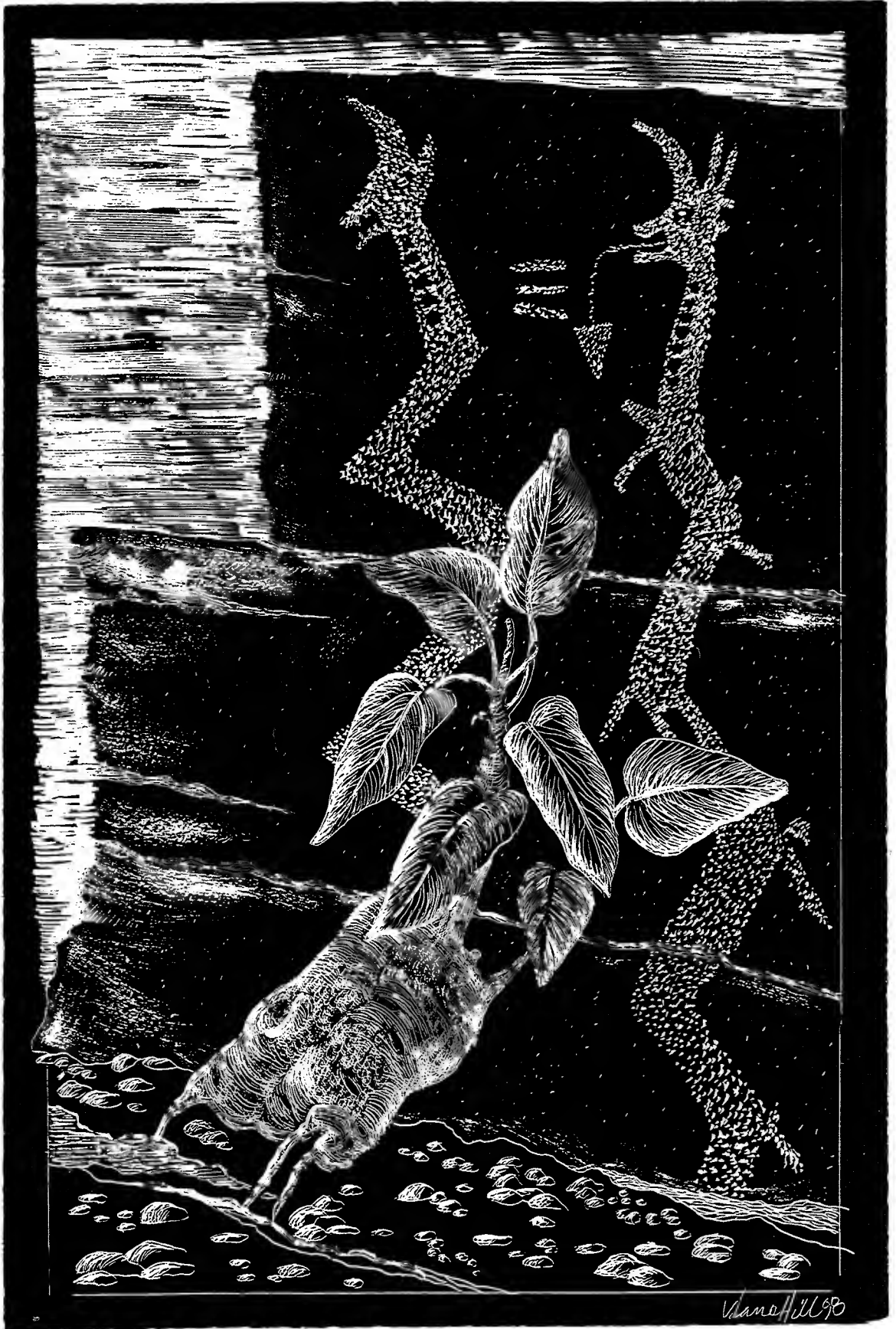


# Espinas y Flores



MAMMILLARIA THORNERI

NEWSLETTER of the SAN DIEGO CACTUS & SUCCULENT SOCIETY, INC.  
A Non-Profit Public Benefit California Corporation  
VOLUME XXXIII NUMBER TEN SATURDAY, OCTOBER 10, 1998 @ 1:00PM



# OCTOBER PROGRAM: MEXICO 1998

## WITH KELLY GRIFFIN

The October program will again (twice this year and we are lucky to have him) be presented by Kelly Griffin. Kelly, along with Dylan Hannon (now with Rancho Santa Ana Botanic Garden) and Brian Kemble, just returned from a botanical junket across Mexico from Guerrero through Michoacán, finally ending up in Puebla, where they visited the venerable Tehucan Desert. (Yes, both of these gentlemen have also given presentations to our club!)

Be prepared to view slides of bromeliads, orchids, cacti, and xerophytes, including *Beaucarnea gracilis*, *Backebergia (Cereus) militaris*, *Furcraea macdougallii*, *Echinocactus ingens*, and many others. And **Thank You, Kelly!** For filling in at this late date!

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Our cover: This month's cover art is a sheer delight!! Articles were late and moral was low this month at the Buckner homestead. The editors did not know what to put on the cover of this month's issue, and quite frankly they were almost at the point of not caring! And then it happened! It came in the mail. We saw this wonderful drawing and immediately both thought, "Front Cover!"

Here's what the letter dated September 27, 1998 from new member Vicki Lane Hill said:

*Hello and Thank-You for sending the September issue of SDC&SS to me. I do appreciate it and was hoping that the summer issues would still be sent that I missed. We joined in May, went to the June show in Balboa Park and the sale at Huntington Gardens in July. I've enjoyed meeting various members and added to my collection quite a bit. One of the first things I bought was the little Baja Fig that I'm enclosing a drawing of. Your newsletter mentioned that you were interested in art, poems, etc. So, I wondered if you might be interested in this piece. I hope to do a series of scratchboard drawings of caudiciforms and Rock Art (my other love, hobby, fascination). This drawing has petroglyphs from New Mexico in the background. (The site is Tenabo, the figures are horned serpents.) Let me know if this is something you can use. This is a laser print of the original, and it is a faithful reproduction. Looking forward to going to more shows, meetings, etc. in the future.*  
*Thank you, Vicki Lane Hill*

Well, this nice little letter and even nicer drawing totally lifted our spirits. We remembered once again why we do this often thankless, time consuming, frustrating job. I cleaned the clay off of our "cutting room table", turned on the computer, and got to work on our articles. There was a smile on my face because I couldn't wait to share this wonderful drawing with fellow club members! Kelly called in with the October program. The Padres kept winning. And the rest is history. **THANK YOU VICKI - You made our Week!!**

---

Please send your letters, artwork, poetry, Cactus or Succulent-of-the-Month articles, puzzles, comments, or criticisms, etc. to:

**MICHAEL & JOYCE BUCKNER, EDITORS**  
**2327 "N" AVENUE, NATIONAL CITY, CA 91950**  
**NEW PHONE /FAX NUMBER:**  
**(619) 477-4779**

Publication deadline for the November issue is Saturday, October 10, 1998

*Espinas y Flores*, the newsletter of the San Diego Cactus and Succulent Society, Incorporated, P. O. Box 33181, San Diego, CA 92163-3181, is published monthly with the exception of a combined May-June issue (*11 issues per year*). Newsletter circulation is approximately 400 with about 350 issues going to members (*one issue per household*) and an additional 40-50 issues going to educational institutions, botanical societies, cactus & succulent nurseries, local publications, related natural history events & exhibits, and other interested groups or individuals upon request. Subscriptions (*membership dues for an individual*) are \$10 per year for bulk mail within the USA.

Opinions stated in the articles and editorials of *Espinas y Flores* are solely the opinions of the authors or editors and do not necessarily represent the opinions of other SDC&SS members, the Board of Directors, or the organization in general. All materials submitted to *Espinas y Flores* for possible publication may be edited for form and content. All material in the *Espinas y Flores* may be reprinted by non-profit organizations (**unless such permission is expressly denied in a note accompanying the material**) provided that proper credit is given to the **SDC&SS Espinas y Flores** and the author, and one copy of the publication containing the reprinted material be sent to the editors. Reproduction in whole or part by any other organization or publication without the permission of the editors is prohibited.

Sadly, we once again begin our column with the announcement of a passing — a remembrance honoring a fellow lover of cacti & succulents. **Angie Henderson** passed away on September 18th. **Michael Koch** wrote to us; he stated, "While she wasn't a member of SDC&SS, she sold cacti and other succulent plants from a booth at the Kobey Sports Arena Swap Meet for many years and prepared most of the small cactus gardens that were popular at the Plant Place in Old Town. Additionally, she ran a small wholesale cactus business from the Valley Center area. She had been ill for over a year. A number of our society members knew her, and I thought they should be made aware of her passing."

Thank you, Michael Koch for writing to us — informing fellow members about the life changes of our members and fellow cactophiles is an important part of FYI. In the past, we have gotten mixed reviews regarding the acknowledgement of deceased members and friends. **Bruce Edwards** wrote, "I have been a member of other clubs, so I know that the passing of a long-time member who has contributed much is a serious matter, and one can never give them enough credit. However, I think devoting too much space to such a depressing subject may put off new members, and the April *Espinasy Flores* is the perfect example." Our editor's note back to you, Bruce, on this one: You were outnumbered on this particular issue — **five to one!** So by popular demand — we shall continue to share good memories about old friends upon their passing — be it pages or a paragraph we shall continue to publish kind eulogies of our fellow hobbyists.

But, it is sort of depressing sometimes. To quote a bumper sticker, "Old age ain't for sissies!" With that in mind, I want to share this poem taken from "Peoples Poetry" - September 1998 issue of Ocean Beach Peoples Paper:

### THE PECULIAR QUALITY OF FREEDOM

I burned Hans Christian Anderson when I was sixteen.  
I was taught to revere books but could not wait  
To see the bright red cover in flames,  
Felt my heart uncurl from the fetal position.  
No more "Little Mermaid," "Little Match Girl,"  
To cry over. The weak always suffered.  
That was my first act of freedom.

I began to sleep naked when I was thirty  
And I wondered what took me so long.  
Now I am free to burn my journals  
On foggy days at the beach, your letters, too,  
Without reading them. I tear up my pictures  
When they come from the printers.

And when players mouth Shakespeare's  
Beautiful words from "Midsummer Nights Dream,"  
Letting them fall to the stage like droppings  
I walk out, take a deep breath and smile,  
The newest freedom.

My friend, Roz, says a peculiar quality of freedom  
Arrives when you are eighty.  
You are free  
To be alone, to live inside your head,  
To write your poems — or free  
To leave silence on the page.

*Una Nichols Hynum*

The **Anza-Borrego Desert State Park** is offering a wonderful selection of **Desert Seminars**. Take a closer look at the unique and fragile desert environment. Classes which range from one half day to two full days will be held *in situ* and are led by expert instructors. Attendance for each of these programs is limited to assure a quality experience. Some of the interesting seminars to be held this fall:

**Surviving . . . and Enjoying . . . Your Desert Adventure - Oct 24 and Nov 21 - 9am to 5pm - Ranger Marck Vaught:** Learn the tricks and techniques of desert survival and camping. Workshop includes hands-on demonstrations and practicing skills in a primitive desert campsite. 2 wheel-drive vehicles okay. \$50.

**Geology & Paleontology of the Vallecito Badlands - Oct 31 9am to 3pm - Ranger Paul Remeika:** Several short hikes will take participants to fossil sites, volcanic ash beds, faults and other fascinating geological marvels. High clearance - 4-wheel drive vehicles required. \$50.

**Rescuing the Bighorn Sheep - Nov 7 - 8am to noon - Biologist Mark Jorgensen:** Take a look at California's newest endangered species, the Peninsular bighorn sheep, with someone who has been working with them for 30 years; \$35.

**Archaeology & Native Americans of Anza-Borrego - Nov 14 - 8am to 3pm - Archaeologist Rae Schwaderer:** Course will include visits to archaeological sites within the park, and may require some moderately strenuous hiking over uneven ground.; two-wheel drive vehicles okay; \$50.

**The Mysteries & Myths of Elephant Trees - Nov 14 - 10am to 4 pm - Botanist Jim Dice & Ranger Kathy Dice:** The ecology, reproductive biology, evolutionary history, biogeography, ethnobotany and conservation status of the rare elephant tree, *Bursera microphylla*, will be explored in this seminar. We will visit one of the largest elephant tree groves in Anza-Borrego Desert State Park at Torote Bowl - a moderately strenuous five-mile hike. Two-wheel drive vehicles okay; \$35.

If you would like more information and /or a registration form for any of these intriguing seminars call **(760) 767-3624**.

**SDC&SS President Thomas DeMerritt** wants you to know that those of you who have been having difficulty finding parking in Balboa Park for our Saturday meetings should try parking at the Navy Hospital parking lot off the 1900 block of Park Blvd. Parking here is free, clean, safe and easy — and best of all: There is a free shuttle service to the base of the Prado's Foot Bridge (where the cactus & succulent garden begins) every ten minutes.

**October 10 & 11: Orange County Cactus & Succulent Society Show & Sale @ the Fullerton Arboretum** - 9am-4pm on Saturday, 10am - 4pm on Sunday. This show is being held in conjunction with the Arboretum's Annual Octoberfest or Arborfest which sounds like a lot of fun for everyone — a chili cookoff, apple processing, buttermaking, a hay ride, music, garden demonstrations, environmental education, plant & craft exhibits and sales, and even an "ugly bug" show! There is a charge of \$5 for adults to enter the arboretum during the show - save your receipt — there has been some talk that OCC&SS plant buyers may be getting a partial refund. We visited the arboretum garden grounds earlier this year and were totally delighted to find so many healthy mature exotic plant and tree specimens. Just walking through the lovely gardens is worth the cost of admission! Arboretum is located on the south-west corner of the intersection of the **57 Freeway** and the Yorba Linda Boulevard exit; parking entrance is at Yorba Linda Blvd and Associated Road; this is the northern boundary of CA State Fullerton University. This is an open show: **Everyone's plants are welcome!** Show set-up: 1pm to 5pm on Thursday, October 8 and 9am til 7pm on Friday, October 9. There is no admission fee on Thurs or Friday. If you would like more C&S Show information please contact Toni Garretson @ (714) 539-8773 or Gene Schroeder @ (714) 637-8192 or email: LESchroeder@compuserve.com. Fullerton Arboretum info: (714) 278-4790.

**October 17 & 18 - San Gabriel Valley Winter Show & Sale** at the Los Angeles Arboretum in Arcadia. This is the perfect show for that wonderful *Pelargonium*, *Sarcocaulon*, *Mitrophyllum*, etc that looked half dead and totally neglected during our spring and summer shows. This is, however, a closed show— so, you must be a member of the San Gabriel Valley C&SS to show. For more info contact: **Woody Minnich @ (805) 944-2784** or **Jim Hanna @ (562) 920-3046**.

**October 23 - 25: SONORAN 2 - Cactus & Succulent Conference - Workshops - Talks - Plant Show & Sales Symposium in Tucson** - Holiday Inn Palo Verde, 4550 S. Palo Verde Blvd., Tucson, AZ 85714 (520) 746-1161 for accommodations. Featured speakers include: Miles Anderson *Cultivating Caudiciforms from Ground to Pot*; Cathy Babcock & Diane Barker *Creating a Succulent Garden in a Container*; Dan Bach *Propagating Cactus from a Nurseryman's Point of View*; Bruce Birt *Digital Enhancement of Photos and Slides Using a Photo Scanner*; Gene Joseph *Aloes in Cultivation*; Michael Louie *Micropropagation: Low - Tech Method for the Home Laboratory*; Scott McDermott *Shade Essentials: Benches to Greenhouses*; James Pickering *How to Start Your Own Collection*; Greg Starr *Plant Combinations for Your Landscape*; Mark Dimmitt *Plant Adaptations to Arid Lands*; and Meg Quinn with a slide show presentation *Succulents of Kenya*. For more information contact: **Dick Wiedhopf**, 7510 E. Rio Verde Drive, Tucson, AZ 85721 email <wiedhopf@Pharmacy.Arizona.EDU> or **Carol Clapp**, P.O.Box 91560, Tucson, AZ 85752-1560; phone (520) 908-9001, Fax (520) 908-0396, or e-mail: <<http://www.desertcactus.com/tcss/>>.

**October 31 & November 1: Cactus Data Plants Fall Sale** - 9am - 5pm @ 9607 Avenue S-12, Littlerock, CA 93543. Mini auction of 15 Show Plants on Saturday - all previous show winners; call (805) 944-2784 for information.

**November 7 & 8 - A Rainbow of Orchids 1998 Fall Orchid Festival** at the University of California Irvine Arboretum. Call (714) 824-5833 for details.

**April 11 - April 16, 1999 - The CSSA Convention at The Tropicana in Las Vegas, Nevada** - for more information please contact: Mindy Fusaro, CSSA Convention Registrar, P.O.Box 2615, Pahrump, NV 89041; fax (702) 751-1357.

Have you been searching for that one rare aloe that you have only seen in books? Is your *Mammillaria* collection lacking—how should we put it? . . . lacking sex appeal? Does your plant collection need some new blood? Some out-of-the-ordinary energy? May we suggest the **Abbey Garden - Gold Card Club Special List**. After reading the first page which offers eight different aloe species, I found myself wanting to order one of each. And since most are priced under \$10, one of each is entirely possible! If you are not already receiving **Lem & Pat Higg's - Abbey Garden Cacti & Succulents List**, order it today!! Call (562) 905-3521 or Fax (562) 905-3522. It is great reading. You are sure to learn something and perhaps acquire that special succulent species you've been searching for!

Now, if your tastes run higher — and your pocketbooks deeper! If you are already familiar with most of the plants on the Abbey Gardens List. If you find yourself lusting for some truly strange, rare, exotic and expensive new plant material . . . May we then suggest **Guy Wrinkle - Exotic Plants** - phone (310) 670-8637, fax (310) 670-1427, email WRINKLE@IDT.NET. I do not even recognize most of the plants on this list! And some of the prices leave me gasping for air! But I have observed my husband, Michael, meticulously digesting the new list when he gets it! He savors it! He knows what these plants look like — he knows how difficult it can be to grow some of them — and he still wants them. There is this look in his eye — *Cyristetes*, *Cyrtanthus*, *Ornithogallum*, *Schizobasis* — you'd think he was reading "the articles" in Playboy magazine!

Coming in the December issue of *Espinaz y Flores*: **WARTS AND ALL** by SDC&SS member **Fred Keller** of Santa Barbara. We are looking forward to seeing Fred in March 1999 — he is a docent at LotusLand, and will hopefully be one of our tour group leaders. There appears to still be room on the bus, but please don't take too long to get your reservations in. I will give you a LotusLand update in November. Also, coming in December: **Book Reviews!** If you would like to write a book review, please let us know. We are doing one on latest Strawberry Press release: **MADAGASCAR II - A WONDERFUL BOOK!!** Michael & I are both reading it!

Thanks, Joyce

# **ASTROPHYTUM - STAR CACTUS**

## **CACTUS OF THE MONTH BY KELLY GRIFFIN**

Unquestionably, this genus is familiar to every cactus aficionado and is probably responsible for more than a few neophytes becoming interested in cactus in the first place. How could anyone resist the charming star shapes and lovely snowy flocking that these plants display?

In addition to being attractive, they are not particularly difficult to cultivate — except maybe *Astrophytum asterias* — which has been difficult for me anyway. Woody Minnich tells me this one is covered with leaves at times in habitat. I think my problems have to do with when to water, and I probably do not give it enough.

Fortunately, the lovely golden spined *Astrophytum ornatum*, the curly spined *A. capricorne* (goat-horned) and the thornless *A. myriostigma* are of easier culture.

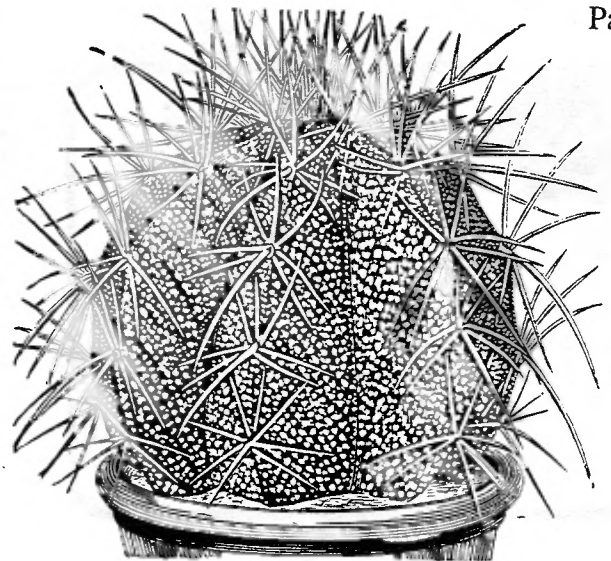
*Astrophytum ornatum* from the states of Hidalgo and Queretaro on the Mexican central plateau is a spectacular columnar plant that reaches two meters in height in habitat. It has attractive yellow spines and varying degrees of white scales from almost none to heavy banding.

*Astrophytum capricorne* from Nuevo Leon in Northern Mexico (very near the border of New Mexico) is one of my favorites, even though many might consider it kind of ratty looking. It has lovely black spines that fade to gray. It stays fairly small with the biggest plants attaining the size of softball, maybe two.

*Astrophytum myriostigma* has

some interesting select forms, such as variety *quadracostum*. This is a four ribbed plant, instead of the normal five. Occasionally you even find a three ribbed weirdo. Of course, given time, the normal plant will attain a height of three feet and will increase to as many as eight ribs. I am sure the four ribbed plants given time, would also tend to add some ribs, too. There is also variety *nudum*, a nice "nude" form which is entirely without the white speckling. Fans of the unusual will be delighted to know that there are both crested forms of this as well as variegated plants. *Astrophytum myriostigma* from the plateau of north-central Mexico, is distinguished as being the first of the *Astrophyta* "discovered" in 1837.

I have always had difficulty with the term discovered, if only for the presumptuousness that in 1837 Galeottii, an Italian botanist, found this plant and no one else had ever stumbled upon them before. I think this was unlikely, and would probably come as a surprise to the indigenous people of Mexico! But he made a record of what he found.



## ASTROPHYTUM by Kelly Griffin continued:

Of course, *Astrophytum asterias* from the Rio Grande Valley in Texas, as well as from the Mexican states of Tamaulipas and Nuevo Leon, is the star of the *Astrophyta*. It is the dominant parent of the much sought after Super-Kabuto forms which seem to come in ever more elaborate forms as each year passes. These plants stay small (baseball size) and thornless with differing degrees of white fuzzy areoles and surface scales covering the mid ribs. I grew several *A. asterias* from seed, and lost them at about the size of a dime. So I must admit, I have not had much luck with this species, and would appreciate any positive suggestions.

These are the most well-known of the species. The natural variants are plentiful too! The "unnatural" variants are even more plentiful. These have been the result of hybridizing geographically separate species and selecting for specific traits. I also suspect some irradiation and chemical may have been employed for some of these creations. This plant has a real following in Japan. Considering that there are only a handful of species — the number of select forms and varieties has been sufficient for a whole series of books from Japan, on just this genus alone. [editor's note: very expensive books!] If you have any of these books, or a Super-Kabuto form of this species, please bring them in, so I will be able to show and tell. I would especially like to see mature plants, even if they have a few wrinkles.

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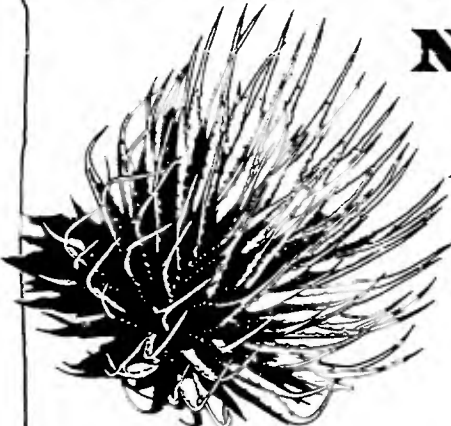
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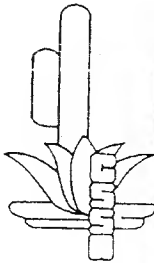
*Agave utahensis var. eborispina*  
Illustration/Sieve Plath

### EXOTIC SPEAKERS INCLUDE:

- **SUSAN CARTER HOLMES (UK):**  
*Succulents of Africa*
- **GERHARD MARX (S. AFRICA):**  
*Haworthias and Euphorbias*
- **DEREK TRIBBLE (UK):**  
*South African Succulents*
- **EVA and VOYTEK FOIK (Vancouver, BC):**  
*Cacti and Succulents in 3-D*
- **SONIA BARKER-FRICKER (UK):**  
*The Grand Canyon and Borderlands*

### TOURS

- PRE-CONVENTION:** Death Valley - Mojave Desert  
**POST-CONVENTION:** South Rim of the Grand Canyon - Northern Arizona  
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 (1) Red Rock - Spring Mountain Ranch - Potosi Mountain  
 (2) Valley of Fire - Lake Mead (including visitors' center)  
 (3) Ash Meadows - Devil's Hole - Pahrump Vineyards - Potosi Mountain  
 (4) Castle Mountain Mine (Viceroy Gold Corp) - and surrounding area



Detailed program guide and registration forms appeared in the July-August 1998 issue of the Cactus and Succulent Journal and are on the CSSA web site: [www.cactus-mall.com/cssa](http://www.cactus-mall.com/cssa). For more information write to: Duke Benadom, CSSA Convention Chairman, 1746 Julie Circle, Simi Valley, CA 93065 [e-mail-office: [duke@advanced-bionics.com](mailto:duke@advanced-bionics.com); home: [dukebenadom@earthlink.net](mailto:dukebenadom@earthlink.net)]

# Orange County Cactus and Succulent Society

## 22<sup>st</sup> Annual Plant Show & Sale



New Time  
and Place

### Fullerton Arboretum

Yorba Linda Blvd. and Associated Road, Fullerton

In conjunction with the Arboretum's Annual Octoberfest.

Admission: Call 714-278-4790

**Saturday**                      **Sunday**  
**October 10, 1998**      **October 11, 1998**  
 9:00 a.m. - 4:00 p.m.      10:00 a.m. - 4:00 p.m.

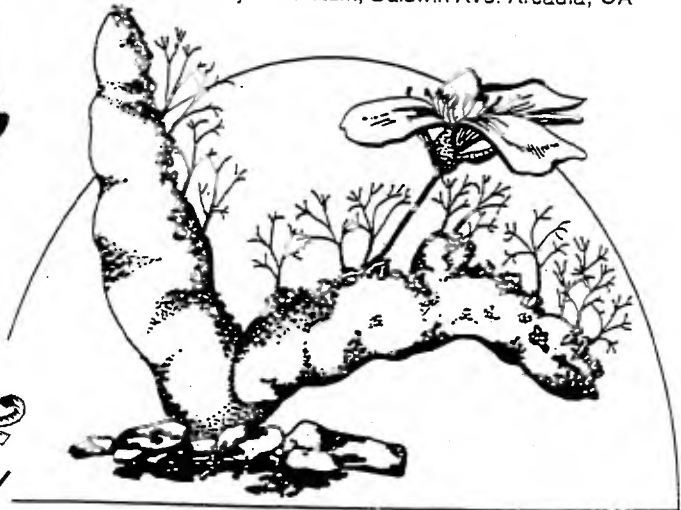
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or email: [LESchroeder@compuserve.com](mailto:LESchroeder@compuserve.com)

The San Gabriel Valley Cactus & Succulent Society Presents

the

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at the  
L. A. State and County Arboretum, Baldwin Ave. Arcadia, CA



From 9:00 am. till 5:00 pm. each day

**Saturday & Sunday October 16th & 17th 1998**  
For more information please call: Tom Glavich 626-798-1001, Vince Basta 714-738-1422, Jim Hanna 562-920-3046 or Woody Minnich 805-944-2784



# ANZA-BORREGO DESERT STATE PARK

# SAN DIEGO CACTUS & SUCCULENT SOCIETY MEMBERSHIP APPLICATION

The San Diego Cactus & Succulent Society is a nonprofit, hobby organization created to stimulate interest in succulent plants. This society brings together people with a common interest for the purpose of educating the public about the beauty and uniqueness of these remarkable plants, encouraging proper collecting and maintenance of the plants through preservation of native habitats and horticultural propagation, and to foster good fellowship. You are invited to join our society, whether you are an expert, amateur, or a beginner with an interest in unusual plants and flowers.

You will receive our publication *Espinas y Flores*, one of the best cacti and succulent newsletters. We produce 11 issues a year. You will get great articles and keep up with club news for the next year.

Our meetings are on the second Saturday of the month (except June and September) and newsletters are received the week of the meeting. We offer knowledgeable speakers who present educational & entertaining programs; many are world renowned scholars, botanists, explorers and authors. The San Diego Cactus & Succulent Society's Annual Show and Plant Sale occurs the first weekend of June in Room 101, Casa del Prado, Balboa Park, San Diego. A wide range of succulent plants, ceramic pots, and growing supplies are available during most meetings. There is also a plant exchange table and a library. For more information regarding membership, please call Joey Betzler, Membership Chair, at (619) 569-8510.

Yes, I/We wish JOIN or  REJOIN the San Diego Cactus & Succulent Society.

NAME(S): \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, COUNTRY & ZIP+4: \_\_\_\_\_

PHONE/FAX/E-MAIL: \_\_\_\_\_

Do you know that for an additional \$5.00 paid on your membership dues - you can have *Espinas y Flores* delivered by first class mail, instead of bulk mail? Check here  and add \$5.00 to your dues payment, if you are far away you will receive our newsletter faster.

Dues are \$10.00 per person, \$5.00 for each additional person in the same household for (bulk rate USA), add \$5.00 for First Class Delivery (optional). International dues, including Mexico and Canada, are \$25.00 (US funds), additional members as above.

◆ Amount enclosed ..... \$ \_\_\_\_\_

Thank you for joining the SDCSS

SEND THIS FORM TO:

SDCSS - Treasurer/Membership, P. O. Box 33181, San Diego, CA 92163-3181



# The Monthly Benefit Drawing

Our August Benefit Table was as hot as the temperature outside! We made a sizzling \$110 for our treasury. Many thanks to you great fellow supporters and to our wonderful, thoughtful donors:

**Betty Athy** for *Crassula mesembryanthemopsis*, *Creraria namaquensis*, *Haworthia lockwoodii*, and *Pachypodium namaquanum*; **Jeff Wright** for *Cryptanthus bivittatus*; **Joe Flaherty** for *Aeonium "Kiwi"*; **Virginia Innis** for *Portularcaria afra variegata* and *Portularcaria afra macrophylla*; and **Bruni Scheffler** for *Aloe dorothea*; **Alan Weiss** for *Pseudolithos migiurtinus*.

For our October Benefit Table, **Joe Kraatz** has graciously volunteered to take on the responsibilities of plant procurement, etc. (Betty Athy is gallivanting around South Africa!) Joe would love to accept your generous donations of plants or succulent related items for the October table. You may contact **Joe Kraatz** @ (760) 758-7042 or leave him a message @ (760) 726-2900.

Thanks, Kay Quijada

## BRAG TABLE WINNERS FOR AUGUST 1998:

JUDGED BY PHYLLIS FLECHSIG

Page 9

SUCCULENT:	FIRST PLACE:	Michael Buckner's <i>Zamia furfuracea</i>
	SECOND PLACE:	Lee Badger's <i>Tylecodon buchholzianus</i>
	THIRD PLACE:	Nibby Klinefelter's <i>Aeonium pseudotabulaforme</i>
CACTUS:	FIRST PLACE:	Shirley Berry's <i>Thelocactus hexadrophorus</i>
	SECOND PLACE:	Shirley Berry's <i>Echinofossulocactus</i> species
	THIRD PLACE:	Don Patterson's <i>Copiapoa</i> species

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# Succulent of the Month: *PEPEROMIA*

## by JOYCE BUCKNER

The Peperomiaceae or Pepper family is a pantropic group of herbaceous perennials containing four genera only, of which *Peperomia*, with around 1,000 species is the largest. Some of the more recent botanical papers have now lumped the genera *Peperomia* in the Piperaceae family. This is a mainly tropical family of trees, shrubs, woody climbers or herbs with jointed nodes. The leaves and at least the younger stems are succulent; in some species the root as well. A few die back to an underground tuber during the resting season.

*Peperomia* flowers are highly reduced comprising a single carpel and two anthers subtended by one bract. Long naked reduced flower axils shoot out in many species, often growing to heights much taller than the plant itself. The appearance of these spindly naked inflorescences lend to the common names of "Mice Tails" and "Rat Tails." Many *peperomia* flowers are said to be aromatic. I have found that the scents of the succulent *peperomias* that I own range from "totally absent" to "moderately unpleasant."

A relative of pepper, its central distribution is tropical South America. There are 17, or so, species in Africa and Madagascar. I have also seen mentioned at least one succulent type species that comes from Hawaii, and *Peperomia costaricensis* from Costa Rica. Many species grow as epiphytes. There is no sharp division between the succulent and non-succulent varieties. All commercially available *peperomias* have fleshy succulent leaves, although most are, and should be, considered tropicals.

During my presentation I will demonstrate how a beautiful tropical *peperomia* house plant can be turned into an ugly "survivor" plant when treated like a succulent! I believe these particular species are now considered U.S.A. "natives." I have observed many of them in their natural habitat: yard sales, apartment window sills, as well as in the small offices and waiting rooms which are situated in front of warehouses, garages, and industrial parks. Still for the purpose of this article, I will not be including these, as they are not really desirable species for the succulent enthusiast.

In the **List of Southern African Succulent Plants (1997)** the list of *peperomias* compiled by M. Jordaan contains four species and three varieties: *Peperomia blanda* var. *leptostachya*, *P. retusa* var. *bachmannii*, *P. retusa* var. *retusa*, *P. rotundifolia*, and *P. tetraphylla*. Since I have never owned or even seen any of these species, I will not be being offering any further description at this time. All of the following species are, I believe, from South America:

***Peperomia asperula*** - (Peru) Succulent stems to 10cm high. The thick ovate, boat-shaped leaves are spirochously arranged and low growing, spreading from the base, forming loose rosettes. Leaves are a rusty brown in the wild and become green in cultivation; translucent stripe above; green-grey below. The long, terminal inflorescence is richly branched with gangly yellowish cylindrical spikes. My plant terminology dictionary refers to this form of inflorescence as a raceme.

The epidermis of the leaves is covered with papillous cells which all together form a star-like structure; therefore the species name: *asperula*. An article by Werner Rauh and Wilhelm Barthlott in the CSSA Journal, 1975, states that, "*Peperomia asperula* is the only know succulent species whose leaf surfaces show such a structure."

Graf's HORTICA indicates that this species is from Hawaii. However, there are habitat photographs of it at 800 meters in the Valley of Otusco in northern Peru in the Cactus & Succulent Journal (U.S.), 1975.

*Peperomia columella* - (Peru) My personal favorite because it makes a wonderful miniature and I have managed to keep several alive and healthy for many years! Therefore, I deduct that culture must be easy with this species — but then I read in Rauh & Hutchison's 1973 Cactus & Succulent Journal (U.S.) article: "*Peperomia columella*, one of the most decorative peperomias, is not easy to grow being slow and difficult on its own roots."

. . . Come to think of it, I did kill off a few before I managed to keep these alive. After looking at my well-established *P. columella* miniatures, my analysis would be that if you are growing for longevity and size doesn't matter — then this plant does very well in a confined warm area, requiring very little soil or fertilizer and infrequent watering.

Stems are seldom seen as they are entirely covered by leaves in whorls of five. Super pulpy heart-shaped leaves have a translucent window above. In cultivation the newest growth is a rich emerald green fading to a yellowish lime-green at the base of mature stems. Like most peperomias it can get straggly after a few years. I trim mine back to create odd shapes and forms. Once roots has establish in a container I find they make a much healthier plant than trying to re-establish from cuttings.

The yellowish-green flowers resemble short stubby fingers. They often present singularly at the end of a stem, or branching in two forming what appears to be little "victory" or peace signs.



These two photographs of *Peperomia columella* were taken from: "*PEPEROMIA COLUMELLA - A New, Succulent, Dwarf Species from Northern Peru*" by Werner Rauh & Paul C. Hutchison, pp. 152-155 of Cactus & Succulent Journal (U.S.), Vol. XLV, 1973.

## **PEPEROMIA** by Joyce Buckner continued . . .

***Peperomia dolabriformis*** - (Peru) Small shrub; thick succulent stems can get woody with maturity; leaves at apex. Flat thick brilliant green to lime green leaves with translucent lateral strip along the narrow upper margin. The leaves of this species have a very distinctive hatchet shape and come to a point — almost a spine — at the tip. Long yellowish flowers branch out from a very long yellowish flower stem. I do not consider the flowers of this species to be at all attractive, and because of that I usually snip them off in their pubescence.

This appears to be the most common and readily available succulent *Peperomia*. There are also several cultural hybrids and varieties of this species, depending on which book you refer to.

***Peperomia galioides*** - Appears to be a nice miniature. Short thick finger-shaped leaves are lime green with brilliant green stripe above. If you have one, please bring it in!

***Peperomia graveolens*** - (Peru) This is a beautiful plant. Stems are a deep wine red. The thick succulent leaves are also a wine red except on the upper side where a V-shaped, transparent, bluish-green window gives a pleasant contrast. Mature leaves grow very thick; blunt at the tip. Leaves appear polished radiating a sort of oily sheen — the green topside is glossy, and the red underside is a buffed matte.

The terminal, simple inflorescence truly does resemble a rat tail. The flowers which are very very tiny are green with a white margin — to the naked eye they appear to be a powdery lime-green one to three inches tall, growing singularly on long red stems that are five to ten inches tall. The flower has a definite odor which has been described as everything from odd to strong to unpleasant to bad. Hence the name, *graveolens*, which is Latin for strong-smelling.

Originally this species was referred to as a red form of *P. dolabriformis*. Upon further observation I find that it differs in many ways besides color. Because of its wonderful color this is a highly desirable species, and a great seller at Christmas!

***Peperomia nivalis*** - (Peru) This is another low growing window-leaved *Peperomia*. Aside from the fact that leaf epidermis has a highly polished sheen rather than an asperulous surface, I am hard pressed to tell it apart from a *P. asperula*!

There are several new and exciting succulent *Peperomia* species in addition to the more common ones that I have just described. The most promising of these are the little-known tuberous species from Northern Peru: *Peperomia peruviana*, *P. dolabella*, *P. macrorhiza*, *P. verruculosa*, and *P. hydrostachya*. And there is a Mexican group of geophilous peperomias: *Peperomia bracteata*, *P. campylotropa*, *P. coaytonioides*, *P. gracillima*, *P. macranda*, *P. mexicana*, *P. ovato-peltata*, *P. pedicellata* and *P. pinulana*. And would love to get a *Peperomia congesta* — it was an ISI offering in 1982. Does anyone out there have one? Please bring it in! Perhaps sometime in the future I will acquire some of these rarer glob-like species — then I will write another article!

### References:

- 1) M. Sajeve & M. Costanzo, **SUCCULENTS - THE ILLUSTRATED DICTIONARY**; 1994, Timber Press, Portland, OR.
- 2) G. Rowley, **THE ILLUSTRATED ENCYCLOPEDIA OF SUCCULENTS**; 1978, Salamander Books Ltd, London, England.
- 3) National Botanical Institute of South Africa, **LIST OF SOUTHERN AFRICAN SUCCULENT PLANTS**; 1997, Umdaus Press, Pretoria.
- 4) A. B. Graf, **HORTICA**; 1992, Roehrs Company, E. Rutherford, NJ.
- 5) J. Harris & M.W. Harris, **PLANT IDENTIFICATION TERMINOLOGY**; 1994, Spring Lake Publishing, Payson, UT.
- 6) W. Stearn, **BOTANICAL LATIN**; 1983, David & Charles Publishers, Devon, England.

# Sentiment without action is the ruin of the soul.

— EDWARD ABBEY

## WISE AND OTHERWISE

by Michael Buckner



Hallucinogens are present in other cacti besides peyote (*Lophophora williamsii*). The stems of *Opuntia cylindrica* from Ecuador and Peru can contain 0.9 percent mescaline by dry weight, and the fruits of *Opuntia leptocaulis* can be slightly hallucinogenic. The stems of saguaro (*Carnegiea gigantea*) also contain alkaloids similar to those in peyote. Other cacti that contain alkaloids specifically used by Indians for their chemical effects — especially to increase endurance and visual perception of long-distance runners — include *Ariocarpus fissuratus*, *Coryphantha compacta*, *Echinocereus triglochidiatus*, *Epithelantha micromeris*, *Mammillaria heyderi*, and *Trichocereus peruvianus*. In Ecuador and Peru, San Pedro cactus (*Trichocereus pachanoi*), which reputedly has more mescaline than peyote does, has long been used medicinally and as a hallucinogen and can be purchased in street markets.

Park S. Nobel, **REMARKABLE AGAVES AND CACTI**; 1994, Oxford University Press, New York - Oxford

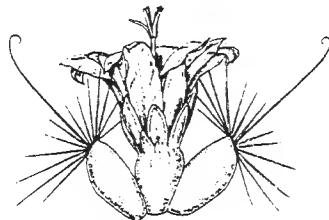
Peyote has been described by some as a narcotic plant. However, pharmacological data indicate that it is not physiologically addicting or habit-forming and that it has no narcotic (sleep producing) effect on man. Nevertheless, some persons may become psychologically dependent on peyote, if they let their life's activities become centered around its religious use. . . . *Lophophora williamsii* is the only species used for ceremonial purposes, partly because of its greater geographic distribution and ready availability, but also because it contains much more mescaline than does the southern species, *L. diffusa*, which occurs only in Querétaro, Mexico.

Mescaline, a beta-phenylethylamine, has an indole ring structure similar to that of certain naturally occurring neurohumors (serotonin, for example) and some other hallucinogenic drugs such as psilocybin, psilocin, and LSD-25. The effects of mescaline on human beings are relatively minor when compared to those of the true narcotics such as opium and its derivatives, which become physiologically addicting. The user never loses consciousness because of the influence of mescaline, although his senses are greatly altered. Visual sensitivity is affected most, and both actual and imagined images are seen in vivid colors — hence the reference to peyote visions as "techni-color hallucinations." Visions with the eyes open usually involve a changed perception of light and space, and often a person is aware of greater physical beauty, especially with regard to visual harmony, color, and detail. Sometimes he becomes unable to distinguish between subject and object, and he reaches an almost mystical state during which he is unable to differentiate himself from his surroundings. Even greater visual effects are produced with the eyes closed, and images varying from abstract forms to imaginary animals or people occur in brilliant color and with dramatic intensity. On occasion the visions may be unpleasant or even terrifying. The type of visual experience apparently depends on the dosage of mescaline, the personality traits and mood of the subject, and the social and psychological context in which the substance is taken.

Lyman Benson, **THE CACTI OF THE UNITED STATES AND CANADA**; 1982, Stanford University Press, Stanford, CA.

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