



THE OFFSET

Webpage <https://sites.google.com/site/cocssok/>

Echinocereus reichenbachii subsp. baileyi in the Wichita Mountains NWR, Oklahoma. Mount Scott in the background. Photo by Michael

NEWSLETTER OF THE CENTRAL OKLAHOMA CACTUS AND SUCCULENT SOCIETY

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MEETING At Will Rogers Garden Center at 3400 NW 36th in Oklahoma City, the third Thursday of every month at 7:30 pm (except in January, the month of our show, picnic and December).

IN THIS ISSUE

❖ Club News	pp 2-6
❖ Other News	pp 7
❖ From the members	pp 8
❖ Article of the month	pp 9-14
❖ Succulent Plants	pp 15-18
❖ Website review	pp 19
❖ The cultivation corner	pp 20-21
❖ What is blooming?	pp 22
❖ The Botanical Corner	pp 23-24
❖ 2012 Local cactus & succulent happenings	pp 25-26

CLUB NEWS**FROM THE PRESIDENT**

It's March and the wind has finally blown in some rain! I was dreading having to get out the garden hose but it was going to have to happen if the rain didn't come.

It's been a busy few months for everyone and I must honestly state that I'm not very prepared for this message. The Douglas' have been traveling half way around the world again and are preparing a presentation for the meeting this month on their trip to the Galapagos. I hope everyone makes a special effort to attend the March meeting and bring a friend!

We are hoping to have a 'photography' program for the April meeting. Several of our members are quite talented photographers and it should be rather interesting to hear from a few of them various 'tips' and 'suggestions' they may have in taking pictures. In keeping each presentation down to about 15-20 minutes each, it will be impossible for them to go into great detail but for the moment we'll use this meeting as an 'introduction' to basic photography for fun, form, and function and perhaps graduate to an 'intermediate' level another time. We'll try to start the meeting by 7:30pm on the nose (be sure to be in your chair by 7:15pm if possible) and forego the business meeting if we need to.

I believe Joyce has arranged to have a guest speaker for May. Mike Hellmann has graciously accepted our invitation to come to Oklahoma City and give a talk on "Succulent Bonsai". This should be a very interesting presentation and we are hoping to get another club or two interested in attending. More details will follow.

The officers are still meeting and trying to get various details for upcoming programs & field trips pinned down and work has already started on the Show and Sale. As we have done in the past, we will have specific information regarding the Show and Sale available to each member including a list of the various jobs that need to be covered during the event. We have been contacted by the Begonia Society about our willingness to 'share' the Saturday of our Show and Sale. Although they do not need our approval for use of one of the meeting rooms on June 16th, it was thoughtful of them to talk with us first. When we shared the building with them two years ago, it was a very pleasant day for everyone and the 'cross sales' worked out beautifully. In the long run their advertising will help us and our's will help them. Their group is meeting soon and should make a definite decision within the next week regarding the date for their sale.

Have a good week and hope to see everyone on the 15th.

Niki Furrh
President

CLUB NEWS

From the secretary



Minutes of Meeting
February 16, 2012

CENTRAL OKLAHOMA CACTUS AND SUCCULENT SOCIETY

The meeting was called to order at the WRGC at 7:30pm by President Niki Furrh. Treasurer Peggy Anglin was unable to attend the meeting but sent a report indicating that we currently have \$4,134.17 in the bank. There was no formal meeting for January so no published minutes for approval.

Joyce Hochtritt indicated that she will plan on having a "potting workshop" at her home on May 5th from 10:00am-12:00pm. All members are encouraged to come and bring any plants & pots they would like to repot. Joyce will provide soil and top dressing for a nominal fee if needed. This would be a good time to get some of those "show plants" ready. Lunch at a local Mexican restaurant is planned afterwards for anyone who would like to go.

The March meeting will be presented by the Douglas' on their upcoming trip to the Galapagos Islands and we will plan on starting at 7:30pm sharp (members should try to come a few minutes early to get a chair) with a short business meeting afterwards with refreshments.

The club will participate in the Norman Master Gardner Fair in Norman on April 14. We will have a table set up with a few plants for 'show' and information regarding our club and upcoming Show and Sale in June. We will also participate in the Festival In The Park on June 9th at the WRGC. Any member who would like to participate in the Norman event should get in touch with Rosario Douglas and/or those interested in the Affair In The Park should contact Fred Hill or Mary (Robertson) Kaser.

After refreshments provided by Mary Kaser, Joyce Hochtritt presented a program on the history and science of labeling plants. Although Joyce had a little bit of technical difficulty with the power point equipment, most of us attending the meeting discovered we were quite the novices at 'labeling' and found the information and presentation quite helpful.

The meeting was adjourned at 8:50pm.

Submitted by Niki Furrh for Mary Kaser, Secretary

A TRIP TO "THE ENCHANTED ISLANDS"-GALAPAGOS-ECUADOR

By Mike and Rosario Douglas



The talk will cover a variety of subjects including climate and its effect on the Islands vegetation, importance of the Galapagos, some of the main animals, plants and vegetation found on the islands visited, (Santa Cruz, San Cristobal, and Isabela)



The gardens are located at **3400 NW 36th** (on the SW corner of NW 36th at Grand Boulevard)
Phone: 405 943-0827

The **Central Oklahoma Cactus and Succulent Society** invites you to join us on **March 15th at 7:30 pm** at the Will Rogers Garden Center in Oklahoma City. Mike and Rosario Douglas will be talking about their recent trip to the Galapagos Islands. Open to the public **FREE ADMISSION**.



FROM THE EDITOR

Rosario Douglas



Dear members

Just a reminder to pay your dues if you haven't done it yet.

This month Mike and I are giving a talk (open to the public). This talk is about our very recent (got back March 7th at midnight) trip to the Galapagos Islands of Ecuador. Hope you can make it.

Joyce has sent me an updated list for the Happenings section. This section will probably change as the year goes by and more activities such as field trips are announced. So check often to see if there any new happenings.

The article this month may inspire you to visit the Wichita Mountain Wildlife Refuge now that Spring is rapidly approaching.

Don't forget to fill out the survey and send it to me to publish in the newsletter.

As always we encourage all of you to contribute to the newsletter in any way you can.

We have updated the webpage with some new materials such as Joyce's talk, an article about cultivation (water systems) and the flyer and registration form for the 14th Biennial Mid-States Cactus and Succulent Society conference to be held in St Louis June 21-24, 2012

****Deadline for articles or other materials for the newsletter is the 7th of the month.**

Here is another interesting survey by Fred Hill



Dear members:

Here is a short survey I would like you to complete. I will publish the results in the future. You can respond via email or you can mail me your survey to: Rosario Douglas, 1501 Goldfinch Ct. Norman, OK 73071

- 1- How did you become interested in cactus and succulents?
- 2- Do you like cactus, succulents or both?
- 3- Do you have a favorite cactus and / or succulent?
- 4- How long have you been a member of the club?
- 5- What kind of programs would you like to see during our monthly meetings?
- 6- What kind of field trips would you be interested in?
- 7- What subjects would you like to see discussed in the newsletter?
- 8- How many plants do you have? Do you have a greenhouse?
- 9- Do you shop online or locally for your plants?
- 10- Are you interested in cultivation information? What are your most pressing cultivation concerns?

1. We were in Las Vegas for a convention when we visited Ethel M's chocolate factory. They have factory tours, and a candy and also cactus store. Their factory uses a huge green system to recycle water, as well as a very large walk-through cactus garden. We bought a small cactus, brought it home and started studying cactus.

2. I like cactus and succulents both.

3. My center of interest changes. I love caudiciforms, unusual forms,

and flowering plants. Since my disability occurred, I must concentrate on smaller specimens.

4. I think I joined in 1994, not quite sure.

5. I would like to see more teaching of hands-on skills.

6. Specialty nurseries would be a great destination for a field trip.

7. Tales of experiences we have had, both good and bad in collecting and propagating would be very informative for us all and build our knowledge base.

8. I was overwintering over 500 plants, from 10ft to 1in. I have a greenhouse but am unable to maintain it since my disability.

9. My plants are bought locally; I would like to shop on-line from various vendors to gain the experience of dealing with big time growers. I would particularly like to purchase from the Huntington Botanical Garden annual offering, starting with full background on origin, habitat, and propagation method used to grow the offerings.

10. Cultivation is something my cactus background is lacking. I'm interested in maximizing cultivation from cuttings and unique presentations of plants or plant groups.

OTHER NEWS**14th Biennial Mid-States Cactus and Succulent Conference**

- Hosted by** **The Kansas City Cactus & Succulent Society**- an affiliate of the Cactus & Succulent Society of America
- What:** Exciting Speakers, Wonderful Vendors, Judged Show, Photography Contest, Saturday Banquet, Rare Plant Auction
- When:** **June 21-24, 2012**
- Speakers:** Panayoti Kelaides, Rob Wallace, Woody Minnich, Doug Dawson, Neil Bohlman
- Vendors:** J & J Succulents, Rio Grande Cacti, Exotic Plant Books Pottery
- Where:** **The Hilton Garden Inn**
Independence, Missouri 19677 E. Jackson Drive Independence MO, 64057
Phone: 816-350-3000

For more information: Eva Allen, Conference Chair
816-444-9321
emallen@earthlink.com

Register BEFORE May 1 for \$85, after May 1, \$105
Special Conference Room Rate: \$92 per night before May 31
Mention Cactus Conference for Special Rate

See registration form in our webpage under CONFERENCES

FROM THE MEMBERS

Thompson's Building Materials Pallet Garden

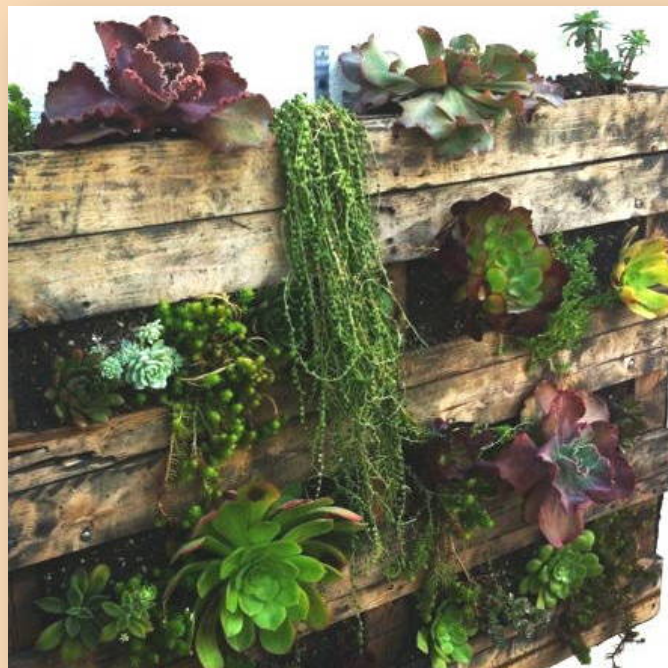
Joyce sent me this article she received from Susan Carpenter, a member of the Henry Shaw Cactus and Succulent Society. The original article appeared on Life on the Balcony . See webpage.

<http://lifeonthebalcony.com/>



When a co-worker mentioned that my friend Brenda at Thompson's Building Materials in Fontana, CA had made some pallet gardens, I rushed (literally!) over to take a look. Don't let Thompson's name fool you into thinking they don't have fantastic plants and pottery (and really awesome built in BBQs if you have the space for one). Because they do! I bought a kumquat while I was there. If you're in Southern California, you should go check

By the way, Brenda attached the pallet gardens to the wall using brackets. She said there has been no sign of damage to the wall behind the pallets, probably because she used succulents which need pretty minimal amounts of water. She did mention that since she used pallets with wide openings between the slats that when it is time to replant them, she's going to use chicken wire to help hold the soil in better.



Oh, one last tip I learned from Brenda. If you have pallets that are colors you don't want, you can stain them. That's what Brenda did. She has quite a few on the wall and she wanted them to match, so they're all stained the same.

ARTICLE OF THE MONTH

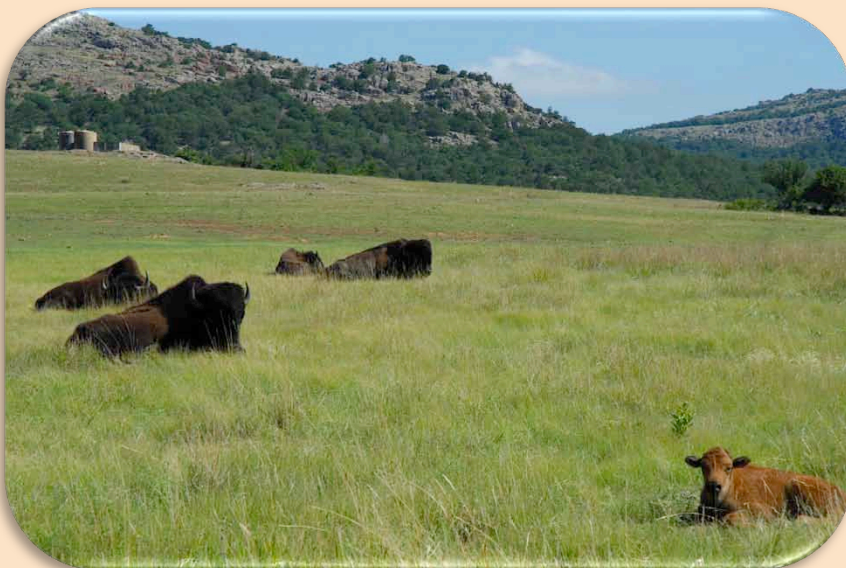
A visit to the Wichita Mountains Wildlife Refuge*By Rosario Douglas*

Above: The refuge in Spring and below: adult bison and baby.

As cactophiles we probably all know that some of the more prolific cactus habitats in the USA are found in the Southwest (Sonoran desert), and west Texas (Chihuahuan desert- e.g Big Bend National Park). By prolific I mean that these areas are arid zones with a large variety of cactus and succulents. There are, however, many places throughout the country where we can find cacti and succulents. Perhaps in areas not as rich in cactus diversity as the regions mentioned above, but nonetheless worthy of exploration.

One such place is the 60,000 acre Wichita Mountains National Wildlife refuge, an area of granite mountains surrounded by short grass prairie, located near Lawton in southwestern Oklahoma. The word Wichita is derived from two archaic Wichita Indian words: "Weets", which means "man" and "ee-taw" which signifies "of the north".

Today there are 553 National Wildlife Refuges in the US and the Wichita Mountains NWR was the first to be established. Created in 1907 primarily to have a place where Bison could be reintroduced and saved from extinction. Fifteen Bison arrived from the New York Zoological Park shortly after the refuge was created and today there are about 550 animals in the refuge. The Bison (Oklahoma's state mammal) had



been extinct in this area for 30 years by the time they were reintroduced in the refuge. Their reintroduction had spiritual significance to the Comanches, a Native American tribe that today has a presence in the area.

(I must mention that a common error is to use the name Buffalo when referring to the American Bison. The American Bison was called Buffalo by the first Europeans that came to America because Bison resembled the African and Asian water buffalo the Europeans were familiar with. The American Bison is more closely related to the European Bison.

ARTICLE OF THE MONTH CONTINUED....

Some of the succulents found in the refuge include, *Echinocereus baileyi*, *Coryphantha* sps and several *Opuntias* as well as some succulents such as *Sedum nuttallianum* and a *Yucca*. What makes this place special is not only the succulent flora, albeit small in numbers, but its fascinating animals and beautiful landscapes.

The cacti are best viewed in rocky well-drained areas such as those found near some of the trails. Most striking are the flowers of *Echinocereus baileyi* which are visible in mid to late May. The sedums as well as many native wildflowers (such as Indian blanket) also bloom at this time. The flower displays can be very impressive if rains have been abundant earlier in the year. Springtime is also a good time to see the baby bison, which are like miniatures of the adults, except for their reddish



Echinocereus baileyi and close up of the flower.

Photos by
Michael
Douglas



ARTICLE OF THE MONTH CONTINUED....



Sedum nuttallianum flowering.

Photo by Michael Douglas



An *Opuntia* spp. Blooming in Spring

Photo by Rosario Douglas



Above Michael strolling on a beautiful spring day. Note the abundance of wildflowers. This photo was taken in mid-May.

On the right a *Yucca* spp. In bloom.

Photos by Rosario Douglas



ARTICLE OF THE MONTH CONTINUED....

An interesting domestic mammal found in the refuge is the longhorn cattle. Both the Bison and the Longhorns roam free throughout the refuge, a fact that trail users have to keep in mind. The Bison have done so well that yearly auctions of surplus animals take place in September and October. This event brings buyers from all over the country.



Colonies of prairie dogs are visible from some of the roads and if you are lucky you can spot Rocky Mountain Elk. Large numbers of turtles can be observed in the numerous small artificial lakes found in the area and a good variety of birds are present in the refuge as well.

Our state reptile, the collared lizard or "mountain boomer" as they are known locally, are usually found sunning themselves on the rocks along the trails. The male lizard's striking colors (spring and summer) are designed to attract the females.



Above Texas longhorns.

On the right a baby prairie dog.

Photos by Michael Douglas

ARTICLE OF THE MONTH CONTINUED....



On the left Mike Douglas turning around on the trail after discovering we had company.

Photo by Rosario Douglas



On the right *Gaillardia pulchella* or Indian blanket, Oklahoma's state flower. Photo by Mike Douglas



Another interesting aspect of the refuge is the granite mountains. Mount Scott is a high point inside the refuge to which visitors can drive. From the top, the visitor can enjoy nice views of the surrounding areas.

The refuge, which is free, also has a state-of-the-art visitor center with numerous exhibits explaining the plants, habitats, and animals found in the area.

A male Collared lizard (*Crotaphytus collaris*) or "mountain boomer" Oklahoma's state lizard. Photo by Mike Douglas

ARTICLE OF THE MONTH CONTINUED....



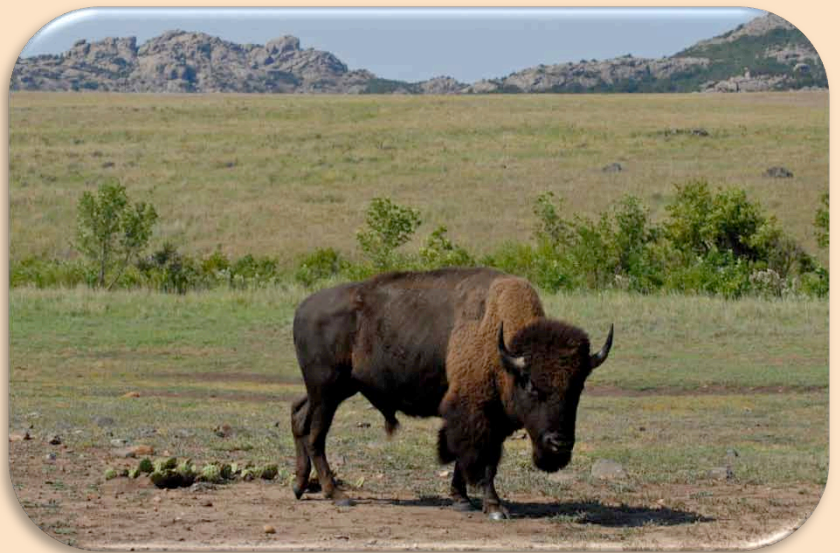
The visitor center on the left.

The mighty Bison below.

Photos by:
Michael Douglas

After a good day of hiking visitors can head for the Meers's store restaurant (cash only). The restaurant, a local legend, is very popular and has been around for a long time. The specialty is burgers made from longhorn beef (the owner has his own herd) and the best homemade ice cream I have ever had. Lines can be very long on spring and fall weekends.

A day visit to the Wichita Mountains NWR will provide many opportunities for observing wildlife, hiking or just driving around the refuge to look for Bison and other animals. Visitors will also see cactus and succulents if they know where to look. Great vistas from Mount Scott and a visit to the visitor center (should probably your first stop) will complete your visit before heading to the Meer's store for a great meal.

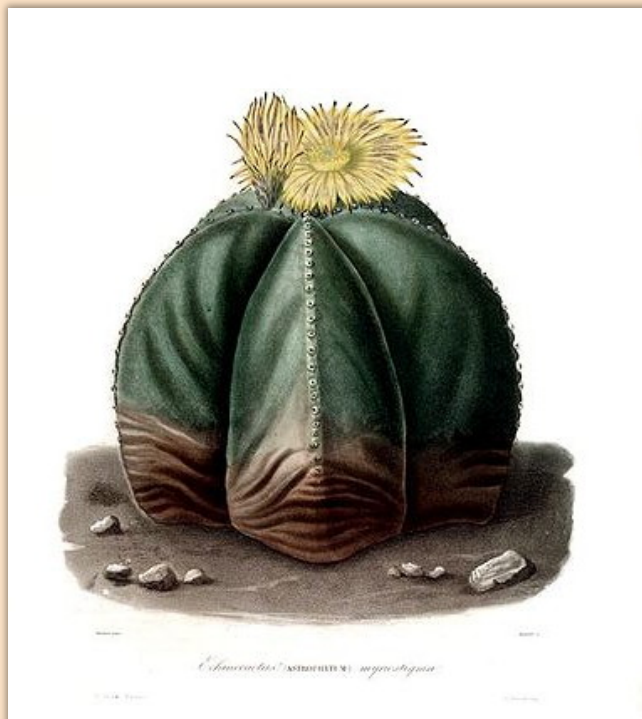


On the right historic Meers's store, a unique restaurant well worth the wait.

Photo by Mike Douglas

SUCCULENT PLANTS

By Rosario Douglas



Above is *Astrophytum myriostigma* Lem. From *Iconographie descriptive des Cactees* by Charles Lemaire 1841-1847. Illustration in the public domain

The Genus *Astrophytum* has always been one of my favorites. We saw some of the species in habitat during our numerous trips to Mexico in the 90's. To me this is one group of cactus that has both a pretty flower and a nice stem.

Charles Antoine Lemaire, a French botanist (1 November 1800 Paris - June 1871 Paris), and botanical author, noted for his publications on Cactaceae described the genus using a plant from northern Mexico.

The name comes from the Greek *ἄστρον* (*astron*), meaning "star," and *φυτόν* (*phyton*), meaning "plant." Four species are globose (globe shape), the other one is sprawling. This sprawling species was discovered in 2001 and is *Astrophytum caput-medusae*. The rest were discovered during the 1828-1845 period. Some members of this genus such as *Astrophytum asterias* are spineless. A common name is bishop's cap.



Above are two pictures of *Astrophytum myriostigma* photographed by Mike in our greenhouse.

SUCCULENT PLANTS



On the left is *Astrophytum ornatum* photographed by Mike Douglas in Mezquitlan-Mexico. This was a large specimen - about 2 feet long.

This genus is made up of 6 species (*A. ornatum*, *A. myriostigma*, *A. asterias*, *A. caput medusa*, *A. capricorne* and according to some authors *A. coahuilensis*). Most species are found in Northern and Central Mexico in the Chihuahuan desert. There is one genus *Astrophytum asterias* that has small populations in Texas that is federally protected due to its endangered status. See link that follows to read about the status of that species in the US.

<http://www.uv.es/~aguilel/docencia/biol%20cons%20teoria/material/Recovery%20Plan%20Astrophytum%20asterias.pdf>



Astrophytum capricorne photographed by Mike Douglas near Torreón-Mexico - 1989.

SUCCULENT PLANTS



Above is *Astrophytum asterias*. Photo by Dr. David Midgley. Wikipedia (Creative Commons Attribution-Share Alike 2.5

Plants are usually solitary, globose to columnar. Plants are green and often, but not always, covered with white tufts of **trichomes** (hairlike or bristle-like outgrowths on the epidermis of a plant. Trichomes serve a variety of functions, depending on their location. As root hairs (and as leaf hairs in epiphytes), trichomes absorb water and minerals. As leaf hairs, they reflect radiation, lower plant temperature, and reduce water loss. They also provide defense against insects.) Plants have 4-10 distinct ribs, flowers are diurnal and are yellow.

There are no field observations of pollination published. But it is likely that solitary bees such as *Diadasia rinconis* (Apidae) are involved. Their flight distances are not more than about 1000 m, resulting in important conclusions for the genetic reproduction mechanism of small, finite populations (material above taken from website The Genus *Astrophytum* Lem
<http://www.astrobase.de/Gattung/Ht>



You can read more about *Astrophytum caput-medusae*, the newest addition to this fascinating genus, at:

http://www.astrophytum.de/A_caput-medusae/a_caput-medusae.html

On the left is *Astrophytum caput-medusae* taken from the Victoria Cactus and succulent Society webpage at:
http://www.victoria.cactus-society.org/astrophytum_caput-medusae.html

SUCCULENT PLANTS



On the left is *Astrophytum coahuilensis* photographed by Mike Douglas near Torreon in 1989.

There appears to be a disagreement amongst botanist about whether *A. coahuilensis* is a species or a variety of *A. myriostigma*. Perhaps further studies will settled this argument. In any case, whether a species or a variety, it is still is a beautiful plant.

When we saw it in the field we were confused because it looked like *A. myriostigma* but if you get close it doesn't. You

can read more about *A. coahuilensis* at:

<http://www.astrobase.de/Artikel/Htmls/e793.html>



Plants in the genus *Astrophytum* are without a doubt highly appreciated by cactus hobbyists throughout the world. The small sizes of some of them combined with the beautiful shapes makes these plants valuable to any collector.

References:

Wikipedia
Cactiguide.com
Science dictionary
<http://dictionary.reference.com/browse/t...>
The Cactus Family by Edward F Anderson

Above is *Astrophytum capricorne* photographed by Mike Douglas in Mexico- 1989.

WEBSITES REVIEW

By Rosario Douglas

The Cactus Explorers Club

An informal group for cactus and succulent enthusiasts

The Cactus Explorer

The 2012 weekend

The Cactus Explorer is a free on-line journal available as a pdf download. It is available to everyone, there is no membership required. The issues are available for download [here](http://www.cactusexplorers.org.uk/journal1.htm).



We hold an annual residential weekend meeting in which anyone interested is welcome to participate. The number attending is limited to 55.

Attractions include:

About 20 cactus talks given by participants and visiting speakers
Plant and Book sales
Meet like-minded people in a pleasant social environment
Price includes two nights accommodation in en-suite single rooms, all meals and refreshments. There is a bar offering real ale (much liked by many cactophiles!)
Leicester Botanic Gardens is adjacent to the venue.



Some months ago Joyce shared this link about online journal dedicated to publishing articles about cactus and succulents. You may have already explored this webpage, but I will feature it here because it is such an interesting site full of articles that will be of interest to many of you. Their website address is:

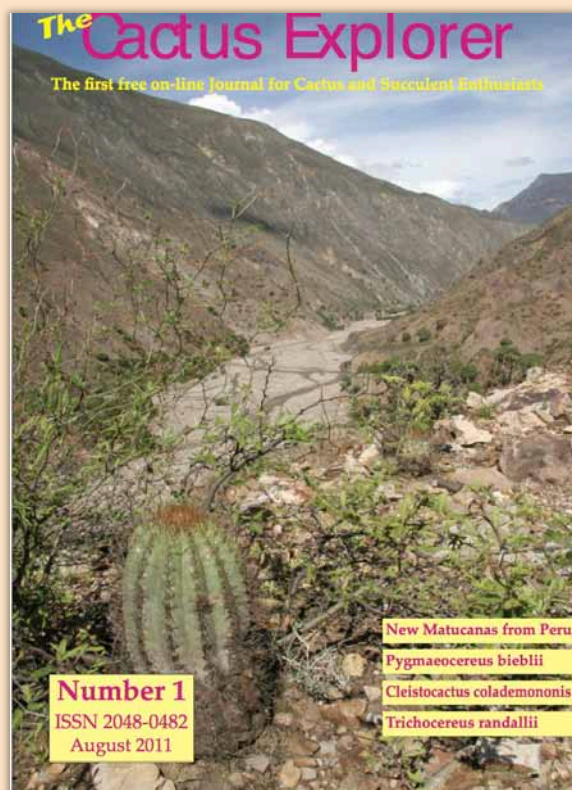
<http://www.cactusexplorers.org.uk/journal1.htm>

As you can see on the right the articles are varied and of general interest. You can register to be notified when their journal is available for download.

I communicated with Graham Charles, the editor of this journal so they notify me when the journal is ready for download. I sent the address of our newsletter and he liked the newsletter. He also praised Tony Furrh's book review of his book.

Graham wrote: "Thank you for contacting me and for promoting the Cactus Explorer to your readership. Thank you also for your review of my *Gymnocalycium* book, very thoughtfully written. I hope it is OK for me to link to your website since I am sure our readers (4,000+) would find your site interesting."

The journal is published 4 times a year.



THE CULTIVATION CORNER

By Rosario Douglas



Cactus Cultivation

Taken from CactusMuseum at: <http://www.cactusmuseum.com/care.asp>

Note: The tips and notes below represent a body of knowledge that we have gathered from raising cactus plants in the USA. Most notes are generalizations. Additional research into specific plant cultivation requirements is encouraged.

General Cactus Soil Mixture Most cacti require a free-draining soil mixture to prevent diseases resulting from too much water. A one part potting soil to one part builder's sand mixture is acceptable for most types. Some cacti, the epiphytes, are native to jungle areas and receive their nutrients from trees. These epiphytes, including the popular Christmas Cactus and Easter Cactus, do best with peat moss added to the soil mixture. A one part potting soil, one part builder's sand, and one part peat moss mixture is the recipe that we use for epiphytic cacti. If you use peat moss be sure to wet it thoroughly before adding it into the soil mixture.

Watering Requirements During the growing season, cacti need to be watered when the soil approaches dryness. It has been my experience that this results in weekly watering. The main thing that we try to accomplish when watering is to completely saturate the soil. For potted plants, this means that the pots are sometimes submerged in a basin full of water. A plant is considered to be completely watered when all air bubbles stop arising from the soil. In winter, a natural dormancy period for most cacti, watering is reduced. We usually water our plants once per month during the winter using the method described earlier.

Fertilizer Requirements Cacti will benefit from a light fertilizer application during the growing season. We use a partially diluted houseplant fertilizer on our plants. Some recommend the application of 1/2 strength tomato food. No fertilizer should be given to the plants during the winter dormancy period.

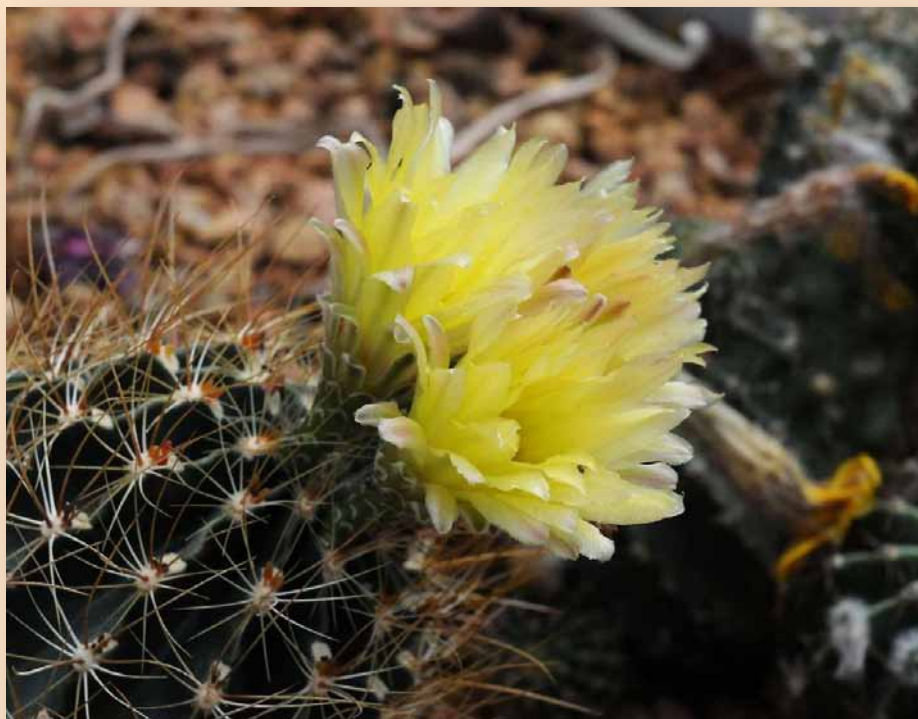
Temperature Requirements Temperature can kill or disfigure cactus plants. Heat generally is not the problem; our plants endure afternoon temperatures in the 90s and low 100s during the growing season. Plant tolerance to cold, however, varies from species to species. Most cacti that we have owned tolerate temperatures to freezing (32F). A few conk out below 50F and some endure cold USA winters with lows reaching 10F. Cold and excess water in the winter is a lethal combination. We've lost plenty of plants due to this reason. The majority of our plants are wintered in the greenhouse where minimum temperatures reach 40F.

THE CULTIVATION CORNER

Re-potting The majority of our cacti are potted in regular, unglazed clay pots. Clay pots are porous and add to the free drainage characteristic of cactus soil. Plastic pots can be also be used, however, extra care is required to insure that the soil does not become waterlogged. Plastic pots hold water longer than clay pots. We don't repot very often since most cacti don't mind to be crowded too much. A root or roots growing out of one of the pot drainage holes is a clue that the plant needs repotting. Gloves, folded newspaper layers, and tongs are used to support the cacti when removing it from the old pot and when placing it into the new pot. Some plants refuse to give up their old homes, so, it is sometimes necessary to break the pot. New pots are generally 2 inches larger in size compared to the old pot (i.e. a plant that is growing in a 4 inch pot is repotted into a 6 inch pot).

Propagation Growing cacti from seed is very enjoyable and is a great way to increase the number of plants in your collection. Cactus seed originate from fruits that sooner or later dry out and expose their seed. Some cactus fruits dry out naturally on the plant, however, some fruits remain juicy for quite some time. Harvesting seed from these juicy fruits is much like getting grape seed from grapes. Paper towels are used to dry these seed prior to storage. Once dried, cactus seed can be stored in tiny envelopes for convenience until planting time. It is best to store them in a cool and dry area of the house. The seed remain fresh for several years. Once the seeds are ready to plant, prepare or purchase your soil germination mixture. Any porous, free draining soil mix will do; purchased germination mixes have the advantage of being sterilized and free from weeds/fungi. Place the soil mix in small pots or, preferably, a plastic compartmentalized seed flat. Soak the mix with water and let the water soak in. Since most cactus seed are very small, sprinkle them directly on top of the soil. Some larger seed may need to be placed gently underneath the soil surface. Once the seed have been sowed, cover the mix with a very, very small layer of fine sand. The sand will help to support the tiny plants when they germinate. Place a transparent covering (i.e. glass, plastic) on top of the seed container to help retain moisture. For small pots, placing the pots inside a Ziploc-style bag is ideal. Exact-fitting, plastic domes usually are included in the purchase of seed flats. Place the seed in a warm location (i.e. 70F - 80F) that receives indirect sunlight. Germination time varies from 3 days to months. It is important to keep the seed mix from drying out. When seedlings appear and have taken on a green appearance remove the transparent covering. Young cactus plants appreciate fresh air. Following germination, keep a close eye on watering and light requirements. Seedlings require more water than adult plants and the mixture should not dry out. When watering, a fine mist should be used so as to not uproot the seedlings that are trying to get their roots established. Strong light can sunburn seedlings very quickly, so, make sure that seedlings receive indirect light for the first few months after germination. Cactus seedlings grow slowly, so, don't be surprised that the tiny plants remain in the seed mixture for a long period of time (i.e. 6 mos - 2 yrs). Crowding of seedlings is not much of a problem and may be beneficial. Transplant seedlings once their root systems have been established. It should be noted that the seedling roots are fragile. Take care not transplant the seedling too early.

WHAT IS BLOOMING?



Photos by: Mike Douglas

Echinocactus (or Ferocactus) setispinus (Del Weniger) bloomed in our greenhouse in September.

A nice African succulent (genus Cheiridopsis) blooming in early February.



THE BOTANICAL CORNER

By Rosario Douglas



Above an example of hooked lower central spines and almost papery and straight radial spines from a *Ferocactus* in one of our greenhouses.

On the right is an example of small glochids found on *Opuntia microdasys* in one of our greenhouses.

Next page taken from: From **Cactacea** with illustrated keys of all tribes, sub-tribes and genera by W. Taylor and Thor Methven Bock.

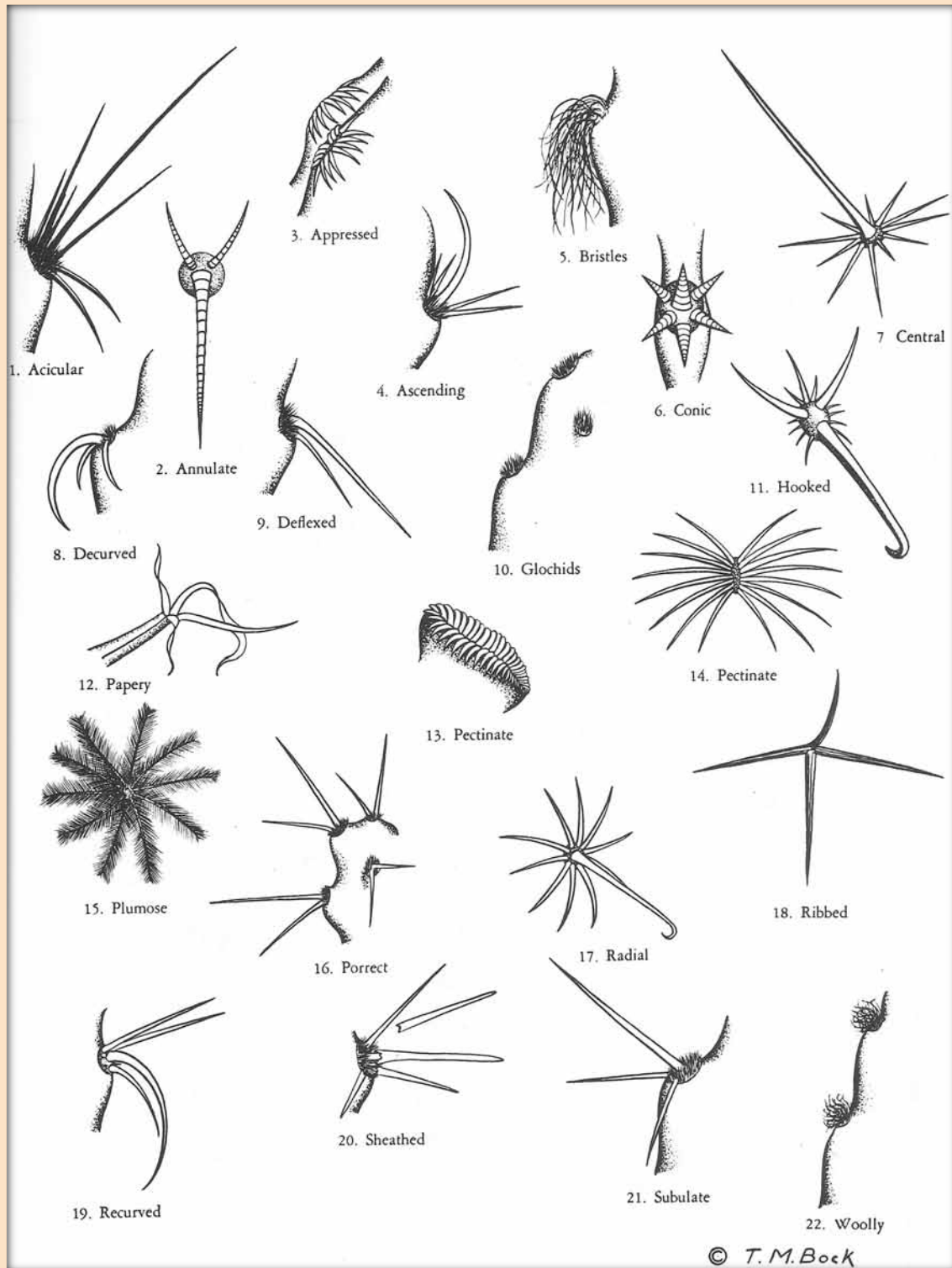
This month I thought I would share with you information about different types of spines and the names used to describe them. On the next page there is a nice illustration of the many types of spines found in cactus plants. This illustration comes from the book **Cactacea** with illustrated keys of all tribes, sub-tribes and genera by W. Taylor and Thor Methven Bock.

I am sure you have more than one plant with a type of spine described in this drawing. When looking at this illustration it is amazing to see the variety of shapes and types of spines that exist.

Spines are important to the plants not only for protection from herbivores, but also as shade providers. It is also obvious that the type of spine gives a unique character to the plant. They can also insulate the apical bud from freezing to a certain extent.



THE BOTANICAL CORNER



2012 CACTUS AND SUCCULENT HAPPENINGS IN THE REGION

By Joyce Hochtritt



March 15, 2012: The Central Oklahoma Cactus and Succulent Society's monthly program and business meeting. Starting at 7:30 pm at the Will Rogers Garden Center.

Program: Trip to "The Enchanted Islands" – Galapagos-Ecuador by Mike & Rosario Douglas (Speakers)

Refreshments: Rosario Douglas & Peggy Anglin

March 31 – April 1, 2012: The Colorado Cactus and Succulent Society's Annual Show and Sale, Denver Botanic Gardens, Denver, CO.

April 14, 2012: Norman Garden Center Festival – Saturday, 8:00 am to 2:00 pm – Members (Fred Hill, Rosario Douglas and Mary Kaser) volunteered to work. Other members are invited to participate as well. Will have a table set-up for information about the Central Oklahoma Cactus and Succulent Society.

April 14 – 15, 2012: The Austin Cactus and Succulent Society's Spring Show and Sale, Zilker Botanical Gardens, Austin, TX.

April 19, 2012: The Central Oklahoma Cactus and Succulent Society's monthly program and business meeting. Starting at 7:15 pm at the Will Rogers Garden Center.

Program: Photography Program by Tony Furrh, Mike Douglas, and Fred Hill. (Speakers) Categories will be Amateur, Novice and Professional. Program will start at 7:15 pm to allow each speaker time to explain their photos and photography knowledge. **Refreshments:** Peggy Holland and Fred Hill

April 21 – 22, 2012: The Cactus and Succulent Society of Tulsa's Spring Show and Sale, Tulsa Garden Center, Tulsa, OK. (Car Pool?)

April 26 – 27- 28, 2012: The San Antonio Cactus and Xerophyte Society's Annual Show and Sale, San Antonio Garden Center, San Antonio, TX.

May 5, 2012: "Repotting and Staging Workshop" by J. Hochtritt & Members

May 11-12-13, 2012: Ft. Worth Cactus and Succulent Society's – were ?

May 17, 2012: Central Oklahoma Cactus and Succulent Society's monthly program and business meeting. Starting at 7:30 pm at the Will Rogers Garden Center.

Program: "Succulent Bonsai" by Mike Hellmann (Guest Speaker). Refreshments: Joan Galbraith & 'club'

June 9, 2012: Festival in the Park, Will Rogers Exhibition Center, 3400 NW 36th St. OKC, OK. Members (Fred Hill and Mary Kaser) volunteered to work. Other members are invited to participate as well. We'll have a table set-up for information about the Central Oklahoma Cactus and Succulent Society.

2012 CACTUS AND SUCCULENT HAPPENINGS IN THE REGION

June 16 – 17, 2012: Central Oklahoma Cactus and Succulent Society's Annual Show and Sale, 3400 NW36th St., Oklahoma City, OK. - Saturday, 9:00 am to 5:00 pm - Sunday, 9:00 am to 4:00 pm.

<http://www.cactus-mall.com/clubs/cocss.html>

June 21 to 24, 2012: The 14th Biennial Mid-States Cactus and Succulent Conference Hosted by the Kansas City Cactus and Succulent Society at The Hilton Garden Inn, Independence, MO.

<http://www.midstatesconference.org/>

July 7 – 10, 2012: Henry Shaw Cactus Club's Annual Show and Sale, Missouri Botanical Gardens, St. Louis, MO. <http://www.hscactus.org/>

July 19, 2012: Central Oklahoma Cactus and Succulent Society's monthly program and business meeting. Starting at 7:30 pm at the Will Rogers Garden Center.

Program: "How to Build a Dish Garden" Fred Hill will host along with Joyce Hochtritt.

More information to come!

Refreshments: Club (Niki Furrh & Mary Kaser)

August 16, 2012: Central Oklahoma Cactus and Succulent Society's monthly program and business meeting. Starting at 7:30 pm at the Will Rogers Garden Center.

Program: Library Knowledge. Tony Furrh with host and Speak about the COCSS library. The types of books we own with a book review to follow.

Refreshments: Vicki Brabits (snacks) and Mat Baginski (drinks)

September 1 – 2, 2012: Austin Cactus and Succulent Society's Fall Show & Sale, Zilker Botanical Gardens, Austin, TX.

September 16, 2012: Sunday at 5:30 pm, Club Picnic – Pot Luck to be held at Peggy Anglin's home. Open swap program will be held at the picnic. Members to bring their items they want to swap out with other members.

September 22 23, 2012: Cactus and Succulent Society's Fall Show and Sale, Tulsa Garden Center, Tulsa, OK. (Car Pool?)

October ?: – Speaker, Leo Chance from Colorado. Leo will present his new book "Cold Hardy Cacti" with a book signing. More information to come! . Refreshments: Niki Furrh and Mary Kaser

November 15, 2012: Central Oklahoma Cactus and Succulent Society's monthly program and business meeting. Starting at 7:30 pm at the Will Rogers Garden Center.

Program: CSSA Judging Workshop – Presented by J. Hochtritt. How to judge and present plants to be judged.

Refreshments: Joyce Hochtritt (snacks) and Deb Trimble (drinks).

December Christmas party

If you know of any plant happenings, please send me the information. Thank you, Joyce