MAMMILLARIA THORNBERI

Espinas y Flores

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

Volume XXIV, Number 11 November 11, 1989

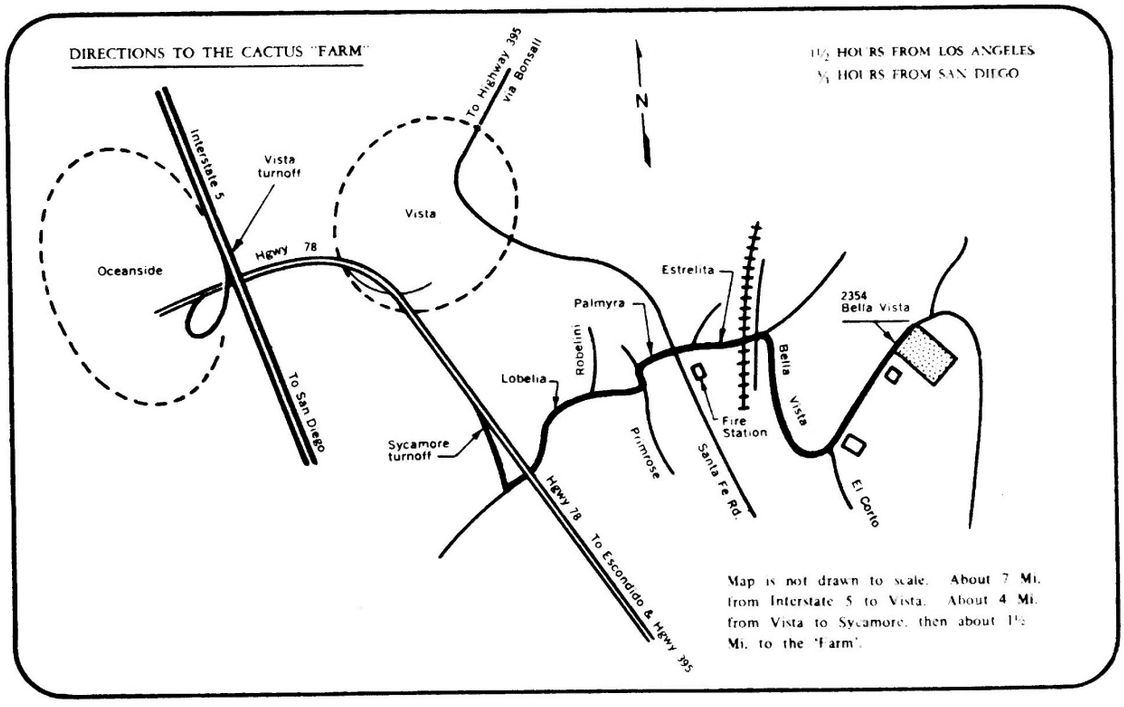
NOVEMBER MEETING

Saturday, November 11, 1989

Grigsby Cactus Gardens

1:30 PM

This month we will be treated to an in-depth guided tour of Grigsby Cactus Gardens. We will be shown some areas not normally open to the public. Dave Grigsby and Madelyn Lee will be on hand to explain some of the techniques used to propogate these plants. See inside for more details.



Those who have volunteered to bring refreshments to the November meeting:

David & Kathe Roberts
Reed Ruiz
Laura De Merritt
Jeanette Dutton
Virginia Natwick
Paul & Marylyn Henderson
Rose Robilottz
Curt Hammel
Virginia Innis

Deadline for the December E y F --- November 25, 1989 ------Thanks

Additional information regarding the November meeting:

1. If you don't already know how to get to Grigsby Cactus Gardens (2354 Bella Vista Drive, Vista), refer to the enclosed map. If you still need help call the nursery at 619-727-1323.

2. Parking at the nursery is very limited. In order to provide adequate parking for all (and to prevent trapping members that may be in a hurry to leave right after the meeting) we will park down on Estrelita, just before the turn onto Bella Vista.

3. In order for this to work, we need a few volunteers to shuttle members to and from the parking area. If you have a suitable vehicle (a van with seats would be perfect; a full-sized sedan would also work) and would like to help make this meeting a success, please call Chuck Adams at 530-2551 (evenings).

4. Refreshments will be served. If you signed up to bring refreshments please bring them. The society will provide soft drinks.

5. Good walking shoes with non-leather soles are recommended. Leather soles slip on the decomposed granite used on the walks and in the hothouses.

6. Plants that are <u>priced</u> are for sale. If you want to purchase a plant someone will be on duty in the sales area to help you.

7. There will be no plant or succulent of the month, and no brag table this month. There will be a brief board meeting at the conclusion of the regular meeting.

From the President

Why are we meeting at Grigsby Cactus Gardens? Well, we were lucky enough to be invited, and I (and the Board of Directors) thought that it would be a nice change. We were aided in our decision by the thought that on November 11 the Soviet Arts Festival will be in it's final day. If that wasn't enough, there will also be a Veteran's Day parade through Balboa Park that day. With all this going on, we thought it would be too hard to get into and out of the Casa del Prado, especially for those that needed to bring plants or refreshments.

Killing Cactus and Other Succulents

The Haworthia coarctata, greenii, and reinwardtii Complex

This is one of a series comparing Bruce Bayer's, John Pilbeam's, and Charles Scott's taxonomic treatment of the genus Haworthia.

H. coarctata and H. reinwardtii, together with the greenii form, are found in numerous populations in the eastern Cape region of South Africa. Although the two species were first described by Adrian Haworth in the early nineteenth century (greenii by Baker in 1880), most of the forms and varieties known to collectors today owe their names to taxonomic work of the 1930's and 1940's.

Fundamental differences exist between Bayer and Scott in their classification of these similar species (Pilbeam in essence follows Bayer). In 1973 Bayer introduced a new system of classifying the two species, based essentially on the spiraling of the leaves around the stem and the width ratio between leaf and stem. All the forms in the complex fit into one of two categories (see Bayer's Haworthia Handbook for a summary and the National Cactus and Succulent Journal 28:80, 1973, for a complete description of his findings.) Having established this fundamental difference, Bayer then realigned the complex by placing several H. reinwardtii forms under H. coarctata. Proof of the pudding, so to speak, lay in the results. Previous overlapping between the two species was eliminated. In its place, Bayer found "a distinction based on both geographical distribution and morphological discontinuity."

Scott, for his part, does not in his Revision address Bayer's findings. While joining with Bayer to combine many of the old species and varietal names, he also continues to adhere to the original H. reinwardtii designations.

H. coarctata

Bayer: Bayer divides the species into two subspecies, ssp. coarctata and ssp. adelaidensis. In general, the first group contains the large coarctata forms, the second group, the smaller forms.

1. H. coarctata ssp. coarctata var. coarctata: This designation embraces many well-known names, including H. chalwinii, conspicua, fulva, musculina, and several forms previously described as H. reinwardtii. It also includes many different, attractive forms worth seeking out under their locality identification.

2. H. coarctata subsp. coarctata var. greenii: This form owes its name to one Mr. Green and not to its coincidentally glabrous and thus 'green' appearance.

3. H. coarctata subsp. coarctata var. tenuis: Formerly in the H. reinwardtii group, it owes its varietal status to its slim and ultimately long stems -- "grossly elongated," Bayer writes. Consider it a collector's plant, which means that no one in his right mind would want it.

4. H. coarctata subsp. coarctata var. adelaidensis: Here are found the more modestly growing coarctata forms, including riebeeckensis and bellula, all of them previously in the H. reinwardtii group.

Pilbeam: Pilbeam supports Bayer's revision but uses the form level to retain several well-known forms dismissed by Bayer.

1. H. coarctata subsp. coarctata var. coarctata fa. coarctata: Pilbeam includes var. greenii in this group, observing that Bayer, subsequent to his Handbock's publication, has expressed doubts about its varietal status. An unfortunate result of the use of the 'forma' status here, apart from requiring extra large plant labels to record the full name, is that many different and distinct H. coarctata forms are lumped under one form name.

2. H. coarctata subsp. coarctata var. coarctata fa. chalwinii: Pilbeam preserves this attractive form, first described in 1906 at the species level.

3. H. coarctata subsp. coarctata var. coarctata fa. conspicua: Pilbeam preserves also this well-known but not particularly attractive form, first described as a variety of H. reinwardtii.

4. H. coarctata subsp. coarctata var. tenuis: This is the same as Bayer's var. tenuis. Pilbeam's note that this includes the riebeekensis form must be a typographical error.

5. H. coarctata subsp. adelaidensis: This is the same as Bayer's subsp. adelaidensis, escept for the omission of the bellula form.

6. H. coarctata subsp. adelaidensis fa. bellula: Although Bayer was unable to find this form in habitat, Pilbeam, on the basis of G.G. Smith's description and implicitly his own experience with plants found under this label, believes it is a "good" name. The writer, on the basis of his limited experience, is still uncertain whether the form might best be regarded as a slower growing version of subsp. adelaidensis, not quite worthy of formal forma status.

Operculacarya and Uncarina

Leroy N. Phelps, Ph.D.

I still don't know why I agreed to write about these plants- I guess I thought I knew something about them and could find more information. What a foolish idea! I still know a little bit about them. After a wide search, I have 4 references for Opercularia (only one really says anthing) and 2 references for Uncarina, one with pictures only.

Soooo----what I'm writing here is the little I know. O. decaryi is the only species mentioned for the genus which is related to Bursera (Rauh) or to Pachycormus (Rowley). This plant is from Madagascar (as is the other)and grows in association with Pachypodium lamerei and P. geayi, various Euphorbia spp., a Baobab, other genera of the bursera family, and other succulent trees (Rauh). The only mention of Uncarina I find is in the same article which says these bushes grow in the same area.

The best pictures of both plants are in the Caudiciform book. Rauh's article has pictures of Operculacarya in habitat.

Now--what little else I know. I was given a rooted cutting, about 20 years ago, of O. decaryi which I have treated as a typical bonsai (never allowed to dry out) and it has grown well. It has flowered and is female. The flowers are very small and brownish. There are seedlings on the market now--but they are expensive. Plants grown from cuttings are rare and expensive also because they are difficult to root. Some people have rooted cuttings rather easily (one in fifty), but my success has been one rooted cutting in over 1000 tries. The trunks of both seedlings and cuttings are swollen, so this plant may be a true succulent. The leaves look like the leaves of our elephant trees, but with a purplish tinge.

There are at least two species of Uncarina, one with yellow flowers and the other with purple flowers. Plants supposedly purple flowered have all had yellow flowers. Rowley has good pictures of the yellow flowers.

Large plants of U. decaryi (or is it the species U. grandidieri?) are beautiful bushes that flower all summer long. The large leaves are fuzzy. The plants have short swollen trunks and act like true succulents. Seedlings are very attractive--fast-growing and early-flowering. They tend to grow tall and lanky unless topped early. The cuttings root readily after some drying and develop swollen trunks quickly.

There will be examples of these plants at the meeting--you'll learn a lot more about them by seeing them than you will from this article!

Rauh, Werner. 1978. The Xerophytic Vegetation of Southwestern Madagascar, Part VIII. Cactus and Succulent Journal, 50:159-165.

Rowley, Gordon D. 1987. Caudiciform and Pachycaul Succulents. Strawberry Press, Mill Valley, California.

CACTUS OF THE MONTH

MELOCACTUS

by Phyllis Flechsig

When Europeans first arrived in the West Indies 500 years ago, among the exotic plants they discovered was one they called Echinomelocactus; much later, Linnaeus was to name it Cactus melocactus. These plants are now what we know as Melocactus.

Melocactus is one of only two genera of cacti that possess a true cephalium, a woolly and bristly crown that replaces the top growing point and that looks so different from the rest of the plant that someone seeing one for the first time would take it for a graft. In most species several years--or many--must pass before the cephalium is formed, and up to that time the plant must be considered to be immature, for it can only bloom from the cephalium. The flowers are always small, nearly buried in the cephalium, and pink or reddish. The fruits that follow (many species are self-fertile) are club-shaped, small, and shiny white or pink. The body of the plant has strong spines on deep, strong ribs; the cephalium, contrasting strongly with the body, appears to be red or brown because of the red or brown bristles, or white if it has only wool; there are no ribs on it. Once the cephalium is formed, the lower body grows little; the cephalium elongates year by year, showing annual growth rings, and in very old plants may tend to bend over or otherwise look quite grotesque.

Melocacti are all native to warm, humid, tropical or semitropical regions: the West Indies, tropical Mexico, northern South America, and northeast Brazil. They often grow among bare rocks and have wide-spreading, shallow roots, showing that they need very good drainage. Their native habitat tells us that they prefer year-round warmth and some humidity. I have found that they will generally do well indoors even with winter temperatures close to freezing, if they are kept dry in winter.

Propagation is from seed, as they do not tend to cluster. Although some species take 20 years or more to produce a cephalium, others will do it in a reasonable length of time, such as four or five years. Among these latter a favorite is M. matanzanus, from Cuba, whose bright red cephalium is very handsome. Another is M. melocactoides (formerly M. violaceus) with a white to brownish cephalium. These are very interesting plants to grow, and generally very good-looking as well, and I recommend them highly to anyone who is willing to provide the conditions they need.

LITERATURE CONSULTED

Buining, A.F.H. 1974. "Melocactus in Brazil." Cactus & Succulent Journal, v. 46, p. 206-212.

Cullmann, W., Goetz, E., and Groener, G. 1986. The Encyclopedia of Cacti. Alphabooks, Dorset, England.

Scott

1. H. greenii: Scott preserves this species, describing it as "a variable species where it occurs from the Grahamstown District to north of Port Elizabeth." His accompanying locality map, however, does not indicate any locations north of Port Elizabeth. In contrast, Bayer, in his Handbook, describes the form as "a glabrous variety occurring only at Howiesonpoort." Pilbeam, on the other hand, writes that Bayer subsequently confirmed that "it varies continuously with H. coarctata in habitat," which suggests but does not confirm that Bayer had found other habitats. Scott writes further that "it is suspected, it hybridizes" (he does not say who 'suspects') with H. reinwardtii and H. coarctata, a view which Bayer's Handbook at least implicitly denies. If the hobbyist wishes a scientific determination of who is correct, he may flip a coin.

2. H. coarctata: Although Scott's concept of the species includes H. chalwinii, fulva, and musculina, it necessarily is a smaller taxon than Bayer's since it has none of the H. reinwardtii forms which Bayer transferred to it. Scott does not use any subsp. or varietal formulations.

H. reinwardtii

Bayer and Pilbeam

1. H. reinwardtii var. reinwardtii: Bayer notes that H. reinwardtii forms are often more striking than H. coarctata forms, and indeed they are. Many forms identified only by their locality are well worth seeking out.

2. H. reinwardtii var. reinwardtii fa. chalumnensis

3. H. reinwardtii var. reinwardtii fa. kaffirdriftensis: A beautiful form.

4. H. reinwardtii var. reinwardtii fa. olivacea: Although it has separate status apparently because of its olive-green color, the hobbyist with a diminished color sense may at times wonder whether the shade holds up in cultivation.

5. H. reinwardtii var. reinwardtii fa. zebrina

6. H. reinwardtii var. brevicula: The smallest of the reinwardtiis, it also includes var. diminuta.

Scott

1. H. reinwardtii var. reinwardtii: This represents a larger collection of forms than Bayer's var. reinwardtii, the difference being the inclusion of the forms transferred by Bayer to H. coarctata, as well as Bayer's fa. olivacea.

Scott gives no reason for rejecting forma status for the latter.

2. H. reinwardtii var. kaffirdriftensis: The same as Bayer's fa. kaffirdriftensis.

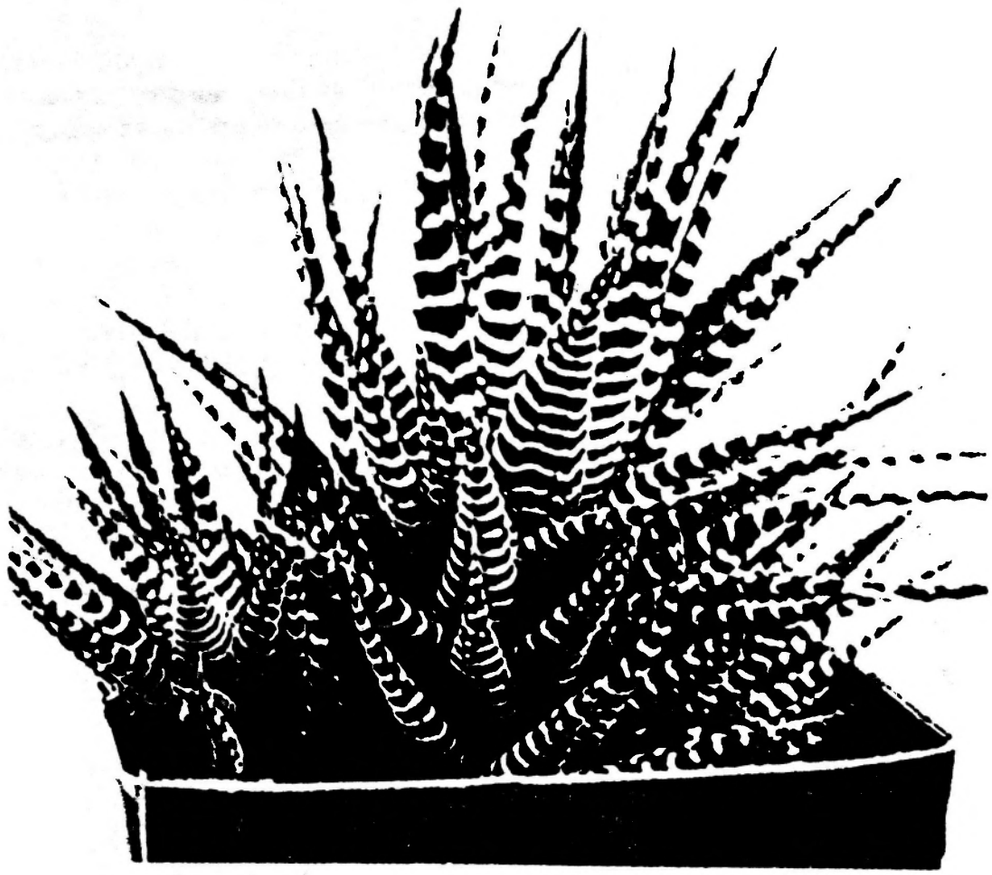
3. H. reinwardtii var. chalumnensis: The same as Bayer's fa. chalumnensis.

4. H. reinwardtii var. brevicula: The same as Bayer's var. brevicula.

5. H. reinwardtii var. zebrina: The same as Bayer's fa. zebrina.

6. H. reinwardtii var. bellula: This is one of the forms Bayer transferred to H. coarctata, combining it with subsp. adelaidensis. As noted above, Bayer writes that he could not find it in the field. Scott's description, however, implies that it may still be found in its given locality.

-Bob Kent 8/89



Haworthia fasciata (fairy washboard)

Show Schedule

Oct. 7 & 8	Balboa Park African Violet Soc. Fall Show	Sat:10am-4:00pm	Sun:10am-4:00
Oct. 21 & 22	San Diego Co. Orchid Soc. Fall "Mini" Show	Sat:12pm-5:00pm	Sun:10am-4:30
Oct. 28 & 29	Sogetsu School of Ikebana	Sat:11am-4:30pm	Sun:11am-4:30
Nov. 4 & 5	San Diego Tropical Fish Soc. 19th Show	Sat:12pm-6:00pm	Sun: 9am-4:30
Nov. 19	Sumi-e Painting & Ikebana 14th Annual Show		Sun:11am-4:00
Dec. 1-2-3	San Diego Floral Assoc. Christmas Show	Fri: 5pm-9:00pm	
	(Christmas on the Prado)	Sat:11am-9:00pm	Sun:11am-4:00

Christmas Plant Exchange

There will be our usual plant exchange this Christmas meeting whereby members bring a plant and take a plant in exchange. This is how it works: bring a cactus or other succulent, potted nicely. in good condition, labeled with your name on one side and the name of the plant on the other. The better the plant you bring, the earlier you will have your chance to select. (Bring one plant per person only). This event is in addition to our regular distributuion of gift plants from our Club. Let's get our gift-exchange plant polished up for this event!

SAN DIEGO CACTUS & SUCCULENT SOCIETY

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The San Diego Cactus & Succulent Society is open to all persons interested in growing cacti or other succulent and exotic plants. Meetings are held the second Saturday of each month at 1:30 p.m. 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, and $2.00 for each additional member of a household within the family. Single copies of Espinas y Flores are 60¢.

Editor
Mary Aubuchon
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Chula Vista, CA 92011

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** DON'T FORGET **

ONLY REGISTERED MEMBERS OF OUR CLUB ARE
INVITED TO THE CHRISTMAS PARTY

** NO GUESTS **

$5.00 Registration each member for the Christmas party Dec. 10, 1988

Name: ______________________________

Name: ______________________________

Name: ______________________________

** NOTE **

Registration MUST be in by November 28, 1988 AMOUNT ENCLOSED $ __________

** COMPLETE AND MAIL TO **

Dana Adams - Treasurer
7305 Rock Canyon Drive, San Diego, CA 92126

- -

PLEASE NOTE: Everyone's dues are due by the end of the year. These are annual dues that come from January to January.

SAN DIEGO CACTUS & SUCCULENT SOCIETY
MEMBERSHIP APPLICATION

$8.00 - Single member per calendar year
$2.00 - Each additional member of the same household

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