

Espinas y Flores

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

JUNE MEETING

Saturday June 12, 1982

1:30 pm

Casa del Prado, Room 101, Balboa Park

Program for June

Mr. Taylor will give a demonstration for the grafting of cactus. He will provide materials and Club members will be invited and encouraged to participate. Time permitting- there will be a question and answer session. All question will be answered by one or more members who have the expertise or experience in the field of question. A chance for all of us to question, to learn and to share their experience with others.

IN THIS ISSUE

PAGE

1983 Convention Update- Martin Mooney.	2
News from Great Britain-Frank Thrombly.	3
Frailea- Dr. Ronald E. Monroe.	4
Crassulas-Dorothy Dunn.	5
Epiphytes Cleared-Rick Latimer.	7
News of Interest.	2
	3
	and 7

1983 CONVENTION UPDATE

The next CSSA Convention will be held at Washington University, St. Louis Missouri June 20th thru 24th, 1983 with early registration on June 19th. Your Convention Coordinator is Pat Thomann and Program Chairman is Dr. Gerald Barad.

Registration is \$50. for active and associate members, and \$75. for subscribing or non-members. A subscribing member can become an active CSSA member for \$6., saving \$19. The spouse of an active member can become an associate member for \$1., saving \$24. on registration. A non-member can subscribe to the CSSA Journal for \$20., become an active member of CSSA for \$6., and register for \$50. For only \$1. more than the \$75. registration as a non-member, you will receive the world's finest journal as well as becoming an active member of CSSA.

The approximate cost for room and board for the convention will be \$140. for a double room and \$180 for a single room at the University. There is an all day field trip planned for Wednesday, June 22nd to visit the Missouri Botanical Garden and Herbarium. We will cap off the day with a cocktail party featuring live entertainment.

Our good friends in St. Louis have already made great progress in planning for 1983 and Dr. Barad is arranging an outstanding program of world renowned speakers. Watch the Journal and the Newsletter for further information.

Subscription information to the Cactus and Succulent Journal is available from ABBEY GARDEN PRESS, Box 3010, Santa Barbara, CA 93105. Membership information for CACTUS and SUCCULENT OF AMERICA is available from Membership Chairman, 3036 Nebraska Ave. South Gate, CA 90280.

NOTE: The 1985 CSSA Convention will be 8-12 July at San Diego State University, with the San Diego Cactus and Succulent Society as the host.

Martin L. Mooney
Convention Chairman

COMING FLOWER SHOW AT CASA DEL PRADO , BALBOA PARK, SAN DIEGO

Our Show June 5 & 6

June 19 & 20	San Diego Fuchsia & Shade Plant Show	Sat. 12pm-5pm	Sun. 10am - 5pm
July 10	San Diego Dahlia Specimen Show	Sat. 1pm-5pm	
July 11	Convair Garden Club Dahlia Show	Sun. 1pm-5pm	
July 17 & 18	Ohara Chapter of San Diego Show	No times given	

Those who are to bring refreshments for the June meeting. . . .

Evelyn Chatham, Jan Miller, Nellie Kennett, Karl Zanker, Helen Brinkley, Frances Johnson, Bob Taylor, Mary Louise Newman...Thanks in advance.

At the June meeting we will nominate a nominating committee for Officers in the Club.

The Club will be meeting at the Wild Animal Park in October. We will be able to go through the Baja section which is not open to the general public. More in a later issue.

On the third of July there is a CSSA Show and Sale at the LA County Arboretum in Arcadia. We need to have a show of interest to see if we need to get a bus to go up there.

Deadline for the next issue is June 28. I know, I know it's early, but so is our meeting.

NEWS FROM GREAT BRITAIN

Frank C. Thrombley

In the June 1978 issue of the British Journal, "National Cactus and Succulent Journal", Gordon Rowley wrote an article on Euphorbia columnaris. He wrote of his concern for the extinction of this plant due to overgrazing by goats and camels.

Susan Carter Holmes, a botanist at Kew Gardens, went to Samali Republic on a field trip in 1981. The expedition consisted of four people from Kew and two Samalians from the Samali National Range Agency. The expedition started at Mogadishu and proceeded into the northwestern part of the country. The group was able to discover that, overlooking the type locality of E. columnaris, a population was establishing itself on a near vertical escarpment, so resurrecting hope for the survival of the species.

Mrs. Holmes primary interest is in the Euphorbiaceae, and one of the early highlights of the trip was her sight of Euphorbia carterana in habitat, a plant named for her by Peter Bally.

One of the other members of the expedition was concerned with the cytology of Aloes, and the team was successful in re-collecting the rare Aloe Jucunda at the type locality.

The many plant finds were mainly in the Euphorbiaceae and Aslepiadaceae, although other plants of interest included Dorstenias and a variety of Aloes. The only real disappointment for the expedition was the failure to rediscover the lost Whitesloanea crassa.

Credit for this article: Southampton Branch Newsletter, a branch of the National Cactus and Succulent Society. Susan Carter Holmes discussed the above information in a program she gave to the Southampton Branch in March of 1982.

Winners of the Mini Show were:

Blue Ribbon Group

- | | |
|-------------------|--|
| 1st Place | Martin Mooney for his Hoodia pillansii |
| 2nd Place | Phyllis Flechsig for her Ceropegia devecchii |
| 3rd Place | Betty Athy for her Stapeliopsis neronis |
| Honorable Mention | Gerald Dice for his Euphorbia primulaefolia |

Novice Group

- | | |
|-------------------|--|
| 1st Place | Robert Kent for his Euphorbia baiouensis |
| 2nd Place | Beverly Kent for her Ortegocactus
macdougallii |
| 3rd Place | Dr. Mark Donnell for his Lobivia dobeana |
| Honorable Mention | Douglas Dienier for his Gymnocalacium
valnicekranum |

Cactus-of-the-Month

Frailea

Dr. Ronald E. Monroe

This genus of extremely small cacti was erected by Britton and Rose (1937) via a novo comb. of ca. 8 species of Echinocactus (type species: E. cataphractus Dams.), and they named the genus for Manuel Fraile, cactus curator, U. S. Department of Agriculture, Washington, D. C. Borg(1959) recognized some 15 species; current IOS data include nearly 31 species and 11 varieties and there are dozens of new undescribed species introduced by Horst, Uebelman, Schlosser and Buining.

The plants are globular or cylindrical and usually under two inches diameter (globular ones) and not over five inches tall (cylindrical ones). The ribs are many, low, notched into podaria, with many small spines (some with spines nearly lacking). While most are singular in growth, some are definitely caespitose (F. schilinzkyana and F. grahliana) and many take on vivid green colors (F. tutensis, F. itapuensis, F. asteroides, and F. gracillima). Some appear bronzed (F. cataphracta, F. schilinzkyana, and F. grahliana) while F. carminifilamentosa has a vivid green, globular body covered with bright yellow spines.

Although the plants are all native of South America, most are found in Brazil, Paraguay, Uruguay and Argentina at low altitudes and under very hot, semi-shade conditions (Buining, 1974). Only one plant, F. colombiana, is reported found elsewhere--Colombia.

The flowers are all yellow (except F. asteroides v. albiflora; white) and somewhat large for the size of the plant. They are terminal, appearing at the center of new growth and cleistogamous; most never open except under extreme hot conditions, but set seed readily.

Although most hobby enthusiasts consider these plants as difficult to impossible to grow, they are becoming very popular with an expanding number of admirers. These miniature cacti do best in greenhouse conditions and at temperatures above 90° F; however, they also require some shaded conditions (ca. 50% Saran^R) and humidity (morning misting) as well as considerable water when they are growing. A good draining soil is desirable and it is not essential, or even desirable, to feed the plants often. Some may prefer to graft the plants and remove the challenge of growing them on their own roots.

Propagation is by seed (must be fresh; not over two or three months old), and the seedlings grow rapidly into nice plants usually within two years. The easiest plants in the genus to grow are F. grahliana and F. schilinzkyana as they are not prone to damp-off nor root rot.

The pests of the group are mites, mealy bugs and especially Sciara sp. fly and Collembola (the latter two invade the root zone which leads to rot). Cygon-2E and Safer Agro-Chem's Insecticidal Soap can be used, when necessary, to remedy these pests.

References Cited

- Borg, J. 1959 Cacti. Blanford Press, England; pp. 329-331.
Britton, N. L. and J. N. Rose. 1937. The Cactaceae. Dover Publ., Inc., N. Y.; Vol. II, pp. 208-211.
Buining, A. F. H. 1974. Ashingtonia 1:52, 54.

Succulent-of-the-Month

CRASSULAS

Dorothy Dunn

Crassulas belong to the huge and diversified family of Crassulaceae, which includes many of our familiar and favorite succulent genera such as Cotyledons, Adromischus, Dudleyas, Echeverias, Graptopetalums, Pachyphytums, Sedums, Kalanchoes, Sempervivums, and Aeoniums. They are native almost entirely to South Africa. There are well over 200 species of Crassula, plus numerous varieties, hybrids and cultivars. They probably offer more in diversified plant forms than any other genus of succulents, ranging in size from the shrubby C. argentea ("Jade Plant"), which can eventually grow into a sizable tree, down to such minuscule species as C. cooperi, C. reversisetosa, C. comptonii, and C. socialis. In addition, some Crassulas are small herbaceous annuals, of little interest to the collector of succulent plants. In habitat they may be found growing in conditions varying from full shade to full sun, and from moist to the most arid locations. A few species will tolerate some frost.

One distinguishing characteristic of the genus is that the leaves are always arranged in pairs alternating up the stems. Another rather unusual feature is the presence in some species of what are called Hydathodes. These are water-secreting elements on the leaves, usually visible as small dots or "pock-marks", and are not found in any other genus of Crassulaceae in Southern Africa. Good examples of hydathodes are evident in some very common Crassulas such as C. lactea, where they occur along the leaf margins, and C. multicava, where they are scattered over the entire leaf.

The flowers of Crassulas are similar to those of Sedums, except that in some cases they are congested into more compact, stemless clusters. These "shaving-brush" type flowers usually occur in the highly-adapted, "mimicry"-type species such as C. teres, C. pyramidalis, and C. mesembryanthemopsis. The predominant color range is from white through pinks to bright red, although a few have a dull "mustardy" yellowish hue. In a few species the flowers are very fragrant (C. falcata, C. teres, C. lactea), but many of them rival the Stapeliads in being odoriferously offensive, particularly C. 'Jade Necklace' and the various forms of C. corymbulosa, and attract swarms of flies when in bloom. Although the flowers of many species are fairly insignificant, they are still a welcome addition to the colorful plants since so many of them bloom during our winter months. It would be hard to find a prettier, more heart-warming sight than a specimen of C. argentea in full bloom in January. Other species bloom during our late summer and fall; it's possible, with a fairly representative collection, to have Crassulas in bloom almost the year around. C. falcata probably has the most conspicuous and attractive inflorescence in the genus, and has often been used by hybridizers as one parent for some of our finest recent cultivars.

Some of the smaller species of Crassula are sometimes classified as "mimicry" plants because of their ability to conceal themselves in their natural habitat, or because of their resemblance to other things in their environment. Among these are C. alstonii, C. cor-

nuta, C. deceptor, C. columnaris, C. hemisphaerica, C. pyramidalis, and C. mesembryanthemopsis. These species also seem to be more difficult in cultivation. There are also a few species which form underground tubers and are deciduous in summer, such as C. nemerosa, C. capensis, and C. saxifraga. These are seldom encountered in collections, being difficult, temperamental, and generally short-lived in cultivation.

Some Crassulas possess remarkable powers of absorbing water through capillary attraction - that is, by means of the hairs on their leaves. Included in this group are C. barbata, C. columnaris, and C. pyramidalis. A leaf of C. barbata can absorb more moisture in one dewy night than it can lose through evaporation in a week.

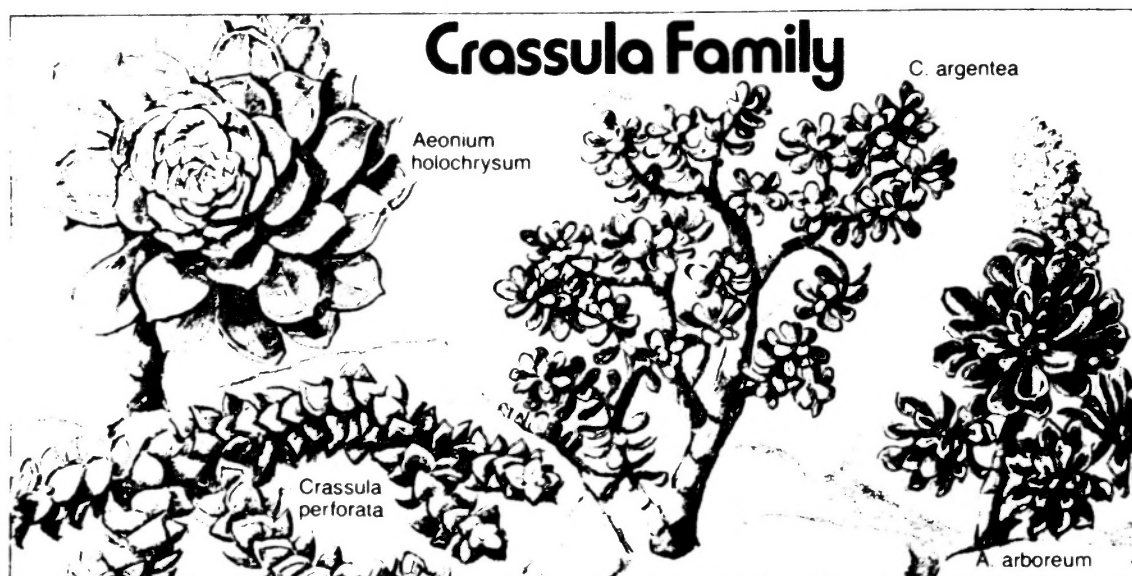
Most of these plants are easily grown and are usually propagated from stem or leaf cuttings. Except for some of the previously-mentioned mimicry-type species they are generally quite tolerant of average watering, and thrive in your usual succulent soil mix. Most of them can be grown in full sun, and all of them need very strong light to maintain their best colorations and characteristic forms of growth. Exceptions to this would be the greener-leaved species such as C. barbata, C. marchandii, C. pyramidalis, C. susannae, and C. socialis.

They seem to be relatively free from pests or disease, although some of the flowers are susceptible to aphids.

Crassulas can be used in many ways in your gardens - the larger varieties are useful planted right in the ground as an integral part of your landscaping, and the smaller species make charming pot plants, hanging baskets, ground cover around larger plants, or subjects for dish gardens.

References used:

- | | |
|------------------|---|
| Court, Doreen: | Succulent Flora of Southern Africa |
| Haselton, Scott: | Succulents for the Amateur |
| Higgins, Vera: | Crassulas in Cultivation |
| Tolken, H.R. | A Revision of the Genus Crassula in Southern Africa |
| van Laren, A.J. | Succulents (pp. 62 - 69) |



Submitted by Rick Latimer, Jr.

EPIPHYTES CLEARED

Epiphyte connoisseurs (epiphiles and epiholics included) will be overjoyed when they read the following excerpts from a recent article in SCIENCE:

Rainforest vegetation that grows on heavily leached soils of low nutrient content requires efficient mechanisms of nutrient transfer and retention. (1). Nutrient transfer from vegetation to the forest floor occurs by decomposition and subsequent uptake of timberfall and litterfall and via canopy leaching by precipitation. (2). I (the author) have discovered an additional transfer pathway in the tree canopies of both temperate and tropical rainforests. Host trees put forth adventitious roots that run beneath thick mats of accumulated organic material and the epiphyte access to canopy nutrient resources which are normally unavailable to the host tree and surrounding vegetation until they enter the soil-litter component.

Discovery of this phenomenon forces a reconsideration of the nature of the relation between epiphyte and host tree, a subject of debate for many years. Although by definition epiphytes do not take nutrients directly (piratically) from host trees as parasites do, they have been implicated (!) in host tree decline*. Epiphytes have been termed "nutritional pirates", as they are able to intercept and tie up in their own bio-canopy leachates; which would otherwise be available to the host trees. However, in rainforest ecosystems where nutrients are readily leached from soil and canopy and lost to all ecosystem members, tying up nutrients in epiphyte biomass does not "rob" or deny host trees of atmospheric nutrients. Rather, it immobilizes them within the system, and at the worst, delays their availability to the host trees. Those trees with extensive networks of canopy roots gain access to the arboreal nutrient source generated and retained by epiphytes. In fact, epiphytes may substantially contribute to the host tree nutrient status by trapping and retaining atmospheric nutrients.

*D. Bensing & J. Seeman, Selbyana (1978).

So, not only have the epiphytes been declared not guilty of the crime of nutrient piracy, but they have been found to be heroic when viewed with the proper perspective!

REFERENCE:

Nalini M. Nadkarni, "Canopy Roots: Convergent Evolution in Rainforest Nutrient Cycles", Science (214:4524) 11/27/1981, p. 1023-4.

For the July meeting, there will be a picnic at the Live Oak Park in Fallbrook. The picnic will be a pot luck, however, the club will provide coffee, beer, wine and soft drink. Remember this date--July 10, 1982-- A map showing directions to Live Oak Park will included in the July Issue of Espinas y Flores.

Please sign up for the picnic at the June meeting. We want an indication of how many are planning to come. It will just be a total so that the picnic committee can plan for the drinks, tables etc. Please come even if you can't sign up now.



SAN DIEGO CACTUS & SUCCULENT SOCIETY

OFFICERS

President - Rick Latimer
5990 Lake Murray Blvd., La Mesa, CA 92041 463-1655
1st V. Pres. - Frank Thrombley
16333 Roca Drive, San Diego, CA 92128 487-5544
2nd V. Pres. - John Pasek
10283 Covina Place, San Diego, CA 92126 271-0515
Recording Secretary - Beverly Kirkegaard
10009 Bonnie Vista, La Mesa, CA 92041 463-2801
Treasurer - Joan Johnson
3599 Via Zara, Fallbrook, CA 92028 728-7317
Corresponding Secretary - Anna Cornett
3905 Ibis St., San Diego, CA 92103 291-6426
Immediate Past pres. - Tom Hamecher
996 Terrace Crest, El Cajon, CA 92020 440-6245

BOARD OF DIRECTORS

Warren Buckner, Dorothy Dunn, Phyllis Flechsig
Madelyn Lee, Dr. Ronald Monroe, Dr. Leroy Phelps

COMMITTEES

Activities: Warren Buckner
Audit: James Berry
Conservation: Dr. Ronald Monroe
Education:
Cacti - Frank Thrombley, Dr. Ronald Monroe and Mark Donnell
Succulents - Madelyn Lee, Dr. Leroy Phelps and Dorothy Dunn
Exhibits:
Bragging Table - Shirley Berry
Historian: Rick Latimer
Library: Elizabeth Athy, Ruth Nelson and Caroline Miller
Membership: Joan Johnson
Open House: Frank Thrombley
Plant Exchange Table: John Roth
Plants & Supplies Table: John Pasek and Gerald and Eleanor Dice
Publication: Mary Aubuchon -- 427-3388
Reception: Rose D'Attilio and Perlso Lewis
Regalement: Nancy Roth
Representative:
Balboa Park Desert Garden - John Pasek
Quail Botanical Garden - Audrey Johnson
S. D. Botanical Garden Foundation - Elizabeth Glover
S. D. Floral Association - Verna Pasek
Liaison & Publicity - Anna Cornett
Orientation - Nellie Kennet

The San Diego Cactus & Succulent Society is open to all persons interested in growing cacti, other succulents and exotic plants. Meeting 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
1058 5th Avenue
Chula Vista, CA 92011

FIRST CLASS

FIRST CLASS

FIRST CLASS