THE OFFSET

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

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

NEWSLETTER OF THE CENTRAL OKLAHOMA CACTUS AND SUCCULENT SOCIETY

OFFICERS

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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- FROM THE PRESIDENT

Happy New Year everyone! This month I am writing on behalf of our president Niki Furrh. As some of you know Tony Furrh had emergency heart surgery late last month. He was very lucky to have the problem detected on time, but surgery was necessary. Tony is back home starting the long recovery and keeping Niki busier than normal. We all wish Tony the best of lucks and we hope to have him back at our meetings soon.

This past year was a busy year for the club, we started a bit slow but by the end of the year we had a number of activities besides our annual club show and sale. Our show and Sale was well attended and we thank all the volunteers that made it possible to carry out such an event. In November we had a guest speaker, Leo Chance, from Colorado. Leo brought winter hardy plants and copies of his book on winter hardy cacti to sell during the event. Leo's talk and plant sale was open to the public and we had a good show of both members and non-members. We also had a field trip to the Myriad Gardens led by our long time member and treasurer Peggy Anglin. Prior to the show and sale we also had a workshop designed to get our plants ready for the Show and Sale at Joyce Hochtritt's house. In addition to these activities we had a great picnic at Peggy Anglin's house and our Christmas party at Niki and Tony's house was very enjoyable as well.

Our next show and sale is at the Will Roger's Gardens on June 1 and 2nd. There will be more information posted in the newsletter and webpage as we get closer to our main event of the year.

Our club will be hosting the 15th Biennial Mid-States Cactus and Succulent Conference in 2014 and planning has already started. Niki and Joyce have already found the hotel where we will hold the event and there are many other details that will need to be taken care off. This will be a much bigger event than our annual show and sale and it will require as much help as members are able to provide. More information will be forthcoming as we continue with the plans for this big event.

This month we will not have a meeting but our regular meetings resume in February. Our February meeting will have a program about South Florida and we will also have a mini plant sale and raffle. Any members that want to bring some plants to sell or trade can do so. For pricing of your plants we will follow the same guidelines we used for the Show and Sale. That is no plant should be priced for less than $3. If you have any questions about this you can contact Niki at tnfurrh@cox.net or you can phone her at 405-722-1718.

Finally we should that mention that our annual board meeting will take place on January 26th at 11 am at Niki's house. Any interested members are welcome to attend. We will have many items to discuss at this meeting.

Hope to see you at the February meeting.

Rosario Douglas

Our Christmas party this past December 14th was a fun event. Lots of good food and good company. We had a good turn out too. Thank you Niki and Tony for hosting the party.

FROM THE EDITOR Rosario Douglas

Happy New Year to everyone! I want to thank Tony and Niki for all the work they did getting the house ready for our Christmas party. The house was beautifully decorated and the ambience was very nice.

So we start a new year with new activities and challenges for the club. We will try to continue providing interesting materials in the monthly newsletter.

I would like to take the opportunity to thank all the members that contributed materials for the newsletter this past year and I would encourage all of you to contribute materials from time to time. It may be something as simple as a suggestion for an article or request for information.

Rosario

CACTUS AND SUCCULENT HAPPENINGS IN THE REGION *By Joyce Hochtritt*

2013 Cactus and Succulent Happenings in the Region

****We will not have a meeting this month. Meetings resume in February**

*June 15 – 20, 2013 - CSSA 35th Biennial Convention - Hyatt Regency Hotel – Austin, TX.
http://cssa2013.com

2014 Cactus and Succulent Happenings in the Region
The 15th Biennial Mid-States Cactus and Succulent Conference Hosted by the Central Oklahoma Cactus and Succulent Society in Oklahoma City, OK. More information to come!

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

"Thinking of you"

As you all probably know, our long time member and club librarian, Tony Furrh had heart surgery in late December. We wish him a speedy recovery.

****Remember we are not having a meeting this month, but will resume our meetings in February****

ODDS & ENDS

This athletic bobcat leapt 50 feet up a prickly cactus and stayed there for six hours to escape from a ferocious mountain lion.

TALK about getting yourself into a prickly situation...

This terrified bobcat -scurried 50ft up a cactus to flee a hungry lion.

And he was so scared he stayed there for six hours, despite his predator vanishing after a few minutes.

The lion clearly thought better of clambering up a huge stalk covered in spikes. But for the bobcat it proved an escape from certain death, no matter how painful.

He certainly chose a historic plant. The Giant Saguaro Cactus is around 300 years old.

Photographer Curt Fonger took these pictures in -Arizona's Sonoran Desert. He knows how to get a sharp shot.
© Daily Mirror (article at;.co.uk/ne/catcare/page65.phtml)

ARTICLE OF THE MONTH

Saguaro Fruit

by Linda McMillin Pyle

Article taken from; Desert USA at http://www.desertusa.com/mag98/june/papr/jun_lil.html

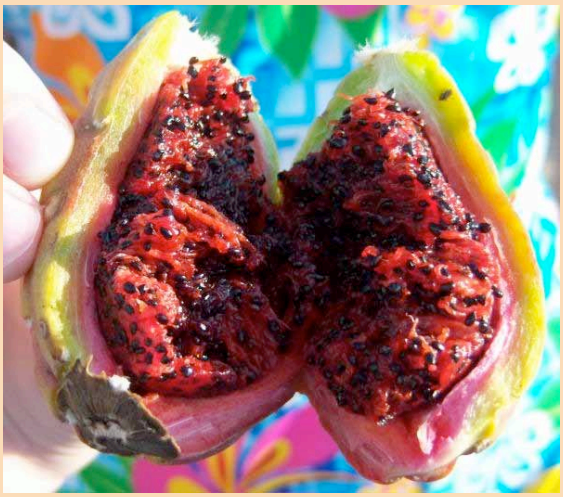
The old brush smoke house on the desert floor looked like a hat with a flat top. The open entrance facing east was a dark gaping mouth. In the shadowy interior, men with tattooed faces raised a wine basket to their lips and drank. The basket was passed around and around the circle.
One man succumbed to the intoxicating wine and fell prone. The bottoms of his feet had been painted red to make him more attractive to the women who attended him. Slowly the rest of the men followed suit as all the Saguaro wine was consumed. Harmony with their world had been demonstrated. As their bodies are saturated with the wine, so may the dry earth be saturated with rain.

In time long passed, Tohono O'odham (Papago) Indians celebrated the New Year in this fashion. But first, the ritual gathering and preparation of the Saguaro fruit, sustenance for the dwellers of the Sonoran Desert, had to take place.
Not having a reliable water source, these Indians measured strength by the ability to go without water in their arid climate. According to the mythology of the O'odham people, the first Saguaro was created when a young woman sank into the earth and rose back out as a giant cactus, arms raised toward the heavens. They, too, considered themselves as belonging to the earth.

In hot June and early July, families would camp near forests of Saguaro to reap fruits from atop the giants, the plants they thought to be like themselves, Indians to be respected. The full crop of Saguaro fruit, which appeared even after a dry winter, might have seemed miraculous to them.

Long poles made from the wooden ribs of Saguaro skeletons were used to hook and knock down the fruits. Like tiny watermelons when split open by hand, the fruit reveals a red interior pulp and thousands of black-red seeds (smaller then poppy seeds). The pulp, tasting like a fig with a hint of strawberry, quenches the thirst.
Iitoi, a legendary hero and creator, was said to have instructed the people in the ancient tradition of making Saguaro wine. Water and Saguaro syrup was to be mixed in tightly woven baskets and then poured into earthen pots called *ollas*. Stored in a dark cool place, the mixture distilled for 3 to-7 days. This time of fermentation, turning bountiful fruit into spirituous wine, was cause for lively dancing, singing of desert rain songs and incantation of poems. Their word for "drunk" meant "holy, lyrical, bringing knowledge and vision."

Preserving the rest of the harvest involved soaking the fruit in *ollas* to loosen the seeds and then simmering the mixture over a fire. The resulting thick syrup, poured into ceramic holders and sealed with desert mud could be used later like sugar. Sun dried seeds, ground then mixed with water, and flour, were baked as bread or were turned into butter. These foods helped provide sustenance throughout the year, until the next harvest.



How far back the gathering of the Saguaro fruit and the wine ritual goes no one knows for sure. Humans are believed to have arrived in the Southwest 10 to 11,000 years ago, about the time Saguaros are thought to have established themselves in the Sonoran Desert range. The Ventana Cave, within the main Tohono O'odham reservation near Tucson, is a time capsule of human activity in the desert. It contains 15 feet of prehistoric debris, called midden by archeologists. Excavated from the bottom layer (dated around 8000 BC), the bones of extinct animals, along with spear points, reveal prehistoric humans here were hunters. The next layer above contains artifacts of food gathering and the next of farming.
Most anthropologists believe the Papago are descendants of the Hohokam, which means "those who have vanished." These pottery makers lived in the Sonoran Desert until the arrival of Spanish missionaries in the 1500s. The Hohokam farmed corn, beans and squash, while gathering wild vegetation, including the fruit of the Saguaro cactus.

Today, the modern Tohono O'odham still assemble under family ramadas (open air shelters), to harvest Saguaro and celebrate the New Year. The wine festival ritual is observed not so much to invoke the life-giving rain, but to show respect for ancestors and tradition.
A usual routine might find the family in the evening or early morning removing the fruit from the Saguaro with their harvesting tool held on the shoulder. The heat of the day would be a time for cooking the juice over a wood fire until reduced to a thick syrup. Drying or soaking would separate the pulp from the seeds, which would then be used to make porridge or crunchy candy.

Another person who might be found picking Saguaro fruit in the Sonoran Desert near Tucson is Cathy Lambert, who makes and sells a "Saguaro Blossom Cactus Tea" through her company, Desert Decadence.

Cathy owns ranchland where she picks Saguaro fruit for her tea. The task of picking Saguaro fruit is sometimes frustrating and messy, she says, because the fruits do not all ripen at the same time and often, the birds and ants often get there first.

For her Saguaro tea, Cathy scoops out the pulp, dries it on racks and blends it with rose hips, rose leaves and strawberries. This light, zingy tea is very popular and is sold in most states. Most of us will not have the opportunity to participate in the seasonal Saguaro harvest festivals, but we can sip Saguaro tea.

Above left; Ripe Saguaro fruit from
http://www.doliferight.com/2008/06/26/saguaro-fruit-harvesting/

On left; three Maricopa women gathering saguaro fruits (Public domain photo taken between 1899 and 1929)

If you are in Saguaro country can you pick a Saguaro fruit? A Ranger at Saguaro National Park outside Tucson indicated that a tiny sampling of the renewable fruit is usually permitted on public lands. But the gathering of fruit in any quantity by the general public is prohibited. Harvesting Saguaro fruit from private land requires permission of the landowner.

No longer formally instructed by mythology, most of us are not prepared by rituals to endure the coming year. But saturating the mind with knowledge of the remarkable Saguaro can be like saturating the body with wine, imbuing one with a sustenance of the spirit of the Sonoran Desert.

The “month of the saguaro seeds turning black,”

Kaij Cukalig Mas.ad (May), once was the hardest time of year for the Tohono O’odham. Sometimes called the **“painful month,”** it was a time of hunger, the last of many long winter and spring months with dwindling food supplies and little water. It was a time of waiting for the saguaro fruit to ripen.

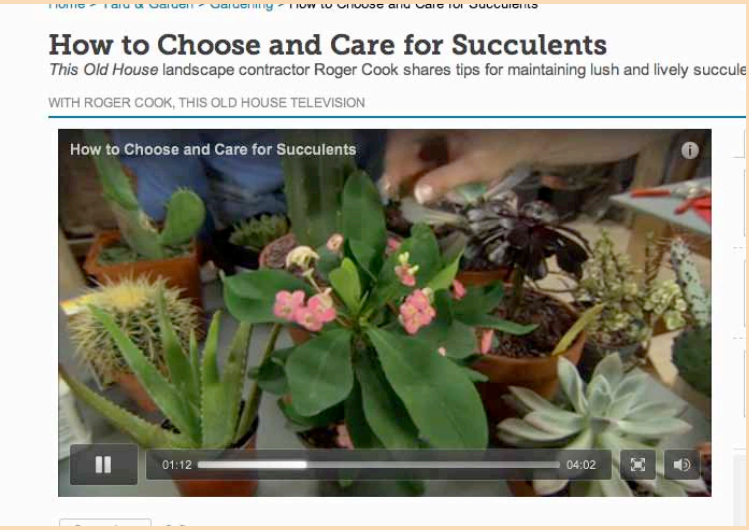
After the first saguaro flowers appeared, it would be five or six weeks before the earliest fruit was ripe and ready to harvest. During this final month of the Tohono O’odham year, the Desert People looked forward to their first taste of something sweet in a very long time, to the season of monsoon rains that the saguaro harvest signaled, to the New Year.

Illustration and material taken from the Tohono Chul Park in Tucson Arizona.
http://www.tohonochulpark.org/discoverysigns.html

CACTUS AND SUCCULENT VIDEOS

How to Choose and care for succulents

http://www.thisoldhouse.com/toh/video/0,,20288427,00.html



This is an interesting video where general information about cactus and succulents is provided. A good section covers potting soil and how to plant your cactus and succulents (good tips). There is also some interesting information about watering.

Click on the link to see the video.

Saguaro Fruit Harvest

http://www.youtube.com/watch?v=YjsvGg5kAgM

An interesting video where you can see how the Saguaro fruit is harvested by the Tohono O'odham Native Americans. Also shown are their traditional ways to cook the fruit and prepare a syrup

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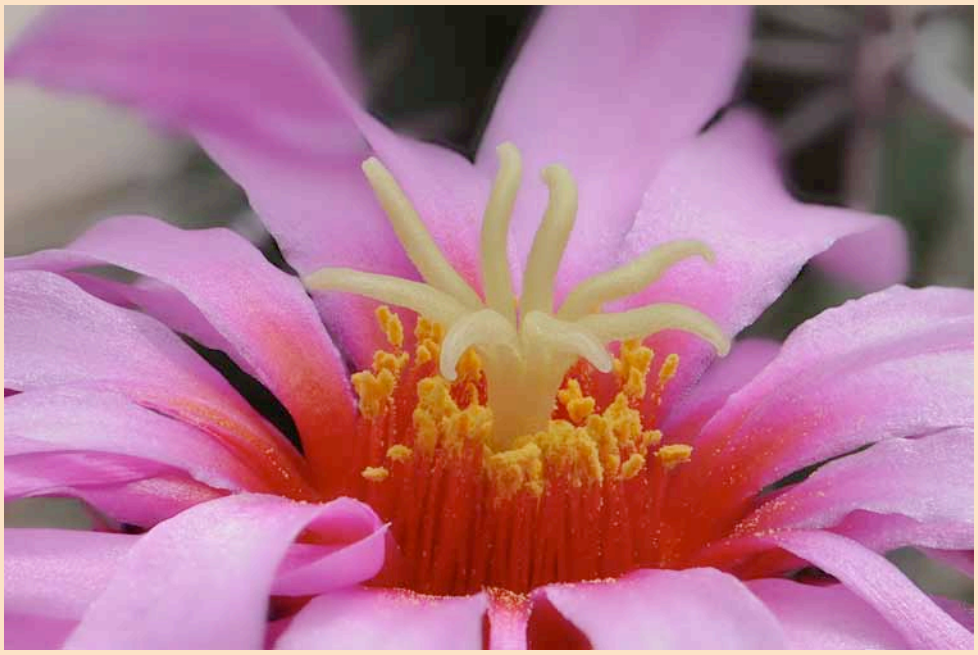
WHAT IS BLOOMING?

Photos by: Mike Douglas



These were blooming in August.

Thelocactus species and Astrophytum myriostigmya.

SUCCULENT PLANTS

By Rosario Douglas

The genus Pseudolithos was formerly in the Asclepidaceae or milkweed family. Recently the Asclepidaceae family has been incorporated into the Apocynaceae family.

The name means "false stone " from "pseudo" meaning false) and lithos (meaning stone) in Greek.

There are about 9 species all found in the dry areas of Oman, Somalia and Yemen. Many interesting succulents also grow in this area of fairly dry habitats.

The plants are relatively small (plants can reach sizes up to 4.5 inches tall and 4.5 inches wide) and resemble stones. They can occur as single stem or can be clump forming.

The flowers are fairly small fly pollinated and smell like rotten meat.

Somewhat difficult in cultivation the plants usually prefer bright light and very good draining soil. The plants look a bit deflated when they dry up. Add too much water and they rot quickly.

Sources: Cactus Art nursery, Wikipedia, Succulent garden.

Photos: *Pseudolithos sp*. by Mike Douglas taken in our greenhouse.

Map from the web

SUCCULENT PLACES/TRAVEL

I found this article interesting especially because it talks about one of the countries where Pseudolithos is found. As you will read there are many other plants that call this part of the world home. Link: http://www.philstar.com/modern-living/465299/somalias-untold-beauty

Somalia's untold beauty

SUCCULENTOPHILE By Kevin G. Belmonte | Updated May 9, 2009 - 12:00am

Somalia has been in the world's spotlight for quite some time now but, unfortunately, the stories of Somali pirates and their escapades along the very busy maritime routes along the Gulf of Aden have severely tarnished Somalia's global image. In particular, two news items caught my eye. In September 2008, BBC Africa analyst Mary Harper wrote, "Whenever word comes out that pirates have taken yet another ship in the Somali region of Puntland, extraordinary things start to happen. There is a great rush to the port of Eyl, where most of the hijacked vessels are kept. They arrive in land cruisers with their laptops, one saying he is the pirates' accountant, another that he is their chief negotiator. With yet more foreign vessels seized off the coast of Somalia this week, it could be said that hijackings in the region have become epidemic… In Eyl, there is a lot of money to be made, and everybody is anxious for a cut."

In its May 4, 2009 issue, The Saudi Gazette wrote: "The hijacked Sirius Star is anchored off Harardhere, a tiny Somali village which could fit in its entirety on the bridge of the Saudi super-tanker but has emerged as the piracy capital of the world. Located some 300 kilometers (180 miles) north of the capital Mogadishu, Harardhere is the main base for a group of pirates currently holding the Sirius Star, an arms-laden Ukrainian cargo (vessel) and other ships. The village lies some distance from the coast and is populated mainly by members of the Hawiye clan, the largest in Somalia and the backbone of the opposition to the government and Ethiopia's military presence. Yet Harardhere was never a typical sleepy fishing village and has always had a reputation for lawlessness, a place where the rifle supersedes any other form of authority. 'When in Mogadishu, you have to earn your money, when in Harardhere, just use guns.' This popular Somali saying has sealed the village's image as a breeding ground for bandits and warlords."

For years, acts of piracy in Somalia's waters focused on and around the Gulf of Aden, further north up the Somali coastline, or further south where a group operating out of Kismayo targeted foreign boats fishing illegally. Harardhere came to the fore in 2006 when a large ransom was paid for the release of a South Korean ship as well as several other merchant vessels. The group of pirates operating out of Harardhere and the coastal village of Hobyo, further north, is one of the most recent but also the boldest working the busy maritime routes off Somalia's long coastline. Piracy is one of the only flourishing trades in war-ravaged Somalia and Harardhere has gentrified in recent months." The photo shows *Pseudolithos harardheranus* from Harardhere, which as emerged as the piracy capital of the world.

What really caught my eye about these two news bits was not so much the acts of the Somali pirates. I guess many of us have grown sick and tired of reading about these acts every other day now. Rather, it was the names of the towns where these acts of piracy are centered in. In the first news bit, the town of Eyl is highlighted. In the second news bit, it's the town of Harardhere. Some of the rarest and most beautiful and exotic succulents in the world come from Somalia. And two of the absolute rarest plants are found around these two Somali towns and bear their names. The first is Pseudolithos eylensis and the second is Pseudolithos harardheranus. Its name coming from the Greek pseudo, meaning "false," and lithos, meaning "stone," for the appearance of the stems, pseudolithos constitute some of the most succulent species among the Stapeliads, with the tessellation of the stem's surface being a characteristic hallmark of the genus. These plants are also among the most prized of all succulents by collectors worldwide.

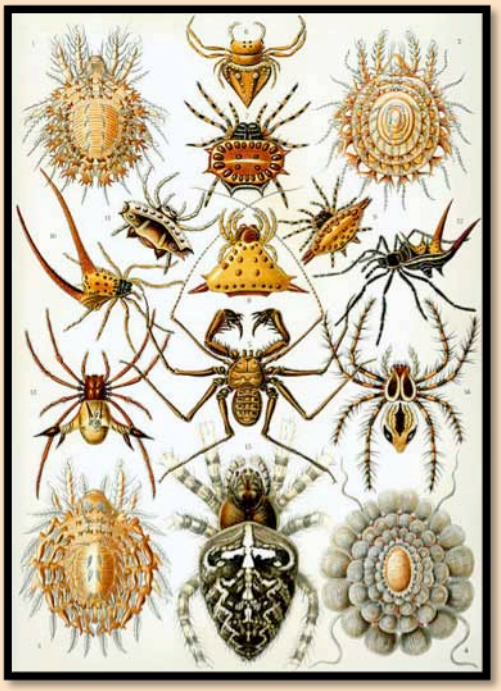
Somalia is Africa's easternmost country. Its terrain consists mainly of "Plateau", "Plain", plains and highlands. In the far north, the rugged east-west ranges of the Karkaar Mountains lie at varying distances from the Gulf of Aden coast. The weather is hot throughout the year, except at the higher elevations in the north. Rainfall is sparse, and most of Somalia has a semi-arid to arid environment suitable only for the nomadic pastoralism practiced by well over half the population. Only in limited areas of moderate rainfall in the northwest, and particularly in the southwest, where the country's two perennial rivers are found, is agriculture practiced to any extent.
In her compilation called Cactus and Succulent Plants, Sara Oldfield discusses Somalia's flora: "Somalia has about 3,000 flowering plant species of which about 500 are endemic. Highly specialized vegetation types within the country support many endemic xerophytic plant species, suggesting that arid climate conditions have remained unchanged for long periods of time…The northeast of Somalia is particularly rich in succulent plant diversity and is considered to be an internationally important center of plant diversity. Specialized limestone habitats, with outcrops of pure gypsum, harbor many endemic species. Some of these species have been known only from single collections by early naturalist explorers, and many others have only been discovered in the past 15 years."

Examples of some of these endemic succulent species, found nowhere else in the world, include *Pseudolithos cubiformis, Euphorbia columnaris, Euphorbia turbiniformis, Euphorbia sepulta, Pseudolithos caput-viperae, Pseudolithos migiurtinus and Euphorbia phillipsiae*. As you can see from the photos, some of these succulents have specialist adaptations to the arid and sometimes inhospitable environment in certain parts of Somalia, notably the various Pseudolithos species.

Many of these plants remain among the rarest of all succulents and are coveted by collectors worldwide. In part two of "Somalia's untold beauty," I will describe more of the fascinating succulents endemic to this country, their state in the wild, conservation efforts being undertaken to insure their future survival, and some tips on cultivating these wonders of Nature.

THE CULTIVATION CORNER by Rosario Douglas

Spider mites an important plant pest



Spider mites are very small (1mm or less) members of the class **Arachnida**. In the biological system of classification class refers to a group of organisms with common characteristics, attributes, qualities or traits (from Wikipedia).

Members of the class (**Arachnida**) are joint-legged invertebrate animals and they all have 8 legs. Most Arachnids are primarily terrestrial although a few are found in marine environments. The name Arachnida is derived from the Greek ἀράχνη (*arachnē*), which means "spider". There are over 100,00 named species of arachnids including spiders, ticks, scorpions, harvestmen and ticks.

Mites and ticks are lumped together under a taxon of Arachnida, the **Acari.** A taxon is: "Any group or rank in a biological classification into which related organisms are classified". From Biology online (http://www.biology-online.org/dictionary/Taxon).

Acari are a diverse group with about 1200 species whose origin can be traced back to the early **Devonian period** (in geologic time, the Devonian period, is an interval of the Paleozoic Era that follows the Silurian Period and precedes the Carboniferous Period, spanning between about **416 million and 359.2 million** years ago.(from Encyclopedia Britanica).

In spite of their small size some mites (e.g spider mites) are important plant pests that can have large economic impact in the case of agricultural crops. Cacti and succulents are not immune to the damage that their activities can produce. Some mites are beneficial and are used as biocontrol agents. There are parasitic mites that cause scabies and mange in numerous mammals. The first immature larval state of the common red harvest mite feeds on people and are commonly referred to as **Chiggers**.

Above left; the 66th plate from Ernst Haeckels "Kunstformen der Natur", 1904 depicts organisms classified as Arachnida. (from Wikipedia commons)
Below left; An example of a mite, the peacock mite, an important pest of citrus plants in the tropics. Photo by Christopher Pooley, USDA-ARS Wikipedia, public domain.
Bottom right; a chigger (source; University of Nebraska-Lincoln)

Spider mites an important plant pest Cont..

Spider mites require warm temperatures to reproduce, optimal conditions for them to do so is about 80 °F or 27 °C. They can live up to 4 months and can lay up to 20 eggs per day. Eggs can hatch in 3 days and the mites can become sexually mature in 5 days. One female can thus lay up to a million eggs in a month or less. It is obvious that as a gardener, you want to control these mites the moment you see evidence of their presence. Unfortunately because they reproduce so fast and in large numbers they are able to adapt to pesticides fairly quickly. (source Wikipedia).

Damage to plants is caused by their feeding. Spider mites have a stylet-like mouth part called Chellicerae. Through this mouthpart spider mites extract plant fluids. This creates small holes in the otherwise continuous waterproof leaf surface of the plants. Leaves affected by spider mites usually are brittle and loose their green color. Water loss is also a by-product of their feeding activities and this also affects plant productivity and leaves the plant more exposed to infection from fungus or bacteria. (Source; Bugs http://www.livingwithbugs.com/spider_mite_damage.html

The first signs to watch for in a cactus or succulent are white webbing and small brown dots on the plant. These dots eventually turn yellow and scar the plant. Due to their very small size (1/50 of an inch long), spider mites are hard to see. If you tap the affected area over a piece of white paper, the mites will appear as dust.

(Source; The Missouri Botanical Garden page)

Top photo; Female of the red form of the spider mite *Tetranychus urticae* with two silk threads. The substratum is a bean leaf. photo from Wikipedia commons. Author Giles San Martin. **Scale:** mite body length ~0.5 mm. - microscope objective (Nikon achromatic 10x 160/0.25) on bellow (230 mm extension).

Below right and left; examples of damage produced by spider mites.

Possible solutions for controlling spider mites

Sea Weed/Molasses I have not tried Seaweed/Molasses which is recommended by Bob Wester in his South Texas Gardening website. You can read more about this at;http://gardening.ktsa.com/Spider-Mites/8307467

Biological controls Include predatory mites that will in theory eat the spider mites. There are sources on the web that sell these predatory mites. I have not tried these but I am including this link as an example of what you can find when you Google "predatory mite". http://www.arbico-organics.com/category/pest-solver-guide-mites. It is also important to encourage beneficial insects such as ladybirds or spiders that can pray on the spider mites.

Chemical Controls Typically involve insecticides specifically developed to control spider mites (Miticides or Acaricides). Most pesticides do not affect spider mites and even the ones that are designed to combat spider mites do not kill the eggs. This is the main reason why repeat applications are required if you really want to control the problem. The table on the right shows some of the more common pesticides used for this problem. Source; Colorado State University extension at http://www.ext.colostate.edu/pubs/insect/05507.html

Water management Periodic forceful watering with a hose can dislodge many of the mites thus helping to decrease their numbers.

Table 1: Pesticides useful to control spider mites in yards and gardens.

Active Ingredient	Trade Name(s)	Comments
acephate	Orthene, certain Isotox formulations	Insecticide with some effectiveness against spider mites. Systemic.
abamectin	Avid	For commercial use only on ornamental plants. Primarily effective against twospotted spider mite; less effective against mites on conifers. Limited systemic movement.
bifenthrin	Talstar, others	Insecticide with good miticide activity.
hexythiazox	Hexygon	For commercial use only on ornamental plants. Selective miticide that affects developing stages and eggs only. One application per season label restriction.
horticultural oils	Sunspray, others	Used at the "summer oil" rate (2 percent), oils are perhaps the most effective miticide available for home use.
insecticidal soap	several	Marginally effective against twospotted spider mite and where webbing prevents penetration. Broadly labeled.
spiromesifan	Forbid	For commercial use only on ornamental plants. Selective against mites and conserves natural enemies.
sulfur	various	Generally sold in dust formulation for control of various fungal diseases and some mites on some ornamental and vegetable crops.

Finally perhaps the most effective control you can use is to monitor your plants. Pay attention to their appearance and look for signs of problems. If you confirm that you have spider mites try one or more of the solutions mentioned above and it is likely that if you are not too late the plant can recover.

Green living at http://greenliving.nationalgeographic.com/organic-ways-rid-spider-mites-3181.html Has some interesting step-by-step method to help you reduce spider mite infestation. It applies primarily to leafy plants, but you may be able to use part of this procedure for your cactus and succulents.

Another interesting link; http://www.cssainc.org/index.php?option=com_content&task=view&id=344&Itemid=212 From the CSSA discusses a short article about spider mite control written by Lou Kilbert PhD