

Central Spine

Newsletter of the Central Arizona Cactus and Succulent Society

July 2002

President's Letter

For July, August, and September, we will be meeting in the new Weisz Learning Center classrooms, which have great air conditioning and are close to handicapped parking and the main parking lot. The board meeting at 1 pm will be in the Marley Education Building next to the Weisz Center.

Our summer buying trip to San Diego will be Friday to Sunday, August 2-4. Remember, it's a lot cooler there! Here is the itinerary:

Friday August 2: Depart 6 am from Desert Botanical Garden. Park your car at the DBG near the bus loading area to the east of the parking lot. There will be only one bus stop and we will leave directly for San Diego. Drive to Rainbow Gardens Book and Plant Shop. Check into Premier Inn, San Diego.

Saturday, August 3: Cactus King Nursery; Rancho Soledad Nursery; Solana Succulents; Canyon Pottery.

Sunday, August 4: Breezeway Nursery; Tropicworld; Depart for Phoenix.

Hotel rooms are \$61.99 for singles and \$66.99 for doubles plus tax. We had until July 19th to cancel or change the number of rooms required. By some miracle and Jo Davis' persistence, all people going on the trip actually made their own reservations, even Harry O'Carpus. It is still possible to go on the trip; contact Jo at home, then the hotel at (619) 223-9500.

Please read the article in this issue by Harry O'Carpus about what to bring on the trip. (Lunch and beverages for the Friday trip from Phoenix to San Diego, and lots of boxes with your name already on them to hold the plants you will buy. If fast food for lunch is not your cup of tea, plan on finding a market on your own each evening to buy lunch and beverages for the next day.)

December and our annual elections are coming. Our constitution specifies one-year terms for officers (president, vice president, secretary, treasurer) and two-year terms for directors. Further, no member may serve more than three consecutive terms in any one office. Vice-president Judy Brody, treasurer Pam Bass, and I are in our third terms in these offices. We will not be able to serve in these offices next year. The directors whose terms complete this year are all finishing their first terms in office, so they may all stand for election again.

We are going to need new officers. Start thinking now. Any of you interested in these offices please contact the incumbents for more information about what is entailed. It's not really much time, nor is it difficult. This is our Society, and without all of us working together, there will be nothing.

I might also point out that our constitution forbids the president

from serving as show chair. I have been show chair in violation of our constitution the past three terms because nobody else was willing to serve a show chair. I believe holding the show is critical for gaining exposure to the public, for attracting visitors to the Desert Botanical Garden, and for attracting new members to our Society. I am willing to continue as show chair, so the incoming president will not have to do that.

We made enough money at our Show and Sale to bring in a number of speakers from out-of-state and to buy more library books. Please contact Cathy Babcock with names or topics you'd like to see in 2003, and please contact Paul Schueneman with books you'd like for our library.

Silent Auctions serve two purposes: to raise money for the Society, and to help members find plants. Historically, about half our annual expenditures came from membership dues (which just cover newsletter printing and mailing.) Remaining income was from the two Silent Auctions, our annual raffle at the Show (which usually came very close to paying for Show table rental), and the Birthday Can. We received financial gifts beyond dues payment from some members. Our other expenditures included an occasional out-of-town speaker, a few books for the library (paid by the Birthday Can supplemented with Silent Auction money or we'd have only a few new books annually), and occasional postcard announcement mailings. Our Society has had a very small budget for a C&S club our size.

Many members have expressed interest in holding only one or even no Silent Auction annually so that we might have more meetings with speakers. After some discussion last spring, we decided to wait and see how much money we made from the Sale. Happily, we made much more than we expected, and we can do even better next time with more publicity. If we dropped both Silent Auctions we would still be ahead financially owing to the success of our Show and Sale.

Other members did not wish to drop any Silent Auctions because they find so many plants there. We don't need them as badly now for fundraising, but it is important for members to be able to find plants at good prices.

One possibility raised earlier would be to replace one or both Silent Auctions with a speaker, and have a smaller Silent Auction at each meeting. Bids would open as soon as the item and card were placed on a table, and close at the end of the meeting. For those who normally bring in lots of plants to Silent Auctions, this would help reduce the workload. I know I would be more likely to bring in more plants for auction over the course of a year under this routine. I know Damon prunes his landscape cactus more than once yearly and I bet he could arrange to prune just before meetings.

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What do you think? Please let us know or come to the meeting do discuss this issue.

This month's speaker is CACSS member and past president Scott McMahon. He will be talking about Euphorbia, which are some of his favorite plants. Those of you exhibiting Euphorbia in the show know how well he grows his plants. Bring in plants to show off or about which to ask questions. Don't know how to prune? How to pot it so it looks good? Ask Scott. As usual, please leave diseased plants and insects at home, and bring a picture instead.

Leo A. Martin

Euphorbia

Scott B. McMahon

Family Euphorbiaceae is the fourth-largest among flowering plants with more than 300 genera and 5000 species. Although almost world-wide in distribution, the majority are found in tropical and subtropical Africa and South America, with the weedy garden spurge extending up into temperate zones. The milky sap is often poisonous, and some plants, notably castor-bean (*Ricinus communis*), are used medicinally as purgatives. The most valuable of the rubber plants of the world, *Hevea brasiliensis*, belongs to this family, and other genera also contain species that are sources of rubber. Cassava, a staple food of tropical countries, and tapioca are obtained from the roots of species of *Manihot*. Tung oil is extracted from the seeds of species of *Aleurites*, a mainly Asiatic genus. Castor oil, chemically altered into a drying oil, is used in paints. The succulent genera of most interest to us are *Euphorbia*, *Jatropha*, *Monadenium*, *Synadenium*, and *Pedilanthus*. Jacobsen includes two other genera, *Stenadenium* and *Elaeophorbia*, but the few species included in these are unlikely to be encountered.

The genus *Euphorbia* contains about 2000 species, including the popular holiday poinsettia (*E. pulcherrima*.) Many of the shrubby types are from temperate climates, but it is in the warmer parts of the world that the genus shows its real diversity and adaptive ability. Succulent *Euphorbia* species number over 400, and their forms range from the sub-globose *E. obesa* to geophytic caudiciforms such as *E. tortirama* to larger spiny shrubs and even huge trees up to 30 feet tall. Many species have fluted stems armed with spines and closely resemble cacti. This is an excellent example of convergent evolution, where different plant families growing in different geographical locations, but under similar climatic conditions, develop similar strategies for survival. Even so, a spiny *Euphorbia* can always be distinguished from a cactus, because it won't possess an areole, the felt-like pad from which the spines arise, unique to the Cactaceae.

The name *Euphorbia* is derived from Euphorbus, the physician to Juba, King of Mauritania, a province of Carthage and then Rome, roughly situated in present-day Morocco. According to the historian Pliny, Euphorbus discovered curative effects from a resin secreted by the plant probably now known as *Euphorbia resinifera*. Juba II was brought to Rome as a child from Numidia, where his father was king, in 46 BC. He later married the daughter of Antony and Cleopatra. He was placed on the throne of Numidia, but was given the throne of Mauritania in 25 BC. Pliny writes that legend says that

Juba was amazed at the succulence of this plant, and he dedicated it to his physician because euphorbus in Greek means 'well-fed' and the king thought it funny, as both his physician and the plant were of such fleshy build.

Euphorbia contain, along with other genera in the family, a milky sap, which oozes out from wounds, sometimes from even the slightest touch. This dries into a latex-like substance, sealing the wound and, no doubt, is a deterrent to insects and herbivores. Depending on the time of year, vascular pressure inside the plant can cause the sap to spurt out when cut. Contact with the eyes, nose, mouth, and even skin can produce severe pain and inflammation. Some species cause little or no irritation to the skin, while others initiate a more serious reaction. While visiting the Euphorbia Reference Collection in Bolinas, California, I was affected by what I believe to be *E. virosa* by simply standing near some plants in an enclosed portion of the greenhouse. This is not to say that they are to be avoided, but extra precaution is needed when handling them.

Euphorbia is also characterized by a very specialized type of flower structure: the **cyathium**. Individual flowers are unisexual and reduced to essential parts: a single female floret, comprising a stalked ovary, surrounded by a number of male florets, each reduced to a single forked stamen. The corolla and calyx (petals and sepals) are replaced by an involucre (collar) of bracts, and include the nectar glands. The bracts may be small and green or yellow, or they may be highly ornate and brightly colored. The three-lobed ovary swells up after fertilization, producing just three large seeds that are ejected when the capsule dries and suddenly explodes. Some species have both male and female flowers in the cyathia and therefore are bisexual. Other species have separate male and female cyathia on the same plant and are called monoecious, while still others have plants with only male or female cyathia and are called dioecious.

I have been growing *Euphorbia* and members of the other genera for over 20 years. While some are a little tricky to cultivate and need special conditions to do well, I have found that most present no particular problems. Most grow during the warmer months of the year and take a general cactus/succulent mix. They can be watered and fertilized on a regular schedule along with the cacti, tapering off during the colder winter months. Most, however, are frost-tender, and will suffer damage during a freeze if not protected. Especially the ones from Madagascar that grow in a few 40 degree Fahrenheit greenhouse. If you want to learn more about *Euphorbia*, consult the *Euphorbia Journal* and see how amazing and diverse these plants are, or take a trip to Arid Lands Greenhouses in Tucson and see close to 300 species (in person).

If you have an especially interesting one you would like to share with us, you are invited to bring it in to this month's meeting and tell us a little about it. We will also have available volumes of the *Euphorbia Journal* and other literature pertaining to these fascinating plants.

References:

Kearney TH and Peebles RH, 1969. *Arizona Flora*. University of California Press, Berkeley and Los Angeles, California.

Martin MJ and Chapman PR, 1978. *Succulents and Their Cultivation*. Charles Scribner's Sons, New York, New York.

Rowley GD, 1987. *Caudiciform and Pachycaul Succulents*. Strawberry Press, Mill Valley, California.

Euphorbia Journal volumes I-XI. Strawberry Press, Mill Valley, California.

Bus Trip Etiquette

Harry O'Carpus

Some of you newer members have written to me lately about the upcoming bus trip asking what to bring, where to sit, and most importantly, how to behave in order to impress the snootier established members. Here are a few tips we have learned along the way that are sure to win points and ensure a successful first Club experience.

Stay up late the night before, forget to set your alarm, and thus be late to the parking lot. This will make the bus wait, anger the rest, and guarantee you a space in the cargo bay for the remainder of the trip. Note: Although quite roomy on the way to San Diego, the ride back down below will be quite cramped with plants, some of which will stab you on every bump!

Forget to wear your name badge. Since many of us have short memories, we will only talk to those we already know. Stay in your seat and look out the window. This way you're less likely to meet anyone new. If you need an excuse to walk down the aisle, you can always head for the bathroom (everyone will, sooner or later), and try to make eye contact as you go. This is also useful to check out what people have brought for lunch, and to remind you that in your haste to get to the parking lot in time, you forgot yours.

Before the bus arrives at the first nursery, be sure not to discuss what particular plants you are interested in, because one of the more seasoned members will overhear you and get to them first. Sitting in the front of the bus will assist a speedy exit. Once out of the bus, it's dog eat dog, as the running shoes thunder into the greenhouses and the feeding frenzy begins. This is when a few choice phrases will give you the edge over the competition. Pretend to be helpful, for example, when someone asks if you have seen a *Euphorbia abdelkuri*. Say, "I thought I saw it over there", while you're actually standing in front of it. Another strategy that works on more naive members is to run down a certain species, claiming that it has disease or bug problems, knowing that they will shy away from anything that isn't easy to grow.

If your roommate is willing, or if you can enlist the help of someone you just met using the above suggestions, you can work as a team employing hand signals and blocking techniques to head off other members from reaching the plants you want. Since most nurseries have narrow aisles between benches, all it takes is one person to completely block off the competition until you can arrive. Once in your box, the plant is yours-you did remember to bring a few boxes with your name on them, didn't you? If you get to the check out line early enough, and you have enough money to pay for everything, you can sneak back to the bus and fondle your new acquisitions without anyone noticing.

You will no doubt learn many more tidbits of information if you manage to get invited out to dinner with one or more of the "In Crowd" and buy them a few drinks. This is when the truth comes

out about how they've actually acquired some of their plants and how they really feel about who's over at the next table.

Keep this information handy and out of sight, and refer to it often during the trip. Make notes, add to it, and then send it to me, so I can forward it to everyone else in the club, so as to level the playing field for our next outing.

Good Luck!

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Opinions published here are those of the respective authors and not official positions of the Central Arizona Cactus and Succulent Society.

Start dividing and propagating your plants now for the October Silent Auction!

Calendar of Events

Meetings are the last Sunday of each month at 2 pm unless otherwise indicated. For August and September we meet in the Weisz Learning Center. October through March we meet in Webster Auditorium.

August 2-4, Friday-Sunday: Buying Trip to San Diego Area Nurseries

August 25: Doug Dawson, CACSS Member: Namibia and SW Africa

September 29: Anthon Ellert, Euphorbias of Matabeleland, Zimbabwe

October 27: Silent Auction

November 17: Woody Minnich

December 8: Holiday Party

Tips and Tricks

Coffee filters make excellent pot hole covers, lasting longer than paper towels and weighing less than rocks or shards.

Most succulents survive difficult conditions better when underpotted.

Asclepiads that aren't growing vigorously during warm weather are either kept too dry or have mealy bugs.

Hoodia prefer full sun, big pots, and lots of water.

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Echinopsis will take full sun in pots if not allowed to dry out

Few *Euphorbia* enjoy full Arizona sun. Many prefer mostly shade for best appearances.

Most, but not all, cacti stop metabolizing when night temperatures are over 80 degrees. They don't need much water and can't use it. Continue light sprinkling during this weather to provide some evaporative cooling.

Peat or bark-based soil mixes decompose rapidly in our heat. Plants in such mixes need repotting every two to three years, or the soil becomes black, oxygen-starved muck.

Yellowing patches on plants indicate heat or water stress. With proper shading and watering the yellow will revert to green. White patches indicate death of cells, and the plant will be scarred. As soon as you see yellowing on your plants, move them to a more suitable spot.

Fertilize your plants regularly with a balanced fertilizer plus micronutrients. You will be amazed at the difference in growth and flower production.

Osmocote only lasts 2-3 weeks when temperatures are over 90. Ammonium sulfate breaks down in minutes to hours. It is best to use liquid fertilizers when temperatures are lower, like early morning or late at night.

