

# ESPAÑOL Y JAPONÉS

BULLETIN OF THE  
SAN DIEGO CACTUS AND SUCCULENT SOCIETY

GROWING CACTI AND SUCCULENTS AS A HOBBY  
--Dr. Philip G. Corliss--

PHYSICIANS HAVE A DEFINITE HANDICAP WHEN THEY GARDEN! Trained to succor the ailing and opposed, for the most part, to euthanasia, doctors are prone to spend too much time trying to save sick plants. They tend to include plant mortuaries and hospitals in their gardens. I find it difficult to pull out flowers that volunteer in beds that do not need them. I

can bring myself to eliminate only the most obnoxious weeds.

There is one aspect of cactus gardening that lends itself to the healing instinct of the physician. This is the use of grafting to save weak plants. The use of grafting in cactus culture is a topic as argumentative as hot water bottle versus ice bag or rest versus exercise in medicine because the grafter plant may not be typical of the plant as grown on its own roots. Some types of cactus grow poorly if at all in environment other than their native habitat, whereas they may grow with great vigor, attaining larger size and floriferousness.

There are many advantages to raising cactus as an hobby for physicians. Unlike field and stream, fairway or lane, it keeps you handy to the call of your patients. Yet cacti will stand the neglect of long vacations much better than any other kind of plant and certainly better than animal pets.

When I was in medical practice I grew flowers of all kinds and bred daylilies, amaryllis, iris, and other types. Now I am retired, have a much smaller garden, and must do practically all of the work myself. I was delighted to find that there is a limit - not many over three thousand - to the number of known cactus species. To collect the desirable, available ones is a reasonable goal, whereas the new introductions of other hybrid garden flowers have become so numerous that only a millionaire can afford to collect and grow all the new varieties. Alas, I found that after a certain point was reached it was difficult to find any species not in my collection,

GROWING CACTI AND  
SUCCULENTS AS A  
HOBBY, cont'd.

although dealers in Japan, England, Germany, Mexico, and other parts are a source of many kinds not found in domestic catalogs. Then I began to collect "varieties" of the species and the abnormal cristate (crested) and monstrose forms.

Cacti not available from dealers or personal collecting can be added to a collection by growing them from seed. One U. S. dealer lists several thousand varieties of cactus and succulent seeds every year. It takes in nature from five to fifty years from seed to bloom, but we have learned to speed up this process by growing the seeds in wick-fed pans with electric cables under the soil and fluorescent lights overhead and by grafting the young seedlings. I get bloom in two years on many kinds of cactus.

I suppose that when I had collected as many kinds of cactus as possible, it was only natural that I should turn to hybridizing. The "orchid cactus" (epiphyllums) have been hybridized for over 100 years. Most of the early work was done in Germany. There has been some work done with other types of cactus and succulents, notably by Harry Johnson and Ed Hummel. My good friend, Frank Reinelt, perhaps America's greatest living plant breeder, who has given us the modern begonia, delphinium, primula, and many other flowers, is now engaged solely in breeding cactus.

I am now growing hundreds of cactus hybrids of my own origination. Among the easiest and most satisfactory (because of the splendid flowers) is the group obtained from the South American globular cacti of the rebutia-lobivia-echinopsis complex. The Echinopsis is the familiar "Easter Lily Cactus" which has been a popular house plant for many decades. It is, unfortunately, a night bloomer, so I am crossing it with day-blooming members of the lobivia and rebutia tribes to get large flowers of day-blooming habit. These hybrids are easy to raise from seed and offer little cultural difficulties.

Another group that interests me is the neoporteria-horridocactus-phrrhocactus, chileorebutia-neochilena group of South American globular cacti. They flower well and are attractive at all seasons because of the spine color and formation.

Probably the most popular type of cactus with collectors is the mammillaria ("pin cushion" or "nipple" cactus) group. There are about 300 species and as many more "varieties" of mammillarias, plus crests and monstrose forms of most. They are small in size so that even a collector with limited space may grow a large number. They flower profusely, for the most part. The color range includes yellow, white, and pink through red and purple. A representative collection will have blooms throughout the year. It is the spines, however, that make them most attractive. The spines may be brown, yellow, white, black, or red, with graduations and even multicolors. They are short or long, straight or hooked. The mammillarias also include varieties with hairs and "wool". Hybridizing possibilities with this group are fascinating.

All cacti are succulents, and a cactus grower usually becomes interested in growing some succulents which are not true cacti. The western hemisphere is the home of all cacti, but the succulent euphorbias of the eastern hemisphere have developed forms which closely resemble their cactus counterparts of the western world.

Another group of succulents of considerable interest are the stem succulents called stapeliads. They belong to the milkweed family and are native to Africa and southern Asia. Commonly called "starfish flowers", their spectacular blooms range from 1/4" to 18" in diameter. Most of them are of difficult culture, but a few are quite easy. The flowers are so intriguing that they are well worth the extra care required.

During the last century the popularity of cacti has waxed and waned, I think they are on the verge of a new surge of favor as they are so adaptable to today's smaller gardens and greater leisure time for travel. I am sure that the reading of any of the good books about cactus will stimulate a rewarding interest in this most fascinating of all plant families.

DR. WERNER RAUH  
VISITS SAN DIEGO

Dr. Werner Rauh is professor and director of the Institute for Systematic Botany at the University of Heidelberg. He is a specialist in succulents and cacti and has done much work on the flora of Africa and Madagascar. In a recent book of his published in Germany in 1966, on the succulent flora of Africa, there are chapters on both the morphology as well as the culture of these plants. The families are treated systematically with descriptions and notes on their geographic occurrence and the book has many splendid photographic illustrations in color as well as black and white. Dr. Rauh also recently has been a contributor to the Cactus and Succulent Journal with papers describing new plants from Africa.

At his appearance before the San Diego Clubs on the evening of October 22nd he presented a fine talk with slides entirely devoted to the Cacti of Peru and other elements of the flora of this portion of South America dwelling especially on Bromeliads including the famous gigantic Puya raimondi. The distribution of the strange and sometime spectacular plants are entirely dependent on the presence or lack of little more than mist at certain seasons of the year.

The talk occurred after the members of three clubs and their guests had an opportunity to socialize and have dinner at Sir George's Smorgasboard. The audience filled the large room and was treated by Dr. Rauh to the vicarious thrills of a visit to Peru. This, an astonishing country from a geological viewpoint, ascending from a narrow stretch of flat desert parallel to the Pacific Ocean to a height of about 20,000 feet to the crest of the first tier of the Andes. After crossing this portion of the Andes one descends to a grassland plateau, called in Spanish Altiplano or Puna. At the eastern end of Peru the mountains again ascend to 20,000 feet after which the Andes descend gradually into the hot and rainy atmosphere of the mighty Amazon jungle plain.

The desert zones close to the sea as well as those ascending the western slopes have no appreciable precipitation except in the form of high humidity or seasonal heavy mist, and these are relegated only to some zones. In these restricted areas the succulent flora is surprisingly rich and the excellent color slides showed in addition to some beautiful bromeliads, members of the following genera of cacti: Tophrocactus with numerous mounds of the intriguing T. floccosa; Browningia; Oroya; Matucana; Neoraimondia; Mila; Thrixanthocereus; Melocactus, and Borzicactus.

The puna or altiplano sparsely supports on its grasslands some Indians and their llamas and vicunas. The talk, to this writer at least, was a clarifying account of the phytogeography of the region and truly enlightening.

In addition to some well-known members of the horticultural and botanical world present for the occasion, Dr. Rauh was introduced to the meeting by Ed and Betty Gay of Tarzana who had just returned with Dr. Rauh from a visit to Baja California.

---Anthony D'Attilio

REMINDERS: NO. 1 THIS IS TO REMIND YOU - there's a BALLOT in your Sept.-Oct. issue of the CACTUS & SUCCULENT JOURNAL - and its valueless if you don't use it. It's strictly non-political too, but the substance of the CACTUS and SUCCULENT SOCIETY of AMERICA depends upon your use of it. You'll find boxes to vote for all officers - unopposed, and boxes for six directors, but you may vote only for THREE. Make your ballot talk, put a stamp on it and mail it. N-O-W.

No. 2 This is to inform you CLIVE INNES of England is coming. He will be our guest and speaker at the January 9th meeting - repeating JANUARY 9th - in the Floral Building, our regular January meeting.

CACTUS OF THE MONTH

(open)

Genus: MATUCANA

MATUCANA (Má - tōō - ká - ná) is a genus of Peruvian cacti of the sub-tribe Cactanae, and doesn't the sketch below remind you of a lot of other globular cacti with numerous spines. The name "Matucana" derives from the name of the Peruvian village where it was first found.

It all started back in 1850 when Friedrich Gottlob Hayne (1763-1832) made the original discovery. Progress, Matucana-wise, was very slow for a long time in keeping with the life of this remote Peruvian village. Surely they weren't hard to find - like *Pediocacti* in tall grass.

Quite sometime later, 1932, a Mr. Herzog added one, and then still later, 1953 Mr. *Blankii* added another. Then a lapse of about a century or until Messrs. Paul C. Hutchison and Dr. Werner Rauh, more energetic, knowledgeable and intent, roamed the area on different occasions. As the situation exists presently, we believe there will be no hidden family secrets unexposed to the light of day in the cactus closet. And there may be a lot more Matucanas in pots too.

As we started to say, the whole thing started with ONE species, but the species count has expanded several hundred percent, no specific figures, of course, because some are now called "S. nova" and are awaiting names and proper publicity.

By-the-way, Doc Corliss, how many species do you have - four, five, six, ten - and what do you think of them. And do they bloom for you? Or do you still prefer the old standbys - the Mams?

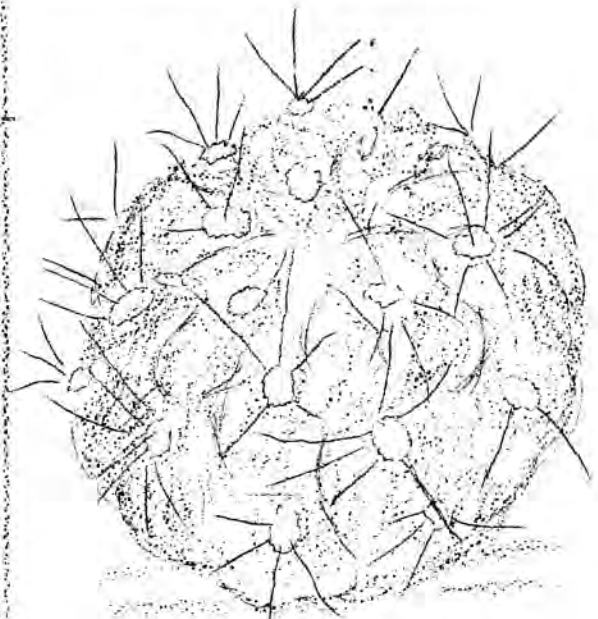
The following description applies to *M. Haynei* - the original - which starts out globular but eventually shoots up to an altitude of 10 inches. We wonder what kind of rocket fuel it uses, or is it the thin Peruvian, non-resistant air? Or could it be the lack of retardant smog? Anyway, *M. Haynei* areoles bear yellowish woolly hairs and they're numerous - and we do mean NUMEROUS, and in addition, they are interwoven. The flowers are deep orange-red and show at the center of the crown.

The lazy cartoonist chose *M. auriantica* for purposes of illustration because *M. Haynei* just had too many spines by a large margin. And spines are very difficult to draw and very time consuming, and a strain on the mimeo stencil. Oh well, where there's people, there's problems, and where there are cacti, there soon will be people--AND problems. Repeating: Many spines deleted in illustration.

We can hardly wait for our *M. tuberculata* to flower - and the flower had better be red, or scarlet, or crimson - no whites - or there'll be one empty pot space on the wall.

Anyone who brings a flowering Matucana to the November meeting will be automatically awarded the "top spine" trophy by acclamation and in addition the first choice from Sophie's little Cactus Garden of Eden - free.

\*any resemblance to a true *M. auriantica* is purely coincidental. —the Old Wagonmaster



MATUCANA AURIANTICA\*

CEROPEGIA DICHOTOMA

Succulent of the Month  
(Walter E. Greenwood)

CEROPEGIAS belong to the Asclepiadaceae family which is mainly native to the arid regions of Africa and adjacent islands, and India. They are, for the greater part, plants which grow from woody tubers and trail along the ground where most leaf joints take root and form new tubers which encourages new growth from each joint.

Ceropegias make remarkable and showy hanging basket plants. A few trailing varieties are:

- C. woodii the "heart vine" with heart-shaped leaves with a marbled effect, purple lantern-shaped flowers and three inch horn-shaped seed pods.
- C. barkleyi with ovate, lanceolate leaves, also marbled, and greenish veined, purple-brown flowers.
- C. debilis with linear leaves about one inch long and one-sixteenth inch wide, marbled.

Other types of trailing ceropegias with heavier stems and larger flowers are:

- C. radicans with orbicular leaves with mucronate tip and considered the most spectacular of the genus.
- C. sandersonii with cordate-ovate leaves, green flowers three inches long.



Five ceronegia flowers

- C. radicans (Natal)
- C. haygarthii (Natal)
- C. stapeliaeformis (South Africa)
- C. bulbosa (West India)
- C. dichotoma (Canary Is.)

- C. thorncroftii with cordate-ovate leaves, green flowers three inches long.
- C. stapeliaeformis with widespreading corolla lobes on flowers.
- C. haygarthii, pale pink flowers with purple spots, corolla lobes united.
- C. ballyana, flowers up to four inches long, lobes twisted.

Growth habits of C. dichotoma, C. krainzii and C. fusca are very different from the above types. Quoting Webster: "Dichotomy" means "a system of branching by repeated divisions into two." C. dichotoma, Canary Island native, has an erect array of cylindrical stems about one inch in diameter the base becoming smaller toward the new growth. Rootlike protusions appear at joints near the base. A year's growth forms jointed segments at the top of, which two opposing leaves and several flowers form. Growth appears in October and November resulting in brownish-green leaves 1/16th inch wide and about one inch long, with pronounced veins. Lantern-shaped, lemon yellow flowers appear at this time. Leaves fall during the dry season. It stands dry spells well but long periods of drought cause stems to shrivel. A plant in my garden is 15" tall, 23" wide and has 112 stem tips on two main stems. It is kept dry during its rest period.

FLORIDA CANYON  
NATIVE GARDEN

SOMETHING NEW  
FOR BALBOA PARK

By Helen Witham  
Botany Department  
Natl. Hist. Museum

We are dreaming - dreaming of a Botanic Garden devoted to the culture of native Californians, the ones that were here before all the people came. The plan being proposed is that the northern portion of Florida Canyon be developed as a California Native Plant Botanic Garden.

It will have self-guiding trails, labeled plantings, and some kind of Center - a circle, amphitheater or pavilion - where gatherings can take place and where oral, printed, and/or filmed information will be made available to the public.

Principal areas of interest will be:

- 1) The Forest
- 2) The Streamside and Meadow
- 3) The Chaparral

THE FOREST We need trees, trees, trees. We need trees to improve our air. We need trees for our eyes, our ears, and our serenity. Everyone needs to walk in the woods occasionally, to scuff some leaves, to hear the sound of wind in tall pine trees.

On the west side of the Canyon, where natural drainages have already been upset and new landscaping is in order, we can establish small groves of native Oaks, Pines, and other trees, each with its related underplantings - the small shrubs and flowers that belong there naturally.

THE STREAMSIDE AND MEADOW

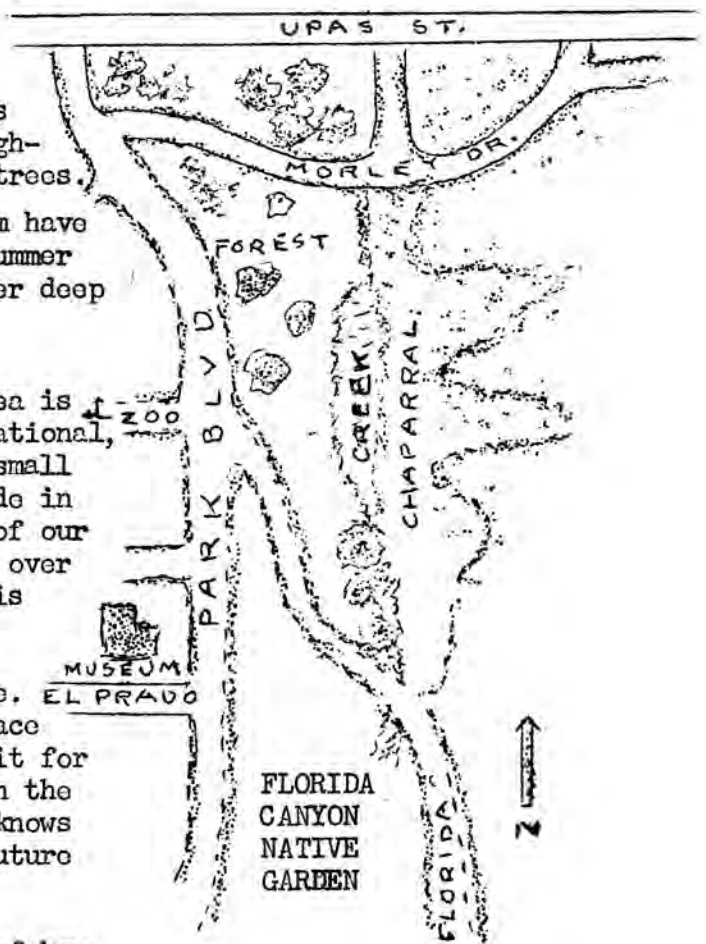
The second area of interest will be the meadow and streamside woodland. Many fine small trees are already here and more could be quickly established. These trees that grow along watercourses are the fastest growing of all. White alders have been known to grow to eighteen feet in a year. Willows and cottonwoods also are quick and easy, as witness the many lines of fenceposts throughout the West that have grown into rows of trees.

The smaller plants that border a stream have especial appeal during the dry months of summer and fall, when strolling along a creek under deep summer shade is particularly refreshing.

THE CHAPARRAL Preservation of this area is particularly important because of its educational, historical, and ecological aspects. This small remaining piece of publicly-owned canyonside in the center of the city contains a remnant of our native vegetation, a type that has evolved over the centuries to meet the conditions of this environment.

As such, it is an irreplaceable treasure. Once lost, we can neither restore nor replace it; neither can we fake it. We must keep it for study and observation in the present and in the future. We need it as a "genepool". Who knows whether or not the plant breeders of the future will need those genes?

We need this canyonside as a reminder of how



--turn to page 7--

NATIVE GARDEN--cont'd: the hills and mesas appeared to Cabrillo, to the Spanish soldiers riding in from the Southeast, to Kit Carson and the Mountain Men when they came looking to Alonzo Horton when he laid out New Town a few blocks west of here.

WHAT TO SUGGEST, ASK FOR, WRITE ABOUT

A Master Plan is to be developed and adopted before anything is built or planted in the Florida Canyon area. We want to see a Native Plant Garden incorporated into this Master Plan.

So, bend some ears and write some letters. Some positive talking points are:

1) Open space, 2) Conservation of a natural resource, 3) A new and different attraction in the Park, 4) An extension of the Museum-Science-Education complex, 5) Trees and plants against air pollution, 6) Greenery, to look pretty and smell good, 7) Great for photography, 8) Resource area for such studies in Natural History as bird watching and plant identification.

The person to write to: Mr. Richard M. Bowen, Chairman, Balboa Park Committee  
Recreation Adm. Bldg., Balboa Park, San Diego, 92101

For more information: Phone 463-4785 - Evenings 7:00 - 10:00 p.m.

NOMINATING  
COMMITTEE  
--report--  
Nov. 1970

YOUR NOMINATING COMMITTEE was:

Perlso Lewis, Chairman  
Walter Greenwood, and  
Glenn Heyer

and two ADVISOR-OBSERVERS were:  
Augie Pfeiffer and  
Tony D'Attilio

The above-mentioned met, talked, phoned, labored, studied, threatened, cajoled, pleaded, sweated and made a mole hill out of a mountain. The result of their membership-shrinking efforts (i.e. blood, sweat and tears) was:

PRESIDENT: Ione Hubner  
1st VICE PRESIDENT: Walter Scott  
2nd VICE PRESIDENT: Oliver Loyland  
SECRETARY: Nibby Klinefelter  
TREASURER: Warren Buckner  
CORRESPOND SEC: Perlso Lewis

THREE COMMITTEE CHAIRMEN:

EDUCATION: Floyd Gable  
EXHIBITS: Wilson Wells  
EDITORIAL: Michael Buckner

Additional nominations may be made from the floor at the November meeting. Then for the voting in December. It's time now that YOU do some thinking and helping, the new President must appoint several Committee Chairmen for 1971. Let's be DEDICATED WORKERS, not DEAD WEIGHTS and move the Club with VIGOR in '71.



# CACTACEAE WHAT A FAMILY

reasons for eliciting such unrestrained praise. Let's take a close look at some of the family characteristics and try to form an unbiased opinion based upon the evidence, i. e. the "facts".

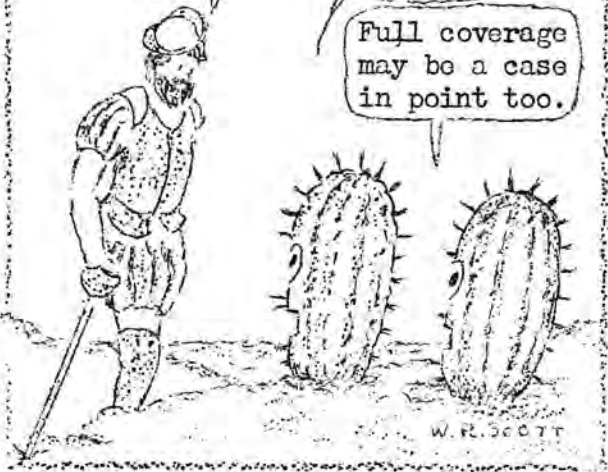
ONE AUTHORITY SAYS: "No plant family in all the world has ever aroused so much admiration, enthusiasm and respect among collectors and plant enthusiasts as FAMILY CACTACEAE". That is a very adulatory statement. There should be some very good

Botanists say cacti have characteristics which indicate a probable, albeit distant, relationship to the rose family. That isn't very much help. Other plants belong to the rose family too - apples and strawberries - both "rosaceae". A casual observer

Do you consider your armor defensive, offensive, or simply ornamental?

Neither and no! We're neutral but we think our spines have convincing points.

Full coverage may be a case in point too.



does note that cacti and roses have something in common - stickers. One would say when he looks at one rose thorn, he has seen them all. Not so with a cactus. Cacti produce spines in uncountable numbers and in unbelievable shapes and sizes. And it should be observed that cacti are very generous "donors" of their spiny products whereas roses are not disposed to give freely of the few they have. They mostly serve to divert attention elsewhere, to the flowers. Rose thorns surely wouldn't be considered an evolutionary development for the preservation of species as is believed to be the case with cacti. Botanists think leaves were transformed into spines as an evolutionary step for protection against hungry or thirsty predators.

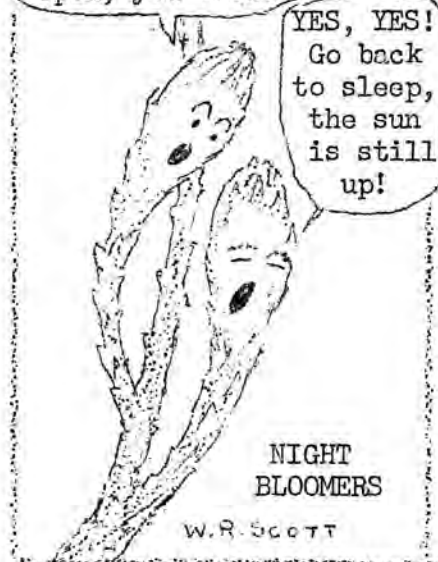
When one looks at some particular cacti, the question arises in his mind "did they once have THAT many spines"? Impossible. Leaves could not have been so crowded or motivated.

FLOWERS OF CACTI have no equal in the plant kingdom for blooming seasons, range of color, size and variety of forms. Consider the night blooming species whose large flowers open only during night time hours. One has been given the name "moon cactus" because it was originally thought light of the moon was a factor in its opening. Night bloomers put on a one-night show, and what a magnificent floral performance it

is. Movement is detectable. Petal tips of a 12-inch flower may describe an 180° arc in a 3-hour period when opening. The tips may travel a distance of 18 inches in three hours.

Did you set the alarm for nine tonite, that's when we're supposed to open, you know.

YES, YES! Go back to sleep, the sun is still up!



NIGHT BLOOMERS

W. R. SCOTT

What an exciting finale to a year's preparation for the annual show. One marvels at Nature's handiwork in compressing a remarkably complex and superbly coordinated performance into so short a time span.

Flowers of cacti truly are marvels of the plant kingdom.

(Continued next month)

---Walter R. Scott

A rose .  
is a rose..  
is a rose...

A cactus is a  
delightful  
surprise.



W. R. SCOTT



# CACTACEAE WHAT A FAMILY!

TREE DWELLING RHIPS When rules are written, it seems some provision must be made for exceptions. In the case of cacti, they are regarded as native to the Western Hemisphere, North and South America and the Islands of the Caribbean.

When one thinks "cactus" he automatically visualizes a desert scene - sandy wastes, suffering shrubs, a treeless terrain. But the nativity of cacti has an outstanding exception, a sub-tribe Rhipsalidanae (Rhipsalis, one plant, "Rhip" for short). The name refers to wickerwork, something with which everyone is familiar. When someone hears "wickerwork" he thinks he sees a resemblance - the power of suggestion. Try to conjure up in your mind an image of a cactus so constructed. That's one of the very interesting things about cacti. Imaginations differ, some more than others.

Rhips are tree dwellers; they form pendant masses; their stems may be long, thin and pencil-like or they may be flat and leaf-like. Flowers are tiny, sometimes followed by berries resembling gooseberries. Hence another name - "gooseberry cactus".

Rhips have dual citizenship, they're indigenous to both sides of the Atlantic. If we aren't too demanding on the interpretation of rules, and aren't of a disposition to take issue, we may appreciate cacti where we find them. If they're supposed to be Westerners and they're found elsewhere, they just could be fugitives in disguise and seeking refuge in trees. Or one might be generous and say they "evolved" simultaneously

in two regions. Or to take one's mind off "wickerwork" for a moment, and resort to imagination again, let us be facetious and say they were the first to cross an ocean between continents in their own boat - a tree carried out to sea and driven by wind and ocean currents. So we conclude cacti provide fun and comedy in abundance.

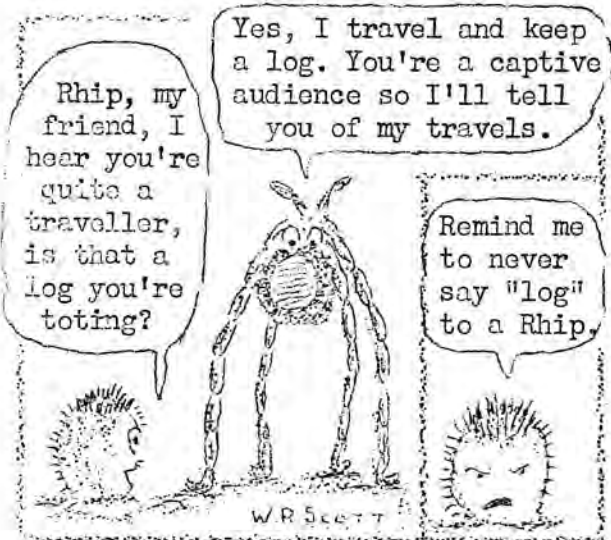
Rhips prefer, or better insist on shade and moisture. Their natural preference is a tropical rain forest. There they hang suspended in trees, rooted to the bark, enjoying a carefree, comfortable, easy, moist existence. They're an exception to the "light-loving" rule of cacti, they thrive in the total absence of direct sun. And that brings us right back to the "fugitive" concept, retreating from the limelight. (End)

CACTI AND EVOLUTION No family of plants has been subjected to the severity of evolutionary caprices and changes so effectively as cacti. It has adapted to extremes of climatic conditions in its travels. Its members are distributed from Canada to Patagonia. It is at home in the Islands of the Caribbean. It lives from below sea level to the high Andes. It flowers in unbelievably cold climates. Its members survive the searing heat of desert wastelands and at the same time some members live in jungle rainforests. (Rhips, above)

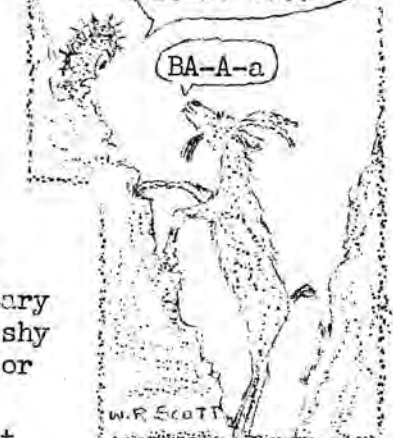
MISTREATMENT After surviving the evolutionary struggle, the family encountered a new problem - man. No family of plants as individuals or as a whole, has been subjected to as much thoughtless abuse and malicious mistreatment without apparent reason or justification. Spines, it seems, arouse an involuntary impulse to eradicate, particularly among youngsters, oldsters shy away. In a conflict or contest, if one has an urge to "pull for the underdog", cacti would have near unanimous backing.

(To be continued)

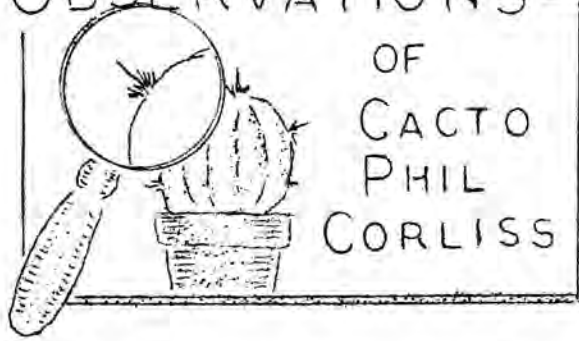
---Walter R. Scott



Go away Capra, I was in the Andes first and I intend to stay. And I have plenty of undercover weapons for defense too.



# OBSERVATIONS —



I HAVE JUST MADE AN EARTH-SHAKING DISCOVERY! My plant of Coryphantha retusa opened a flower when there was no other coryphantha flower to cross with it, so I stroked the stamens with a camel's hair brush to get pollen to apply to its pistil and to my great surprise the stamens immediately closed tightly around the pistil, just as a "sensitive plant" closes when you touch it. I have not seen this phenomenon in any other cactus flower and cannot find it mentioned in the literature.

The bloom opened for several days and I repeated the process once or twice each day. It takes about three seconds for the stamens to close around the pistil, and 15 to 30 minutes for them to reopen. Incidentally, the Coryphantha retusa has one of the most beautiful of all Coryphantha flowers. The diameter of the flower is in excess of  $2\frac{1}{2}$  inches and it opens perfectly flat. I am looking forward to next season's bloom and will test all flowers, especially those of Coryphanthas, for this quick closing habit. If any of you notice the habit in other flowers, please let me know.

TO GRAFT OR NOT TO GRAFT is indeed a question. One reason why I make so many grafts is because my garden is at the beach and there is rarely enough hot weather to produce satisfactory growth in certain species. A vigorous stock, such as a Trichocereus or Myrtillocactus, that grows well in this climate, will stimulate growth of these heat-loving scions. Although the charm of some species, such as Mammillarias humboldti, woburnensis, or lenta, is in their normal smallness, the grafted plant although grosse in size, is still attractive and is more easily maintained.

Some of my most attractive specimen plants are the result of happy marriage between stock and scion, such as with some Echinocerei whose growth on their own roots may be so exasperatingly slow that efforts to force growth with food and drink often lead to their demise. The life expectancy of a grafted plant is shorter than that of one on its own roots. But, like the question of "good grammar or good taste", do you want a long life or an happy one?

I think that Acanthocereus pentagonus is one of the best stocks for the San Diego area. It is a rampant grower here and has proven suitable for all scions I have used on it. I think its fierce spines have deterred many people from using it. If you have room to grow some mature plants of it (and also Myrtillocactus and Trichocerei and cerei) you can have a succession of excellent stocks by frequent removal and rooting of new growth.

An excellent source of husky stock for grafting may result from growing single plants of Trichocereus spachianus about 18 inches high and 2 to 3 inches in diameter. Once each season you may cut it two inches or more from the soil level, using the base for grafting and rooting the top. The new growth of the rooted top in one season should equal the size of the plant base you have used for grafting. This and other stocks will produce branches from base, side or top, which can be used in place for additional scions, or removed for future use.

(Ed's note: Doc. Corliss we are all glad you found and alerted us to the "sensitive reaction of C. retusa stamens". Let us all pursue this search for similar action on other cactus flowers.)



ESPINAS Y FLORES

THE OFFICIAL PUBLICATION OF THE SAN DIEGO, CALIFORNIA, CACTUS & SUCCULENT SOCIETY

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-----CLUB MEETINGS-----

Monthly meetings are held on the first Saturday of each month at 1:30 p.m. in the Floral Association Building in Balboa Park, San Diego. Visitors are welcome! Visitors are given a choice of a variety of succulent plants. Parking is nearby and convenient.

-----COPY DEADLINE-----

Please submit all material to the Editor before the third Saturday of the month. Sooner is better, of course.

-----ARTICLE REPRINTS-----

Articles appearing in Espinas y Flores may be reprinted if credit is given to the author and two copies of the prints are sent to the Editor. Muchas gracias!

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-----PROGRAMA POR NOVIEMBRE-----

Saturday, November 7th, 1970, 1:30 p.m.  
in the Floral Association Bldg., in  
Balboa Park.

JOYCE L. TATE of Sunnymead, California will be our speaker. Her subject will be: "CALIFORNIA SUCCULENTS - Their place in History."

-----PLANTS OF THE MONTH-----

CACTUS: Matucana (open) Native of Peru, few in "captivity", if you have any species bring it to the meeting.

SUCCULENT: Cerropegia dichotoma--a very attractive succulent. Bring one in.

OPEN CLASS: This is your opportunity to bring to the meeting a plant which is doing well for you at this season.

-----MEMBERSHIP and SUBSCRIPTIONS-----

Membership currently is \$2.00 single or \$3.00 family, which includes a subscription to the Club publication, ESPINAS Y FLORES. New memberships dating in October or after carry through to Jan. '72.