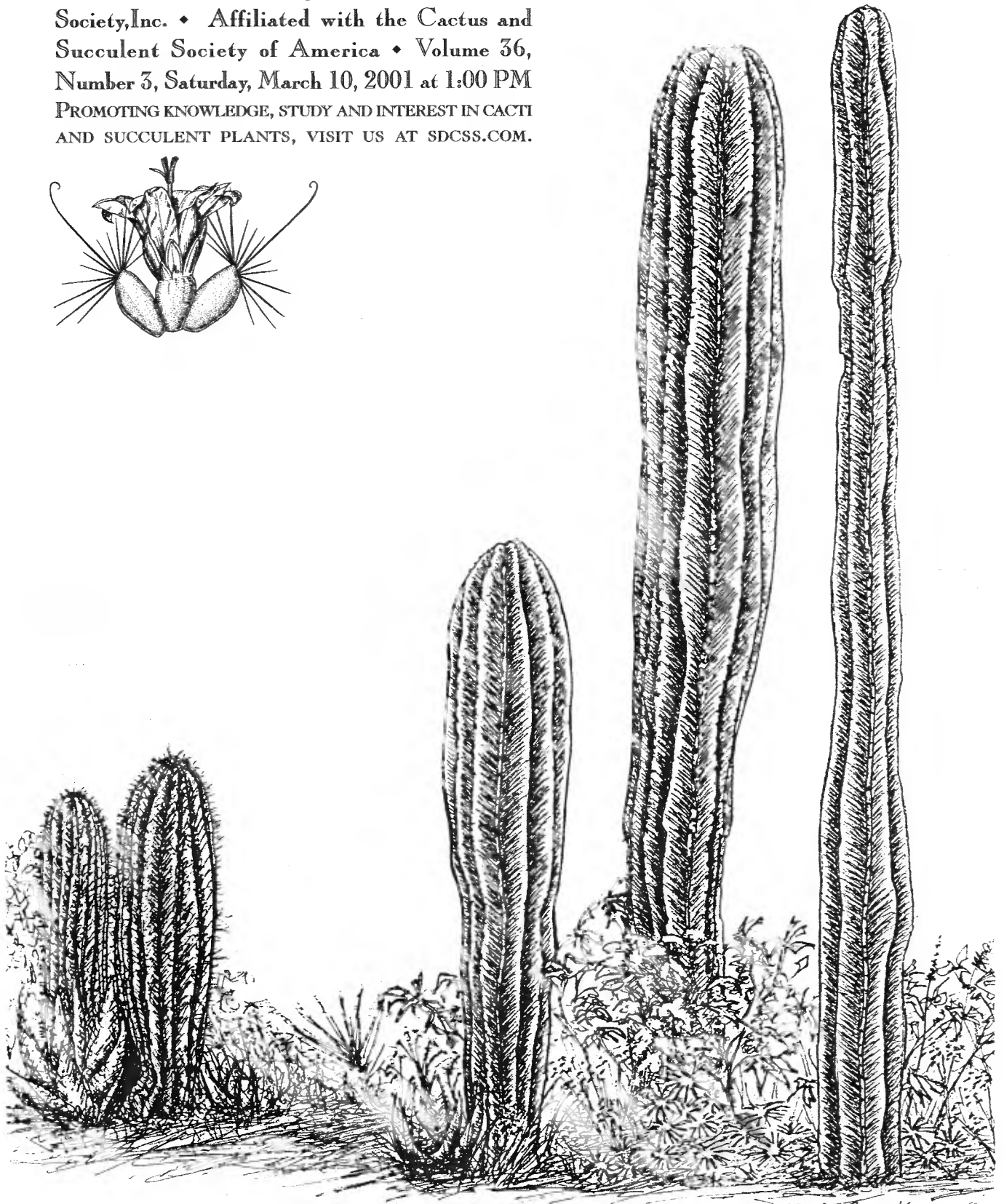
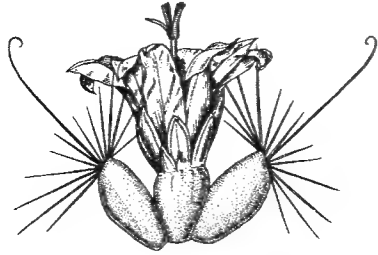


Espinas y Flores

Newsletter of the San Diego Cactus and Succulent Society, Inc. • Affiliated with the Cactus and Succulent Society of America • Volume 36, Number 3, Saturday, March 10, 2001 at 1:00 PM
PROMOTING KNOWLEDGE, STUDY AND INTEREST IN CACTI AND SUCCULENT PLANTS, VISIT US AT SDCSS.COM.



DEBRA ERICKSON ©

The Turbinicarpus and Ariocarpus Tour

Due to some unforeseen circumstances, our scheduled speaker Steve Southwell will be unable to deliver the planned program on staging. We will try to reschedule this much anticipated program later this year or the first part of next year.

Our March program will be about a trip I made with Woody Minnich in search of living goat droppings (*Turbinicarpus* etc..) I have shared a few glimpses of this with you but I have not given this talk yet. I can tell you – it has a decidedly cactus slant to it...lots and lots of *Astrophytum*, *Ariocarpus*, *Thelocactus*, *Turbinicarpus*, and *Lophophora* too. I jokingly called this trip "The T and A tour" although that might not be a very appropriate title for a program, it was in reference to the cactus we were photographing namely the *Turbinicarpus*, *Ariocarpus* and *Mammillarias* - Trust me, nothing else! We also visited the Valle de los Fantasmas in San Luis Potosi home of *Mammillaria orcuttii*, *Agave celsii* and *Senecio praecox* among other plants.

Best Regards, Kelly

Cover artwork: Debra Erickson specially designed this original art for our Newsletter. She works at the Plant Trader at the Wild Animal Park. The picture features *Pachycereus pringlei* and *P. pectin-aboriginum*.

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

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La Mesa, CA 91941
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FAX (858) 569-8510

Newsletter submissions are due before the 14th each month unless other arrangements are made.

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President's Message March 2001

Our February meeting was a great one! Despite the bad weather over 70 members and 5 guests signed in. Welcome guests Seana Gauger, Curt Sherman, Sheldon Grover, Paul Sternberg, and Janet Natheson, we hope you come back and consider joining our Society. The Cactus and Succulent of the Month was a very delightful and educational change - a slide show presented by Dr. Jon Rebman of the Natural History Museum on the succulent plants of Baja California. Baja is such a treasure of the plant world, we are lucky to live so close and luckier still to have such an expert give us an excellent 'tour.' THANK YOU Jon!

Thanks also to Tom Knapik for a fascinating tour of succulent plant nurseries and collections he visited on a recent trip to Europe. It amazes me to see plants which are 'almost common' there and virtually unseen here. It was sad however, to see all those illegal collected plants! The importance of our efforts in education and conservation are highlighted by these revelations.

As was announced at the meeting, the board has decided to raise the stipend you can earn by bringing in plants for the brag table. For first place you now can earn \$5.00 credit in the sales area, for 2nd place \$4.00 and 3rd place, \$2.00. This is also a great place to show off plants that have those 'special times' whether in bloom or new growth, that may not look so special for the big shows. Even if you don't win anything the plants enjoy the trip and being bragged about. Look over your collection and bring in a plant or two, your plants and fellow aficionados will appreciate the effort and you may be able to add to your collection with a prize!

We have also started a new benefit at monthly meetings - a 'What's It' table. You are invited to bring in a plant or two (please no more than two per meeting) to get proper identification and cultural information from the members. This promises to be a great service for new members as well as some of us more seasoned collectors who have not always been sure of what it is we have fallen in love with. So bring in your plants you want identified, those you want to brag about as well as those that may illustrate the PLANTS OF THE MONTH. The more we all participate the more fun and learning for all.

I regret that I will not be able to attend the March meeting, but I am happy that I have the opportunity to travel to The Galapagos Islands and look forward to sharing adventures and maybe a few slides when I return. Until then, be well, have fun, happy Spring.

Sincerely, Pam Badger, pambadge@earthlink.net

Perlso Lewis (1918–2001) A SDCSS Charter Member *by Ethel Standish*

On February 15, Perlso Lewis, left us. She was a charter member of the San Diego Cactus and Succulent Society. To know this dynamic lady was a real pleasure. She never forgot her plants, which she considered her children. She talked to them every morning.

For years she was hostess at the front desk, and never forgot to bring plants for anyone who wanted them. She was always happy to chat with all. Though lately she was not able to attend meetings she was always interested everyone, the latest club, shows and other events.

We shall miss you Perlso!

[*Editors note:* Perlso Lewis was a charter member of SDCSS. Back in 1965, she was Mrs. A. A. Lewis, when her husband was alive, they were married 49 years. With the passing of Perlso, I believe only one charter member remains, Robert Taylor. In April 1966 there were about 60 members. Perlso was mentioned in the Societies first newsletter for her help with the clubs plant display at the 1965 San Diego County Fair. She helped with the four SDCSS floriculture exhibits that bought home \$525.00. The exhibits were: a rock garden, succulent display, cactus specimens, and hanging baskets. On Thursday, February 22, Perlso was laid to rest near her husband in the Fort Rosecrans National Cemetery, Point Loma. Ethel and I represented the club. - J. A. Betzler]

Calendar of Upcoming Events

— 2001 —

⇒ **MARCH — PLAN TO SEE OUR LOCAL WILD FLOWER DISPLAYS FROM OUR FEBRUARY RAINS!**

- 24 Field Trip to Santa Rosa Plateau with the California Native Plant Society. This is a must see if you are interested in our native flora. Call 619-563-6492 for more info.
- 24 Going to Hawaii? Stop by the Lyon Arboretum Plant Sale to support our most western C&S Soc. call Nathan Wong, 808-522-7063, for more details.
- 25 Hike up Clevnger Canyon, near the Wild Animal Park with the San Diego Natural History Museum. Call 619-232-3821 x 203 or look on the web: www.sdnhm.org.
- 26 Ever hike Elfin Forest? Now is your chance, this is another outing with the Natural History museum, see above for contact information.

⇒ **APRIL**

- 13-16 Succulenticon 2001, the Conference of the Australasian Cactus and Succulent Societies at the Hotel Heritage, Narrabundah, ACT. Presentations by 14 speakers from all over Australia will feature aspects of the Australian scene as well as presentations by speakers of their overseas field trips, studies and specialty interests. Other activities include sales of quality plants and books and a visit to local collections. For further information either write to Succulenticon 2001, PO Box 484, Mawson ACT 2607 or email smith@dynamite.com.au

⇒ **MAY**

- 19 Cuyamaca College, is having a Spring Garden Festival/Urban Forest Field Day from 9am-3pm, please call 619-232-9763, and leave a message for more info.

⇒ **JUNE — SDCSS SHOW AND SALE — GET THOSE PLANTS R E A D Y !**

- 2-3 SDCSS Spring Show and Sale - start thinking now about those show plants. We need a great showing this year ... especially those prize cactus specimens!
- 30-1 CSSA Show & Sale, Huntington Botanical Gardens, 1151 Oxford Rd., San Marino CA.

⇒ **JULY — SUPPORT THE NEXT CALIFORNIA CACTUS AND SUCCULENT CONVENTION.**

- 1-6 2001 CSSA Convention **PLAN NOW TO ATTEND!**, Warner Center Marriott, 21850 Oxnard St, Woodland Hills CA. **This is the correct date!** See www.cssainc.org/convent.html for details

FYI FYI FOR YOUR INFORMATION FYI FYI

⇒ *THERE WILL BE A MEETING OF THE WILD ANIMAL PARK VOLUNTEERS* in or Near Room 104 at 11:30 on March 10. We will discuss our Spring planting goals and plan out some changes to the lay out at the two gardens: The Old World Succulent Garden and the Baja Garden. We have been getting some good plant donations and are looking for more. Please come and give us some input and help plan the future direction our gardens will take. If you have questions please call **Joey Betzler**, 858-569-8510, or **Chris Miller**, 619-258-9915. EVERYONE IS WELCOME . . . See You There!

⇒ If you wish to participate a little closer to home why not call **Jeff Harris** in the Balboa Park Club's old cactus and succulent garden. Jeff will be forming a group to take care of this historic planting. The Balboa Park Club is located in the northwest corner of the Aerospace Museum parking lot. The garden is behind the building. You can reach Jeff at 619-294-5708.

⇒ ☞ **WE NEED YOUR HELP** ☞ Please assist the show chair in making this the most spectacular Spring Show possible. How can you help? By taking care of those loved cactus and succulents now. We especially need Cacti of all shapes and sizes, start caring for them and grooming them a bit early this year. Do you want to have a display (of course you do), call **Tom Knapik** to reserve a space now, 619-462-1805.

⇒ *Hey, go on and get out ... get outside now!* With the rains that we have had there will be an explosion of wild flowers throughout the county. Get out and take a look at the native plants, yes cacti and succulents too. For some ideas go to the California Native Plant Society's San Diego Chapter web page: www.cnpsd.org or to the San Diego Natural History Museum's web page <http://sdnhm.org/calendar/index.html>. There is also some suggestions above in the Calendar. Get the hint, get out and enjoy yourself.

⇒ Do you have some mystery plants in your collection? Do you want them identified? Well, we are now going to have a new service for our members . . . It's called a '*Whazzit Table*'. Simply bring in your plants to the meeting (no more than two per month per member please) and there will be a special table for these poor unidentified plants. The great minds of the SDCSS will attempt to name that treasure. If in flower, better yet! Cuttings are also acceptable. If you have any questions please see **Joe Kraatz**.

⇒ **Larry Grammer** will be auctioning off part his plant collection on April 14, at Cactus Data Plants. These are award winning specimens, for more info. email cactusdata@thegrid.net or call 661-944-2784.

Using and Growing *Crassula*

by Phil Bunch

Of all the succulents we grow, few are more at home in San Diego than the genus *Crassula*. These versatile and often colorful plants offer both experienced growers and neophytes a wide range of sizes, shapes, colors and textures. With the hundreds of species and hybrids to choose from, this genus has attracted growers for at least two hundred years and will continue to do so as long as succulents are grown. Botanists, take care. This genus is a labyrinth of challenges. If you think their usually cooperative nature places them below your skills as a grower, bring us a really well grown *Crassula susannae* for the brag table. In this article I will provide some general information about the genus and then delve into using and growing the plants.

Let's start with a little background before we explore horticultural potentials. Growth forms in the genus *Crassula* range from tiny annuals, tuberous rooted perennials, and rosette-forming herbs through woody or succulent stemmed subshrubs and shrubs. Annuals may be no taller than an inch, while some of the shrubby species grow to more than 8 feet high. The leaves of *Crassula* are generally quite succulent but may be rather thin as in *C. pyramidalis*. Leaf textures include membranous and smooth, soft and fuzzy, rough, hard and rock-like. Most are somewhere in between and succulence is common. The leaves are arranged oppositely, being produced in pairs along the stem and may persist for several years or drop rapidly as the stem elongates.

Individual flowers are small, with few approaching an inch in length or width. While a few species have reduced inflorescence with single flowers, dense round to flat-topped heads and elongated spikes are more typical. Colors vary from white through subtle pinks to brilliant reds. A few are greenish or yellowish. The fruits are dry when mature and split along one side releasing the small, almost dust like seed.

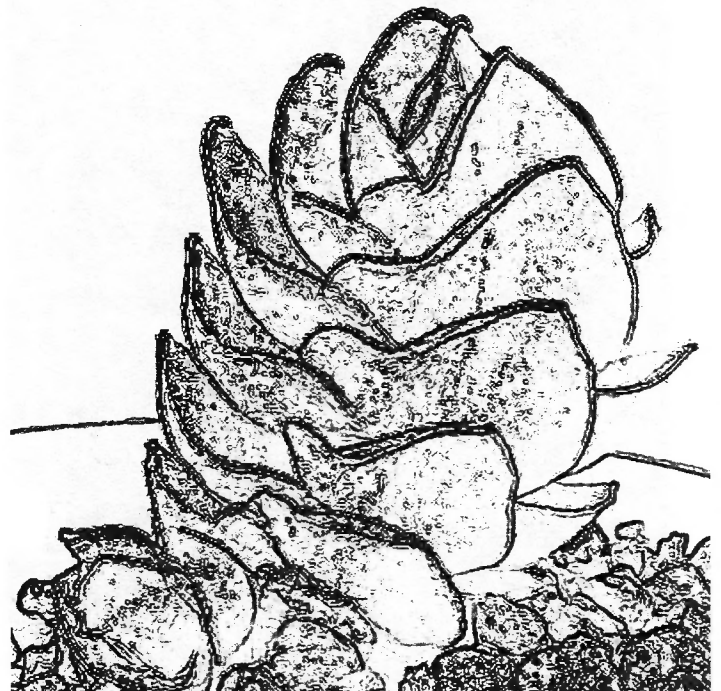
Crassulas include approximately 300 species worldwide. More than 150 of these come from Southern Africa, making that relatively small

area the undisputed center of distribution for the genus. A few other "typical" *Crassulas* occur in eastern Africa. Natives from the rest of the world are mostly annuals previously known as *Tillaea* and *Helophytum*. These modest members of the clan challenge the generic stereotype and include aquatic and vernal pool species!

Numerous hybrids have been identified in habitat and may make identification of collected material difficult. *Crassulas* also hybridize easily in cultivation and many are attractive horticultural standards. The tendency to hybridize and poor record keeping by many who have worked with these plants makes it difficult to determine the correct name and parentage of some of the most familiar plants.

Crassulas have gained much of their popularity from their utility. These are the workhorses of the succulent world. Some contribute structure, texture, and color to the landscape. Others are charming in a stoneware container, or in a hanging basket. The tree-like appearance of others makes them candidates for the bonsai pot. Few dish gardens featuring succulents are without a *Crassula* or two.

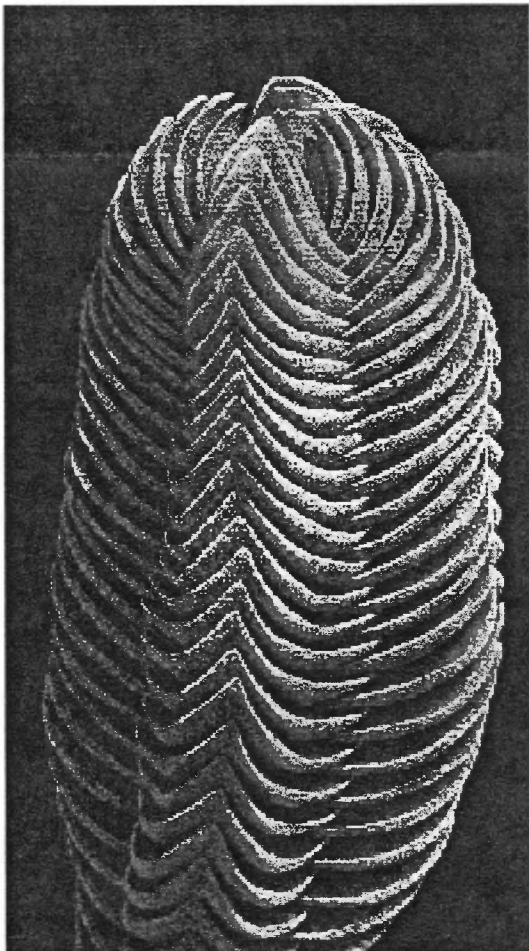
In San Diego gardens, the jade plant



cv. Ivory Pagoda

(*Crassula ovata*) is widely used. These become quite large when planted out and make a good low hedge. The standard jade plant has white to somewhat pinkish flowers that literally cover the plants during late-fall and early winter. Cultivars with strong pink flowers are now available, and include 'Pink Beauty' and 'Pacific Pink' (possibly another name for 'Pink Beauty'). Although slower growing, the silver jade (*Crassula aborescens*) also becomes a large and attractive landscape element. It's silvery blue leaves with red margins add subtle color and mass where desired.

The propeller plant (*Crassula perfoliata* var *minor*), once known as *Crassula falcata*, makes an excellent bedding plant or ground cover. The commonly grown variety in San Diego has beautiful bluish leaves and generally grows to less than a foot in height when planted in the sunny spot it prefers. During July and August these rough and ready troopers provide a mass of



cv. Buddha's Temple

scarlet-red flowers that simply can't be ignored. Less frequently seen variants have salmon-colored flowers. For a partially shaded spot, *Crassula multicava* forms a green ground cover and an airy display of pinkish-white flowers during the winter. 'Campfire' offers an opportunity for mass color effects where bright orange-red tones are desired. I have limited my short discussion of *Crassula* in the landscape to plants with which I have personal experience. Other species and hybrids are just waiting to be tried.

When choosing a container plant consider the color size, shape, and texture of both plant and pot. Imagination and creativity are the keys to satisfaction. Some prefer a sophisticated approach that focuses on bold contrasts or subtle combinations, others like the whimsical, almost comical use of novelty pots. It's a matter of preference.

Like contrast? Try a bone white *Crassula deceptor* in a dark pot with a black top-dressing. The same plant in a smooth glazed white container and white top-dressing yields more subtle results. The use of complimentary colors like the shocking orange-red of 'Campfire' in a deep green pot will definitely catch the eye.

Closely related color combinations also offer opportunities. Well-grown *Crassula rupestris* subsp. *commutata* have lovely reddish brown shades and look very nice in an earth-tone stoneware container. Consider the rich purple of *Crassula* 'Burgundy' in a brown vessel with purple highlights. Again, top dressings can be chosen that accent or blend with the overall color scheme.

The size of the plant relative to the pot is an important consideration. A small specimen in a large container looks out of place unless placed with great care. Suffice it to say that a sense of proportion and balance is mandatory. The container should anchor the plant visually giving an effect of stability and rootedness.

Some *Crassulas* have a floppy growth form and are suited to hanging baskets or

tall containers allowing them to cascade. Candidates for this treatment include *C. expansa*, *C. cordifolia* and *C. sarmentosa*.

Crassulas are generally quite easy to grow. As with all plants the right combination of moisture, nutrients and light are important. Most do well with more watering than other succulents and are not fussy about when they are watered. I generally water a new plant with care for at least a year or I find an indication that it's a tolerant species. My first clue to watering is the plant's range in habitat. This may be found in H. R. Tolken's *Crassulaceae* in the Flora of South Africa (check the club library) or often by asking on one of the Internet lists mentioned below. If from the west coast of South Africa or Namibia a cool growing period may be preferred. Increase watering around October and gradually reduce during April and May. Bone-dry summers may lead to an untimely demise. Plants from the southern fringe generally tolerate year around watering but may prefer a light hand. Species from the interior are best give predominately summer watering and have a strong tendency to be opportunistic. Species from the east coast and tropical areas to the north should receive summer water and a relatively dry cool season until proven tolerant.

When a plant is actively growing try a dilute feeding of a soluble fertilizer at each watering. For formulations similar to Miracle-Gro this means 1/4 teaspoon per gallon of water. If growth becomes excessive, reduce feeding. Inactive plants do not require fertilizer. A few species like the miniature, cool season grower, *Crassula susannae* needs less feeding with a lower nitrogen formulation.

Crassulas are generally tolerant of a wide variety of soil mixes but good drainage and aeration is required. A mix of 1/3 pumice, 1/3 sand, and 1/3 organic matter works well for most species. Those from drier habitats may prosper with reduced organics while plants from damper areas will benefit from more. The amount of organic matter in your mix and its texture affect both watering and feeding. High organic matter content and small particle size generally suggest less frequent watering and feeding.

Light is crucial for plant growth. Too little will result in gangly growth, loss of leaf color

and a gradual decline. Too much may burn the plant. When in doubt start with morning sun and watch growth carefully. Gradually increase exposure to full sun all day or resentment sets in. Dormant or semi-dormant may benefit from light shading and an occasional misting during the summer.

Want more information on Crassulas? The club library has a number of books that provide additional help with cultivation and more scholarly works such as Tolken's monographs. These represent the most recent systematic treatment of *Crassula* from Southern Africa. Unfortunately there is no recent book on the genus that provides both good photographs and up-to-date nomenclature. If you have access to a computer try the following interactive lists:
<http://groups.yahoo.com/group/Crassulaceae>
<http://groups.yahoo.com/group/crassu>
http://groups.yahoo.com/group/other_succulents.

In any case, have fun with *Crassula*. It's a genus worth growing.

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The Sub Genus *Tephrocactus*

by Tom De Merritt

I first agreed to do *Tephrocactus* as the cactus of the month because I very much enjoy this hardy sub genus of *Opuntia*. Other collectors admire them for their ease of care, their natural resistance to insects, and most of all their beauty. However, I may have been discouraged if I knew at that point how little reference material I'd have at hand.

The first thing one should ask is, 'how was the genus named?' This is important because the name describes the nature of the plant. A genus is often named for a characteristic that can greatly help with the understanding of the plant group. In 1868 a Dutch professor of botany at the Belgium University of Ghent named Charles Lemaire was the first to establish the genus botanically and appears to have come up with the name. He explained the derivation as from *Tephra*, the Classical Greek word for ashes, particularly the ashes of the mourning and of the funeral pyre and of course cactus, the old Linnean name for various Cactaceae.

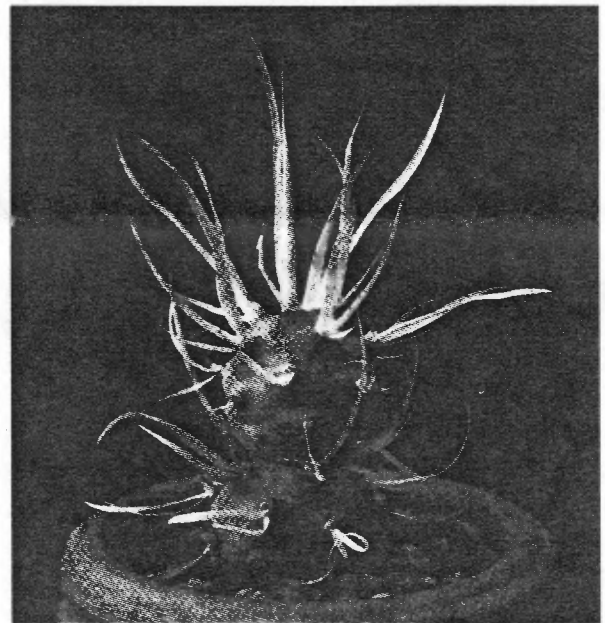
Often, with these plants the fresh growth is purple or red or various shades of green or glossy brown, mature stem segments are often of a dull, dead looking dirty brown or gray; and burnt is an adjective which readily comes to mind. The benefit in my mind is that knowing this will help one overcome anxiety they could have thinking the plant is sick and in need of chlorophyll by way of fertilizer or something. The beauty will have to be gleaned from the body of the plant in the case of the mature dull gray *Tephrocactus*!

The distribution of these gregarious plants is from central Peru to the southern extremity of Patagonia. They exist up to 15,000 ft down to sea level and can survive intense heat to extreme cold. There are thought to be about 120 allegedly different species among collectors.

The first study of *Tephrocactus* actually started in 1833 and has since then gone through a litany of lumping and reclassifying. Charles Lemaire laid the foundation from which many would later work. Without listing the detail of these classes I would state Lemaire's descriptions as low growing, scarcely climbing

species, often forming enormous clusters spread on the ground, with ovoid or oblong segments instead of being erected, raised, arborescent, flattened or cylindrate as are their closest cousins *Opuntia* and *Cylindropuntia*. Lemaire observed these dwarf plants were sub-erect with superposed segments, branched egg shaped and elongated. Thorns biform, directed downwards for the most part flat foliaceous, those in the center or the small bristles, soft fine silky.

Many great botanists such as Germany's Karl Schumann and Curt Backeberg provided further work on *Tephrocactus* through 1961. I was particularly impressed when I found an article published in *Desert Plant Life* 1951, by a local author, John Poindexter, (from Carlsbad Ca.). He completed a morphological study that showed, by



Tephrocactus articulatus v. *diademata*

magnifications up to x 160, that the apical meristems of some *Tephrocacti* were distinctly aberrant from that of a selection of other *Opuntias*. Mr. Poindexter suggested this might support *Tephrocactus* as a separate genus. He stated these plants were imperfectly known and are probably descendants of larger ancestors that have become dwarf.



Tephrocactus molinensis and *T. sphaericus*

Tephrocactus have been split into 4 groups and rather than commenting on individual species a brief description of each is as following:

T. pentlandii group

Growth dense and compact in some species, often forming a rounded hummock (a rounded knoll) in habitat. Stem-segments smooth or tuberculate, ranging from globular or ovoid towards cylindrical (the latter sometimes brought out by cultivation), generally green, in some cases glossy: spines ranging from almost absent to very numerous. Flowers recorded as red, orange or yellow.

T. glomerata group

Growth generally dense, often heaped together in a rounded hummock, stem-segments sometimes globose, often a rather conical ovoid, usually only slightly tuberculate and dark slightly glossy green to brown with tough joints becoming woody with age, spines never absent and usually distinguishable. Flowers recorded as yellow where known.

T. diademata group

Growth somewhat erect with many stem segments superimposed to form branches with some space between segments. Often globular or globose-obovoid but sometimes elongate. Variable in size and color, more or less dull, the polygonal border between the tubercles in most cases marked by a distinct line; spines very variable in character and distribution, often

papery but ranging to solid and relatively thick in section, sometimes absent; glochids dark or reddish, not yellow. Flowers relatively large, whitish to slightly rosey.

T. sphaerica group

Globular or ovoid stem-segments, mostly dull, forming an untidy spiny heap, often branching at the top as well as below, but spreading mostly along the ground. Areoles often close-set, with tubercles slight or absent and spines generally present, sometimes very numerous, not flat in section, often extending well down the segment. Flowers recorded as orange, yellow and cream fading to rose.

Cultivation

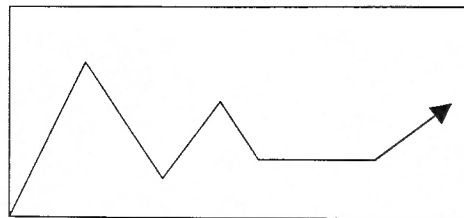
There should be no difficulty with the cultivation of Tephrocactus as these are as easy as any cactus to grow. This is as good of a reason as any to collect them. They exist in environments with ultra intense UV loads so they prefer as much light as possible. One component not often considered is the handling of these as they can be very fragile and break off at the joint. Other than that the general rules apply, well-drained soil, allow to dry between watering and good ventilation is the preference.

Note: Please bring in specimens that you may have for show and tell to the next meeting.

| |
|--|
| <p>Brag table winners judged by Tom Knapik</p> <p>Succulents</p> <p><i>Euphorbia piscidermis</i> (Juergen Menzel) <i>Haworthia magnifica</i> v.major (Don Patterson) <i>Dyckia</i> 'Brittle Star' (Joe Quijada)</p> <p>Cacti</p> <p><i>Ortegocactus macdougallii</i> (Joe Quijada) <i>Cintia knizei</i> (Juergen Menzel) <i>Mammillaria sanchez mehorada</i> (Juergen Menzel)</p> |
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WHAT'S THE STATUS?

by Tom Knapik



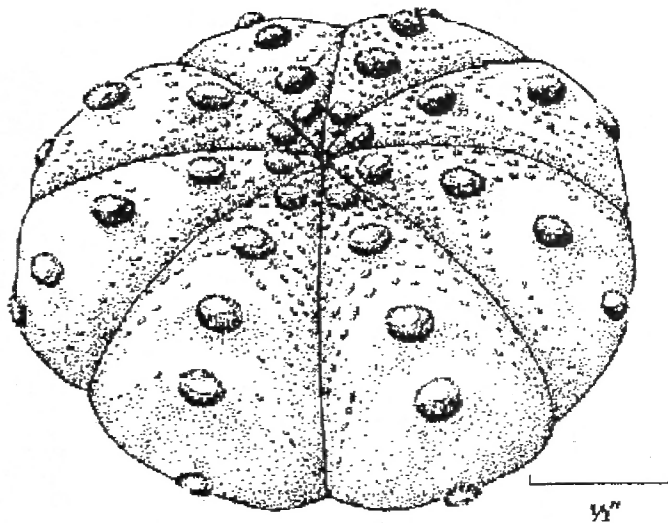
Topic #12: *Astrophytum asterias*, the Star Cactus of Texas

Star cactus (*Astrophytum asterias*) was listed as endangered by the U.S. Fish and Wildlife Service in November 1993. It was first collected in Tamaulipas, Mexico in 1843. Historically, *Astrophytum asterias* was known from Cameron, Hidalgo, and Starr Counties in south Texas, and the border states of Nuevo Leon and Tamaulipas in Mexico. Presently, this species is known from one population each in Starr County and Tamaulipas. The total population is projected to be less than 2100 plants.

Not much is known concerning the biology of this species. In the wild, *Astrophytum asterias* blooms from March through May and fruits from April through June. It is likely that insects pollinate these plants, but specific pollinators have not been observed. Observations in the wild suggest that star cactus requires nurse plants to become well established.

Star cacti grow on sparsely vegetated areas in gravelly, saline clays or loams at low elevations in the Rio Grande Plains. At the Texas site, soils have been characterized as gravelly loams closely resembling the description to the Jimenez-Quemado soil association. These shallow, gravelly soils are underlain by caliche. The Texas population is made up of two clusters of plants on a single 20-acre site. One of the clusters occurs within an open, gravelly flat area dominated by a sparse cover of mesquite and grasses (bufflegrass, red grama, threeawn). The other cluster is found nearby on rocky hillsides with a denser cover of mesquite and blackbrush. Both of these areas support a number of other cacti species (Lindheimer prickly pear, twisted-rib cactus, horsecriple, tasajillo, nipple cactus, Runyon's coryphantha, Fitch's hedgehog cactus), along with goldenweed, saladilla, amargosa, allthorn, lotebush, coma, popote, shoregrass, and coyotillo.

Star cactus plants generally grow in semi-protected areas under brush. Since this cactus is spineless, partial shading from surrounding brush may be important in providing a favorable microclimate for growth. Successful seedlings tend to be found in close proximity to shrubs, trees, other cacti, or rocks. However, plants do occur out in more open areas.



This species is highly prized by cactus enthusiasts and collection of wild specimens constitutes an important threat to the species. The population that once occurred in Nuevo Leon, Mexico was likely extirpated by over-collection. Loss of habitat also threatens this species. Root plowing and other mechanical and chemical brush control practices as well as conversion of habitat to agricultural fields and urbanization has played roles in the decline of this species. It is thought that those sites in Cameron and Hidalgo Counties have been eliminated as a result of habitat conversion.

I visited the U.S. locality of this beautiful species in 1999. I found no plants. This could be attributed to a long lasting drought, causing the plants to retract underground.

The local Fish and Wildlife office provided me with the information seen above. I did see plants that were probably collected in one nursery. I was told by a very informed local rancher that most *Astrophytum* are collected if found while poachers are hunting for peyote, *Lophophora williamsii*.

SDCSS Meetings 2001

Calendar Revision

Meetings are held on the second Saturday of each month, (except June, Sept., and Dec.), at 1:00 PM in Room 101, Casa del Prado, Balboa Park in downtown San Diego. Admission is free and all persons with an interest in Cacti or Succulents are invited! Arrive early to shop at the pre-meeting plant sale. For more information see back page.

| Date | CACTUS OF THE MONTH | SUCCULENT OF THE MONTH | Program |
|---------------------------------|---|--|---|
| Jan. 13 9:00AM to 5:00PM | <i>4th Annual Winter ShowBook, Plant and Ceramic Sale</i> | | Gerhard Marx - Succulents of the Eastern and Western Cape provinces |
| Feb. 10 1:00PM | Baja Succulents by Dr. Jon Rebman | | Tom Knapik Adventures in Europe - a look at European cactus and collections |
| Mar. 10 100PM | Tephrocactus Tom De Merritt | Crassula Phil Bunch | Kelly Griffin - Recent Explorations in San Luis Potosi |
| April 14 1:00PM | Ariocarpus Ross Shumway | Arabian Peninsula Aloes Kelly Griffin | Gary James - Ethiopian Landscapes and Plants |
| May 12 1:00PM | Micropuntia Juergen Menzel | Tradescantia and Gesneriads Joyce Buckner | Brian Kemble - Namaqualand and beyond |
| June 2 & 3 (Set-up June 1) | <i>Show</i> Fri. 10-8 (setup) Sat. 10-5 & Sun. 9-5 | <i>Sale Begins:</i> Sat. 9AM Sun. 10AM | June Show & Sale FREE TO ALL |
| July 14 1:00PM | Grafting Cacti Mark Fryer | Echeverias Marylyn Henderson | Dylan Hannon - The Isle of Socotra <i>2001</i> |
| August 11 1:00PM | Variegated Cactus and Succulents by Kelly Griffin | | Woody Minnich - Up the Amazon! |
| Sept. 8 11:00AM to 4:00PM | <i>Annual Potluck Picnic Plant Auction</i> Kate Sessions Park | | Homemade Goodies! |
| Oct. 13 1:00PM | TBA Ed DeLollis | Stapeliads Joey Betzler | Steven Hammer - To be announced |
| Nov. 10 1:00PM | The Ethnobotany of New World Succulents and Cactus by Pam Badger | | Tim Jackson - Conophytums up close and personal in cultivation |
| Dec. 1 noon | Holiday Dinner | Gift Exchange | Potluck Desserts Plant Drawing |

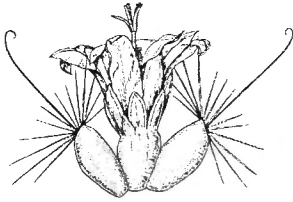
All programs are subject change. Always check the most recent Espinas y Flores for programs

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ESPINAS Y FLORES

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Reception:

Ethel Standish

Regalement:

Monthly - Rudy Lime and Stefy Mangold
Picnic - Laura and Tom DeMerritt

The SAN DIEGO CACTUS AND SUCCULENT SOCIETY, INC. is open to all persons interested in growing cacti and other succulent plants. Meetings are held the second Saturday of each month (except June, Sept. and Dec.) at 1:00 PM in room 101, Casa del Prado, Balboa Park. Executive Board meetings are open to all members; call any officer or director for the time and location. Annual dues are \$15.00 per single member per year, \$5.00 for each additional (associate) member within the same household. Single copies of *Espinas y Flores* are \$2.00 per copy sent within the USA; foreign subscriptions are \$30.00. Affiliated with the CACTUS AND SUCCULENT SOCIETY OF AMERICA, INC. The **New** SDCSS Web Page is: SDCSS.COM - please take a look and give feedback to the webmaster.