



# 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 3

March 11, 1989

## MARCH MEETING

Saturday, March 11, 1989

1:30 P.M.

Casa Del Prado, Room 101, Balboa Park

## PROGRAM

David Hardy -

Internationally Known Botanist and Expert on South African Succulents.  
Sure to be interesting and informative.

---

IN THIS ISSUE	Page
News. . . . .	2
Cryptanthus & Tillandsia by Rick Latimer. . . . .	3
Thelocactus by Joan Johnson. . . . .	5
Show Schedule for March and April. . . . .	8
Botanical Names and their pronunciation. . . . .	9
Brag winners for February. . . . .	11

---

A REMINDER- Please start saving sturdy boxes for the plant sale in June.

Deadline for the April Issue - March 25-                      Thanks - Mary

NEWS NEWS NEWS

WELCOME TO NEW MEMBERS ---

Frank & Jean Deyak - Oceanside  
Robert Jary - Chula Vista  
Alan & Nora Jaffe - La Jolla  
Michael Koch - San Diego

Harlene Holbrook & John Bologna - San Diego  
Leland & Pamela Badger - Spring Valley  
Chuck & Rose Chemes - La Mesa  
Jayne Walther - La Jolla

---

Those who have volunteered to bring refreshments are:

Laura DeMeritt                      Anna M. Ballon                      Robyn Natwick  
Virginia Natwick                      Doris Cheng                      Grace Chen                      Sarah Jervey  
This is a short list so more would be appreciated - Thanks

---

BEFORE THE MEETING - - - - Succulent Bonsai Class

Time: 12:00 to 1:00 before the meeting.

Last Month class,....plants brought and made into bonsai are, Adenium obesum, Crassula argentea (Jade), Operculicaria decaryi, Pachycormus discolor and Trichodiadema bulbosum. The last one is to brought back for repotting in a bonsai pot. The tubers are to be raised, exposed and arranged. Keeping the tubers in place without moving back in a shallow bonsai pot is very tricky. You will see how this is done.

Bring a plant.....that you think could be made into a bonsai and let me show you several possible bonsai style for your plant, or wire training if needed. To finish it, we will repot in an appropriately selected size and shape of bonsai pot.

If you don't bring a plant,..-.come anyway and watch and observe how the different plants are done in the demonstrations. I am sure you will gain some ideas how to aesthetically improve some of your plants and turn some of them into a pleasure and joy to see and show even when not in flower or dormant.

This class continues...every month before our regular monthly meeting as long as there is any interested attendees.

RUDY LIME

---

#### NEW BOOKS IN THE LIBRARY

Int'l Asclepiad Society, Asklepios Vs. 41-43  
Barbara J. Barton, Gardening by Mail 2  
Botanical Research Institute, Bothalia V. 12, #4  
V. H. Heywood, Flowering Plants of the World  
O. A. Leistner, Flora of Southern Africa V. 27, part 4  
Carole Ottesen, The New American Garden  
Ervin M. Schmutz & Lucretia Breazeale Hamilton, Plants that Poison  
Paul C. Standley, Trees and Shrubs of Mexico, part 4  
Malcolm Wilkins, Plantwatching

donated by Tineke Wilders:

Cactus (Journal of the Dutch Cactus and Succulent Society) various issues  
from 1974, 1980-82

## SUCCULENT-OF-THE-MONTH

### Cryptanthus and Tillandsia

by Rick Latimer

Most succulents are dicotyledonous (seedlings usually have two leaves), but there are also outstanding monocotyledonous succulents such as the agaves, aloes, and a few other things (seedlings have one leaf). Another monocot family is the Bromeliaceae which has some species with moisture storage cells inside the leaves. The most famous member of this family is the pineapple (Ananas comosus) an important food crop, which was discovered by Columbus on one of his voyages (as was the first cactus - Melocactus). And like the cactus family (except for some Rhipsalis species) the bromeliad family is native to the Americas, except for one species Pitcairnia feliciana found in West Africa. The bromeliads have a wide range, but are nowhere near as far north as the cacti. There are no bromeliads from Canada, indeed their northern limit is Virginia. Their southern limit is about 500 miles north of the southern tip of Argentina, but I am sure they are much more numerous in the Amazon basin than the cacti. The places rich in bromeliads are Mexico, the Antilles, Costa Rica, eastern and southern Brazil, and the Andes mountains in Colombia, Peru, and Chile.

The family was named in honor of Olaf Bromel a Swedish doctor, by the French botanist Charles Plumier. The number of known species is about 2000. Plants range in size from one inch to 35 feet high (both examples include the flower in the former case and the bloom spike in the latter case). They may grow in a single plant or clump or even form extensive mats that cover acres. They may grow on the ground, on rocks, on cliffs, or on other plants as most of them do. Some cannot exist without frequent rains, but others exist by receiving their moisture from fogs. Some are adapted to the cold (e. g. the Andean species, but evidently not in North America), but most species are from the rain forests. The flowers have three sepals and three petals, although the sepals are often small and not noticed. Flower colors in this family may be just about any color of the rainbow and sometimes more than one color may be present. Couple this with the fact that the floral bracts may be some other color and one has something very colorful indeed. For example, Bilbergia nutans has pink bracts with flowers that are green with an indigo edge and yellow stamens. Some Vriesea species have flowers that bloom at night. V. regina has the scent of jasmine, while V. jonghii smells like opossums. Some species of Hechtia have flowers that are dioecious, indeed the separate sexes were once given different names. As a rule, the bromeliad rosette ends its growth with the formation of its terminal flower spike (like agaves). Two known exceptions are Tillandsia complanata and T. multicaulis which have laterally produced flower spikes (like aloes).

The family is divided into three subfamilies: Pitcairnioideae, Bromelioideae, and Tillandsioideae (as is the cactus family). The first subfamily includes the three succulent ground dwelling genera Hechtia, Abromeitiella, and Dyckia (that were covered in this column in the 11/83 issue of E y F) and some others such as Pitcairnia and Puya. The next

subfamily includes such genera as Acanthostachys, Ananas, Bilbergia, and Aechmea. Another genus is Cryptanthus. The name of this genus means in Latin and Greek "hidden flower". The flowers are always white and insignificant and bloom down in or near the center of the plant. They are native to eastern Brazil, principally the states of Espirito Santo, Bahia, Minas Gerais, and Pernambuco. There they flourish in sun or shade, and in moist and dry areas - but always in the ground. The plants are flat rosettes and do not take up much room. Because of the lovely and differing leaf forms and colors, these plants are favored by bromeliad enthusiasts. There are at least 20 species plus varieties and hybrids. Two outstanding species are C. bromelioides with longitudinal green and white stripes and pink edges, and C. fosterianus with transverse zig-zaggy brown and beige stripes (some varieties are magenta to pink). The first species mentioned is the "tricolor" variety. Normal plants are olive green to bronze in good light. This species is stoloniferous.

Although the third subfamily Tillandsioideae includes only a few genera (such as Vriesia and Guzmania), it accounts for about one half of all known species. The largest genus Tillandsia (named for another Swedish botanist, Tillands) has about 400 different species. All of the bromeliads in this subfamily have spineless leaves, which range in length from  $\frac{1}{2}$  inch to six feet. The genus Tillandsia is the largest genus in this family and has the greatest range. Starting at the northern limit in the state of Virginia, species are found through the West Indies, Central America and down to southern Argentina. Species range from  $\frac{1}{2}$  inch to over 14 feet. The soft leaf species come from the rain forests while the scaly, silver species come from dryer regions. These scales absorb moisture from the air. In the coastal deserts of Peru where nothing else seems to grow, tillandsias flourish and cover the sands for acres. The silver scaly species' roots are generally only used to attach the plants to other plants, rocks, or even telephone poles. Some species are myrmecophytes, such as T. seleriana. The famous "Spanish Moss" is T. usneoides and has chartreuse flowers. The genus is divided into several subgenera. The subgenus Tillandsia has tubular flowers. A few examples are T. concolor with red flowers and T. punctulata has indigo flowers with white tips. On the other end of the scale, the subgenus Phytarrhiza has flat wide open flowers. Two examples are T. cyanea with a paddlelike pink inflorescence sporting 2 inch across purple flowers and T. crocata with small, sweet scented yellow flowers. Other species are T. diaguaitensis with white flowers, T. straminea with pink tubes, cream petals, and purple petal tips, and T. reichenbachii with lavender petals.

#### REFERENCES:

- Clive Innes, The Complete Handbook of Cacti and Succulents  
Paul T. Isley III, Tillandsia  
Jack Kramer, Bromeliads, The Colorful House Plants  
Victoria Padilla, Bromeliads  
Werner Rauh, Bromeliads, For Home, Garden, and Greenhouse

## CACTUS OF THE MONTH

### THELOCACTUS (K. SCH.) Br. & R.

The *Thelocacti* belong to a genus of medium-sized and more or less globular plants mainly native to the Chihuahuan Desert of North Central Mexico. The area includes the states of Texas and New Mexico in the U.S. and the Mexican states of Chihuahua, Coahuila, Nuevo Leon, Tamaulipas and San Luis Potosí. Two species are found to the south in desert areas of Querétaro, *T. bicolor flavispinus* is native to the borderlands of Texas, and *T. lloydii* comes from the western state of Durango. Generally they occur in a wide band from just north of Mexico City to the southern edge of Texas. In habitat they grow mostly on high, dry, rocky hilltops and slopes and grassy plains with scattered trees and shrubs.

Plant bodies come in various shapes: low and depressed, ie. *rinconensis*, *nidulans*, *phymatothele*, *hexaedrophorus*, *fossulatus*, and *buekii*; globular, as in the *conothele* varieties, *saussieri*, *mcdowelli*, *tulensis*, *heterochromus*, and *leucacanthus*; and ovoid-cylindrical as in the several varieties of *T. bicolor* and *T. hastifer*. Most species are singlestemmed, but several species, especially *tulensis*, *leucacanthus*, *hastifer* and *sanchez-mejoradai*, offset readily and prefer to grow in clumps of numerous heads. Ribs are generally low, often divided into large, spiral tubercles of 4 to 7 angles, somewhat obscuring ribs. The spines are usually quite long and in some species colorful as in *T. bicolor* and *T. heterochromus*, and in others equally long but roughened and fibrous as in *T. nidulans* and *T. rinconensis*. Flowering areoles bear a felted

"long areole" extension toward the plant's apex from which the flowers develop on very young areoles. The flowers are very large, conspicuous, campanulate and diurnal with shining petals of creamy or glistening white to bright yellow to pink to purple red to purple depending on the species. The ovary has a few scales with naked axils, the fruit is dry, scaly and dehisces from a basal pore. The seeds are usually black, large and finely tuberculate.

There seems to be considerable disagreement among authors as to the proper classification of *Thelocactus*. Britton and Rose consider the characteristics of *Thelocacti* as intergrading with *Coryphanthanae*. J. Borg agreed with them. Helia Bravo, in her book "Las Cactáceas de México", placed them in the *Echinocactanae* as did Backeberg in his "Lexicon", along with such numerous genera as *Ferocactus*, *Echinofossulocactus*, *Echinocactus*, *Sclerocactus*, *Leuchtenbergia*, *Pediocactus*, *Astrophytum*, *Ariocarpus*, *Neogomesia*, *Echinomastus*, *Gymnocactus*, *Strombocactus*, *Obregonia*, *Turbinicarpus*, *Aztekium*, *Lophophora*, and finally *Epithelantha*. Glass & Foster in the *CSSA Journals* of September and November, 1977, state that other than the tuberculate ribs, which are shared by several other genera in the *Echinocactanae*, "all other characteristics of stem, flower fruit and seed point to the *Echinocactanae*".

Since most *Thelocacti* are natives of the Chihuahuan Desert, it is helpful to know something about general climate and soil conditions. This great desert area is an immense plateau of high elevation between the Sierras Madre Oriental and Occidental in North Central Mexico, generally from 4000 to 6000 ft in elevation. There are no permanent rivers, and the drainage systems are deficient. Winters are usually mild and dry though there can be cold spells

with snow in the northern reaches. Seventy-five percent of the 10-16" average annual rainfall occurs between mid-June and mid-September. It's very hot for the 3 months before the rainy season and cooler when it's raining. Middle and late fall are moderate, and the plants, which have somewhat withdrawn into the soil to escape the blistering sun, are now plump and happy. Therefore, the plants of that climate on exposed and rocky hillsides can be expected to be drought resistant and tolerant of cold, particularly when kept dry in winter. Because of the coarse and stony soil often lacking in organic matter, and the low humidity which usually exists, *Thelocacti* are not too tolerant of much dampness or overwatering. Having examined the soil's physical characteristics in many locations, I know that they will grow better in fast draining soil of  $\frac{1}{4}$  organic matter or humus and  $\frac{3}{4}$  pumice, decomposed granite or other coarse and gritty gravels, ie. "dirty pumice". They will tolerate the cold of Southern California, and the heat too, but they should be protected from our winter rains. I prefer to keep them dryer than many other genera. But I try to keep the soil so loose that I can still water weekly when the daily high temperatures in the greenhouse reach 100°. The *Thelos* growing freely in the ground are watered monthly in hot weather in the cactus patch.

With a little attention to their natural preferences in humidity and soil moisture, they will be happy and flourish. And with their interesting body shapes and the wonderful skin textures and colors, their colorful spination and their magnificent flowers, they are a fine addition to any cactus collection.

#### References Used;

"The Cactaceae" by Britton & Rose, v. IV, p. 6-13

- "Cactus Lexicon" by Curt Backeberg, p. 52 and 487-491
- "Cacti" by J. Borg, p. 341
- "LS Cactacéas de México" by Helia Bravo Hollis, p. 136 and 141
- "Cactus & Succulent Journal", v. 49, 1977, p.213-220 and p.245-251
- "The Genus *Thelocactus* in the Chihuahuan Desert" by Glass & Foster

Joan Johnson

HORTICULTURAL SHOWS FOR MARCH AND PART OF APRIL

MARCH 5 Palomar District of CA Garden Clubs, Inc. Annual Fund Raiser: Wine and Tea Part and Art Auction, Soledad Club, 5050 Soledad Rd, San Diego 92109. 2 p.m. Information (619) 748-6324

March 8-9 Green Show '89, at the Del Mar Fairground. Vendor spaces available. Contact Jan Tubiolo, (619) 670-3544

March 10 Tour to focus on LA gardens. From Bel Air to Malibu Lagoon. Reservations call the Botanic Garden at (805) 563-2521

March 11 - Environmental Education Fair with more than 65 natural science exhibitors. 9-4 p.m. LA State and County Arboretum, Arcadia.

March 12 - Professional Women's Horticulture and Landscape Ass. Show. Room 101, Casa del Prado, Balboa Park. Free.

March 17, 18, 19 SD Co. Orchid Society's Orchid Show, at the Scottish Rite Memorial, Fri. Show Preview 6-10 p.m. Sat: 9-9 p.m.; Sun 9-5 p.m. Admission Charge . Plant Sales.

March 18-19 SD Chapter of Ikebana International's Spring Flower Show - Casa del Prado Rm. 101, Balboa Park 11-4:30 p.m. Free

March 19 Insect Fair at LA State and Co. Arboretum, Arcadis. 10-4:30 pm.

March 22 "An Eye for Beauty" Photographers' Seminar. Casa del Prado, Rm. 101 Info. (619) 475-8996.

March 25-26 - Exotic Plant Society's Show, Rm 101, Casa del Prado 11-4:30pm Free.

April 1-2 African Violet Society Judged Show, Casa del Prado rm.101 Sun 10-4pm

April 8-9 Cactus and Succulent Show. South Coast Botanic Garden, Palos Verdes Penn. Sat: noon-4:30 p.m. Sun: 9-4:30pm.

April 8-9 SD Rose Show Balboa Park Club, SD. Sat: 2-6pm; Sun: 10-5:30 Admission.

April 9 Convair Rose Show. Rm 101, Casa del Prado, Balboa Park. Free.

April 13 - Bus Tour to Ensenada - Info: (619) 561-2436



## BOTANICAL NAMES AND THEIR PRONUNCIATION

Botanic names of plants are similar to those of human beings in that very often they consist of two names, but may consist of more. If we visualize names of people as Smith John, Washington George, etc., as in a telephone directory we have a nice idea of the setting up of plant names. However, the first name of a plant that corresponds to the family name of a person is not a family name but a genus name and the second is the species name. In plant life a family consists of one or more genus names. Opuntia is a genus name with over 300 species and each name must begin with Opuntia, such as Opuntia basilaris, Opuntia cylindrica. Together with over 100 other genera (plural of genus) they form the Cactus Family. If you have a grasp of this, you will be able to understand the basic framework concept of the more than 300 different plant families.

We speak of the names as Latin names. This is not actually the case because the genus name is usually a Greek name, except where the name is a commemorative one such as Dahlia (after a Swedish botanist named Dahl), Zinnia (after a German named Zinn), etc.

I would like to point out here, that, although taken from the Greek and other languages, the genus name is given a Latin form, either a proper form or an artificial Latin one, so that botanical names can be spoken of as Latinized.

The species name is usually Latin and when truly Latin is more or less descriptive.

Now, genus names and species names again can <sup>often</sup> usually be broken down into two words, for instance, Astrophytum is Greek for Star-Plant, Ferocactus is Greek for Ferocious-Cactus,

Echinocactus is Greek for Hedgehog-Cactus, etc. Among species names we might take for illustration -- grandiflora, Latin for Large-Flowered, bicolor, Latin for Two-Colored, rubrifolia, Latin for Red-Leaved.

Note that in Greek words the two stems are joined by the vowel o and in Latin by the vowel i.

When one observes in botanical names (other than commemoratives) the presence of the following combinations the words are of Greek origin:

ch as in Chrysanthemum, Echinopsis  
ph as in Epiphyllum, Cephalocereus  
th as in Thelocactus, Piaranthus  
ps as in Pseudosedum, Rhipsalis  
rh as in Rhipsalis, Rhododendron

Also those beginning with pt and those containing the vowel "y" and the linking "o" noted above.

There are two different approaches to pronouncing botanical names, one that demands the old Roman classical pronunciation and the other that relates it to our English language as spoken today. We use many words in our daily doings that come from both Latin and Greek and there pervades a certain system that has determined the pronunciation in English of such words as: theater, idea, ratio, dialect, sympathy, arithmetic, telephone, photograph, and many others. This same system, not complicated at all, applies to the pronunciation of Latinized botany among English speaking people. For an example the Anglicized way for pronouncing the first "a" in prostrata would be the same as the English "prostrate." Cereus in the Latin manner would have to be pronounced "kay-re-us", in the Anglicized way it is pronounced "see-re-us." Cephalocereus in strict Latin is kefalo-kayreus; in the other style, it is sefalo-seereus. Since there are two fundamentally different styles,

and since, in each style there are variations as well, it behooves us not to be too concerned but consider ourselves as possibly talking a different dialect.

Except for some commemorative names, the accent falls either on the second last syllable or third last syllable -- never on the last. The accent falls on the second last syllable if that syllable is a long syllable, otherwise the accent falls on the syllable before it. In *Cereus*, for instance, the second e is short so that the accent goes over to "Ce:" In *Philodendron* the second last syllable is long so that the accent is on "den." What determines whether a syllable is long when, as for instance, in *dendron* there is no long vowel in -den-? The rules of pronunciation of Latin words determines this, and all large Latin dictionaries show the value of all vowels.

Our American reference books on botany usually indicate with an accent mark which syllable is to be accented, and Webster's Unabridged Dictionary gives a great number of genus names. Usually there is a great consistency over the whole world in the accenting of botanical names. It is a matter of following the rules.

George Kalmbacher, Taxonomist  
BROOKLYN BOTANIC GARDEN

FEBRUARY BRAGGING PLANT WINNERS...

- |           |  |
|-----------|--|
| 1st Place | - Carl McLeod for his<br>EUPHORBIA BUPLEURIFOLIA |
| 2nd Place | - Dorothy Dunn for her<br>CERARIA PYGMAEA        |
| 3rd Place | - Chuck Adams for his<br>PLEIOSPILOS CANDISSIMA  |



# SAN DIEGO CACTUS & SUCCULENT SOCIETY

## OFFICERS

President - Chuck Adams  
7305 Rock Canyon Drive, San Diego 92126 530-2551  
Vice President - Mitch Bahr  
4945 Diane Court, San Diego 92117 571-0912  
Secretary - Jeanette Dutton  
1330 31st Street, San Diego 92102 239-8476  
Treasurer - Dana Adams  
7305 Rock Canyon Drive, San Diego 92126 530-2551  
Immediate Past President - Dr. Leroy Phelps  
4094 36th Street, San Diego 92104 280-9690

## BOARD OF DIRECTORS

Shirley Berry, Dorothy Dunn, Cathy Frost  
Madelyn Lee, Rudy Lime, John Pasek

## COMMITTEES

Auditor - James Berry  
Bragging Table - Madelyn Lee  
CSSA Affiliate Rep - Cathy & Sandy Frost  
Education: Cacti - Phyllis Flechsig  
Succulents - Dorothy Dunn  
Historian - Rick Latimer  
Membership - Susan Shepherd  
Picnic - Vacant  
Plant Exchange Table - Mmes. Lemrow & Larburg  
Plants & Supplies Table - John Pasek  
Show - Rick Latimer

Publications - Mary Aubuchon 427-3388  
Reception - Periso Lewis & Ethel Standish  
Regalement - Diane & Bill Crowley  
Representatives:  
Balboa Park Desert Garden - John Pasek  
Quail Botanical Garden - Phyllis Flechsig  
S.D. Botanical Garden Foundation - Kathy Van Arum  
S.D. Floral Association - Elizabeth Glover  
Program - Joe Clements  
Bill Low  
Elizabeth Gomes

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  
1058 5th Avenue  
Chula Vista, CA 92011



Thelocactus nidulans

FIRST CLASS

FIRST CLASS