

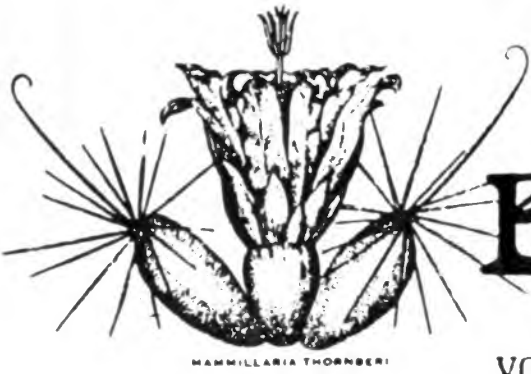
APRIL MEETING

"A MAD HORTICULTURIST'S TRIP TO SOUTH AFRICA"

Espinas y Flores

BULLETIN OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY

VOLUME XXVIII NUMBER FOUR, APRIL 11, 1992



MAMMILLARIA THORNERI



No. 16/25

PROGRAM FOR APRIL JIM MELLI 3/25/81

MICHAEL VASSER WILL PRESENT A SLIDE PROGRAM OF HIS TRIP TO SOUTH AFRICA AND THE "SUCCULENTA '90" CONFERENCE. MICHAEL, WHO IS A SPECIALIST IN SOUTH AFRICAN BULBS AND PELARGONIUMS WILL DOCUMENT THE SUCCULENTS AND BOTANICAL ANOMALIES HE FOUND ON A TRIP STARTING AT PORT ELIZABETH UP TO BOTSWANALAND AND THE ORANGE FREE RIVER AND WEST TO NAMIMBIA. MICHAEL WILL HAVE RARE SEED GROWN PLANTS FOR SALE.



We are very saddened to hear of the loss of our member Paul Henderson. Paul lived in Vista for forty-five years; he had a heart attack. He has been a member for several years now, and was very supportive of his wife's increasing involvement with club activities and board meetings. He will be missed. Our thoughts and prayers go out to his wife Marylyn Henderson.

MISCELLANEOUS

COVER ART: ESPINAS y FLORES IS PROUD TO PRESENT LOCAL SAN DIEGO ARTIST JIM MELLI AS OUR COVER ARTIST THIS MONTH. JIM'S "TREE ALOES" DONE IN 1981 IS 8" X 10" AND IS IN THE COLLECTION OF MICHAEL & JOYCE BUCKNER. LOOK FOR MORE OF THIS TALENTED ARTIST'S ILLUSTRATIONS IN THE FUTURE.

PER POPULAR REQUEST WE HAVE ELIZABETH GLOVER'S RECIPE FOR SPINACH DIP:

- 2 - 10oz. pkg frozen chopped spinach (thaw it)
- 1 - 16oz sour cream
- 2 - cups "Best Foods" mayonnaise
- 2 - pkg "Knorr's Vegetable Soup Mix"
- 2 - 8oz cans of water chestnuts (finely diced)
- 6 - green onions w/tops (finely diced)
- 1 - "Shepherd's Loaf" of bread
- 1 - loaf of French bread

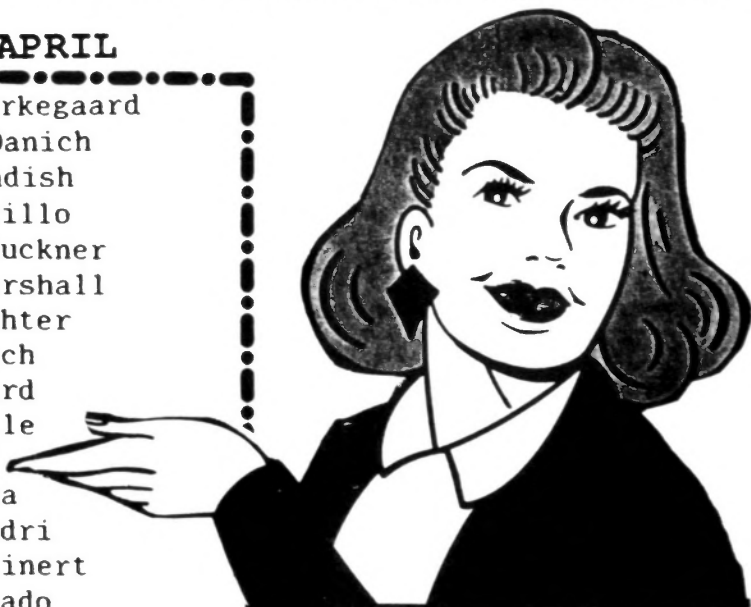
So We Can Keep You Informed...

KEEP US INFORMED

Drain water from thawed spinach as much as possible. Mix spinach, sour cream, mayo, soup mix, water chestnuts and green onions. Cover and refrigerate for two hours. Cut straight down into Shepherd's loaf to make a circular lid; don't cut very wide; pick out chunks to make the bowl, but don't make bowl too thin. Bake the bowl @ 350 for 5 minutes just before filling with dip. Once you fill the bowl, stick in plastic bag until ready to serve. Make additional chunks for dipping out of French bread.

FOR APRIL

- Beverly Kirkegaard
- Florence Danich
- Ethel Standish
- Rose D'Attilio
- Virginia Buckner
- Elibeth Marshall
- Millie Richter
- Michael Koch
- Peg Hilliard
- Kirsti Hille
- Red Bernal
- Sonia Garza
- Mark Palandri
- Alberta Klinert
- Nicki Delgado
- Mr & Mrs. Charles Clark



REFRESHMENT VOLUNTEERS





JOIN THE LIVING DESERT



HELP US INTERPRET
AND CONSERVE THE
WORLD'S DESERTS.

APRIL SPECIAL EVENT:

SAN DIEGO AND PALOMAR CACTUS & SUCCULENT SOCIETY BUS TRIP

WHAT: BUS TRIP IN SCENIC CRUISER TO "THE LIVING DESERT" WILDLIFE AND BOTANICAL PARK IN PALM DESERT. A SPECIAL WILD FLOWER TRIP!

WHEN: APRIL 12, 1992 - PALM SUNDAY.

TIME: BUS LEAVES SAN DIEGO @ 8:00 AM PROMPTLY FROM THE PARKING LOT BEHIND ORGAN PAVILION, BALBOA PARK. ADDITIONAL PICK-UP SPOT FOR NORTH COUNTY RESIDENTS WILL BE AT THE CAL TRANS PARK AND RIDE LOT ON NORTH VALLEY PARKWAY EXIT OFF I-15 IN ESCONDIDO (PLEASE BE THERE NO LATER THAN 8:30AM). WE SHOULD ARRIVE AT AROUND 11:30. BUS TO DEPART AT 4:00.

PRICE: \$20.00 PER PERSON INCLUDES TRANSPORTATION, PARK ENTRY FEE (NORMALLY \$6/PER PERSON), AND GUIDED TOUR (ONE SHORT AND ONE LONG HIKE FOR THE INTREPID)

BRING: A GOOD LUNCH WITH PLENTY OF LIQUIDS (SOFTDRINKS AND REFRESHMENTS IN PLASTIC CONTAINERS OR CANS - PLEASE, NO GLASS ON BUS OR GROUNDS); THERE IS A NICE SHADED PICNIC AREA AND NO FOOD SERVICE (RESTAURANT) IN PARK, HAT OR UMBRELLA, SUNGLASSES, AND GOOD WALKING SHOES. THERE IS A SEVEN PERSON TRAM TOUR FOR NON-HIKERS (EXTRA COST TO INDIVIDUAL). YOU MIGHT ALSO WANT TO BRING A LITTLE \$\$ - THERE IS A RARE PLANT NURSERY, FEATURING A SALE ON THIS WEEKEND AND A WELL STOCKED GIFT SHOP.

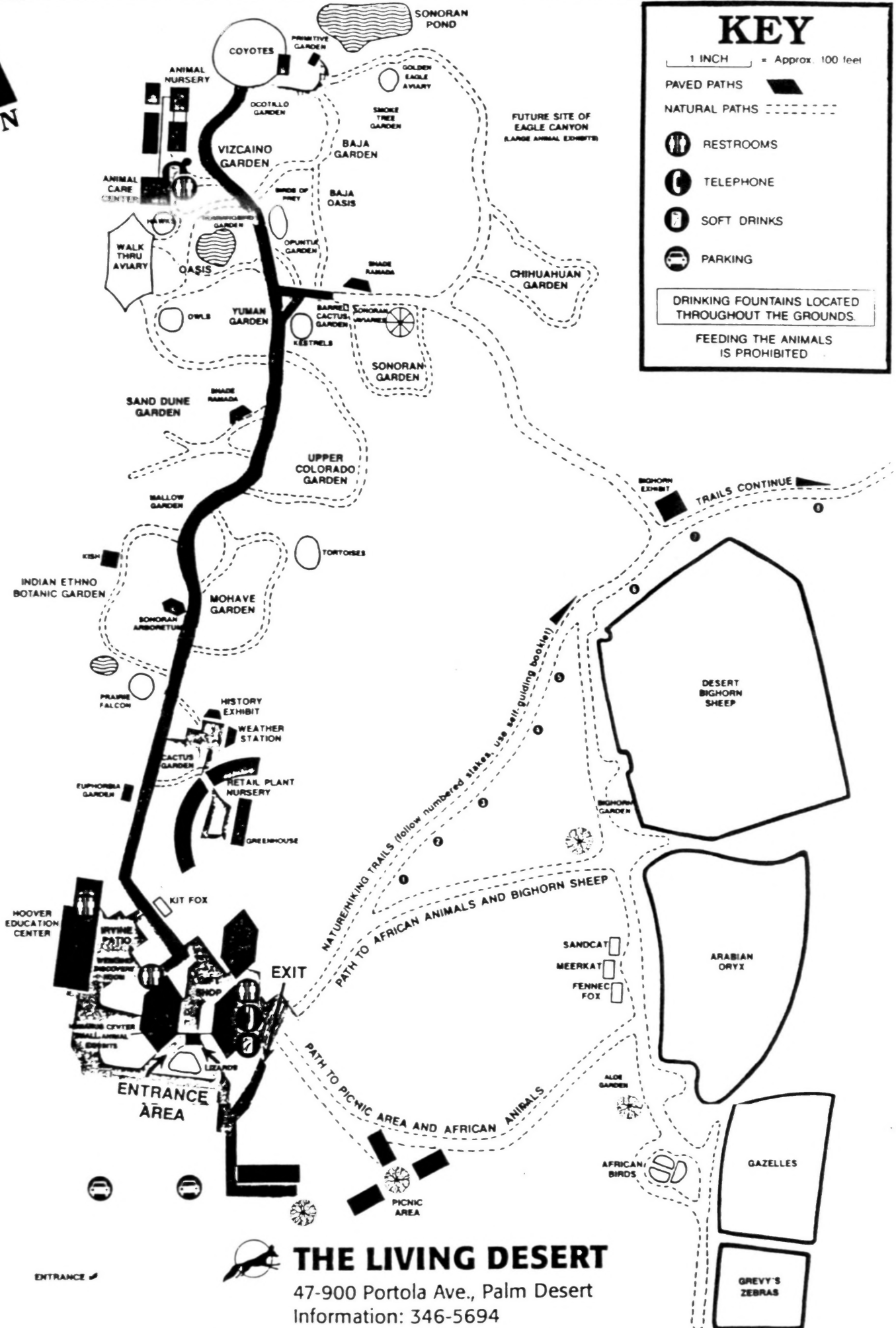
RESERVE: CALL MICHAEL OR JOYCE IMMEDIATELY - 222-3216 - IF YOU PLAN ON PARTICIPATING, AS THE BUS IS NEARLY FULL; SEND CHECKS TO SDC&SS, P.O. BOX 33181 - HILLCREST STATION, SAN DIEGO, CA 92163-3181.

THE LIVING DESERT has 1200 acres, 200 of which are developed as a zoo, botanical garden and natural history museum interpreting deserts of the world, and as a conservation center for desert plants and animals. There are indoor and outdoor exhibits, paved and unpaved walkways, busy centers and private retreats, close-up views and broad vistas in this part of The Living Desert, all contributing to an unusual variety of experiences for visitors. The gift shop, plant nursery, food service, visitor convenience facilities, education building and administrative offices are also located in this developed area.

The other 1000 acres of Living Desert are a wilderness park, held in trust as a permanent natural preserve. The natural area is accessible by nature and hiking trails. It has few visitor amenities, but many personal wilderness discoveries.

The Living Desert was established in 1970 as a desert education and conservation center. It is a private, non-profit organization, and finances almost all of its operations on income from admissions, memberships and gift shop and nursery sales. Donations are also a small but important source of operating support, and are greatly appreciated.

THE LIVING DESERT



KEY

1 INCH = Approx. 100 feet

PAVED PATHS

NATURAL PATHS

RESTROOMS

TELEPHONE

SOFT DRINKS

PARKING

DRINKING FOUNTAINS LOCATED THROUGHOUT THE GROUNDS.

FEEDING THE ANIMALS IS PROHIBITED

PORTOLA AVE

ENTRANCE



THE LIVING DESERT

47-900 Portola Ave., Palm Desert
Information: 346-5694

CACTUS OF THE MONTH

Joey Betzler

Pediocactus

(pid'-i-i-kak-tüs)

The genus Pediocactus was created by Britton and Rose in 1913. There are about eight species most are miniature sized. The smallest species have heads that are 1/2 to 3/4 inch in diameter (dime to nickel sized). The larger specimens can be 4 to 6 inches in diameter. The plants are cylindrical to globe shaped and form solitary to clustered stems. There are no ribs on the body of the plant, but the plants have tubercles, spirally arranged similar to Mammillaria. Spines are on the tips of these tubercles and variable in number, color, size, thickness, texture and direction. The spine clusters often obscure the plant body. One of the major diagnostic features of Pediocactus is flower placement. The flowers are borne near the tips of the tubercles next to the spine clusters (areole). Flowers are 1/2 to 1 inch in diameter and range in color from yellow to magenta and cream to white. Some flowers are multicolored occasionally with a darker mid-stripe on each petal. The fruit is green to green-yellow often turning red-brown when mature. The fruit is smooth, though sometimes a few scales are present, no spines are present on the fruit body. This naked fruit is cylindrical to 'top-shaped' with a constricted base and a slightly convex flower scar. Fruit dehiscence (seed dispersal) is an important feature and discussed below.

Lyman Benson revised the genus in a series of papers in 1961-62. Pediocactus in the sense of Benson has been enlarged to include members from six other groups: Echinocactus, Mammillaria, Navajoa, Pilocanthus, Toumeyia and Utahia. The basis for this lumping is the fruit dehiscence; through a vertical slit in the ovary wall and the swelling of this wall that 'opens' this slit swells into a portal for the seed to drop through. Only P. papyracanthus is different, and leads some investigators to question its actual relationship in this group (Heil et al., 1981). Arp in 1972 lumped Sclerocactus and Pediocactus together, but this lumping of taxa is not generally accepted.

Hochstatter (1990) has chased Pediocactus in eleven states which delineates the western United States with only Montana left out. These states are: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming. No plants are recorded in Canada and the Mexican species need further study. This genus of cacti survive in environments that are very harsh. The extremes in temperature are great indeed, snow in the winter and up to 100°F and more in the summer.

Heil et al. divide the genus into two groups: the "river system" plants form one group. The river that they refer to is the Colorado and its major tributaries. All these species are found within a few miles of the water and most (there is one exception) are in the Navajoan Desert at elevations between 3,400 to 5,900 feet. The other species are from diverse habitats and will be dealt with individually.

The "river system" plants consist of; Pediocactus knowltonii, P. bradyi, P. peeblesianus, P. winkleri and P. despainii. One species P. knowltonii, the exception, does not actually grow very close to the Colorado River but all the members do grow in gravelly soils, usually alkaline in nature.

The smallest taxon is Pediocactus knowltonii. Individual heads can be 1/2 to 1 inch in diameter and with age the stems form clusters. Not only is the size small but the distribution is very small as well. This plant is protected and grows at 6,600 feet. It receives more snow than any other Pediocactus, except perhaps P. simpsonii.

Pediocactus bradyi grows in a very narrow band along the Colorado River. In the vicinity of Marble Canyon, in Arizona. It grows in limestone flakes. In the extremely hot dry summer months the plants pull themselves below the surface of the soil. With the first rains the plants 'pop up' and are usually the first ones to bloom and set seed in this genus.

PEDIOCACTUS - THE CACTUS OF THE MONTH

Pediocactus peeblesianus var. peeblesianus usually are single stemmed plants and grow in a restricted range. These plants are found at 5,000 feet on low gravelly hills on the Little Colorado River near Holbrook, Arizona. It is common in its range, but during the dormant season it is rather difficult to find due to its retractile root. This retractile property is common in many of the pedios which makes field collected plants difficult to establish. Variety fickeisense also has a range along the Little Colorado as well as the Colorado River. The altitude is similar but the plant is not as threatened as its sister variety.

Pediocactus winkleri is a recently described plant (1979) with a limited range in Wayne County, Utah. It grows between 5,000 to 5,300 feet on Alkaline Hills. This cactus also 'hides' during the extremes in temperature. These extremes can be from 105°F to -30°F, few cacti can tolerate these extremes.

Pediocactus despainii is the most recently described (1980) pedio. It is the largest "river system" plant, with specimens up to 2½ inches tall by 3½ inches in diameter. Plants can be found on rocky slopes near juniper forests at about 5,900 feet. The range is very limited in southeastern Utah. The flower buds are formed in the fall and do not open till the following April or May. This feature is common in Pediocactus; the flowers overwinter. When the flowers open in spring they are the showiest of the genus. This is the extent of the "river system" group, the following plants grow in diverse mountainous areas.

This first taxon is also the type species (the plant that the genus is based on) Pediocactus simpsonii. There are three varieties recognized. Variety simpsonii inhabits mountainous areas associated with pinyon-juniper, sagebrush, ponderosa pine and spruce-fir forests at the higher elevations. Those elevations range from 6,700 to 11,000 feet! The robust variety (var. robustior) occupies the dry regions of eastern Washington and Oregon, the extreme west of Idaho and northeastern Nevada. It is found in open rocky grassland. The eastern most member is var. minor. This variety grows in eastern Wyoming through Colorado to Taos New Mexico. Most plants grow below 9,500 feet and can be found in association with ponderosa pine or open prairie grassland.

Pediocactus paradinei inhabits two distinct but adjacent habitats in extreme northern Arizona. At 7,000 feet the plants grow in pinyon-juniper woodland on the Kaibab Plateau eastwards to the open grass covered alluvials at 5,000 to 6,000 feet. When the plants are in their retracted state they are almost impossible to find. The name "Gypsum Cactus" describes some of the habitats of P. sileri, one of the larger bodied plants (6 inches tall and 4 inches in diameter). It can be found in the gypsum soils of Fredonia, Arizona, but grows just as well on the adjacent red sand soils.

The "Paper-Spined Cactus" or Toumeya is the name for P. papyracanthus. Some students of Pediocactus believe this plant does not belong in the genus. The plants can be found in two disjunct areas. In New Mexico small populations range from Santa Fe to Albuquerque. The Arizona location is near Holbrook. The plants are taller than typical 'pedios' (see figure 8.7, from Benson, 1981) and the fruit dehiscence is different.

Cultivation of Pediocactus is difficult. Field collected plants do not usually live long in a pot. Plants do well when they are grafted, though they lose their natural features and become bloated. A positive feature of grafted plants is that they produce an unnatural amount of offsets. Propagation of the offsets is easy. The "river system" plants have two dormant seasons. The best season to graft these plants is in spring or early summer, also early fall. The mountain plants are dormant only in winter and grafting is possible when ever they are actively growing. Seedling cultivation is probably the most important method being used for propagating plants. It is important to cold stratify the seed and label the seed pots well; all seedling pedios look the same. Mountain Pediocactus can be cultivated without a rest in the summer, but "river system" plants need a rest in the summer.

by Joseph Betzler

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 Benson, L. 1981. *The Cacti of Arizona*. Revised Third Edition. The Univ. of Arizona Press
 See figures 8.3 and 8.7 below.
 Heil, K., B. Armstrong and D. Schleser. 1981. A Review of the Genus *Pediocactus*. *CSSA Journal* 53:17-39.
 Hochstatter, F. 1990. *To the Habitats of Pediocactus and Sclerocactus*. Self Published.
 See figures of spines below.
 Weniger, D. 1970. *Cacti of the Southwest*. Univ. of Texas Press.

PLEASE BRING IN YOUR PLANTS - - - - - I DO NOT HAVE ANY - THANKS

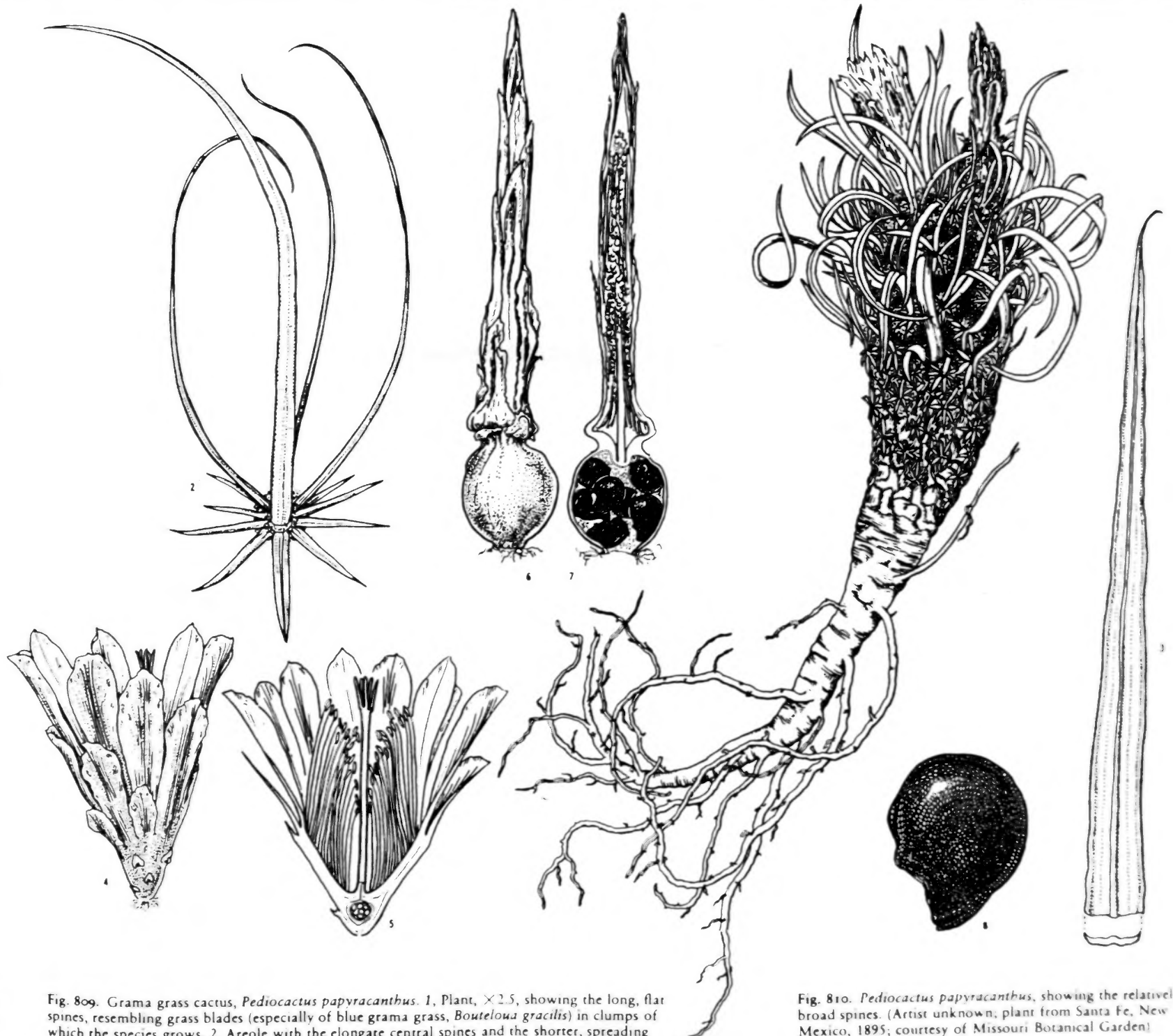


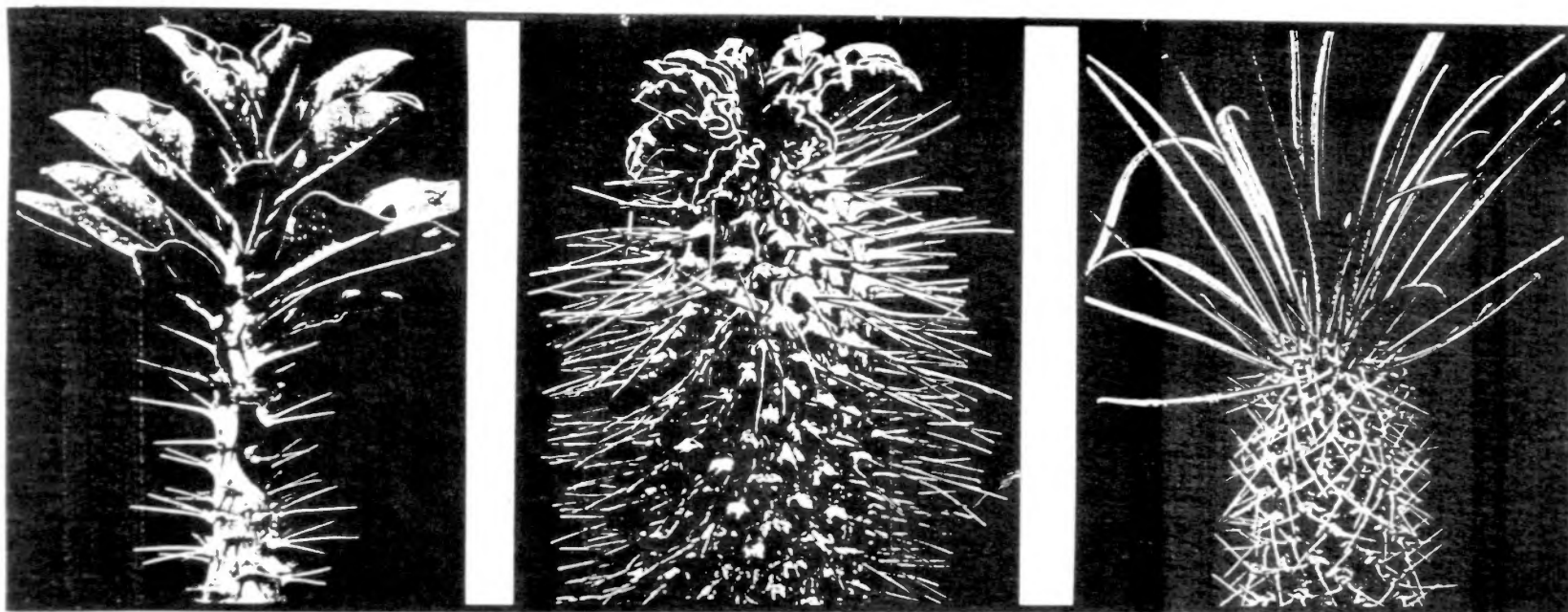
Fig. 809. Grama grass cactus, *Pediocactus papyracanthus*. 1, Plant, $\times 2.5$, showing the long, flat spines, resembling grass blades (especially of blue grama grass, *Bouteloua gracilis*) in clumps of which the species grows. 2, Areole with the elongate central spines and the shorter, spreading radials, and with wool, $\times 5$. 3, Tip of a central spine, showing the median groove, and a cross section, $\times 12$. 4, Flower, $\times 2.5$. 5, Flower in longitudinal section, $\times 2.5$. 6, Fruit, with the upper flower parts persistent, $\times 4.25$. 7, Fruit in longitudinal section, $\times 4.25$. 8, Seed, in hilum appearing more or less basal, more so than usually in this genus, $\times 12$.

Fig. 810. *Pediocactus papyracanthus*, showing the relatively broad spines. (Artist unknown; plant from Santa Fe, New Mexico, 1895; courtesy of Missouri Botanical Garden)

The genus Pachypodium (from the Greek, meaning "thick foot" or "elephant's trunk") was proposed by Lindley in about 1830. The genus consists of about thirteen species, depending on which author one reads, occurring in southern Africa and the island of Madagascar. They are exclusively succulent members of the dicot family Apocynaceae, which includes the Madagascar periwinkle, Natal plum (Carissa), and oleander. Adenium is a closely related genus consisting of only one species, according to Rowley, which is more widely distributed in Africa, although apparently not occurring in Madagascar.

Unlike Adenium, the Pachypodiums show a considerable variety of growth forms for which a number of descriptive terms have been proposed (Rowley again). These include "cereiform" (exemplified by P. namaquanum), "treelike pachycaul" (P. lamerei, P. geayi, and P. rutenbergianum), "shrubby pachycaul" (P. rosulatum, P. densiflorum, P. baronii, P. ambongense, and P. decaryi), "caudiciform" (P. succulentum and P. bispinosum), and "brevicaul" or "cactiform" (P. brevicaule). These terms may have their usefulness, but obviously, one could get carried away with them; "coralliform", "tuberous", "arborescent", and "geophytic" might be applied to various Pachypodiums equally well.

The distribution of the species, in southern Africa, at least, suggests that the population of some may be relict, that is, the plants were widespread at one time, but have become more restricted geographically. The diversity and number of species in Madagascar is somewhat larger (four African vs. nine Madagascan species) and distributed more widely throughout the arid regions of the island. Like P. namaquanum, some of the species (P. baronii and P. decaryi, for example) are extremely limited in the area of their occurrence, and probably very much threatened. P. rosulatum and its variety (? or separate species) horombense appear to be the most widespread throughout Madagascar.



Pachypodium saundersii.

Pachypodium namaquanum

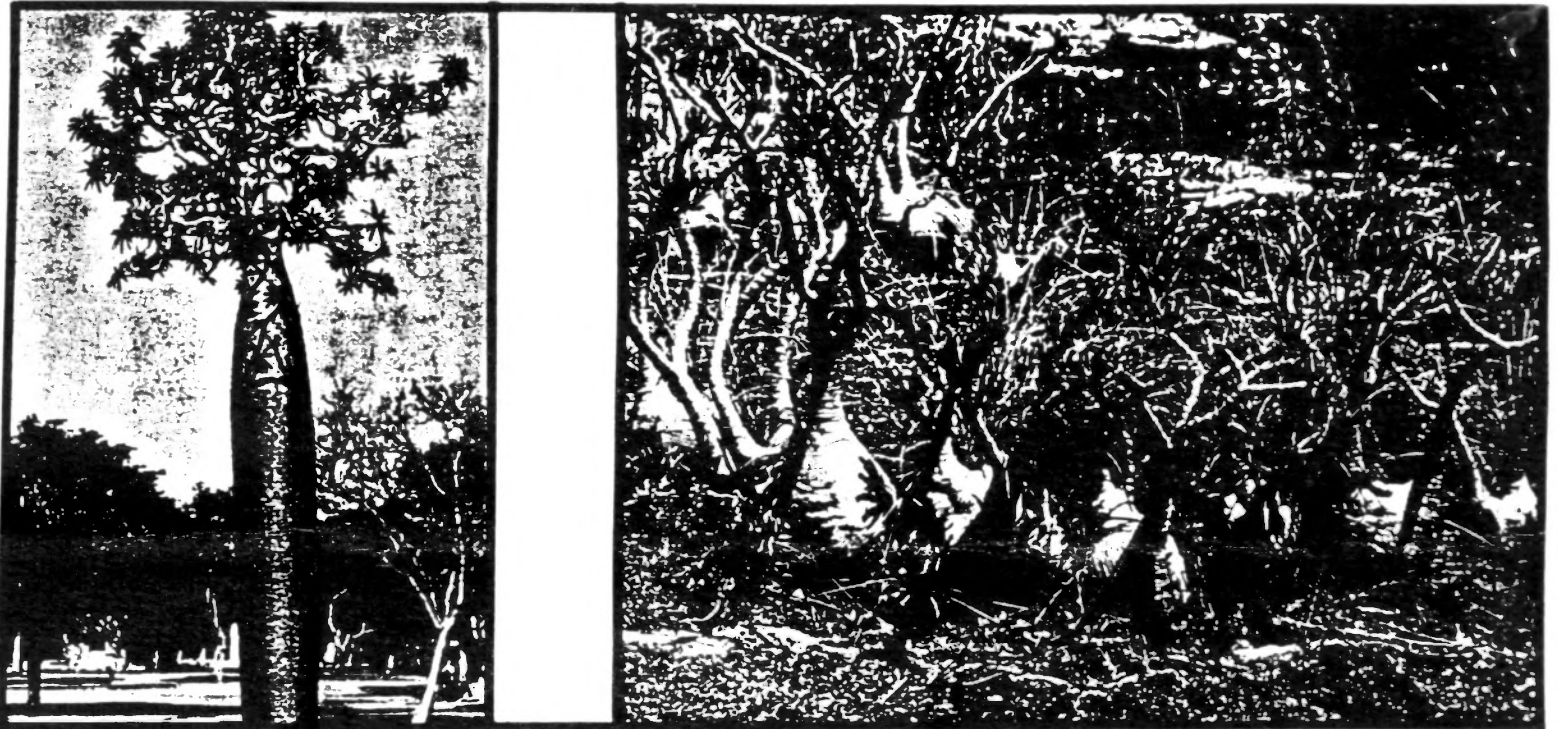
Pachypodium geayi

The basis for separating the species is, according to Rowley, the different flower forms to which specific pollinators have adapted. Thus, the open-flowered ("rotate") plants (P. geayi and P. densiflorum, for example) are generally pollinated by bees, whereas the "salverform" ones (having a long, narrow corolla tube) are pollinated by insects having much longer mouth parts. On this basis, Rowley distinguishes P. succulentum ("salverform") from P. bispinosum ("funnelform"), even though the plants are virtually indistinguishable when not in bloom; they do not appear to be cross-pollinated by natural agents (this argument excludes over-zealous collectors). Likewise,

SUCCULENT OF THE MONTH

P. geayi is distinguished from *P. lamerei* by its open ("rotate") flower form, as well as leaf characteristics; *P. rosulatum* is distinguished from *P. densiflorum* by its tubular ("funnelform" - a la Rowley) flowers. *P. baronii* and its variety *windsorii* are the only red-flowered species in the genus. *P. decaryi* is the only nearly spineless Pachypodium, reminiscent of *Adenium*, with large, fragrant, white salverform flowers. *P. brevicaule* is readily recognized by its lumpy, coral-like masses (or, if you prefer, the time-honored "cow pie" is an equally good descriptive term). Its blooms resemble the flowers of *P. rosulatum*, with a somewhat narrower corolla tube.

The culture of most Pachypodiums presents relatively few serious problems. They seem to be amenable to most of the well aerated commercial mixes, especially those having little or no peat moss. One frequent problem which



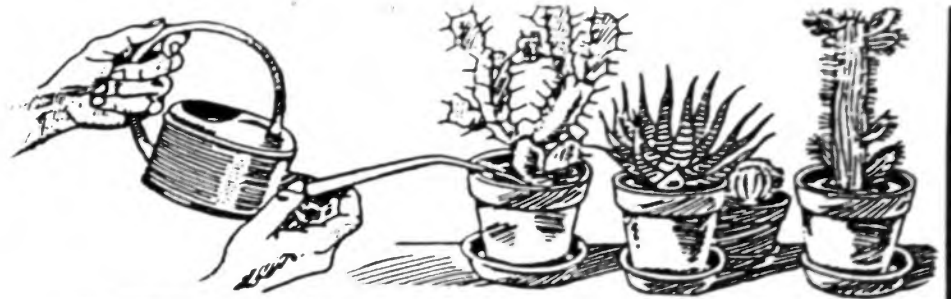
Pachypodium geayi, the largest specimen in southern Madagascar (ca. 8 m)

Pachypodium rosulatum var. *gracilius* in the Isalo Mountains (southern Madagascar)

can be detracting to the appearance of the plants, if nothing else, is etiolation (elongated, thin stem growth). This may be due to a number of factors: 1) some plants may have a natural tendency to etiolate when growth starts, and then die back during subsequent dry periods, 2) insufficient light intensity, 3) too much fertilizer, especially high nitrogen types, 4) too much water, and 5) overpotting. Collectors should be wary of such plants in nurseries, as they are not very appealing, and could be more prone to sudden rot than 'hard grown' plants. Full sun is probably advantageous to all the species, remembering that their habitat in Madagascar varies in latitude from about 10° south at the northernmost point of the island to around 30° south at the southern extreme. In spite of this, many, if not all species can be adapted to growing under lights, and do surprisingly well, particularly young plants grown from seed. Unlike many succulents (cacti, for example) and xerophytes, Pachypodiums do not like to be bone dry for long periods, and suffer considerably under these conditions, completely losing their roots if the drought is sufficiently long. A plant in this condition may be very difficult to re-root (especially if it's *P. brevicaule*!), and can easily rot when watering resumes. Therefore, they should probably be grown throughout the year, without any definite, prolonged dormancy, provided that cold temperatures can be avoided. When in active growth, they are serious drinkers and can take a prodigious amount of water, if they are planted in a well-draining, porous soil mixture.

"From All Corners"

by Shirley Berry



In spite of fertilizing, spraying, and good hygienic cultivation methods, I'm sure we've all had plants which look scarred, yellowing, and show improper growth. Why?

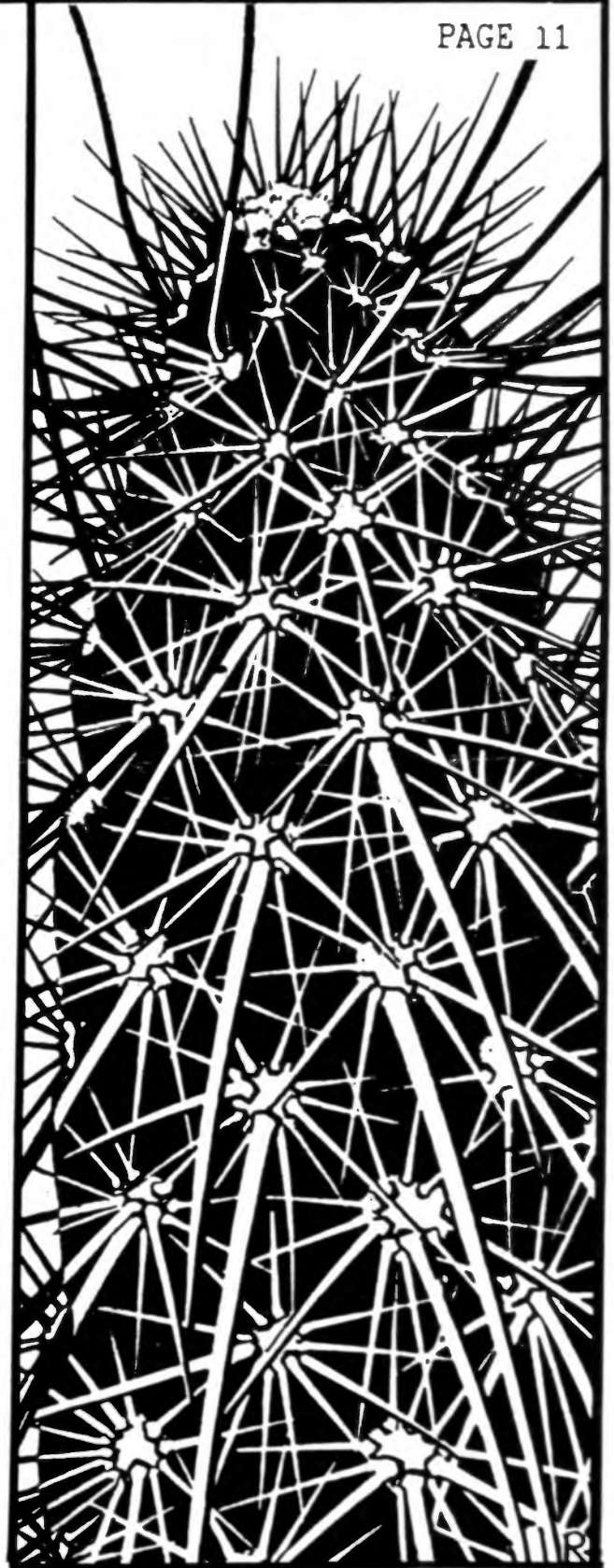
Roy Mottram in the British Cactus and Succulent Journal of March 1986 tells us that more plants are lost or scarred by poor nutrition than by any other single factor. His main concern is the PH of the fluid solution used on the plants and the PH of the potting material.

He states, "Some elements such as calcium and sodium tend to increase alkalinity, while others such as sulphur and aluminum tend to render the solution more acidic. As alkalinity increases, nutrients tend to become insoluble and unavailable to the plant. Plants which naturally grow in calcareous areas have evolved special ways of overcoming this handicap... by soil fungus, but pot culture cannot reproduce this.

The ideal PH (he goes on to say), is around 5.5, but a range between 4 and 6.5 is acceptable. Seed germination is also affected by PH, and is almost inhibited by a PH above 7."

He mentions that the traditional treatment for acidifying water on a commercial scale is sulfuric acid. Also, gardeners use flowers of sulphur to render alkaline soils suitable for acid loving plants. But the third and most practical means of reducing PH in a small collection is by using aluminum sulfate (the Hydrangea colorant). To reduce the PH from 7.1 to 5.5 the rate is about one teaspoon to every two gallons of water.

"Another method of overcoming PH problems is to use a compost with lots of organic material such as peat, well rotted leaf mold, or manure. The micro-organisms which thrive in these materials have the ability to control the PH at around the 5.5 level. However, since succulents must be kept dry at regular intervals, there is no long term survival of these micro-organisms. Plants which are grown this organic system should be repotted annually." (TO BE CONTINUED)



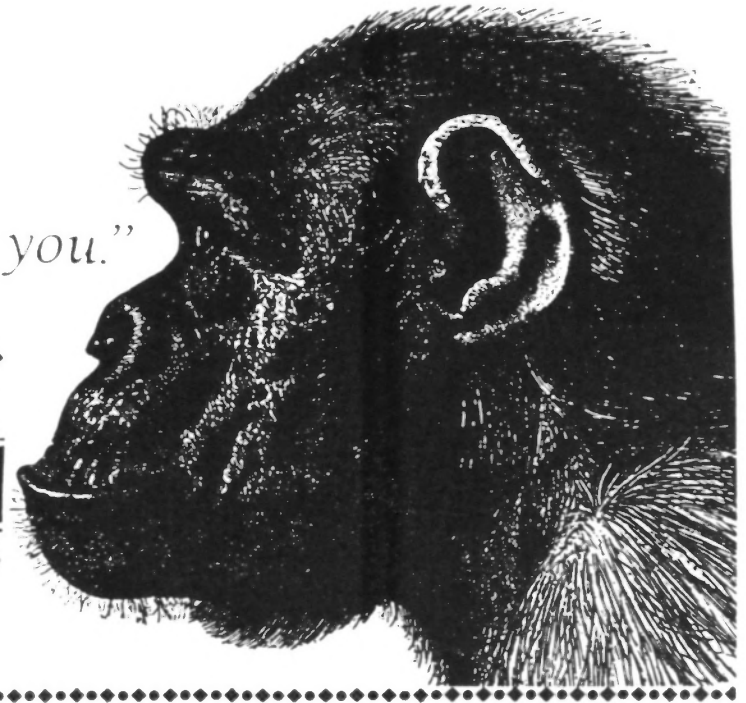
THE MESA COMMUNITY COLLEGE GARDEN CLUB PLANT SALE IS MAY 3rd @ 1-3pm ON THE
GROUNDS OF MCC NURSERY LANDSCAPE OPERATIONS, GENESEE AND MARLESTO.
EXTERIOR, INTERIOR, COLOR, HERBS AND EXOTIC PLANTS WILL BE AVAILABLE AT
BELOW WHOLESALE COST. COME EARLY FOR BEST SELECTION. SALES BENEFIT THE
MCC GARDEN CLUB SCHOLARSHIP FUND. CALL FLORENCE DANICH 291-1825 FOR INFO!

"If you love it enough, anything will talk with you."

—GEORGE WASHINGTON CARVER

.....
WISE AND OTHERWISE
.....

Michael Buckner



.....
"VENEZUELA IS HOME TO YET ANOTHER MONUMENTAL STUDY, A FORTY-YEAR INVENTORY OF THE GUAYANA HIGHLANDS. IN 1988 THE GARDEN (SHAW'S GARDENS, MISSOURI BOTANICAL GARDENS, ST. LOUIS) RECEIVED A GRANT FROM THE NATIONAL SCIENCE FOUNDATION TO SUPPORT DR. JULIAN A. STEYERMARK'S STUDY ENTITLED, "THE FLORA OF THE VENEZUELAN GUYANA". A TOTAL NUMBER OF NINE THOUSAND SPECIES IS ESTIMATED TO OCCUR WITHIN THIS AREA, HALF OF WHICH CANNOT BE FOUND ANYWHERE ELSE IN THE WORLD. DR. STEYERMARK, WHO IS CREDITED WITH COLLECTING OVER ONE HUNDRED AND THIRTY-EIGHT THOUSAND PLANT SPECIMENS OVER HIS LIFETIME, IS LISTED IN THE "GUINNESS BOOK OF WORLD RECORDS" AS THE "CHAMPION PLANT COLLECTOR". HE RECEIVED HIS DOCTORATE FROM WASHINGTON UNIVERSITY IN 1933 AND JOINED THE STAFF (OF SHAW'S GARDEN" IN JUNE 1984, AFTER A DISTINGUISHED CAREER AT THE FIELD MUSEUM, CHICAGO AND THE INSTITUTO BOTANICAO, CARACAS. DR. STEYERMARK DIED IN OCTOBER, 1988, BUT THE PROJECT WILL BE COMPLETED BY HIS ASSOCIATES AT THE GARDEN AND THE NETWORK OF CONTRIBUTORS THAT HAD BEEN ESTABLISHED BEFORE HIS DEATH. from "A WORLD OF PLANTS", The Missouri Botanical Garden, Harry Abrams, Inc, 1989.
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"In all the universe around us, and in the secret regions of our own secret hearts, instinct everywhere pervades: profound unlearned impulses giving guidance to the lives of ants and birds and beasts and men and all the creatures of the earth." from LIVES AROUND US by Alan Devoe
.....

.....
"When I was ten, we used to go to my grandfather's farm after the field had been plowed and collect arrowheads. Now it is a different story. I sense the transience of things. What to do with the mute remnants of our prehistoric and historic life - pottery shards, projectile points, grinding stones, petroglyphs, rock alignments? Let them stay! Collecting them is not only illegal, but pointless. The dusty artifacts moldering on a million mantles and in a million dresser drawers and in a million shoeboxes, in closets are adding little to anyone's life. Even museums can't use donated artifacts, collected without documentation. Capture them in another way! photograph them, sketch them in your collector's notebook, muse over them, or write a poem about them on the actual site --- take them back in your mind. But leave them. Toss them back under a bush, like the true fisherman who throws back the ones that are too small." DESERT HEART, CHRONICLES OF THE SONORAN DESERT, William K. Hartmann, 1989
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.....
"Few wild creatures perish of old age. Sooner or later, in the wild, some combination of inherent weakness, injury, disease, parasites, or competition, or migration barriers, or weather ... will cause the wind bird to fall to the hawk or storm that in its years of strength it had outflown.".....from THE WIND BIRDS by Peter Matthiessen
.....

"The world is full of individual objects, living and non-living. They vary in all conceivable ways among themselves. To understand and discuss them individually is a humanly impossible task. However, they become amenable when they are considered in discrete groups. Any act of grouping objects into categories is an act of classification. It is an essential phase in human activity to cope with the otherwise chaotic multiplicity of individual objects and is a necessary precondition for orderly thinking. That a sense of classification is involved in all human thought and underlines all forms of science is well recognized. The science that deals with classification is 'taxonomy', a term coined by the famous French botanist, de Candolle (1813), derived from two words, 'taxis' meaning arrangement and 'nomos' meaning study. In short, taxonomy is the study of the principles and practice of classification."
from PRINCIPLES OF PLANT TAXONOMY by V.V.Sivarajan, Cambridge Press, 1991

"THE ETHICAL PERSON SHATTERS NO ICE CRYSTAL THAT SPARKLES IN THE SUN, TEARS NO LEAF FROM ITS TREE, BREAKS OFF NO FLOWER, AND IS CAREFUL NOT TO CRUSH ANY INSECT AS HE WALKS."
from PHILOSOPHY OF CIVILIZATION: CIVILIZATION AND ETHICS, by Albert Schweitzer, John Naish, trans (London, 1923)

OTHERWISE

...When it saw me at the tent flap, the dog hesitated, then halted, about a hundred yards away. He was still in his thickest winter coat; but through the glasses I saw that the coat was shabby and worn down to the skin in places, and that he was old.

Then to my horror, he wagged his tail. I wish he hadn't. I wish he had looked at me with all the cold indifference that Eskimo dogs show toward a stranger. But this one was so desperate to placate any human being that he wagged his tail.

One of the men erupted from the hut, fired a shot and yelled "Scram youold bag of bones"... I knew what was going to happen and knew it was the only thing to do and the most merciful, because there was no longer any place for this dog in the order of things; this was the Arctic, not suburbia.... Yet this husky, who had wagged his tail so uneasily before us just now was a dog who had lived and worked in the cruelest possible elements for his entire life, straining his heart out in harness, goaded on by the whip or staked out to a short chain in the non-working months, to fight and pant with thirst with his team, his only reward the hunk of seal or fish flung down once or twice a week, his only anticipation that of running in the traces again. In spite of all this, he had sought out man again... and shown by the only means in his power that he was ready to do the whole thing over again.

But we had no use for him. At another threat, he dragged himself back a few yards, then, when once again there was no movement outside the hut, he regained the ground. John came out with a rifle, and lay down to take aim. The dog wagged his tail again, there was a crack, and he fell. There was no movement, only the stiff, injured hind leg lowering slowly down to the heather. He had known nothing; he was all right now.

But I was not all right, not at peace. I had known something. And what I knew I did not like or understand; the whole human race of which I was a part."
Sheila Burnford (1918-1984) from "ONE WOMAN'S ARTIC"

We were more than delighted with the participation and success of last month's Winter Mini-Show - encouraging to say the least!

The explicit reasons for providing this format were:

- 1) To encourage new members or individuals who have not "shown" before or were discouraged from participation due to a previous experience.
- 2) To highlight Winter growing and Winter flowering succulents which are usually not exhibited at our annual June show.
- 3) To give insight into the judging process and learn what criterion and procedures the judges utilize to achieve their results.
- 4) To have fun and provide a new event which we could all participate in and possibly consider as an annual event each February.

Participation was overwhelming and we had more than twice as many entrants as projected. Indeed, we filled twelve tables with tremendous variation in plants and member's interests. One innovation which was very successful was the denotation of novice exhibitors by colored entry cards. Novice was defined as anyone whom had exhibited in less than two shows or had won less than ten Blue Ribbons. This procedure allowed us to commend and encourage new exhibitors and award a Trophy BEST NEW NOVICE - AWARD.

The second innovation of awarding six non-perpetual "Keeper" Trophies worked very well as an incentive. This system will be carried over to the annual June Show if the membership so desires.

***** THE TROPHY WINNERS WERE: *****

BEST BLOOMING PLANT - Euphorbia supernans (seed grown) - Marylyn Henderson

BEST CACTUS - Gymnocalycium cardnesianum - Joe Clements

BEST SUCCULENT - Pachypodium rosulatum - Alan Weiss

JUDGES CHOICE BEST NOVICE PLANT - Mammillaria bombycina - Ted Nelson

JUDGES CHOICE (Woody Minnich) - Dioscorea elephantipes - Phyllis Flechsig

JUDGES CHOICE (Victor Turecek) - Pelargonium reniforme - Rudy Lime

 Now to the crux of the program and we had the two individuals who made the mini-show possible: Woody Minnich and Victor Turecek whom had previously judged the San Diego Annual June Show. These two gentlemen did a tremendous job of explaining the procedures of judging and allowing participants a candid view of the judge's mind, while still being constructive and educational in their banter (the give-and-take that all judge's face in the selective process) of differing opinions.

***** A few comments from the judges: *****

"You won't see a better representation of this genus (Pelargoniums) anywhere!" - Woody.

"If I had a hat I would tip it to this exhibition, I really don't have words to express how much I like this." - Victor.

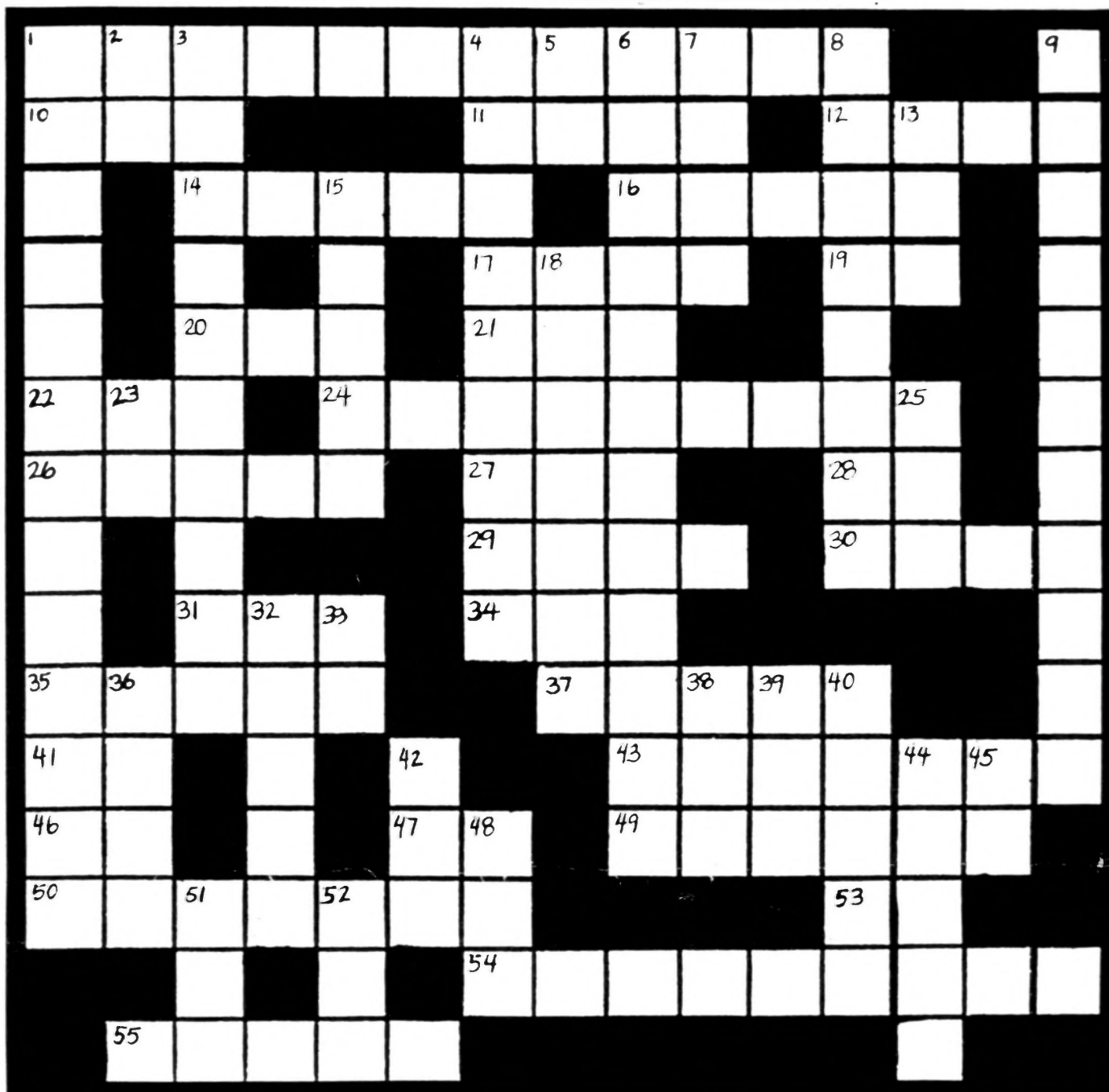
"Often when it gets right down to the final decision between Blue and Red, I say to myself, 'which would I like to take home with me?' for me, this is number one." - Victor.

"Sometimes the plants are so close to being absolutely perfect that the difference is a misspelling or just a watermark on the body of plant or container." - Woody.

"One must remember that the plants are in competition with each other; but even more so, they are in competition with the degree of excellence of which they could be, and a good judge must know what the plant is supposed to look like." - Woody.

"Always cut any new growth away from the grafting stock; the entire reason for grafting was to perpetuate the scion." - Victor.

Again, we want to Thank all participants and especially Victor and Woody. We were very sorry that Larry Grammer was "under the weather" - Hope you're feeling better, Larry. We're looking forward to having you judge our June Show. Many thanks to Victor for filling in at the last moment!

ACROSS

- 1) barrel genus
- 10) our home
- 11) refers to the top (prefix)
- 12) ____-ca-dabra
- 14) spiral
- 16) tequila genus
- 17) Cactus and Succulent Society of America
- 19) at the age of; aged
- 20) Lolium grass
- 21) International Organization for Succulent Plant Study
- 22) too much water
- 24) fleshy plant
- 26) bay (Mexico)
- 27) from jojoba plant
- 28) too much tequila
- 29) breathing plant organ
- 30) milkweed succulent
- 31) beast of burden
- 34) Air Traffic Control
- 35) refers to cactus rib (ie. penta_____)
- 37) herb (Spanish)
- 41) refers to form; out of
- 43) Saguaro is this state's official tree
- 46) suffix indicating finder of species was female
- 47) acid/alkaline
- 49) foreign
- 50) native
- 53) abbrev. education
- 54) family of Aloes and Gasterias
- 55) naked; not hairy or bristly

DOWN

- 1) spurge family
- 2) hen droppings (slang)
- 3) mini South Africans from Lily family
- 4) var. Opuntia found in limestone ledges of West Virginia
- 5) luxury for desert travel
- 6) orpine family
- 7) college party attire
- 8) subtropical grassland
- 9) nipple cactus
- 13) insect from Apoidea family
- 15) fat Euphorbia
- 18) what the last "S" stands for our club name
- 23) abbrev. central state in Mexico
- 25) "the way" (Chinese)
- 32) column (suffix)
- 33) abbrev. South Africa
- 36) draft animals
- 38) railroad crossing
- 39) prefix meaning "life"
- 40) member of Nahuatl people
- 42) above
- 44) similar to (suffix)
- 45) abbrev. Atlantic state w/o cacti
- 48) hydrochloric acid
- 51) arid
- 52) single; one (prefix)

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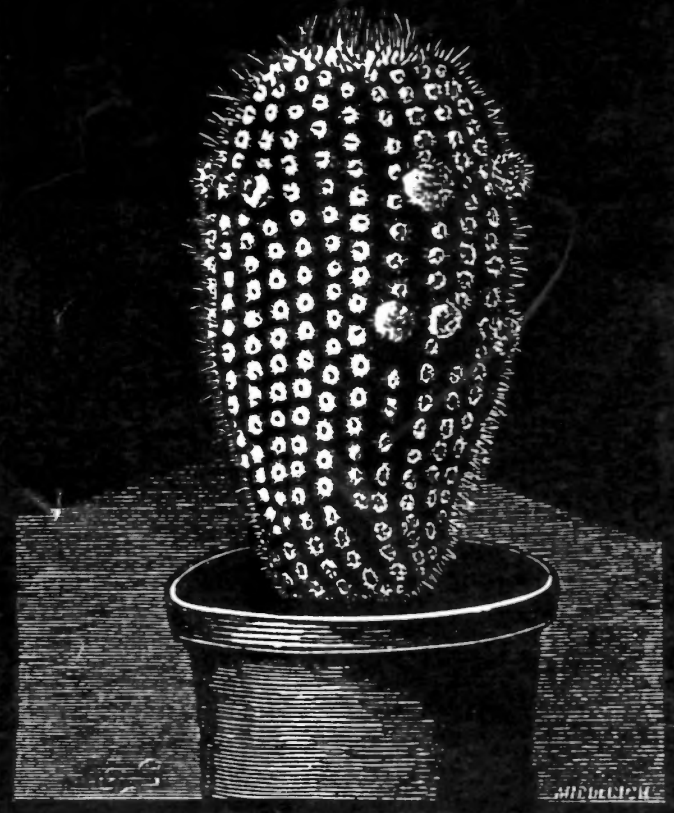
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Hillcrest Station 102
San Diego, CA 92163-3181



Editor - Michael Buckner Joyce Buckner
1958 Sunset Cliffs #103, San Diego 92107

The San Diego Cactus and Succulent Society, Incorporated 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 at 11:00 A.M. prior to general meetings. Annual dues are \$10 per single member per year, and \$5 for each additional member of same household. Single copies of Espinas y Flores are \$1 per copy sent within U.S.A. Affiliated with the Cactus and Succulent Society of America, Incorporated.

A NON-PROFIT,
TAX-EXEMPT
ORGANIZATION



The San Diego Cactus and Succulent Society

JOIN US

The San Diego Cactus & Succulent Society is a non-profit, hobby organization created to stimulate interest in succulent plants. This society brings together people (and plants) with a common interest for the purpose of educating the public about the beauty and uniqueness of these remarkable plants, encouraging proper collecting and maintenance of the plants through preservation of native habitats and horticultural propagation, and to foster good fellowship. You are invited to join our society, whether you are an expert, amateur, or beginner, who loves unusual plants and flowers. VISITORS ARE ALWAYS WELCOME. BRING AN INTERESTED FRIEND.

Regular meetings are held on the second Saturday of each month in Room 101, Casa del Prado, Balboa Park at 1:30 p.m. (One may come as early as noon just to socialize or obtain a parking space easily.) Annual dues are \$10.00 for a single membership with an additional \$5.00 for each additional member at the same mailing address. The dues are payable at time of joining, and January of each succeeding year. Members receive our monthly publication Espinas y Flores, are entitled to library check-out privileges, and may partake in our many field trips and other activities. We offer knowledgeable speakers at our programs; many are world renowned scholars, botanists, explorers and authorities. We have a number of shows each year, especially our Annual Show and Plant Sale in June. We have a wide range of plants and supplies for purchase as favorable costs at most meetings. We also have a plant exchange table and monthly door prizes. All members will be consistently encouraged to contribute and participate in our many functions. Please join us and help us grow.

MAIL TO: MRS. LAURA DE MERRITT, TREASURER
P.O. BOX 33181-HILLCREST STATION, S.D., CA 92163-3181

MEMBER NAME: _____

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PLEASE LIST ADDITIONAL FAMILY MEMBERS:

_____ \$5.00

_____ \$5.00

WELCOME

NINETEENTH ANNUAL

Green Scene

FULLERTON ARBORETUM

APRIL 25 APRIL 26
Saturday Sunday
10 a.m. - 4 p.m. 10 a.m. - 4 p.m.

Members-only Preview Sale: Saturday, 8 - 10 a.m.

DONATION: \$3.00 per person (over 16 years)

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Members Only Preview
SALE
Friday, April 10, 6-8 p.m.

Desert Plant Sale

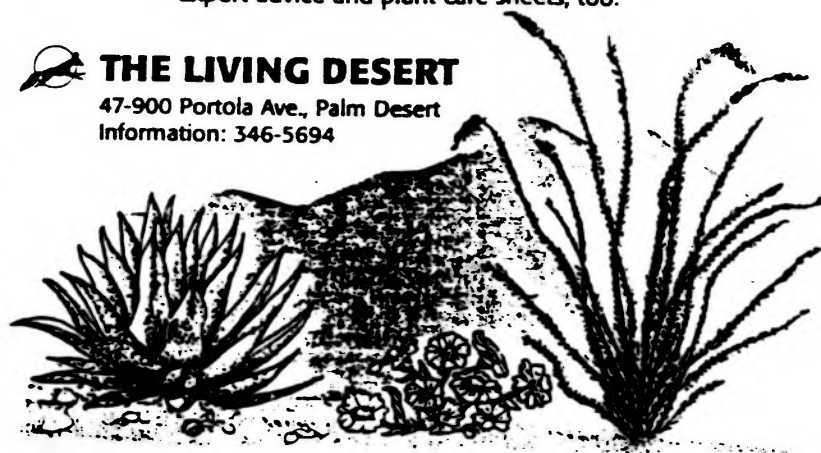
April 11-12, 9a.m.- 4p.m.

- Choose from hundreds of drought and heat tolerant ground covers, shrubs and trees in 1, 5 and 15 gallon pots, **all at reduced prices.**
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North Poway & Rancho Bernardo

Friday, April 10, 1992

10 a.m. - 3:00 p.m.

Tickets: \$5.00 donation

Refreshments



Benefits San Diego Wild Animal Park

California Native Plant Garden

Presented by

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Tickets available at the following locations:

Rancho Bernardo:

Continuing Education Center
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Mathe's Cultural Center

247 South Kaimia

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Send stamped, self-addressed envelope to

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"A Bloomin' Affair at Darlington House"

A Fabulous Flower Show In a Beautiful Spanish Mansion

7441 Olivetas St., La Jolla

Presented by

Social Service League of La Jolla to benefit League House
A home for the elderly of limited income

May 18, 1992, Monday — Patrons' Buffet Dinner — 6-9pm — \$40.00

May 19, 20, and 21 — Flower Show — 10:30 am to 4:30 pm
Admission \$6.00

Flower Arrangements • Hanging Baskets • Wedding Bouquets • Plants
Japanese Chiko Style • Plant Sale • Roses • Table Settings • Japanese Tea Ceremony

Tickets at the door or call (619) 454-5675 or 454-7625

Luncheon in the Rose Garden by reservation — \$8.00

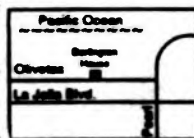
Served 11:30 am and 1:00 pm — call 454-0368, 454-7625 or 454-8545

DEMONSTRATIONS in LEAGUE HOUSE (next door)

May 19, Tuesday - 10:30 am "A Talk About Begonias" by June Rakestraw
2:00 pm "Dried is Beautiful" by Jean Johns
3:00 pm "Topiaries and Arrangements" by David Root

May 20, Wednesday - 10:30 am "Grow it and Eat it" by Dan Guggenheim of Master Gardeners
2:00 pm "Arranging in Chiko Style" by Rose Itano
3:00 pm "Orchid Lore" by George Kenner, President of Orchid Society

May 21, Thursday - 10:30 am "Genesis of an English Garden" by Sara Jane Sayer-Master Gardener
2:00 pm "Japanese Tea Ceremony" by Sohan Saito of the Urassenke School
3:00 pm "Rose Culture" - by Jane and John Farleigh—Rosarian and Judge



DOOR PRIZES • WINE BAR AVAILABLE • ICED TEA SERVED 3:00 PM

Tickets will be held at the door