

MAMMILLARIA THORNERI

Espinas y Flores

NEWSLETTER of the SAN DIEGO CACTUS & SUCCULENT SOCIETY, INC.

A Non-Profit Public Benefit California Corporation

VOLUME XXXIII NUMBER THREE, SATURDAY, MARCH 14, 1998 @ 1:00PM



Charlie Glass

Bob Foster

CHARLES GLASS (1934 - 1998)

This issue of *Espinas y Flores* affectionately dedicated to Charlie whose love of plants and warm nature has inspired so many of us.

March Program: John Trager

The Lonely Cotyledon Club

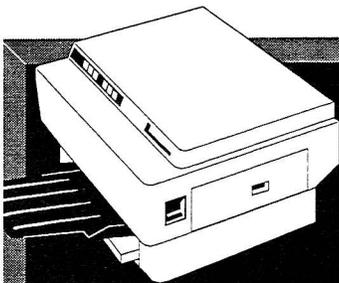
Our March speaker, John Trager is the Curator of Desert Collections for the Huntington Botanical Gardens. He is a very knowledgeable plantsman, as well as a superb photographer. His photos often adorn the cover and pages of our CSSA Journal and most notably were published in Steven Hammer's Conograph.

John states, I've been giving my program some thought and have come up with a title that gives me plenty of flexibility and should be somewhat different, and I hope of interest to your members: "The Lonely Cotyledon Club" — An overview of succulent monocots, their relationships, cultivation and propagation."

How appropriate! The genus *Cotyledon* just happens to be our succulent of the month, with a wonderful article by Nibby Klinefelter. So bring in your cotyledons, and bring in your tyledodons and come prepared to learn a lot and enjoy some wonderful photography!!!

Our cover: Charles Glass and Bob Foster by artist Gerhard Marx of South Africa graced the November/December 1990 cover of the CSSA Journal, vol.62. Reproducing it for our cover seems appropriate because it portrays the two gentlemen so well — surrounded by cacti, shells, Indian art, music, and love. Gerhard Marx explained, "I portrayed you, the editor [Charles Glass], in Huichol Indian dress to represent the special and intimate relationship you had with cacti over the years—not because I suspect you of *Peyote* consuming! It represents, therefore, your study of cacti which was, above all, a labor of love and something which extended beyond scientific research. Through Bill and Caron Hooten I learned that Bob has a beautifully kept *Haworthia* collection, hence the shirt. Barefoot-Bob may have just come back from the beach, doing shell-collecting, but to remind of the days he collected in pricklier environs, there is still an *Opuntia* joint clinging to his leg."

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



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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.

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April 11 - 12: Southcoast Annual Cactus & Succulent Show & Sale - 9:00 am through 4:30 pm at the Southcoast Botanic Gardens, 26300 Crenshaw Blvd., Palos Verdes Peninsula; for more info (310)832-2262. Open show - ENTRIES ACCEPTED Friday, April 11 from 12:00 noon to 9:00 pm. Admission free to participants - \$5 to Botanic Gardens - \$2.50 for seniors and children - Free Parking.

VOLUNTEERS NEEDED

April 18 - 19: Buds and Blooms / EARTHFAIR - Balboa Park. The SDC&SS is once again planning to have a booth at the San Diego Earthworks EARTHFAIR celebration in Balboa Park on April 19th. Last year we did quite a thriving business selling plants that belonged to the club (remaindered from the 1996 show & sale). This year, as with our June Show & Sale the club will not have plants to sell. With that in mind the SDC&SS is soliciting vendors to sell plants at this event as well as at the event "Buds an Blooms" which will be on Saturday, April 18th. Due to limited space we will have to limit sales to two vendors. The requirements for being a vendor are: 1) That you are a member in good standing of the SDC&SS. 2) That you are available those two days at 8:00 am for set-up. We will hopefully have some space in room 104 to store plants on Saturday night. 3) That you will be willing to share proceeds with the SDC&SS as during other sales. There will be volunteers from SDC&SS to assist with setup, sales, and distribution of information during both days. If you are interested in participating in this event please contact **Pam and/or Lee Badger at (619) 589-1223**. If more than two vendors are interested in participating, selection will be made by lottery at the March 5th board meeting. We also need volunteers on Saturday, April 18th and Sunday, April 19th to help with this event. Last year we had lots of fun and talked to thousands of people about our club and our favorite plants. Contact Pam about volunteer opportunities.

April 18 - 19: Coronado Flower Show @ Spreckels Park - This is a terrific annual get together with something to interest every member of your family. If you would like to enter a succulent plant contact John Blocker @ (619)435-8397 or Don Bloom @ (619)437-8445 for a show schedule.

April 24 - 27: The Desert Research Symposium sponsored by San Bernardino County Museum - Redlands, CA. Mojave Desert Field Trip, Symposium Social, Abstracts of Proceedings, etc. Contact: Jennifer Reynolds, 777 E. Rialto Avenue, San Bernardino, CA 92415-0763; (909)387-2582; fax (909)387-2052.

April 29 - May 3: Art Alive 1998 at the San Diego Museum of Art - Balboa Park. Art Alive is an annual fundraiser, social event and educational forum which combines the beauty of nature and the elegance of art. The museum and its collections will be alive with 175 floral arrangements created by professional floral designers and award winning amateur exhibitors. Proceeds provide funds for preservation of the museum's collections. Among this year's exhibitors is **Virginia Innis**. Her design will compliment the painting, The Red Cactus by Norfeldt in Gallery 13. This should be a good topic for a SDC&SS member!

May 10 - Annual Epiphyllum Show & Sale Room 101, Casa del Prado - Balboa Park, San Diego. This is a great show and sale — take your Mother!!! It's Mother's Day!! For information: (619) 491-9495.

May 16 & 17: The 23rd Annual Gates Society Cactus & Succulent Show and Sale - at the San Bernardino County Museum, 2024 Orange Tree Lane, Redlands - telephone (909) 798-8570. Show and sale are open to all.

June 6 -7: San Diego Cactus & Succulent Society Show & Sale - Casa del Prado - Balboa Park, San Diego This is an open show! Come One! Come All! And a terrific sale. Show set-up all day Friday, June 5 and early morning Saturday, June 6. This is gonna be our biggest show ever!! For more information: (619)462-1805.

June 12 - 14: Mid-West Cactus & Succulent Conference hosted by the Omaha Cactus & Succulent Society @ the Ramada Inn (712)328-3881 in Council Bluffs, IA. Speakers: Bruce Bayer, Fred Katterman, Steven Hammer, Rob Wallace, Miles Anderson, Dr. Jerry Barad, and Chuck Hanson. Contact: Roger & Nancy Brown, P.O.Box 220, Waterloo, NE 68069; (402)779-3416 - e-mail address: Spinekeeper@aol.com .

June 20: Bruce Bayer, world renowned expert on the genus *Haworthia* from South Africa © Noon at the Joslyn Senior Center. 724 North Broadway, Escondido. This very special event will be co-sponsored by the SDC&SS. Anyone and everyone with any interest in Haworthias should plan to attend this rare opportunity with a world-class botanical explorer and taxonomist. We are looking into renting a bus or organizing a ride-share so that as many of our SDC&SS members can see this extraordinary speaker as possible. Tentative departure from the Organ Pavilion parking lot @ 11:00am - cost would be \$10. Interested?? There will be a sign-up sheet at the March meeting.

July 11 - 12: CSSA Show & Sale, Huntington Botanical Garden - San Marino. SDC&SS Bus Trip will be leaving the Organ Pavilion Parking Lot in Balboa Park at 8:00 am on Saturday, July 11th and will make one stop in North County at approximately 8:30 for additional passengers. Cost will probably be \$25 per person. Further details and a registration form will be published in the April and May issues of *Espinás y Flores*. This is a great sale!



VOLUNTEERS NEEDED TO HELP AT THE MONTHLY PLANT SALES TABLES. If you can help by committing to helping out for two or three months per year, it would be greatly appreciated by all. **Jeff Harris** has agreed to take over Michael Cullen's position - in part, but he needs HELP, and will not always be able to attend this position. If you are willing to help with this much needed chore, please contact our treasurer, **Herb Stern**, or any board member at the next meeting.

George Plaisted has been appointed by the Board of Directors as Vice President for the remaining term — 1998. We are very lucky to have George so actively involved in our club; he is either President or Past-President of practically all of the various botanical societies that meet in Casa del Prado; he knows where everything is, — or belongs, and he has keys to all the hidden assets!! Hope that you all saw the write-up about George and The Exotic Plant Society in the S.D. Union Sunday garden section by Karen Wilson. Thank you George! You really are a man for all reasons — ah seasons!!

At the mid-winter meeting of California Garden Clubs, Inc. held at the Hilton Hotel in San Diego, the state president presented SDC&SS member, **Virginia Innis** with an Instructors Emeritus Certificate. This certificate acknowledged over 20 years of service to the National Council of State Garden Clubs Flower Show Schools. Virginia has provided education on design to flower show judges in California, Utah, Nevada, and Texas.

Re: our January Winter Mini Show **Dick & Lupe Hulett's *Albuca spiralis*** was a ribbon winner. We still have not come up with final award winning plant and owner? Who's the shy one? Anyway, our January show chairman, **Ed DeLollis** was unable to attend the February meeting — he will be here at the March meeting with extra Plant Benefit Drawing Table tickets for all those members that entered five or more plants in this show. **Dick Hulett** requested that his tickets be given to any members who showed plants for the first time at this Winter Mini-Show — if you qualify for this category, please let Ed know!

Thanks to **Jeff Harris** for his generous donation of fine mature specimens of *Echeveria elegans*, "Hen & Chicks" for the Kate Sessions statue site. Plants and manpower is still needed for the landscape that is to surround the new Kate Sessions Statue. If you can help please contact: **Kay Quijada @ (619)282-5919**.

March 9 - Mike Evans, Tree of Life Nursery - Native Plants; San Diego Horticultural Society meeting @ 6:30pm, Del Mar Fairgrounds- Satellite Wagering Facility. For more information please call (760) 630-7307.

March 29: Annual Plant Auction and Meeting of the San Diego Hoya Group @ Quail Botanic Gardens - starts at noon in the Ecke Building. Everyone is invited to bring a plant for the auction. Plants requested do not have to be solely Hoyas. They can be anything epiphytic (hoyas, dischidias) any type of cactus or succulent, begonias, ferns, anything you want. Come enjoy the fun and comraderie. For more information about the SD Hoya Group contact **Chuck Everson at (760)758-4290 - Rainbow Gardens Bookshop** or [E-mail: RBGdns@aol.com](mailto:RBGdns@aol.com).

April 5 - Anza Borrego Desert Wildflowers Field Trip - THIS IS A TENTATIVE DATE which will be confirmed at our March meeting. Cost will be between \$22 and \$25 per person for a very comfortable bus which is equipped with video players as well as a bathroom. We will leave the Organ Pavilion parking lot of Balboa Park at 8:00 am DAYLIGHT SAVINGS TIME - the first day! We will be making one stop in the North County for additional passengers at approximately 8:30 - location to be announced. If you wish to be included on this trip, but cannot attend the March meeting please contact **Michael Buckner @ (619)222-3216**. This will be a sell out trip — we understand that 1998 is supposed to be the best year for wildflowers in decades! And we will have experts to name them all!

Details for the other two field trip will be published as soon as they are available. We are looking at a Saturday, July 11th trip to CSSA Cactus & Succulent Show and Sale at the Huntington Botanical Gardens in San Marino and at a trip to LotusLand in September or October, if possible.

Anza Borrego Desert Wildflower Hotline: (760) 767-4684.

Southern CA Wildflowers: (818) 768-3533

Cuyamaca State Park: (619) 765-0755

Descanso Ranger Station: (619) 445-6235

Mt. Laguna Recreation Area: (619) 473-8205

San Geronio Mill Creek Station: (909) 794-1123

CA State Park - South - (619) 237-7411

Anza Borrego State Park: (760) 767-5311

Death Valley National Park: (760) 786-2331

Joshua Tree National Park: (760) 367-7511

Palomar State Park: (760) 742-3462

San Jacinto State Park (909) 659-2607

Weather - San Diego County: (619) 298-1212

Highway Conditions - Southern California: (619) 293-3484.

CHARLES GLASS

1934 - 1998

Like all young men I set out to be a genius, but mercifully laughter intervened.

- LAURENCE DURRELL

The E-mail sent out by Myron Kinnach on February 24 was short, terse, and heartbreaking. "I just received a fax from the Fitz Maurices of San Luis Potosi, Mexico, that Charles Glass died yesterday morning about 7 a.m. in San Miguel de Allende. The cause of death was cardio-pulmonary failure. He was 64. The wake was last night and he was cremated this morning." The word spread like wildfire.

Lost to our world of knowledge, Charlie, I toast you with a tear in my eye — a shot of El Patron and the taste of bitter salt. You have done so much for us, your infectious love of life, your quick witted humor and easy laugh. Inimitable is the word that comes to mind. A brilliant man — there will never be another like him.

I fumble through my roledex looking for the number, and call the one person whom I want to share my emptiness. I tell Kitty Sabo. Kitty says, "Oh, you're sending chills coursing down my spine."

She tells me that Charlie called two weeks ago from — as he put it "a larga distancia in a tin shed". "Let's write," he told her, "I might get cut off any second." Then the phone goes dead.

Kitty and I talk about Charlie, as if it can console us, and say good-bye. I think of Vivienne Doney, whom Charlie loved and her warm tender loving laugh. . . . Well, Charlie's passing will effect many of us in sadness and fond memories.

I think of Charlie and his special relationship with Bob & Suzanne Taylor of El Cajon — of how proud Bob is, and how proud we are here in San Diego of Charlie (and Bob Foster, too) when they named the beautiful Baja, San Pedro Nolasco Island white-spined mammillaria, *Mammillaria tayloriorum*. **Love.**

This week I have reflected much on the recent passing of Tony d'Atillio. Tony, along with George Radwin (curators of conchology @ SDMNH) and Loyal Bibby (past president SDC&SS and shell expert and wholesaler), all active SDC&SS members at the time were the first to introduce Charlie and Bob Foster to the wonderful world of shells. They became fervent over this hobby, vocation, and soon there was Abbey Specimen Shells along with Abbey Garden Cactus & Succulent Nursery and Abbey Garden Books. Bob focused on it and it became his "*raison d'etre*." Both became experts — literally overnight. No kidding! Charlie, of course, had this phenomenal ability — he was fluent in English, Latin, French, Spanish, German, Italian, Russian and Tagalog — as well as speaking cactology and conchology, and to say the most, peopleology.

Indefatigable, Charlie pursued life and his interests with a passion unequalled by simple mortals. With the help of his able-minded partner, Bob Foster, Charlie edited our CSSA Journal for 26 years. He served nearly a decade as director and landscape designer for the 37 acre private botanical garden, Lotus Land. He traveled extensively throughout Mexico exploring and researching and publishing new taxa and taxonomic revisions — over fifty. Among them introductions like *Mammillaria saboae*, for Kitty, *Mammillaria goldii*, for Dudley, *Mammillaria anniana*, for Mrs. Lau, *Turbincarpus laui*, for Alfred, and the recently discovered and controversial phenomenas *Geohintonia mexicana* and *Azteckium hintonii*, to name just a few.

It is not doing the thing we like to do, but liking the thing we have to do that makes life blessed.

— Johann Wolfgang von Goethe

The beautiful *Mammillaria glassii* named in Charlie's honor was described and authored by Bob Foster. Larry Mitich, current president and historian for the CSSA, wrote a tribute to Charlie that I encourage each of you to look up and read in CSSA Journal - volume 65 #1 - January/February 1993. A few quotes (and photographs) from his article:

During his initial visit to mainland Mexico in October 1961, to Puerto Peasco, Sonora, at the north end of the Sea of Cortez, he was initially quite intimidated by this frightening and mysterious country. Recalls Charlie, "We went to Puerto Penasco, a dark and grimy town, and went to a bar with a dirt floor. Four grubby musicians came in, approached our table and sang 'Cu-cu-ru-cu-cu la paloma,' and I fell in love with Mexico! I was overwhelmed that people, so poor, unwashed and ragged, with nothing, or a least nothing much more than their guitars, were able to create such beauty!"

"There is no question but that I intend to spend the rest of my life in Mexico, and no one could be happier in their work!"

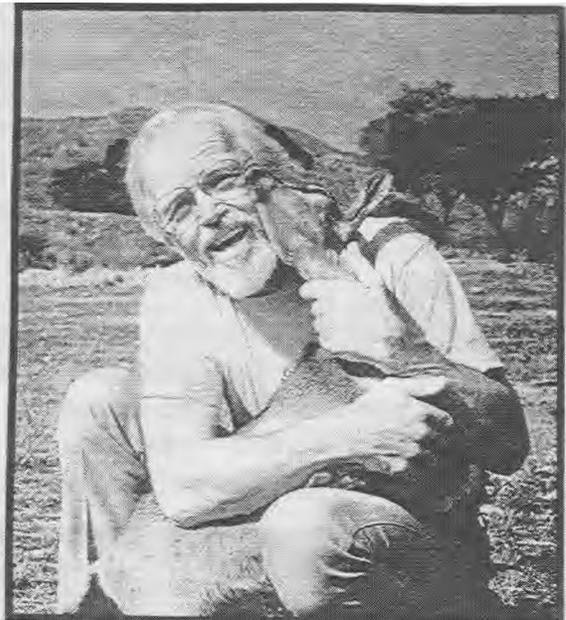
"My good fortune in life has been that my hobbies have been almost inseparable from my work."

I just went upstairs and looked at my framed Tucson' 95 CSSA Convention poster, **Hasan Bahidaj**, and I had to laugh — at the convention I had my friends and special dignitaries, speakers, movers and shakers sign on the print — there in and among them is Charlie's signature: flamboyant, flaring, and the largest of them all!!!

MICHAEL BUCKNER



Charles Glass with long-time friend Kitty Sabo at the 1991 CSSA Convention in San Antonio.



With his pet goat, Felipa, at his home in the *ejido*, Alcocer, Municipio de Allende, Gto, Mexico.

There are no mistakes and it's never boring on the edge of the imagination, which is only pure spirit out having a bit of fun.

- HUGH ROMNEY (aka: Wavy Gravy)

HAAGEOCEREUS

by J. A. Betzler

Backeberg created this genus in 1934 to recognize *Haageocereus pseudomelanostele*. There are between 5 and 30 poorly understood species which are native to the Andes, many of the described species are in Peru, though they are not restricted to this country. *Bringhamia* described by Britton & Rose (in part), *Loxanthocereus* by Backeberg (in part including the type) and *Preuocereus* Akers are synonyms. *Lasiocereus* F.Ritter, *Maritimocereus* Akers & Buining, *Peruocereus* Akers, *Pygmaeocereus* Johnson & Backeberg and *Yungasocereus* F.Ritter should be included in Backeberg's *Haageocereus* as well. This last group of genera is insufficiently known and needs further study to be sure of their relationship (hey it is a mess).

A paper that appeared in *Bradleya* (IOS, 1986) shows relationships of *Haageocereus*. The closest cluster of cacti that is related to this genus are: *Brachycereus*, *Cleistocactus*, *Oreocereus*, *Echinopsis*, *Espostoa*, *Leocereus*, *Facheiroa*, *Mila*, *Rebutia*, *Gymnocalycium*, *Disocactus*, *Copiapoa*, *Neoraimondia*, *Corryocactus*, *Eulychina*, *Eriosyce*, *Neoporteria*, *Neowerdermannia*, *Austrocactus*, *Parodia*, *Frailea* and *Uebelmannia*. This group consists of the Tribes: *Trichocereae*, *Notocactaceae* and *Leptocereae*. Some authors have referred to this tribe as the *Echinopsidinae*. Though you should not be surprised that there is disagreement on this front. These group of cacti share the following traits:

- A more or less upright habit with columnar few-ribbed jointed stems.
- The receptacle tube has few hairs or rarely naked with narrow scales.



Haageocereus pacalensis from the deserts of northern Peru

Haageocerei listed below are from a list compiled from Hunt, 1992. Regardless of the taxonomy the plants are generally shrubby to tree like, with columnar stems. Some form clumps reminiscent of *Trichocereus*. They range from the dry costal areas to the mountains of Peru and Chile.

The stems are densely packed with spines.



Light colored flowers of an unidentified *Haageocereus*.

The spines range in color to from dark to white, the golden spined species some of the most attractive. Flowers are light colored and funnel to tubular in aspect. They generally open late in the day and stay open till the following morning.

The green, yellow or red fruits are about 1¼ to 1½ inches in diameter. The shape of the fruits tend to be round to oval in cross section. These cacti need a temperate greenhouse in cold regions, in southern California they can be grown outside.

In greenhouses water moderately during the growing season. When fertilizing be careful with nitrogen. Drainage of plants grown outside is critical, if possible protect from excessive winter moisture. Seed sown in the spring does the best. Cuttings root the fastest in the spring or summer. The worst pests seem to be aphids that attack the flowers and the stems are susceptible to rot in wet conditions.

PLEASE BRING IN YOUR PLANTS,
I DO NOT HAVE ANY IN MY COLLECTION!

This is list adapted from Hunt 1992. Species in *Bold italics are* accepted, those in regular italics type are provisionally accepted, SMALL CAPITALS indicate synonyms:

<i>Haageocereus</i>	
<i>ACANTHOCLADUS</i> = <i>H. multangularis</i>	
<i>ACHAETUS</i> = <i>H. limensis</i>	
<i>ACRANTHUS</i> = <i>H. limensis</i>	
<i>AKERSII</i> = <i>H. multangularis</i>	
<i>ALBISSETATUS</i> = <i>xHaagespostoa albisetata</i>	
<i>albispinus</i> Peru	
<i>AMBIGUUS</i> = <i>H. decumbens</i>	
<i>AUREISPINUS</i> = <i>H. multangularis</i>	
<i>australis</i> Peru, Chile	
<i>chalaensis</i> Peru	
<i>CHOSICENSIS</i> = <i>H. multangularis</i>	
<i>CHRVSACANTHUS</i> = <i>H. multangularis</i>	
<i>chryseus</i> Peru	
<i>CLAVATUS</i> = <i>H. multangularis</i>	
<i>CLAVISPINUS</i> = <i>H. limensis</i>	
<i>CLIMAXANTHUS</i> = <i>xHaagespostoa climaxantha</i>	
<i>comosus</i> = <i>H. hybr.</i>	
<i>CRASSIAREOLATUS</i> = <i>H. multangularis</i>	
<i>decumbens</i> Peru	
<i>DEFLEXISPINUS</i> = <i>H. limensis</i>	
<i>DICHROMUS</i> = <i>H. multangularis</i>	
<i>DIVARICATISPIUS</i> = <i>H. multangularis</i>	
<i>fascicularis</i> Chile	
<i>fulvus</i> Peru	
<i>HORRENS</i> = <i>H. pacalaensis</i>	
<i>icensis</i> Peru	
<i>icosagonoides</i> Peru	
<i>LACHAYENSIS</i> = <i>H. limensis</i>	
<i>lanugispinus</i> Peru	
<i>LAREDENSIS</i> = <i>H. pacalaensis</i>	
<i>limensis</i> Peru	
<i>LITORALIS</i> = <i>H. decumbens</i>	
<i>LONGIAREOLATUS</i> = <i>H. multangularis</i>	
<i>MAMILLATUS</i> = <i>H. decumbens</i>	
<i>multangularis</i> Peru	
<i>MULTICOLORISPINUS</i> = <i>H. australis</i>	
<i>OLOWINSKIANUS</i> = <i>H. limensis</i>	
<i>pacalaensis</i> Peru	
<i>PACHYSTELE</i> = <i>H. multangularis</i>	
<i>PARADOXUS</i> = <i>Cleistocactus acanthurus</i>	
<i>PECULIARIS</i> = <i>Cleistocactus acanthurus</i>	
<i>PENICULATUS</i> = <i>H. albispinus</i>	
<i>PILIGER</i> = <i>H. multangularis</i>	
<i>platinospinus</i> Peru	
<i>PLURIFLORUS</i> = <i>H. platinospinus</i>	
<i>PSEUDOACRANTHUS</i> = <i>H. limensis</i>	
<i>PSEUDOEMELANOSTELE</i> = <i>H. multangularis</i>	
<i>PSEUDOVERSICOLOR</i> = <i>H. pacalaensis</i>	
<i>REPENS</i> = <i>H. pacalaensis</i>	
<i>RUBROSPINUS</i> = <i>H. hybr.</i>	
<i>SALMONOIDEUS</i> = <i>H. hybr.</i>	
<i>SETICEPS</i> = <i>H. hybr.</i>	
<i>SETOSUS</i> = <i>H. multangularis</i>	
<i>SMARAGDIFLORUS</i> = <i>H. hybr.</i>	
<i>subtilispinus</i> Peru	
<i>SYME7ROS</i> = <i>H. multangularis</i>	
<i>tenuis</i> Peru	
<i>TENUISPINUS</i> = <i>H. pacalaensis</i>	
<i>TURBIDUS</i> = <i>H. multangularis</i>	
<i>versicolor</i> Peru	
<i>VIRIDIFLORUS</i> = <i>H. multangularis</i>	
<i>vulpes</i> Peru	
<i>WEBERBA UERI</i> =	
	Weberbauerocereus weberbaueri
<i>zangalensis</i> Peru	
<i>ZEHNDERI</i> = <i>H. multangularis</i>	
<i>ZONATUS</i> = <i>H. limensis</i>	
<i>xHaagespostoa</i>	
<i>albisetata</i> Peru	
<i>climaxantha</i> Peru	

REFERENCES:

- Cacti in the Vicinity of Lima Peru and Their Conservation Status, Carlos Ostolaza N. *CSSA Journal* Vol. 67(1) 1995.
- CITES Cactaceae Checklist, compiled by David Hunt 1992.
- The Genera of the Cactaceae: Towards a New Consensus, IOS Working Party (no authors listed) *Bradleya* 1986 Vol 4 p 65.
- The Illustrated Encyclopedia of Succulents Grodon Rowley 1978
- The new consensus of Cactaceae (1990) URL: <http://users.aol.com/hecktheuer/cacti/konsens.html>

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: _____

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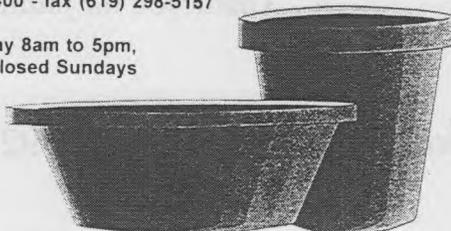
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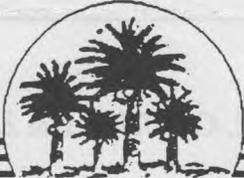
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The Monthly Benefit Drawing

Despite the showers that bring the flowers, February's plant table drawing brought \$45 for our treasury and sunshine to the faces of a number of lucky winners. From *Bulbine* to *Ceraria* and *Cleistocactus* to *Welwitschia*, we had a great collection of plants to wish for. Many thanks to our donors:

Betty Athy for her *Cleistocactus strausii* var. *frichfi*, *Neoporteria* species, *Avonia papyracea*, *Bulbine mesembryanthemoides* (whew!); **Michael Vassarfor** the *Oxalis polyphylla* var. *heptaphylla*; and to **Joe Quijada** for the *Melocactus bahienis* var. *lensselinkiana*.

Please call **Betty Athy**, our "Chief Specimen Spotter", at (619) 469-7647 when you have a nice plant to donate. By the way Betty said she would be looking for some "jewels at **C & J Cactus Nursery** for our March Benefit Table. Sounds enticing!!

Thanks, **Kay Quijada**

BRAG TABLE WINNERS FOR FEBRUARY 1998: JUDGED BY MICHAEL BUCKNER

SUCCULENT:	FIRST PLACE:	Alan Weiss' <i>Pachypodium brevicaule</i> - in full bloom
	SECOND PLACE:	Don Patterson's <i>Haworthia herbacea</i> - nice large clump
	THIRD PLACE:	Kelly Griffin's <i>Crassula barbata</i> - diminutive!
CACTUS:	FIRST PLACE:	Don Patterson's <i>Copiapoa pendulina</i> fm. <i>wagenknechtii</i>
	SECOND PLACE:	Stan Yalofs <i>Opuntia subulatata monstrose</i> "Maverick"
	THIRD PLACE:	Stan Yalofs <i>Cereus jamacaru monstrose</i>

DID YOU KNOW? THAT ALL BRAG TABLE WINNERS RECEIVE SCRIPT \$\$\$ REDEEMABLE AT OUR MONTHLY PLANT SALES TABLE??? YES, WE ARE USING FISCAL ENTICEMENT AS WELL AS GLORY TO ENCOURAGE ALL!! THE BRAG TABLE SERVES AS EXCELLENT "PRACTICE" FOR PREPARING YOUR PLANTS FOR SHOWING AT OUR BIG JUNE SHOW. SO DON'T BE SHY! CLEAN UP ONE OF YOUR FAVORITE PLANTS, LABEL IT WITH BOTH ITS NAME AND YOUR NAME, AND BRING IT IN. YOU MAY VERY WELL BE A WINNER IN MORE WAYS THAN ONE!!



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SUCCULENT OF THE MONTH: *COTYLEDON*

BY NIBBY KLINEFELTER

"Nature has no straight jackets. . . . Those who look for a changeless nomenclature should change their notions quickly to avoid disappointment."

Liberty Bailey (1963)
How Plants Get Their Names

This sensible matter-of-fact viewpoint helped me get over the frustration of learning that my 1974 books had been outdated since 1978, when it was decided /agreed that some cotyledons should be called tylecodons, an anagram emphasizing their close relationship.

The genus *Cotyledon* was first described by Linnaeus about 1745. Mostly found in the Cape Province area of South Africa, the name derives from the resemblance of their leaves to a seed leaf — the primary or rudimentary leaf of the embryo of seed plants. This resemblance is especially true for *Cotyledon orbiculata*. It is a member of the sprawling *Crassulaceae* family.

Pronounced kot"e lector', the leaves are opposite and persistent while the leaves of *Tylecodon* are spirally arranged, herbaceous, and deciduous. There are other minor differences, but too esoteric for me to mention — this hobby is supposed to be fun!

Now let me describe the following species:

Cotyledon velutina has dark green obovate (egg-shaped with narrow endowment), stem-clasping leaves and yellow flowers.

Cotyledon woodii has obovate leaves with a reddish border. Single terminal or axillary flower is greenish red in color.

Cotyledon orbiculata is a variable complex that has been recently re-evaluated by Tolken (1979). It is wide spread throughout South Africa, a rigid shrub up to three feet high. The leaves vary from linear and cylindrical to

broadly obovate. The bell-shaped pendulous flowers appear well above the leaves. There are five recognized varieties of *Cotyledon orbiculata*: variety *orbiculata*, var. *flanaganii*, var. *dactyloopsis*, var. *spuria*, and var. *oblonga*.

Cotyledon cuneata (syn. *pillansii*) grow 12 to 15 inches tall, branching from the base. It has oblong obovate blue-grey foliage and yellowish green flowers.

Cotyledon campanulata (syn. *teretifolia*) is a tufted pubescent shrub getting up to 16 inches tall. Stems become rigid with age. The yellowish-green leaves with red margins are opposite and slightly cylindrical. Many flowered; blooms are yellow — rosy at the petal tips.

Cotyledon barbeyi (formerly *C. wickensiz*) from Transvaal and Zimbabwe, was originally named after a local gardener in the region. It is a tall plant, reaching up to six feet with smooth stems, bluish-gray, almost white, lanceolate leaves. Inflorescence is orange to deep red and multi-branched.

Cotyledon papillaris is from Little Karoo. A variable species, it grows several delicate, slender and decumbent branches and has dark green linear lanceolate leaves and a frost-like with red margins. Few flowers are reddish to greenish-yellow in color.

Cotyledon tomentosa subspecies *tomentosa* (one of two subspecies) is a much branched subspecies with green downy-soft haired oblanceolate leaves with three to five, or more teeth on the tip.

Cotyledon tomentosa subspecies *ladismithiensis* is little branched with larger, almost cylindrical leaves which are covered with matted wooly hair. It is known in the trade as *Cotyledon ladismithensis*. A nice variegated yellow form is available occasionally, but is delicate and falls apart readily when handled.

Cotyledon adscendens grows like a shrub up to six feet tall; little branched with an interesting deep red margin almost around the whole leaf. Inflorescence a thyrse with few flowers — a orange-red corolla. Scarce in nature, and rare in cultivation.

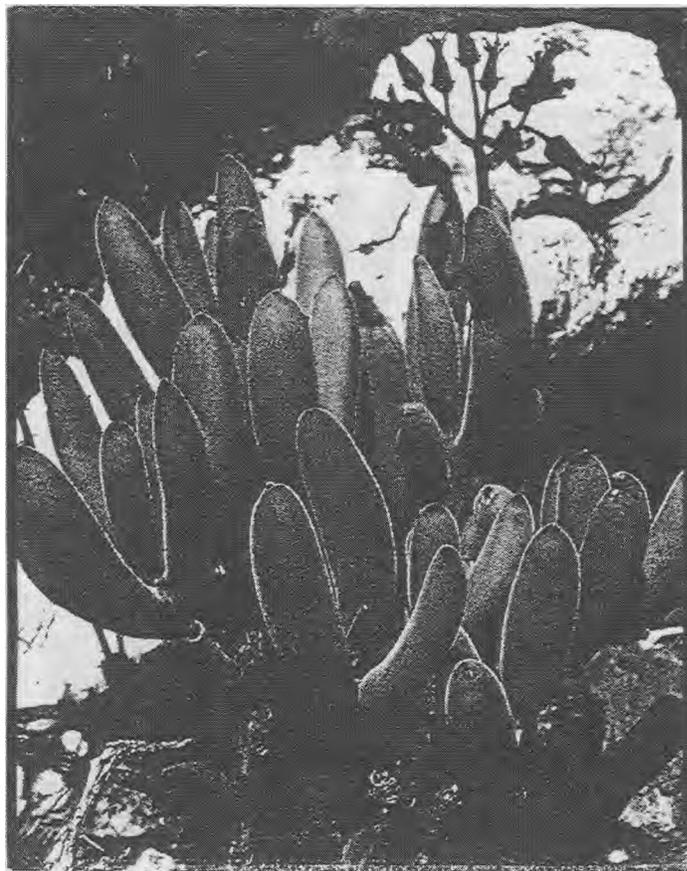
Recently a tenth taxa was described by van Jaarsveld in *Bradleya* 15/1997. It is *Cotyledon eliseae* named to honor Elise Bodley, a talented South African botanical artist. *Cotyledon eliseae* is an attractive small rounded succulent that has been found growing on steep quartzite sandstone on the cliff faces in the Little Karoo. It flowers there in mid-summer with a long compound inflorescence of orange-red. It is readily distinguishable from *Cotyledon woodii* by its sticky leaves and its dwarf stature rather than sprawling growth.

There were well over thirty cotyledons originally, but as you see many have become tylecodons. Some nurseries still prefer to use the original genus. Just yesterday I found *Cotyledon sinus-alexandri* (Now, if you can imagine, lumped under *Tylecodon shaeferianus*!) at a nearby nursery. It is a tiny, branching gray stemmed plant with small (up to 1/2 an inch) apple green leaves that fall off if you look at them. I also came across *Cotyledon buchholziana* which is now *Tylecodon buchholziana*, a most appealing dwarf shrub whose light green oval cylindrical leaves dot the thick gray-tan stems with interesting scars. This plant is deciduous in our summer So, give it a rest during its dormant period by

keeping it in a protected area and not watering. Resume regular watering in the fall. The erect flowers are pink-violet in a terminal scape — quite unique and collectable.

Tylecodon paniculatus, formerly *Cotyledon paniculata* and *C. mollis* is another favored holdover. Deciduous leaved and trunk forming, it is known as the "Botterboom" translated the "Butter Tree", because its trunk can be sliced as easily as butter. It drops and renews its foliage as much as three times a year. Reportedly it can even take a little frost. This species grows into a large shrub, up to six feet tall, with very thick soft stems which are covered with a papery yellowish bark. Rosettes of the fleshy leaves fall before the brick-red nodding flowers appear.

Tylecodon wallichii's most notable feature is that the leaf bases persist and form nice knobs on the trunk — very interesting indeed. This species used to be called *Cotyledon wallichii*.



Small plant of *C. tomentosa* ssp. *ladismithiensis* SW of Rooinek Pass with flowering nearly over. Leaves turgid after good rains,

If you are looking for other cotyledon friends, look for and ask for tylecodons. The *Adromischus* closely related, and once lumped with cotyledons, should cause no difficulty, since they were placed in their own genus in about 1852. This is a charming little group with hard usually tough perennial leaves — not to be missed.

Cotyledon culture is fairly simple with the exception of knowing when to withhold water during the dormant periods of various species. Some species are pulverulent and therefore you need to avoid overhead watering which washes away the desirable powdery surface; withhold touch as well as it mars the surfaces. Propagation is by stem cuttings, leaf or seed. Enjoy!!

References:

Tolken, Flora of Southern Africa, volume 14, 1985; Crassulaceae by H.R. Tolken, Botanical Research Institute, Republic of South Africa.

Alfred Byrd Graf, EXOTICA 3, c.1963, Roehrs Company Publishing.

Doreen Court, Succulent Flora of Southern Africa; c. 1981, A.A.Balkema Publishers.

Werner Rauh, The Wonderful World of Succulents; c.1984, Smithsonian Institute Press.

Ernst van Jaarsveld and Daryl Koutnik, Bradleya 15 / 1997: *New Cotyledon and Tylecodon Species From the Cape Province*.

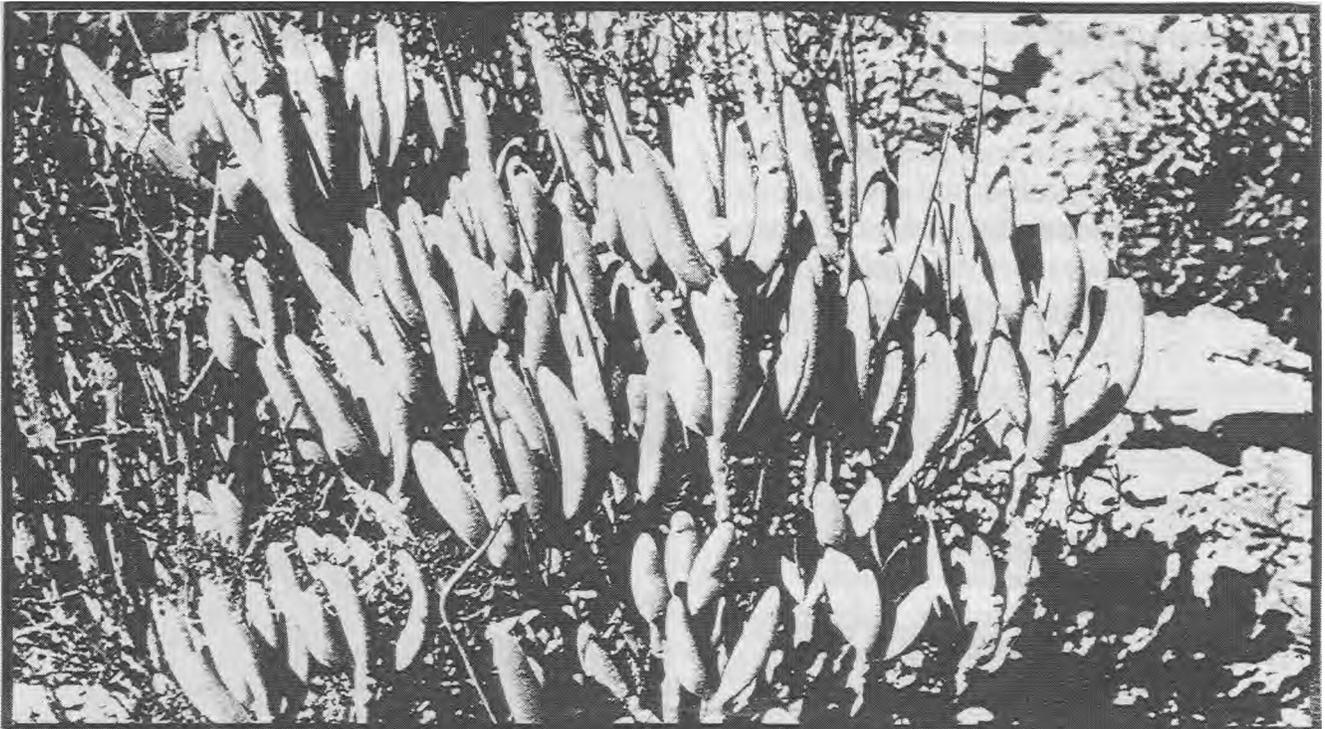
Maurizio Sajeve & Mariangela Costanzo, Succulents - The Illustrated Dictionary, c. 1994.

For further research and documentation on cotyledons refer to:

Tolken, H.R. 1977a. A revision of the genus *Crassula* in southern Africa. *Contrib. Bol. Herb.* 8.

Tolken, H.R. 1977b. New taxa and a new combination in the genus *Cotyledon*. *Bothalia* 12 (2): 191-194.

Tolken, H.R. 1985. Crassulaceae in O.A. Leistner, *Fl. southern Afr.* 14. Govt. Printer, Pretoria.



C. tomentosa ssp. *ladismithiensis* Large plant about 50 cm diam. on steep north-facing shale slope. SW of Rooinek Pass. flowering sparsely. Oct. 1987.

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CONDENSED MINUTES OF THE GENERAL MEETING OF SAN DIEGO CACTUS AND SUCCULENT SOCIETY

FEBRUARY 14, 1998

The meeting was called to order at 1:10 p.m. in Room 101, Casa del Prado, Balboa Park by Tom DeMerritt, President.

After the pledge of allegiance, the following announcements were made:

Tom DeMerritt advised that Anne Shein's husband recently passed away. He also advised that Chuck Hansen, one of our members, has been ill and that a card is available on the reception table for members to sign.

Michael Buckner mentioned that Joe Wujcek, another member of our Club, recently had heart surgery and that a card for him is also available for signatures.

Michael advised that bus trips are being planned for this year and that trips currently being considered are the Anza Borrego Desert either in April or May, the CSSA Show and Sale which will be held July 11 and 12, and perhaps a trip to the Inter-City Show and Sale in August if there appears to be enough interest. A trip to Lotusland is also being considered for later in the year. He advised that these will be one-day trips and that the cost would probably be between \$25.00 and \$30.00 per person. Sign-up sheets would be distributed during the meeting to determine the members' interest.

PLANTS OF THE MONTH / BRAG TABLE Tom DeMerritt complimented Ric Newcomer on his outstanding collection of Pediocactus and Sclerocactus which he brought in and discussed for the Cactus of the Month. The Succulent of the Month, Fouquieria fasciculata, was presented by Tom Birt. The Bragging Table was conducted by Michael Buckner.

Tom DeMerritt pointed out the excellent display of Benefit Drawing plants and urged the members to purchase tickets.

Following the refreshment break, tickets were called for the Benefit Drawing.

PROGRAM Kelly Griffin introduced Duke Benadom, a long-time member of our Society, who gave a slide presentation on his trip to South Africa in 1996.

There being no further business, the meeting was adjourned at 3:35 p.m.

Beverly Kirkegaard, Recording Secretary

THE VOLUNTEERS AT THE WILD ANIMAL PARK NEED YOUR HELP.

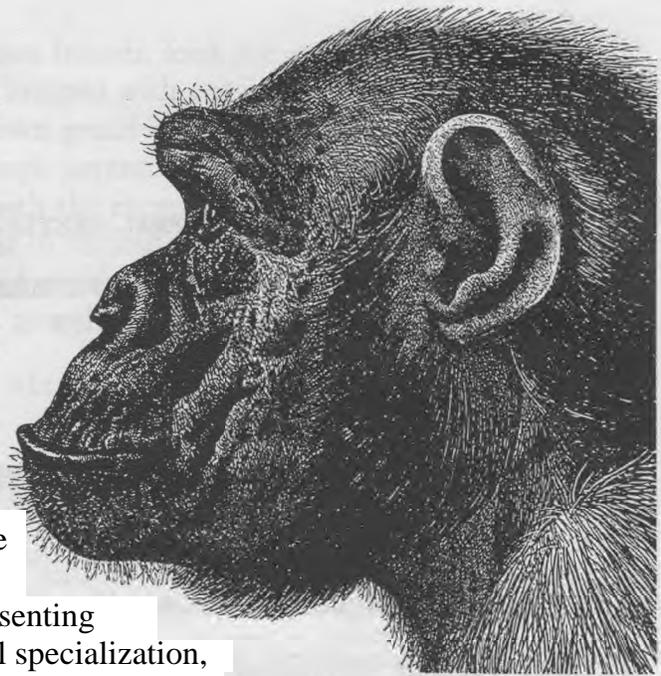
Come out and give a hand with the Baja Collection and the Old World Succulent garden. The volunteers are going to be planting out in the gardens and refurbishing the greenhouse. There is quite a list to choose from. If you can spare some time at the Park please call Joey at 619 569-8510.

Spend the afternoon.
You can't take it with you.

— Annie Dillard

WISE AND OTHERWISE

by Michael Buckner



I do not consider the tuberous plants that we call caudiciforms to be succulent. I regard tuberous plants and succulent plants as representing two entirely different kinds of morphological specialization, having arisen from independent lines of evolution. A tuber is a starchy food-storage organ (in different plant groups derived from root tissues stem tissues, or both) from which herbaceous shoots arise in the growing season. A stem-succulent has mucilaginous water-storage tissues in the stems, which are enlarged to accommodate the extra volume of the storage tissues.

Not only are tuberous plants and stem-succulent plants different in structure, but they differ also in their mode of ecological adaptation. Both represent adaptations for surviving unfavorable seasons, in most cases a long dry season. Succulent plants can survive long periods of drought because the stored water prevent desiccation of the tissues (assisted by anatomical and physiological features that need not be detailed here). Tuberous plants, however, are drought evaders. The shoots die during the unfavorable season and new ones grow each year, at the expense of some of the food stored in the tuber.

L. E. Newton, *On the Evolution of Life Forms* - Asklepios 26, September 1982.

Cacti differ from other desert plants in another way. They tend to open their stomates at night and close them during the day. This behavior is characteristic of plants with Crassulacean acid metabolism (CAM). The name for this type of metabolism derives from the observation reported in 1815 by Benjamin Heyne that during the night large quantities of organic acid accumulated in the succulent leaves of *Kalanchoe calycina* (= *Bryophyllum calycinum*), a species of the Crassulaceae (the stonecrop family). Heyne did not perform a highly sophisticated scientific experiment — he simply took bites out of his succulent plants at various times. He found that the leaves of the *Kalanchoe* were very acid in the morning and then lost their acid taste during the daytime, only to regain acidity by the next morning. Nighttime CO₂ uptake, another salient feature of CAM, was first reported in 1804 by the French chemist Th. de Saussure from observations made on darkened pads of *Opuntia*. But the casual relationship between nocturnal uptake of CO₂ and the manufacture and accumulation of organic acids was not realized until the middle of the twentieth century. Moreover, only very recently have scientist begun to understand the ecological importance of CAM, which is now known to occur in over 20 families of land plants. This metabolic trait is a very special adaptation, because most plants, including the leaf-bearing pereskias, fix carbon dioxide only during the daytime.

THE CACTUS PRIMER by Arthur C. Gibson and Park S. Nobel, 1986, Harvard University Press, Cambridge, MA.

If you think you are too small to be effective, you have never been in bed with a mosquito.

— Bette Reese

Many collectors are not too familiar with the segregate, *Stenocereus*, being used to the now generally discarded name, *Lemaireocereus*. The reason for this name change is that *Lemaireocereus hollianus*, which Britton and Rose selected as the type of their genus, *Lemaireocereus* (an unfortunate choice since it is certainly the least typical of the assortment of plants relegated by them to that genus), has been shown by Buxbaum to belong more comfortably in the genus *Pachycereus*. Thus *Lemaireocereus* becomes a synonym of *Pachycereus* and the other species formerly referred to by that name needed a new designation. The second oldest name, *Stenocereus* Riccobono, thus becomes, according to the International Code of Botanical Nomenclature, the valid name for these former lemaireocerei.

Charles Glass & Robert Foster, **STENOCEREUS Riccobono**, *CSSA Journal*.



The trouble with being in the rat race is that even if you win, you're still a rat.

— Lily Tomlin

We do not expect to find crystal of silica, SiO_2 , in plants, because silicon is not generally cited as a crucial element in plant metabolism and because SiO_2 is very insoluble in water. Nevertheless, some plant species are able to accumulate silica in their tissues. In the wet tropics certain woods contain crystalline deposits of silica, presumably where locally high levels of silica in the water are passively concentrated and then precipitated. Horsetails (*Equisetum*), also known as "scouring rushes," actively encrust the cellulosic cell walls of the outer stem with silica, an arrangement that makes them rigid. But probably the most exciting cases are where species actually build a silica body as an amorphous, opallike crystal within the cell. These structures are called silica bodies.

Silica bodies have been observed in over 20 plant families, including the palms (Arecaceae), grasses (Poaceae), sedges (Cyperaceae), gingers (Zingiberaceae), bananas (Musaceae), and rapateads (Rapateaceae). In 1975 the Cactaceae were added to this list when Arthur Gibson and Karl E. Horak discovered silica bodies in the skin of certain Mexican columnar cacti. Eventually it was found that silica bodies occur in all species of *Stenocereus*, a genus centered in Mexico. To date no other cacti have been shown to have silica bodies.

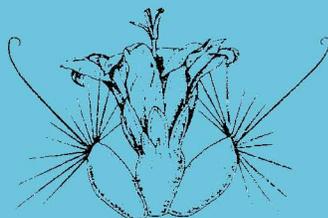
Because silica bodies are hard and indigestible structures, they may protect the plant against foraging by larvae of insects with chewing mouth parts. This hypothesis, though reasonable, is untested.

THE CACTUS PRIMER by Arthur C. Gibson and Park S. Nobel, 1986, Harvard University Press, Cambridge, MA.

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