



*Gates Cactus
and
Succulent Society*

SEPTEMBER 2007

NEXT MEETING: " WEDNESDAY " SEPTEMBER 5th

AT THE SAN BERNARDINO COUNTY MUSEUM

I- 10 AT CALIFORNIA STREET IN REDLANDS, CA.

PROGRAM

Tom Glavich will present an introduction to the 'Miniature Plants from South Africa and beyond'

The talk will consist of a look at the unique cultural requirements of miniature plants, and provide a survey of some examples, mostly from the winter growing region of South Africa, but including a some examples of miniatures from other parts of the world. (From Tom)

Tom is a very active hobbist and grower of Cacti & Succulents. He is Event Chair for the Intercity Show & Sale, CSSA Board member, part time editor of the To the Point addendum to the CSSA Journal, San Gabriel C&SS Board member, skilled artist and full time employee of JPL. *Yes, he is actually a Rocket Scientist.*

Tom's programs are the best. Don't miss it!

PRESIDENT'S MESSAGE

It actually rained yesterday. August 26, amazing! Poor old Dean, he just couldn't get his directions straight.

We've really been enjoying this summer. Gates Show & Sale, CSSA Show and Sale, Intercity Show and Sale and now the annual Symposium at the Huntington on Sept. 1. Busy is our middle name, but when you're working with plants it is fun and never gets old.

I posted an interesting article on the Gates web site the other day. Mike Green keeps an internet ear to the ground to find any new and interesting subjects that come up regarding cacti and succulents. It turns out that cacti have leaves. Microscopic ones that appear on the plant just where one would expect them. Very interesting and a botanic discovery that will have heads shaking. Just go to C&S News and click on Cactus Have Leaves?

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LEADERSHIP TEAM -- 2007

I think that everyone enjoyed the hands on discussion at our July meeting. We're planning at least two for 2008. We will do a Staging discussion and one on pests. We hope to do at least two per year in the future. We're glad you all like them.

We are finalizing plans for our October functions. October 6 is the Annual BBQ to be held once again at the Sims Tree Learning Center (TLC.) See the map in this Open Gates. Plan to arrive anytime after 3:30 or so. We plan to begin cooking at 5:00, adjusted for the activities. You should come early and tour around the fantastic grounds at the TLC. The Joe Casey C&S Garden is really getting mature, just like Joe. Their Conservatory and the new, attached, Shade House contains fantastic plants.

Back to the BBQ, the club provides the Burgers, Hot Dogs, and Chicken. Members are asked to bring the Side Dishes and Deserts. Don't forget the Cactus Cook Off. This fun event allows you culinary artisans a chance to cook up a special dish using cacti as an ingredient and enter it for tasting and judging. These dishes make wonderful appetizers for us. We'll try to keep the tasting closed until 5:00 so everyone can sample all of the dishes.

October 13 is our Home Tour event. Maps in next month's Open Gates. We'll start at 9:30AM in Moreno Valley at Amber and Dennis' home, move to Urmans' and then to the McGrews'. Mary Alice has promised to cook up a wonderful lunch for us. This should be a great day.

Please note that elsewhere in this OG is a request by Mike Green for input on how you control our friend the Mealy Bug. Please take the time to write up a short description of how you do it and email it to Mike or bring it to the meeting. The goal here is to produce a small book on pest control relating to Cactus & Succulents. We want as many different ideas and treatments as we can get. We will include your name with the method depending on your wishes. For example "Kim's Mealy Killer". We will continue to add pests to the list, scale, gophers etc. until we have a nice group of

pesties done. I will put each section on the web as we finish it and when the project is complete, I would like to publish it in book form. Please take the time to help our club members and write up your ideas. Hand written is fine, just so we get your 'how to' in dealing with the critters in question.

See you at the Meeting!

Buck

PEST OF THE MONTH

New Monthly Feature:

We all have to deal with the various critters attacking our plants, but HOW to deal with them is frequently ignored. Starting with the October 2007 Open Gates we want to publish a compilation of what "we" do. This will help those at a loss for ideas and in the "integrated pest management" concept offer alternatives. We are looking for any ideas you have tried and your assessment of their effectiveness. Please email me your favorite "recipes", ideas or techniques including "natural" methods, physical techniques and actual pesticide formulations. October will start with the ever present "mealybug". Your information is definitely wanted.

Michael J. Green

firelab@echinocereus.org.



MINI-SHOW SUBJECTS FOR THE REMAINDER OF 2007

SEPTEMBER 5

HAWORTHIA and GASTERIA

ASTROPHYTUM and GYMNOCALYCIUM

OCTOBER 3

EUPHORBIA and OPUNTIA

NOVEMBER 7

ANNUAL AUCTION

SEPTEMBER BIRTHDAYS

Our Very Best Birthday Wishes to all of these members:

- 9/01 Don Zeber (71)
- 9/03 Jerry Horne (73)
- 9/03 Carol Wujcik (64)
- 9/10 Amber Jones (46)
- 9/13 Jill Coleman (61)
- 9/13 Alan Towar (52)
- 9/14 Pat Kramer (88)
- 9/15 Monica Dirac (65)
- 9/21 Don McGrew (73)
- 9/24 Herman Mauritz (81)
- 9/25 Diana Higdem (60)
- 9/29 Janet Burnham (66)
- 9/29 Judy Horne (66)
- 9/29 Gary Sims (61)

Only two are under 60! WOW!!

To all 14, we send our *very best wishes* especially to Herman on his 81th BD.

May he continue to attend Meetings.

SEPTEMBER ANNIVERSARIES

- 9/06 Edna & Karl Osborn (37)
- 9/10 Sharlene/Herman Mauritz(41)
- 9/20 Peg & Mel Parks (51)
- 9/20 Jodee & Alan Towar (10)
- 9/25 Diana & Jim Higdem (42)

Congratulations on your special day. May you be able to do all that you used to do or wish to do!



MINI-SHOW RESULTS FOR AUGUST 2007 DISH GARDENS, PLANTERS OF CACTUS OR SUCCULENTS AND MIXED

Isabelle Moon and Dennis Kucera judging

NOVICE DISH GARDEN

- 1st Ann Reynolds Succulents
- 2nd Vivian Nightingale Succulents
- 3rd Betty Ann Kent Succulents
- 3rd Betty Ann Kent Succulents

NOVICE PLANTER

- 1st Peggy Avila Kalanchoe Chocolate Soldier
- 2nd Vivian Nightingale Succulents

INTERMEDIATE DISH GARDEN

- 1st Ina Schweitzer Succulents

ADVANCED DISH GARDEN

- 1st Bob Laughlin Succulents undersea
- 2nd Dennis Kucera Crassula Goat Feast
- 3rd Tony Marino Succulent Jungle
- 3rd Tony Marino Pilosocereus, Cylindropuntia
- H.M. Buck Hemenway Succulent
- H.M. Yvonne Hemenway
- H.M. Joella Olsen

ADVANCED PLANTER

- 1ST Dennis Kucera Ledebouria socialis

MINI-SHOW RESULTS FOR AUGUST 2007 CACTUS, SUCCULENT PHOTOGRAPHS

Danny Griffith judging

ADVANCED small, 4 by 6 inches or less

- 1st Bertie Lou Hazell Epy. flower
- 2nd Bertie Lou Hazell Epy flower
- 3rd Bertie Lou Hazell " "
- H.M. Bertie Lou Hazell " "

ADVANCED LARGE over 4 by 6 inches

- 2nd Barry, Kim Urman Epiphyllum flower
- 3rd Bertie Lou Hazell Echinopsis yellow flower
- H.M. Buck Hemenway Euphorbia pseudocactus
- Fruit
- H.M. Buck Hemenway Hoya flowers

PLANTS OF THE MONTH SEPT.2007
MINI-SHOW PLANTS ASTROPHYTUM
GYMNOCALYCIUM NOTOCACTUS
AND PARODIA

These four cactus genera are members of the **Cereus** cactus tribe which is divided into 8 sub tribes of more closely related plants. The Echinocactaceae sub tribe has about 25 genera which includes the barrel, ball and star cactus. These are ribbed and spiny plants that are usually low and small and sometimes form clusters. Their flowers are among the most beautiful of cacti.

Astrophytum known as star cactus, contains 6 species of 5 to 8 ribbed cacti native to Mexico. The stems are mostly solitary with round short cylindrical stems with surfaces scaly or floccose, the flowers are funnel form, yellow often with a red center.

A. asterias is commonly called sand dollar cactus or sea urchin cactus. It grows up to 4 inches wide and tall with 6 to 10 almost flat ribs with usually straight grooves. In summer mature plants produce yellow flowers with red throats up to 3 inches across. It is native to Mexico.

A. myriostigma called bishops cap is a round to columnar cactus with 4 to 8 ribs with very small white woolly scales. Areoles are spineless and brown. This plant comes from Mexico and produces 2 inch yellow flowers in summer.

A. ornatum can be a columnar cactus with age up to 14 inches high. It has 6 to 8 ribs that sometimes spiral. Areoles have yellow or brown spines. In summer it can produce yellow flowers 4 inches across.

Gymnocalycium, commonly known as chin cactus, has about 40 species of globose cacti native to S. America. The stems are simple in most species with a chin, a protrusion below each areole. The flowers are campanulate to short funnel form, opening several days in succession. Flowers are white to pink and sometimes yellow and are native to Brazil.

G. bruchii is a tight clustering cactus with almost round, dark green stems to 2 inches thick with

about 12 ribs. Flowers are pale pink and to 1 inch wide. It is native to No. Argentina.

G. mihanovichii "Red Head" produces round red stems with 8 prominent ribs. Without chlorophyll it must be grafted onto robust stock plants such as *Hylocereus*.

G. gibbosum is a dark bluish green to 8 inches high and 4 to 6 wide with 12 to 18 notched ribs. It's flowers in summer are white to red and 2 inches wide.

G. saglionis is a flattish globular plant up to 1 foot thick with 10 to 30 ribs with prominent tubercles. Coming from Argentina, it has pale pink funnel shaped flowers to 1 inch across.

Notocactus is known as ball cactus, has about 25 species native to S. America. The stems are NOT woolly at the apex.

N. floricomus is a dark green globular plant up to 4 inches high and 6 inches wide. It has shiny yellow flowers in summer that are 2 inches across.

N. polycanthus is a clustering cactus with dark green stems to 4 inches thick. In summer it has canary yellow flowers 3/4 inch across with red stigma lobes. It is from S. Brazil.

Parodia is genus of about 20 species of small ribbed or tubercled globose cactus from S. America and is closely related to *Notocactus*. The stems are mostly solitary with straight or hooked spines. The yellow to red flowers are nearly campanulate.

Parodia leninghausii is the most common species grown. It is clustering columnar cactus 4 inches wide and 12 inches high with golden spines.

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PLANT(S) OF THE MONTH AND MINI-SHOW
FOR SEPTEMBER 2007
GASTERIA, HAWORTHIA, AND HYBRIDS

The Genus Gasteria of the **Aloaceae** number about 50 species of perennial, succulent herbs native to South Africa. The different species common names of cow-tongue cactus, lawyer's tongue, dutch-wings and ox tongue. These

plants are mostly stemless and form clumps. Their leaves are fleshy, flat or somewhat keeled and spotted or tubercled. Their leaves are 2 ranked or in spiral rosettes. Their flowers are red or rose, often with green tips in loose racemes or panicles. Their perianth, petals, are tubular. Each flower has six stamens developing into a 3 valved capsule, containing flattened and winged seed.

G. liliputana has leaves in spirals, lance shaped about 2 1/2 inches long. They are dark shiny green with white spots.

G. verucosa is the warty Gasteria. The leaves are 2 ranked, lanceolate 4 to 9 inches long and 1 1/2 inches wide and dull green. They are covered with raised white spots. The flowers are 1 inch long in racemes 2 feet tall.

The Genus Haworthia of the **Aloaceae**, number about, 60 species of succulent perennial herbs native to South Africa. These small plants are stemless or short stemmed often suckering thus forming clumps. Their leaves are imbricate in many rows forming dense rosettes. The leaf surfaces are often tuberculate like white warts, and usually keeled underneath. Their small flowers are white with green or rosy stripes in racemes or panicles. The short flower perianth is tubular and 2 lipped. Each flower has 6 stamens and the fruit is a 3 valved capsule.

H. limifolia is known as the fairy-washboard. Their leaves are triangular, about 2 inches long and are dark green with horizontal ribs on both sides.

H. papilosa is known as pearly-dots, and forms vertically elongated rosettes 8 to 10 inches high. The leaves are lanceolate to 4 inches long surfaced with white tubercles.

H. pygmaea has oblong ovate leaves only 1 1/2 inches long. They are dark green and granulate. Gasterias, Haworthias and Aloes are closely related and can be hybridized.

Dennis

Visit our WEB SITE . www.gatescss.org

Subject: leafy cactus?

Washington, Aug 19: Cactus conjures up images of a thorny leafless plant standing tall in a hot barren desert. But, now a new study by an American biologist from the University of Austin at Texas has shown that cactus do actually possess ultra tiny leaves.

"For curious cacti owners desiring a glimpse of the leaves, caution is advised. If people do look closely at their cacti trying to see leaves, they need to be careful of spines close to their eyes," said James Mauseth, professor of biological sciences at the university, and lead author of the paper.

Prof. Mauseth said the leaves, which are best viewed under a microscope, exist at the base of spine clusters.

He said he made the determination after gathering samples of 147 different cacti species, most of which he obtained in the wild.

Then he conducted extensive analysis of the plants and their tissues under high magnification, he told Discovery News.

He said while the leaves "had more or less normal morphology," almost all were missing blades.

Just over half had xylem, a tissue that conducts water and nutrients from the roots up through the plant, but no cacti leaf analyzed had just phloem, which is a food-conducting tissue, he said.

Leaf sizes ranged from 30 to 2310 micrometers. A single micrometer is equal to one millionth of a meter or just .00003937 inch, so the documented cactus leaves may very well be the world's smallest, he added.

He further said cacti began as regular, leafy plants in the Americas, with many species later evolving spines.

"Some cacti, in fact, still have large leaves and

stems, such as the pad-like stems on prickly pears, or the big, flat thin leaves found on certain genus *Pereskia* cacti that look like trees. Most leaves absorb the sun's rays, manufacture plant sugars, and help with water absorption and respiration. In the case of microscopic cacti leaves, however, something else is at work," Prof. Mauseth wrote in his study in the *International Journal of Plant Sciences*.

He said cacti would need even the tiniest of leaves in order for the plant to establish its axillary buds, which emerge near where leaves attach to the main stem.

"So the plants cannot lose leaves altogether, or they might then not be able to produce buds, or would produce them in the wrong spot," he said, adding that cacti genetically controlled their leaf size, in part, through release of plant growth hormones, such as auxin.

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NOVEMBER AUCTION. This is an early reminder. With only two months to go it is time to think about your offering to this yearly fun event. But more than that, the auction is a major fund raiser for the *Gates C&S Society*. Further, it is an opportunity for you to bid and buy large and sometimes rare specimen plants. To encourage greater attendance, interest and participation in the auction and bidding, we need specimen plants. That's where you come in! We ask each member to grow, pamper, baby, fertilize, talk to, groom, polish and stage **ONE GOOD PLANT**, to be **donated** to the Society. **Just One Plant as Beautiful as You can make it.** You are not limited to just **ONE** plant, however if everybody brings just **ONE GOOD PLANT** we'll have a **GREAT AUCTION** and have a lot of fun to boot. **~ \$**

20th ANNUAL GATES BBQ

Where? Sims Tree Learning Center (The TLC)

When? Saturday **October 6 at 3:30 PM.**

Cooking begins at 5:00.

What to Bring? Bring your favorite side dish and/or desert with serving spoons.

The club provides drinks and the meat (chicken, burgers and dogs) and all the plastic ware needed.

What's Happening?

Cactus Cook-Off. Bring your favorite Cactus recipe dish.

Raffle

Garden Tours

Plenty of fun with your fellow Gates Cactofiles.

Other events, time permitting

The TLC Gardens are located at 6111 Appaloosa Ave., Pedley, off Limonite Ave. between Van Buren and Etiwanda Ave. From Limonite turn North on Bain, then one block and right on 60th street. Appaloosa Ave. is the first street to the right. It is *narrow and graveled*. Sims is at the end of the road. There will be a map in the next Open Gates.

For those unaware of the "Tree Learning Center" it is the 6 acre home of The Sims and their AG business. The business supports the "TLC". The garden is dedicated to demonstration, education and research. Currently, there is a large palm garden, an Iris garden (Doris Lutz Memorial), a Eucalyptus orchard, Oak and native plant area, a fruit orchard, a vegetable garden, a Geranium garden (Robert H. Terrell Memorial), specimen tree plantings (to include the rare and unusual) and of course Joe's C&S Garden. The highlight, *not to be missed*, is *The Conservatory*, housing the tropical plants and palms. This collection is Sue's pride and joy, and very impressive. Be sure to bring your camera.

OTHER TABLES

Plant Sales, Discussion, and Refreshments Tables will be open for the September 2007 Meeting. Bring your Show and Tell plants to discuss or to get identified. A good picture will also do! Dan Griffith will love you!

If you can, bring some 'Goodies' to support our popular *Refreshment Table*.

And a special thank you to those who frequently bring the goodies we enjoy so much.

You all out did yourselves again in August, Boy did we have the 'stuff' and we consumed most of it. Sam and I did get to take home a few cookies.

The Urmans bring the Punch drinks, however if you have another favorite drink, don't be shy, bring it along.

Surprisingly, on the warm summer evening last month we ran out of coffee! We might need another pot!.

Somehow, I've misplaced the Kitchen Helper List. Would someone please step forward, assume the duty for September and October. And as usual. We'll need three or more for the November Auction nite so we can eat quickly and get back to bidding.

Tell Joe, better still, tell Buck because Joe is getting forgetful these days. Tell Buck if you will help with these duties.



Save these dates.

October 6th the Annual Gates BBQ at Sims TLC
October 13th the next Gates Home Garden Tour

Welcome Our New Members

Toni Knight Aug 07
Bloomington, CA

Darryl & Jen Craig Aug 07
Corona, CA

Janey & Jack Castro Aug 07
Riverside, CA

Gerre & Ron Watts Aug 07
Rancho Belago, CA

Calendar of Garden Events - 2007

September 1 Succulent Symposium, Huntington Botanical Gardens, San Mareno, CA.

October 6 20th Annual Gates BBQ, 3:30 at Sims TLC

October 13 Gates Home Garden Tour

October 20-21 UCR Botanic Garden Fall Plant Sale, UC Riverside. 951.784.6962 www.gardens.ucr.edu

November 10-11 San Gabriel Valley C&SS, Show and Sale, LA Co. Arboretum, 301 N. Baldwin Ave, Arcadia, CA

December 1-2 Orange County C&ss Winter Show & Sale, Fullerton Arboretum, Arboretum, 1900 Associated Road, Fullerton, CA.

To get out of difficulty, one must usually go through it.