

Espinas y Flores

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

Vol. XII, No. 1.

January, 1977.

JANUARY MEETING DATE: Saturday, January 8th, 1977.

"EVERYTHING YOU WANTED TO KNOW ABOUT
XEROPHYTES, AND WERE AFRAID TO ASK."

Our program will consist of a local panel of experts
(new people who have shared their experiences previously).

CACTUS OF THE MONTH: NEOPORTERIA- NEOCHILENIA.
SUCCULENT OF THE MONTH: AGAVE.

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***** A HAPPY NEW YEAR TO ALL ! *****

REGALEMENT TABLE.

As befitted the Yuletide season, our refreshment table at the December meeting was a "sight for sore eyes": It both looked beautiful, and tasted even better. For this feast we would like to thank the following Club members:

Hazel Scott, Jean Hapeman, Leta Hapeman, Wilma Johnson, Ethel Standish, Pat Mooney, Sophie Loyland, Joan Kleinhaus, Doris Rake, Nelly Kennett, Marcia Hamecher, Mildred Anderes, Julian Rice, and Betty Athy.

OUR THANKS ARE DUE TO:

All those dedicated members who worked for, and contributed to Espinas y Flores during 1976. We are hoping for even more of the same from all of you during the coming year of 1977:

To Madelyn Lee go our thanks for the hard work she put into producing the delightful programs we all enjoyed so much during 1976, for her Succulent of the Month articles, and for the informative and interesting talks she gave about our favourite succulents.

To Dr. George Radwin, our heartfelt appreciation of the great amount of research put into his Cactus of the Month articles, and for his informative (and often amusing) comments on our cactus plants on the table at the meetings. My Mammillaria Candida (which I rather unwisely planted in a hippopotamus planter) will, in future, always be known to our family as: M. Candida cum Hippo, George - in fact I have renamed it!!

CLUB FUNDS....

Ruth Stanton sold some of her beautiful plants at the Plant Table during the December meeting. From this sale the Club received \$12.45. Thank you, Ruth.

Many thanks, also, to Paul Schraer, who made a donation of \$5.00 for the Club's use in December.

At the December Plant Auction, the Club received \$83,90 for its funds, thanks to the generous buyers.

SALE OF PLANTS

A former member, Mr. Bob Budz, is selling his collection of cactus. He has collected for over fifteen years, and has some very rare plants. All plants are very fine specimens. His address and 'phone number follow. Please call first.

Mr. Bob Budz
3435 Myrtle Avenue,
San Diego, Ca. 92104.
'Phone: 282-2962.

THE PRESIDENT'S MESSAGE.

Season's greetings to all; may you and yours have a happy, happy Holiday Season.

We are beginning to make plans and get organized for the upcoming year. At the December meeting I stated my credo for next year: "Involve all members in club activities". Over the next two months you will be contacted, and asked to indicate, and participate in, an activity of your choice.

I covet all your suggestions for the improvement of our Society. Suggestions for improvements in ongoing activities, new projects, or new monthly events, gardens, nurseries, or parks that the Club might visit, and anything that will improve an already fine organization.

Once again, have a Happy Holiday Season, and may all your plants prosper. To all, a Cool Yule and a Frantic First.

Warren & Virginia
Buckner

A CACTUS FROM ANY OTHER PLACE..... Rick Latimer

The essential requirements for all plants include: a reasonable temperature range (depending upon the plant); light (blues and reds most important); and many chemicals, including carbon dioxide, water, and mineral salts. Also important for many plants is the twin tendency (first with, and second against, the pull of gravity) to send their roots down into the soil and grow upward toward the light. Of these, water is the one capricious ingredient in our life-sustaining system that gives rise in many locations to the need for a plant that can collect and store what water that is available for the time when it is not. The succulents have successfully filled this gap (and with added attractions):

Succulent plants are widely distributed around the world in various environments (some unexpected) not just dry deserts (or all dry deserts). For example, the genus Sedum exists in an extremely diverse geographical range, which is probably the widest of any succulent genus. Growth varies from small shrubs to mat forming ground covers, and they tolerate temperature extremes from tropical to well below freezing. The distribution is mostly northern hemisphere, and includes Alaska, Siberia, Africa, China, Japan, Mexico, Europe, the United States, Peru, and Bolivia.

Suppose that we begin to make things a little more difficult for the succulents. first let's add the element of sea water. Salicornia virginica is a halophyte found in the high tide zone in our south county area. Commonly called: pickle weed, it is one of the most wide-spread of the salt marsh plants. Its roots offer stability to the banks and sides of salt marshes. Although it has a poor capacity for oxygen storage, this succulent is at various times submerged in salt water. It can selectively concentrate certain salts in its cell fluids so as to maintain a balance necessary for osmosis. Other less specialized plants would soon wilt and die.

(cont'd)

If we again take another step, we end up in "the drink" and encounter this 'cactus' below...

THE OCEAN WORLD

By Sam Hinton



a Spiny Tunicate

Boltenia echinata

Adult tunicates, of which there are several hundred species, are stationary sac-like organisms; their young, however, go through an active tadpole-like stage before settling down. This one is less than an inch in diameter, and is pink in color. It lives in cool seas.

Alas, this, of course, is not a plant at all, but one of many, often unrelated plant-like animals that reside at the bottom in the relatively shallow areas of the ocean. It must be remembered that plants exist under water only deep enough as sufficient amounts of light can penetrate.

Beginning again, we shall go back in time a bit and do some speculation.* Perhaps, it was surmised, a few primitive lichens or mosses might exist on the Moon, and it would be interesting to see how they managed to do it. The guess was quite wrong: a little thought would have shown that any lunar plants would not be primitive, but would be highly specialized—extremely sophisticated in fact, so that they could cope with their hostile environment. Primitive plants could no more exist on the Moon than could primitive man. The commonest lunar plants were plump, often globular growths, not unlike cacti. Their horny skins prevented the loss of precious water, and were dotted here and there with transparent windows to let sunlight enter. The unique feature of the lunar plants, however, was their ingenious mechanism for collecting air—an elaborate system of flaps and valves, not unlike that by which some sea creatures pump water through their bodies. The plants were patient; they would wait for years along the great crevasses, which

occasionally gush forth feeble clouds of carbon or sulphur dioxides from the Moon's interior. Then the flaps would go frantically to work, and the strange plants would suck into their pores every molecule that drifted by before the transient lunar mist dispersed into the hungry near vacuum, which was all the atmosphere remaining to the Moon. An oxygen-rich atmosphere, it had been found, over-stimulated them so that they ran riot and promptly died, producing a stench which had to be experienced to be believed when their sulphur-loaded bodies began to decay. Alas again, for the Moon has since been found to be quite lifeless. Nonetheless, I suppose if they had existed, one could grow one of them in a vacuum chamber, and give it a dose of water and air once a year!

How about Mars? Mars is generally thought of as the desert planet. The Viking I and Viking II photographs have presented what appears to be excellent cactus territory. However, none have revealed themselves, nor any other succulent, not even a lithop. One is tempted to look beside this rock, or perhaps behind that one. So far,

(cont'd)

this has been in vain. Assuming there are cacti somewhere there, it could take forever to find them. Although Mars is smaller than the Earth, Mars has roughly the same land area, due to the presence of our oceans. A more ubiquitous organism would therefore be more easily found. A teaspoonful of rich soil may contain 1 billion bacteria, 20 million microscopic plants, and 200,000 single celled animals (not to mention quite a number of larger ones). Our most austere deserts are not sterile. Bacteria are found in Earth's atmosphere at altitudes as high as 10 miles. Tests conducted off Puerto Rico retrieved microbes living as deep as 22,000 feet, at pressures 694 times that of sea level. The Martian microbe tests have been confusing, inconclusive and irritating, as far as I can gather, to date.

So, for now, I do not envision any spaceships to Mars being built in the backyards of ambitious cactophiles. There are no literal selenicereus or (as of yet) no Aresops chrysensis. However, the fact that they did not get there on their own does not totally rule out the possibility that they may get there eventually, with a little man-made help.

REFERENCES:

- | | | |
|--------------------|---------------|--|
| Bleck, John. | <u>Sedum.</u> | Cactus & Succulent Journal. VXLIV, 1972, p. 243.
<u>Flora of the Tijuana River Slough.</u>
California Garden, May/June, 1975, p. 73. |
| Clarke, Arthur C. | | <u>Earthlight</u> , 1955, pp. 30, 36-37. |
| Tullar, Richard M. | | <u>Life: Conquest of Energy</u> , 1972, P. 3. |
| Leary, Warren E. | | <u>Device Retrieves Deep-sea Microbes.</u>
The San Diego Union, 12/9/1976. P. A-19. |
| Weaver, Kenneth F. | | <u>Mystery Shrouds the Biggest Planet.</u>
National Geographic, 2/1975. P. 292. |

ADDENDUM:

- * Reading Clarke's Earthlight, some time back, I came across this relevant passage:

NOTE:

While I was typing Rick's very interesting article, it occurred to me that I might make a few comments in favour of the oft-despised "pickle weed", *Silicornia Virginica* (halophyte).

Under our growing conditions here in Escondido (some 18 miles from the ocean), this ground cover grows quickly, and covers several of our hillside slopes very thoroughly, thus helping considerably with our soil erosion problems. In addition, as an added bonus, it produces quite a number of very pretty pink and white flowers, 4-5" in size, at frequent intervals.

Ye. Lady Ed.

CACTUS-OF-THE-MONTH

NEOPORTERIA-NEOCHILENIA

Dr. George Radwin

Neoporteria Britton & Rose.

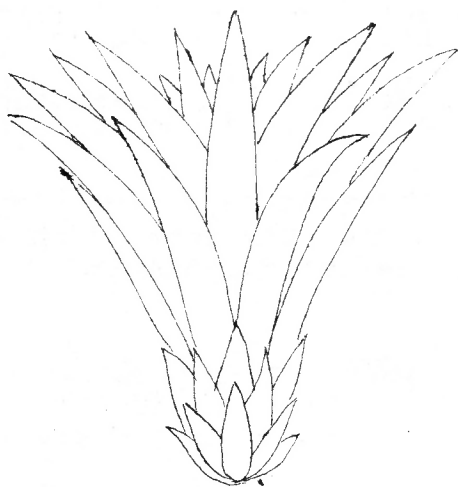
The genus Neoporteria was introduced by Britton & Rose in 1922. External characters include a moderately large (up to 8" X 4") globular to cylindrical stem with many tuberculate ribs and a dark green, brown, or purple epidermis. The apex is generally bare, although it may be obscured by the long, in some cases curved spines, and the copious long bristles.

Neoporteria flowers are moderately small, compact, and shaped like a narrowly open funnel, with many narrow pink, red, or purple petals. The ovary and flower tube bear scales and bristles. The small fruits split at their bases to release seeds.

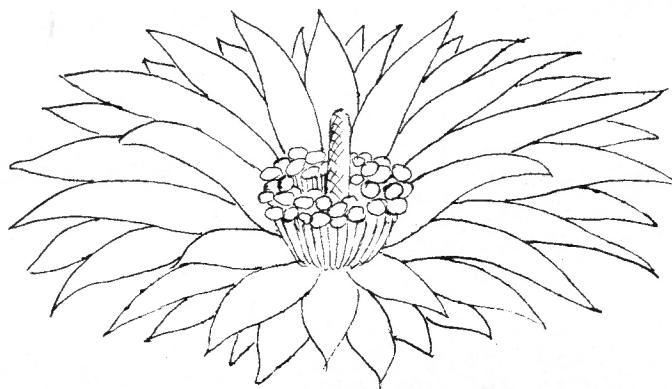
These plants are native to the western slopes of the Chilean Andes and the adjacent coastal deserts.

Many authors include Horridocactus and Pyrrhocactus, as well as several other genera in Neoporteria, but these are separable, least subgenerically, on the basis of the presence of more or fewer scales and bristles on the ovary and flower tube.

Neoporterias seem to grow well outdoors in San Diego, and rarely suffer from our lower winter temperatures. They favor a loose, well-drained soil, and will flower copiously during most of the cooler months, if not longer.



Neoporteria



Neochilenia

Neochilenia Backeberg.

Neochilenia includes a comparatively large number of cactus species, with small (3" X 2"), dark colored, strongly tuberculate stems, short to longish dark spines, and heavy, tuberous roots.

The large (up to 3" diameter), open, rotate Neochilenia flowers generally have comparatively few moderately broad, yellow to yellow-brown petals.

Neochilenia species are native to the same western Andean slopes and coastal deserts that are inhabited by Neoporteria species.

Although a taxonomic ally of Neoporteria, statistical taxonomic studies indicate that Neochilenia's closest relatives are Horridocactus and Chileorebutia.

As with Neoporteria, these species thrive in a well-drained soil and are not injured by San Diego's winter temperatures. In pots they must be given extra root room because of the huge tuberous roots, often larger, in mass, than the entire stem.

SUCCULENT-OF-THE-MONTH

AGAVE

Madelyn Lee

Family: Agavaceae (formerly Amaryllidaceae).

The Agave is truly an All-American plant. The 300 species are native to Mexico, Central and Southern North America, and the West Andes. Most are used ornamentally, but some are of commercial use.

The green rosettes are formed of stiff, hard, sword-shaped leaves, with a stout terminal spine. The edges of the leaves are edged with large and very sharp teeth. Agave attenuata is an exception to the rule. It has very soft, wide, smooth-edged leaves.

The flower is fleshy and almost white, and attached in clusters to a tall spike or raceme. The plant usually dies after flowering, but usually offsets or produces plantlets along the flower stalk. A. americana, the largest in the genus, will grow for ten to fifty years before producing its thirty foot flower stalk. Some species (A. stricta, A. striata, A. echinoides) do not die after flowering, but form multiple new growing points.

A. victoriae-reginae is probably the most beautiful plant in the genus. Its symmetry and bright, white markings on the dark green leaves is perfection in plant form. A. ferdinandi-regis also has handsome white markings, but has stiffer, more triangular, leaves.

The smaller A. parviflora, A. filifera, and the cultivar A. Leopoldii II have both white markings and thread-like white strings along the edge of each leaf.

The award for longest spines would go to A. utahensis, and, if you like your Agaves small, A. pumila should be your choice.

Most Agaves like it outdoors in the garden, where full sun and our Southern California weather can do most of the work for us. The smaller Agaves are excellent pot plants, as long as they have well-drained soil.

Bring an Agave you can carry to the next meeting.

HOW TO GROW YOUR PLANTS

A few suggestions from your untechnical gardening "Expert":

Audrey Johnson.

As I'm sure you all know by now, I am anything but an expert on growing plants, of whatever variety, although I do have a small percentage of success among my many failures!

Actually, my main problem is that I love them all, from fuschias and roses, to our own very special favourites, the cacti and succulents, and (I console myself) who can be an expert in all those areas? Most people are aware also, I'm sure, that my gardening efforts take place on the hillsides outside Escondido, so that my growing conditions are very different from the ones experienced by those of you who live nearer the ocean. Here, we have a great deal of brilliant sunshine, with drying winds, and, although it can be very hot during the daytime, it is very often quite cold at night. My good friends of the cacti family seem to enjoy these conditions very much, and, apart from my favourite mammilarias (which I keep close by), Nature takes care of them admirably on the hillside above the house - far better than I could, I'm sure. Agaves and Aloes also thrive in their sunny locations amid the boulders, and they too grow remarkably well.

If I had to produce one rule which I have learned from hard experience, it would have to be: Choose the location for each plant extremely carefully, along the lines of your own particular "mini-climates". We have a great many of these on our property, as most people do, however small the area. Under my conditions, fuschias do well mainly during the colder months, with protection from the wind and part shade, and even my roses seem to favour part sun-part shade at all times of the year.

As for the succulents, they vary quite a bit in their requirements, but, for the best colouring and results, most of them prefer the more sheltered and partially shaded areas outdoors. Fortunately, we are high enough to be fairly frost-free, and most of the more delicate succulents do very well on benches under the overhang from our upstairs balcony. Of course, even members of the same family have a wide variety of preferences, I have found. Kalanchoe pumila, for instance (which I keep in hanging baskets) enjoys the sun at this time of year, when it is beginning to flower. The leaves of this plant are, to me, quite beautiful, with their silvery-white covering, and when in bloom, with their lavender-pink flowers, they make quite a spectacular display for weeks on end. K. Marmorata, on the other hand (sometimes known as the "penwiper" variety) definitely likes its situation on a bench, under the overhang, on the west side of the house. In this location, its bluish-purple, golden edged, leaves, liberally sprinkled with dark spots, make another beautiful show.

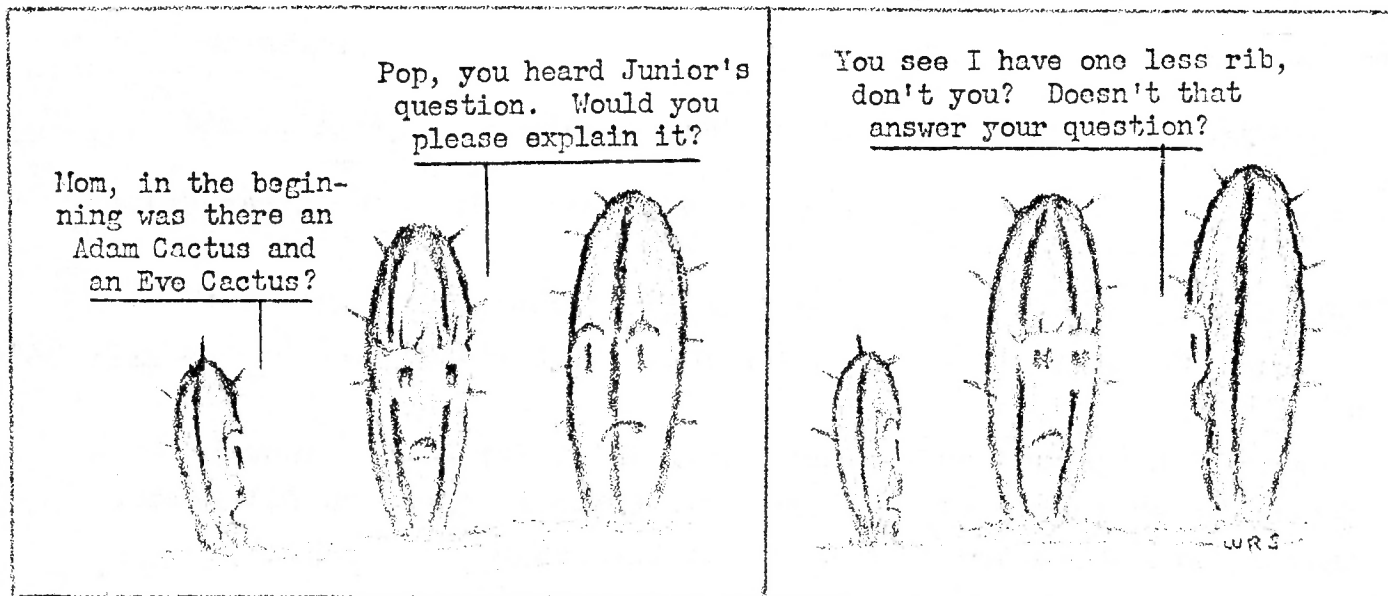
On the west side, also, the echevarias are colouring up nicely now that the days are shorter and the nights colder. No doubt our present heavy dews at night-time (which I sometimes call "California rain") help more than a little. Even the native dudleas, which we have planted up on the hillside, are recovering from their Summer "dead" appearance, and already they have increased to the size of large dinner plates. They make beautiful splashes of silvery white among the cacti

and the hardy succulents on the higher slopes of the hill, and help tremendously with our large-scale landscaping, we find.

Sometimes I wonder just how much I have learned about cacti and succulents during my nearly four years in California! And yet, when I remember that, under more humid conditions, my earlier specialties were tuberous begonias, caladiums, fuschias and African Violets, perhaps it is not surprising that I have had a lot to learn. The African Violets (of which I had about 150 varieties) were grown, more or less, under greenhouse conditions, it is true, but the other plants grew in a shady garden, facing south-east, and, somewhat to my surprise, often achieved greenhouse quality and perfection. At the moment I have just one lath-house area on the north side of the house, and there I park my shade-loving plants during the Summer. Oh, for a cool greenhouse where I can experiment with the more delicate varieties of plants during the Winter and Spring months! (How about it, Geoff?)

And so, folks, I would say: Good plant-growing to all of you, no matter what the variety. Don't be afraid to pinch back and take cuttings - as you all know, cacti and succulents are remarkably tolerant and, with a little Tender Loving Care (and perhaps a little diluted fertilizer for the succulents occasionally) they will respond beyond your wildest dreams. Think how much you'll relish showing off your plants on the Bragging Table, for the enjoyment of the rest of us!

Good gardening to all of you in 1977, no matter where you may live.



IN THE BEGINNING

Calander for 1977.

<u>Meeting Date</u>	<u>Succulent of the month</u>	<u>Cactus of the month</u>
Jan. 8th.	Agave	Neoporteria
Feb.12th.	Echeveria	Astrophytum
Mar.12th.	Hechtia, Dyckia, & Xerophytic Bromeliads	Copiapoa
Apr. 9th.	Crassula	Sulcorebutia, Rebutia
May 14th.	Adenia & Adenium	Pyrrhocactus, Horridocactus Eriosyce, Denmoza.
Jun.11th.	Anacampseros	Mexican monotypes:- Aztekium, Mammillopsis, Normanbokea, Obregonia, Homalocephala, Leuchtenbergia.
Jul. 9th.	None - <u>PICNIC</u>	None.
Aug.13th.	Adromischus	Echinofossulocactus
Sep.10th.	Succulents from Madagascar	Matucana, Submatucana
**Oct.15th	Euphorbia	Weingartia
Nov.12th.	Pelargonium & Sarcocaulon	Mammillaria
Dec.10th.	Your Favorite Succulent	Christmas Colors

**NOTE. All meeting dates are on the 2nd. Saturday of the Month with the exception of October, when the meeting will be the 3rd. Sat.

In addition to our regular meetings, don't forget the Annual "Open House" to be held on June 4th. & 5th in the Casa del Prado, Balboa Park. More about this in a later issue.

SAN DIEGO CACTUS & SUCCULENT SOCIETY
OFFICERS

PRESIDENT	-	H. Warren Buckner, 1744 Engelwood Dr., Lemon Grove, Ca. 92045	469-1391
1ST V.P.	-	Tom Hamecher, 996 Terrace Crest, El Cajon, Ca. 92020	440-6245
2ND V.P.	-	Gerald Dice, 3354 Mohican Ave., San Diego, Ca. 92117	276-2589
SECRETARY	-	Doris F. Rake, 4410 38th. St., San Diego, Ca. 92116	282-1722
TREASURER	-	Russel Evans, 3115 Nile, San Diego, Ca. 92104	284-5859
CORR.-SEC.	-	Betty Athy, 7220 Baldrich St., La Mesa, Ca. 92041	469-7647
PAST PRES.	-	Martin L. Mooney, 97 K ST., Chula Vista, Ca. 92011	427-6796

BOARD OF DIRECTORS

One year term:	John Pasek and Perlso Lewis
Two year term:	Shirley Berry
Three yr. term:	Joan Johnson and Ricky Latimer

COMMITTEES FOR 1977

ACTIVITIES	-	Perlso Lewis
EDUCATION	-	Madelyn Lee, Succulents. Dr. George E. Radwin, Cacti. (Research) Tony D'Atillio, Cacti.
EXHIBITS	-	?
LIBRARY	-	Edith Werner, Pat Mooney and Helen Hegyi
MEMBERSHIP	-	Russel Evans
PLANTS & SUPPLIES	-	Gerald Dice
PROGRAMS	-	Madelyn Lee
PUBLICATION	-	Audrey and Geoff Johnson
RECEPTION	-	Lucille Beckfield and Edith Billmyer
REGALEMENT	-	?

Reps. to S.D. Botanical Garden Foundation	-	Mr. and Mrs. Robert Anders
Rep. to S.D. Floral Association	-	Verna Pasek

MEMBERSHIP: The San Diego Cactus and Succulent Society is open to all persons interested in growing Cacti, other Succulents, and exotic plants.

Dues: \$5.00 annually, due in December of each year.
Single copy of E. y F. \$0.50.

MEETINGS: Second Saturday of each month, 1.30 p.m., Room 101, Casa del Prado, Balboa Park, unless otherwise indicated. Board convenes after the general meeting.

DEADLINE FOR THE FEBRUARY ISSUE: January 22nd. PLEASE

Audrey Johnson
1226 Citracado Pky.
Escondido, CA 92025
Address Correction Requested