



# Espinas y Flores

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

Volume XXV, Number 1

January 13, 1990

## JANUARY MEETING

Saturday January 13, 1990

1:30 P.M.

Casa Del Prado, Room 101, Balboa Park

## PROGRAM

" The Genus Echinocereus. by Duke Benadom

## EARL (DUKE) BENADOM

Duke is a very energetic, enthusiastic hobbyist. He dove into the cactus and succulent world in 1983 with a visit to the Los Angeles C.S.S. Currently the president of that club. Duke has served as vice president, plant sales chairman, program chairman, and show computer tabulation chairman at this same club. He also served as a show chairman and sales chairman at the Sunset S.S. Duke has attended all Huntington Symposiums as well as the recent Denver Convention. He is a member of four local clubs, a director on the C.S.S.A. board, a certified CSSA judge, and an avid plant cultivator and shower. He has showed and clerked, (or judged) every year and at every opportunity since 1983. Duke is now maintaining an extraordinary reference collection of the genus Echinocereus and is currently authoring a book on that subject. His most recent program is on this same genus. This program consists of slides of every species and currently recognized variety of Echinocereus.

Duke has worked as a Staff Manufacturing Engineer for Schlumberger Technologies for the past ten years. He has resided in Simi Valley, California for the past 14 years utilizing every inch of yard space for his overwhelming hobby.

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Deadline for February issue - January 27,  
My best wishes for a happy and successful new year.

Thanks, Mary



Opposite: **ZYGOCACTUS TRUNCATUS** (*Christmas cactus*) and **SCHLUMBERGERA GAERTNERI** (*Easter cactus*). Brazil. These epiphytic cacti and their hybrids have been popular house plants for years because of their abundant, colorful flowers. Both require ample summer water and partial shade. Flowering is triggered by short days and cool temperatures. Once flower buds have formed, do not move the plants, as slight changes in environment may cause the buds to drop. There has been extensive hybridization between these and related species, so that "Christmas cacti" may now be found with white, pink, red, orange or purple flowers, and with blooming periods varying from Thanksgiving to late winter.

## Killing Cactus and Other Succulents

### The Haworthia Mirabilis Complex

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

Bayer: "Variability is on a geographic basis and the isolated populations show good consistency." ("*Haworthia Mirabilis* Haworth" p. 37, Excelsea No. 7, 1977)

Scott: "Although extreme forms look different, field studies have revealed so complete a range of intermediates that subdivision would be meaningless." (The Genus *Haworthia*, p. 118)

*H. mirabilis* is an attractive and at times even beautiful form, growing over a broad area in the Southwest Cape's winter rain area. The name has its origins in Haworth's *Aloe mirabilis*, described in 1804, but it has come into general use only in the last twenty-odd years, representing incalculably more varied forms than Haworth would ever have imagined.

In addition to Haworth's plant, the elements of *H. mirabilis* now include the forms described by von Poellnitz in the 1930's -- *H. triebneriana* and its forms, *H. willowmorensis*, *H. rossouwii*, *H. nitidula*, *H. emelyae* v. *beukmannii*, and *H. badia* -- and G.G. Smith's *H. mundula*. Bayer notes (see particularly his article on *H. mirabilis* in the already cited Excelsea) a close relationship of the taxon with *H. magnifica*. He also outlines the differences by which the two species may be distinguished -- differences which may hold up better in the field than in cultivation. In addition he states his uncertainty whether the v. *paradoxa* belongs to *H. magnifica*, where it is now, or to *H. mirabilis*. His work, unfortunately, has not completely resolved my own difficulties in distinguishing between some *H. magnifica* and *H. mirabilis* forms, even in several cases where I have locality data. I have temporarily solved the problem by occasionally moving the plants from one side of the bench to the other. This way, I am certain that I am right in my nomenclature at least part of the time.

#### Bayer

1. *H. mirabilis* subsp. *mirabilis*: This taxon contains all the *mirabilis* forms enumerated above except subsps. *mundula* and *badia*. It also includes an indefinite

number of other forms, known and perhaps still unknown, which deserve a place in collections. The recently available form from De Hoop is an example. Because there may be problems with identification, as the hobbyist adds subsp. *mirabilis* clones to the collection, it is advisable to favor plants identified by locality and to look at old varietal names with several grains of salt. One may rest assured that the presence of varietal names on the plant label, in particular those of the *triebneriana* group, are no guarantee of authenticity. As an example, in my even more naive days, I acquired over a period of time plants variously labeled *H. triebneriana* v. *lanceolata*, *H. angustifolia* v. *grandifolia*, as well as a third name which now escapes me. I threw them all out when I realized they were identical hybrids. *H. triebneriana* v. *depauperata* is available in more forms than even the doctrine of species variability can support. *H. rossouwii* is an especially interesting case. Although both Bayer and Scott have placed it under subsp. *mirabilis*, I have not found any record in their writings that they have actually located in habitat the plant described by von Poellnitz. Nor am I aware of a plant in any collection which can be positively identified as *H. rossouwii*. A form under this name, occasionally available here, can be traced back as far as the American collector, J.R. Brown. It is most certainly a hybrid, however, and it bears no similarity to the photograph accompanying von Poellnitz's description, even allowing for the likely dormancy of the plant in the photo.

2. *H. mirabilis* subsp. *badia*: This taxon is uncommon in collections, although it should not be. Clones seen here slowly offset, and it may be grown from seed without great difficulty. *Badia* has a reputation as a "beauty", but it can be best enjoyed if several seed grown plants are placed side by side in order to highlight the differences in color and form from clone to clone.

3. *H. mirabilis* subsp. *mundula*: Bayer writes that it occurs in only a single known population (have more since been discovered?) but says little about variation beyond noting differences in coloration which exist between plants in the field and on the bench. The hobbyist who has several different *mundula* clones may as a result sometimes wonder whether all the clones are "good." Pilbeam, for example, in his discussion of subsp. *mundula*, notes a plant sometimes called *H. otzenii*, and which I have also seen as "mundula", which seems close to *mundula*. He doubts its "parentage," and so do I, strongly. The absence of bifidity in its buds suggests it has no relationship at all to *H. mirabilis*.

### Pilbeam

In addition to Bayer's subspecies, Pilbeam lists four forms which he believes warrant recognition.

## Cactus-of-the-Month

### ESPOSTOAS AND THRIXANTHOCEREUS

By Dorothy Dunn

Espositoas, those elegant columnar cacti wrapped in silky white wool, are native to Ecuador and Peru, and belong to the huge Cereus family. They are named after the Peruvian botanist N.E. Esposto. They sometimes reach a height of twelve feet and are crowned with a grooved pseudocephalium on the top of the flowering stems. The flowers are small, funnel-shaped, and immersed in the wool of the pseudocephalium. The fruit is a juicy edible berry and the seed is small, black, and glossy.

Espositoas are characterized by a heavy coating of cottony or silky hairs which usually hides the body of the plants and which is generally snow-white. However, with age, especially in very arid regions, this covering turns almost black on the lower part of the plant, and this gave rise to the name "melanostele" ('black column') for one of the species. On reaching maturity the plants put out a heavy, lateral pseudocephalium. In a few cases a double pseudocephalium is formed, one on each side of the plant. The flowers of all species are nocturnal, opening at about 6:00 p.m. and closing early the following morning. The fruits develop inside the plant body and are not pushed out until they are ripe. They are acid and theoretically edible, although not very palatable.

E. melanostele is one of the most attractive species. This plant grows in the ravines of the western slopes of the Peruvian Andes, and usually exhibits a ringed appearance which indicates the increase in plant height each growing season. Its pseudocephalium may be as much as three inches wide by three feet long. Because of the round fruit of this species, as well as the fact that the stems branch at the base of the plants (instead of near the top, as does E. lanata) and the matted hair, Backeberg instituted a separate genus, Pseudoespostoa, to include E. melanostele and E. haagei.

E. lanata, probably the most familiar species, is limited in habitat to the warm interior valleys of the eastern slopes of the Andes, where it receives considerable rainfall. It forms a short trunk, then branches in candelabra shape to reach an eventual height of fifteen feet and a breadth of ten feet. Its pseudocephalium is narrow and short, generally about ten inches in length.

The very appealing E. nana is generally considered to be just a smaller variety of E. melanostele, while E. mirabilis, from the middle Marañon Gorge in northern Peru, differs in having a golden-brown to reddish-brown pseudocephalium.

Although most reference works (with the exception of Backeberg's Cactus Lexicon) list only a few species of Espostoa, there are numerous varieties and geographical forms of which many can be considered natural hybrids or local variants.

All Espostoas grow at an elevation of from 3,000 to 10,000 feet in frost-free zones, and are not too tolerant of cold weather. Their natural habitat is rocky hillsides where drainage is good, and they can withstand considerable moisture. Plants growing at the higher elevations are much more showy and attractive than those existing at the dry lower edges of these zones. They are moderately fast-growing and for best growth under cultivation they should be given very strong light, as their dense matted hair tends to screen out the light. Propagation is best from seed as cuttings are very slow and difficult to root, some taking as long as two years.

Thrixanthocerei are often now included in the genus Espostoa by many authorities. They are native to northern Peru and grow at higher elevations in the Andes. They are also columnar in habit and almost always simple, only rarely branching from the base. Thrixanthocereus means 'columnar cactus bearing hairy flowers'; this refers to the fact that the blossoms are somewhat hairy on the outside. Mature plants develop a dirty white cephalium through which the cream-colored or reddish nocturnal flowers appear. In one species, T. blossfeldiorum, the flowers have a very obnoxious smell reminiscent of carrion. The flowers may remain open for some time during the succeeding day. These plants require a great deal of sun and warmth and cannot tolerate much cold in the winter. Young plants develop a dense ring of long bristly spines around the base of the stems. There are only three species in this genus: T. blossfeldiorum, T. cullmannianus, and the rarest and most beautiful of all, T. senilis.

Literature consulted:

- |                     |  |
|---------------------|--|
| Backeberg, Curt:    | <u>Cactus Lexicon</u>  |
| Barthlott, Wilhelm: | <u>Cacti</u>   |
| Borg, J.            | <u>Cacti</u>   |
| Buxbaum, Franz:     | <u>Cactus Culture Based on Biology</u>   |
| Akers, John F.      | <u>A Cactus Collector Goes to Peru</u><br>( <u>Cactus and Succulent Journal of America</u> ,<br>March, 1947) |

POINT LOMA NATIVE PLANT PRESERVE  
Chuck Adams

The Point Loma Garden Club, working with the Native Plant Society, has started the development of the Point Loma Native Plant Preserve. This preserve will contain native coastal zone plants, and a section has been set aside for cactus and succulents. It is located on the west side of Nimitz Boulevard in Collier Park West (across from the softball fields). The San Diego Parks and Recreation Department has donated the land and has provided irrigation. Landscape architect John Horton, ASLA, is providing volunteer design help. This project is still in the design and planting stage.

The Point Loma Garden Club has asked me if the SDC&SS would be interested in supporting this project. We will discuss this matter at the meeting, so please let me know how you feel about this project. They could use our assistance in the following areas:

1. Could we provide any of the plants listed below? If we are unable to provide plants, could we identify a source where these plants may be purchased?
2. Are there any other cacti or succulent plants that should be added to the list? Remember, they should be from the coastal or near-coastal zone.
3. Would any of our members be interested in helping with the landscaping or maintenance?
4. Would we be interested in providing financial support? If SDC&SS donated funds, these could be used for designated uses (i.e., purchase of cacti and succulents). While any project can always use more financial support, I think they would rather have us help with 1, 2 and 3.

The following plants are being considered for inclusion in the cactus and succulent section of the Point Loma Native Plant Preserve:

*Bergerocactus emoryi*  
*Ferocactus viridescens*  
*Mammillaria dioica*  
*Opuntia littoralis* v. *littoralis*  
*Opuntia parryi* v. *serpentina*  
*Opuntia prolifera*  
*Crassula erecta*  
*Dudleya edulis*  
*Dudleya lanceolata*  
*Dudleya pulverulenta*  
*Euphorbia misera*  
*Agave shawii*  
*Yucca schidigera*  
*Yucca whipplii* ssp. *whipplii*

1. *H. mirabilis* subsp. *mirabilis* fa. *rubrodentata*: Pilbeam calls this handsome form a "distinctive" one with "longer, narrower, more erect leaves than the type, named for its reddish tubercles and marginal teeth..." Bayer, in his Excelsea article, however, writes that at its locality "the plants are again fairly variable, some having elongate narrow leaves with very red marginal teeth and tubercles which are characteristics not confined to this locality, and others are quite squat with greenish-white teeth." And so uncertainty enters. There are a number of different forms in collections and in the trade bearing the name "rubrodentata," and it is not always possible to determine whether they fit even Bayer's broad description. The hobbyist cannot always be certain of what he has and at times can only hope that his plant comes from a line of vegetative offsets and not from two mismatched *H. mirabilis* parents. Mail order can be uncertain, a "rubrodentata" twice ordered from a South African nursery does not appear to fit anywhere in the *H. mirabilis* complex.

2. *H. mirabilis* subsp. *mirabilis* fa. *sublineata*: Although this form and its name may be common in England, the combination is certainly uncommon in California. Plants which were in the J.R. Brown collection, however, may fit the form, even though they are without the name.

3. *H. mirabilis* subsp. *mirabilis* fa. *napierensis*: Bayer, in Excelsea, writes that the naming of the *napierensis* form (along with several other *triebneriana* forms) would put the naming of plants "on a kind of christian name basis." He also notes moderate variation at the locality. Plants bearing the "napierensis" label are common here but are without evidence that they or their parents are from the vicinity of Napier.

4. *H. mirabilis* subsp. *mirabilis* fa. *beukmannii*: Pilbeam writes that the form is beautiful and distinctive, and he is right. In his Excelsea article, Bayer implies that he does not maintain the form because it is an "extreme" one. Even so, it is difficult to understand why he does not give it separate status.

## Scott

1. *H. mirabilis*: Scott makes it easy for the hobbyist. All forms are here. There are two instances (are there more?) where Scott includes forms in the *H. mirabilis* complex that Bayer does not. They are *H. triebneriana* v. *diversicolor*, which I would have expected Scott to place in his *H. asperula* and which Bayer places in the *H. magnifica* complex, and *H. emelyae* v. *multifolia*. The inclusion of the latter in *H. mirabilis* indicates some inconsistency in the importance that Scott attaches to floral differences in determining species. Of further interest is



the designation on his map (p. 113) of a *H. mirabilis* locality north of Worcester. The form is not identifiable from Scott's list of *H. mirabilis* synonyms.

-Bob Kent, December 1989

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A reminder to receive a preferred ticket at the Christmas party. You must do something extra for the good of the club. Such as work at the summer sale and show. Bring refreshments several times. Win a first for a plant of the month. There will be more information on this in the next issue.

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REMEMBER that dues are due. You will not receive the Espinas y Flores if you have not paid your dues before next month.  
Please Note: Everyone's dues are due by the end of the <sup>month</sup> These are annual dues that come from January to January.

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There are no back issues of the Espinas y Flores available for late payment. Have copies made if you do not want to tear up the paper

**SAN DIEGO CACTUS & SUCCULENT SOCIETY  
PLANTS OF THE MONTH FOR 1990**

CACTI

JAN. Espostoa/Thrixanthocereus--Dorothy Dunn  
FEB. Lemaireocereus/Stenocereus--Rick Latimer  
MAR. Discocactus--Phyllis Flechsig  
APR. Echinocereus of Baja Calif.--Dorothy Dunn  
MAY Notocactus--Amna Cornett  
JUNE PICNIC  
JULY Sulcorebutia--Phyllis Flechsig  
AUG. Tephrocactus--Dorothy Dunn  
SEPT. Neochilenia/Neoporteria--Phyllis Flechsig  
OCT. Newer Mammillarias--Dorothy Dunn  
NOV. To be announced\*  
DEC. CHRISTMAS PARTY

OTHER SUCCULENTS

JAN. Haworthia mirabilis complex--Bob Kent  
FEB. Senecio/Othonna--Joey Betzler  
MAR. Dudleya--Dorothy Dunn  
APR. Mimicry Crassulas--Dorothy Dunn  
MAY Sansevieria--Rick Latimer  
JUNE PICNIC  
JULY Small Agaves--Phyllis Flechsig  
AUG. Jatropha--Madlyn Lee  
SEPT. Conophytum--Betty Gomes  
OCT. Cotyledon/Adromischus--Lee Phelps  
NOV. Dioscorea--Phyllis Flechsig  
DEC. CHRISTMAS PARTY

\*Volunteer needed--your choice!

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OTHER NEWS -----

Refreshments - I have no list of volunteers, so we are asking anyone who would like to bring something, it would be appreciated - Thanks ---

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## USED BOOK AUCTION! Cactus and Succulent Books

At the February meeting we will have a used book auction - No rare volumes - Anyone who would like to bring donations of books, they would be appreciated. Bring to the January meeting to Betty Gomes -- Proceeds to go to the library.

# 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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**EPOSTOA lanata**  
"Peruvian Old Man"  
Cactaceae

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