



# Desert Breeze

Newsletter of the Tucson Cactus and Succulent Society

April 2008

## Thursday, April 3, 2008 at 7 PM "A Gardener in Search of a Cactus Garden"

Presented by Gary Lyons, Curator of the Desert Garden at the Huntington Gardens, San Marino, CA



Gary is a member of the World Conservation Union's Species Survival Commission and a fellow of the Linnean Society of London. He has also written many articles and books on desert plants.

This program is somewhat of a historical overview and retrospective of how Gary got into cacti. It is also a look at the people and events that

have influenced his work, and an overview of the gardens with which he had a connection for over the past fifty years.

Please join us for this great program as we welcome Gary back to Tucson.

## Friday, May 9, 2008 at 7:30 PM "Hooked on Euphorbias"

Presented by Susan Carter Holmes

Susan Carter Holmes joined the Herbarium staff of Kew Gardens in 1957 as a member of the team working on Tropical African plants. She retired in 1995 and was made an Honorary Research Associate. In 1958 she met Peter Bally and became his assistant during his frequent visits to Kew, and through him became interested in the Euphorbiae of Tropical Africa, especially the succulent species. Similarly, in 1960 she met Gilbert Reynolds and was his assistant. During this she developed an interest in Aloes. No-one else in the Herbarium was interested in any of these plants, so gradually she became an expert in the genera. Susan went to Kenya for the first time in 1971 to work with Peter Bally, and on a short safari and was immediately hooked on plant expedition work. Official expeditions from Kew followed and several private ones sponsored by the CSSA, amounting to 12 in Kenya, Tanzania, Somalia, Sudan and Zimbabwe, and 2 visits to the Transvaal in South Africa. Those visits have produced about 140 publications, including a long series in the Euphorbia Journal and the recently published Euphorbs in the Illustrated Handbook of Succulent Plants (Dicots). Susan was made a fellow of the Cactus and Succulent Society of America in 1989, and awarded the Cactus d'Or by the IOS in 1996.



This presentation will show examples of Euphorbias occurring in tropical eastern Africa, including herbaceous and shrubby species, but concentrating mainly on the many different forms of those with paired spines that I have found so fascinating. All the slides were taken in habitat during often exciting and always enthralling expeditions to remote corners of Africa.

Please mark your calendar for this great program from a very well known expert in the Euphorbieae. We sincerely welcome Susan Carter Holmes to Tucson and are honored to have her as our guest speaker.

## David Yetman will be doing a book signing at the April 3rd meeting.

David Yetman will be signing his new book "The great Cacti" David will also briefly talk about some very important conservation efforts. He'll arrive at 6:30 for early bird book signings.

Meetings are held on the first  
Thursday of each month.



Junior League of Tucson, Kiva Bldg.  
2099 E. River Road

## President's Message



We have about 10% of the recipes we need for our TCSS cookbook. I know that most of you eat more than 1,000 meals a year so there must be some favorite that you want to share with us. This will be fun. We really want your favorite recipe in your own words and pictures of cacti and succulents or other TCSS related photos to make up this cookbook. Email either

recipes or photos or both to: [recipes@tucsoncactus.org](mailto:recipes@tucsoncactus.org).

Sonoran VII is May 9, 10 & 11. Remember that our meeting in May is on May 9 at the InnSuites Hotel. This year there is a plated dinner of your choice of Beef, Chicken or Vegetarian for only \$10.00 each if you are not registered for the conference. The speaker is Susan Carter Holmes and all members are welcome for her 7:00pm talk. Please get your reservations and dinner choices in as soon as possible.

After her presentation the show and sale will open to all in attendance. It will be open to the general public on Saturday and Sunday, May 10 & 11.

Spring is finally here and the CSSA Biennial Convention is a year away. Please take pictures of your cacti and succulents and those in the Tucson area. We want to be able to show our visitors from all over the world what they will be missing if they don't come to Tucson in April of 2009.

A special thanks to Noe Mayotte, Jerry Estruth, Bill Hicks, Joe & Patsy Frannea & Chris Monrad for their efforts in promoting our rescue program and securing new partners & sites to save native succulent plants.

I hope every member and every citizen realizes how much time and effort goes into this rescue operation and how much good it does for this community. I know I must sound like a broken record talking about this program but it does so much for this community, TCSS and this area of the Sonoran Desert.

One very special outcome of our rescue program is our participation and cash awards that we present at the Southern Arizona Science and Engineering Fair to projects related to cacti and succulents. These students and their projects are wonderful and we hope to share them with all of you at Sonoran VII or on other occasions. Thank you to all our members who participate in the judging and awards to these students.

The Central Arizona Cactus and Succulent Society will be having their show and sale on April 4, 5 & 6 at the Desert Botanical Gardens in Phoenix. I know they appreciate our support. This would also be a great time to visit the gardens new cacti and succulent exhibit. I have seen them from a distance but am excited to see them up close.

There is nothing better than Spring in Tucson. Enjoy!

*Dick Wiedhopf, President*

## Two Grants Awarded to TUSD Schools

The TCSS Board recently approved two School Grant requests that were reviewed and recommended by our school grant review team. The first grant was awarded to the Borton Primary Magnet School. It was submitted by parent Chris Brashear and principal Terei Melendez. They want to increase the diversity of the plants in their Borton Environmental Learning Laboratory (BELL), both in terms of species and maturity of plants. Their long term goal is for BELL to be an urban greenspace serving as both a wildlife corridor and a community wide resource for educational purposes. Their 2.5 acre bird sanctuary has been spearheaded by parent volunteers with collaboration from teachers. The \$400 grant money will be used to purchase cactus and succulents including saguaros, ocotillo and yuccas. Our recent saguaro rescue will make available two larger saguaros at our tag price of \$7 each.

The second grant was awarded to Whitmore Alternative to Suspension High School. It was submitted by Melody Baker to create a cactus and succulent garden called "Cactus Garden Exploration". They plan to create the garden on their property and use it as a science learning lab for study and observation. The twenty to thirty students will get hands on experience with the planning, selection of plants, building, and maintaining the garden. They will also collaborate with their middle school and Whitmore Elementary in implementing the project. Half of their \$300 grant will go for plants with the balance for soil and decorative materials.

Our member nurseries often provide plants at a discount to school grant recipients to help stretch their buying power and cacti from our rescue program are made available as well for our tag cost. Some TCSS members have also provided technical assistance in the past to help schools plan, select appropriate plants and implement their projects.

*Joe Frannea*

## Library

### **The Genus Turbinicarpus Milan Zachar**

This book contains detailed descriptions of the various species, notes include locations, accompanying vegetation, when the plant was discovered, study numbers, synonyms and Latin descriptions. Color photographs accompany each species.

### **Cycads of Vietnam**

#### **Donated by Rainbow Gardens Bookshop.**

From 1994-2004, 22 species of Cycads have been discovered in Vietnam. Twenty-seven species are photographed with descriptions, distribution maps and habitat, discovery, distinguishing features and more. Three appendixes, (one with websites and societies) as well as a glossary. Also included are classifications, vegetative morphology, reproductive features, pollination, seed dispersal, ethnobotany and conservation.

*Joie Giunta*

## Pent up Cactus Rescue Fever Explodes



The TCSS Cactus Rescue Crew showed up in record numbers, 77 strong, for the first full fledged rescue of the year. The five acre site was rich in saguaros from one to seven feet tall, large barrel cactus, and a few queen of the night. We had twelve new members join TCSS so they could participate in the rescue including two young children who carefully dug up a few six inch tall saguaros. One large mesquite tree had over twenty saguaros under its branches, talk about a family needing a nurse tree. One of the crew members concerned about getting heavy saguaros hauled off the site built a saguaro crawler vehicle with four large independent flotation tires to navigate the desert terrain. Complete with a tongue for two people to hitch up to it to steer and pull the load, it worked incredibly well and saved a lot of heavy carrying.

A mine expansion site about 20 miles west of Marana has been visited and inventoried as to potential cacti that can be removed from the 40 acre site. Mine employees have already removed a few of the cacti but there are hundreds more needing some attention. We hope to perform several rescues during late March and April to save hundreds of small saguaros, ocotillo, barrels, and gorgeous large hedgehogs. The Cactus Rescue Crew will take on a slightly different look to be able to work at this site, donning hard hats, safety glasses and boots. We also have several other sites in the works so it looks like we will have lots of rescues for the next several months. A big thanks to all the Cactus Rescue Crew Members who work hard for the club and help with all the logistics to make everything happen.

*Joe Frannea*

### Free Plants of The Month

**Echinocereus pectinatus variety rubrispina**  
**Red Spined Rainbow Cactus • Echinocereus - Hedgehogs**

Hedgehogs are a popular group of cacti to grow either in pots or as landscape plants. The genus Echinocereus, being derived from Greek, echinos, hedgehog or sea urchin, referring to their spiny fruits. The genus is distributed widely from Oklahoma west to California and into Mexico including Baja.

Most species are frost hardy, lending themselves well as landscape accents in southern Arizona. The bulk of the species flower in Spring or early Summer at higher elevations. Several species from Baja California actually wait until late summer or fall to bloom. Many species are commonly grown locally and will reward you with magnificent large showy flowers.

Echinocereus will only flower once per year, but you may experience one to dozens of flowers depending on the size and species you grow. Another unusual flowering fact, watch where the flower bud emerges from, just above the areoles, as to split from inside the stem of the cactus. Subsequent scarring remains where flowers had been borne. Some species of Echinocereus are single stemmed and others are low multi-stemmed. Some species perform better with morning sun and afternoon shade while others can be acclimated to full sun.

**Enjoy your plants!**

## TCSS BOARD

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**885-6367**

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**Volunteers: Nancy Reid**  
**volunteer@tucsoncactus.org**

**Editor: Karen Keller**  
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**Deadline for copy:**  
**15th of each month**

**TCSS Web Page:**  
**www.tucsoncactus.org**  
**Webmaster: Keimpe Bronkhorst**

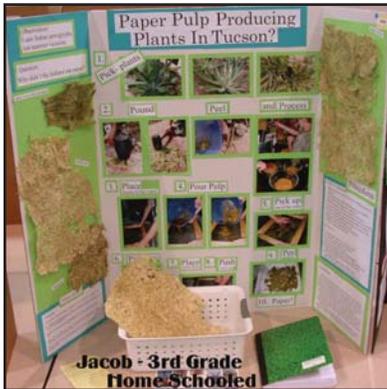
### March Refreshments

**Those with family names beginning with U to Z, please bring your choice of refreshment to the meeting.**

**Everyone is Welcome!**  
**Bring your friends, join in the fun,**  
**and meet the cactus and succulent community.**

## TCSS's 2008 Science Fair Winners

TCSS Special Category judges for Cactus and Succulents scoured the convention center isles containing 1,300 display boards, log books and projects for the Southern Arizona Regional Science and Engineering Fair (SARSEF). Our judges awarded seven students cash prizes, certificates and honorary Family TCSS memberships for their very deserving science fair projects. The winners have been invited to display their projects at our Sonoran VII Conference so you may get to meet some of them and review their projects. Sustainability and using local resources seemed to dominate the focus of our science fair winners this year.

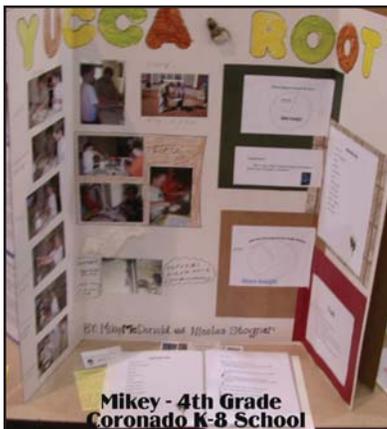
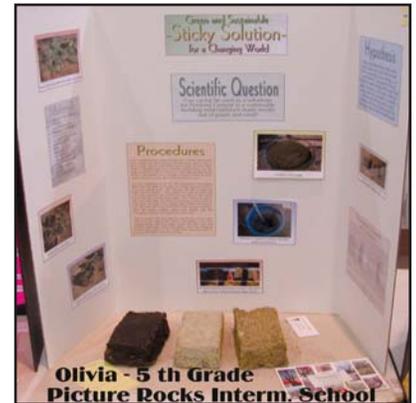


### Paper Pulp Producing Plants In Tucson?

Our first place winner is Jacob, a third grade home schooled student. After observing petroglyphs, he wondered why Native Americans didn't use some sort of paper for their drawings. After studying paper making, he pounded, peeled and processed agave, prickly pear and mesquite to see if it was possible to make paper out of native materials. Although his resulting paper was quite beautiful, he concluded that it wasn't very practical for use as writing material.

### Cactus Bricks - Green and Sustainable, A Sticky Solution-for a Changing World.

Olivia, a 5th grade student at Picture Rocks Intermediate School wondered if cactus can be used as a substitute for Portland Cement in a sustainable building material/ block made mostly out of paper and sand. Using cactus as a bonding agent, she concluded that not only can it replace cement, but it was easier to work with and makes a much smoother block.



### Yucca Root:

Mikey from Coronado K-8 School, wondered if the Yucca Root used by Native Americans makes better shampoo than store bought shampoo. After digging and processing the yucca root he had ten people test the shampoo against their regular commercial shampoo.

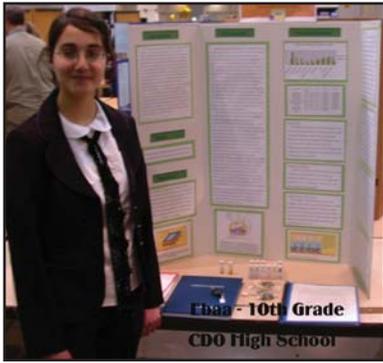


### The TCSS is looking for your FAVORITE RECIPES & PHOTOGRAPHS to be featured in a Cookbook

If you would like to have your original recipe featured in a cookbook, you can email or send them to the following addresses

[recipes@tucsoncactus.org](mailto:recipes@tucsoncactus.org) • TCSS Recipes  
P.O. Box 64759, Tucson, AZ 85728

If you have a great idea for a name of the cookbook, please let us know.

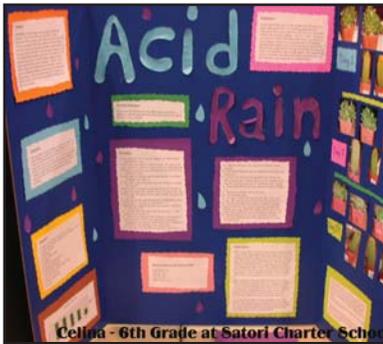
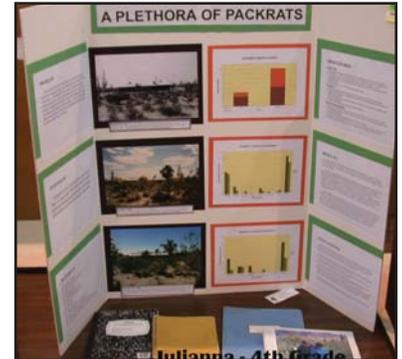


## The Future of Solar Technology: Dye-Synthesized Solar Cells-The Poor Man's Power Source

Ebaa, a 10th grade student from Canyon del Oro HS, used several plants from her back yard, including two kinds of prickly pear and barrel fruit, designed a very interesting experiment to measure the power output of different pigments that she extracted from the plants and applied to solar cells. Turns out that purple prickly pear has enough potential to get her excited about continuing the experiments.

## A Plethora of Packrats:

Julianna, a fourth grade student from Manzanita School, wondered if increased vegetation over the past 22 years around her house is responsible for the increased packrat population. Using family photos taken of the landscape during those years she counted the cactus and native plants while studying their growth, characteristics and use as habitat for the packrats.



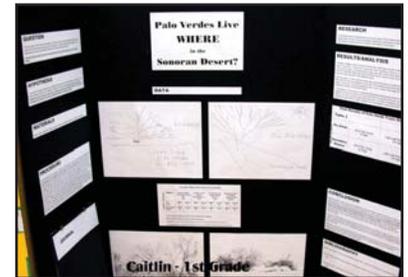
## Acid Rain

Celina, a sixth grade student from Satori Charter School set up an experiment to test the effects of acid rain on different types of plants, including cacti. whose survivalist nature showed the most resistance.

## Palo Verde Live Where in the Sonoran Desert?

Caitlin, a first grader from Ocotillo Ridge Elementary used observation and measurements to study the distribution of two types of palo verde in the Tucson area and concluded that they grow in different areas according to their needs and therefore don't always compete with each other for the same resources.

*Joe Frannea*



## Volunteers Needed to Start High School Botanical Garden



Catalina Magnet High School, at Pima and Dodge, is creating a new program to prepare and train high school students for agricultural careers following high school or college. This program will include agribusiness classes, an FFA chapter

and the creation of a botanical garden on the school grounds. Students will study plants and biology, learn business skills, start a small nursery where they will sell potted plants and cactus to the public, and grow produce in the greenhouse to sell to parents, teachers and other students. In addition to this, students will design and plant a botanical garden, maintain the botanical garden and greenhouse and gain work experience in agribusiness through job shadowing and student internships.

Nicole Harrington, a member of our society, will teach these classes and welcomes the advice and participation of our members in creating this educational program. She especially needs volunteers, guest speakers for her classroom, and invitations to take the students to nurseries and other agriculture businesses. These field trips will offer her students a real world opportunity to see the inner workings of a variety of agri businesses.

Let's support Mrs. Harrington in her quest to teach real life business skills with this hands on approach! Volunteers are needed to help design the layout of the botanical garden, select and plant plants with the students, help with plant sales, assist in bringing the greenhouse to life, as well as to accompany students on field trips. **Nicole can be reached by e-mail at [arizonawildcats123@hotmail.com](mailto:arizonawildcats123@hotmail.com)**

The picture shown is of the area the students hope to turn into a botanical garden...it's not hard to image how our combined talents can make this dream a reality.

3	7	5	7	4
				3

**Cacti Rescued**  
191 Rescues Accomplished

**TCSS Rescue Cacti for Sale**  
Visit our next Sale for selections

Barrels - from 2" to 14" diameter (about \$1 per inch)  
Hedgehogs - from 1 to 20 heads (about \$1 per head)

TCSS Club Members receive a 10% discount

April 2008	
Thursday, April 3	7:00 pm General Meeting and Presentation by Gary Lyons: <i>"A Gardener in search of a cactus garden"</i>
Tuesday, April 8	7:00 pm Board meeting at the U of A College of Pharmacy
Sunday April 13	<b>Fifth Annual Spring Plant Sale</b> Hacienda Del Sol Guest Ranch Resort 5601 N. Hacienda Del Sol Road



Tucson Cactus and Succulent Society  
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