

Upcoming Events - CALENDAR

General meetings are at 2:00 pm unless otherwise noted. Board meetings are one hour earlier. Members are welcome to attend board meetings.

October 27 (Webster) Silent Auction of Member's Plants

November 17 (Webster) Woody Minnich: The New *Turbinicarpus* of Northern Mexico

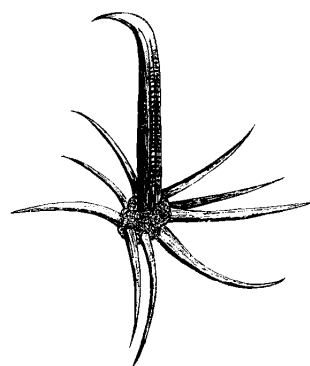
December 8 (Webster) Holiday Party

January 26, 2003 (Webster) TBA

A NOTE FROM THE EDITOR

I would like to reiterate Leo's encouragement for contributions from our members for the newsletter. The more our members participate, the better our newsletter can be! Next months deadline: please have all submissions to editor by November 4th, 2002.

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Central Spine is the newsletter of the Central Arizona Cactus and Succulent Society. All opinions are those of respective authors. Publication herein does not imply that CACSS or any CACSS members agree with any statements published.

Change of Address: contact our Treasurer, Pam Bass, with any changes of address.



Central SPINE

CENTRAL ARIZONA CACTUS & SUCCULENT SOCIETY

President's Letter October 2002

Our October meeting, the Silent Auction, will be in **Webster Auditorium**. Our board meeting will continue in the Marley volunteer building conference room. As you read this, think about plants you would like to part with, or can propagate for the Auction. They root fast in this great weather we're having.

Bring in labeled plants and bidding cards. 3 x 5 or 4 x 6 cards work well for this, as do quartered sheets of notebook paper. At the top of the bidding card put the name of the plant and perhaps a bit of culture information or a description if the plant is not well known. Then write an opening bid, minimum \$0.50, and leave room for bidder's names and bids below. Minimum bid increments will be \$0.25. At the end of the auction, if a plant has attracted no bids, anybody may purchase that plant for the opening bid. If plants still remain un-bought, we request the owners take them back home.

Bring in your checkbook or lots of small bills and quarters. With minimum bid increments being 25 cents, we should not need other coins. And be sure to bring in a box to carry home your new plants.

Cacti are taking off. Mesembs are stirring from the long hot slumber of summer. Now that nights have cooled, almost all the plants you own, summer and winter growers, want water. Many of your plants will make almost

their entire year's growth between now and mid December when it gets cold (by our standards). You can still fertilize, as well, and you will get better growth if you do so. Ignore the books that say "Don't water after August and certainly don't fertilize!" because they were written for places where it freezes in September. This is our all-out growing season, so make the most of it.

Exceptions would be some of the caudiciform vines that go dormant based on day length, rather than temperature. If your cucurbits like *Ibervillea* or caudiciform ascleps like *Fockea* have yellowing foliage, let them dry and go to sleep. Watering again after the leaves yellow invites rot.

Those of you who move plants around according to the seasons can bring plants into full sun. Remember to do this gradually so they don't burn. I have my *Echinopsis* in full sun all winter and I water them all winter. My reward: flocks of spectacular blooms in the spring.

Our meeting November will NOT be on the last Sunday. We will meet on Sunday, November 17, in Webster Auditorium, at the usual time. Our speaker will be perennial favorite Woody Minnich of Cactus Data Plants in California. He will show us some newly described species of *Turbinicarpus* cactus from Mexico. These are ideal plants for

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NEW LIBRARIAN!

NEW LIBRARIAN: After 4 years as our CACSS Librarian, Muriel Beroza is passing on the position to Paul Schueneman. We would like to give Muriel a big thank you for doing such a great job for providing our Society with a great book list, lending out books, purchasing books, storing the books at her home, cataloging, etc. Muriel's contributions to the Library and Society are much appreciated.

The new librarian, Paul Schueneman, has been a member of CACSS for 5 years, is a 2001 graduate of the Desert Botanical Garden Desert Landscaper School, and is excited about making the CACSS Library materials available to CACSS members. To request books, get a book list, suggest new materials for the library, or inquire about any other library matters, Paul can be reached at:

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BETTY GUNNELL: The CACSS Library would also like to thank one of our past members, Betty Gunnell, for her wonderful gifts of 5 more Euphorbia journals, past copies of the CSSA journals, a beautiful book Caudiciforms by Rowley, and many other reference books. On behalf of the Society, we would like to extend to Betty our profound thanks for these great additions to our library.

President's Letter October 2002 continued

cactus lovers without much space: they are small plants, some even thumb-sized or smaller; they like small pots; and, they do very well in our climate. I usually have volunteer seedlings in the pots among mine. Cactus lovers in more humid climates have a lot of trouble with them and dream of growing them as well as we can. Plus, they are very handsome plants and flower most of the summer. If you don't have a few *Turbinicarpus* in your collection you might want to reconsider.

At our last meeting we voted to have our normal Show competition and also plants on display, not entered in competition. Many members said they would bring plants in to show if they did not need to compete. The more plants we have on display for the public, the better our Show will look. We will arrange the plants mostly according to the same classes we use for the competition so plants are grouped together. Start thinking now of which plants you can bring to the Show, whether for the competition or the non-competitive section.

There will be a great article next month about the *Central Spine* and how it runs. Please read

NEW LIBRARIAN! continued

THE LIBRARY MOVED: In the past, the library had been stored at the CACSS Librarian's house. But through the generosity of the Desert Botanical Garden (DBG), the library is now housed in one of the cabinets at the DBG's Webster Auditorium. Now we can browse through all of the library's books and journals before and after our monthly CACSS meeting. Thanks DBG!!!

NEW BOOKS AND JOURNALS: Recent new arrivals in the library are:

Cactus and Succulent Journal, Vol. 74 July-August 2002. This is a special issue devoted solely to agaves with articles by Myron Kimmach, Gary Lyons, Mary Irish and others. This is a great issue agave aficionados would find especially interesting.

Desert Plants, Volume 18, Number 1, June 2002. Published by the University of Arizona for the Boyce Thompson Southwestern Arboretum. This issue features plants of the Santa Cruz Valley at Tucson and was written by Kathryn Mauz. This issue is mostly a scientific inventory of plants of the Santa Cruz Valley. Nice pic-

it! Joseph would welcome items to publish from all of you. You don't have to write a full article. Just jot down some of your observations about a favorite plant or group of plants and send it to Joseph. Tell us about your favorite plant, or a potting technique you find helpful. Tell us your favorite nursery story. Tell us how you propagate your plants. We would like to learn from you!

December and our annual **elections** are coming. Nominations need to be announced at the November meeting. We would like to talk to people having an interest in serving CACSS as an officer or director. All four of our officers will be stepping down, by personal preference or because of our constitution's three-term limit.

And, remember our December 8 holiday party in Webster Auditorium is approaching. We will once again have a coordinated potluck to eliminate the problem of 30 desserts and one main dish.

Leo A. Martin

tures, well-documented, but probably only of interest to serious botanists.

The Cactus Family by Edward F. Anderson. A monumental 776-page book solely devoted to cactus by "Ted" Anderson who was a director at the DBG. Ted covers the Cactaceae in an encyclopedic manner, addressing 125 genera and 1,810 species. Descriptions are short but information-packed, and the book includes more than 1,000 color photographs in addition to other illustrations. The author's intention was to produce a scientifically accurate but readable book that would be useful to a wide range of readers; students, taxonomists, ethnobotanists, conservationists, indeed, anyone interested in succulent plants. The introduction to each genus concentrates on the discovery of the cacti and the improvements in our understanding of them, in many cases the result of relatively recent investigation. This authoritative encyclopedia also includes a chapter on the cultivation of cacti by Roger Brown making the book even more useful to growers and hobbyists.

Paul Schueneman, CACSS Librarian

Plant CARE Of The Month

by: Leo A. Martin

It's still warm during the days and cool at night. Frost will not threaten for another two months. But now is a great time to prepare for the upcoming cold season. Waiting for the last minute means some plants will be forgotten and likely suffer cold damage. Most of us don't have a greenhouse. We rely on moving plants around to avoid frost. This can be a lot of work if left until the weatherman says there will be frost that evening! So, begin moving your plants now, a few each day.

Freezing damages plants in several ways. Cold weather may cause the proteins in the cells to curdle, the way whole milk fills with floating particles after being frozen. And, as water freezes, it expands. The expanding water in plant cells may rupture the cells, leading to their death. Often frozen plants, after warming, are collapsed, soft and slimy; this is because all the cells have ruptured.

Most plants suffer less frost damage if they have been dry for quite a while when the cold temperatures occur. The amount of salts in the cells stays relatively constant, but the amount of water decreases. It requires colder temperatures to freeze water with more dissolved salts than water with less dissolved salts. And, dehydrated cells are shrunken and wrinkled. The cell contents can expand some when freezing before the cell wall is ruptured.

Many favorite cacti and succulents tolerate our brief freezes well outside without any protection if the soil is dry. Landscape cacti sold in nurseries around here are fairly frost tolerant; on really cold nights, the tips may freeze. Walk through the Desert Botanical Garden and look closely at the *Myrtillocactus*; you will see branching where the tips were killed in the freeze of December 20-21, 1991. *Hoodia bainii* has been completely hardy for me in a pot the last 5 years. Of course, the plant was so dry the stems were bending over and almost touching the ground. In the spring, with watering, they straightened up and resumed growth. Larger plants usually tolerate freezes better than smaller plants.

A helpful clue to cold tolerance is the origin of the plant. There are many solidly frost proof *Echinocereus* and *Ferocactus*, but others from Baja California are very tender.

Most cacti bloom much better if they get quite cool in the winter. Keep this in mind.

OCTOBER 2002 - WINTER PROTECTION

Even very tender cacti, which should be brought in on cold nights, bloom better if left outside as long as possible before freezes arrive.

There are different levels of frost protection. Those with the luxury of a greenhouse or shade house can enclose the structure for the winter. Heavy transparent plastic sheeting can be layered over a shade structure to hold in warmth. A small space heater and excellent air circulation with multiple fans will easily keep the air above 40 degrees even on cold nights. The fans are critical and must not be omitted.

An unheated sunroom works well if well ventilated with fans. I shut the Arcadia doors enclosing a southeast-facing patio and winter my Brazilian cacti and *Euphorbia* there. It is seldom below 40 degrees. In the daytime I open the doors to the house and it warms my entire house.

Many plants will survive freezes if under some cover. Dense shrubs or trees, patio covers, and even overhanging eaves will protect most of your plants from frost. Cold air flows downward, and the overhead protection deflects it away from the plants. I move many tender potted cacti under a patio cover or against my house for the duration of cold weather. Many people in the Valley grow stapeliads at the bases of trees or shrubs. These plants are not hardy at all if left out in pots, but do fine under the tree canopy, against the ground, which holds some heat.

Blankets, sheets, or frost cloth may be draped over landscape plants. Frost cloth is better because: it is inexpensive; it is less permeable to moving air; it is lighter and easier to move around; and, it transmits about 75% of the light and does not heat up in the day, so it may be left over the plants for several weeks in the winter. It is a woven white paper product. It is sturdy enough to last for many years if folded and stored. It is sold in many nurseries in pieces or in wholesale rolls. Buying a roll and dividing it up among 5 or more friends is less than 20% of the retail package price. I drape 12' wide lengths from my roof down to the ground along the entire front of my house to protect my banana plants. I have the sections cut and labeled in storage. When the weatherman talks frost, I get out the ladder and drape the frost cloth. It takes me less than an hour.

Smaller specimens may be protected with an inverted trash barrel. I have also placed tomato cages over columnar cactus spears and draped frost cloth over the cage. On really cold nights a string of miniature Christmas lights can be lit under the draping. Don't worry, your neighbors already know you're nuts.

Some succulent plant genera with many species having fair to solid cold tolerance here include *Agave*, *Astrophytum* (*capricorne*, *myriostigma* and *ornatum*), *Cereus*, *Chamaecereus*, *Coryphantha*, *Dasyllirion*, *Echinocereus*, *Echinopsis*, *Escobaria*, *Ferocactus*, *Lobivia*, many mesembs, *Neocardenasia*, *Nolina*, *Opuntia*, *Oreocereus*, *Oroya*, *Pachycereus*, *Pachycormus*; *Rebutia*; *Selenicereus*; *Soherensia*, *Stenocereus*, *Sulcorebutia*; *Tephrocactus*, *Trichocereus*, and *Yucca*.

Some genera have just a few cold-tolerant plants. These would include *Aloe*, *Euphorbia* (*resinifera*), *Gymnocalycium* (*bruchii*), and *Mammillaria* (*senilis*).

There are a lot of plants that won't take cold at all, including many favorites of hobbyists. Most vining caudiciforms are in this group. If the tuber is buried, they usually survive our winters, but this is not how people usually grow them. Brazilian cacti can't take cold weather, and neither can almost any asclepiad, such as *Stapelia*, *Ceropegia*, or *Huernia*. Madagascan plants must be kept well above freezing in the winter. A few *Hoodia* will take frost.

Be sure you protect these: *Ariocarpus*; *Aztekium*; *Buiningea*; *Bursera*; caudiciform cucurbits; *Ceropegia*; *Cynanchum*; *Cyphostemma*; *Discocactus*; *Edithcolea*; epiphytic cacti other than *Selenicereus*, which are remarkable cold-tolerant, especially under trees; *Gasteria*; *Geohintonia*; *Haworthia*; *Huernia*; almost all *Euphorbia*; *Melocactus*; many mesembs; *Notocactus*; *Obregonia*; *Orbea*; *Pachypodium*; *Pilosocereus*; *Sansevieria*; *Stapelia*; *Turbinicarpus*.

Planning now will keep more plants alive during the coldest time of the year.