



Espinas y Flores

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

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PROGRAM:

Manny Singer, Owner of 'Singers' Growing Things' in Reseda, Calif., will give a program on caudiciform plants. His nursery specializes in this unusual plant type of the succulent world. He is a Member of the Board of Directors of the Cactus and Succulent Society of America; Past President of the Los Angeles C & SS; Past Vice-President of the Sunset C & SS; and publisher of the Royce Wood Portfolio.

March 13th, 1976, 1:30 pm., Room 101, Casa del Prado, Balboa Park.

CACTUS OF THE MONTH : Frailea.

SUCCULENT OF THE MONTH: Caudiciform Plants.

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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 April publication is March 16th, 1976.

FRAILEA

Britton and Rose

Until the time that Britton and Rose named this genus in 1922, almost all globular cacti were called Echinocactus. Frailea was segregated on the basis of its unusual flowering features.

Frailea contains the second smallest cacti in the family, the smallest being Blossfeldia. In many cases, however, a solitary Frailea can be smaller than a mass of tiny Blossfeldia heads. Frailea is one of the few cacti for which there are more apparently valid species than names; many new forms are presently being distributed under field-collecting designations such as HU-12 (Horst-Uebelmann # 12).

Frailea is generally conceded to be most closely related to Notocactus and little about its species discourages that notion. Its distribution, in southern Sout America (Bclivia, Paraguay, southern Brazil, Uruguay, and northern Argentina) is virtually identical to that of Notocactus. There is some doubt as to whether the once collected Frailea columbiana is truly from as unlikely a cactus region as Colombia.

The stem is globular to cylindrical and, except for its small size (3/4 inch to 2 inches in diameter) is very much like that of a Notocactus, with its low, tuberculate ribs and small spines.

The flower - when you see it, that is - is large for the stem, generally pale yellow, and in almost all ways very much like a Notocactus bloom. The primary distinction here is that Frailea flowers are cleistogamous. This means that they are self-fertilizing without opening. On rare occasions flowers will open, apparently in response to higher than usual temperatures and light. It is interesting that, whereas the cleistogamous blooms invariably produce seeds, in my experience the flowers that open will not, even with help from me and my trusty paintbrush.

Fruits are pear-shaped or spherical and seeds are unusually large, soft, and glossy brown or black. They should be sown within six months of having been harvested as they have only a brief period of viability.

Fraileas are either hard or easy to grow, depending on who you ask. In four years I have had ten species and have lost only two. Other cactus collectors have had less success in keeping them. In my experience they prefer a little more water than most cacti in hot weather and somewhat less than ordinary in cool weather. Full sun will cause the emergence of beautiful red, purple and bronze pigments. Offsets will root readily, even while still attached to the parent plant, if they are touching the soil. Some of the best known and loved species are:

Frailea

asteriodes
(?castanea)
cataphracta
chiquitana

grahliana
phaeodisca
pygmaea
schilinzkyana

NOTES ON ASTROPHYTUMS FROM SEED

Robert Swan
Reprinted from CSIE,
1976, # 1.

Astrophytum species are not difficult to grow from seed if a few precautions are taken. The seeds are large by comparison with most other cactus seeds and therefore are easy to plant. You could count the number of seeds planted to see what the percentage of germination is. Fresh seeds germinate best. Extra limestone added to the soil mix may aid growth. In habitat Astrophytums frequently are found growing a limestone rock. A layer of sand over the porous soil mix is a good idea. It helps to prevent any of the moisture laden soil from touching the bodies of the seedlings. Important to remember is that Astrophytym seedlings are very sensitive to moisture. In just a few days Astrophytum seeds will begin to germinate. While the soil should be kept evenly moist as for all seedlings, high humidity around the seedlings will encourage rotting. As to light, shade is advisable for very young plants, gradually being increased to full sun. If the seedlings redden, less light is required. Some growers suggest grafting seedlings within the first month to get them past the initial stages of slow growth and their tendency to succumb to rot.

Astrophytums are variable in form. It is fascinating to see the differences in number of ribs and amount of white hair as the seedlings grow and differentiate. Young plants often have four ribs and later develop a fifth rib. Or they may have fewer or more ribs on rare occasions.

Also noteworthy is the fact that nearly all seedlings start out with at least one spine per areole. Astrophytum myriostigma and A. asterias later lose these spines; their adult forms are spineless unless they have been hybridized with other spiny Astrophytum species. Seedlings should be allowed to grow as long as possible in the original container because they are so susceptible to rot, and damaged roots would open the door to germs. In approximately three to five years the Astrophytums will begin flowering. They will continue to grow much larger for years and flowering will increase, often resulting in a succession of flowers throughout the growing season.

DESERT PLANTS SAVE LIVES IN

WILDERNESS

Edna Zeavin, Reprinted
from Cactus Capital
Chatter,"75, # 4

In an imaginary flight, think of becoming lost on a hiking trip in Arizona, and after a few days, desperately searching for any edible material available. A Pittsburgh nurse actually lost her way on a hike down the Grand Canyon, and managed to survive for three weeks by living on cactus buds and a trickle of water from cracks in rocks.

Anyone who participates in hiking or camping should become familiar with the native plants of Arizona (or any other part of the country to be explored, The Ed.). Wherever you may be in Arizona, there is usually some form of life-saving cactus. Dr. Richard Hevly, Northern Arizona University biologist who teaches a course on edible plants, remarks:

Desert Plants Save Lives, cont'd:

"Cactus contains water, but it tastes foul. You can eat it, except it makes you sick. Then that won't help because you will lose water". Both the prickly pear fruit and pads are edible if the spines are first removed. Other desert plants you may try experimentally are the fruit and flowers of the yucca and the young stems of the century plant. Mesquite pods have a good taste especially when they're just turning yellow.

A good rule to follow is to avoid plants with white berries, and not to swallow anything that has a bitter taste, either raw or cooked. Caution should be used since some of the wild carrot family are poisonous, as well as some wild mushrooms. Taste is not always a good guide since a water hemlock grows in the Oak Creek area and has a good taste but is quite toxic. Poisonous plants often contain the toxins tannic and oxalic acids.

GARDEN HINTS

Try the unconventional method of using just brick dust for germinating cactus seeds if you have a problem with fungi attacking your young seedlings. The brick dust consists of nothing but minerals and cannot harbor fungi. Unlike sand, it stores quite a bit of moisture, necessary to germinate seeds.

You may obtain the dust in brickyards. There are usually drifts of the dust around the stack of bricks. (You may have to bear with the odd looks by any onlooker). If you decide to break bricks for your dust, make sure the bricks are clean. The dust should be like fine sand, but not so fine that later it will restrict the growth of roots.

A shallow clay seed pot is a handy container. Cover drainage holes with broken crockery or small rocks, and then an inch-thick layer of gravel-sized pieces of broken brick; add the dust. If you sow several types of seed, divide container into compartments with strips of glass or plastic and label each compartment appropriately.

Sprinkle the seed over the top of the dust and water very gently. A fine spray mist might be a good idea. For the first few weeks cover the seed pan with a pane of glass to provide a humid atmosphere. Tape a piece of wax paper over the glass and set the pan in filtered sunlight. If seedlings turn reddish bronze, they are getting too much sun.

Cactus seedlings mature slowly; it may take a year or more before they develop adequate root systems for transplanting. At this stage, many growers become impatient and transplant the seedlings too soon. Not until they resemble small replicas of their future selves should they be transplanted to a sandy planting mix of your choice in small pots. At the age of four months, you may feed seedlings with a very weak solution of a balanced fertilizer.

Something on the lighter side; found in the most unlikely column of "Dear Abby": "I am 13 years old and have been doing a lot of experiments with plants for the Science Fair. Here are my findings:

I took three different kinds of plants and played three different kinds of music, six hours a day, to all of them. The plants that got the rock and roll were dead in 24 hours. The plants that 'listened' to the dance music of the '50s didn't die, but they weren't especially healthy. The third category, which got Chopin, Mozart and lullabies flourished."

Hope you all like classical music and let us know which individual piece is preferred by which plant species.

LITHOPS -- As House Plants

Cathryn Mangold
Reprinted from CSIE,
July '74.

These fascinating South African "Stone Faces" have great charm to novice growers as well as experienced collectors. They are unusual, conveniently small for the windowsill, come in seemingly endless variety of patterns and color and provide pleasure to those who just enjoy looking at them. Beginners often try one, lose it and give up, not understanding why the weekly watering-feeding program with much T.L.C. brought such a rapid demise to the new treasure. It is a fact, they can take a lot of abuse provided it is on the dry side, even to the point of shrinking and becoming soft and wrinkled.

Lithops, like all other Mesembryanthemums, have adapted to an arid land. The annual rainfall may be less than half an inch. When water does come, it is absorbed rapidly, to the point of bursting the skin if too much is present. This may be all the water available for the rest of the year, yet they survive, bloom at about the third year and produce seeds which will be washed out of the capsule, germinate and continue to grow in the next half-inch rainy season. As an indoor plant, a quick spray or face wash daily or semi-weekly will probably be adequate. Let the wrinkles on the side of the body be your guide to whether the plant is shrinking in a dry atmosphere or turgid (swollen) from sufficient moisture in the environment which has been absorbed through the skin. Should your Lithop look sick suddenly, give it a gentle pull. You may find a rotted root which will separate easily and must be trimmed back to the base to prevent the rot spreading into the body. Let it dry a month or two and start over.

When there is not long root an easy method of reestablishing the plant is as follows: fill a two-inch plastic pot with a mixture of $\frac{3}{4}$ washed builder's sand and $\frac{1}{4}$ finely sifted leafmold, soak and drain. The soil will settle a little. Place the Lithop so that the tip of the cut-off root goes just into the soil, no more. If there is no root, stand the body on the surface. In either case, support it with four tooth picks. In three days, if kept warm (70 degrees F., such as near a stove pilot) new roots will appear. In less than two weeks there will be a complete root system. If a three-inch clay pot is used, give enough extra water to keep the soil moist for a week. From now on, no more water need be given to the soil unless there is excessive shrinking that does not respond to a daily spraying. In this case, unless the pot is in direct hot sun, which is not recommended for the prettiest growth, a few DROPS of water given at the side of the pot for a day or two should satisfy the need.

In the normal growing process, new leaves obtain their moisture from the old leaves, thus drying them out and forming the "paper skin" which indicates dormancy. When the plant is dormant, withhold water until the new growth breaks through the paper skin, then water a few times when dry.

There are other methods of growing these plants, but this one has proven both easy and successful.

SUCCULENT-OF-THE-MONTH

Madelyn Lee

CAUDICIFORM PLANTS

Trying to describe a "caudiciform" plant is almost like describing a sunset - it is always changing.

The dictionary says - 'CAUDEX' - 1. The axis of a plant, including both stem and root; 2. A stem bearing the remains or scars of petioles; 3. The woody or thickened persistent base of a herbaceous perennial.

The Glossary of Succulent Plant Terms by W. Marshall and R. Woods says - 'CAUDEX'- The trunk or woody axis of a tree; the woody base of a perennial plant.

Succulent collectors define 'caudex' about every way possible and impossible. Some claim a caudiciform plant is one with a thick stem naturally above ground. The stem performs the main moisture conserving function and leaves are only present when ample water is available. (i.e.: Bursera, Cissus, Adenia, Adenium, Fouquieria, Jatropha, Pachycornus, Pachypodium).

Others claim a caudiciform plant is one with an underground tuber or thickened root which is raised above ground when under cultivation. The tuber or root performs the moisture retaining function. (i.e.: Trichodiadema, Euphorbia, Kedrostis, Ipomoea, etc.)

However you want to define the term is up to you. The generic name of the plant is little help as there are genera that are mostly caudiciform and genera that have only one or two species with a caudex. (i.e.: Dorstenia, Dioscorea, Cyphostermania, Cotyledon, etc.)

So bring a plant you feel has a 'caudex' to the next meeting and we will exchange ideas as to what a 'caudex' is.

SUCCULENT-OF-THE-MONTH FOR 1976

March	Caudiciform Plants	August	None - Fair
April	Kalanchoe	September ...	Euphorbia, Monadenium, Jatropha, etc.
May.....	Senecio	October.....	Sedum
June	Haworthia	November	Cotyledon
July	None- Picnic	December	Your Favorite Succulent

CEREUS-LY SPEAKING

Last minute bulletin from Quail Gardens Foundation Inc. (via our own Audrey Johnson, Publicity Chairwoman): The annual Arbor Day Program will be held in the Ecke Family Building, Quail Gardens, Encinitas, March 7, 2:30 pm. Among the speakers are: Mrs. Helen Witham, well-known as both, botanist and conservationist; Dr. Diven and Mrs. Clarence Benson. Mr. Bill Gunth will announce a large planting of pine trees to commemorate Arbor Day 1976. (Hope this gets to you in time. The Ed.).

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SAN DIEGO CACTUS AND 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
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CORR-SEC.	-	Jeanie Merrill, 9306 Mesa Vista, La Mesa, Ca. 92041	469-6014
PAST PRES.	-	Loyal 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: Shirley Berry and Thomas Hamecher

COMMITTEES FOR 1976

ACTIVITIES - Perlso Lewis
EDUCATION - Madelyn Lee, Succulents, Dr. George E. Radwin, Cacti
EXHIBITS -
LIBRARY - Edith Werner, Pat Mooney, Helen Hegyi and Mike Johnson
MEMBERSHIP - Russel Evans
PLANTS AND 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

Cereus-ly Speaking, cont'd:

Once more, thank you, Regalement Committee, Jean and Leta along with all of your workers: Marcelle Barfield, Lucille Beckfield, Maria Fisher, Marcia Hamecher, Helen Hegyi, Herb Hewitt, Wilna Johnson, Nellie Kennett, Jeanie Merrill, Pat Mooney, Mel Parks, Verna Pasik, Reed Pierce, George Radwin, Vernice Siegert, Edith Werner, Ethel Standish, and Alberta Widen.

Sorry, no more copies of E y F to those who failed to renew their 1976 membership. Please spread the word among any of your friends who might complain about not having received the latest issue. March issues will be included in the April issues for late renewals.

An unfortunate incident occurred during the January meeting: Jean Hapeman's purse disappeared. She wishes to express her sincerest thanks to the Society for reimbursement of the cash lost. Ladies, watch your purses!!!

Cont'd on back page

A reminder: The giant plant sale, sponsored by the San Diego Botanical Garden Foundation, is coming up May 29th-30th. Hopefully, your plant contributions are happily growing. Also: The time for the Del Mar Fair in June is rapidly approaching. Many willing workers lighten the load! Contact Perlso Lewis today. Phone: 583-9085.

We hope to see many more of the outstanding monthly exhibits as displayed in February by Shirley Berry and Walter Faulk in January. We truly enjoyed their fine specimen plants.

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

Address correction requested