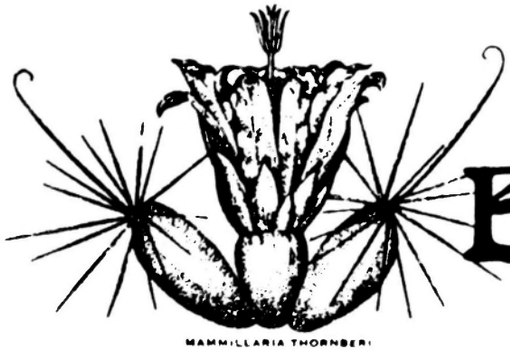

Espinas y Flores

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

Volume XXI, Number 6 June 14, 1986

JUNE MEETING

Picnic Details Page two

Saturday June 14, 1986

10:30 A.M.

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+ +

IN THIS ISSUE Page

+ +

The show and sale is over for another year. The sales were brisk and plentiful and profitable. Also very importantly the show had more different participants than ever before. The plants were outstanding and all contributing members can be very proud of their helpful participation.

+ +

DEADLINE FOR NEXT MONTHS PAPER IS JUNE 28, 1986. Thanks Mary

+ +

NEWS NEWS NEWS- - - - - - - - - - - - - - - - - -

WELCOME TO NEW MEMBERS

Jerry Clements - Whittier, CA

William E. Wright - San Diego

Frank & Judy Pitre - Imperial Beach

Mark & Karel Detterman have moved to Fremont, CA. They regret missing the show.

- - - - - - - - - - - - - - -

WINNERS OF THE BRAGGING TABLE FOR MAY ARE:

1st Place Beverly Kirkegaard for her Neochilenia napina

2nd Place Rudy Lime for his Euphorbia millii (hybrid)

3rd Place Frank Thrombley for his Euphorbia knuthii

- - - - - - - - - - - - - - - - -

PICNIC AND PLANT AUCTION

L()()K - L()()K - L()()K

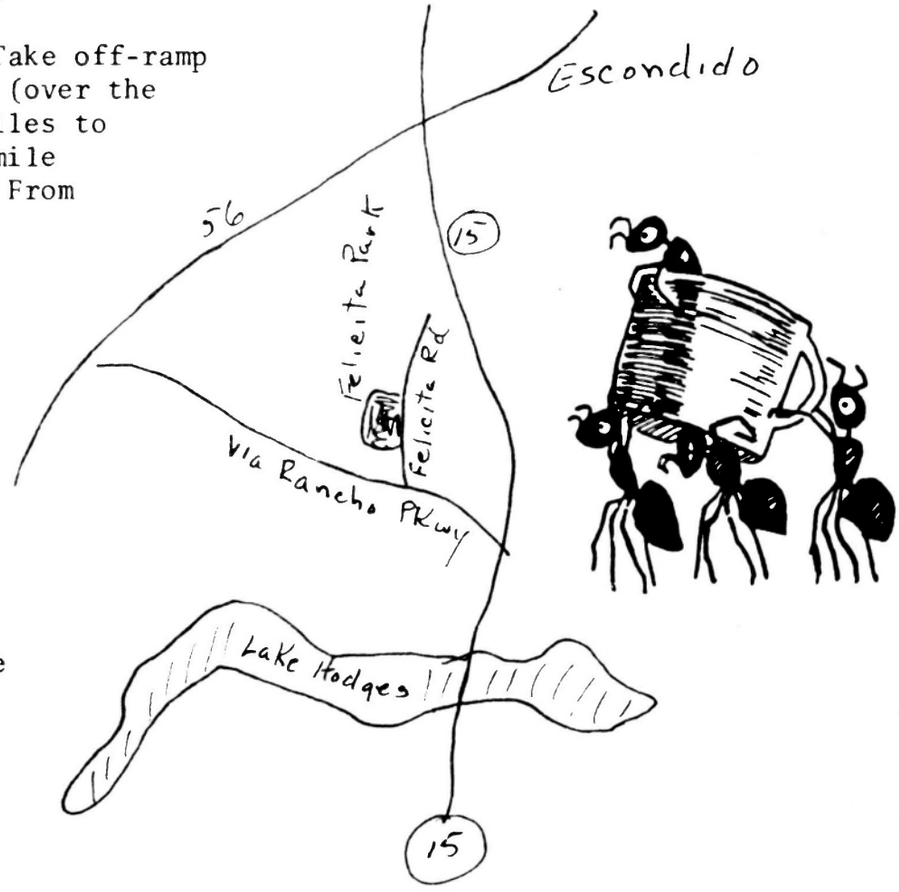
COME TO THE ANNUAL SDC&SS PICNIC !

Day: June 14, 1986

Time: 10:30 to 11:00 am - Eat at 12:00 NOON TILL ------

Place Felicita Park - Map at right

From San Diego - North on I-15. Take off-ramp at Via Rancho Parkway and go west (over the highway I-15) Approximately 1½ miles to Felicita Road, Turn RIGHT. Go ½ mile to entrance of park on the LEFT. From the North - turn off Via Rancho Parkway. Area #4 will have the San Diego Cactus and Succulent sign in View.



NOTE: There will be "Door" Prizes and an Auction.
Auctioneer - Lee Phelps

PLEASE BRING - a Pot luck dish enough for eight (8). Your favorite beach chair (or use park benches)
Casual clothes and a good appetite

Plan for a day of good food and fun.

SPINE STUDIES

PELECYPHORA ASELLIFORMIS
(Ehrenburg, 1843)

By Anthony D'Attilio

This small cactus is native to New Mexico and is the type of the genus. It is very distinctive in its form and it is rather pretty.

Two additional species Pseudopectinata (Backeberg 1935) and Valdeziana (Moll. 1938) have been at times considered also in the genus Pelecyphora. However, Valdeziana has been placed in its own genus and is now Normanbokea valdeziana. The generic position of Pseudopectinata has been thrown into doubt in a paper by Charles Glass (Cactus and Succulent Journal No. 6, Nov-Dec. 1969). This would leave P. asseliformis by itself. Its several distinctive characteristics make it nonetheless easily identifiable.

The name "Pelecyphora" comes from the Greek and means "hatchet bearer" with reference to the flattened tubercles (Fig. a). Asseliformis means "like a wood louse", a suggestive term for the form of the spine cluster. (Fig. b)

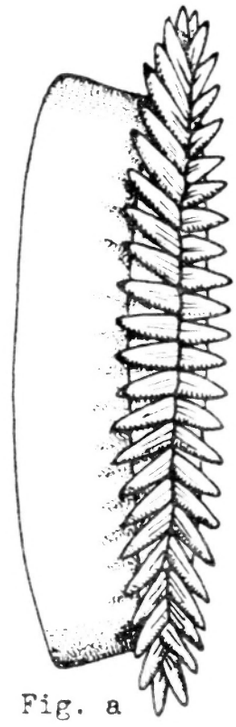


Fig. a

A more notable similarity, I find, is to the small mealy bug which as a cactus pest is so familiar to all of us. The plant bodies are small, forming offsets (caespitose) and are roundish or elongatedly round. The tubercles are not arranged on ribs, are flattened above, and crowned with an ovate areole bearing spines which are arranged comb-like.

At first the new tubercles are tightly squeezed together, later becoming more spread apart when their shape is easily discernible. Each elongated areole contains 24 to 30 tiny, blunt, flattened-down spines on each side.

The spines are coated with a fine semi-opaque greenish-white epidermis when new but this wears off and the older spines appear more green and translucent. Each spine has one or two grooves (Fig. c). The wool in the newer flower bearing areoles at the top of the plant is translucent and flattened, ribbon like. This is apparent only under magnification.

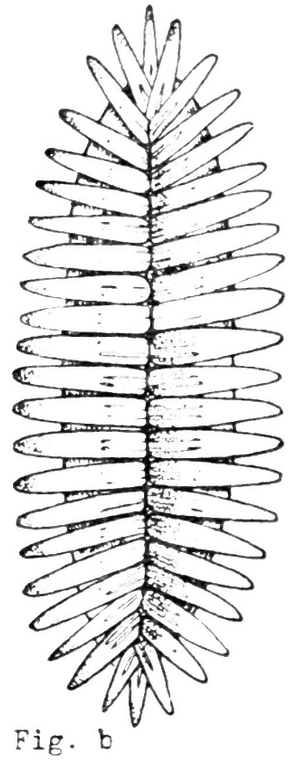


Fig. b

Both Britton and Rose in "The Cactaceae" and H. Bravo in "Las Cactaceas de Mexico", in 1937, believed that P. asseliformis was the plant known to the Indians as "peyote". The true peyote apparently is Lophophora Williamsii, a flattened, soft-bodied, almost spineless cactus that is widely distributed and not of rare occurence.

It is unlawful to possess it in California because of its use as an hallucination producing substance due to the chemical composition of its alkaloids.

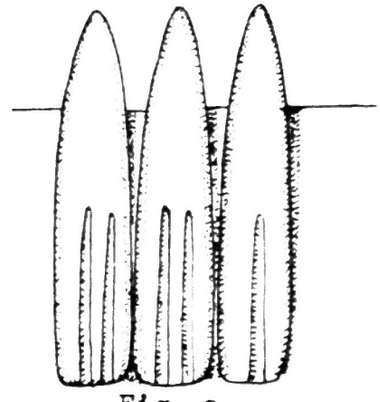


Fig. c

SPINE STUDIES

OPUNTIA GLOMERATA
(Haworth, 1830)

By: Anthony D'Attilio

With its long ribbon-like spines Opuntia glomerata is an interesting member of a South American group known as Tephrocactus. Whether Tephrocactus is used conservatively as a subgenus of Opuntia or given full generic rank remains apparently at the discretion of the specialist. Nevertheless by their growth characteristics the Tephrocacti form a distinctive group among those cacti having glochid-bearing areoles.

Under fair growing conditions they form spreading clumps whose branches are erect or prostrate. The globular or ovate joints possess either spines like most cacti or spines modified as in O. glomerata. In the species O. floccosa the entire plant is almost hidden below a beard-like growth of long hair-like spines.

(Note: Observations for this article were made on cultivated plants growing in San Diego.)

An ovate joint of O. glomerata may be five or six inches in length and is colored bright green. Owing to its variability in overall shape, length of spines, etc., many "species" have been proposed for forms which, according to Britton and Rose, may be found all growing together in one place. The tubercles may be low, roughly five sided, and conic, or they may be folded intricately into one another.

On the newly mature tubercles (Fig. 1) the areole at the tip is circular, filled with tightly appressed, straight filaments of wool. The wool, often looking like a small tuft of carpeting, is as long as the glochids, approximately four to six mm. Imbedded in the wool towards the outer edge of the areole are the many barbed glochids. The ribbon-like spines, ranging from 2 to 4 but mostly 3 in number, are located on the lower half of the areole. They are concave from above, may be six inches or more in length, with a few ridges running lengthwise on the lower side. Under magnification the soft wool is a warm, translucent silver: the glochids are rust colored and barbed along their entire length (Fig. 2). The spines appear dull brown or ashen with a paler zone at the margins and sometimes with a weak, diffused coppery zone in the center. They end in a long red brown point. Under high magnification the surface of the spine is very minutely longitudinally striate and covered by a lustrous, translucent membrance which seems to be attached along the striae and detached between them. (Fig. 3)

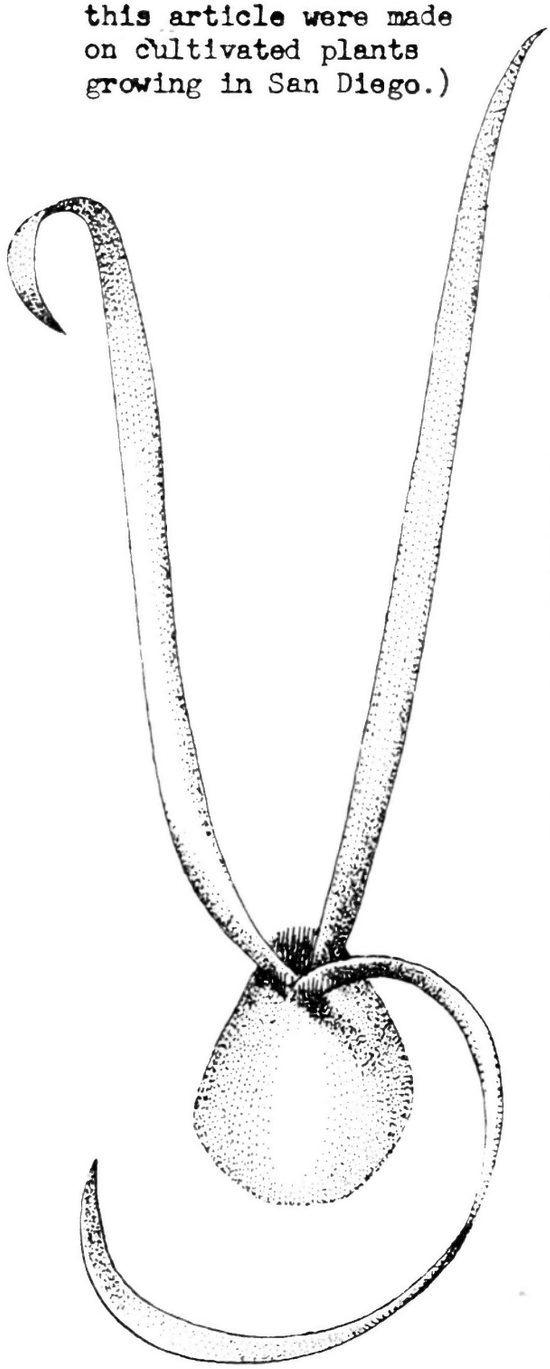


Fig. 1
Single tubercle showing three papery spines and top glochid cluster.

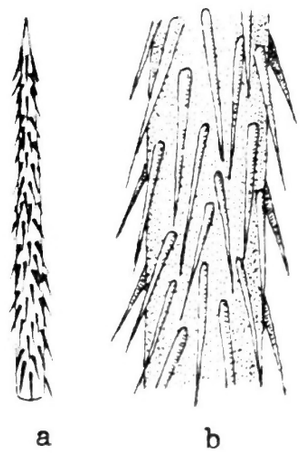


Fig. 2
Glochid, 4 to 6 mm
a--one glochid
b--detail enlarged

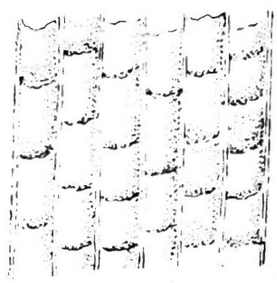
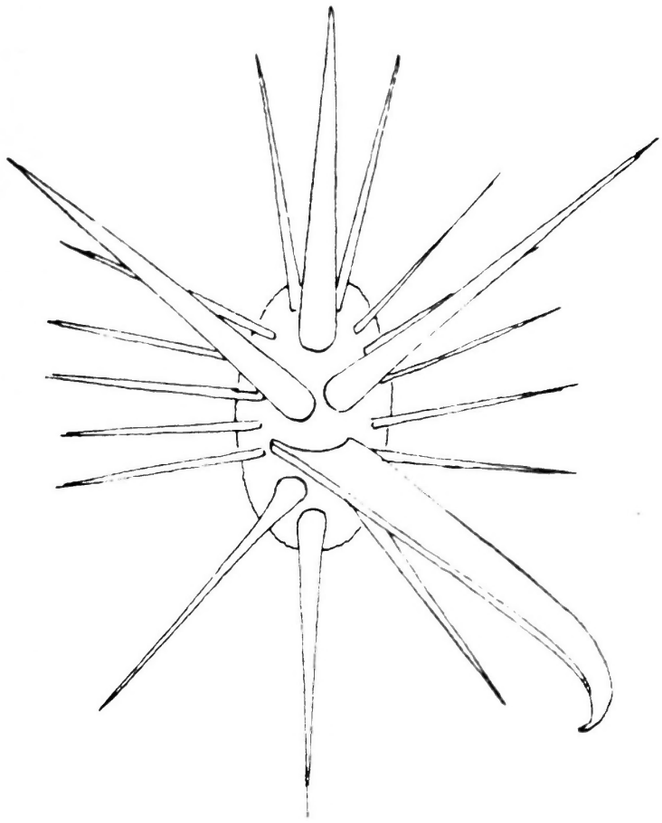


Fig. 3
Highly magnified surface detail of papery spine



Ferocactus peninsulae

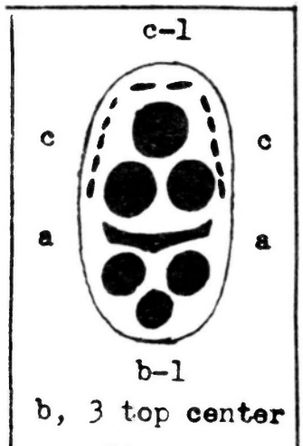
SPINE STUDIES: FEROCACTUS PENINSULAE

(Engelmann, ex Weber) Britton & Rose

- - - - - Anthony D'Attilio - - - - -

This species was described in 1895 as Echinocactus peninsulae. It was noted to be 2.5 meters in height, the spines red with yellow tips, the radial spines 11, the centrals 4. This species, with one possible variety F. viscainensis (Gates) has a distribution ranging from Bahia Los Angeles to the Cape region of Baja California.

The specimen upon which my observations were made has a plant body of seven inches in height and 5½ inches in width (without the spines) and was collected at San Franciquito Bay, Baja California.



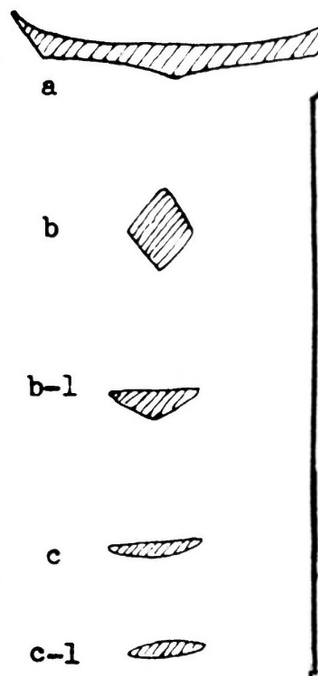
b, 3 top center

Fig. 1

The spines are noteworthy for their stoutness and length and are arranged disgrammatically as the illustration (fig. 1) on an ovate areole. The central spines (fig. 2 b) are diamond shape in cross section; the lower centrals (fig. 2 b-1) are triangular in cross section; the central spine (fig. 1 a) is best described by the illustration (fig. 2 a). The radials are elliptical in cross section.

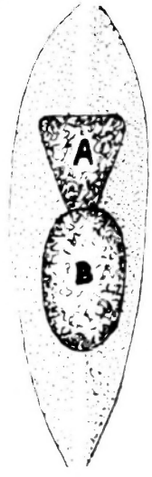
The large hooked central and the surrounding large spines are colored mahogany red and the radials are straw colored.

The spacing of the transverse rings (annulations) on the spines is variable, the interspaces are close or widely spread apart. This may be related to the growth rate, depending perhaps upon the amount of rainfall.



Cross sections near areole but not at base. See diagram for spine forms at base. All spines annulate.

Fig. 2



Areole

A--flower section
B--spine section

Fig. 3

The areole is on a thickened portion of the rib and it extends above the spine-bearing part of the areole as a wide woolly groove. It is in this woolly groove in the new growth of the plant that the flowers are borne. (fig. 3 a, b).

Echinocereus thornberi fasciculatus is a junior synonym

FLOWER STUDY

ECHINOCEREUS FASCICULATUS
(A "hedgehog cactus")

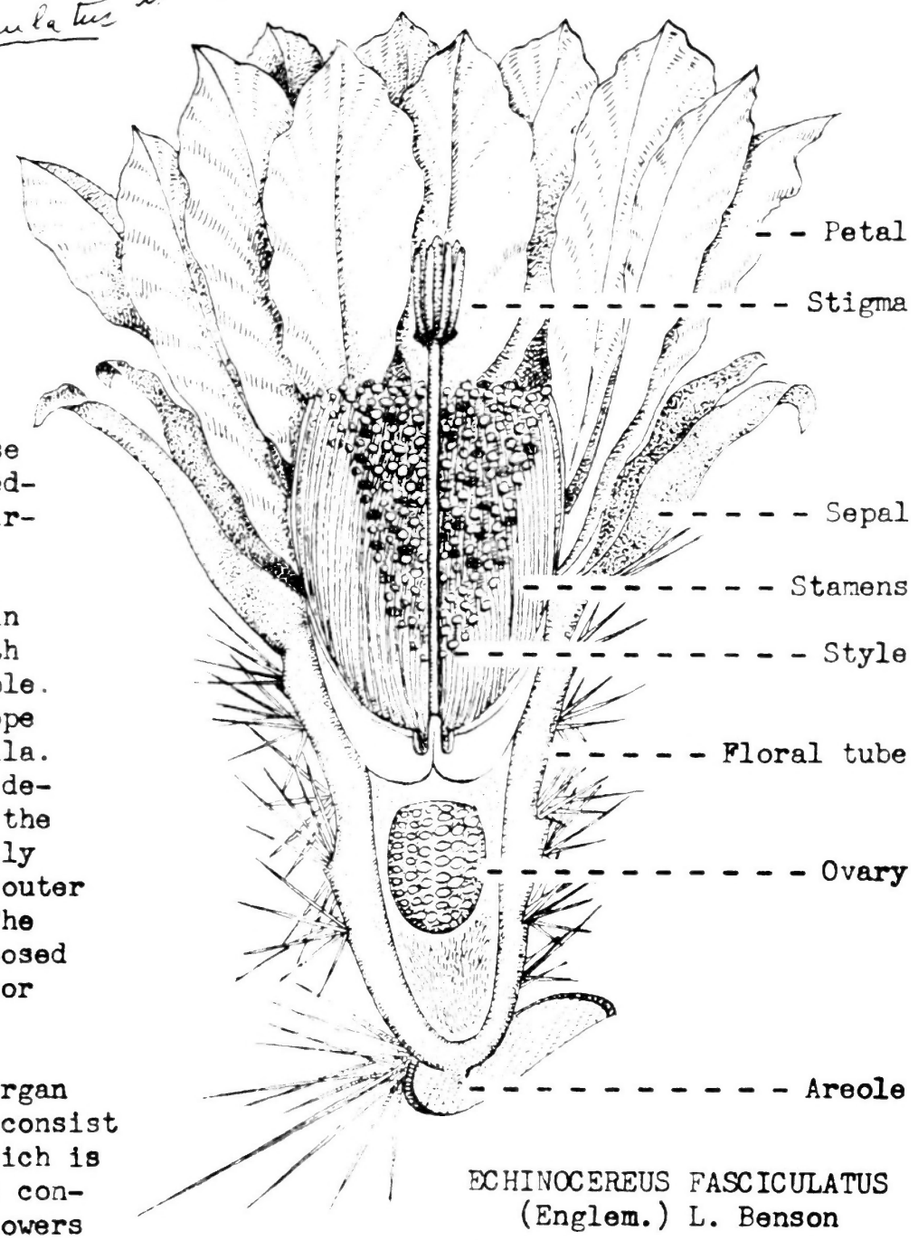
- - Anthony D'Attilio - -

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.



ECHINOCEREUS FASCICULATUS
(Englem.) L. Benson
(Cross-sectional drawing)

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 irridescent 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.

MORE NEWS ---------

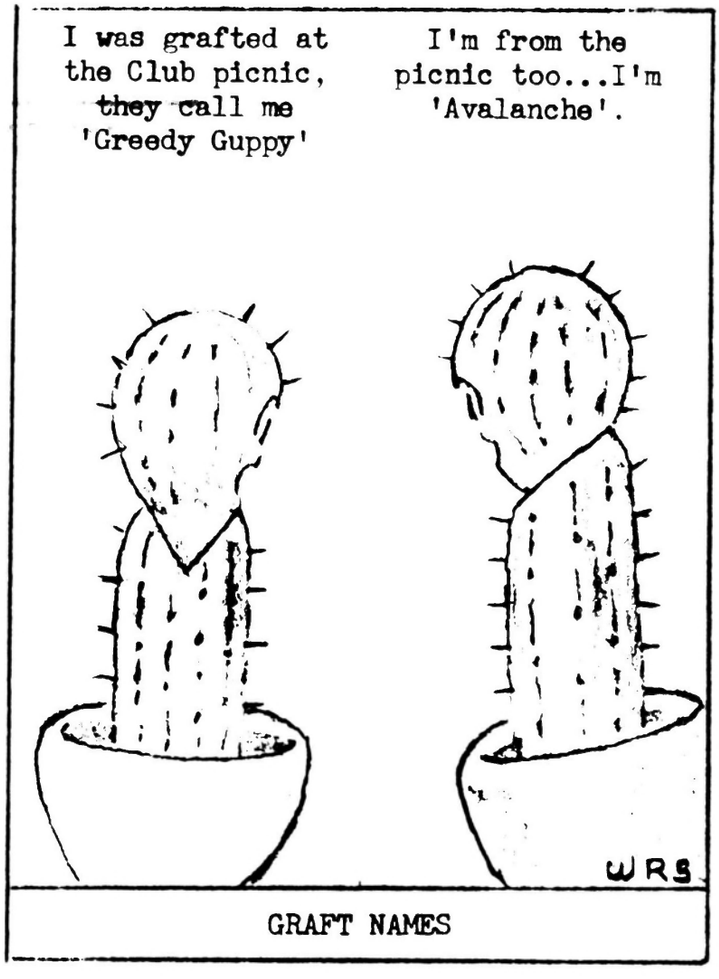
SHOW SCHEDULE FOR JUNE AND JULY
All shows are inthe Casa del Prado unless otherwise indicated

June 14 & 15	San Diego Fuchsia & Shade Plant Show	Sat:12-5:00pm Sun:10am - 5pm
June 28 & 29	Ohara Chapter of Ikebana Show	Sat & Sun: 11am - 4:30 pm
July 6	San Diego Dahlia Specimen Show	Sun; 1:00 - 4:30 pm
July 13	Convair Garden Club Summer Show	Sun: 1:00 - 4:30 pm
July 26 & 27	San Diego Orchid Summer Show	Sat:12am-4:30pm Sun:10am - 4:30 Pm

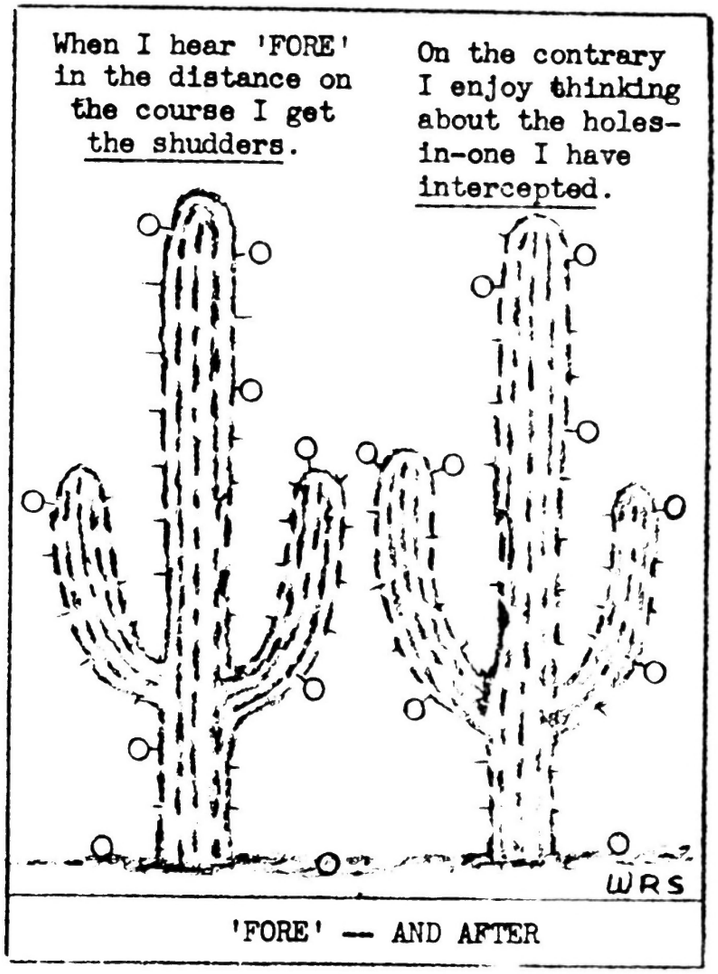
- - - - - - - - - - - - - - - - - - -

From Perlso Lewis
Wilna Johnson is sending a big ALOHA to SDC&S society. She is now a resident of Honolulu and besides her cacti and geramium collections has a beautiful selection of orchids.
Wilna makes outstanding floral arrangements with her variety of plants.
I was fortunate to visit her recently in Hawaii. We will miss Wilna, especially her contributions of her rare and handsome plants to our shows.
Wilna Johnson contributed BEST PELARGONIUM or SARCOCAULON TROPHY for our shows.

Cartoons from Walter R. Scott - - - - - - - - - - - - - - - - - -



GRAFT NAMES



'FORE' — AND AFTER

A NOTE ON MAMMILLARIA THERESAE, Cutak, 1967

A NEW PYGMY CACTUS FROM MEXICO

By Anthony D'Attilio

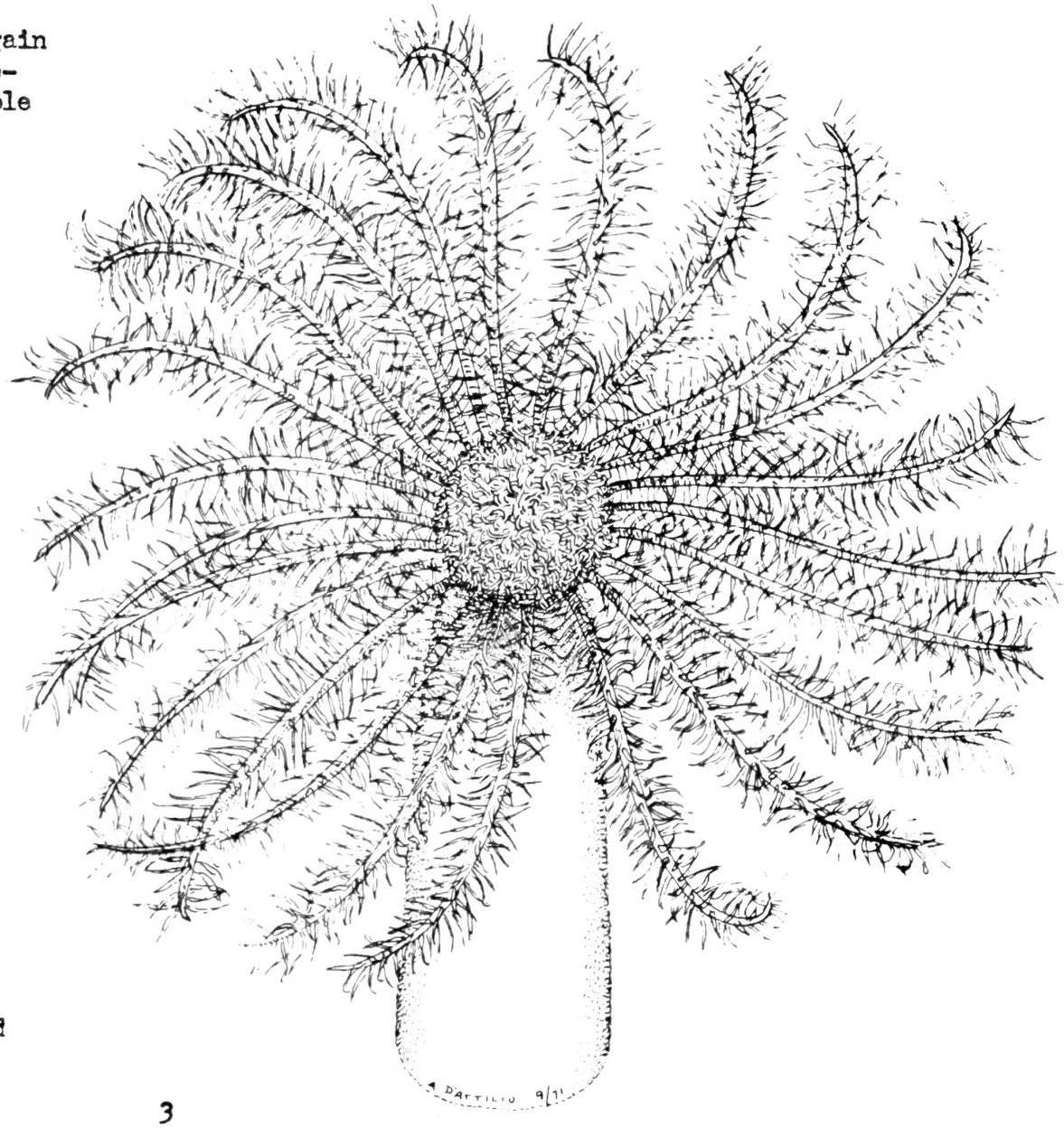
M. theresae, type from Durango, Mexico, about 7,000 feet elevation, collected by Ed and Betty Gay, May 1967.

The rather full description of the plant and flower cited above, both in Latin and in English, is enough to identify this cactus species. However to collectors, or perhaps to myself, one knows little of these miniature plants unless one has the advantage of examining them with an excellent microscope of professional quality. I have recourse to such studies of minute subjects in the course of my work on microscopic details of seashells. Many of the enormous number of marine invertebrate animals are very small to begin with and the details of form can be studied only under high magnification. Examination of this sort reveals some of the splendid and unforeseeable beauties of the world of the microscope.

Out of curiosity, both scientific and aesthetic, I looked at a little head of M. theresae. This impelled me to enlarge, at least for my own satisfaction, the description of a single tubercle from this cactus with its crown adorned by the feathery areole.

Going back again to marine invertebrates, most people have seen still photos or movies of feathered or serpent sea stars. The many graceful arms are covered with many symmetrically arranged spines.

Such forms are also found in certain sea anemonoes. flower-like animals. The analogy might fit the areoles in our pygmy cactus, a sea of areoles! I have also thought of these beautifully crowned areoles as a field of white feathery-petalled daisies and here



(overleaf)

perpaps the analogy is even closer and more appropriate. The tubercles are round and long, not varying appreciably in length. At their base the tubercles are set tightly together and spread apart towards the areole tips, like spokes coming out of a hemisphere.

The areoles with their delicate petal-like spines crown the tip and consist of approximately twenty-four, all lateral. The center of this flower-like structure has a circular puff of wool made of uncolored, translucent, short, ribbon-like strands, curled and twisted erratically.

The spines are also translucent, curling gracefully this way or that way, and ornamented with short, symmetrically arranged strands of apparently the same "saran-wrap" material as the woolly center.

The plant body is colored a vivid grass green but may vary to olive green, and is translucently granulose in its upper layer. The extremities of the tubercles have the flower-like areoles overlapping due to their proximity in the growing portion of the plant body. The older tubercles are spread apart to a greater extent at the growing tip so that the areole may be clearly seen separately.

The drawing included herewith is, hopefully, a further contribution to an appreciation of the subject.

Altogether this little trip into the world of the microscope, in company with our delightful M. theresae, has been an experience for me and I would wish worth relating to my fellow lovers of cacti.

Ref: Cactus and Succulent Journal, Nov.-Dec. 1967, pages 237-241, and the same Journal, Jan.-Feb. 1969, color photo on back page of flowering plant.

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The San Diego Cactus & Succulent Society is open to all persons interested in growing cacti, other succulents and exotic plants. Meetings are held the second Saturday of each month at 1:30 pm in Room 101, Casa del Prado, Balboa Park. Board of Directors meetings are held after the general meetings. Annual dues are $8.00 per single member per year, $2.00 for each additional member of a household within a family. Single copies of Espinas y Flores are 60 cents.

Editor
Mary Aubuchon
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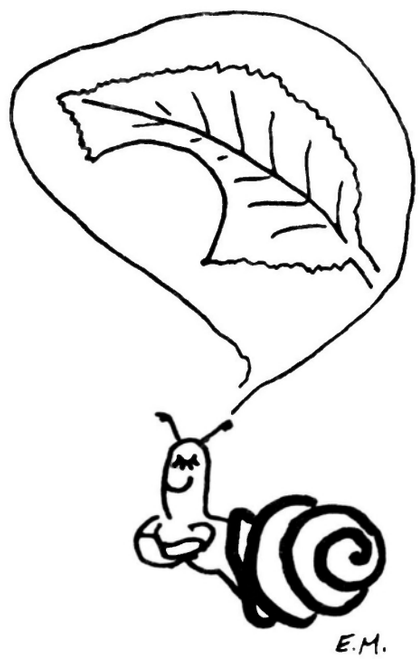

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