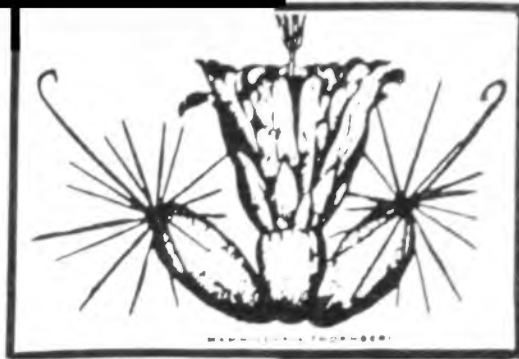


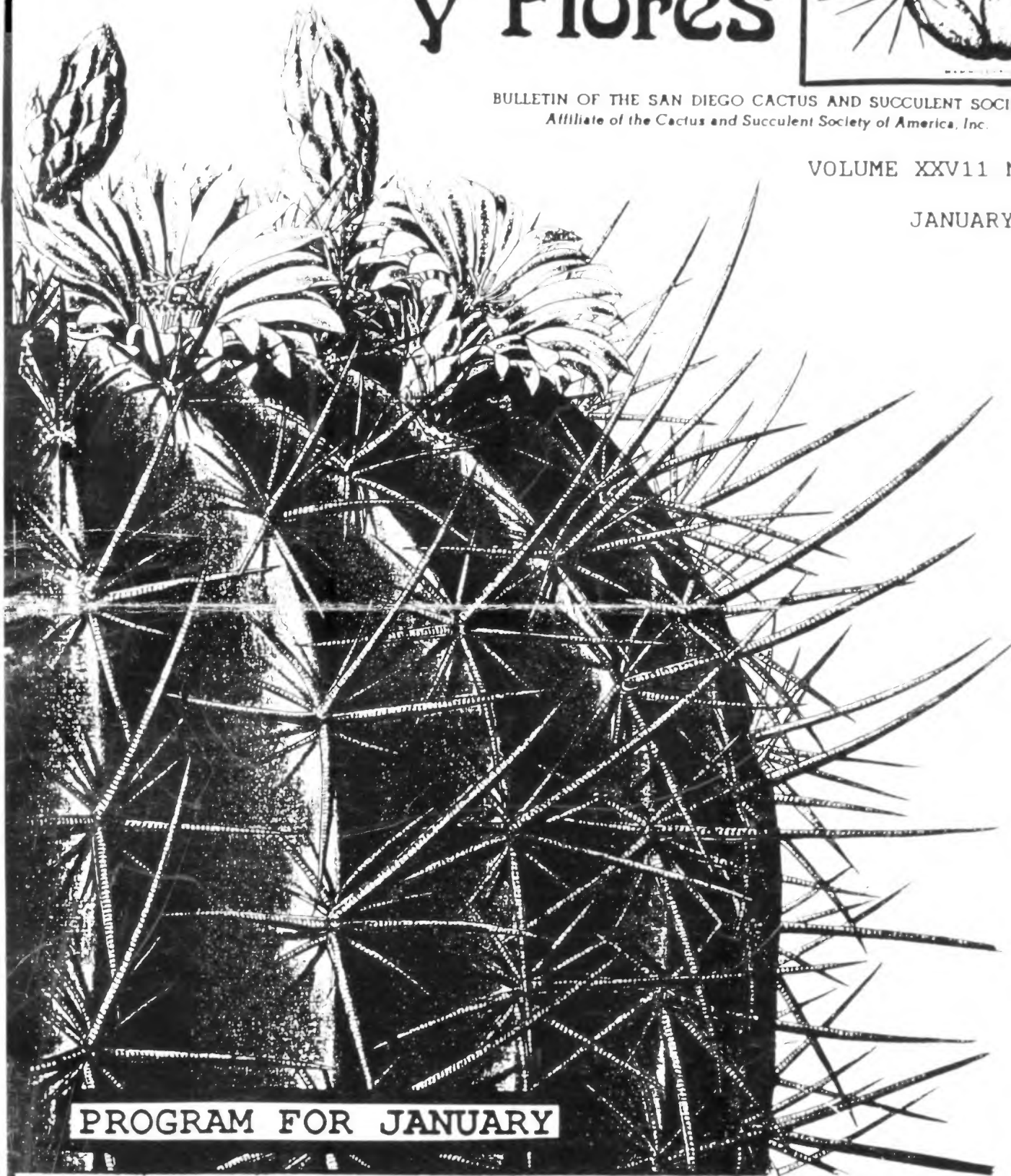
Espinas y Flores



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

VOLUME XXV11 NUMBER ONE

JANUARY 11, 1992



PROGRAM FOR JANUARY

HUGO COTA WILL PRESENT A SLIDE PROGRAM, "EVOLUTIONARY FEATURES OF THE ECHINOCEREAE". FROM THE ESCUELA NACIONAL de CIENCIAS BIOLÓGICAS, I.P.N., LABORATORIO de BOTANICA FANEROGAMICA, D.F. MEXICO, HUGO IS WORKING UNDER A MEXICAN-AMERICAN FUNDED RESEARCH GRANT AT THE RANCHO SANTA ANA BOTANICAL GARDEN IN CLAIREMONT, CALIFORNIA. (REVIEW HIS EXCELLENT ARTICLE, "THE CACTI OF CEDROS ISLAND, BAJA CALIFORNIA, MEXICO" IN C.S.S.A. JOURNAL, DEC 1990, VOLUME 62, NO. 6.

The San Diego Cactus

One year comfortably tucked away, one to go for this tenure, and I am really looking forward to it; still having fun!

I feel good about our accomplishments of this past year and want to take this opportunity to spotlight a few individuals and possibly ignite a little spark of energy into a few others, namely ----- you!!!

These events of 1991 could not have taken place without concerted effort and dedication from individuals who I suspect are also having fun at their specific jobs; the key and reason they do these jobs so well.

A review of last years speakers and programs would show such excellence that it would be difficult to improve upon. For this reason I want to commend two individuals for their dedication and resulting success at making "all of us a success: Joe Clements and Joseph Betzler, your program committee chairman. We look forward to another year of educational and informative programs with their continued efforts.

Our annual June Show and Plant Sale was a tremendous success due to major involvement and hard work, particularly by Mr. Chuck Adams, our show chairman. Chuck did a great job his first year (having taken the helm from five-year show chairman Rick Latimer) and is already at work planning this June's show! So don't be timid about volunteering some time, work, or whatever with him right now!

and Succulent Society

Three events from 1991 are worth mentioning in that they were re-kindlings. The first was SDC&SS participation after a hiatus of more than ten years of our Del Mar State and County Fair Exhibit. Not only did we re-enter the arena in this important aspect of public education, but our exhibit won two trophies: "BEST NEW EXHIBITOR" and "BEST IN CLASS - PLANT COLLECTION". We hope that we can display again this year with even more participation from our membership. We're shooting for "BEST EDUCATIONAL DISPLAY" in 1992 and it's not too early to start planning your Del Mar Fair Education Display contribution!!

The other two events were the tremendous success of our catered Birthday party with marvelous Program: 30 Years of SDC&SS by Rick Latimer and our two bus trips in conjunction with the Palomar Cactus & Succulent Society. The first trip was to the "Inter-City Cactus & Succulent Show", the largest annual show in the world, at the Los Angeles Arboretum. We hope we can make this auspicious event an annual field trip. And I'm also hoping for a spring bus trip to the desert, possibly the "Living Desert" exhibition in the Anza-Borrego, during the spring-time blooming season.

The second bus trip we sponsored was "A Day at the Huntington Botanical Gardens". I hope this too will become an annual field trip every fall....perhaps this year in conjunction with their plant sale.

Another integral part of our club is the Cactus and Succulent of the month. The articles in Espinas y Flores and the presentation at our meetings are a considerable amount of work.... I'm pleased that we have some new people contributing articles and sharing their expertise. I want to thank Phyllis Flechsig; for single-handedly keeping this club function going throughout most of 1991 ... a monumental job. And I want to thank her for not abandoning us (as she really wishes to retire this position) until we can get a new education committee going. So far we have Beverly Kirkegaard and you----- please volunteer, don't wait to be asked!! We are all so very fortunate to have such dedication and friendship!

I've already mentioned Espinas y Flores, it is a very special publication and we should all thank Bud & Mary Aubuchon for their dedication: ten years of editorship. Also, thanks to Joyce for her word processing ability and organizational skills. And I want to thank Shirley Berry for her terrific column submitted every month and Brunie Schaeffler for contributing articles!!

Now we have before us one more year with new directors and many new members. I want to encourage each and everyone of you to take a more active part in your club. Participate in any way which you can find time and energy for, especially new members, the continuing life blood of our organization. Please give us your input, encouragement, constructive criticism, and direction. We represent you - you and your effort are who we are - Thanks..... ANY VOLUNTEERS???????

CONGRATULATIONS TO OUR TWO NEW LIFE MEMBERS: PHYLLIS FLECHSIG AND FLOYD GABLE! ALSO, THANKS TO DANA AND CHUCK ADAMS (LEGAL & TAX COMMITTEE), BILL AND DIANE CROWLEY (REGALEMENT COMMITTEE), AND MARY AND BUD AUBUCHON (PUBLICATIONS: ESPINAS Y FLORES FOR TEN YEARS!!!), RECIPIENTS OF OUR "SPECIAL SERVICE AWARD" PLAQUES. WE ALL APPRECIATE YOUR REMARKABLE VOLUNTEER EFFORTS!!!



WELCOME

SAN DIEGO CACTUS & SUCCULENT SOCIETY DUES - 1992
MEMBERSHIP IS IMPORTANT!!

1992 DUES FOR THE SDC&SS ARE \$10.00 PER INDIVIDUAL WITH AN ADDITIONAL \$5.00 FOR EACH FAMILY MEMBER (FAMILY MEMBER MEANS BASICALLY ONE HOUSEHOLD /ONE ADDRESS /ONE ESPINAS Y FLORES SENT EACH MONTH) EACH MEMBER HAS ALL RIGHTS AND BENEFITS OF THE ORGANIZATION.

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

MEMBER NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____

ALL 9 NUMBERS OF YOUR ZIP CODE PLEASE! _____

PHONE NUMBER: _____

PLEASE LIST ADDITIONAL FAMILY MEMBERS:

_____ \$5.00

_____ \$5.00

STENOCEREUS: MACHAEROCEREUS GROUP

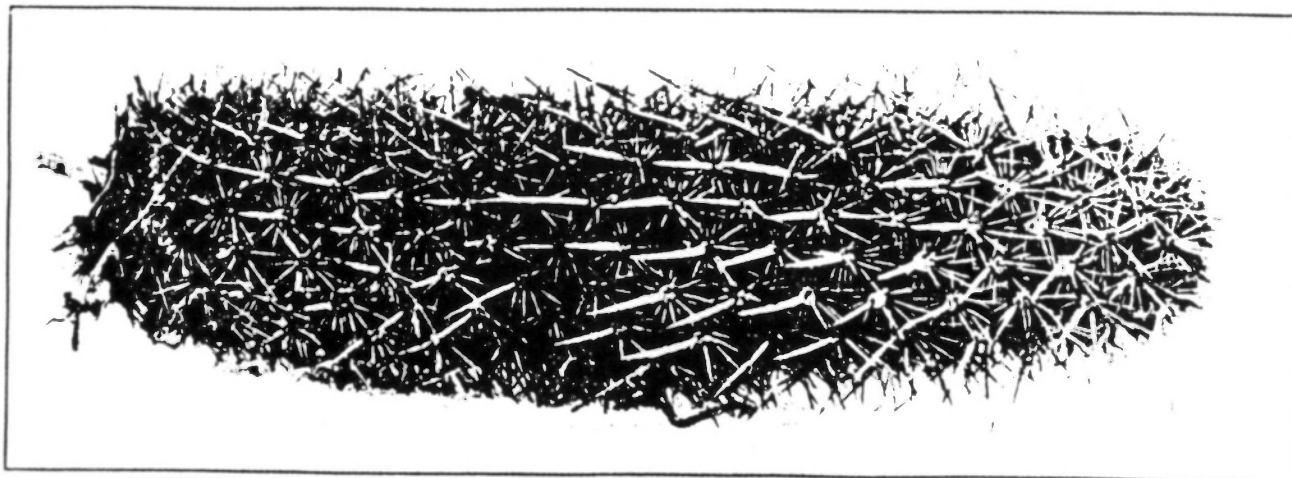
by Phyllis Flechsig

Machaerocereus is a former genus now placed in the large Stenocereus group; it consisted of just two species, M. eruca and M. gummosus.

Baja California is home to some of the world's most bizarre plants, and one of these is a cactus that we call the creeping devil: Stenocereus eruca (Chirinola to the Mexicans). It is a plant that really must be seen in its native habitat to be fully appreciated. There, the plants have been likened to giant caterpillars, crawling along in all directions. They are prostrate and very spiny; any single plant is probably very old, as they "creep" along by growing at the front end and dying slowly at the rear end. Roots emerge through the skin of the underside to hold the plant to the ground. The front end is always slightly raised, and when it meets an obstacle (such as another creeping devil) it grows up and over it. Thus a patch of wild ones is a criss-cross collection of plants whose raised heads, when they meet head-on, seem to be conversing with each other. A grower in England showed a picture of his large plant growing in a two-foot-long trough. When, after some years, the plant arrived at the end of the trough, he placed a second trough in front of the first and the plant obligingly grew up over the edge and down into the second trough.

The flowers are nocturnal, about three inches wide, on a two-inch tube, colored pinkish to white. The fruit is golf-ball size, bright red, and spiny.

The native range is a very small one; the plants grow wild only in a small area on the Magdalena Plain, on sandy flats and dunes not far from the Pacific Ocean west and a little north of the city of Villa Constitución, about 600 miles south of the border, in the Mexican state of Baja California Sur. The climate is very hot and dry, and there are not many other plants growing at the same location as Stenocereus eruca: mostly Opuntias. The plants appear to be greatly endangered, as their small habitat is being encroached upon by farming and by cattle, which damage the plants by trampling on them (though one can imagine that the plant gives as much damage as it gets to any creature that steps on it!).

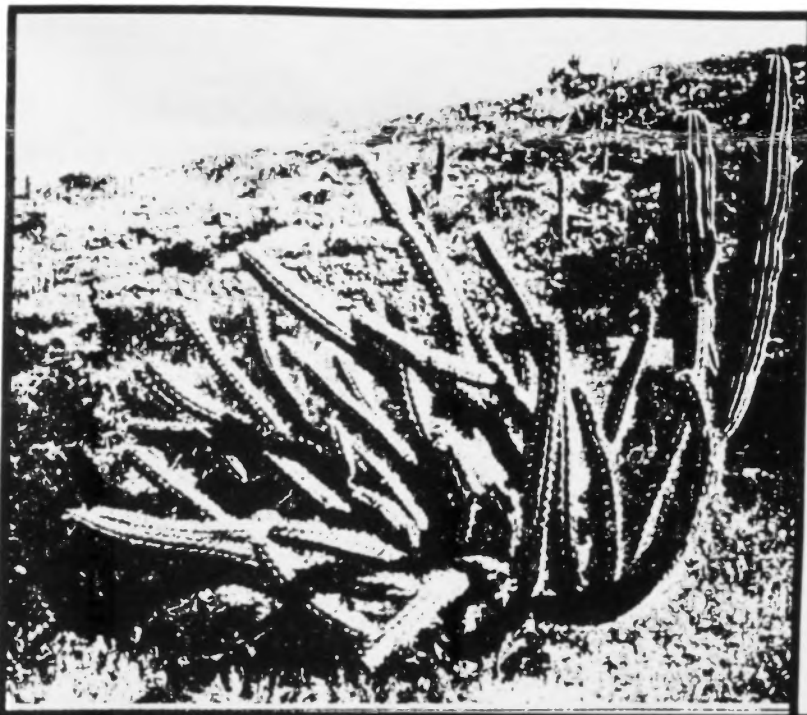


Machaerocereus eruca.

CACTUS OF THE MONTH

The other species of the former genus Machaerocereus is Stenocereus gummosus; far from nearing extinction, it is to be found on the entire Baja peninsula from near Ensenada to the Cape, as well as on many islands in the Gulf of California and on the coast of Sonora, in mainland Mexico, opposite Tiburon Island. In some places it is the dominant plant, creating impenetrable thickets. Its fruit is edible, known as "pitaya agria," or "sour pitaya." Although not as sweet as the "pitaya dulce"--the fruit of the organpipe cactus--it is pleasant to eat; early Spanish sailors are said to have eaten it to ward off scurvy. The stems are more or less upright, sometimes sprawling, and much branched. The flowers are fairly similar to those of S. eruca. The difference in growth form of the two species comes from the presence of a rigid woody internal cylinder in S. gummosus and its almost complete absence in S. eruca.

Neither of these plants is recommended for the home garden, though the creeping devil does make an interesting specimen in the right place. It is quite easy to grow; people used to collect cuttings in the wild, but of course that is not done now; seeds are occasionally available and not difficult to grow, though it would be many years before a large specimen could be produced.



Machaerocereus gummosus.



Machaerocereus eruca.

LITERATURE CONSULTED

- Gibson, Arthur C. 1989. The systematics and evolution of subtribe Stenocereinae. 7. The Machaerocerei of Stenocereus. Cactus & Succulent Journal, vol. 61, 104-112.
- Roberts, Norman C. 1989. Baja California Plant Field Guide. La Jolla, CA: Natural History Publishing Co.

NOTE: If any of you owns a portable Machaerocereus, could you please bring it to the meeting?

SUCCULENT OF THE MONTH

by Dorothy Byer

XERIC BROMELIADS

The Bromeliaceae (Pineapple family) encompasses 44 genera and over 2400 species. With one exception all are native to the Americas. Most are tropical or subtropical. They grow as epiphytes, as terrestrials, or on rocks. Their geographic range is from the tip of Argentina to the southern part of U.S.A. at altitudes from sea level to 14,000 feet. Sizes vary from one inch to forty feet.

The family Bromeliaceae is split into three sub-families; Bromelioideae, Tillandsioideae, and Pitcairnioideae. The first two have a few xerophytes while the latter is almost totally xerophytic.

Sub-family Bromelioideae plants usually have spined leaves, flowers are conspicuous, fruit is berry shaped and seeds have no wings or pappus (ring of fine hairs or scales). Monotypic Acanthostachys strobilacea from Brazil, Argentina, and Paraguay is considered xeric as it grows on sandstone at 2,500 feet. Aechmea MacVaughii, a terrestrial in a genus of 180 or more species, is very succulent and can tolerate extended drought. Orthophytum (Brazil), a genus of 6 or 7 species, and Ochagavia (Chile), a genus of 5 species, are mostly xeric terrestrials. Orthophytum spp. are distinguished by the long spike inflorescences which carry normal leaves that become smaller toward the top.

Sub-family Tillandsioideae has some quite drought tolerant plants in the genus Tillandsia. Other genera in this sub-family are mainly tropical rain forest inhabitants. Tillandsia spp. leaves are always entire, never spiny, almost always covered with dense scales, and appear white to grayish because of these scales. The fruit is a capsule and the seeds have a pappus attached to the base, aiding in wind dispersal. Tillandsia straminea grows in great masses on the sands of a Peruvian desert. It is spectacular with pink flowers that are very fragrant. Tillandsia secunda is a viviparous terrestrial with deep red flowers. Pups are formed in the axils of the floral branches which can be 4 or 5 feet tall.

Sub-family Pitcairnioideae plants are terrestrial or saxicolous (living on rocks). Leaves, persistent or falling, are entire or spiny, sometimes dimorphic or trimorphic. Flowers are large and conspicuous. Seeds are winged. This sub-family encompasses the following genera:

Abromeitiella spp. (2) Smallest rosettes in Pitcairnioideae form large terrestrial mats or mounds, have sessile inflorescences with green tubed flowers. Habitat: Argentina, Bolivia.

Deuterocohnia spp. (7 or more) Rosettes, saxicolous or terrestrial, are silvery grey scaled. Inflorescence is a branched panicle and is produced laterally. Flowers, yellow and green-yellow may reappear on the same panicle for 6 or 7 years. These plants are extreme xerophytes. Habitat: Bolivia, Peru, Chile, Argentina, Brazil, Paraguay.

Dyckia spp. (80 or more) Terrestrial rosette with short, thick, stiff, spined leaves terminating in sharp tips, silvery white scales undersides. Inflorescence is a raceme, spike or panicle. Flowers are yellow, orange, or red. Habitat: Argentina, Bolivia, Brazil, Paraguay, Uruguay.

SUCCULENT OF THE MONTH

Hechtia spp. (50 or more) Terrestrial rosettes, small to large, clump forming, sometimes sending out short runners from base of stem. Leaves usually spined, but unspined in Hechtia tillandsioides. Hechtia is the only genus in which flowers are always unisexual and the only genus in Pitcairnioideae that occurs in the U.S.A. Inflorescence is much branched. Flowers are mostly white but are red in a few species such as Hechtia rosea. Habitat: Texas, Guatemala, Mexico.

Pitcairnia spp. (180 or more) The only bromeliad found outside the Americas is Pitcairnia feliciana which grows in Africa. This genus is the second largest in the bromeliad family, the largest being Tillandsia with over 400 species. Leaves are monomorphic, dimorphic, or trimorphic and plant forms are varied and complex. Flowers, very large but short lived, may be white, yellow, greenish, or red on varied inflorescence structures. Habitat: Columbia, Panama, South Mexico, Costa Rica.

Puya spp. (100 or more) Form varies from mounded clumps of rosettes, small or large, to the 40 foot giant Puya raimondii, which dies after flowering without vegetative reproduction. Puya nivalis occurs at the snow line, over 13,000 feet. Others winter at 0 degrees F. or below, under snow and withstand extremes of heat and drought. Flowers have an electric blue and a metallic blue-green, among other colors. Habitat: Columbia, Chile, Bolivia, and Peru.

Other genera in this sub-family that are less apt to be found in cultivation are:

Brocchinia spp. (5) Habitat: Argentina, Bolivia.

Conellia spp. (3) Habitat: Guyana, Venezuela.

Cottendorfia florida (monotypic) Habitat: Brazil.

Encholirion spp. (17) Habitat: dry areas of N.E. Brazil.

Fosterella spp. (13) Habitat: S. Mexico, Bolivia, N. Argentina.

Navia spp. (3) Habitat: Brazil, Columbia, Guyana, Venezuela.

Cultivation for most of these bromeliads should appeal to the least experienced plant grower if sharp spines can be tolerated. Handling with gloves and caution is recommended. The largest are best grown in the ground if one has space but many are good container plants. They are relatively pest and disease free if planted in a loose cactus type soil with added pine or fir bark chips. Just because they are xerophytes does not mean that they do not thrive with more frequent watering. The most common complaint is leaf tip browning which is perfectly natural, but may be overcome with more frequent watering. Fertilization is best done with restraint and a balanced to low nitrogen fertilizer. Propagation is usually from seed, but pups may be rooted. Seedlings are fast growing, but one may have to wait years for flowers.

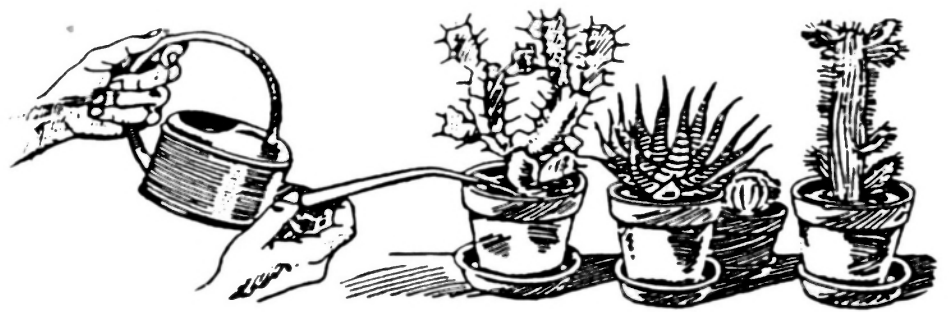
Ref: Padilla, Victoria Bromeliads Crown Publishers, Inc.: New York 1973.

Rauh, Werner Bromeliads for the Home, Garden and Greenhouse Blandford Press: Poole Dorset 1979.

Jacobson, Hermann A Handbook of Succulent Plants Vol. 1, Vol. 2. Blandford Press: Poole Dorset 1960.

"From All Corners"

by Shirley Berry



The following article I found so hilarious that I think it deserves a repeat in this column. It was written by J.W. Martin in the December 1970 "National Cactus and Succulent Journal". Mr. Martin calls it "Proverbs for Plantsmen"..... the true origins of some saying and quotations obviously intended for the use of growers of succulents:

OUT OF SIGHT, OUT OF MIND. Yourself as considered by the person who promised to give you the first cutting of his rare plant in exchange for the one you gave him.

ABSENCE MAKES THE HEART GROW FONDER. Your feelings about the plant you gave the above mentioned.

FOOLS RUSH IN WHERE ANGELS FEAR TO TREAD. Purchasers of unrooted imports in November.

DEATH AND DECAY IN ALL AROUND I SEE. The above imports the following April.

HOPE SPRINGS ETERNAL IN THE HUMAN BREAST. Purchasers of their second batch of unrooted imports the following November.

TOO MANY COOKS SPOIL THE BROTH. The taxonomic efforts of Messrs. Buxberg, Backebaum, and colleagues.

DON'T COUNT YOUR CHICKENS BEFORE THEY ARE HATCHED. Quotation meant for persons who buy pots in advance for plants ordered by post from some foreign and native nurseries.

MANY HANDS MAKE LIGHT WORK. The fate of your plants left unattended in the last few minutes of a large flower show.

DISCRETION IS THE BETTER PART OF VALOR. Letting someone else try out the next new insecticide first.

IT IS BETTER TO HAVE LOVED AND LOST THAN NEVER TO HAVE LOVED AT ALL. Consolation for a buyer of plants grafted on Myrtillocactus geometrizans.

A POOR THING BUT MINE OWN. The latest discovery from Patagonia via Germany, on inspection after arrival.

Now on a more serious note, this may be helpful in boosting the vigor of those specimens which resist our loving care. In the "National Cactus & Succulent Journal" of June 1978 E. W. Putnam suggests a cure for the unhealthy yellowing of plants. Mr. Putnam says, "Plants need a little magnesium in their diet just as we need a little iron in ours, and for a similar reason. If plants lack magnesium they cannot make chlorophyll, the stuff which converts carbon dioxide into food for the plant. Repotting is the best treatment, but as an emergency measure the plant can be given some magnesium. Epsom salts consist of magnesium sulfate and is a useful source for pot plants or garden plants. Dosing is not critical. A level teaspoon in a gallon of water is a reasonable dose and may produce quite a rapid improvement in sickly plants".

FLOWER STUDY

ECHINOCEREUS FASCICULATUS
(A "hedgehog cactus")

-- Anthony D'Attilio --

DISTRIBUTION: Sand, gravel, or rocks of hills and washes in the desert from 2,500 to 5,000 feet elevation in Arizona and New Mexico.

E. fasciculatus grows in loose clumps of 5 to 20 green, elongated-cylindrical stems. Areoles are circular, spines are not dense.

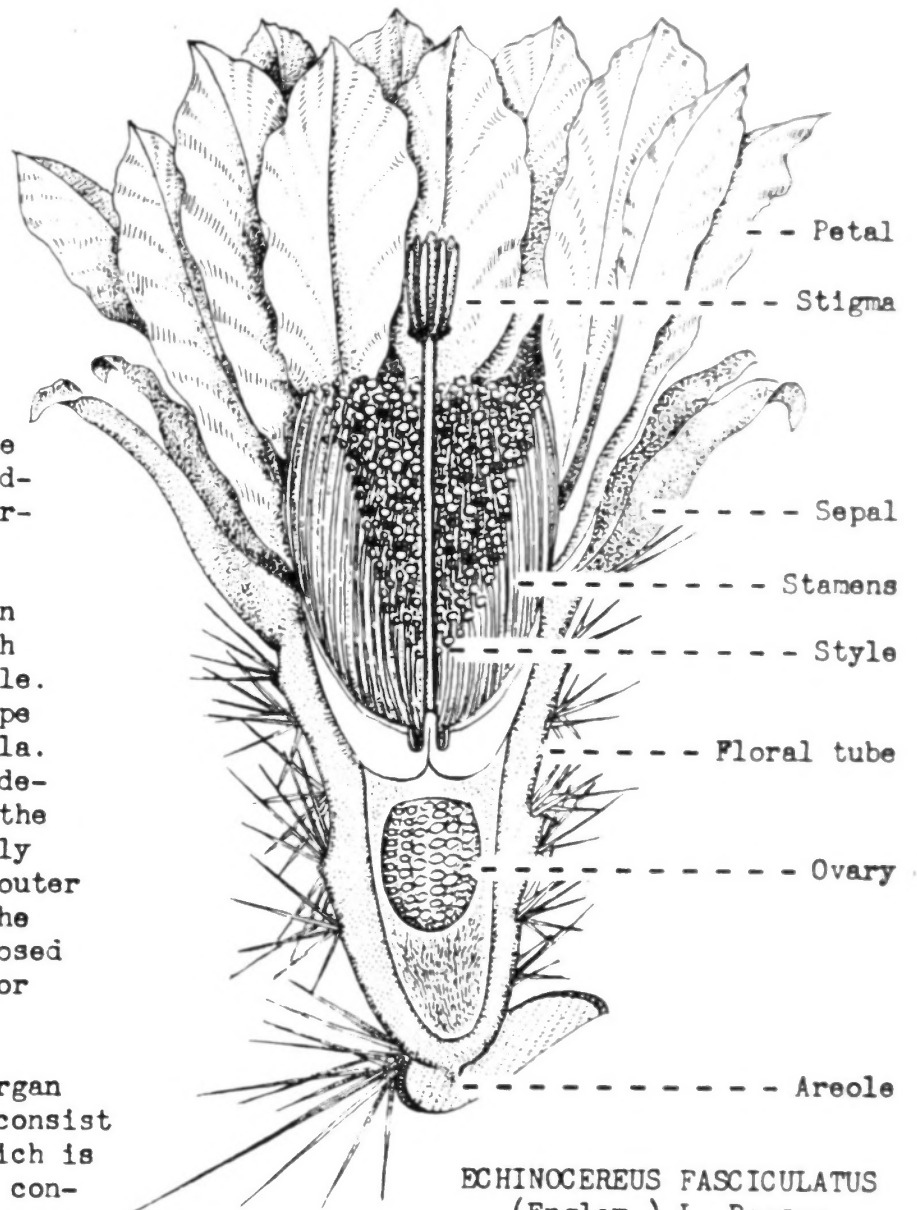
Flowers are up to 2½ inches in diameter. Their petaloid perianth parts are magenta to reddish purple. The perianth is the floral envelope consisting of the calyx and corolla. The term is used particularly in describing cactus flowers in which the calyx and corolla cannot be readily distinguished. The calyx is the outer sepals of the floral envelope. The corolla is the inner series, composed of the petals. They may be free or united depending upon species.

Stamens constitute the male organ of a flower. Individual stamens consist of a stalk called the filament which is tipped by an anther or pollen sac containing pollen grains. Cactus flowers bear stamens in abundance.

The female organ is the pistil, consisting of stigma, style and ovary. The pistil tip, stigma, receives pollen for fertilization. In a cactus flower it is divided into a number of lobes. Stigmas of some species of Echinocereus are brilliantly colored. The floral tube of E. fasciculatus bears spines. The areole consists of two buds, one bearing a spine structure and the other a flower.

Since their discovery and introduction to the then "civilized world", the area surrounding the Mediterranean, cacti have been assiduously collected and methodically studied, moreso perhaps than any other plant family.

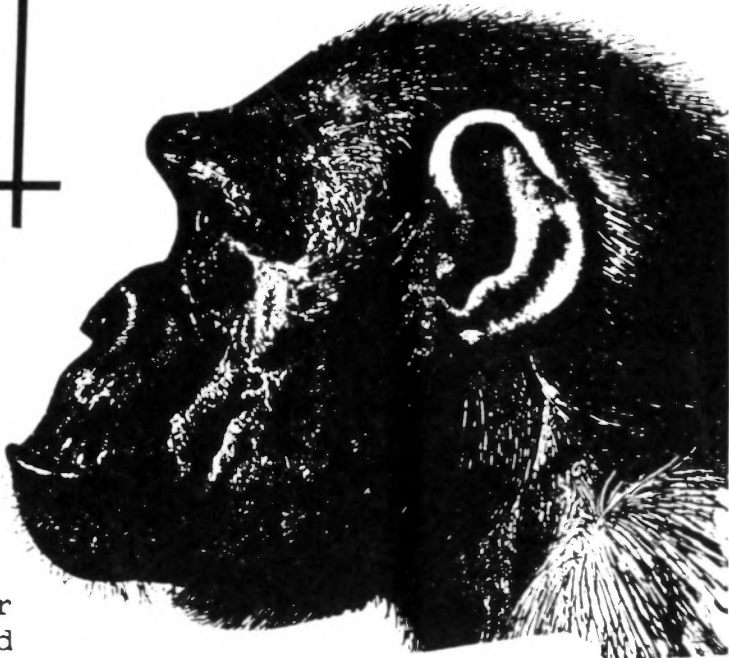
For sheer beauty and splendor, the cactus flower has no peer in Nature. Some are iridescent and some have a metallic sheen. Color variety is extraordinary. Their flowering habits are extremely varied, some species produce flowers during the darkness of night only to close and wilt on the return of day, their growing cycle having been completed and their purpose served during that brief time span. Others remain in beautiful flower day and night. Some are ensnared beneath an array of spines which makes it difficult for the flowers to fully open to reveal their beauty to the world. Some species bear very tiny, inconspicuous flowers, others are large and showy. Some are very fragrant.



ECHINOCEREUS FASCICULATUS
(Englem.) L. Benson

(Cross-sectional drawing)

WISE AND OTHERWISE



"San Diego Cactus and Succulent Society president Caulk and his wife, Helen, drove several thousand miles on a recent collecting trip in Mexico. They climaxed their jaunt with an accident after re-entering the United States (fortunately not in Mexico) in which their car overturned and covered them with their collected plants - no report yet, but we understand spines found new resting places.

Mrs. Caulk was in a body cast for awhile, but recovered in time to attend National Convention." Taken from the "Affiliate Column" of Cactus & Succulent Society of America Journal, Vol XXXV Sept 1963. Mr. Caulk was our second SDC&SS president after Cleovis Hardin, Founder 1961.

Michael Buckner

"HE WHO ENJOYS DOING AND ENJOYS WHAT HE HAS DONE IS HAPPY." Goethe

"When I consider that the nobler animals have been exterminated here-- the cougar, the panther, lynx, wolverine, wolf, bear, moose, deer, the beaver, the turkey and so forth and so forth, I cannot but feel as if I lived in a tamed and, as it were, emasculated country Is it not a maimed and imperfect nature that I am conversing with? As if I were to study a tribe of Indians that had lost all its warriors I take infinite pains to know all the phenomena of the spring, for instance, thinking that I have here the entire poem, and then to my chagrin, I hear that it is but an imperfect copy that I possess and have read, that my ancestors had torn out many of the first leaves and grandest passages, and mutilated it in many places. I should not like to think that some demigod had come before me and picked out some of the best of the stars. I wish to know an entire heaven and an entire earth."
Thoreau

"ON THE PLANET TRANQUILLE AROUND KM-849 (G-0) LIVES A LITTLE ANIMAL KNOWN AS A "KNAFN." IT IS HERBIVOROUS AND HAS NO NATURAL ENEMIES AND IS EASILY APPROACHED AND MAY BE PETTED -- SORT OF A SIX-LEGGED PUPPY WITH SCALES. STROKING IT IS VERY PLEASANT, IT WIGGLES ITS PLEASURE AND BROADCASTS EUPHORIA IN SOME BAND THAT HUMANS CAN DETECT. IT'S WORTH THE TRIP.

SOMEDAY SOME BRIGHT BOY WILL FIGURE OUT HOW TO RECORD THE BROADCAST, THAN SOME SMART BOY WILL SEE COMMERCIAL ANGLES -- AND NOT LONG AFTER THAT IT WILL BE REGULATED AND TAXED.

IN THE MEANTIME I HAVE FAKED THAT NAME AND CATALOG NUMBER, IT IS SEVERAL THOUSAND LIGHT-YEARS OFF IN ANOTHER DIRECTION. SELFISH OF ME."
From "The Notebooks of Lazarus Long" by Robert Heinlein, c. 1973 Putnams

"Few people know how to take a walk. The qualifications... are endurance, plain clothes, old shoes, an eye for nature, good humor, vast curiosity, good speech, good silence, and nothing too much."
Ralph Waldo Emerson