MAMMILLARIA THORNBERI

Espinas y Flores

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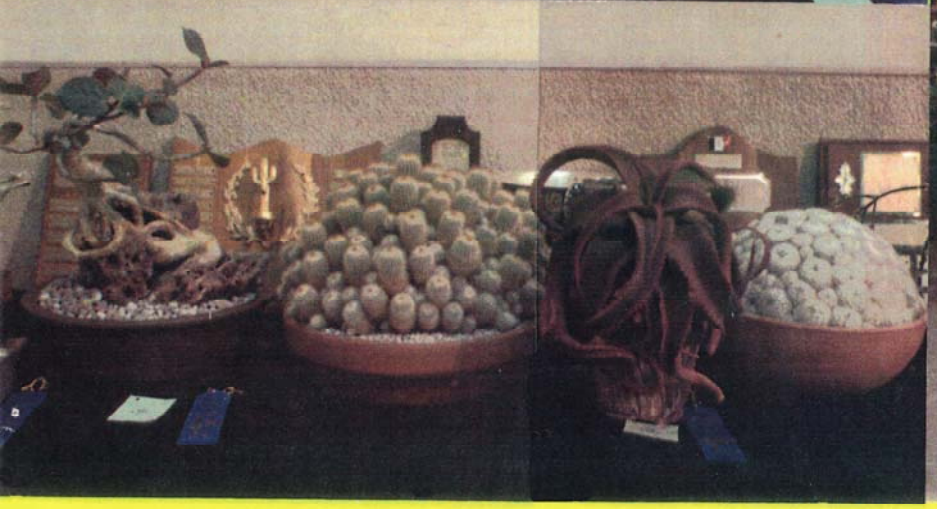
ANNUAL SHOW



JULY MEETING

Saturday July 14, 1990

1:30

Casa Del Prado, Room 101, Balboa Park

PROGRAM

EUPHORBIAS
Dr. Daryl Koutnik

Dr. Koutnik has an association with the Los Angeles Arboretum in Arcadia. He has worked three years in South Africa and after that came to the Huntington Botanical Gardens. He will present a slide show on Euphorbias with a time for questions.

IN THIS ISSUE

WELCOME TO NEW MEMBERS

Betsy Roesner - El Cajon
Sandra & Robert Wagner - La Mesa
Terry & Sharlene Miles - Bonita
Rose Silverwater - National City
George & Marguerite Bernstein - San Diego
Michael Arlt - San Diego
Edmundo Maio - San Diego
Mary Birchell - La Mesa
A. R. Nielsen - San Diego
Nancy & Juan Banales - La Mesa
Arthur & Leah Silverwater - Minisink Hills, PA
Robert Lasher - Jamul
Francis & Lynn Niedermeier - San Diego

Refreshment Volunteers ------

Paul & Marylyn Henderson
Ruth Richardson
Robyn Natwick
Amna Cornett
Ted Nelson
Sarah Jervey
Mike Cullen
Joe & Kay Quijada
Ethel Standish
Barbara Hamm
Mary E. Holman
Susan Barker

THANKS

DEADLINE FOR E y F JULY 28, 1990 Thanks Mary

Cactus of the Month

THE ECHINOCEREUS OF BAJA CALIFORNIA

By Dorothy Dunn

Members of the genus Echinocereus are native to the southwestern United States and Mexico, including all of Baja California. They inhabit a wide belt of the North American continent from Utah and Wyoming south throughout most of northern Mexico, and from central Oklahoma and Texas on the east to the Pacific Ocean on the west.

This is one of the largest genera in the Cactaceae. The number of actual species is somewhat in question at this point due to the confusing intergradation of species in the wild and the tremendous variation within single species, but well over 80 have been described at one time or another by various authorities. Backeberg lists 91, plus numerous varieties; Lyman Benson, in his monumental new work The Cacti of the United States and Canada (1982), has reduced this number to 41 and many varieties. The latest work on Echinocereus, by Nigel P. Taylor (botanist with the Royal Botanic Gardens at Kew), was published in 1985 and recognizes 44 species and numerous varieties. However, this work incorporates three species of Wilcoxia into Echinocereus. Many so-called 'species' have varying characteristics depending on locale and are really just geographical variants. Echinocereus engelmannii is an excellent example of this.

Twelve species of Echinocereus occur in Baja California. As is the frequent case with Baja California plants, all but three are endemics, and some have very limited distributions. Probably the northernmost-occurring species would be Echinocereus pacificus (E. polyacanthus var. pacificus: N.P. Taylor) whose type locality is the valley of the Rio San Carlos south of Ensenada. This endemic was discovered in 1883 by C.C. Parry and H.C. Orcutt. Later on, the inveterate Baja explorer Howard Gates found it on canyon walls in the vicinity of Agua Caliente east of Maneadero. The plants are very caespitose, forming large clumps of hundreds of heads. The flowers are a brilliant red and the fruit is green and spiny. This species has also been found on the western slopes of the Sierras Juárez and San Pedro Martir at higher elevations.

Echinocereus maritimus is another endemic species which can be seen beginning just south of San Quintín on the Pacific coast and also on the adjacent islands. Although usually considered a strictly coastal species (as the specific name implies), I have seen it more than twelve miles inland along the road leading into the Sierra San Borja (Nigel Taylor's observation that it occurs only a few kilometers inland is a trifle erroneous!). It also forms enormous low mounds of hundreds of closely-packed stems. The spines are yellowish-gray and the flowers are yellow and somewhat smaller than many Echinocereus flowers. It seems to be a rather shy bloomer, with the flowers occurring erratically through-

out the year. The fruit is red, spiny, and walnut-sized.

Echinocereus engelmannii, one of the few non-endemics, has a very wide distribution both in Baja California and the southwestern United States. The specific name honors Dr. George Engelmann, who was also the founder of the genus Echinocereus. The stems are larger and taller than the preceding species and are ferociously spiny. There is a great deal of variation in spine color, which has resulted in the description of several different varieties. The flowers are spectacular - very large, and rose to magenta-colored. The fruit is edible and strawberry-flavored, giving rise to the common name "Strawberry Cactus". E. engelmannii occurs from sea level to 2,000 meters, and in Baja California grows on rocky well-drained slopes as well as flat sandy or silty areas over much of the peninsula beginning just south of El Rosario.

Echinocereus ferreirianus, another Baja endemic, was named for Enrique Ferreira, a former consul of Mexico at San Diego, and was first discovered by Howard Gates in 1953. The type specimen is from Piojo (="louse") Island in Bahía de los Angeles. It occurs in central and eastern Baja California from the vicinity of Bahía de los Angeles, inland to the Sierra San Borja and Sierra de San Francisco (where it occurs at elevations of 3,600 feet) and southward along the Gulf coast at least as far as Rancho El Barril, where it can be found growing in solid granite on low cliffs. This is another spectacularly-flowered species; the flowers are bi-colored rose to orange-red. The spines are also very striking; they are usually very dark brown to coal-black.

Some mention should be made here of the very attractive Echinocereus species which occurs in the Sierra de San Francisco northwest of San Ignacio. A few students of Echinocerei now believe this to be the "missing link" between E. engelmannii and E. ferreirianus, and, while the spination does not really resemble either of these plants the flowers are virtually identical to those of E. Engelmannii.

Echinocereus lindsayi (which Nigel Taylor considers to be a variety of E. ferreirianus) probably has the most limited range of any Baja California species, particularly since it is assumed to be extinct in the wild. It was only discovered in the spring of 1975, and its original roadside habitat along the Jaraguay Grade north of Laguna Chapala Seca was far too accessible for the small population to long survive the depredations of over-enthusiastic collectors. Fortunately, intensive propagation by a few dedicated cactus growers has saved this unique species from total oblivion, and small seedlings are now available on a limited basis.

Echinocereus brandegeei inhabits some of the most arid regions of Baja California, usually growing in fully-exposed situations in poor rocky soil. This is particularly true in the El Arco area, just north of the 28th Parallel. On my first visit to this region in Oct. 1985 one of my most vivid memories is of the gray barren hills covered with clusters of E. brandegeei in

full bloom. The plants may have either gray or yellowish spines and against this rather drab background the large pink flowers create an almost incredible contrast. In many areas of Baja California Sur E. brandegeei grows in close association with Opuntia invicta, which it superficially resembles. It occurs southward all the way to the Cape Region.

The Cape Region of Baja California is home to a number of plants found nowhere else on earth. Among these are three species of Echinocereus. E. barthelowanus, a little-known endemic, occurs only on Isla Magdalena on the Pacific coast at low elevations. It grows in association with another rare endemic, Cochemiea halei. Howard Gates stated that it was "most abundant in sedimentary soil on the mesa overlooking Playa Santa Maria, to the north of Magdalena Village". This is another very caespitose species, and the stems are rather small and densely spiny.

Echinocereus sciurus was discovered by Townshend Brandegee in 1897 and described by his wife Katherine seven years later. This rather rare endemic grows on coastal hills at the southern tip of Baja. It occurs on crumbling granite at low elevations. The specific name refers to the plant's resemblance to a squirrel's tail.

Echinocereus (Morangaya) pensilis is endemic to the Cape Region of Baja California Sur, where it grows on inaccessible rocks and cliffs in forests of pine and oak in the Sierra de la Victoria and Sierra de la Laguna at elevations of 950 to 1900 meters. The monotypic genus Morangaya (named for Reid Moran and Ed Gay) was originally erected by Gordon Rowley in 1974 to accommodate this most untypical plant with its pendant stems, adventitious roots, and slender red flowers; however, this species has subsequently been transferred back into Echinocereus. Howard Gates found this plant at the northern end of the Sierra de la Victoria at 5,000 feet growing on rocky cliffs in crevices filled with leaf-mold, hanging down like an Aporocactus and taking root wherever possible. It grows in association with Mammillaria petrophila, Dudleya nubigena, and Hechtia montana.

Two island endemics which should be included here are Echinocereus websterianus, which occurs only on San Pedro Nolasco Island in the Gulf of California, and E. grandis which is native only to Islas San Esteban and San Lorenzo in the Gulf. Both of these species have very tall stems; E. websterianus is very caespitose, with dense golden spines and beautiful tri-colored flowers, while E. grandis is usually solitary or sparingly branched, with creamy white spines and white flowers.

Echinocereus mohavensis (E. triglochidiatus var. mohavensis: N.P. Taylor) occurs marginally in northeastern Baja on the eastern flanks of the Sierras San Pedro Martir and Juárez. It is much more widespread in the southwestern United States.

In nature these plants usually grow in exposed places on arid slopes and hills in the full and unrelenting strength of the Baja California sun. They are intolerant of excess moisture and/or poor drainage and in cultivation require a very open, porous soil and careful watering in winter. In addition, these Baja California species do not seem to be quite as cold-hardy as their relatives native to the American Southwest. They are relatively pest-free; the familiar spine mealy-bug is probably the most persistent.

Propagation is usually done from seed (which, however, is not readily available for many of the species) and also from offsets or cuttings. Despite some difficult challenges, these Baja species of Echinocereus are very rewarding plants to cultivate, both for their fierce, colorful, or intricate spination and their magnificent flowers.

Literature consulted:

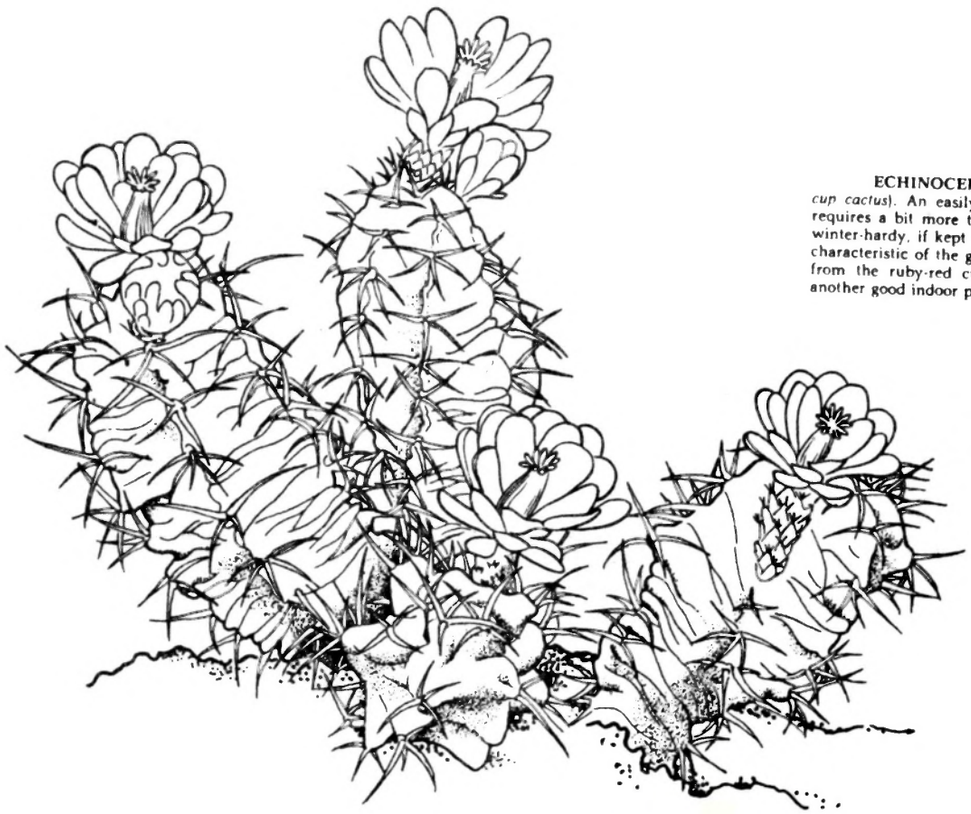
Gates, Howard: Distribution of Cacti in Lower California (notes)

Gay, Ed and Betty: Baja California; Part IV (Cactus and Succulent Journal of America, July-August, 1969)

Roberts, Norman: Baja California Plant Field Guide (pp. 122-124)

Taylor, Nigel P. The Genus Echinocereus

Wiggins, Ira: Flora of Baja California



ECHINOCEREUS TRIGLOCHIDIATUS (*Claret cup cactus*). An easily grown, small Echinocereus which requires a bit more than average water in summer. It is winter-hardy, if kept very dry. The bright green stigma is characteristic of the genus. The common name is derived from the ruby-red cup-shaped flowers. *E. viridiflorus* is another good indoor plant which is also winter-hardy.

SUCCULENT OF THE MONTH

SMALL AGAVES

by Phyllis Flechsig

We have all heard the horror stories about people who planted an innocent-looking little Agave in the back yard, only to have it turn into a monster a few years later that threatened to swallow the entire garden and the house with it. Yet Agaves are very attractive, tough, hardy plants that ought to have a place in every succulent collection. The secret is to be very selective, and to plant only those guaranteed to stay at a reasonable size. A few choice species that meet this criterion have been selected for this article, and an arbitrary size limit is 20 cm. (8 inches) across--more or less. Some may exceed this width after clustering for several years, but they may easily be reduced in size by removing outside offsets.

Agave as a genus contains two subgenera: Littaea, with flowers usually on straight spikes, and Agave, with large lateral branches on the flower stalks. The great majority of the smaller Agaves belong to subgenus Littaea. One slight disadvantage to the smaller Agaves is that they may bloom after only four or five years in cultivation, and an Agave rosette that blooms will die some weeks or months thereafter; fortunately, most species are self-fertile, and many will produce offsets.

One of the smallest Agaves is the beautiful but rare A. filifera v. compacta, a bright, shiny green rosette with white markings and little threads on the leaf margins. Another, quite different from other Agaves, is A. nizandensis, a pretty plant with a matte surface, no spines or teeth, and a pale midstripe on every leaf. Some beautiful small species from our Southwest are such ones as A. arizonica (rare and endangered), with dark green leaves that have reddish margins; and A. utahensis and its varieties, especially var. nevadensis and var. eborispina. These have very long terminal spines on the leaves. This particular group is native to high altitudes, and so will stand quite cold temperatures. In the group Parviflorae are A. toumeyana v. bella, A. parviflora, and A. polianthiflora. These are all small plants with beautiful white markings and curly white threads on the edges. The last named species is unique among Agaves in having red flowers instead of the usual yellow.

Some other relatively small Agaves are A. schottii, A. schidigera, and A. striata v. nana, all of which have narrow leaves with sharp spines at the tip. The well known A. victoriae-reginae, which can get fairly large, has a small form, v. compacta, that stays small, offsets readily, and shows the white markings very early. Perhaps the most beautiful form of this species is var. ornata, with really tiny rosettes, exquisitely painted with white. Mention should be made here of A. pumila, for years touted as the smallest Agave. In its juvenile form it is a tight

grayish rosette with only a few leaves; give it 15 years in the ground, however, and it becomes two or three feet across and looks quite different. It is thought to be a natural hybrid of A. lechuguilla and A. victoriae-reginae. Some interesting cultivars that are miniatures have been coming from Japan; one of these is 'Shoji-Raijin.' This is a cute little plant with broad bluish leaves, clustering very readily.

Agaves are very easy to grow. They need water all year, as they are not actually very succulent. These small species do well in pots, but be sure to give them enough room for their long roots. Propagation is from seed or from offsets. One caution: do not leave offsets lying about for long after they have been separated from the mother plant; unlike other succulents, they are best planted right away. Agaves in cultivation are not very much subject to pests, though it pays to keep an eye out for scale.

LITERATURE CONSULTED

Gentry, H. S. 1982. Agaves of Continental North America. Univ. of Ariz. Press, Tucson, Arizona.
Cactus & Succulent Journal. Various issues.

THANKS

Special thanks to John Cooper (Cooper's Cactus, Vista) for temporary use of greenhouse space to store plants for our June sale.

And, Special thanks to members Ron and Joan Miller of Escondido for their spur-of-the-moment very gracious hospitality to the 32 members who attended our rained-out picnic on July 9th. They unhesitatingly opened their home and provided parking for all who showed up. The picnic was a huge success.

SHOWS

July 15	Convair Garden Club 40th Summer Show		Sun: 1pm-4:30pm
July 21 & 22	San Diego Co. Orchid Soc. 4th Summer Show	Sat:12pm-4:30pm	Sun:10am-4:30pm
July 28 & 29	San Diego Gesneriad 14th Annual Show	Sat:12pm-5:00pm	Sun:10am-4:00pm
Aug. 4 & 5	San Diego Co. Dahlia Society Show	Sat: 2pm-5:00pm	Sun:10am-4:30pm
Aug. 18 & 19	San Diego Fern Society 12th Show	Sat: 1pm-5:00pm	Sun:10am-5:00pm
Aug. 25 & 26	San Diego Turtle & Tortoise Soc. 16th Show	Sat:10am-5:00pm	Sun:10am-5:00pm

THE 1990 SDCSS SHOW!

I. TROPHY WINNERS

Best Cactus(Dr. Phillip Corliss)[SDCSS](K)----------Beverly Kent
Best Succulent(Ruby Falk)[SDCSS](Ω)----------Beverly Kirkegaard
Most Artistic Display(Walter & Hazel Scott)[SDCSS](P)------M & J Buckner
Best Exhibit(Reuben Vaughan)[SDCSS](E)----------Rudy & Teresita Lime
Best Educational Display(CSSA)[CSSA](Δ)----------Robert Kent
Best Aloe(Barbara Jeppe)[Martin & Pat Mooney](A)----------Rick Latimer
Best Echeveria(Oliver & Sophie Loyland)[Rick Latimer](X)-Elibet Marshall
Best Epiphyte(Bill & Ruth Nelson)[Rick Latimer](π)---------John Williams
Best Euphorbia(Lydia Evans)[Russel Evans](Υ)----------Beverly Kirkegaard
Best Graft(Bob & Suzanne Taylor)[Dr. Leroy Phelps](Γ)-------Dorothy Dunn
Best Mammillaria(Elibet Marshall)[Elibet Marshall](Λ)-------Dorothy Dunn
Best Mesembryanthemum(Sam & Adela Markey)[Betty Athy](M)---M & J Buckner
Best Mexican Plant(Dudley B. Gold)[Paul & Joan Johnson](Ξ)-B. Kirkegaard
Best Pachycaul or Caudiciform(W. & V. Buckner)[M/J Buck.](Φ)-M/J Buckner
Best Pelargonium or Sarcocaulon[Wilna Johnson](Ψ)---Rudy & Teresita Lime
Best San Diego County Plant(Julianne Rice)[Rick Latimer](I)--M/J Buckner
Best Succulent Bonsai(R. & T. Lime)[R. & T. Lime](B)-----M. & J. Buckner
Best Opuntieae[James & Shirley Berry](O)----------Beverly Kent
High Points for 50 or Less Plants[James & Shirley Berry(H)--Dorothy Dunn
Sweepstakes[Dr. Ronald and Marcia Monroe](Σ)----------Dorothy Dunn

II. EXHIBITOR KEY

(BA)=Bud Aubuchon
(MB)=Mitch Bahr
(SB)=Shirley Bahr
(JB)=Joey Betzler
(MJB)=Michael & Joyce Buckner
(JC)=Joe Clements & Susan
(AC)=Anna Cornett
(DCO)=Donna Couchman
(DC)=Diane Crowley
(TD)=Tom DeMerritt
(DD)=Dorothy Dunn
(JD)=Jeanette Dutton
(PF)=Phyllis Flechsig
(SF)=Sandy Frost
(BG)=Bonifacio Gaerlan
(MH)=Marylyn Henderson
(PH)=Paul Henderson
(MEH)=Mary Ellen Holman
(FJ)=Frances Johnson

(BK)=Beverly Kent
(RK)=Robert Kent
(BKd)=Beverly Kirkegaard
(AK)=Alberta Klinert
(DL)=Dorothy Larberg
(RL)=Rick Latimer
(EL)=Elinor Latimer
(RTL)=Rudy & Teresita Lime
(EM)=Edmundo Maio
(BM)=Bob Marder
(EM1)=Elibet Marshall
(DP)=Diana Peterson
(LP)=Lit Phan
(LNP)=Lee Phelps
(DR)=Doris Rake
(RR)=Ruth Richardson
(HS)=Herb Stern
(TT)=Thu Tran
(JW)=John Williams
(JWd)=Joseph Wood

III. RIBBON & TROPHY WINNERS

1A:Uebelmannia pectinifera(BM), U. pectinifera(DL), U. pectinifera(SB)
1B:U. pectinifera(BK), U. pectinifera(PF), U. pectinifera(SF)

2A:---,---,Parodia nivosa(DL)
2B:P. penicillata(DD),---,---

3A:---, Notocactus schlosseri(AC), N. buiningii(DL)
3B:N. neobueneckeri(BK)[K],N. neobueneckeri(DL) & N. warasii(DD), N.-magnificus(DD)

4A:Discocactus horstii(JC), D. horstii(BK), Gymnocalycium griseo-pallidum(MH)
4B:D. aranespina(BK), G. vatteri(BK) & G. cardenasianum(JC), G. pflanzii var. albopulpa(DD)

5A:Rebutia heliosa(BK), R. sp.(BM), Sulcorebutia rauhii(DL)
5B:S. rauschi(BK), R. muscula(JC), R. mayeri(JC)

6A:---,---,---,
6B:Weingartia pulquinensis(DL), Acanthocalycium kumepelian(BK), ---

7A:---,---,---
7B:Melocactus canoidius(BK),Buiningia brevicylindrica(BK), M. intortus(BK)

8A:Copiapoa lauii(JC), ---,---
8B:C. hypogae(BK) & C. krainziana(DD), C. krainziana(BK), C. humilis(BK)

9A:Neoporteria gerocephala(BKd), N. nidus-senilis(DL), Neochilenia occulta(MH) & Neochilenia napina(PF)
9B:Pyrrhocactus bulbocalyx(JC), Neoporteria napina(BKd), N. wagenknechtii(BKd)

10A:---,---,---
10B:---,Borzicactus icosagonus(MH), Denmoza rhodantha(BA)

11A:Arrojodoa albispinus(JC), Espostoa lanata(BM),---
11B:Austrocephalocereus estevesii(DD), A. dybowskyi(DD) & Espostoa melanostele(JC), Pygmaeocereus bylensianus(BK)

12A:---,Stenocereus gummosus 'spiral form'(RL), ---
12B:Cephalocereus palmeri(SB),---,---

13A:Echinocereus palmeri(PF),E. pectinatus v. rubrispinus(PH), E. davisii(DL)
13B:E. nivosus(DD), E. triglochidiatus v. inermis(PF), E. knippleanus v. krugeri(JC)

14A:Turbinicarpus schmiedickeanus v. schwarzii(Bkd), T. krainzianus(JC), T. schmiedickianus v. schwarzii(TD)
14B:Pediocactus bradyi(JC), Gymnocactus roseanus(BK), ---

15A:Escobaria duncanii(JC), E. leei(JC), Coryphantha minima(DL)
15B:---C. elephantidens(JC),---

16A:Mammillaria 'Lau 1109'(BK),M. nejepensis(DP), M. dixanthocentron(MH) & M. herrae(JC)
16B:M. alba lanata(BKd), M. pringlei 'long spined'(JW), M. denudata(BG)

17A:M. geminispina(SB), M. schiedeana(BK), M. denertiana(DL)
17B:M. canelensis(DD)[A] & M. plumosa(BKd)[Ξ], M. humboldtii(BKd) & M.-bocasana v. roseiflora(DD) & M. plumosa(BK), M. lenta(DD) & M. plumosa(JC)

18A:---,Cochemia pondii(DL), ---
18B:---,Mammillopsis senilis(RR),---

19A:Aztekium ritteri(BKd), Obregonia denegrii(JC), Ariocarpus fissuratus(JC)
19B:Ariocarpus trigonus(BKd), A. lloydii(BKd), Epithelantha bokei(BK)

20A:---,---,---
20B:Astrophytum capricorne(DD), xFerobergia 'Gil Tegelberg'(DD),A. ornatum(DC)

21A:Ferocactus chrysacanthus(BKd), F. schwarzii(DL),F. covellei(MEH)
21B:F. chrysacanthus(JC), F. chrysacanthus(DD), F. schwarzii(DL)

22A:---,Echinofossulocactus hastatus(DL), ---
22B:Echinocactus polycephalus(EM1), Stenocactus longispinus(DL), Echinofossulocactus sp.(MH)

23A:---,Rhipsalis capilliformis(RL), ---
23B:R. horrida(JW)[π], Rhipsalidopsis 'Rainbow'(PF),---

24A:---,---,---
24B:Opuntia ruiz-lealii(BK)[O], O. pachypus(DD) & Pterocactus tuberosus(LNP), P. tuberosus(PF)

25A:Turbinicarpus valdezianus cristatus(DL),---,Mammillaria dawsonii(BK)
25B:Rooksbya euphorbioides cristatus(DD), Espostoa nana cristatus(DD)[Γ] & Hildewinteria aurespina cristatus(DD), Espostoa ritteri cristatus(DD) & Stenocereus gummosus monstrosus 'spiral form'(PF)

26A:---,---,---
26B:---,OPuntia vulgaris variegata(RL),---

27A:Alluaudia montagnacii(SB), A. ascendens(JW),---
27B:Didierea trollii(MB),Didierea madagascariense(AC),A. procera(EM1)

28A:Lithops umbausensis (marmorata)(DD), Conophytum ramosum(RL), Lapidaria margaretae(BKd)
28B:---,---,---

29A:Trichodiadema albiflora(Em1),---,---
29B:Mestoklema tuberosa(MJB)[M], M. tuberosa(DD), T. bulbosa(JW)

30A:---, Faucaria tigrina(MH), Stomatium agninum(MH)
30B:Nananthus transvaalensis(MJB),Faucaria tigrina(SF),Hereroa sp.(SF)

31A:Ceraria pygmaea(MB),Anacampseros buderiana(DD),---
31B:C. pygmaea(DD),---,---

32A:---,Kalanchoe tomentosa(PH), K. "Fang"(dwarf)(JW)
32B:K. thrysiflora(RL), K. "Fang"(JW), K. tomentosa(DR) & K. marmorata(DL)

33A:Cotyledon buchholziana(BKd),Adromischus clavifolius(JB),---
33B:Tylecodon reticulata(MB),A. rupicolus(DL),T. reticulata(SB)

34A:Crassula ausiensis v. giessii(MB),C. corymbulosa(MH) & C. teres(DD), C. pillansii(JW)
34B:C. suzannae(BKd),C. obovata 'Sunset'(RL),C. capitella(JW) & C. ausiensis v. giessii

35A:Aeonium arboreum atropurpureum 'Zwartkop'(EM1),Sempervivum montagnum(EM1), ---
35B:Monanthes muralis(JWd), A. arboreum atropurpureum 'Zwartkop'(EM1),A. haworthii(DP) & A. kiwi-onium(EM1)

36A:---,Sedum oxypetalum(DL),S. sexangularis(MH)
36B:S. furfuraceum(JWd),---,S. oxypetalum(MH)

37A:Graptopetalum paraguayense(MH),---,---
37B:G. amethystinum(JWd),---,---

38A:Echeveria 'Lola'(MH),E. 'Violet Queen'(BM),E. 'Dondo'(MH)
38B:Echeveria shaviana(EM1)[X],E. colorata(PF),E. 'Morning Light'(MH)

39A:Dudleya pachyphytum(PF),D. greenei "White Sprite"(DL),D. pachyphytum(RL)
39B:D. greenei "White Sprite"(DD),D. pulverulenta(EM1),D. sp.(DR)

40A:Euphorbia didierioides(MB),E. millii "Candy Stripe"(PH) & E. groenewaldii(FJ), E. sepulta(LNP)
40B:E. duranii(RTL),E. didierioides(JW),E. valida(DP)

41A:E. symmetrica(BKd)[Ω][Υ],E. neohumberti aureiflora(AC),E. cylindrifolia(DC)
41B:Euphorbia aphylla(MJB),E. esculenta(BG), E. suzannae(DL) & E. sp.(MB)

42A:---,---,---
42B:Euphorbia ornithorpus(MJB)[Φ],E. duranii(MB),E. knuthii(DL) & E. misera(MJB)[I]

43A:---,Monadenium ritchiei(DP),M. lugardae(MEH)
43B:M. ritchiei(DD),M. ellenbeckii(DL),Jatropha berlandierii(MB)

44A:Othonna herrei(RTL),Senecio tropaeolifolius(MH),---
44B:S. haworthii(DD),S. pendula(DD),---

45A:Sarcocaulon peniculinum(RTL)[Ψ],S. peniculinum(RTL),Pelargonium alternans(SB)
45B:S. vanderietiae(RTL),P. dasyphyllum(MB),S. vanderietiae(MB)

46A:Psuedolithos migiurtinus(BKd),Caralluma socotrana(BKd),C. rogersii(DC)
46B:Tavaresia grandiflora(DC),Hoodia bainii(BKd),Piaranthus foetidus(PF)

47A:Ceropegia rendalii(JW),C. rendalii(PH),Cynanchum marnierianum(RL)
47B:Ceropegia cimiciodora(FJ),---,---

48A:Fockea edulis(DP),---,---
48B:Raphionacme flaniganii(MJB) & F. edulis(RTL),R. flaniganii(DD) & F. cylindrica(JW), F. edulis(JW)

49A:Pachypodium rosulatum(DL),Adenium obesum 'Mombasa'(DC), P. rosulatum v. rosulatum(JW)
49B:Adenium obesum(DC),P. lamerei v. lamerei monstrosus(EM),P. lamerei v. lamerei monstrosus with cristatus(EM)

50A:Dorstenia crispa/foetida complex(PF),Cyphostemma bainesii(MB),D. crispa(JB)
50B:Ficus socotrana(MJB)[B],---,---

51A:---,---,---
51B:Fouquieria fasciculata(LP),F. splendens(DC),---

52A:Ibervillea sonorae v. peninsularis(MB),---,---
52B:Kedrostis africana(MB),Ibervillea sonorae v. peninsularis(DD),---

53A:Bursera fagaroides(MB),B. fagaroides(RR),Bursera sp.(RL)
53B:B. fagaroides(RTL),Operculicarya decaryii(MJB),B. microphylla(RTL) & Pachycormus discolor(LP)

54A:Ipomoea bolusii(DC),I. platensis(MH),Sinningia leuchotricha(SB)
54B:Cussonia holstii(MJB),Dioscorea elephantipes(MH),S. cardinalis(DD)

55A:---,Aloe rauhii(RL),A. parvula(AC)
55B:A. vanbaleni(RL)[A],A. parvula(PF & A. somaliensis(JW),A. peglerae(AC) & A. dinteri(DD)

56A:xGasterworthia "Royal Highness"(BG),Gasteria sp.(MH),G. gracilis v. nana variegata(PF)
56B:G. armstrongii(DD),G. liliputana(DL),G. armstrongii(PF)

57A:Haworthia magnifica v. whitesloaniana(DL),H. lockwoodii(BK),H. [illegible](AC)
57B:H.semiviva(BK), H. viscosa hybrid(DL),H. dodsoniana(DL)

58A:---,Sansevieria sp.(DR),S. singularis(PH)
58B:S. 'Moonglow'(DL),S. 'Moonglow'(DR),S. kirkii v. pulchra(JW)

59A:Agave parviflora(DL),A. filifera f. compacta(MH),A. pumila(DL)
59B:A. 'Kichi Jokan'(DD),A. utahensis V. nevadensis(DD),Yucca whipplei(BA)

60A:---,---,---
60B:Dracaena ombet(AC),Beaucarnea recurvata(JW),---

61A:Dyckia marnieria-lapostelle(RL),D. silverado(JW),---
61B:Abromeitiella brevifolia(DD),---,Dyckis sp.(DR)

62A:---,---,---
62B:Brighamia citrina(PF) & Zamia furfuraceae(MJB),Begonia partita(LNP), Haemanthus albiflos(JW)

63A:Euphorbia mammillaris cristatus(DC),Aeonium decorum cristatus(JW),---
63B:Euphorbia flaniganii cristatus(JWd),Huernia pillansii cristatus(DD) & Pachypodium lamerei cristatus monstrosus(EM),Sedum dendroideum cristatus(JW)

64A:Cotyledon ladismithensis variegata(MH),Haworthia margartifera variegata(DL),Anacampseros rufescens variegata(BM)
64B:Agave verschaffeltii variegata(LNP),Euphorbia ammak variegata(RR), E. ammak variegata(JW)

65:---,Discocactus collection(MB),---

66:Aloinopsis collection(DC),---,---

67:succulent bouquet(AK),Tillandsias(DR),Epiphyllum hybrids(EL)

68:cactus garden(AC),blue succulents(RL),3 miniatures(EM1)

69:bonsais(RTL)[E] & collectors choice(MJB)[P] & Haworthias(RK)[Δ],Epiphyllum species(RL),---

also (DD)[Σ] &[H]

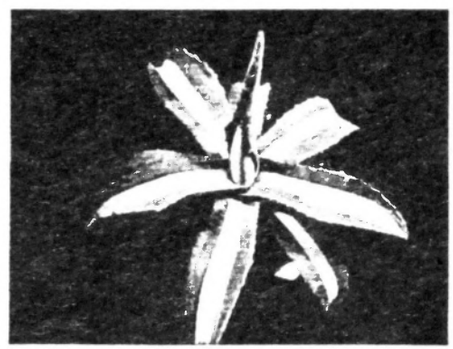
IV. COVER PICTURES

(top left) sales area - including Barbara Hamm, Teresita Lime, Bud Aubuchon and Dorothy Dunn
(top right) front - classes 46 & 47, back - classes 37 & 38
(middle left) trophy winners:[X],[M],[Λ],[Ω] & [Υ], [Γ], and [Φ]
(bottom left) trophy winners:[Ψ],[B],[K],[A],[Ξ], and [Π] (ربما)
(bottom right) large pachypodiums brought in by Edmondo Maio, John Williams looking at classes 42 & 43, with some of the cactus categories in the background

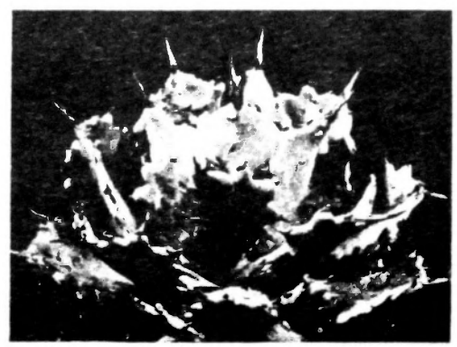
V. THANK YOU!

I wish to thank all of those who participated in our 1990 SDCSS Show, Sale, and Pot Luck to make it another successful and memorable one. I wish to thank all of those who brought plants to show, all those who brought plants to sell, and all those who brought us delicious nourishment. I wish to thank our six Judges for their august opinions, our Clerks and Talliers for their necessary efforts, and all those who helped set up, maintained the smooth running of the Show (such as the Park your Plant Committee), and/or those who saw that the Show was quickly and efficiently torn down, packed away, and cleaned up. I wish to thank the Balboa Park employees who set up the tables and had to room ready for us and performed necessary paperwork. It has been an honor to have Chaired the Show these last five years and I have thoroughly enjoyed it. However, it is time to step aside and let others experience to joy and honor of this position. It has also been a pleasure of "standing on the shoulders of those giants" that have preceeded me in this position.

---Rick Latimer, SDCSS Show Chairman,retired


Agave americana v. medio-picta alba


Agave megalacantha nana


Agave guadalajarana


Agave patoni compacta

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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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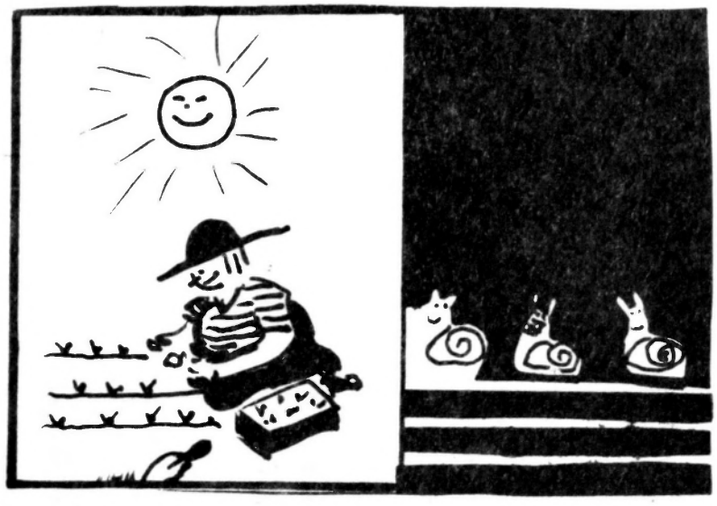

FIRST CLASS **FIRST CLASS** **FIRST CLASS**