

The San Diego Cactus & Succulent Society's Annual Show & Sale

Saturday, June 5 (9:00am to 5:00pm) and Sunday, June 6 (10:00am to 4:00pm)

Yes, we know that normally our May issue of *Espinas y Flores* is also the June Show issue, but this year the editors have not received a show schedule for inclusion in this issue. Hopefully, they will get one in time to be printed before the May 8th meeting, so that show schedules will be available at our meeting, as well as show entry labels. This year a special June Show issue of *Espinas y Flores* will be mailed to all members and interested parties about a week after our May meeting. If you are not a SDC&SS Member but wish to be sent a June Show & Sale Schedule and *Espinas y Flores*, please contact: **Joey Betzler @ (619) 569-8510.**

Our June Show is an open show, meaning that you need not be a SDC&SS member in order to show plants. Show entry labels come in three colors: Green for novice; Yellow for Advanced (exhibitors who have won 10 or more blue ribbons); Blue for Open (commercial growers and experienced exhibitors who want to compete with the pros!). In addition to showing individual plants, there are several other specialty categories for: Collections, Exhibits, Arrangements, Dish Gardens, Miniatures, Photographs, and Artwork. This year we are honored to have four very distinguished & knowledgeable judges: **Miles Anderson** from Miles' to Go Cactus Nursery in Tucson, AZ, **Woody Minnich** from Cactus Data Plants in Littlerock, CA, **Larry Grammar** (plant stager extraordinaire), and **Charles Spotts** (professor, collector & *Opuntia* expert). For more information regarding the show, or to reserve extra space for a large number of plants or an exhibit, please contact Show Chairperson, **Tom Knapik @ (619) 462-1805.**

Show set-up is Friday, June 4th from 12:00noon til 9:00pm only. Judging will begin at approximately 7:30am on Saturday, June 5th and should be completed by 12:30pm at which time the show doors will open. **Kay Quijada @ (619) 282-5919** is the Head Clerk; if you would like to volunteer to assist as a clerk or tabulator, please contact her. She may still have need of a few more helpers. **Pam Badger @ (619) 589-1223** is responsible for the Judge's Lunch; if you have something special & delicious that you would like to bring in, or if you would be willing to assist with the serving and/or clean-up please contact her. **Elizabeth & Wilbur Glover @ (619) 264-6769** are responsible for Show Security and operate a "Park-Your-Plant" booth just outside of Room 101 for holding the purchased sale plants while the owners go in to view the show. **ABSOLUTELY NO PLANTS SHOULD BE GOING IN OR OUT OF ROOM 101 AT ANYTIME DURING THE SHOW!** If you would like to volunteer to assist with show security, either inside Room 101 or at the Park-Your-Plant booth please contact Elizabeth or Wilbur.

Plant Sale begins at 9:00am on Saturday, June 5, and runs through 5:00pm. Show & Sale hours for Sunday, June 6, are 10:00am to 4:00pm. There will be a wide variety of plant vendors & ceramists. This is truly the largest group of cactus & succulent growers from all over California, Arizona, and points beyond that you will find at any Southern CA Show. If you have been looking for something special and rare, this is where you'll find it! And, of course, **Rainbow Gardens Bookshop** will be offering the very latest and best in succulent publications. Plant Sales Chairperson is **Tom Birt @ (619) 452-0389**; if you wish to sell plants or a cactus & succulent related item at our sale, contact Tom immediately - May 15th is deadline for vendor sign-up. If you can assist with the show sale by helping with table set-up and/or breakdown, security, answering questions and providing appropriate care & culture information, cashiering, etc., please contact Tom. For general show info, directions, clarifications, you may contact the editors, **Michael & Joyce Buckner @ (619) 477-4779.**

The June issue will have all show & sale information, a show schedule, a show poster which we are asking all members to post at their work, school, business or some other public place, tips for showing plants, a SDC&SS membership application, a 1999 calendar of events, cactus & succulent care instructions, and a SDC&SS Historian's photo presentation of some of the events that we have been involved with over the past couple of years: EarthFair, the Del Mar Fair, Lotus Land, Winter Mini-Show, Field Trips, etc.

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

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Publication deadline for July Issue is Saturday, June 5, 1999.

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PROGRAM FOR MAY 1999

COPIAPOAS IN CULTIVATION

by Ric Newcomer

When I was asked to do a program, it did not take long for me to come up with a topic, "*Copiapoas*" ---- and let's do a hands on with slides, plants and discussions. But I would need help on this, so who would I go to ---- **Anne Shein**, of course. So up to Marina Marilyn and I went to spend 5 days in the beautiful country and with all of **Ann's** wonderful plants.

I thought it might be more interesting to interview her, so on went the recorder with **Ann**, Marilyn and I sitting in the kitchen after lunch, talking ---- what else, *Copiapoas*!

R. When did you start collecting *Copiapoas*?

A. In 1968 I got my first *C. hypogaea*.

R. If you had just one species of *Copiapoas* to grow, which species would it be?

A. *C. hypogaea*, *barquitenis*, *marginata*. It's hard to choose just one, I like them all.

R. Which has given you the most difficulty in cultivation?

A. They all grow very well in this climate.

R. How do you handle root loss or rot.

A. Take the plant out of the pot, cut, clean well and apply Rootone. In 2 weeks, place on clean soil with top dressing, and water from the bottom. *Copiapoas* grow well from cuts, seedlings best. Not all have carrot roots and seedlings will root quickly.

R. This genus has over 50 names of species and varieties associated with it. How many species and varieties do you recognize.

A. This is hard to answer, many have been doubled up. I would have to go with Karl Knize since he is the source of seeds and plants today. His names are the most correct.

R. How do you water and how often.

A. With a heavy mist every 2 weeks starting in March.

R. How often do you fertilize and when do you start and end.

A. I fertilize when I water using a 20-20-20 fertilizer diluted.. I start in April through August.

R. Do you use trace elements of any kind?

A. No ---- the fertilizer provides enough.

R. Do you use it more diluted than the recommended dosage?

A. I use 1/8 the recommended dosage.

Copiapoas in Cultivation

Ric Newcomer

Program for May 1999

- R. Do you use a hose or a can to water and do you fertilize every time you water?
A. I use a hose with a siphon to mix the fertilizer and water from the sink and I do this every 2 weeks.
- R. Do you get any staining from overhead watering, many will not water white plants overhead.
A. It's OK to water overhead, even *C. krainziana*. It has never stained.
- R. How often do you transplant or change to a larger pot or change the soil.
A. Show plants ---- every 2 years, others as time permits.
- R. What is your opinion about plants without locality, date and age?
A. I like to know how old the plant is and where it came from if possible. Many times this information is lost.
- R. Have you done much hybridizing?
A. No, not in *Copiapoas*.
- R. How many species are you now growing?
A. Many! All that are available from seed.
- R. Have you seen *Copiapoas* in habitat?
A. No. But Rubin and I had planned to go to Chile this year, but not now.
- R. How do you see the future of *Copiapoas*?
A. *Copiapoas* are my #1 seller. People are crazy over them. I sell all I grow --- I can't propagate enough.
- R. Who else is growing *Copiapoas* the way you are?
A. No one that I know of.
- R. What book material is available today and which do you use as a reference.
A. Backeberg is a good source of information and so is Hoffman. I know of no new books that offer good information. "*Copiapoas in their Environment*" is good, but more of a travel guide to locations. Also there is *Plante Grasse* in Italian.

This concluded our interview with **Anne Shein**. It was wonderful to talk *Copiapoas* and learn from such a gifted and wonderful lady. Thank you **Anne**, see you soon. (And thank you you for the many plants!)

EarthFair 99 - Once again we had a very fun and successful day in Balboa Park. We had a spectacular display of plants and lots of volunteers to talk to people about succulents, their habitat & culture, and about our Society and its many activities and educational programs. And, of course, there were lots of questions with regards to care and appropriate conditions for the many many various species of cacti & succulents being offered. Special recognition and a great big thank you to volunteer **Susan Hopkins**, who was the first to arrive and one of the last to leave; she was there all day helping with everything from hauling plants to setting up the shade tent (We'll get it right next time!). Special thanks also to hard-working volunteers: **Lee Badger**, **Jeff Harris**, and **Tom DeMerritt** who also spent their entire day hauling tables, cashiering, and assisting people with plants. Thanks also to **Sara Schell** who came in to relieve several various positions and helped with the breakdown. This is always the hardest part of the day when we are all tired! (*Editor's note: . . . Hot, slightly scorched, and well-spined might be a more accurate description!*) We had five vendors participate this year which made for a wonderful selection for all of our visitors and brisk business for the SDC&SS. Thanks to **Phil & Nubia Bunch**, **Betty Athy**, **Ester Avery**, and **Gary Noel** for all your help in setup and clean-up. And, of course, **Michael & Joyce Buckner** who brought so many fantastic plants. It was a fun day and good to have other members come by and lend a helping hand, or just say Hi! Many thanks to all participants,

PAM BADGER, EARTHFair CHAIRMAN

Thank you! Pam!! For making all of those terrific sandwiches. They were greatly appreciated by all of us, and we could never have made it through the day without all those cold drinks!

Letters . . . We Get Letters . . . We Get Lots & Lots of LETTERS!!

"I was given a copy of your excellent newsletter, *Espinas y Flores*. I am hoping you can help me. I am trying to collect all the species of cactus that are native to California. I am looking for these seven species of *Opuntia*:

Opuntia engelmanni, *O. ficus indica*, *O. fragilis*, *O. littoralis*, *O. oricola*, *O. pulchella*, *O. wolfii*.

I am also looking for *Escobaria vivipara* (syn. *Coryphantha*) and the following three varieties of the same species:

Escobaria vivipara var. *alversonii*, var. *deserti*, and var. *rosea*.

There are three California native species of *Mammillaria*: *Mammillaria dioca*, *M. milleri*, and *M. tetrancistra*.

And two species of *Sclerocactus*: *Sclerocactus johnsonii* and *S. polyancistrus*.

As you are aware, there have been a number of cactus name changes in recent years. I am using the latest name changes in the **Jepson** manual. I am hoping that you or some of your members can help me obtain these cacti. Smaller specimens would be fine, especially if this would help to reduce my costs. I would be happy to drive down and pick up the order if they can be obtained. Please let me know if you can help. Thank you,

Monroe Polk, 13953 Cronese Road, Apple Valley, CA 92307 phone (760) 946-1729."

(*Editor's note: Well, Monroe, we are certain that you will be getting several calls with regards to some of these species. We recommend that you attend our June 5 & 6 Show & Sale in Balboa Park, where many of these species will be available from several of our vendors. Make arrangements to meet those that do contact you at Balboa Park during show time. That way you will be sure to leave with most of your order filled. Good luck and we'll be seeing you, M & J Buckner*)

And Another Letter . . . From an Old Friend: Alfred Lau!

We will quote a small part: "I would love to re-visit my *Matucana huagalensis* in the Amazonas of Peru, as almost all have the wrong plant in their collections. And there are other mysteries: The *Neobuxbaumia* from Teotila in Oaxaca, the *Euphorbia* from the Sierra de Salamanca in Tamaulipas, that Charlie Glass was so interested in, the *Ferocactus* from the canyon towards Dulces Nombres in Nuevo Leon. . . . Anni [Alfred's wife] came to visit me in December, and we had a grand time together. . . . The weather was benign, and I took her to my rain forest trail near Pueblo Viejo which I established with the help of Marcelo Bul, a Mopam Mayan who studied in our home for years until his father was murdered, and he had to return [to Belize]. We also would like to establish a botanical garden here. Alas, only epiphytic cacti. Last week the transmission of my Chevrolet station wagon (Suburban) broke down, and I had to sleep in the car on a smuggling route to Guatemala, where bandits abound. Not a comfortable situation. Now I cannot drive tourists around to tour the rainforest, which gave me a meager income. Tomorrow they will pull out the transmission to see whether it can be repaired."

(*Editor's note: If you would like to write Alfred Lau, we are sure he would love to hear from you. He has knowledge of plants and places that most of us cannot even imagine! Alfred, we send you good thoughts and hope you remain strong and in good health. If you have a special interest in a Mexican, Central America, or South American endemic plant, why not write to him? Ask him questions! You just may be very pleasantly surprised with his eloquent informative answers. He is a tremendous botanical resource and will gladly share his knowledge for a bit of communication. If you want him to write back, please send him a couple of dollars for the postage; his finances are limited. Alfred's address is: c/o Abraham Dueck, P.O. Box 427, Belize City, BELIZE C. A.)*

Thank you Marilyn Newcomer for bringing - Long Distance - all those beautiful Notocactus Show Plants. And a special thanks to Marilyn's assistant, **Ric "Vanna" Newcomer**, for displaying and lifting all of those wonderful specimens. We are very lucky to have such enthusiastic and knowledgeable members.

Just a word regarding **Show Etiquette or Plain Old Good Plant Manners: One should never - EVER - touch, pick-up, groom, move, or attempt to pack someone else's plants without the owner's permission. Be it the show plants inside or the sale plants outside, chances are that the plant's owner has his or her own technique for packing and unpacking, displaying and moving their plants. If someone refuses your assistance, please leave them alone! And leave their plants alone! They are sure to get their task completed in better time and with better attitude without your Hoovering or unwanted assistance!** There now, I've said my peace!

Congratulations are in order to Deni & Steve Plath and the C & S Society of Southern Nevada!! We understand that the CSSA Las Vegas Convention went off well and without a hitch! Everyone we spoke to remarked about how well-organized and conveniently located everything was! . . . About how warm and helpful the Las Vegas people were! We heard much praise for the terrific art, giftware, and jewelry show & sale that was sponsored by the Las Vegas Society, as well as the wonderful variety of botanical T-shirts! Especially nice was the one with the Agave drawing by Steve Plath. **Good job! Deni!!** I'll bet you're glad it is over!!! The Next CSSA Convention: 2001 - Los Angeles, California.

May 6 - May 8: Art & Pottery Sale at Palomar College - San Marcos Campus, 1140 West Mission Road - Look for the Red & White Tent Next to the Theater. This sale is just in time for you to find that perfect pot for your perfect show plant! 9 am to 9 pm on Thursday & Friday, May 6 & 7; 9 am to 3 pm on Saturday, May 8. And while you are up there, stop by **Rainbow Gardens Nursery & Bookshop**; now through May 29 (peak blooming season for their wonderful epiphyllums) they are open Tuesday through Saturday from 9:30am to 4:00 pm without an appointment; 1444 E. Taylor Street, Vista, CA (760) 758-4290.

May 8 & 9: Mother's Day Guild & Garden Tour @ Quail Botanical Gardens - Two day event sponsored by Quail & the San Dieguito Art Guild: Spring flowers, Live Music, Art Displays - Offtrack Gallery; Docent Tours 10am, 11am, 1pm & 2pm. Mother's Day Luncheon Tea \$15; Dessert Tea \$10; Reservations (760) 436-3036.

May 9: Annual Mother's Day San Diego Epi Society Show & Sale - Casa del Prado, Balboa Park, San Diego. This year's theme is Ancient Civilizations. Show Chairman: Don Francis; Epi Society President, Phil Peck @ (619) 491-9495. WOW!! Have you seen the cover photograph on the April 1999 issue of *Epi News*? Totally awesome 3-D magic by George French!

May 15: Buds 'n Blooms Community Information Day in Balboa Park - There will be information booths and plant sales by many of the various garden clubs and plant societies that are members of the San Diego Botanical Foundation.

May 15: Grand Opening "Hose-Cutting" Ceremony & Reception Water Conservation Garden @ Cuyamaca College. This exciting new demonstration garden is located at the entrance of the Cuyamaca College Campus; info: Jan Tubiolo @ (619) 670-2290; website @ www.thegarden.org. Docent program please contact **Dorcas Utter @ (619) 448-1915**.

May 15: Quail Botanical Gardens - Gourd Art Class 9:30am to 3:30pm; cost \$45 includes materials. **The Healing Power of Herbs** lecture & herbal walk 10am to Noon; instructor Luna Rose, nurse; cost \$25. Information: (760) 436-3036.

May 15 & 16: Huntington Botanical Gardens Annual Plant Sale - Members only on 15th; 10am to 4pm; (626) 405-2160.

May 22: Spring Plant Sale at Quail Botanical Gardens - 10 am to 4 pm. A special \$3 admissions fee. Local vendors will show off their spring blooms and other plants. Information: (760) 436-3036.

May 29: Palm Sale at Quail Botanical Gardens - 9 am to 4 pm; free with garden admission.

June 19 & 20: Herb Festival 1999 at Quail Botanical Gardens - 10 am to 4 pm. There will be lectures and herb walks. Admission to the Herb Festival free with garden admission. Call (760) 436-3036 for schedule of speakers and details.

June 19 & 20: Los Angeles Cactus & Succulent Society First Annual Show & Sale - Sepulveda Garden Center, 16633 Magnolia Blvd, Encino. For Information call **Mary Weld @ (310) 455-1176**.

July 3 & 4: CSSA Annual Show & Sale @ Huntington Botanical Gardens, 1151 Oxford Road, San Marino. Set-up Friday, July 2; any member of a CSSA affiliated society is welcome to show; (626) 405-2160 or 405-2277. For information regarding plant sales contact **Jim Hanna @ 562-920-3046** or Joe Clements (909) 624-2282.

August 14 & 15: The 14th Annual Inter-City Show & Sale at Los Angeles County Arboretum - "Color Me Cactus ~ Color Me Succulent." For an Inter-City Show Newsletter & Show Schedule contact **Carol Wujcik @ (714) 963-3146** - email: cawujcik@aol.com. Show or sales information contact **Woody Minnich @ (805) 944-2784** or **Dick Hulett** email: [<airolbatic@aol.com>](mailto:airolbatic@aol.com). Don't miss Sat night banquet & plant auction! Walk & Talks: Sat 11am - Gene Joseph; Noon - Tom Glavich; 1pm - Bill Hagblom - Red, White & Pink Adeniums; Bill Baker & Joe Clements - Color your Landscape; 3pm - Joe Stead - Propagation. Sun: 11am - Miles Anderson "Color Them Grafted"; Noon - **Michael Buckner & Woody Minnich** - "The Color Blue" Trophy Table; 1pm - **Michael & Joyce Buckner** "Color in a Bowl"; 2pm - **Rudy Lime** "Color him SMOLA".

The Genus *Sulcorebutia*

Cactus of the Month Article By Jeffrey Harris

Sulcorebutia is a genus of cactus that is diminutive (perfect for small gardens), wonderfully varied in spination, and flowers in shades of purple, yellow, red, and orange. *Sulcorebutia* was set up as a genus by Curt Backeberg in 1951; it included species which were formerly classified as belonging to *Aylosteria*, *Rebutia*, and *Weingartia*. There are at least forty species described, and at least eight of those species contain a number of varieties and/or forms. Additional species are still being described. The publication of a new book by Willi Gertel and Karl Augustin and other papers devoted solely to *Sulcorebutias* are to be published later this year, and will hopefully clarify many species, variety and form questions.

The description of the species *Sulcorebutia steinbachii* clearly illustrates the problems in naming a new species. Ken Preston-Mafham, in his book CACTI AND SUCCULENTS IN HABITAT writes that on the road from Cochabamba to Chapare at 11,800 feet, *S. steinbachii* has its most variable population: plants with flower colors ranging from pure yellow (described by some as a separate species) to orange, red, and purple, as well as bi-colored forms were observed. A short distance away, a pure magenta-flowered *Sulcorebutia*, considered by some to be a form of *S. steinbachii*, is found. However, in cultivation this magenta-flowered species is known as *Sulcorebutia glomerispina*.

Their Natural Home - All species of *Sulcorebutia* come from Bolivia, and all described species, save one, come from the Departments of Cochabamba, Chuquisaca, Potosi, Oruro, and Santa Cruz which are all states in south-central Bolivia. The lone exception, *S. tarajensis*, was discovered in an area some six hundred miles south of the major *Sulcorebutia* area, near the border with Argentina, in the Department of Tarija. Why there is only one species this far away from the main population is the subject of much speculation.

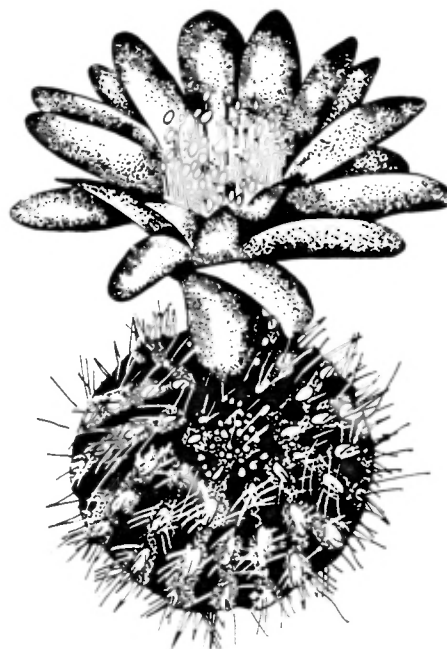
Sulcorebutias grow at altitudes of

5,000 feet to more than 13,000 feet on the eastern slopes of the Andes Mountains. Most of the species are subjected to bright sun and unrelenting ultraviolet radiation, as there is little to hide under on these rock-strewn hillsides and valleys. They are also exposed to an occasional frost or freeze during the Bolivian winter months of July and August.

Unlike their cultivated relatives, *Sulcorebutia* in the wild have more spines, because they need protection from high altitude solar radiation, and mauling goats and other ungulates that want to eat them! In habitat a number of species are solitary or put forth fewer heads than their cultivated kin, as they are not fed and watered as well. In nature they are often difficult to find when not in flower, as they tend to hug the ground, leaving the bare minimum of body exposed to the elements.

While most *Sulcorebutia* live under generally arid conditions, *S. tiraquensis* lives in one of the wettest areas inhabited by any cactus, the slopes above the Tropical rain forest of the Yungas.

(sül-kō-rē-bōōt-i-ä)



Sulcorebutia tiraquensis

Cactus of the Month: *Sulcorebutia* by Jeff Harris: Cultivation

Soil Mix: In my preparation for this article, I have corresponded with lovers of *Sulcorebutias* in Pittsburgh, PA, in England and the Netherlands. All of these growers have hundreds of *Sulcorebutias* in their respective collections, and they all point out that *Sulcorebutias* require no special soil mix. Species of *Sulcorebutia* are reportedly just as happy in a peat-based mix as they are in a commercial cactus mix. A common point was that whatever mix is used must allow the soil to drain and the roots to breathe. My mix consists of 50% Supersoil and 50% pumice, with an additional portion of granulated decomposed granite thrown in to improve drainage and add minerals to the soil. The key to successful *Sulcorebutia* cultivation is to allow room for their roots to grow and adequate air circulation for the roots. Many *Sulcorebutias* have a napiform main root and minute feeder roots, so allowances in pot size must be made for these.

Watering and Fertilizing: In San Diego, *Sulcorebutias* can be watered during all seasons, and they seem to respond well to this type of regimen. They do have a winter dormancy, like other cacti, and they also enjoy a resting period when the weather is hottest, from July to September. Light watering or misting is recommended for the winter and summer dormancy periods. During the rest of the year, depending on your local cultural conditions, watering between one to four times a month should be adequate.

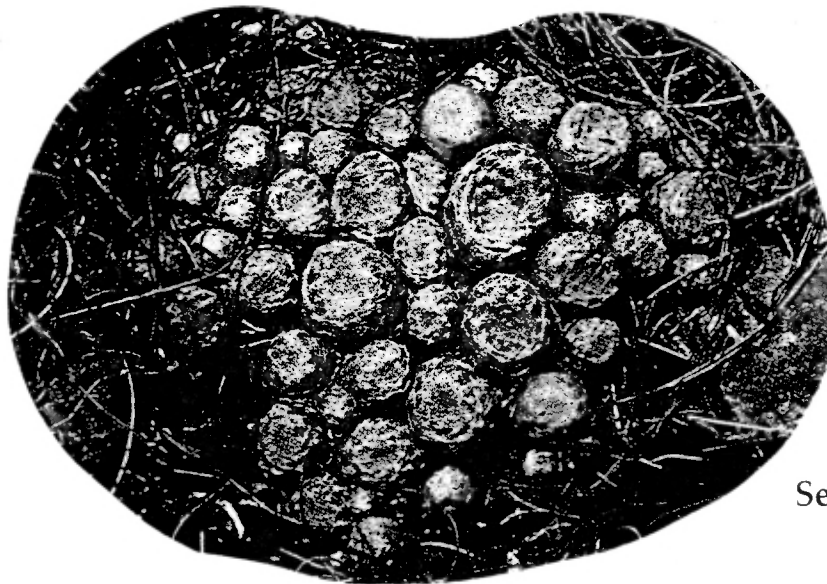
When *Sulcorebutias* are in active growth, a low nitrogen-containing fertilizer will be helpful for plant growth. Remember it should always be diluted. I use regular Miracle-Gro, diluted to a 1 to 10 ratio. When flower

buds begin to appear, I add a bit of Bloom fertilizer to the water.

Light Requirements: The amount of light for a healthy *Sulcorebutia* depends on the species. The more spinaceous species (such as: *S. glomeriseta*, *S. krugeri*, *S. vasqueziana*) can take full sun. The less spinaceous species (such as: *S. frankiana*, *S. menesesii*, *S. rauschii*) should be given, at the most, partial full sun exposure. They all live well and prosper in an area where bright, indirect sun is available. It is well worth remembering how these plants survive in their natural habitat, only the heads are exposed to the sun, and the rest of the body is below ground. As with all cacti, good air circulation helps ensure healthy plants. Particularly when the temperature is very hot, circulating air can greatly contribute to the health of a plant.

Pests and Diseases: Both regular mealy and root mealy bugs find *Sulcorebutia* a particularly tasty target. Regular use of the mealy killer of your choice will eliminate this pest. Spider mites can also be a problem; the use of a strong mist nozzle on a hose, sprayed a few inches away from the plant will eliminate this pest for awhile. Hopefully, the mites will be too feeble to climb back on the plant.

Sulcorebutia suffer from no particular disease, although special care should be taken when they are repotted. The heads and roots break off easily. So, the use of a rooting hormone which usually also contains a fungicide, is recommended if any roots or heads are broken during the repotting procedure. The heads then can be repotted; *Sulcorebutia* cuttings root easily, in my experience.



Sempervivum
arachnoideum L

Succulent of the Month: *Sempervivum* By Nibby Klinefelter

The sempervivums are sturdy members of the Crassulaceae family, found growing in the mountainous regions of Europe, Morocco, Russia, and Iran. They are stemless rosettes, a form allowing maximum surface for photosynthesis in minimum space. The low-growing plants with hairy leaves trap heat which helps them withstand the cold miserable mountain nights, even in altitudes up to 13,000 feet.

Their very name, *Semper* = always, and *vivo* = to live, describes their tenacity and endurance of great hardship. These evergreen perennials of tightly-packed leaves bear flowers of white, yellow, pink, red, purple and greenish colors on stout stems. Flowers are starbursts with a little coronet in the center, and mostly summer blooming. The main center rosette or “Mother Hen” will usually bloom in its third or fourth year. The rosette dies after flowering, but the offsets or “Chicks” will carry on.

Sempervivum rosettes come in a wide range of colors, from yellow-green, gray-green, to a brownish purple and even dark red. Some leaves are tipped with purple-red or a reddish brown margin, while the rosettes of other species, varieties and forms have a dark reddish purple or reddish brown center with green tips. Leaves may be quite smooth edged (entire) with the tiniest of teeth or fringed with fine hair. For all these beguiling details, it is well to use a magnifying glass. The diameter of rosettes range about $\frac{1}{4}$ of an inch up to as much as seven inches.

Praeger’s monograph (1932) on this genus seems to be everyone’s starting point. He listed 23 species which included the five species of *Jovibarba* that are now generally accepted as sempervivums. The only difference between *Sempervivum* and *Jovibarba* seemed to be the respective number of flower petals. According to Ray Stephenson’s **SEDUM CULTIVATED STONECROPS** (1994) *Jovibarba* flowers are 6-partite to 7-partite, with erect fringed petals (not entire) and quadrate nectaries; flowers are bell-shaped rather than stellar. Whereas *Sempervivum* flowers are 8-partite and 16-partite, with quadrate nectaries. Praeger was quite rigid about hybrids and refused countenance of them. Claude Chidamiam in 1958 stated that there were 25 species, but felt that the actual number of species, subspecies, varieties, and forms was endless because of their proclivity for hybridizing in the wild and under cultivation.

Peter Mitchell, of the *Sempervivum* Society in England, spoke of the confusion and chaos of classifications in THE SEMPERVIVUM AND JOVIBARBA HANDBOOK (1973), "In some cases it is purely personal preference as to the name that a species, et cetera is known by." He lists 35 species, plus the five *Jovibarba*, admitting that this is an arbitrary number.

Sajeva and Costanzo in SUCCULENTS - THE ILLUSTRATED DICTIONARY (1994) still acknowledge the five species of *Jovibarba*: *J. alloinii*, *J. arenaria*, *J. heuffelii*, *J. hirta*, and *J. sobolifera* as a separate genus. However, most of the other books that I have consulted now list all of these species as sempervivums, and you will usually find them labeled as sempervivums in nurseries and plant stores.

Considering the subspecies, varieties, hybrids, cultivars, and mutations I am not able to provide an accurate count. Descriptions are loaded with nebulous terms: "sometimes, usually, often, seldom," etc. Helen Payne notes in her PLANT JEWELS OF THE HIGH COUNTRY (1972), "No one can be entirely sure of a plant which changes its color, form and size in different soils and climates, and under unsuitable conditions hides its characteristics."

Before I say enough of these difficulties, I would like to impart one more quote from Peter Mitchell: "As regards specific names, labels with synonymous names are legion in collections, while there are certain plants that have no right to the names under which they are usually known." I conclude that the specialists can wax very indignant, but then this is serious stuff!

Who can sort out all these enchanting changelings? Better, I say, to just enjoy. Sempervivums, as well as some species of echeverias, are commonly called "Hen & Chicks" in this country, because of the manner in which the offsets cluster around the main rosette. In Europe they are referred to as "House Leeks" as they can be found growing on thatched roofs in Ireland, Switzerland, England, and throughout the Scandinavian countries since Roman times. It was believed that they were a protection against lightning, and would also drive off demons. Helen Payne noted that growing sempervivums on the roof was very practical. "They broke the force of the rain, acted as insulators and helped hold the thatch in place."

Sempervivums, which were first described by Linnaeus in 1753, have been compared to everything from roses to cabbages and wild artichokes - something for everyone. Additionally, the juice of the leaves has been used medicinally as a cure for everything from fever to corns!

The most popular species is *Sempervivum tectorum*. *Tectorum* comes from the Latin word *Tectum* meaning roof. In the process of writing this article I have studied many photographs of *S. tectorum* and would like to note that each and every one of these photographs presents what appears to be a different species, or at least a different subspecies, variety, or form. Most certainly, *S. tectorum* is the main species referred to by the common name of "House Leek" and "Hen & Chicks." Green with purple to brown tips and strong offsets, they are the mainstay *Sempervivum*, and parent to many popular hybrids.

Helen Payne divides this cumbersome conglomeration of species into six informal groups: "Cobwebs" (*S. arachnoideum*); "Velvets" (*S. montanum*); "Tectorum" for smooth-leaved types; "Rollers" for chicks perched on top and ready to roll (*S. ciliosum*); "Those without Chicks" (*S. heuffelii*, *S. reginae*, *S. amaliae*); "Quilled" for hybrids such as Grigg's Surprise, Topsy Turvey, and Oddity. I would add one group: the "Ultra Stoloniferous" types which are like minute galaxies. Included in this group: *Sempervivum ciliosum* and its many varieties, a hybrid referred to as "Ashes of Roses", and a newly acquired opalescent specimen that so far remains nameless. Another species of special note is a compact hybrid of *S. arachnoideum* descent that has so many cobwebs over its pinkish rosettes as to appear icy - named "Shirley's Joy" (Mitchell).

***Sempervivum* by Nibby Klinefelter continued**

Culture: Sempervivums thrive in a loose, friable, well-draining soil with plenty of grit. A handful of bonemeal proves to be very beneficial. Grit which I define as anything from pumice, pulverized oyster shell to coarse sand, crushed eggshell, and horticultural charcoal, is a welcome addition to any soil high in humus, whether it be leafmold, compost, or well-rotted manure. To simplify, a formula that is half humus and half grit works best.

Most sempervivums prefer full sun, although in very arid and hot conditions some high shade is recommended. When repotting allow the roots a few days recovery time before watering. To avoid rot, do not plant too deep. There are certain species which are resentful of the excess water during winter rains, and will usually do better if kept fairly dry during this period.

Payne writes that fertilizer may be used sparingly, but experiment cautiously by spraying with a well diluted 5-10-10 about once a week in the spring until desired growth or color is obtained - then STOP. If this sounds a bit tricky - it is! Always note that when it comes to sempervivums and fertilizer there is always the danger of a plant losing its character.

Sempervivum heuffelii (syn. *Jovibarba heuffelii*) is the only *Sempervivum* which is known to be difficult to propagate, as it does not offset. To propagate it must be cut apart with a sharp sterile knife, leaving a portion of the large main root attached to each section. Dust the cut sides with a rooting hormone and fungicide. Let these pieces dry for several days before planting. (Who does this in the wild? By seed, of course!) This species will bloom without dying.

Do not judge sempervivums in the first year when they may appear flat. They may become cupped by the second year and domed in the third. The same species grown in different soil or getting a different exposure to sun and the elements may take on entirely different growing habits as it matures.

Sempervivums are relatively pest free, but be on the lookout for snails, slugs, and mealy bugs. Aphids and whitefly may sometimes attack, usually on the flowering stem - for this use a systemic insecticide.

In researching for this article I came across some comments on sempervivums made by **Floyd Gable** and published in my column "Nibby's Notebook" from the September 1973 issue of our own *Espinás y Flores*: "Floyd was enthusiastic about the wide range of colors - pinks, reds through lavenders and purple, all individual and different. Floyd's most colorful sempervivums were *S. atropurpureum*, *S. atroviolaceum heimlich*, *S. rubicundum* (very showy), and *S. sandfordii* - *S. Purdy's* 70-1 and 50-5 - magnificent hybrids. And the following *Sempervivum* hybrids also appeared on Floyd's most colorful list: "Rubra-Ray", "Carmen", "Engle's Rubrum", Wolcott's variety, and "Lavender & Old Lace." Please remember that this list was assembled over 20 years ago, and I'm sure that several of the above mentioned hybrids and/or their names have been changed or have disappeared. Just the same, this list may prove to be helpful when looking for some colorful sempervivums.

The last work on *Sempervivum tectorum* is from our own Roland Hoyt's **ORNAMENTAL PLANTS FOR SUBTROPICAL REGIONS** (1958). His remarks are of mixed moods, but end with this eloquent praise: "Lowly rosettes of sharp-pointed succulent leaves with hard unfeeling hide, stemless but throwing a stalk of showy clustered flowers of high decorative value - truly marvelous complications of delicate coloring - jade, shell pink, amethyst, rose quartz, the greens that come with oxidized copper and bronzy browns - a multiplicity of hybrids that usually work back to *tectorum*."

Paul Johnson

(1923 - 1999)

It is with great sadness that I report the death of a friend of mine, as well as a friend of the succulent hobby. Paul Johnson, at the age of 76, passed away on March 11th of invasive cancer. Many of you may remember Paul and his wife, Joan, who were members of our San Diego Cactus & Succulent Society for almost 25 years, when they were living in Fallbrook. Paul is survived by his wife, Joan, their children and grandchildren.

Paul and Joan made numerous excursions to Mexico, collecting plants while it was still legal, and meeting many of the important persons involved with cactus in that country. Their search for plants in the Yucatan region, described by Joan in the 1969 CSSA Journal, presented a vivid picture of the fun and excitement of plant hunting.

Paul took a responsible role in the Albuquerque CSSA Convention and the Denver convention (1989). He also took charge of the plant sales of the San Diego Club's Annual June Show for many years.

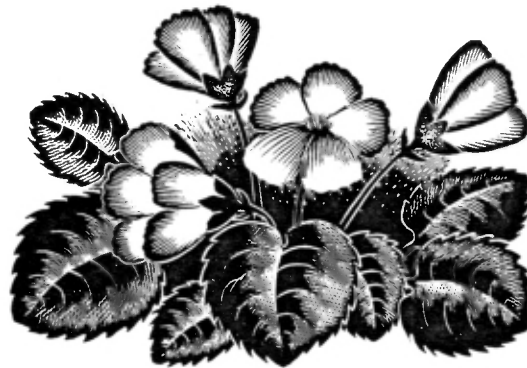
Paul's humor, knowledge, and dedication to this hobby can be found in his articles in our Cactus and Succulent Journal. In volume 54 (1982), Paul and Joan wrote a tribute to their friend, Dudley Gold, an important discoverer of new species of cactus, and one for whom many plants are named.

Another article in volume 58 (1986) of our Journal, Paul explained the purposes of the CSSA and its importance to hobbyists and scientists alike, increasing the interest and knowledge about these plants and supporting scientific research in this field.

Perhaps best remembered is Paul's humorous article in the 1986 Journal entitled "Cactus Spouses Anonymous" along the lines of ". . . He also serves who only stands and waits." This was directed to the patient spouses who aid and abet their mates' participation in this hobby, even to attending conventions.

Paul and Joan were dedicated to this succulent hobby as their outstanding collection of beautiful plants reflected. Moving their collection to Albuquerque ten years ago was a Herculean task, and although they missed friends here, they enjoyed the new environment.

I shall never forget Paul's last line of his Christmas letter, fully aware of the seriousness of his condition, he remarked, "I'll play the hand God dealt me." And so he did, very bravely. We miss you, Paul.



Shirley Berry

Shirley
19 April 1999

(Editor's note: Joan Johnson has continued to pay her yearly dues to our society and remains to this day a SDC&SS Member. She tells us that she looks forward to reading *Espinas y Flores* each month. We spoke with Joan earlier this week, and she is feeling very much alone right now. In her own words she sadly states that she deeply misses her "Lover for the past 56 years." If you were a friend of the Johnsons when they resided in Fallbrook, now is the time to write: **Joan Johnson, 2711 Tramway Circle NE, Albuquerque, New Mexico 87122** or phone (505) 856-6641.)



The Monthly Benefit Drawing

Great enthusiasm and good plants make for a winning combination. April's table held twenty wonderful plants waiting for adoption. There were some real winners! Such as: *Aloe brevifolia variegata*, *Crinum moorii* - a South African bulb, *Fockea edulis*, *Opuntia vestita*, and *Haworthia viscosa torquata*. And a very special thanks to our kind, thoughtful, and generous donors who bestowed the following to us:

Phyllis Flechsig for a huge & magnificent *Tylecodon paniculata* and to **Joe Quijada** for *Alluadia procera*, *Tillandsia latifolia* and a *Melocactus* species.

A special note of appreciation to **Michael Buckner** for supplying our April Benefit Table with such handsome plants - and on such short notice!! Thanks for doing a great job! Many thanks to all of our loyal participants! You are all winners! Please, remember your donations of plants, pots, or other Cactus & Succulent related items are welcome on our May Benefit Drawing Table. With show time just around the corner, donations of ceramic containers for blue ribbon hopefuls would be happily appreciated.

Thank you, **Kay Quijada**

BRAG TABLE WINNERS FOR APRIL 1999:

Page 15

JUDGED BY TOM BIRT

SUCCULENT:

- FIRST PLACE: Rudy Lime's *Operculicarya decaryi* Bonsai
- SECOND PLACE: Elibet Marshall's *Dudleya candida*
- THIRD PLACE: Spencer Maze's *Aeonium tabulaeforme*

CACTUS:

- FIRST PLACE: Shirley Berry's *Mammillaria hahniana* var. 'superba'
- SECOND PLACE: Shirley Berry's *Rebutia albiflora*
- THIRD PLACE: Phyllis Flechsig's *Echinocereus triglochidiatus* var. *inermis*



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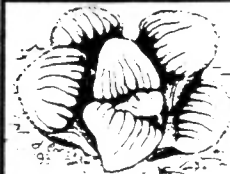


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Perhaps time's definition of coal is the diamond.

– Kahlil Gibran

WISE AND OTHERWISE

By Michael Buckner



**The sky is everlasting
And the earth is very old.
Why so? Because the world
Exists not for itself;
It can and will live on.**

– LAO Tzu

Although conservation has deep roots in many societies, IUCN (International Union for the Conservation of Nature) is very much a product of European and North American culture. Concern for nature gathered momentum there in the eighteenth and nineteenth centuries, stimulated by romantic writers, scientific explorers, and revulsion at the cruel destruction of some wild species, especially birds.

Writers and thinkers like Jean Jacques Rousseau, Ralph Waldo Emerson and Henry David Thoreau had a profound influence, the latter arguing that “in wilderness is the preservation of the world.” In 1866 the German scientist Ernst Haeckel first used the term ‘ecology’ to describe the web that linked organisms and their surrounding environment. National societies to protect various kinds of animal began to appear in Europe in around 1820, and the world’s first National Park – Yellowstone – was established by the United States Congress in 1872. In the same year the Swiss Federal Council took the first steps that led to the creation of the International Committee of Bird Preservation, or ICBP, now BirdLife International in 1922. In 1909 President Theodore Roosevelt planned an international conference in Washington DC, to address the conservation and wise use of world resources.

With his departure from office, the baton passed back to Europe. It was picked up by Paul Sarasin, who with his cousin Fritz founded the Ligue Suisse pour la Protection de la Nature (the ‘Swiss League’) in 1909. His initiative led 17 nations to establish a Consultative Commission for the International Protection of Nature, constituted in 1914 but rendered inactive by war. A similar fate overtook the International Office for the Protection of Nature established by a Dutchman, Pieter van Tienhoven, in 1935. As World War II drew to its end a new American initiative glimmered briefly: President F. D. Roosevelt proposed a meeting of “the united and associated nations” for “the first step towards conservation and use of natural resources” commenting that “I am more and more convinced that conservation is a basis of permanent peace”.

The Green Web - Fifty Years of International Conservation, a summary by Martin Holdgate; *World Conservation* magazine, Volume 29, Numbers 3-4, July - December 1998; Gland, Switzerland..

What, pray tell, would I buy? There is nothing out here that is not free for the asking. Can you buy a sunrise? Is there a price to the exhilaration we feel from the thunderstorm that rages outside? Nature is the truest democracy, and not the richest man in the world is served a grander sunset than the beggar.

You must not know too much, or be too precise or scientific about birds and trees and flowers and watercraft; a certain free margin, and even vagueness – perhaps ignorance, credulity – helps your enjoyment of these things. – WALT WHITMAN

WISE AND OTHERWISE

One of the most effective early ways of verifying governmental compliance with CITES was the “cactus test” – originally thought up by John Burton, one of the co-founders of TRAFFIC (Trade Records Analysis of Flora and Fauna Commerce). All wild cactus plants (*Cactaceae spp.*) are listed on Appendix II of CITES, and hence require an export permit to travel abroad, or suitable proof that they are exempt, e.g. as artificially propagated specimens. So we went into a department store in Morges, and for five Swiss francs acquired a pretty red-topped cactus advertised as “Little Red Riding Hood.”* From then on, whenever a CITES staff member went on duty travel, he/she had to take the cactus along. Upon arrival at any destination airport in a CITES member country, he /she would proceed through the red entry gate – instead of the green “nothing to declare” entry – and innocently ask the customs officer whether and how this plant, purchased in Switzerland, should be declared for import.

The reactions at most airports were amazing, and often hilarious. In those days, very few customs inspectors had ever heard of CITES, let alone that their government had ratified the treaty and regularly reported that it was in full compliance with its terms. Their usual reaction was to consult the applicable code of the Customs Cooperation Council, define the cactus as non-commercial import of an ornamental plant, and wave the nosy passenger on. When the passenger insisted on a document, they would either grab some form and stamp it – we built up the most peculiar collection of so-called import documents – or come up with highly ingenious authoritative explanations why no form was required in this particular case.

Others would proceed to a phytosanitary inspection, including the occasional fumigation – one customs officer at Copenhagen airport informed me that he was far more concerned about the earth in the flowerpot than about the cactus, and returned Little Red Riding Hood naked, without her pot. Once, when traveling to the GA in Ashkhabad with other staff members and walking through the red gate at Moscow airport (even though the others had implored me not to do it lest we all end up in a gulag), I was kept in custody for an hour until the competent official showed up and allowed me, exceptionally, to move on with the cactus, in the interest of international ecological cooperation and in order not to miss my connecting flight.

Cactus-Proof Customs: In each case, the cactus-bearing staff member had to write a full report on his /her experience, for transmission and follow-up action to the national CITES Management Authority concerned. As time went by, more and more customs services did become familiar with the Convention, and many international airports became cactus-proof or at least cactus-wise. Yet any customs officer who then proudly produced a copy of the treaty text, plus the appropriate form, still faced the problem of identifying the specimen before him. He /she would study the plant intently, ask for her name, enter “Little Red Riding Hood” in the column for species, perhaps declare her exempt as a household item, and mumble something about the new green bureaucracy.

One obvious risk was to hit upon the same embarrassed customs inspector twice in a row - as happened to me at my hometown airport in Munich: what that Bavarian customs officer asked me to do with that cactus (in native Bavarian dialect) is unfit for print, and therefore could not be fully included in my report to the national CITES Management Authority.

I don't remember what eventually became of Little Red Riding Hood. She probably ended up getting confiscated somewhere, or suffered an untimely heroic death owing to excessive fumigation. But the effects of her globe-trotting performances, together with other IUCN/WWF activities for compliance control, were quite remarkable.

CITES AND THE MIGRATORY CACTUS by Peter H. Sand; World Conservation, vol.29, # 3-4.

* On the page following the above magazine article there was a picture of “Little Red Riding Hood.” She was a *Gymnocalycium* graft “Red Cap” – indeed the very definition of an artificially propagated specimen!!

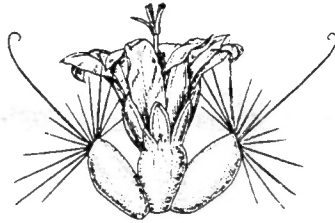
BEARS: In case anyone is considering doing some camping this summer, please note the following public service announcement: Hikers are warned to wear tiny bells on their clothing when in bear country. The bells warn away MOST bears. Hikers are also cautioned to watch the ground on the trail, paying particular attention to bear droppings to be alert for the presence of grizzly bears. One can tell a grizzly dropping because it has tiny bells in it.

From *Desert Explorers* - 4wd section of the Mojave River Valley Museum, No. 36 March 1999. - Page 17

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