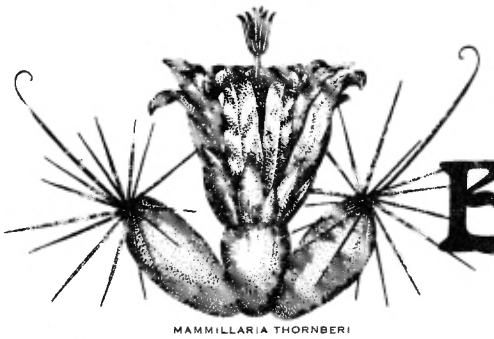

Espinas y Flores

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

Vol. XI, No. 1 January 1976

PROGRAM:

"Common Sense Conservation", by David Grigsby.
Mr. Grigsby is the owner of Grigsby's Cactus Gardens in Vista, Ca. His nursery specializes in mature specimen plants. He began collecting succulent plants in 1957 and is still more collector than nurseryman. His specialties are South American globular cacti, Crassulas and Euphorbias. His talk is not the usual "Don't collect; Don't buy collected plants; Don't, Don't, Don't" type of conservation speech.

January 10th, 1976, 1:30 pm, Rm. 101, Casa del Prado, Balboa Park.

CACTUS OF THE MONTH : Epiphytic Cacti.

SUCCULENT OF THE MONTH : Crassula.

INDEX: Page

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: 2nd Saturday of each month, 1:30 pm, Room 101, Casa del Prado, Balboa Park, unless otherwise indicated. Board convenes after the general meeting.

Deadline for February publication is January 15, 1976.

CACTUS-OF-THE-MONTH

Dr. George Radwin

Epiphytic Cacti

(Including, among other genera Acanthocereus, Epiphyllum, Heliocereus, Rhipsalis, Schlumbergera, and Zygocactus).

Occasionally, as in the present case, it becomes necessary to treat genera together not because of close evolutionary relationship but because of close ties in their mode of life.

Even though they belong to four different sub-tribes of the cactus tribe Cereeae, most of the above genera and the others listed in this article are epiphytic in nature. Almost all species of these genera are restricted to tropical rain forests, although some species of Hylocereus and Selenicereus may be found in desert or semi-desert areas fringing rain forests. Most plants start from seeds or fruits dropped on the ground. Soon after germinating, the seedlings grow toward the nearest tree into which they then climb. When the plants reach about three or four feet up the trunk, they begin to depend on moisture received through their aerial roots, which are also the primary means by which these cacti fasten themselves to trees or other objects. At his point the plant breaks contact with the ground, depending for food and moisture completely on the aerial roots with specialized absorptive epidermis; this same specialization is found in other epiphytic plants such as orchids and bromeliads.

The epithytic habit, whatever its original evolutionary advantage, enables these green plants to climb the trunks of the tall rain forest trees toward the sun without unduly extending their water and food-transporting systems and without requiring a rigid supportive structure.

The uniqueness of the epiphytic habit requires growing conditions unique in the Cactaceae. These plants need rich, fairly heavy soil (3/4 leaf mold, $\frac{1}{4}$ sand has been frequently recomended), a very warm and preferably humid climatic regime and a dormant period with reduced watering if temperatures fall below 60 degree F, (temperatures below 40 degree F. will generally be fatal).

In the prevalent semi-gloom of the tropical rain forest a small flower, or one with little or no fragrance could easily be overlooked by potential pollinators. It is, therefore, not too surprising to find that in this group the blooms are generally much larger and virtually always much more fragrant than is the rule in the Cactaceae. Most genera have nocturnal flowers but in a few they are diurnal.

TRIBE: Cereeae.

Sub-Tribe: Cereanae.

ACANTHOCEREUS species live in semi-arid tropical regions near rain forests. The weak, elongate, multi-jointed stems are originally erect in early growth, as well as bearing numerous ribs. Eventually, in later growth the stems become clambering or trailing, and not completely epiphytic with a consistently three-angled form. The bloom is large, white, and nocturnal.

Continued page 3

Cactus-of-the-Month,cont'd:

HELIOCEREUS species have an anatomy, morphology and ecology similar to those of Acanthocereus, except that they are generally fully epiphytic and that their red flowers are day-blooming. Because of these two horticulturally desirably features, Heliocereus species are partners in many, if not most hybrid phyllocacti ("orchid cacti").

Sub-Tribe: Hylocereanae.

HYLOCEREUS: Species in this genus are similar in most ways to Acanthocereus species but are generally completely epithytic. The blloms are large, white, and nocturnal.

SELENICEREUS: These vine-like plants are sometimes epithytic, with prominent aerial roots and slender, many-ribbed stems. In other ways they are like Hylocereus.

Other lesser known genera in this sub-tribe are Willmattea, Mediocactus, Deamia, Werckleocereus, and Strophocactus.

Sub-Tribe: Epiphyllanae.

EPIPHYLLUM: Species are epiphytic on trees in tropical rain forests. These strange cacti, with flattened, leaf-like, much-divided stems have aerial roots and large,white night-blooming flowers.

Other, less well-known genera in this sub-tribe are: Epiphyllanthus, Disocactus, Marnieria, Eccremocactus, Nopalxochia, and Chiapasia.

Sub-Tribe: Rhipsalidanae.

RHIPSALIS is a genus including species with slender, pliable stems that may be flattened or pencil-like. They all have an epithytic growth habit and smallish white to pink day-blooming flowers. This oddly uncactus-like cactus genus has the distinction of being the only one found apparently native outside the New World (having been found in South Africa and Madagascar).

ZYGOCACTUS (Thanksgiving Cactus) comprises species having epiphytic plants with flat, leaf-like stems consisting of many short joints and resembling leaves in chains. The attractive pink or red day-blooming flowers are long, double, and zygomorphic (unequal and bent back on one side).

SCHLUMBERGERA: One species is called Christmas Cactus and is much like Zygocactus. One species is called Easter Cactus. Species differ from those of Zygocactus in lacking the sharp points on the joint ends.

In Zygocactus and Schlumbergera propagation since their original discovery in 1835 has been generally by vegetative processes (by cuttings) as the plants are self-sterile (they will not seed from pollen produced by a plant of the same clone). Nevertheless, enough hybridization has taken place in the 140 years since their discovery that the plants with which we are so familiar are almost certainly not the same genetically as the original collected plants.

Continued page 4

Cactus-of-the-Month, cont'd:

Other genera in this sub-tribe are: Wittia, Hatiora, Pfeiffera, Rhipsalidopsis, Acanthorhipsalis, Erythrorhipsalis, Pseudorhipsalis, Weberocereus, and Lepismium.

In addition to all these valid genera and species there have been developed, over the year, numerous hybrids between members of the Epiphyllanae and the red-flowered, day-blooming ge nera (e.g. Heliocereus sp.). These are often called Phyllocactus, followed by a hybrid-form name. The flowers are enormous and truly remarkable in the delicacy of texture and sheen and in their remarkable coloration.

REFERENCES:

Marshall, W.T., 1943, Epiphytic Cacti in Nature. C & S Jour. (US), 15(12) : 178-79

Marshall, W.T. & T.M. Bock, 1941, Cactaceae. Abbey Garden Press, pp. 1-192, pls. 1-25, A-F.

Cutak, L., 1945, The Nightblooming Cereus and Its Allies. Missouri Bot. Garden Bull. 33 (5): 1-16.

1976 CACTI-OF-THE-MONTH.

JANUARY: Epiphytic Cacti - including Acanthocereus, Epiphyllum, Heliocereus, Hylocereus, Rhipsalis, Schlumbergera, Selenicereus, Zygocactus and many others.

FEBRUARY: Gymnocalycium.

MARCH: Frailea.

APRIL: Parodia.

MAY: Open House - Show.

JUNE: Coryphantha, Thelocactus.

JULY: Annual Picnic.

AUGUST: Echinocereus.

SEPTEMBER: Brazilian Hairy Cereoids (Buiningia, Coleocephalocereus, Arrojadoa, Stephanocereus, Pseudopilocereus, Pilosocereus, Facheiroa, Micranthocereus, Austrocephalocereus).

OCTOBER: Andean Hairy Cereoids (Espostoa, Oreocereus, Haageocereus, Cleistocactus, Thrixanthocereus).

NOVEMBER: Mammillaria.

DECEMBER: Christmas Colors.

GARDEN HINTS

Editor's Note: Madelyn Lee's measurements and soil mixtures as listed in the December issue of E y F are incorrect. Sorry, Mad, we got our wires crossed. And thank you, for sending in your correction; it is an excellent article!

POTTING SOILS FOR CACTI AND SUCCULENTS, by Mad Lee.

There are four prime requirements for growing cacti and other succulent plants: Food - Drainage - Light - and Water. What percentage of each of these necessary requirements you use will differ depending on the climate where you live, the type of pot you put your plants in (i.e. plastic, glazed or clay), the conditions under which you grow them (i.e. in a greenhouse or outside), and the way you water them.

I have probably tried at least 50 different mixes before finding the one that worked best for my plants. The more I learned about the plants, the more I understood what type of mix they needed to grow in.

You should develop a basic potting mix that most of the plants in your collection will grow in to their best potential. With additions of drainage material or some other additive, this basic mix can then be used for your other plants that have specific requirements.

The lists that follow are suggested materials. You can use one of each type, or all of each type, or some of each type. You develop the combination which works best for your plants and pocketbook.

Type 1 - Food

Nitrohumis
Manure:
- Horse (old)
- Steer (processed)
- Chicken (processed)

Leaf Mold
Humis

Type 2 - Drainage

Gravel:
- ¼ inch roofing
- Chicken scratch

Sharp builders sand
Decomposed granite
Perlite
Aquarium gravel (not dyed)
Kitty litter
Charcoal

Type 3 - Moisture Holding

Prepared planter mix
Wood shavings
Peat

Type 4 - Additives

Gypsum
Bone meal
Fertilizer:
- Liquid or pellet

Start with equal amounts of Types 1, 2 and 3. Dampen slightly and mix well. Then pack in a four inch pot to about 3/4 inch from the top. Fill pot with water. If water sinks right in and out of the drainage hole you have a mix that has good drainage. If the water does not sink into the soil, mix in more of the Type 2 material until water drains rapidly.

Continued page 6

SUCCULENT-OF-THE-MONTH

Madelyn Lee

CRASSULA: Family Crassulaceae.

This genus of highly diversified plant forms comes primarily from Africa. The plant is characterized by opposite leaves in pairs along the stem and flowers in compact clusters, either white, pink or sometimes red in color.

The shrubby types of C. lycopodioides, C. perforata, etc. prefer some shade, but the compact, very succulent forms (C. arta, C. tecta, C. hottentotta) prefer full sun. The species range in size from the large bush-like C. argentea to the tiny ½ inch C. dasyphylla. The color of the plant bodies range from green, through blue, to white. There are 'hairy' forms, (C. barbata), and 'spotted' forms (C. cooperi, C. picturata); there are forms with 'satellites' (C. orbicularis), and forms that look like a snake rattle (C. teres).

Crassulas are generally easy to grow and are easily propagated from either leaves or cuttings. They require a rich very open soil. Few pests seem attracted to these plants, but if mealy bug does attack, don't pour insecticide over the plant: it will burn or lose its waxy coating. Use a systemic type of insecticide and drench the soil. A brown fungus seems to be the major problem with this genus. 'Captan' or some other good fungicide will eliminate this problem.

This is a handsome group of plants. Be sure to bring your favorite to the next meeting and share it with the other members of the club.

Garden Hints - Soil Mixtures, cont'd:

Keep the pot of the test mix in the area where your plants are located. Check daily until it is dry about ½ way down. If the test mix dries out too fast (3-4 days), add more Type 3 material; if it is still too wet, add more Type 2 material. Keep testing until you have a mix that dries out to about ½ of the depth of the pot in about 7 days. This procedure will give you a definite time how often to water your plants.

If you live in a coastal area where the humidity is high and weather is cloudy, you will need more Type 2 material. A person who lives in a hot, low humidity area, will need more Type 3 material. If you use plastic or glazed pots, you will need more Type 2 material than a person who uses porous clay pots.

The Type 4 materials are used in addition to your basic mix for specific plants; for instance: Ariocarpus like some gypsum and more drainage; Cephalocereus senilis likes more drainage; Euphorbias like more food and some charcoal -- as you learn more about the plants you will be able to determine what they need. All potted plants can use some fertilizer at regular inervals, either ¼ strength every time you water or full strength once a month.

The most important thing is to EXPERIMENT! Mix small batches and keep notes on what you use. Take in inexpensive, fast growing plant or cutting and try it out in the new mix until you are satisfied with the results.

Continued page 7

SAN DIEGO CACTUS & SUCCULENT SOCIETY

Officers

PRESIDENT - Martin L. MOONEY, 97 K Street, Chula Vista, CA 92011	427-6796
1ST V.P. - Madelyn Lee, 2310 Bella Vista, Vista, Ca. 92083	1-727-1364
2ND V.P. - Reed PIERCE, 3525 Wilshire Terrace, San Diego, CA 92104	291-1994
SECRETARY - Doris F. RAKE, 4410 38th Street, San Diego, CA 92116	282-1722
TREASURER - Russell Evans, 3115 Nile, San Diego, Ca. 92104	284-5859
CORRE-SEC - Jeanie MERRILL, 9306 Mesa Vista, La Mesa, CA 92041	469-6014
PAST PRES - Loyal J. BIBBEY, 490 Citrus Ave., Imperial Beach, CA 92032	423-5133

BOARD OF DIRECTORS

1-year term: H. Warren BUCKNER and August PFEIFFER
2-year term: Mary L. BIRCHELL and Perlso LEWIS
3-year term: Shiley Berry and Thomas Hamecher

COMMITTEES FOR 1975

ACTIVITIES -- Perlso LEWIS
EDUCATION -- Madelyn LEE, Succulents, Dr. George E. RADWIN, Cactus
EXHIBITS -- Thomas and Marcia Hamecher
LIBRARY -- Edith WERNER, Pat MOONEY, Helen HEGYI and Mike JOHNSON
MEMBERSHIP --Russell Evans
PLANTS & SUPPLIES -- Reed PIERCE
PROGRAMS -- Madelyn Lee
PUBLICATION -- Augie PFEIFFER, 5163 E. Bedford Dr. S.D. CA 92116 280-4444
RECEPTION -- Lucile BECKFIELD and Edith BILLMYER
REGALEMENT -- Jean and Leta HAPEMAN
Rep. to S.D. Botanical Garden Foundation -- Mr. & Mrs. Robert ANDERS
Rep. to S.D. Floral Association -- Verna Pasek

Garden Hints - Soil Mixtures, cont'd:

Then pot all the plants you have - and all you obtain in the future - in "your" mix. A uniform potting mix throughout your collection will eliminate the problem of some pots drying out too fast while others are still too wet. Potting new plants into your mix is also a good control for keeping out pests and bugs, as you catch them before they spread to the rest of your collection.

Shirley Berry writes: I have had success in removing the yellowing stain resulting from the capillary action drawing up the fertilizer into the body of a plant. My Mammilaria herreae, perfectly white and globular, started to display unattractive stains on the sides and near the base of the plant. I diluted Ivory liquid detergent and, using a ¼ inch bristle brush (like artists use for oil painting), scrubbed the stains off the plant. Then, holding the plant sideways (nearly upside down), I washed off the detergent eith a garden hose. When dry, the plant was perfectly white - and I have ceased using that yellowing fertilizer.

CEREUS-LY SPEAKING

The regalement committee came through once more with an outstandingly festive table to celebrate the gala occasion of Christmas. Thanks to Jean and Leta Hapeman, of course, and the following members: Mildred Anders, Lucille Beckfield, Edith Billmeyer, Evelyn Chatham, Audrey Johnson, Joan Kleinhans, Sophie Loyland, Pat Mooney, Lee Phelps, Doris Rake, Julianne Rice, Dorothy Ronske, Ona Russell, Vernice Siegert and Harriet Sopp.

And a big thank you to Tom Hamecher for a job well done: bagging and taking care of our Christmas plants which were obtained from Nature's Curiosity Shop, a local (National City) nursery.

Augie Pfeiffer
5163 E. Bedford Dr.
San Diego, Ca. 92116

Address Correction Requested

FIRST CLASS