

MAMMILLARIA THORBERI

Espinas y Flores

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NEWS NEWS NEWS

WELCOME TO NEW MEMBERS ----

James Gould - Tijuana	Richard & Saphora Maynard - San Diego
Herb & Anna Stern - San Diego	Joseph & Anita DiPietro - San Diego
Nickie & Rudy Delgado - San Diego	Ahmad & Suzanne Montazer - La Jolla

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

Marie Pearce	Mark St. Clair	Russel Evans
Doris Rake	Susan Clements	Charles & Joanne Clark
Bill McCullough	Chloe Bajwa	Sarah Jervey
		Thanks

*** Thanks to John Cooper of Coopers Cactus for letting us use of space for the plant storage to sell at the show.

BEFORE THE MEETING --

Rudy Lime will be having his bonsai class before the meeting .
 The time is from 12 noon to 1:00. Bring a plant that you think could be made into a bonsai and Rudy show several possible bonsai styles for your plant.
 If you don't bring a plant come anyway and watch how the different plants are done in the demonstrations.
 This class continues every month before our regular monthly meeting as long as there is any interested attendees.

APRIL MEETING JULY MEETING
 Saturday July 8, 1989 - 1:30 P.M.
 Casa Del Prado, Room 101, Balboa Park
 PROGRAM

At the time of Editing, I have not received the program. Hopefully, I will be able to have something to insert by mailing.

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Deadline for the August E y F is July 29 - Thanks, Mary

PROGRAM

Joey Betzler will give a slide presentation of his trip, last year, to Africa.

CYPHOSTEMMA - THE SUCCULENTS OF THE MONTH

by Joey Betzler

Cyphostemma is a genus of the grape family, Vitaceae. Though these grapes are not edible, in fact they are poisonous (full of Oxalic acid). This group was split off rather recently from Cissus (by Alston in 1931). There are creeping geophytic, small shrubs, and even trees in this genus; only species that form caudices will be considered here. There are from 5 - 7 caudiciform species which are C. bainesii (Hook.f.) Desc. (= C. seitzianum (Gilg & Brandt) Desc.), C. currorii (= C. cramerianus (Schintz) Desc.), C. hardyi Retief, C. juttae (Dinter & Gilg) Desc. and C. uter (Exell & Mendonca) Desc.. Cyphostemma laza B. Desc. and C. oleraceum (H. Bol.) J. v.d. Merwe are creepers. C. betaeformis is a little known caudiciform species from Somalia. There will undoubtedly be new introductions of this most interesting genus.

The trunks of these species may form rather small caudex a foot to three feet tall, though C. currorii and C. juttae are by far the largest members forming trees up to 20 feet tall. All of these plants have thick leathery leaves. Mature plants produce tri-lobed leaves, C. uter can have five lobed leaves. The leaves are arranged alternate and spiral which is diagnostic for this section of the grape family. Cyphostemma leaves have a peculiar sheen caused by the presence of glandular hairs on the leaf surface. The arrangement of these hairs can be diagnostic for the different species. These hairs give the leaves their peculiar aspect and probably help cut water loss some what, though they are drought deciduous.

The leaf scars are prominent and rather large. During the winter resting period the plants defoliate and look rather bare for those unaccustomed with this taxa. The thin papery bark also adds to the curious appearance as it peels in sheets from the trunk.

The flowers are borne in the axis opposite the leaves. The flower cluster is a cyme with the flowers near the center opening first. The flowers are small and perfect. The small flowers are four-merous. The petals are green in color and may be tinged with red at the edges and midvein. Peculiar structures of the flower are among the factors separating this plant from Cissus. The fruit is a red to orange berry that may form a cluster of 'grapes'. These grapes are not edible though, they contain Oxalic acid, and this can cause mouth and throat damage. This acid is also present in other parts of the plant.

Cyphostemma hardyi is endemic to the Transvaal, in the Waterberg mountains. C. oleraceum and C. laza are endemic to Madagascar. These two species are creepers and are not discussed here much (not much information has been published on these two taxa, though they may be in caudiciform collections). C. bainesii is found in very arid regions of central Namibia. C. uter, C. juttae and C. currorii are native to the top part of Namibia and Angola.

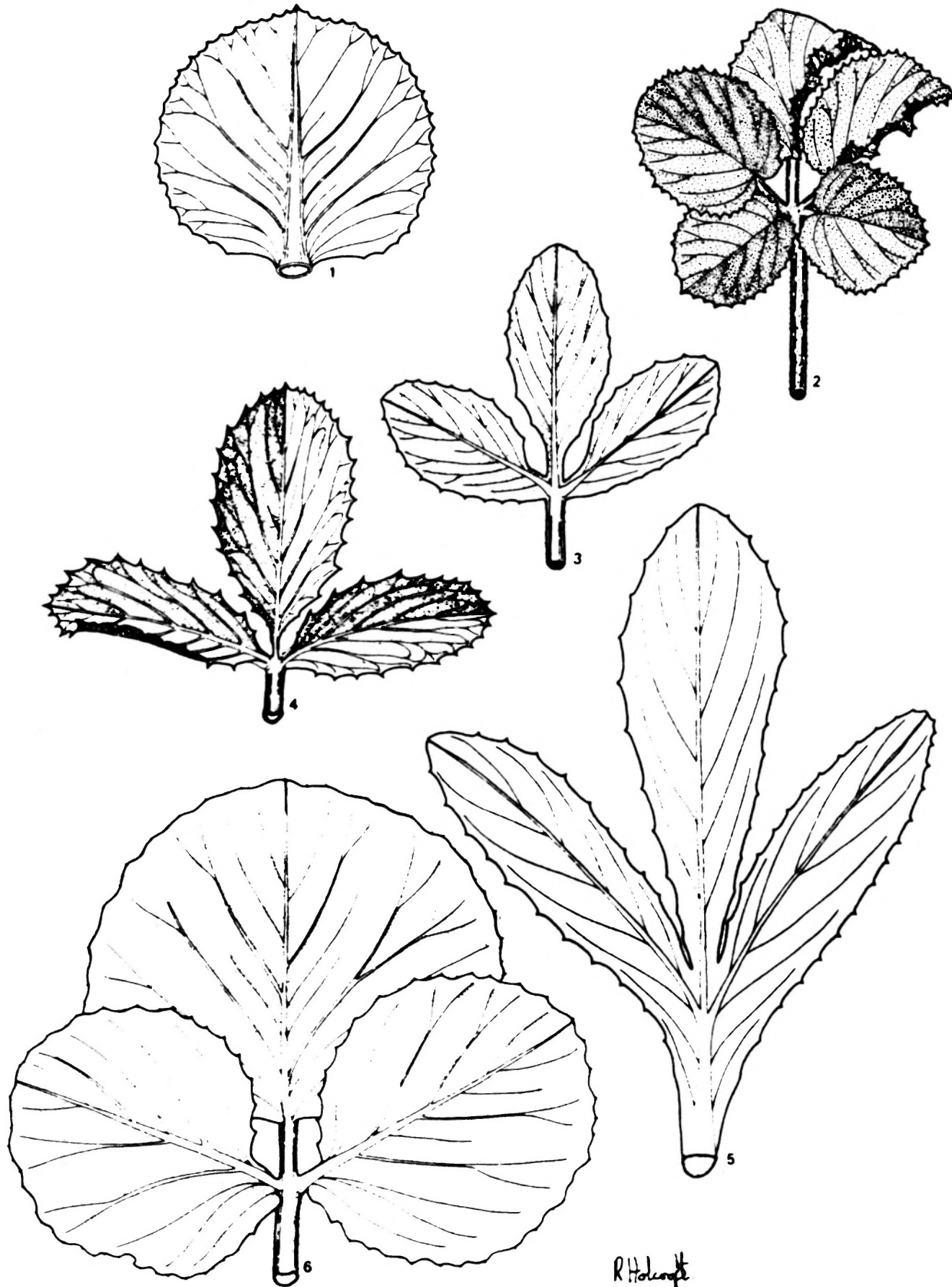
Culture is rather easy with this species. When the plants lose their leaves in the winter water can be withheld for the whole season. If a leafless plant's caudex shrivels a little water can be given (this is usually a problem with seedlings). Plants are also susceptible to rot after transplanting. Therefore do not water plants immediately after repotting, let them set for a week or so. To get the plants to their full size it is a must to plant them in the ground, or greenhouse beds. Outdoor planting is possible in some areas, consult with local growers for frost tolerant species.

Bibliography-

Hardy, D. and E. Retief. 1981. The caudiciform *Cyphostemma* species from Southern Africa. C. & S. J. 53:163-166

Horwood, F. 1974. Succulent Safari to Africa. Part II. 46:258-266.

Rauh, W. 1977. The Xerophytic Vegetation of Southwestern Madagascar. Part III. C. & S. J. 49:197-204



Leaves of *Cyphostemma* species: 1. *C. oleraceum*; 2. *C. uter*; 3. *C. bainesii*; 4. *C. hardyi*; 5. *C. juttae* 6. *C. currorii*. (adapted from Hardy and Retief, 1981)

Cactus-of-the-Month

OFF-BEAT OPUNTIAS

By Dorothy Dunn

One of the most familiar of all genera of cacti - and also probably the most neglected, ridiculed, maligned, and ostracized - is the genus Opuntia. With good reason. Even non-cactophiles are all too familiar with the stands of "pad" Opuntias which cover so many hillsides in Southern California, and many are even more bitterly conversant with the "cholla" types which are especially prolific in Baja California.

However, there are a few Opuntias which are not only weird enough to be forgiven for their faults, but are also actually sought out by collectors for their tuberous roots or caudiciform bases, or for their inherent potential as bonsai subjects, or even for their wild spination or unusual coloration. This article will be limited to a selection of these "oddball" species.

With over 300 described species, Opuntia is the second largest genus in the Cactaceae and has the most extensive distribution in the family, ranging from Alaska, southern Canada, all across the United States through Mexico, the arid regions of Central and South America, right down to the tip of the continent (Patagonia). They can be found at elevations varying from sealevel up to about 13,000 feet. Many species have been introduced (either accidentally or on purpose) and become naturalized in other parts of the world, particularly the Mediterranean countries, the Canary Islands, South Africa, Australia, and India - in some cases to the point where they literally dominate the landscape and have even become serious and difficult-to-eradicate pests. All species are characterized by the presence of glochids (bundles of short stiff bristle-like spines) which are present on all the areoles including those of the fruit. The fruit of many species is edible, and the flowers are always fairly large, showy, and beautifully colored. They are diurnal and last for several days. However, the fruits often provide a longer-lasting, more colorful decoration to the plants than the flowers, since their color sometimes continues to change as they ripen, and this process can take as long as two years in some cases. In size the plants run the gamut from extremely small or creeping species to the clumping types which can form huge masses, to large many-branched shrubs, on up to the arborescent species which can eventually reach heights of almost twenty feet.

The origin of the name Opuntia is somewhat uncertain, but apparently is derived from the Greek. Explanations vary - from the theory that it was based on the name of a town in Greece where a cactus-like plant reputedly occurred - to possibly, the name of a thistle in the region of a Greek tribe known as Opuntiana.

Opuntia chaffeyi, from Mexico, is a species rather dwarf in habit but forming a very large, fast-growing underground tuber.

This is the main part of the plant, and by far the most interesting. It is the only *Opuntia* which produces stems that die back annually in habitat - probably a good thing, as they seem to grow several feet in a few weeks in cultivation. The flowers are large and pinkish yellow. It is usually grown by collectors of the bizarre as a bonsai-style caudiciform. It was first described in 1913, and was placed alone in the series Chaffeyanae because of its annual growth habit. It is easily grown from cuttings and will produce a sizable tuber in less than a year.

Opuntia clavarioides (= O. ruiz-lealii) is a very strange species which is usually found grafted. It is from Chile, and was first described in 1837. Although it can be grown from cuttings, growth on its own roots is excruciatingly slow, and it is for this reason that it is usually grafted - generally onto a more robust species of *Opuntia*. The plant is a curious brown color, with flattened, truncated stems and yellowish flowers. It is classified as a Cylindropuntia, although superficially it seems to bear little resemblance to other members of this group. It is one of the few *Opuntias* which requires part shade.

Opuntia pachypus, from Peru, is rather Cereus-like in habit. It is slow-growing; the main stem is erect and can reach a height of at least three-and-one-half feet. It occasionally branches, and the red flowers apparently only occur with age. It is still rare in cultivation and even in its native Peru.

Opuntia picardoi is a dwarf "pad" *Opuntia* which originated from the Marnier collections at Picardo, Argentina. The tiny one-inch pads are connected to each other in a somewhat procumbent growth habit. The flowers are red and very large for the plant.

Opuntia invicta is considered by some to be the most fiercely-spined of all the *Opuntias*. It is native to central and southern Baja California and at certain latitudes occurs virtually non-stop across the Peninsula. Although in height it stays fairly low, seldom getting much more than a foot tall, its huge, many-branched masses can cover several square yards of acreage in the wild. The plant is somewhat Echinocereus-like in habit and is sometimes mistaken for E. brandegeei as the two grow together in some areas. The flowers are large and yellow, but it is a shy bloomer, even in the wild. The new growth is very attractive, with the new spines being bright red.

Another good bonsai subject is Opuntia pulchella, native to Arizona and Nevada. It has enlarged tuberous roots, and the small cylindrical or club-shaped joints are covered with low warts or knobs. The single central spine is papery and reflexed downward. The flowers are a beautiful magenta color.

Other unusual - and, to some, beautiful - *Opuntias* might include O. vestita from Bolivia, with long, dense white hair and spines and dark red flowers (there is also a beautiful crested

form of this species), the so-called "Grizzly Bear", O. erinacea var. ursina from Southern California's Mojave Desert, also with long white spines, the strikingly blue O. basilaris, and a number of dwarf monstrose forms such as the tiny O. rufida monstrose, the monstrose form of O. subulata which resembles a spiny Christmas tree, and the even smaller version called O. "Maverick".

All of these plants are easily grown provided they are given fast-draining soil and careful attention to watering in the winter months. The principal pests seem to be mealy-bug and scale and an occasional attack of what is usually referred to as the "Cochineal Bug" (Dactylopius coccus). Propagation is generally easiest and fastest from cuttings, with the possible exception of O. clavarioides.

Literature consulted:

- Andersohn, Günter: Cacti and Succulents (pp. 233-234)
 Backeberg, Curt: Cactus Lexicon (pp. 350-379)
 Benson, Lyman: The Cacti of the United States and Canada (p.269)
 Borg, J. Cacti (pp. 71-121)
 Cullmann, Götz, Gröner: The Encyclopedia of Cacti (pp. 256-263)
 Martin, Chapman, Auger: Cacti and their Cultivation (pp. 54-57)

SHOW SCHEDULE FOR JULY AND AUGUST

July 2	San Diego Dahlia Society Specimen Show		Sun: 1pm-4:30pm
July 9	Convair Garden Club 38th Summer Show		Sun: 1pm-4:30pm
July 22 & 23	San Diego Co. Orchid Soc. 4th Summer Show	Sat:12pm-4:30pm	Sun:10am-4:30pm
July 29 & 30	San Diego Gesneriad 13th Annual Show	Sat:12pm-5:00pm	Sun:10am-4:00pm
Aug. 5 & 6	San Diego Co. Dahlia Society Show	Sat: 2pm-5:00pm	Sun:10am-4:30
Aug. 19 & 20	San Diego Fern Society 11th Show	Sat: 1pm-5:00pm	Sun:10am-5:00
Aug. 26 & 27	San Diego Turtle & Tortoise Soc. 15th Show	Sat:10am-5:00pm	Sun:10am-5:00

THE 1989 SDCSS SHOW!

Cover Pictures:(top left) a portion of Class 69 by Rudy & Teresita Lime,(RL)*
 (top right) three trophy winners [I], [Ψ], and [K], (SF)
 (center) class 17 with class 21 behind and Mrs. Lemrow, (RL)
 (center right) Rebutia marsoneri(RW) (SF)
 (bottom left) classes 66,67, & 68 (the first succulent arrangement ever!) (SF)
 (bottom right) eight more trophy winners [X], [Γ], [Δ], (RL)
 [B], [A], [Ξ], [O], & [Τ] right to left.

TROPHY WINNERS

Best Cactus(Dr. P Corliss)[SDCSS][K]-----Beverly Kent
 Best Succulent(Ruby Falk)[SDCSS][Δ]-----Beverly Kirkegaard
 Best Exhibit(R. Vaughan II)[SDCSS][E]-----Rudy & Teresita Lime
 Best Artistic Exhibit(W. & H. Scott)[SDCSS][P]-----Mike & Joyce Buckner
 Best Educational Exhibit(CSSA)[CSSA][Δ]-----Frank & Marianne Thrombley
 Best Mexican Plant(D. B. Gold)[P. & J. Johnson][Ξ]-----Beverly Kirkegaard
 Best Euphorbia(Lydia Evans)[Russel Evans][Τ]-----Leroy N. Phelps,Ph.D.
 Best Graft(R. & S. Taylor)[Dr. Phelps][Γ]-----John Pasek
 Best Aloe(Barbara Jeppe)[M. & P. Mooney][A]-----Dorothy Larberg
 Best Echeveria(O. & S. Loyland)[R. G. Latimer][X]-----Elibet Marshall
 Best Epiphytic Cactus(W. & R. Nelson)[R. G. Latimer][Τ]-----Phyllis Flechsig
 Best San Diego County Native(Julianne Rice)[R. G. Latimer][I]-----Lit Phan
 Best Succulent Bonsai(R. & T. Lime)[R. & T. Lime][B]-----R. & T. Lime
 Best Pachycaul or Caudiciform(H. W. & V. Buckner)[M/J Buck][I]-----L. Phelps
 Best Pelargonium or Sarcocaulon(Wilna Johnson)[Ψ]-----Leroy N. Phelps,Ph.D.
 Best Opuntiaae(J. & S. Berry)[O]-----John Pasek
 High Points for 50 or Less(J. & S. Berry)[H]-----Dorothy Dunn
 Sweepstakes[Dr. R. & M. Monroe][Ξ]-----Dorothy Dunn

EXHIBITOR KEY

(CA)=Chuck Adams	(MF)=Michael Fernandes
(BA)=Bud Aubuchon	(PF)=Phyllis Flechsig
(MB)=Mitch Bahr	(KF)=Kathy Frost
(SB)=Shirley Bahr	(SF)=Sandy Frost
(JB)=Joey Betzler	(EG)=Elizabeth Glover
(MJB)=Mike & Joyce Buckner	(WG)=Wilbur Glover
(WB)=Warren Buckner	(MH)=Mary Holman
(AC)=Anna Cornett	(FJ)=Frances Johnson
(BC)=Bill Crowley	(BK)=Beverly Kent
(DC)=Diane Crowley	(BKd)=Beverly Kirkegaard
(DCn)=Donna Couchman	(DL)=Dorothy Larberg
(NC)=Michael Cullen	(RL)=Rick Latimer
(DD)=Dorothy Dunn	(DML)=Dr. & M. Lemrow
(JD)=Jeanette Dutton	(RTL)= Rudy & Teresita Lime
(CD)=Carl Dykema	(BM)=Bob Marder
(GE)=Gene Eisenberg	(EM)=Elibet Marshall

**photographers

(CM)=Carl McLeod	(FT)=Frank Thrombley
(RN)=Robyn Natwick	(RW)=Ruby Winters
(RNk)=Robert Natwick	(JW)=John Williams
(JP)=John Pasek	(JWd)=Joseph Wood
(LP)=Lit Phan	(LZ)=Lois Zaranka
(LNP)=Leroy N. Phelps	(WZ)=Wayne Zaranka
(DR)=Doris Rake	(SDZ)=San Diego Zoo
(MS)=Mark St. Clair	(AK)=Alberta Klinert

RIBBON & TROPHY WINNERS

1A:Uebelmannia pectinifera(DCn), Blossfeldia liliputana(PF), ---
 1B:U. pectinifera(PF), U. pectinifera(BK), ---
 2A:Parodia laui(CA), ---, ---
 2B:P. penicillata(DD), ---, ---
 3A:---, Notocactus schlosseri(AC), N. herteri(DL)
 3B:N. neobueneckeri(DD), N. warasii(DD) & N. magnificus(DD), N. magnificus(DL) & N. neobueneckeri(BK)
 4A:Discocactus crystallophilus(CD), Gymnocalycium pungens(WZ), G. -
 pflanzii v. albopulpa(CA)
 4B:D. aranispina(BK)[K], G. pflanzii v. albopulpa(DD), G. mihanovichii(RW) & G. vatteri(BK)
 5A:Sulcorebutia albida(CD), ---, ---
 5B:S. taratensis v. minima(BK), Rebutia 'Lemon Queen'(DL), marsoneri(RW)
 6A:Lobivia torrecillasensis(CA), ---, ---
 6B:Weingartia pulquinensis(DL), Acanthocalycium kumpelian(BK), W. pulquinensis(WZ)
 7A:---, Melocactus sp.(BA), ---
 7B:M. intortus(BK), Buiningia brevicylindrica(BK), ---
 8A:Copiapoa laui(CA), C. krainziana(AC), ---
 8B:C. krainziana(BK), C. humilis(BK), C. krainziana(DD)
 9A:Neoporteria gerocephala(BKd),N. nidus-senilis(DL), Delaetia woutersiana(BK)
 9B:N. villosa(BKd), N. napina(BKd), Neochilenia nuda(PF)
 10A:---, ---, ---
 10B:Borzicactus icosagonus(DD), ---, ---
 11A:Australocephalocereus estevesii(WZ), Weberbauerocereus alba(CD),---
 11B:A. estevesii(DD), A. dybowskyi(DD), Cleistocactus ritteri(CD)
 12A:---, ---, ---
 12B:Pseudopilocereus superfloccosus(DD), Pilocereus rosaea(CD), Harrisia sp.(CD) & Phillipicereus castaneus(JW)
 13A:Echinocereus pectinatus v. rubrispinus(BK), E. davisii(DL), ---
 13B:E. nivovosus(DD), E. delaetii(DD), E. triglochidiatus v. inermis(PF)
 14A:Furbinicarpus pseudopectinatus(BK), T. polaskii(CM), ---
 14B:Gymnocactus roseanus(BK), Hamatocactus hamatacantha(CA), Thelocactus rinconensis(CD)

- 15A: *Coryphantha bumanna*(DL), ---, ---
15B: ---, *C. calipensis*(DD), *C. greenwayii*(BA)
- 16A: *Mammillaria coahuilensis*(AC), *m. polyedra*(DL), *M. parviana*(CD)
16B: *M. melanocentra*(MB), *M. celsiana*(DC) & *M. cf. huajuapensis*(DL), *M. lloydii*(CD) & *M. parkinsonii*(SB)
- 17A: *M. schiedeana*(BK), *M. sempervivii*(BK), *M. saboae v. saboae*(RL)
17B: *M. humboldtii*(BKd), *M. 'Tres Picos' Lau #1087*(BKd), *M. microthele*(CM)
17C: *M. canelensis*(DD), *M. gatesii*(BK), *M. plumosa*(Bkd & BK)
- 18A: ---, ---, ---
18B: *Cochemia setispina*(DD), *Mammillopsis senilis*(LZ), ---
- 19A: *Aztekium ritteri*(BKd), *Epithelantha bokeri*(BK), *Encephalocarpus strobiliformis*(CM)
19B: *Ariocarpus retusus*(BKd)[Ξ], ---, *Pelecypora aselliformis*(CM)
- 20A: ---, ---, ---
20B: *Astrophytum ornatum v. mirabellii*(DD), *A. ornatum*(DC), *A. myriostygma*(DC)
- 21A: *Ferocactus chrysacanthus*(BKd), *F. macrodiscus*(CA), *F. chrysacanthus*(CD)
21B: *F. rectispinus*(DD), *F. diguetii*(DD), *F. covellei*(DD)
- 22A: *Echinofossulocactus hastatus*(DL), *Stenocactus xiphacanthus*(CA), ---
22B: ---, ---, ---
- 23A: ---, *Rhipsalidopsis 'Flash Pink'*(JW), ---
23B: *Rhipsalis capilliformis*(PF)[Ψ], *R. cruciforme*(CD), *R. grandiflora*(WB)
- 24A: *Opuntia pachypus*(JP)[O], ---, ---
24B: *O. ruiz-lealii*(BK), *O. chaffeyi*(JP), *O. ruiz-lealii*(DD)
- 25A: ---, ---, ---
25B: *Mammillaria elongata crest*(BKd), *Espostoa ritteri crest*(DD), *Hildebrandtia aureispina crest*(DD)
- 26A: ---, *Trichocereus sp.? variegata*(CD), ---
26B: ---, ---, ---
- 27A: *Didierea madagascariensis*(AC), ---, ---
27B: *Alluaudia procera*(EM), *D. trollii*(MB), *A. procera*(JW)
- 28A: *Neohenricia sibbettii*(DC), *Lithops werneri*(CA), *Conophytum gifbergensis*(CA)
28B: ---, *L. umdausensis*(DD), ---
- 29A: *Nestoklema arboriforme*(BC), *Trichodiadema bulbosum*(BC), ---
29B: *M. tuberosa*(MJB), *M. tuberosum*(RTL), *T. bulbosum*(JW) & *M. tuberosum*(LP)
- 30A: *Aloinopsis schooneesii*(DC), *A. rubrolineata*(DC) & *Rhombophyllum neli*(DC), *Cheiridopsis candissima*(CA) & *A. rosulata*(DC)
30B: *A. schooneesii*(BC), *Faucaria tigrina*(SF), *Herreroa sp.*(SF)
- 31A: *Anacampteros alstonii*(MS), *A. papyracea*(AC), *A. baesechii*(LNP)
31B: *Ceraria pygmaea*(DD), *Portulacaria afra variegata*(LP), *C. pygmaea*(MB)
- 32A: ---, ---, ---
32B: ---, *Kalanchoe 'Fang'*(JW), *K. tomentosa*(SF)
- 33A: *Tylecodon buchholziana*(JP), *T. reticulatus*(BC), *T. buchholziana*(PF) & *Adromischus alveolatus*(AC)
33B: *T. buchholziana*(BKd), *A. blosianus*(DD), *T. sinus-alexandrae*(LNP)
- 34A: *Crassula ausensis v. giessii*(SB), *C. suzannae*(DC), *C. marnieriana*(FJ)
34B: *C. suzannae*(BKd), *C. argentea*(RTL) & *C. mesembryanthemopsis*(BKd), *C. C. corymbulosa*(JWd)
- 35A: *Sempervivum 'Shirley's Joy'*(SB), *Monanthes subcrassicaulis*(DD), *Aeonium arboreum 'Zwartkop'*(EM & EM)
35B: *S. cebense*(DD), *Rosularia platyphylla*(DD) & *M. anagaensis*(MJB), *M. muralis*(JWd)
- 36A: ---, ---, ---
36B: *Sedum furfuraceum*(JWd), ---, ---
- 37A: *Tacitus bellus*(DC), *T. bellus*(DL), *Pachyphytum compactum crest*(JW)
37B: ---, *T. bellus*(BKd), *Graptopetalum amethystinum*(JWd)
- 38A: ---, *Echeveria derenbergerii*(EM), *E. minima*(PF)
38B: *E. shaviana*(EM)[X], *E. affinis*(DL) & *E. elegans*(EM), *E. agavioides v. 'Red Edge'*(CD)
- 39: *Dudleya greenei*(DL), *D. pachyphytum*(PF), *D. guadalupensis*(CA)
39B: *D. greenei 'White Sprite'*(DD), ---, *D. pulverulenta*(EM)
- 40A: ---, *Euphorbia didierioides*(MB), ---
40B: *E. grandicornis crest*(CD), *E. didierioides*(RTL), *E. squarrosa*(DL) & *E. didierioides*(JW)
- 41A: *E. cylindrifolia*(DC), *E. cap-saintemariensis*(BC), *E. neohumbertii v. aureoflora*(AC)
41B: *E. cap-saintemariensis*(CM), *E. bupleurifolia*(CM) & *E. decaryi v. decaryi*(CM), *E. obesa*(PF) & *E. pugniformis*(BC) & *E. sp.*(JWd)
- 42A: *E. cap-saintemariensis*(MS), ---, ---
42B: *E. pedilanthoides*(LNP)[Ψ], *E. misera*(LP)[I] & *E. enormis*(LNP), *E. cylindrifolia v. tuberifera*(MS)
- 43A: ---, ---, ---
43B: *Monadenium ritchiei*(DD), *M. reflexum*(RW), *Jatropha cathartica*(BC)
- 44A: ---, *Senecio haworthioides*(CD), *Othonna retrofracta*(DC)
44B: *S. deflersii*(DD), *S. tropaeolifolius*(MF), *Coreopsis gigantea*(BC)
- 45A: *Sarcocaulon burmannii*(DC), *Pelargonium alternans*(SB), *P. xerophyllum*(RTL)
45B: *S. vanderietiae*(LNP)[Ψ], *P. 'Clan Williams'*(RTL), *P. abrotanifolium*(LP) & *S. vanderietiae*(RTL)
- 46A: *Pseudolithos migiurtinus*(BKd), *Tavaresia grandiflora*(CD) & *Huernia pillansii*(CD), *Hoodia bainii*(LZ)
46B: *Stapeliopsis neronis*(BKd)[Ω], ---, *Piранthus foetidus*(PF)
- 47A: ---, ---, ---
47B: ---, ---, ---
- 48A: *Brachystelma barberae*(MS), *Raphionacme brownii*(BC), *R. zeyherii*(MS)
48B: *Fockea edulis*(LNP)[O], *F. edulis*(JW), *F. cylindrica*(JW)
- 49A: *Pachypodium rosulatum-gracilis*(BC), *P. baronii v. winsorii*(MS), *P. rosulatum v. rosulatum*(JW)
49B: *P. succulentum*(BC), *P. densiflorum*(MS) & *P. rosulatum v. horembense*(CM), *Adenium obesum*(DC) & *P. namaquanum*(JP)[Γ]
- 50A: *Dorstenia crispa*(JF), *Cissus tuberosa*(BC), *D. crispa*(JW)
50B: *Ficus palmeri*(BC), *Cyphostemma sp.*(LNP), *F. macrocarpa*(LP) & *F. palmeri*(LP)

51A:---, ---, ---
 51B:Fouquieria fasciculata(LP), F. purpusii(RTL), F. fasciculata(RTL)
 52A:---, ---, ---
 52B:---, ---, ---
 53A:---, ---, Bursera fagaroides(MB)
 53B:B. fagaroides(RTL) Brachychiton rupestris(RTL) & Operculicarya decaryi(RTL), Bursera fagaroides(LP) & Bursers semarubra(MJB)
 54A:---, Sinningia leuchotricha(SB), ---
 54B:S. cardinalis(DD), Oxalis sp.(CD) & Testudinaria elephantipes(LNP), Ipomoea sp.(LP)
 55A:---, Aloe brevifolia variegata(DML), A. dinteri(FJ)
 55B:A. dinteri(DL)[A], A. ramosissima(WB), A. parvula(PF) & A. vanbaleni (RL)
 56A:---, Gasterworthia "Royal Highness"(RNk), Gasteria sp.(RN) & G. gracilis v. nana variegata(PF)
 56B:Gasteria prolifera(DL), G. liliputana(DL), G. armstrongii(DD & PF)
 57A:Haworthia magnifica v. whitesloaneana(DL), Gasterworthia "Royal Highness"(CD), Haworthia truncata(DML)
 57B:H. truncata(JP), H. coarctica(RN), H. truncata X maughanii(MC)
 58A:---, ---, Sansevieria aff. concinna(Lau #309)(DML)
 58B:---, S. bally #(DML), S. 'Moonglow'(DL)
 59A:Agave geminiflora(MJB), A. americana variegata(DR), A. americana "Kichi Sokan"(LNP)
 59B:Yucca endlichiana(JP), A. pelona(DD) & A. sp.(CD), A. pumila(CD) & A. utahensis V. nevadensis(DD)
 60A:---, ---, ---
 60B:Beaucarnea recurvata(JW), Dracaena ombet(AC), Calibanus hookeri(male) (BA)
 61A:Dyckia 'Silverado'(JW), ---, D. "Naked Lady"(JW)
 61B:Abromeitiella brevifolia(DD), D. "Naked Lady"(CD), D. rariflora(JW)
 62A:Peperomia ferreyri(AC), ---, ---
 62B:Begonia suffruticosa(RTL), B. partita(LNP) & Anthericum fruticosum (BC), Plumeria mexicana(MJB)
 63A:Pachypodium succulentum crest(CM), ---, Pachyveria crest(CD)
 63A:Euphorbia lactea crest(BC), Euphorbia flanaganii crest(JWd), ---
 64A:---, ---, ---
 64B:---, Aloe brevifolia variegata(CA), ---
 65:Opuntias(BM), Opuntias(BM), ---
 66:Haworthias(MJB), ---, ---
 67:(AK), Tillandsia filifolia & T. tectorum(CD), T. caput-medusae(CD)
 68:(CD), (AK), (JWd)
 69:(MJB)[E] & (RTL)[P] & (FT)[Δ], ---, ---
 [Σ] & [H](DD)

THANK YOU!

I wish to thank all of those who participated in our 1989 SDCSS Show and Plant Sale and made it another successful one. First I would like to thank all the Show Chairmen: Frank Thrombley who made sure all of the tables were set up right and covered while I was still out of town Friday morning (also he is retiring from the Show after 9 years of faithful work), John Pasek for all the work involved in the sales area (indeed this portion of the Show was a separate Show in its own right), Diane Crowley for feeding all of us, Shirley Berry for coordinating the Clerks and Judging, Perlso Lewis for Hospitality, Mary Aubuchon for the Program (and Helen Barkdoll for the artwork on it), and Cathy & Sandy Frost for Publicity (and extra thanks for Sandy for providing half of the pictures on the front cover of this issue when some of mine didn't come out). I also thank the Judges Myron Kinnach, Woody Minnich, Peter Sharp, Rowena Thompson, Victor Turecek, and Laura Woodley for consenting to Judge our 1989 Show. I also wish to thank those who helped set up, tore down, brought food and drink, helped sell plants, watched the Show plants, answered questions, Clerked, Tallied, Hosted (and Hostessed?), sold books, brought plants to sell, carried sales plants in and out, and watched the plants that were sold. And lastly I wish to thank those who brought in plants to the Show (See the list earlier in this issue) and especially Kathie van Arum for arranging for the San Diego Zoo to show some of their hanging baskets.

---Rick Latimer, SDCSS Show Chairman

THE HUNTINGTON PROJECT

An Update

by Rick Latimer

The SDCSS's response has been overwhelming to this task. First Dorothy Dunn gave me her copies of Helen Hegyi's collection of the earliest years of the Espinas y Flores issues. Also Frank & Marianne Thrombley and Jim Dice gave me many recent issues. Joe Clements has already taken up to Huntington about 1/2 of the issues. In September I would like to take the remaining issues up to them at the next Huntington Succulent Plant Symposium. However I am short only two issues: 12/85 and 10/88. I would appreciate any help in this matter

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The San Diego Cactus & Succulent Society is open to all persons interested in growing cacti or other succulent 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, and \$2.00 for each additional member of a household within the family. Single copies of Espinas y Flores are 60¢.

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