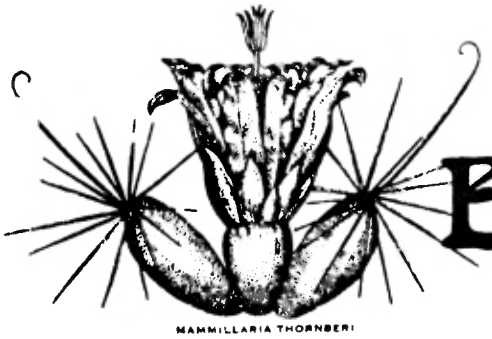


Espinas y Flores

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

Vol. XIII. No. 10 October, 1978.

OCTOBER MEETING DATE: Saturday, October 14th. 1978

PROGRAM:

"N.E. MEXICO, or A.T. & T."

Woody Minnich will be talking (with slides) about the plants of N.E. Mexico. Woody is from the Lancaster area, and is a specialist on Mammilarias. He had a display at the National C.S.S.A, Show.

IN THIS ISSUE.....

GARDEN VISITING DAY!

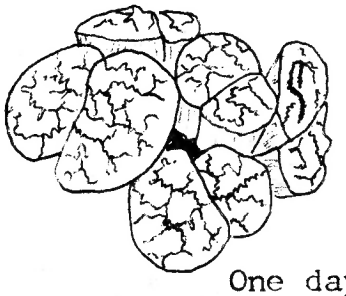
On Sunday, October 22nd., from 10 a.m. to 3 p.m., the following gardens will be open to all club members.

D.E. Barker
8811 Hayes Street,
La Mesa, Ca. 92041.

Martin L. Mooney
97 K Street,
Chula Vista, Ca. 92011.

Warren Buckner
1744 Englewood Dr.
Lemon Grove, Ca. 92045

DEADLINE FOR NOVEMBER ISSUE.....OCTOBER 24th. PLEASE



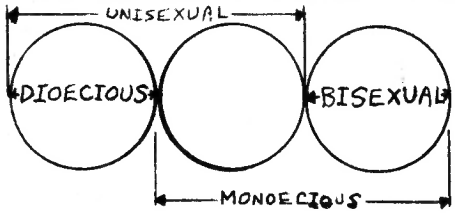
Succulent-of-the-Month

DIOECIOUS SUCCULENTS

by Rick Latimer

One day, way back when I was the Second Vice President of this Society; young, nonmember female asked me, in a neutral manner, what the difference between an Old Man Cactus and an Old woman Cactus. The only guide I had then was the Nurserymen's labels that came with the plants bought at the Supermarket. From these I knew that the Old Man Cactus was alias Cephalocereus senilis whereas the Old Woman Cactus could either be Oreocereus celsianus or Espostoa lanata. I could have said that the Old Man Cactus comes from Mexico and the Old Woma/en Cactus comes from the Andes, but I did not see this relationship just then. Instead I replied that the only difference I could see was that the Old Woman Cactus had red thorns while The Old Man did not. The situation rapidly precipitated into an unpleasant state. I blamed the whole misunderstanding on the Nurserymen and hurriedly went to the other end of the table (Plant Sales), leaving Oliver or Sophie Loyland to resolve the fiasco, if necessary.

Of course, the precise science of Plant Taxonomy has no place for such fanciful interpretations of nature. First I have to define the terms: dioecious, monoecious, unisexual, and bisexual. Most of the higher plants such as Cacti, Aloes, Crassulas, Trichodiademas, and Idrias have bisexual flowers; i.e. each individual flower has male and female reproductive organs. The opposite term unisexual (diclinous) merely means having flowers of separate sexes. Monoecious is defined as having both sexes on the same plant. Its opposite dioecious applies to plants having one sex per plant. The catch with dioecious plants is that one must have individuals of both genders to get seed. As revealed in the diagram below, two of these terms overlap. One can have a



plant that is both unisexual and monoecious. Such a plant is corn (Zea mays) with the male parts on top and the female parts below (the ears). Some Euphorbias fall into this nameless category. (Does anyone want to invent a new word?) Nolina could be placed between the middle circle and the right one with its flowers that have abortive ovaries on flowers with fertile stamens. Between the middle and left circle we could place any plants of the middle category that are self sterile. Some nonsucculent dioecious plants are Welwitschia bainesii, Ginkgo biloba, Cycads, Kiwi fruit (Actinidia chinensis), and Brazilian Pepper trees (Schinus terebinthifolius).

The classic example of a dioecious succulent is Euphorbia obesa. The female plant's flowers will consist of a single pistil with three stigma lobes. A male plant's flowers will have several stamens. To collect the ballistic seed of E. obesa, rather

than using complicated wire traps that are cumbersome to store and may scratch the plants, we (Abbey Gardens) simply stretch a piece of old nylon stocking over the top of the plant to catch the seeds when the capsules explode. This method seems to be quite effective, and in more ways than one. A friend of ours recently remarked,"I see how you can tell the boys from the girls- the girls are the ones that wear the nylon stockings!

There are quite a few other dioecious succulents, but they have been covered recently: Calibanus, Dasylirion, Ceraria, and Adenia (but not Adenium) or will soon be covered: Dioscorea and the Cucurbs. So we will spend the rest of the time this month to give a closer look than last September at a small family related to the Cacti, the Mesembs, and the Portulaceae and consisting entirely of dioecious members: the Didiereaceae.

The Didiereaceae are one of the eight endemic plant families of Madagascar and is represented with only four genera of eleven species. Decaryia madagascariensis can either be at maturity a bush or a small tree. It is known as the "zig zag" plant. On the outside of the angles are two thorns between which the leaves form every year. The flowers are white. The genus Didierea itself is represented by D. madagascariensis and D. trollii. D. m. eventually looks like an Ocotillo, but the individual stems are much more intricate having each thorn become several. The flowers are pinkish. D. t. clambers along the ground first, but later the plant will send up a central stem which eventually takes over. The Alluaudias consist of six species. A. procera with its spiraled stems makes a Fouquieria splendens look rather unkempt by comparison. A. humbertii is not very attractive being rather scrubby, but its olive green flowers make up for it. A. dumosa is the most curious species with its brown, spineless, and leafless branches. A. ascendens is the tallest of the family becomming a 15m tree. A. montagnacii plants are usually single stemmed like Fouquieria (Idria) columnaris. Many rows of leaves spiral up the thick stems. A. comosa forms a V-shaped tree. The last genus is Alluaudiopsis with two species: A. fiherenensis and A. marnieriana. The former has cream colored flowers whereas the latter has red ones. Both plants form spiny shrubs.

REFERENCES:

Rauh, Werner, "The Xerophytic Vegetation of Southwestern Madagascar", CSSA Journal, V. L, #1, pp. 11-14, #2, pp. 55-59, #3, pp. 119-121.

CSSA Journal, V. XLV, p. 135.

Sunset Western Garden Book, 1975, pp. 174, 237, 282, 413.

Webster's Collegiate Dictionary, 5th ed., 1946, pp. 105, 283, 646, 1093.

CAME THE FALL!!

Audrey Johnson

How about this year's weather? September 4th (Labour Day) - high Summer: September 5th - back to work, and Instant Fall! At least, this is the way it was in the hills around Escondido, and with a fair spattering of rain to boot - very nice!! The cool weather has certainly given both me and my plants a distinct shot in the arm. Already everything is looking a lot greener (me, too?), and buds are popping out all over (but not on me!). Right now (as in the Spring), my garden begins to look its best, with plenty of colourful flowers, and I'm enjoying every minute of it.

This year, in addition to super growth on our trees and bushes, the garden gave us two additional thrills. The yuccas, which we planted as pups some four years ago, have now grown to a size where they are producing nice fat spikes of bloom. In addition, our two seedling peach trees, planted about the same time, this year produced a sufficient crop of peaches to enable me to make two batches of jam. Jam-making with my very own home-grown peaches - what a thrill that was! Since then I have been proudly handing out samples to all and sundry, and I've had no complaints so far. Could it be that everyone is too polite, I wondered? But then again, my entire family has been eating and, apparently, enjoying my jam for the past few weeks, so I guess it can't be too bad....

As usual, I have one little garden story which I would like to share with all of you. The whole episode amused me at the time - I hope it doesn't lose too much in the telling! Anyhow, it happened this way. When I went out to fill Buddy's water bowl the other morning, I found an extremely pretty, satin-y white, moth swimming feebly on top of the water. He looked so cute, and pathetic, that I decided to give him a chance of survival, and, lifting the poor little creature out of the bowl, very gently, I placed him on a piece of wood to dry off in the sun. My idea apparently worked, because later I found that he had crawled some distance away - he seemed to be doing fine. But, alas, it was not to be... Intent on self-destruction (or so it seemed), the next day I found him securely nailed, by one of the spines on a nearby giant clump of cactus. He had, apparently, decided to commit 'hari-kari'. A handsome young moth, but with definite suicidal tendencies, I decided - and there he sits to this day - a monument to impetuous youth!

And now I think I'll take a stroll to enjoy all the cactus buds and blooms which have popped out this weekend. What with these nice little showers, and Geoff's new sprinkler system, we are expecting great things to happen in my favourite hillside garden during the coming months. Having admired the latest cactus blooms, I shall then proceed to the lath-house where (believe it or not) the fuschias are responding equally well to our latest weather conditions. Fuschias and cacti appreciating the same situation? Well, as we all know, anything can happen in the garden with this crazy, beautiful, Southern California climate - and it usually does!

As to our bourganvillea, in addition to the purple and red vines which already are covering the house, my latest - Rainbow Gold - has finally decided to "take off", so it looks as if we shall have an extremely colourful frontage to our house from now on, year round.

The Birds:

My zebra finches appear to have completely covered up their first batch of eggs at the bottom of the nest, and are apparently starting all over again, darn it! This weekend the little mother scared me stiff by going broody on the floor of the cage - I thought she was dying by inches! Next morning, there she was bouncing around as cheerily as ever, and now they are packing more material into the nest. Here's hoping that they have more success with the next batch of eggs... It seems that they're trying, but - what happens to the old eggs, which are right down at the bottom of their deep nest? If anyone knows please let me into the secret....

Today is one of those days which makes one feel glad to be alive and living here in Escondido, so I'm off to the garden. So long, folks - see you at the meeting.

Ye Lady Ed.

Book Sale

Mitch Beauchamp, for reasons beknownst only to him, is selling a portion of his botanical library which includes most of his many books and periodicals on cacti and succulents. Those titles still remaining that may be of interest to the cactophile include:

Rio Mayo Plants - Gentry (rare); *The Aloes of Tropical Africa and Madagascar* - Reynolds; *The Cactaceae* - Britton & Rose (Dover Reprint); *Echeveria* - Walther; *Cacti of the Southwest* - Earle; *A Monograph of the Genus Adenia* - De Wilde; *The Fantastic Clan* - Thornber and Bonker; *Stapeliads in Cultivation* - Lamb; *Sedum of the Trans-Mexican Volcanic Belt* - Clausen; *Ashingtonia* (Partial set); *Cactaceas y Succulentas Mexicanas* (partial set); *Bulletin of Cactus Research* - Backeberg (1934-1938); *African Succulent Plant Society Bulletin* (partial set).

For a more complete listing, with prices, contact Mitch Beauchamp (474-7219) or Jim Dice (276-6739 eves).

Pumice

The Plant Sales Committee now has agricultural pumice available for sale to members. Due to the logistics of storing and transporting this material, it will be available only upon request, so please notify us of your wishes several days in advance of the meeting (ph. Gerald Dice 276-2589). Available in large and small size bags.

Thank You

The Plant Sales Committee would like to thank Ruth and Bill Nelson for their donation of plants last month and Carl McLeod for his assistance in manning the table at the September meeting.

Cactus-of-the-Month

Melocactus

Dr. Ronald E. Monroe

The genus Melocactus Link et Otto is an extremely regal cactus that had humble beginnings in the catch-all, Cactus, of Britton and Rose (1937); Borg (1959) defended Britton and Rose's nomenclature, but also included Melocactus in parentheses (indicating a desire to placate both sides of an argument ?). At any rate, these very handsome cacti have found their rightful place in collectors' hearts and are commonly referred to as melon cacti or Turk's cap cacti.

The taxon is very widely distributed from Mexico, Guatemala and Honduras through the West Indies to South America as far as Central Peru and Bolivia and Northern Brazil. The plants are found growing from sea level to over 1000 m in what is usually thought as a tropical climate (humid, hot conditions) except those found at higher elevations of South America (plants from Peru and Bolivia are considered hardier). Currently, there are ca. 56 species and 4 varieties recognized; however, there are numerous de novo plants called by field numbers and only time will tell whether they are valid or just another pretty clone of an already existing species.

Melocactus have spherical or elongate bodies and are usually simple; a few species are caespitose. Ribs are pronounced (9-20) and are straight and spiny. The spines are very variable ranging from short to long, straight to curved and of different colors; factly, these plants could be collected only because of their attractive bodies and spines. The most noticeable feature of the group, however, is that on attaining maturity, a cephalium of felt and bristles grows from the top center of the plants and from which are produced, annually, rather small bellshaped or funnelform reddish to pink flowers. The cephalium may continue to grow for many years attaining a length of over 30 cm in some species. Field-grown plants are often seen with bifurcated cephaliums and some cephaliums are even known to produce offsets from which de novo plants with their own cephaliums are produced!

As already stated, a cephalium is not required on a Melocactus for it to be very attractive. The exquisite blue bodies of M. azureus, the smallish compact forms of M. violaceus and M. melocactoides, the deep-cut broad ribs of M. glaucesens, the long straight spines of M. longisinus or the long curved spines of M. communis are cases in point. For those who like mature plants, M. albicephalus, M. cremnophilus or M. glaucescens are particularly nice.

While many collectors consider the group as difficult to grow, avid collectors find them not too demanding, provided that a few basics are satisfied. As a rule the root systems are rather meagre and watering must be done carefully; clay pots are preferred. The plants like humidity and heat (a greenhouse and daily or twice daily misting is beneficial -- and a temperature minimum of no less than 45°F must be observed). Generous watering and twice monthly feeding with Stern's Miracid® during the growing period is advisable, but after maturity is reached application of super phosphate pellets with only occasional nitrogen is necessary.

Propagation is mainly via seed, but offsets can be rooted provided the mother plant has them at all.

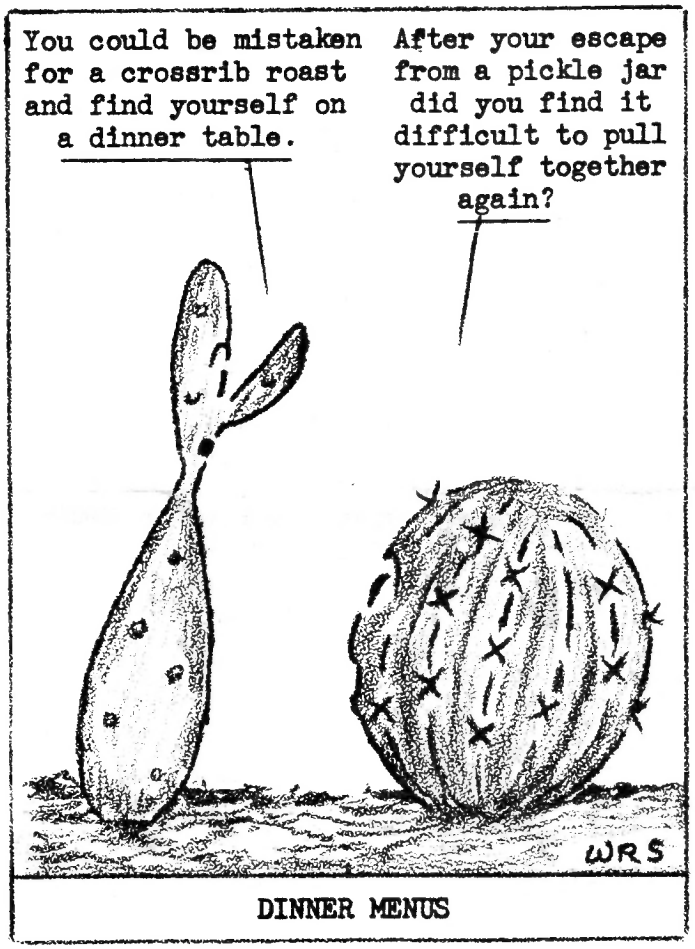
Cygon - 2E insecticide appears to still be best for injurious insect pests (mites, scale and mealy bugs).

References

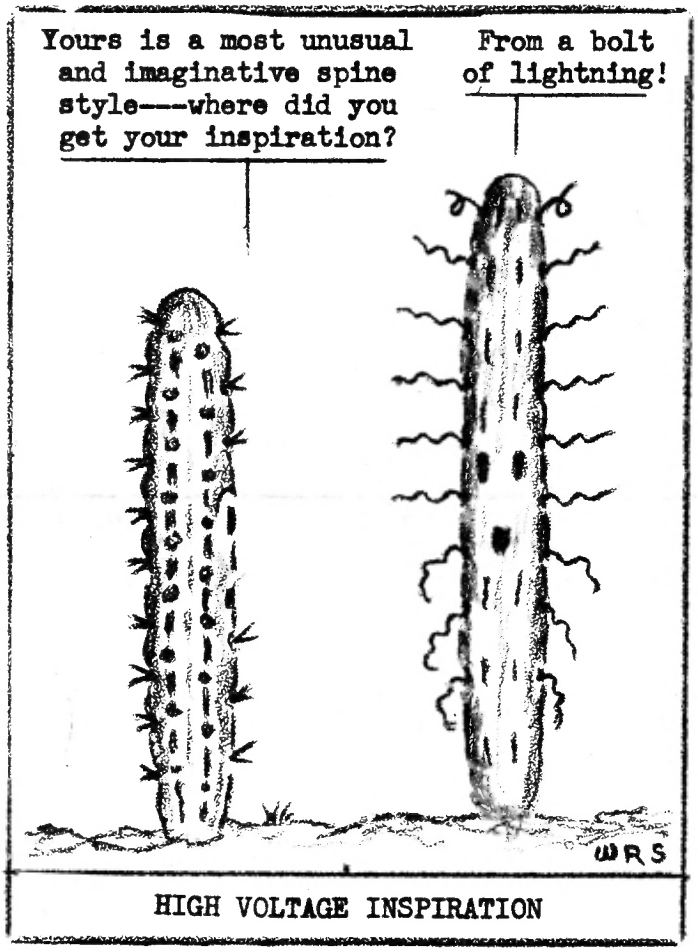
Backeberg, Curt. 1977. Cactus Lexicon. Blanford Press, England.

Borg, J. 1959. Cacti. Blanford Press, England.

Britton, N. L. and J. N. Rose. 1937. The Cactaceae. Dover Publ., Inc., N.Y.



DINNER MENUS



HIGH VOLTAGE INSPIRATION

REGALEMENT

The following members will be providing refreshments at the October meeting:-

Nellie Kennett
Beverly Kirkegaard
Anna Comett
Marianne Thrombley
Ruth Stockton
Michael Bleed
Gaylene Bunch
Patty Buchanan
D. Manfull
Angela Petruzza
Pat Sullivan

RESURRECTION OF DUDLEYA TRASKIAE

by Reid Moran

Dudleya traskiae is a handsome plant known only from tiny Santa Barbara Island, thirty-eight miles off the coast of southern California. It was named for Mrs. Blanche Trask, who first collected it and so discovered it—though casually, taking it for a common mainland plant and so not knowing she had discovered anything. Mrs. Trask was a long-time resident of Santa Catalina Island who knew that island and its plants intimately. She made important early plant collections there and on others of the islands; and she was first to collect thoroughly on Santa Barbara Island, in May 1901 and May 1902.

Dudleya traskiae is a very distinct species, and the fact that it can be called distinct is in itself a distinction; for most kinds of *Dudleya* are distinctly indistinct, as anyone who has tried to identify them can testify. Having long been concerned with *Dudleya*, I find these difficulties a personal embarrassment and have almost come to feel that *Dudleya* must be my fault. It is therefore a real pleasure to find a species that can be called distinct.

In most kinds of *Dudleya* (subgenus Dudleya), the petals are erect to form a tube; but in the subgenus Stylophyllum they usually spread from the middle, to form a star. Hybrids between Dudleya proper and Stylophyllum compromise with a bell-shaped flower, the petals neither erect nor wide-spreading but gradually curving outward above. Although *Dudleya traskiae* is put in Stylophyllum for want of a better place, it has bell-shaped flowers like one of these hybrids; and although it can scarcely be a hybrid in the usual sense, if only because there are no other dudleyas on the island to be its parents, still its resemblance to these hybrids seems significant. Another fact, taken with this resemblance, suggests that *D. traskiae* may have originated long ago through just such a hybrid—though where and when are beyond speculation. That fact is the chromosome number: *D. traskiae* is tetraploid, with double the basic chromosome number for *Dudleya*. Though hybrids tend not to come true from seed, or may be quite sterile and produce no seed at all, it is well known that a plant hybrid may become both fertile and true breeding if its chromosome number doubles. One consequence of this is that it then cannot interbreed readily with either parent, is more or less isolated genetically, and may thus become a distinct species at one fell swoop. The intermediacy of the flowers and the doubled chromosome number together, then suggest that *D. traskiae* may have originated this way. Incidentally, on nearby Santa Cruz Island the tetraploid *D. nesiotica* similarly looks like a polyploid that origi-

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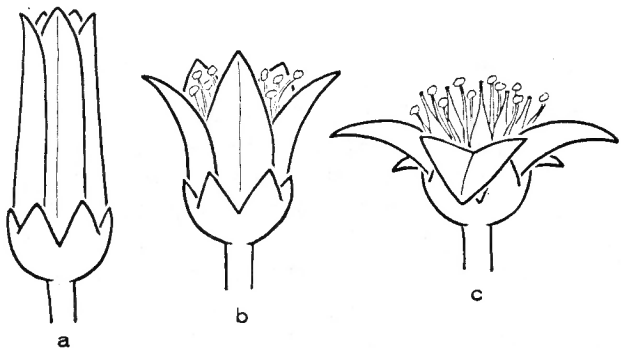
nated as a hybrid between members of subgenera Dudleya and Hasseanthus.

Santa Barbara Island is just one square mile in area—or one irregularly oval mile—with a hilly top above encircling sea cliffs. It was devastated in the past century by goats and more recently by sheep. About 1915 the arable part was cleared and planted; and at the same time, rabbits were introduced. The dudleya somehow survived all these hazards. I first visited the island in 1941 with M.B. Dunkle, who had been making an ecological study and so knew the small island fairly well. He knew of just two populations of the dudleya, one on the south slope of the island, the other on the west. Both were thriving, though each with perhaps fewer than a hundred plants. A later introduction of rabbits severely reduced the vegetation; and, returning in 1949, I failed to find the western population. Later, Ralph Philbrick, of the Santa Barbara Botanic Garden, found a few plants on the east side; but in 1970 he was unable to find the dudleya anywhere (Philbrick 1972). He thought it extinct in the wild—though it did survive in cultivation. Likewise, Powell (1974) listed it as probably extinct.

On the rare-and-endangered-species front, with expanding human population, the news is usually gloomy and the prospect bad. In our part of the world bulldozers are obliterating habitats and plants, and elsewhere it is goats. For many plant species thus threatened, there seems no possible hope. It is therefore good to report at least one small gain: if *Dudleya traskiae* was extinct in 1970, it is so no longer. In May 1975 five living plants were found on the east side of the island, and Dr. Philbrick assures me he didn't plant them. The island is part of the Channel Islands National Monument; and recently Park Service biologists have been hunting down rabbits to give the plants a chance.

Dudleya traskiae survives, but precariously; it is still rare and much endangered. Island plants are likely to be poor competitors; and on a small island, with a small population, even a small catastrophe can wipe out a species. *Dudleya traskiae* seems to have endured its share of troubles. But since steep slopes on the sea brink harbor rabbits beyond the reach of hunters, rabbits are still an incipient catastrophe just waiting to overtake a dudleya: if the hunting slackens, they can again overrun the island. Even if all rabbits are eliminated, however, the plant is still endangered. **The great reduction in its numbers must mean a reduction in its genetic variability, leaving the species less leeway in adapting to future events and thus vulnerable to even a small catastrophe. Perhaps it would be considered fair to intervene in the struggle for existence to the extent of propagating the few clones in cultivation and planting them out on the island. Even with maximum help, it remains to be seen whether this much-depleted population can survive.**



Flowers of *Dudleya*: a. subgenus Dudleya, b. hybrid, c. subgenus Stylophyllum.

References

Philbrick, Ralph. 1972. "The Plants of Santa Barbara Island, California." *Madroño* 21:329-393.

Powell, W. Robert. 1974. *Inventory of Rare and Endangered Vascular Plants of California*. California Native Plant Society, Special Publication No. 1.

Note: *Espinas y Flores* would like to thank Dr. Reid Moran of the San Diego Natural History Museum and Margedant Hayakawa, editor of *Fremontia*, for allowing us to reprint the above article.

Exerpt from S.D.C. & S.S. Bylaws:

Section 3 - Elections

a. The elections shall be held annually at the regular December meeting of the Society.

b. The elections shall be by ballot unless there is but one candidate; if that is the case the candidate may be elected by voice vote, show of hands, or standing.

c. Nominating Committee

1. A Nominating Committee shall consist of not less than three, nor more than five, members. They shall be appointed by the Executive Board prior to the regular October meeting of the Society.

2. A Chairman of the Committee shall be appointed by the President from those selected by the Board.

THE CASE OF THE PLASTER CACTUS

Dianne L. Parham 7/13/78

Of special interest to anyone who enjoys the special beauty of cacti and succulents is the growingly common practice of placing these hardy plants in a hard mixture similar to plaster. This is unfortunately not a practice limited to California. One nursery tried to justify it by saying that it is a common method of shipping plants in the East. Mary Davidson Dunnel of Plants Alive Magazine writes: "The only two (cacti) I purchased enclosed in same (the plaster mixture) died. No more for me either! Although my husband was able to chip the material away, we discovered that the plants had no roots--- they were being held upright by the 'plaster substance'. Cacti and succulents planted in this solid mass can neither grow nor be transplanted. Because they retain water for long periods of time, they will look alive when they are purchased, but must eventually die because their roots cannot penetrate the mixture in which they have been imprisoned. Why would anyone plant them in this way? According to the Department of Agriculture, it makes the cacti and succulents easier to transport. That certainly is true enough, but anyone buying such a plant would do better to buy an artificial cactus, which at least would not turn brown or rot. Ranging in price from 59 cents to $10, these cacti and succulents are sold in cheap plastic pots (often with real soil lining the bottom to which the roots cannot reach) or in attractive pottery (with newspaper filling the space between the drainage hole and the plaster), with decorative pebbles spread on top to conceal the white plaster.

It is not enough to simply not buy cacti and succulents planted in this manner. Complain to nurseries you see carrying them--- they are responsive to consumers. Ralph Garcia of Nurseryland Garden Center wrote to all Nurseryland managers the following bulletin: 'It has been brought to our attention.... that our suppliers are shipping cacti and succulents in 2", 3", dish gardens, etc. planted in plaster (sic). Even though sponge rock, and sometimes a little peat moss, have been mixed in with the plaster, when this media gets water it hardens like a rock, ending up in customers' purchase loss, which is very unfair. Effective immediately, check your stock very carefully, and remove any items planted in such media from your sales floor, and have the vendor pick it up for credit. Please advise your suppliers that we will not accept this type of product in the future."

If you care enough, something can be done. If we make it unprofitable for cacti and succulents to be sold this way, the wholesalers will discontinue doing so. If we do nothing, we may see this practice spread. Don't sit back and assume someone else will do something--- write at least one nursery and tell the manager you will not buy from him until he discontinues purchasing such inappropriately planted cacti and succulents. Warn your friends to check pots before purchasing any plant. If you truly care, you can't allow this planting in plaster to continue without notice, and, if enough of us care to be heard, we may be surprised how much we can accomplish.

AND SO TO BED!!!! 30