieana*

Librarian Betty Athy reports the following recent additions to the library:

Succulents and Their Cultivation — Martin and Chapman
Organic Fertilizers — The Staff of *Organic Gardening and Farming*

Hilary Ann Heintz, President of the Stark County Cactophiles (Ohio), has written me with the following "want list":

Bowiea volubilis, Euphorbia bupleurifolia, Hoya kerrii (obovata), Opuntia clavarioides, Cereus peruvianus monstrosus, Neoraimondia macrostibas, Lophocereus schottii monstrosus, Solisia pectinata, and *Epiphyllanthus obovatus.*

If any of you have plants of the above which you would like to sell, trade, etc., or if you know of a source for the above, please write to Mrs. Heintz at the following address:

716 Grove St. N.E.
N. Canton, Ohio 44721

Don't Forget — the Cactus and Succulent Society of America will hold its 18th biennial convention May 21-25, in Pasadena. For more information or registration forms, send a stamped, self-addressed No. 10 envelope to the CSSA Convention Committee, c/o Virginia Shambeau, Registrar, 8354 East Woodlawn Street, San Gabriel, CA 91775.

We welcome this month the following new members:

Ronald and Donna Komlosky, San Diego
Lewis and Gaylene Bunch, La Mesa
Ole Jensen, El Cajon
Lloyd and Betty Davis, Orinda CA

Deadline for the June issue is May 23rd.

San Diego Cactus & Succulent Society

Officers

President - Tom Hamecher 440-6245
996 Terrace Crest, El Cajon, Ca. 92020

1st V. Pres. - Richard Latimer 463-1655
5990 Lake Murray Blvd., La Mesa, Ca. 92041

2nd V. Pres. - Carl McLeod 279-2817
3516 Mt. Everest, San Diego, Ca. 92111

Recording Secretary - Beverly Kirkegaard 463-2801
10009 Bonnie Vista, La Mesa, Ca. 92041

Treasurer - Joan Johnson 728-7317
3560 Lake Garden Dr., Fallbrook, Ca. 92028

Corresponding Secretary - Anna Cornett 291-6426
3905 Ibis St., San Diego, Ca. 92103

Immediate Past Pres. - H. Warren Buckner 469-1391
1744 Englewood Dr., Lemon Grove, Ca. 92045

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Shirley Berry, Perlso Lewis, Dr. Ronald Monroe,
Martin Mooney, John Pasek, Dr. Leroy Phelps

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Activities: H. Warren Buckner
Audit:
Conservation: Dr. Ronald Monroe
Education:
Cacti - Dr. Ronald Monroe
Succulents - Richard Latimer and Dr. Leroy Phelps
Exhibits:
Bragging Table - Shirley Berry
V.I.P. (Very Important Plants) Table - Martin Mooney
Historian: Richard Latimer
Library: Elizabeth Athy
Membership: Joan Johnson
Open House: Floyd Gable
Plant Exchange Table: Ethel Standish and Doris Rake
Plants & Supplies Table: Carl McLeod
Programs: Richard Latimer
Publication: Jim Dice (ph. 276-6739 or 276-2589)
Reception: Perlso Lewis and Veryl Snowhill
Regalement: Nancy Roth
Representatives:
Balboa Park Desert Garden -
Quail Botanical Gardens - Audrey Johnson
S.D. Botanical Garden Foundation -
S.D. Floral Association - Verna Pasek

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 $6.00 per family. Single copies of *Espinas y Flores* are 50¢.

Jim Dice
3228 Clairemont Drive
San Diego, CA 92117

Address Correction Requested