

CENTRAL SPINE

NEWSLETTER OF CENTRAL ARIZONA CACTUS & SUCCULENT SOCIETY

JUNE 1999

In Memory of Vera Gamet

For 90 years Vera Gamet made the world a better place through her kindness and friendship for everyone. We were favored in the CACSS with her quiet dignity and unceasing participation, especially as the editor of the Central Spine for many years. This fine lady was already frail by the time I made her acquaintance in the late 80's. She would drive down from Carefree to our club meetings in an enormous station wagon, You always had to look closely to see if there was anyone in the car. Vera never collected cactus or succulents. She collected knowledge of the desert and worked hard to share that knowledge through her publication of the club's magazine.

For many years we looked forward to her quarterly publication of the Central Spine and were never disappointed. This small woman would deliver her magazines to the meetings and unobtrusively place them on the conference table. She would greet her many friends and enjoy the meetings. The magazines were a wonderful tribute to her efforts as she would search through multiple sources to bring us information about our common interest in plants and the desert. She was constantly looking for original articles and encouraged many of us to contribute. Occasionally, she would find someone like Tim Chapman who has a delightful way with words, and the Spine would be predominantly local. If nobody stepped up, Vera didn't rant and rave or quit; she just looked a little harder for interesting work from other sources and put the magazine together for all of us.

The years accumulated and health problems for Vera and her husband Dean increased to overwhelming proportions. I never heard her complain or make excuses though she had every right to do so. Finally, she decided she just could not keep the publication to her high standards and apologetically told the board she could not go on. She would finish out the year and then had to resign as Editor. It was one of the biggest losses our club has experienced as the magazine was dead within a year. Nobody would fill the void.

Vera Gamet died April 22, 1999, in Tucson. She will always be remembered by her friends as our own 'Little Big Man' in heart and talent. CACSS has made a donation to the Desert Botanical Garden in her name. I would urge everyone to add to her memorial out of respect for her many years of friendship and effort.

-Jim Elliott-

Donations should be made in memory of Vera Gamet to the Desert Botanical Garden, 1201 N. Galvin Parkway, Phoenix, AZ 85008.

Letter from the President

Our May silent auction was, as usual, a resounding success. We netted almost \$600. Many thanks to those of you who brought in all those seedlings, cuttings and excess plants. There is always someone who manages to come through with special offerings to create some excitement and competition in bidding. Our next silent auction is in October - so save those special gems until then.

Over the next few months you will be seeing some major changes beginning to happen, particularly along the entrance drive. As you may or may not realize, the entrance drive is being rerouted to the north in preparation for the capital improvements which are slated to begin in the spring of 2000 if all goes as planned. The driveway renovations and new wildflower pavilion will be completed this summer. So what, exactly, is happening? Where are all the new buildings going? Who or what will they house? How will this affect you, you ask? Will the C & S Society meet in a new place? Well, come to the June 27th meeting and all your questions will be answered. This will be an extensive briefing on what the plans are, how much has been pledged to date and how it is being used.

You will learn via slides and conceptual design boards what the layout will be for all of the planned improvements and enhancements. The Garden has supported our organization for many, many years. Please show your support and join Executive Director Carolyn O'Malley and staff as they present the key components of the capital development program.

It is an exciting time for the Desert Botanical Garden. Please come share in their excitement.

Cathy Babcock,
President CACSS

Central Arizona Cactus & Succulent Society

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Central Spine

Deadline for articles and submissions for next newsletter:

July 15th 1999

Send to:

Nick Diomede

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Saturday, June 26 Tucson Botanical Gardens

TCSS Silent Auction
 Auction Times: 8 a.m. to Noon
 in the cool of Porter Hall

in conjunction with

TBG's Weird Plant Sale
 Sale Hours: 8 a.m. to 1 p.m.
 on the Porter Hall patio

Vendors to include Miles' to Go and Plants for the Southwest

Starting this month, I will be listing the table of contents of two *Euphorbia Journals* and this month Volumes I and II are featured. As most of you know, this beautiful series of 10 volumes, published by Strawberry Press (Herman Schwartz, M.D.), is the "National Geographic" of the genus *Euphorbia*. Did you know that the earliest written record of medicinal euphorbias is associated with Hippocrates (B.C. 469-399)? The name *Euphorbia* derives from Euphorbus, a physician of the King of Mauretania, and the common name "spurge" derives from "expurgare," to purge, cleanse, or purify. The juice or latex from euphorbias in small doses is a powerful purgative. Most of the 2,000 described species of succulent euphorbias are photographed in the complete collection of *The Euphorbia Journal*, which are available for you to check out from the CACSS Library.

Happy Reading

Karen Kravcov, CACSS Librarian
 780-2867 or KKravcov@aol.com

Cathy Babcock donated to the CACSS library a nice booklet: "Grow Succulents," (1998, 63 pages), a guide to the species, cultivation and propagation of South African succulents, published by the National Botanical Institute, Kirstenbosch, South Africa. This booklet has lots of color photos and covers such topics as natural pollination of succulents, natural dissemination and dispersal, tips on propagating succulents, grafting, soil mixtures, pests and diseases, watering, ventilation and light, containers, tools and a glossary. There are even some e-mail addresses in the back for the National Botanical Gardens in South Africa.

Thanks, Cathy!

1. c. Mammillaria
2. d. England
3. b. Carnegiea gigantea
4. d. Aloe vera
5. c. Echinocactus
6. d. Charlie Glass
7. b. Minky Fusaro
8. d. Arthur D. Houghton, 1929
9. d. St. Louis, Mo. 1941
10. False
11. d. all of the above
12. a. Artocarpus
13. b. litops
14. c. Agave americana
15. b. Stapelia
16. a. Pelcyphora asseliformis
17. c. Melocactus
18. d. North & South America
19. c. Pachycereus
20. True

Answers to quiz on page 5

What's in the Journal

Cactus and Succulent Journal

Vol. 71, No. 3, May-June, 1999:

Botanists in Paradise. 1. Adventures on the Chilean CoastEdward F. "Ted" Anderson & Fred Kattermann

White Adeniums.....G.P. Shirley

A new, spiny Euphorbia and an amplified description of a perennial woody species, both from the Hadhramaut, YemenJohn J. Lavranos & Abdul Nasser al-Gifri

Ecology of the threatened cactus, *Sclerocactus glaucus* E.A. Rechel, R.G. Ballard & T.J. Novotny

Ceropegia konasita (Asclepiadaceae), a new species from Kenya Patrick Siro Masinde

Batrachia: a new section of the genus *Conophytum* N.E. Brown (Aizoaceae).....Matthew R. Opel & Steven A. Hammer

Aloe heybensis, a new species from Somalia.....

.....John J. Lavranos

Superb Succulents.....Duke Benadom

Journal of the Succulent Society of South Africa

Aloe 35, No 3 & 4, 1998 (late issue)

A brief visit to the succulent commiphoras of NamibiaDaniel L. Mahr

Giants of the KoakoveldAlex Fick

Some notes on the cultivation and propagation of Haworthias.....Gerhard Marx

The WFL 1995 expedition to the sperrgebiet in the southern Namib Desert.....Graham Williamson

Introducing a new and aptly named Haworthia: *H. magnifica* var. *splendens* J.D.Venter & S.A. Hammer Gerhard Marx

Jensenobotrya lossowiana: an island of genetic material in a sea of sand.....P.M.Burgoyne

Pterodiscus, interesting dwarf caudiciforms ..Ralph Peckover

Propagation and cultivation of the rare succulent, *Euphorbia woodii* N.E.Br., a Zulu medicinal plant from the eastern seaboard of South Africa.....A.M. de Lange, N.R. Crouch, C.A.Prentice, P.Swartz & L.C.Hawker

Preparing useful herbarium specimens of succulents and other plants with fleshy parts.....Priscilla M. Burgoyne .& Gideon F.Smith

Book Review: *ASKLEPIOS*, Journal of the International Asclepiad Society.....Francois Steffens

Two interesting BrachystelmasRalph Peckover

"Gardening, as someone smart once said, is the only sensible thing to do after you become wise enough to know there is no use trying to do anything about people".

Mary Suski DeFisher.

Euphorbia Journal Vol. I

(1983, 130 pp., 150+ color plates)

Lila's Nursery: An Appreciation Elisa Adler

The Succulent Spurges: A Short Introduction to Euphorbiaceae Gordon Rowley

The First Half Dozen: Euphorbias from East Africa Susan Carter

..... Susan Carter

Euphorbia filiflora MARLOTH: A Seldom Grown Species ..

.....Daryl L. Koutnik

Succulent Euphorbia Cultivation: One Collector's Opinion ..

..... Madelyn Lee

Dictionary of the Derivation of Euphorbia Names

.....*The Euphorbia Review*

Chapman 312 Where Are You?Bruce J. Hargreaves

Some Notes on the Grafting of Euphorbias ... F. K. Horwood

Aeonium lindleyi: Why is it appearing in *The Euphorbia Journal*? Ron LaFon

The Subglobose EuphorbiasLarry W. Mitich

Two Parasites of Euphorbia: *Viscum minimum* and *Hydnora africana*F.K.Horwood

Dictionary of the Derivation of Names of Euphorbia Authors..... *The Euphorbia Review*

The Succulent Euphorbiaceae: Photographic Collection and Descriptions

Euphorbia Journal Vol. II:

(1984, 154 pp., 200+ color plates)

Robert Allen Dyer: Doyen of South African Botanists .. David S. Hardy

The Succulent Spurges: Landmarks in Early History, Part 2 Gordon Rowley

Euphorbia Hallii and Notes on Some South African Euphorbias Harry Hall

Euphorbia restricta DYER: A Visit to the Habitat... Ron LaFon

A Morning at Grigsby Cactus Gardens Elisa Adler

A Brief Taxonomy of the *Euphorbia Clava-Loricata* Complex (Treisia) Daryl Koutnik

Volkens' Species from Kilimanjaro: Euphorbias from East Africa, Part 2 Susan Carter

Ivory Beneath a Euphorbia Tree Chuck Hanson

On Being a Botanist at Kew Susan Carter

The Succulent Euphorbias: Poisonous and Medicinal ... Larry Mitich

Flowering Parts of the Caput-Medusae Group: An Identification Guide

Part 1 Soils for Euphorbia Cultivation Guy Wrinkle

Variations of *Euphorbia francoisii*

Threatened Euphorbias of the TransvaalS.P. Fourie

Is "Chikhawo" *Euphorbia decidua*? The Danger of Common Names Bruce J. Hargreaves

Species Novae: The New Euphorbias

The 1999 CSSA Convention in Las Vegas--Part Two

Leo Martin

Wednesday was reserved for field trips. I went on the Castle Mountain Mine trip, led by Steve Plath of the host Cactus and Succulent Society of South Nevada. Castle Mountain Mine is an open-pit acid-leach gold mine in eastern California not far from Las Vegas. Before permits were issued, the State of California required that the mine mitigate its environmental impact by revegetating desert once the mine played out. Steve is employed by the mine to do the revegetation: salvaging cacti, yuccas, and other plants when possible; growing the salvaged plants and raising others from seed; and replanting them when areas of the mine are no longer in use.

I found myself on a comfortable tour bus headed south from Las Vegas sitting in front of Steve Hammer and Jan Vlok, both lecturers at the convention. I drilled them with questions about culture for South African succulents the whole time we were in the bus. This is one of the great benefits of attending a CSSA Convention: Attendees mingle with the experts, and the experts are friendly and willing to answer your questions.

Leaving Las Vegas all the vegetation was exotic--that is, not native. Once south of town we were in Mojave Desert and saw three yuccas: *Yucca schidigera* Roez. ex Ortgies, the Mojave yucca; *Yucca baccata* v. *baccata* Torrey, the banana yucca; and *Yucca brevifolia* var. *jaegeriana* Mckelvey, the Joshua tree. The Joshua forest is quite impressive and more extensive than the one in northwest Arizona. We saw cacti as well: *Echinocereus engelmannii* (Parry) Lemaire in bloom with its magenta flowers; *E. triglochidiatus* v. *mojavensis* (Engelm. & Bigelow) L. Benson in bloom with its orange, waxy flowers; *Ferocactus cylindraceus* v. *lecontei* (Engelm.) H. Bravo, a different variety of the same barrel cactus found in Phoenix; *Opuntia acanthocarpa* v. *coloradensis* L. Benson; *O. basilaris* Engelm. & Bigelow, sporting its bright pink flowers; *O. chlorotica* Engelm. & Bigelow; *O. phaeacantha* v. *major* Engelm.; *O. polyacantha* v. *Eri-nacea* (Engelm. & Bigelow) Parfitt (once known as *O. erinacea* v. *ursina* (Weber) Parish); *O. parishii* Orcutt; and *O. Ramossissima* Engelm.

The mine is among low mountains. There have been three pits dug. Waste from one pit has been used to fill in another. The gold ore is blasted, hauled to leaching fields, and placed onto thick plastic liners. Cyanide solution is trickled over the ore, leaching out the gold as dissolved salts, which is processed on-site to bars about 90% gold, 10% silver. The bars are shipped elsewhere for further refining. Netting is placed over areas where cyanide solution might pool to prevent birds and mammals from being poisoned.

From areas to be cleared, Steve and his crew harvest plants they can move with manpower and a pickup truck. The plants are taken to a nursery for continued growth. Also at the nursery are greenhouses for raising cacti, yuccas, and other plants from seed for revegetation. When an area is ready for revegetation, larger plants are placed first, then the smaller, and seed of native herbaceous annuals and perennials is broadcast. The larger plants

get one or at most two supplemental irrigations after transplanting, then are on their own! This area of the Mojave Desert gets about the same amount of rain as Phoenix, with perhaps a little more in the winter and less in the summer. Most of the yuccas and cacti survive; the herbs begin to fill in after about 3 years.

After the mine we circled through back country and stopped for a sack lunch in a piñon-juniper forest. *Echinocereus triglochidiatus* was common here, and plants were loaded with buds, but we were a few days early for bloom. We managed to find three plants out of hundreds with open blooms. Here we also saw a small globular cactus, either *Mammillaria tetrancistra* Engelm. or *Echinomastus johnsonii* (Parry) Baxter.

Our last stop was open desert at somewhat lower altitude. Here we saw *O. parishii*: all three yuccas; many *E. johnsonii*; and several *E. triglochidiatus*, including one mat with at least 300 heads.

Then it was back to Las Vegas. Evening events included a meeting of the CSSA Round Robin participants and the CSSA Affiliates Meeting. The main order of business at the Affiliates Meeting was selection of venue for the convention 4 years hence. Our CACSS President and other members had a pressing engagement investigating effects of 2-carbon fragments on mammalian behavior, so she gave her proxy to Richard Maxwell. The 2001 CSSA Convention will be in Los Angeles and will feature a visit to Lotusland, for which there is currently a two-year waiting list for tours. Three affiliated societies were going to bid on the 2003 convention, but one dropped out late; that left two presentations. The combined societies of the Pacific Northwest put on a wonderful presentation, including slide show and recorded music, of their site for the convention, Seattle. Photos of *Pediocactus simpsonii* in habitat were shown; the plant lives 3 hours east of Seattle and might be in bloom at the time of a Spring convention. Then the Henry Shaw Cactus Society bid to return the Convention to St. Louis, the site of the very first CSSA Convention (July, 1941.) The first vote, a hand vote, was too close to call, so a roll-call vote was taken, and the 2003 CSSA Convention was awarded by the affiliates to St. Louis.

Thursday opened with another startling 3-D slide presentation by Eva and Voytek Foik, covering the idea that plants are classified according to physical characteristics of the flowers, fruit, stems, and leaves.

Next Roger Brown spoke on plant culture. He showed slides of his exceptionally neat greenhouse and potting bench. He pots all his plants in a similar mixture, but he has to grow all his plants in a greenhouse, being in the dank and buggy Midwest. He cleans each pot before use, and sterilizes used pots before reuse. A pearl from him: Don't use white plastic pots, because light gets in and interferes with root growth, as well as promoting algae growth on the insides of the pot. He suggests using a new pot design, a double plastic pot with an inner black liner and an outer colored segment available in many colors. He showed

Continued on page 9

The CACSS is starting something new!

Each month there will be a featured plant genus. A brief article in the Central Spine will give a little information about this genus and how to grow it. At the meeting, everybody bring in your plants! There will be a competition, with first, second, and third place awarded in each size class. The winners will be printed in the next month's Central Spine. At the following annual show, the members with the most first place awards and most overall awards will be recognized with a traveling trophy. We would like to feature plants at the time of year they look their best, and welcome suggestions (and writeups like the following.)

We will begin with genus *Gymnocalycium*. The name means "naked flower tube" and, if you look at a bud, you will see smooth scales without a trace of hair or spines. They flower young, easily, and often several times per season, with flowers large for the size of the plant body. They are globular plants, sometimes solitary, sometimes clumping, never getting very large. Spination can be sparse to ferocious. These are South American plants, exclusively from the eastern side of the Andes. Some are from inland areas, some from coastal Argentina and Brazil. Habitats range from grasslands to scrub to subtropical forest, generally from 1500-3500 feet in elevation; most are in the dry thorn forest zone called Chaco, with mostly summer rainfall and clay soil. Most require some shading from Phoenix sun and most grow faster and bloom better if not allowed to become bone-dry, though they will tolerate this without complaint. Most will not take any frost. They are easy to propagate from seed or from offsets kept moist until growing. Clones lacking chlorophyll, revealing the other pigments ranging from red to pink to brown, are often sold grafted onto *Hylocereus undatus* stalks, the whole thing looking like a lollipop.

4 classes: Small, pot size 4" and under; Medium, pot size over 4" to 8"; Large, pot size over 8"; and Crested/ Monstrose/ Variegated, grafted or on on own roots.

Information from *Gymnocalycium: A Collector's Guide* by John Pilbeam, A. A. Balkema, Publishers, Rotterdam, Netherlands, 1995.

Quiz Time

Chuck Staples, Mid-Iowa Cactus and Succulent Society

1. What is the correct spelling of this genus?
a. Mamillaria b. Mammilaria c. Mammillaria d. Mamilaria
2. Noted lecturer and author Gordon Rowley is from
a. Germany b. United States of America c. Canada. d. England
3. The Arizona state flower comes from this plant:
a. Cephalocereus senilis b. Carnegiea gigantea c. Fouquieria splendens
d. Myrtillocactus geometrizans
4. Which of the following is commonly referred to as "Burn Plant"?
a. Aloe variegata b. Aloe plicatilis c. Aloe ferox d. Aloe vera
5. The genus of species 'grusonii' is:
a. Echinocereus b. Epithelantha c. Echinocactus d. Euphorbia
6. This person was the editor of The Cactus and Succulent Journal for many years.
a. Gordon Rowley b. Rob Wallace c. Seymour Linden d. Charlie Glass
7. This person is currently Treasurer of The Cactus & Succulent Society of America:
a. Pat Fusaro b. Mindy Fusaro c. Seymour Linden d. LoWilla Wilson
8. Who was the first president of CSSA and the year(s)?
a. Andrew C. Stapleton, 1919 b. Howard E. Gates, 1936-37
c. Charles G. Adams, 1933-34 d. Arthur D. Houghton, 1929
9. Where was the first CSSA Convention Site held, and the year?
a. St. Louis, MO, 1929 b. San Diego, CA, 1963
c. Denver, CO, 1951 d. St. Louis. MO. 1941
10. All cacti have spines.
_____ True _____ False
11. Which is a species of *Astrophytum*?
a. myriostigma b. asterias c. ornatum d. all of the above
12. Which of the following is commonly referred to as "Living Rock"?
a. Ariocarpus b. Lithops c. *Astrophytum* d. *Aporocactus*
13. Which of the following is commonly referred to as "Living Stone"?
a. Ariocarpus b. Lithops c. *Astrophytum* d. *Aporocactus*
14. Which of the following is commonly referred to as "Century Plant"?
a. *Agave attenuata* b. *Agave victoriae-reginae* c. *Agave americana*
d. *Agave utahensis* var. *nevadensis*
15. Which genus has the stinky flower?
a. *Senecio* b. *Stapelia* c. *Sulcorebutia* d. *Sempervivum*
16. Which of the following is commonly referred to as "Hatchet Cactus"?
a. *Pelecypora asseliformis* b. *Pleiospilos bolusii*
c. *Rebutia grandiflora* d. *Opuntia microdasys*
17. Which genus has a cephalium?
a. *Mamillopsis* b. *Myrtillocactus* c. *Melocactus* d. All of the above
18. Cactus plants originated in the New World which is:
a. Australia b. Hawaii c. Madagascar d. North & South America
19. Which is a cactus?
a. *Pachypodium* b. *Pachycormus* c. *Pachycereus* d. *Pachyphytum*
20. All cacti are succulents, but all succulents are not cacti.
_____ True _____ False

Answers to quiz on page 2

San Jose Cactus Show and Sale

Lin C. Leivian

It's always fun and informative to attend shows at other cactus and succulent clubs, though I rarely have the chance to do so. This year my husband and I were lucky to be traveling to a conference in San Francisco the weekend of the San Jose Cactus Show and Sale.

We simply hopped into our rental car and drove straight to Santa Clara, where the show was being held. Jon Dixon, one of the judges of the show, gave us excellent directions, and the club had erected a large sign at the crucial turning point.

The show was held in an old school: Buscher Middle School. Visions of my old grade school days came to me as I viewed the combination auditorium - cafeteria with its high ceiling and large windows. The show was on ground level and the parking was very convenient - right in front of the school.

Unlike our show, about a third of the space was allotted to a grower sales area. Those of us who attended the Las Vegas Conference would have seen many familiar faces: RSVP, Woody Minnich, Ann Schein and California Succulents were all represented. There were, however, several sellers whom I hadn't bought from before: Cactus Specialties, Don Succulents, and Elton Roberts. There were also pots, pumice and soil available. Jon told me that the San Jose club started vendor sales and that now all four of the clubs in the bay area incorporate sales into their show.

The sales area is run efficiently by the use of bar codes, which denote the vendor. This allows for the use of a central sales area. Profits from the sale are split 70/30 with the club keeping 30%.

The show itself was substantially different from ours. There were fewer entries in each category and entries were spaced, so each plant could be viewed individually. According to Jon there are four entry levels: novice, intermediate, advanced, and open. Open is supposed to be for growers who attain a certain level of sales, though Jon said that most of the entries appeared to be in open class.

There were a number of unusual and spectacular specimens in the show, most of which I would categorize as master's level. The most important awards were accompanied by huge trophies, probably averaging three feet in height. I thought it was a nice touch that these were grouped together at a separate table. The family categories were accompanied by very informative and professional looking cards. The explanations would certainly be helpful for the casual viewer, who is unfamiliar with many of the more unusual succulents presented.

Of the individual specimens, I was particularly impressed with the entries of RSVP. Their staging is impeccable, of which their *Sulcorebutia rauchii* is a good example. Dark pink blooms graced the dark heads, which were set among several large rocks. The container was a shallow oval of an off-white color which perfectly complemented the plant. Naturally, the plant was a blue ribbon winner. RSVP won many awards for a variety of plants including *Agave toumeyana*, *Pachypodium bispinosum*, *Pelargonium cotyledonis*, and *Sinningia leocotricha*, to mention a few. The range of plants which the Southwells exhibit demonstrates the versatility of their growing talents.

I'm always attracted to plants which the majority of us have trouble growing in Phoenix. Dudleyas and echeverias are always so beautifully colored and grow large so readily in the California climate. The day itself was typical Northern California, cool and windy with a clarity of light which would inspire most artists. For both of us, the show was a delightful experience enhanced by the friendliness of the club members. For those of you who may be planning a visit to the San Jose area, the San Jose club meets on the first Sunday of the month at 1:00 p.m. in Prusch Park.

ASK HARRY
with
Harry O'Carps

Dear Harry: I have this fabulous *Notocactus magnificus* that has been blooming a lot lately, and I want to impress a certain someone in the club without revealing myself. How can I do it?

Signed: *Too Shy Cactus Guy*

Dear Too Shy: If you want to impress someone in the club with one of your plants, bring it in to this month's meeting and tell everyone about it. I'm sure they would like to see it, and it will give you a chance to show that special person how much you know about growing it.

Dear Harry: A lot of my plants have been turning yellow lately. A friend said they looked low in Nitrogen, but I think it's a result of aliens slowly poisoning us throughout the water system to prepare for the Y2K invasion, as explained to us during a lecture at the last Star Trek Convention. What do you think?

Signed: *Succulent X-files fan*

Dear Succ-X: First of all, you need to get a life. Then, get some shade cloth and start draping it over any plants that are yellowing. Chances are they just need a little more shade during the summer months. If it will make you feel better, get your water tested, and stay out of the sun as much as possible!

Dear Harry: Occasionally I see a name of a plant in a book or catalog followed by the abbreviation: (nom. nud.). What does it mean?

Signed, *Never Took Latin in School*

Dear Never: It stands for: nomen nudum, and no, it doesn't mean that naked guys aren't allowed. It means that a plant's name was published without a complete or adequate description and is therefore illegitimate. You can probably find the correct name by using the index or appendix of one of our library's books.

Cactus felt scale - *Acanthococcus coccineus*

<http://ralph.cs.cf.ac.uk/cacti/felt.html>

Background

Acanthococcus (= *Eriococcus*) *coccineus* Cockerell is a North American species which has been spread throughout the world on ornamental cacti. It was recorded for the first time breeding in Britain on ornamental *Cactaceae* at a nursery in southern England in December 1997. The plants had been imported from the U.S.A. in spring 1997. Control measures taken at the nursery during the winter appear to have been successful in eradicating this pest.

Field recognition

Adult females are oval, rotund, and vary in colour from deep bluish-purple or reddish purple.



Acanthococcus coccineus on *Rebutia*

They occasionally have a single mid-dorsal longitudinal yellow or crimson stripe. Short, delicate, translucent wax filaments are present around the margin and sparsely on the head and thorax. They attain a length of 3.0 mm and width of 2.5 mm. The insects lie very close to the plant surface, often in crevices or at the base of spines, and rarely move. At maturity the adult females leave the feeding site and walk to the tips of the spines or off the host plant onto any adjacent surface before producing the ovisac. They become completely encased in a characteristic loose waxy felt-like white ovisac.



Acanthococcus coccineus ovisacs

Geographical distribution, host plants and biology

Acanthococcus coccineus has been found in Australia, Hawaii, New Zealand, Mexico, southern U.S.A., Canary Islands, Egypt, France, Germany, Israel, Italy, Japan, Brazil. It feeds almost exclusively on *Cactaceae* and has been recorded on the following genera: *Acanthocereus*, *Astrophytum*, *Brasilocactus*, *Cephalocereus*, *Cereus*, *Cleistocactus*, *Echinocactus*, *Echinocereus*, *Echinopsis*, *Harrisia*, *Hylocereus*, *Mammillaria*, *Neobuxbaumia*, *Neomammillaria*, *Opuntia*, *Pelecypora*, *Rebutia*, *Rhipsalis*, *Selenicereus*, *Thelocactus* and *Wilcoxia*. The mature adult females have a habit of wandering off the host onto any adjacent surface before producing ovisacs and this can lead to incorrect host plants being recorded. It is parthenogenetic and breeds continuously with overlapping generations, if conditions allow.

Economic Importance

Acanthococcus coccineus is considered economically important in the U.S.A. It feeds on the phloem which reduces plant vigour by depletion of plant sap and if left unchecked can kill ornamental cacti. Feeding by a related species, *Acanthococcus coriaceus* Maskell, has been shown to consistently reduce root growth in seedlings of the host plants. The cocoon-like ovisacs produced by *A. coccineus* can lower the aesthetic appearance of ornamental cacti, thereby reducing their quality and commercial value.

Credits

This information was supplied by Chris Malumphy
Invertebrate Identification Team, Central Science Laboratory, Sand Hutton, York
Email: c.malumphy@cs.l.gov.uk
CSL web site: <http://www.csl.gov.uk>

Nursery Review

Richard Zeh

Desert Images Cacti & Succulents
11140 N. Ventura Ave. (Hwy.33)
Ojai, CA 93023
(805) 649-4479

Inventory: 7.0
Availability: 9.5
Personality: 9.0
Plants: 8.0

Richard Bogart is a kindly gentleman who runs a precise operation in Ojai. I found him after I realized that Abbey Gardens no longer exists in Santa Barbara. Since I had the time, I took a 40 minute trip inland to Ojai. The ride alone is worth your time. The winding road cuts through rolling hills overlooking the Pacific Ocean. After climbing to the mountain passes, you descend to a large lake and recreation area that lies just outside Ojai. The nursery is small: only one greenhouse and some shaded areas outside. Richard obviously grows his plants elsewhere and brings them into the city to sell. All of the plants are very well-presented and of good size and quality. He is usually on the premises to help with your selection. A must stop if you are in the Santa Barbara area.

Guy Wrinkle Exotic Plants
11610 Addison St.
North Hollywood, CA 91601
(310)670-8637 Fax (310)670-1427
E-mail wrinkle@idt.net

Inventory: 8.0
Availability: 8.0
Personality: Unknown (I only spoke with him for a very brief time)
Plants: 9.5

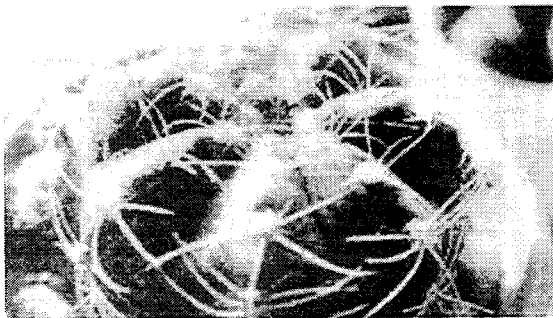
Guy is not located at the above address. He only sees people at his house which is very near LAX. So, if you plan to visit rather than order through the mail, you must call first. Guy told me that he has four different growing locations. I would have loved to have gotten the complete tour, but I'll just have to tell you about what I saw. He has a smallish back yard absolutely crammed with all types of succulents. Unfortunately, some of his collection is interspersed with sale plants, so you must ask him or his son what is available. Guy's plants are a little more exotic than most other nurseries, so it takes longer to make up your mind. There are little treasures buried all over his yard, so when you go, take your time picking through the cycads and various caudiciforms.

Cactus Data Plants
9607 Avenue S-12
Little Rock, CA 93543
(805) 944-2784

Inventory: 9.5
Availability: 8.5
Personality: 9.0
Plants: 9.0

Woody has created a succulent oasis in an otherwise barren landscape. Little Rock is definitely not your picture-postcard vacation spot. There are four greenhouses on the premises just loaded with incredible plants of all sizes and ages. Woody certainly has the knack for growing great plants at great prices. This place is a must go for everyone. Even if you have no desire to buy anything (if that is possible!), you must see what has to be one of the most outstanding private collections in the country. Since I have not seen all the private collections, I can't make a definitive judgement, but his is the best I've seen. So, go make a pilgrimage.

*Rich is on the lookout for more nurseries to visit and review. He would appreciate any suggestions members might have.
Correction to last month's review: Ironwood Cactus Nursery is located at 6502 West Ina Road*



Gymnocalycium fleischerianum

<http://php.iupui.edu/~mgarard/genus/gymnocalycium/fleischerianum.html>



Gymnocalycium sp.

http://www.medslugs.de/hobby/cactus/cactus_018.htm

The CSSA Convention (continued)

photos of some of the spectacular plants he's grown. I was most impressed with *Pseudolithos cubiforme*, which looks exactly like a rectilinear block of sandstone. It is extremely rare in cultivation and rots very easily.

Then Inge Hoffman gave a travelogue on a trip to Peru she took with a film crew. They went during the rainy season and had lots of opportunities to examine sticky, slippery mud close up. She showed lots of cactus slides.

Next, Rob Wallace of Iowa State University lectured on evolution in the cactus family. His research involves studying DNA from cactus cells and comparing the DNA of one genus to another in the attempt to speculate which plants are related to which other plants. This is a very exciting area of research, though it is still a new field and many questions remain.

Then was a 2-hour cultural question-and-answer session hosted by Jon Dixon.

That evening were the Newsletter Editor's meetings and the Cacti_etc online discussion group meeting.

Friday began with what I thought was the best lecture of the week: Jon Rebman, curator of botany at the San Diego Natural History Museum, spoke on the Cacti and Succulents of Baja California. He is an expert on the genus *Opuntia* in Baja California. He showed slides of the boojum *Fouquieria columnaris* forest, the enormous cardón (*Pachycereus pringlei*) and many of the opuntias. Opuntias are much more interesting than I realized. Most have bisexual flowers, with both male parts (stamens and anthers) and female parts (pistil and ovary.) Some species have individuals with bisexual flowers, individuals with flowers bearing only stamens, individuals with flowers bearing only pistils, and even some with no reproductive parts! Jon also has found this phenomenon in genus *Echinocereus* and in the cardón. Opuntias hybridize readily. *Opuntia molesta* reproduces true from seed now, but is thought to have originated as a hybrid sometime in the past between *O. cholla* and *O. alcahes*. It is midway between the two in stem structure, but grows farther north than the range of the parents. Plants on the islands off Baja California are often even stranger than mainland plants; Jon showed a photo of an enormous *Pachycereus pringlei* with no trunk, branching at ground level, and the island endemic, 12-foot high *Ferocactus diguetii*.

Next, Susan Carter-Holmes talked about Euphorbias of East Africa, with more beautiful slides.

Then, Derek Tribble spoke of genera *Anacampteros* and *Avonia*. Avonias used to be called Anacampteros; they are the ones with papery white sheaths around the stems. They are relatively easy to grow and there are many species of each. Many Avonias have tuberous roots.

Then Rob Wallace discussed the evolutionary relationships among mesembs. Once given their own plant family, *Mesembryanthaceae*, they are now included in family *Aizoaceae*, and DNA studies show this was a good idea. DNA studies show the two-leafed, stemless genera such as *Lithops* and *Conophytum*

form one natural subfamily, and the stemmed ice plant types such as *Capobrotus* form another natural subfamily.

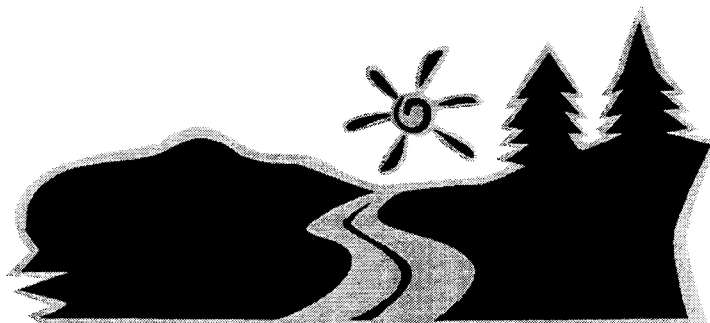
Next Graham Charles showed slides of Argentina, Land of Diversity. Notable here were the enormous *Lobivia* plants, up to 12 feet tall! Also the many opuntiads, including *Tephrocactus* and the tuberous *Pterocactus* and *Puna*. These plants are generally summer-dormant winter growers. Many have annual stems that die back to the tuber each year. *Puna clavarioides* grows in nature as both finger-like growths and mushroom-like growths, often on the same plant, but has only one growth spurt yearly. All these opuntias have beautiful flowers large for the small plants. This lecture made me run out to the sales area and buy *Tephrocactus weberi* from Lynn and LoWilla Wilson and *T. subterraneus* from Woody Minnich. This last plant looked like a tiny green pea peeking above white gravel in a 3" pot. It has since grown to 2" in length and put up another stem almost as long.

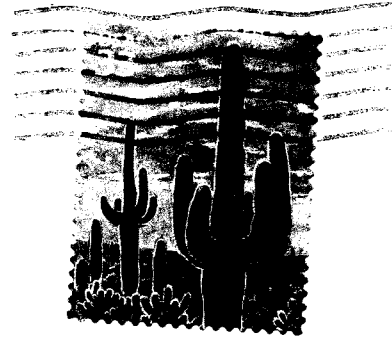
Lastly for the lectures, Jan Vlok spoke on the plants of the Succulent Karoo. This desert in South Africa gets as much rain as Phoenix, 8 inches, but it all falls during the summer. Plants from the Succulent (or Greater) Karoo are almost all summer growers.

The Convention finished with a farewell banquet. We had dinner, then watched a Las Vegas show featuring both girls and boys wearing feathers, sequins, and not much else. The dancers were quite energetic and good-looking, the chanteuse quite desirable, and the dances quite risqué. Then we said our good-byes, exchanged cards and E-mail addresses, and made our way to our rooms (or to the casinos, as the case might be.)

The ride home was also fun. Richard Maxwell drove, and the back of his Explorer was laden with booty. We breezed right by Hoover Dam, often a site of hours-long delays, and made it home in just under 5 hours. The desert was still in bloom, with all the palo verdes changed to yellow clouds, and the *Opuntia basilaris* still blooming.

Once again, I can't convey how interesting, fun, and productive a CSSA Convention is. Join the CSSA today! It's only \$35 yearly, for which you get 6 issues of the Journal, filled with photos, many color, and cultural information. You'll earn back the \$35 quickly in plants you don't kill because you read how to care for them! Henry Triessler is our affiliate rep, so ask him at a meeting, or you can print out a membership form from the CSSA Web site, <http://www.cactus-mall.com/cssa/index.html>





Central Arizona
Cactus & Succulent Society
P.O.Box 8774
Scottsdale, AZ 85252

Central Arizona Cactus & Succulent Society
Meetings held 1:

Time: 2:00-4:00 PM

Location: Webster Auditorium, DBG

Next Meeting: Sunday, June 27th 1999

Board Meeting: 1:00-2:00 PM Location: Archer House

June 26th 1999

See page 2

Tucson Botanical Gardens Weird Plant Sale

June 27th 1999

2:00 PM

Central Arizona Cactus & Succulent Society

There's more growing at the Desert Botanical Garden than just plants! Our next meeting will lay out for you the extensive improvements and enhancements planned for the Garden. Executive Director Carolyn O'Malley and staff will present the key components of their Growing a Legacy for Generations capital development program.

July 3rd & 4th

CSSA Annual Show and Sale *Huntington Botanical Gardens*

Over 1,000 award-winning plants will be on view as the Cactus and Succulent Society of America presents its annual show and sale. This prestigious event will feature "the best of the best" from prize-winning growers nationwide: graceful aloes and agaves, pastel-hued crassulaceae, prickly euphorbias, dainty pincushion mammillaria, bizarrely shaped crested and monstrose cacti, and more. Many rare and unusual plants from around the world will be featured, including specimens native to Mexico, Chile, Argentina, Botswana, Swaziland, Lesotho, Madagascar, and the Middle East. Hundreds of cacti and succulents will be offered for sale during the event. Visitors are also invited to explore The Huntington's own 12-acre Desert Garden, where more than 5,000 different species of cacti and succulents provide a year-round show of their own. General admission. Information: (626) 405-2141. Friends' Hall. For Further Information Contact: Huntington Botanical Gardens, 1151 Oxford Road, San Marino, CA 91108.

Email: webmaster@huntington.org **Phone:** (626) 405-2141 **Web Page URL:** <http://www.huntington.org>

July 8th

7:00 p.m. TCSS Gasterias by Breck Breckenridge

Breck, a native of Texas, moved to Tucson a year or so ago with his family from Utah. He has the plants of The American Gasteria Project, which serve as a reference collection of gasterias. He is also the director of gasteria and haworthia e-mail round robins.

July 17th 1999

Los Angeles C&S Society 11th Annual Rare Plant Auction

Sepulveda Garden Center. PotLuck starts at 11am. Auction at 12 noon.

July 17th - 24th 1999

Henry Shaw Cactus and Succulent Society

Summer show & sale takes place at the Missouri Botanical Gardens. Information contact Mike Hellmann at 618-656-1803; e-mail cactus1803@yahoo.com