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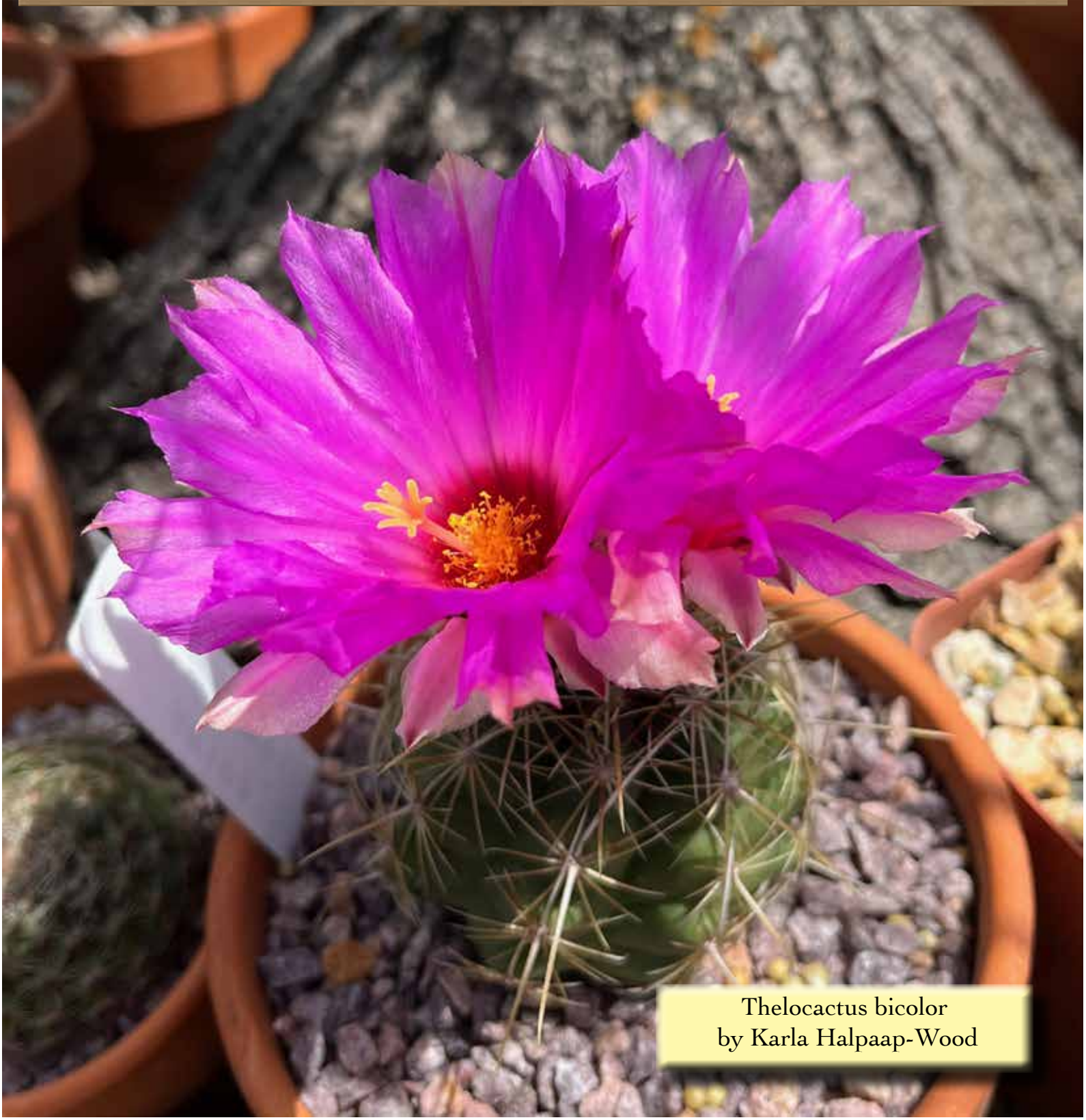
July-August 2022

Kaktos Komments

a bimonthly publication of the Houston Cactus and Succulent Society
to promote the study of cacti and other succulents



Thelocactus bicolor
by Karla Halpaap-Wood

Houston Cactus and Succulent Society
Founded in 1963
Affiliated with the Cactus & Succulent Society of America

Membership

Andrea Varesic

On May 25 the HCSS met in person and via zoom at the Multipurpose Center. We had twelve members in attendance and ten via zoom. We would like to welcome Dustin Larson, who joined as a new member. David Van Langen presented photos from his Arizona trip. He showcased cactus pictures from Phoenix, Scarsdale, Horseshoe Lake and the Bradshaw Mountains. The succulent of the month was Haworthia attenuata and it was presented by Sara Ortiz. The succulent of the month, Echinocereus pentalophus, was presented by me. Wally Ward discussed his fourth generation Haworthia hybrids. His first generation began in 2011.

The June HCSS meeting was held on the 22nd both in person and via Zoom. Sixteen members were present in person and seven connected via zoom. We welcome a new/returning member to our group, Paul Stricklin. Our evening's presentation was given by Jacob Martin, a horticulturist with the Mercer Botanical Gardens located in Humble, Texas. The gardens span 180 acres and have a 60 acre oasis for visitors to explore. There are three state of the art greenhouses that grow a variety of plants, including an incredible array of cactus and succulents. They are supported by the friends of Mercer botanical gardens, a nonprofit. Mr. Martin showed photos of their numerous rare cacti, succulents in both the greenhouses and in the gardens. The cactus of the month, Mammillaria spinosissima, was presented by Josie Watts. The succulent of the month, Dasylinon texanum, was shown by Bruce Moffett. Our president, Josie Watts, discussed our upcoming field trips to the Houston Botanical Gardens and Big Bend National Park.

Calendar:

July 9, 2022	10:00 am Field trip to Houston Botanical Gardens
July 13, 2022	7:00 pm Board Meeting via Zoom
July 27, 2022	7:00 pm Membership Meeting, Metropolitan Multi-Service Center no program, anniversary dinner
August 24, 2022	7:00 pm Membership Meeting, Metropolitan Multi-Service Center Program: Josie Watts and Bruce Moffett about the botanical garden in Quito, Ecuador.
September 1, 2022	Deadline for submitting articles for the KK.

July Cactus of the Month

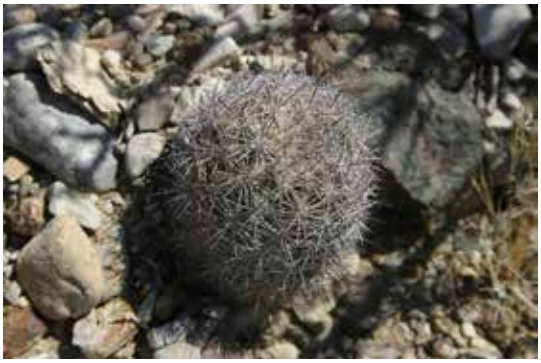
David Van Langen

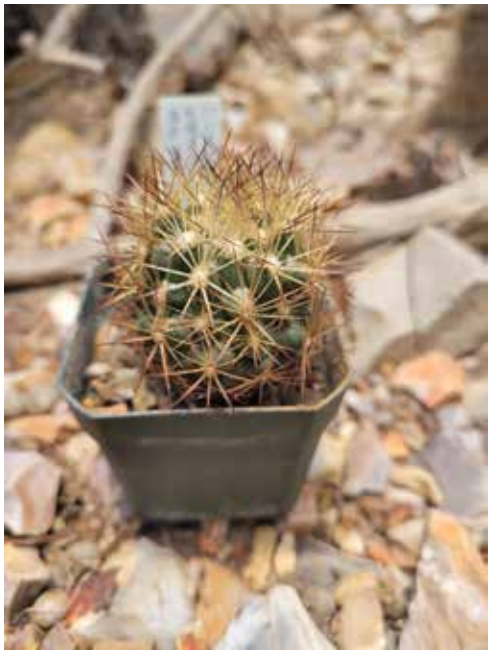
Echinomastus warnockii

in habitat

Echinomastus warnockii is a small barrrel shaped cactus of 4-5" tall and 2" diameter that is covered with a nice layer of bristly spines. The radial spines and central spines are usually the same thickness and around one inch long but are not dense enough to completely cover the blue/ green stem. The colors of the spines tend to give this cactus a grey/ purple look. Although the stem of this cactus is usually single, some older specimens have been know to cluster. Flowers are produced near the apex and blooming season can begin as early as February and continue thru March. The usual color of the one inch flowers is white - but some populations show a pink tint. The fruits are green and turn brown when ripe and the seeds fall free or many are carried away by ants.

This species can be found in the lower Big Bend area of Texas and adjacent Mexico and is a true hard core desert cactus. Unlike some in this genus, Echinomastus warnockii can be found on several different types of substate, from limestone/ shale to volcanic and gravelly alluvial flats.





This cactus thrives in the same harsh habitat as does Ariocarpus, Ferocactus and Button Cactus. It does not seem to do be seen on steep slopes as do many Echinocereus but is common on gentle slopes, gravelly flats and terraced areas.

In cultivation-- this one is seldom seen. It is extremely difficult to grow and easy to kill !! Mineral mix only-- and very little water - and lots of sunshune !! I have to take my hat off to the One and Only Cactus Boy !! Richard Stamper !!! He knows about my weakness to try growing cactus that hate people -- Richard gifted this plant to me at the Spring Sale and I will do my best to keep this plant in as good of health as he did !!!

July Succulent of the Month

Karina Boese

Name: Monadenium Ritchiei

Family: Euphorbiaceae

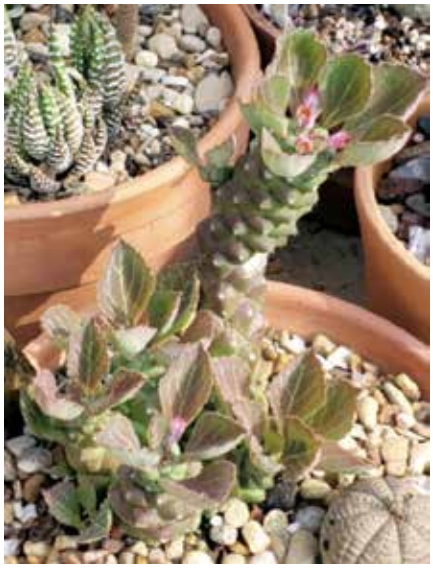
Synonyms:
Euphorbia ritchiei
Monadenium ritchiei Bally
Euphorbia ritchiei ssp. Nyambensis

Origin: Eastern Africa, Kenya

Habitat: Rocky slopes, at about 1300 m altitude

Monadenium Ritchiei has a columnar shape with small, rounded knobs on the stem, called tubercles. It is a dwarf clumping, perennial succulent. They can grow as tall as 9 inches, and each stem thickness is about 1.5 inches.

The leaves are deciduous and fleshy. They do not have many leaves, but there may be a few, if the water and light conditions are right. The flowers are pink with a red edge, called cyathia, that appear on the stem tips in late Summer and Fall right before they go dormant. The areolas can have several very short spines.



This plant prefers light shade, but can tolerate a sunny position for sure. They will stay greener if they are not in full sun. The stems and the leaves will turn purplish-red if it is exposed to prolonged sunlight.

Monadenium ritchiei is pretty easy to grow and needs very little maintenance. Like most succulents, they like to grow in a well-drained soil and only water when the soil is dry. This plant is tolerant with a wide range of soil types, but it does best in a mineral soil. I planted mine in a clay pot with an airy soil mix which mainly consists of non-organic material such as expanded shale, lava grits, pumice, turface, and probably only about 30% of organic matter (cactus soil). The way they spread is by underground shoots and slowly forms a large

clump when the plant matures.

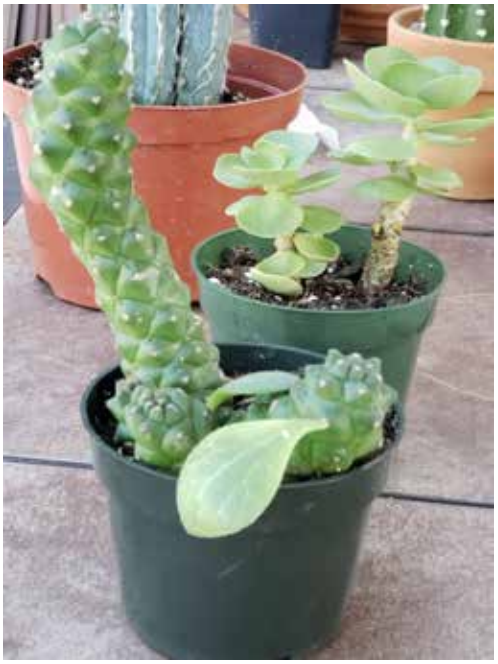
When the seasons change and the conditions become dry(er), they will shed their leaves quickly and this is pretty normal- so don't panic!

Their growing season is from Spring to Fall (approximately March to September). In their growing season, you should water sparingly; but they need to be kept almost completely dry in the Winter. This species hates being wet for an extended period and rot easily if overwatered in the Winter.

It cannot tolerate freezing temperatures, but should be able to handle 45 degrees Fahrenheit especially when it is kept dry. Hardy to zone 11a and 11b.

Monadenium ritchiei can be easily propagated by cuttings/offsets. It can be grown from seed, but they can be difficult to germinate or even find the seeds! Another way to propagate is by division, which means uprooting an overgrown clump and separating the stems and roots apart. The easiest to propagate monadenium ritchiei is by stem cutting, let it dry (callused) for a few days before you plant it in the soil. After a week or so, roots should grow.

If you keep the soil on the dry side, Monadenium ritchiei is basically free of pests and diseases!



References:

www.llifle.com
www.cactus-art.biz
www.worldofsucculents.com

Picture above is how it looked like when I brought this plant home from a nursery in the Heights area.
(All pictures in this article belong to Karina Boese).

August Succulent of the Month

Kellie Clark

Crassula Baby's Necklace

Scientific Name: Crassula 'Baby's Necklace'

Synonyms: Crassula 'Baby Necklace' and Crassula 'Klein Duimpje

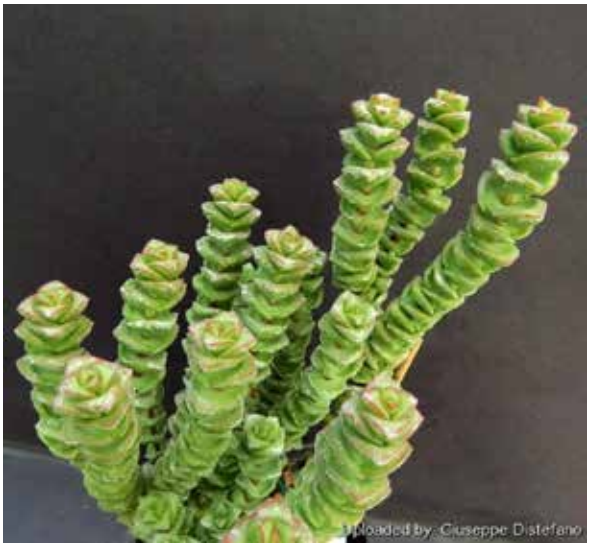
This Crassula succulent originated by a hybrid developed as a cross of Crassula Perforata (String of Buttons) and Crassula Rupestris subspecies marnieriana (Jade Necklace).

Crassula "Baby's Necklace", grows in the dry wilds of South Africa, including Portuguese Guinea, Angola, Namibia and Botswana. This succulent has small but thick green leaves that become red around the edges as it grows. It is known to reach up to 12 inches tall, typically flowering in late Spring or early Summer. These white flowers appear in clusters, similar to baby's breath.

Propagation is easy by cutting or seeds. This succulent type needs typical watering, with soak and dry being the best method. It is happiest and most productive in full sun.

Personal note: I have watered my Crassula very sparingly over the last 8-9 months, more so in the warmer climate. Upon recent observation, the leaves appear less plump and more dehydrated. I plan to do the soak and dry method with hopes of not over-watering. I have enjoyed watching its slow growth and love the stacking appearance of the leaves.

References: WorldofSucculents.com, Succulentplantcare.com,



Crassula cv. Baby Necklace. Photo by: Guiseppe Distefano
http://www.llifle.com/Encyclopedia/SUCCULENTS/Family/Crassulaceae/32159/Crassula_cv._Baby_Necklace

"HOT-NAILING" A CACTUS

CHRISTOPHER MARTINEZ, HCSS

Cacti can self-repair their skin (epidermis) if they ever get damaged, much like how our skin can scab after a cut. They could also be forced to induce growth by damaging their growth points, such as the Shoot Apical Meristem (SAM) and Areoles.

GROWTH POINTS: MERISTEM AND AREOLES

"SAM is a collection of cells that has the capacity to continuously renew itself by cell division, and to generate new above-ground tissues and organs in leaves, stems, flowers, and fruits". (Jiayang Li, 2017)[1] In short, cacti specific points from which they grow from, such as an Areole. Areoles are organs that provide the growth of spines, leaves, flower buds, and even offsets. (Daniel Sánchez, 2014)[2] Once a growth point is damaged beyond repair, it will no longer be able to produce any more cells. The cactus will instead focus on producing cells through other non-damaged growth points.

EXPERIMENT: "HOT-NAILING" A GYMNOCALYCIUM HORSTII

CAUTION: There are other ways you can damage the SAM; I chose to burn it by utilizing a soldering iron. At your own discretion, please be cautious not to burn yourself if you choose to do this as well.

For this demonstration, I used my *Gymnocalycium horstii*, a hand-held soldering iron, and a method called "hot-nailing" (Rob Roy, 2019)[3] to damage the SAM. This G. horstii is estimated to be about 3-4 years old, currently within a 3-inch pot. For the method, you will essentially damage the main growth point of the cactus. This point can vary depending on the type of cactus, but it will generally be at the top-center point for most globular cacti. I have yet to attempt this on a naturally dividing (dichotomous) and columnar cacti, but this should theoretically work on them as well.

G. horstii, Before Damage, June 2022

G. horstii, Before Damage, June 2022

G. horstii, After Damage, June 2022

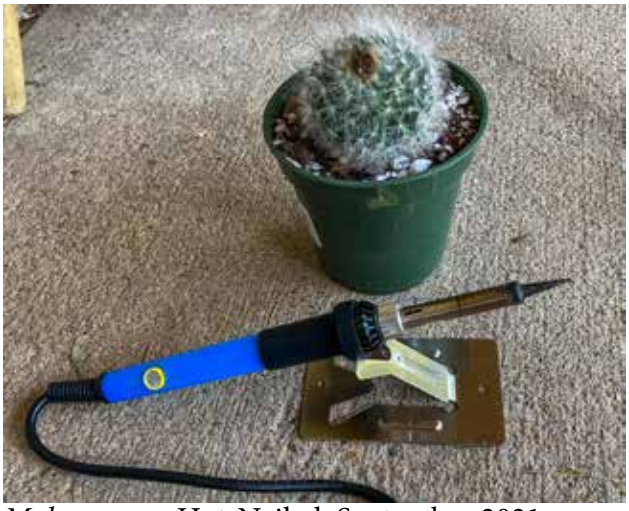
G. horstii, After Damage, June 2022

After waiting about 5 minutes for the soldering iron to heat up, I pressed the tip directly in the middle of the *G. horstii* for about 5 seconds. The main SAM is now damaged about a centimeter deep, it would otherwise normally push new growth upwards and expand the cactus overtime. Once the SAM has been damaged, the cactus should theoretically start focusing on pushing out new offsets through the areoles. I also covered the burned hole with a sprinkle of cinnamon powder to assist with the callousing. Using cinnamon powder has so far helped with preventing fungal growth and deterring pests.

HYPOTHESIS: TYPE OF GROWTH

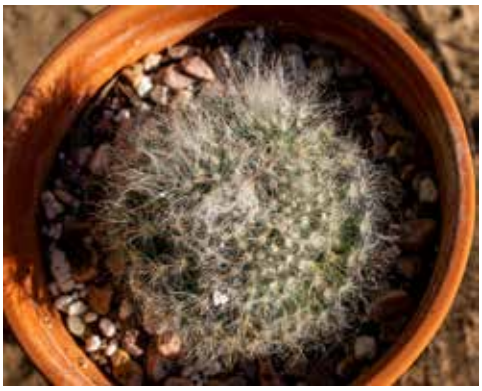
Although sample size is small, I believe offsets will be prioritized over any other type of growth, as the cactus may instinctively attempt to propagate and increase survivability after being damaged. The offsets will be forced to grow on the top-portion of the cactus rather than the naturally forming base- portion, as it will quickly attempt to redirect the energy to the areoles closest to the damaged area. It is rare for this species to grow offsets in general, so it will be interesting to see the outcome within a few months if it survives.

PREVIOUS SUCCESS: MAMMILLARIA BOCASANA



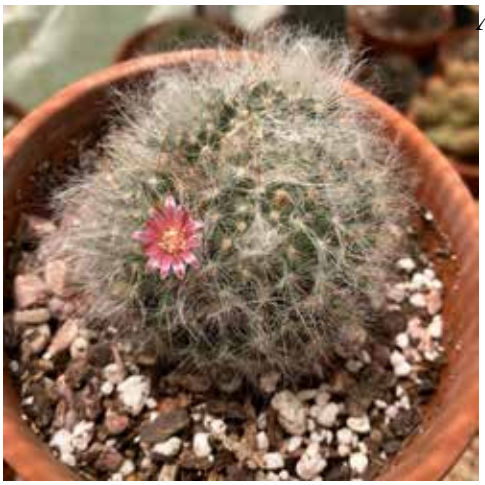
M. bocasana, Hot-Nailed, September 2021

My first attempt was on a *Mammillaria bocasana*, September 2021. This photo was taken the day I burned the SAM, which is indicated by the brown mark on the top-center point. After about 3 months, I noticed the new offsets being produced near the top area of the cactus.



M. bocasana, 6-Months Later, March 2022

By March 2022, the *M. bocasana* was able to produce a total of 5 offsets.



M. bocasana, 8-Months Later, May 2022

By May 2022, all the offsets were seemingly capable of flowering!

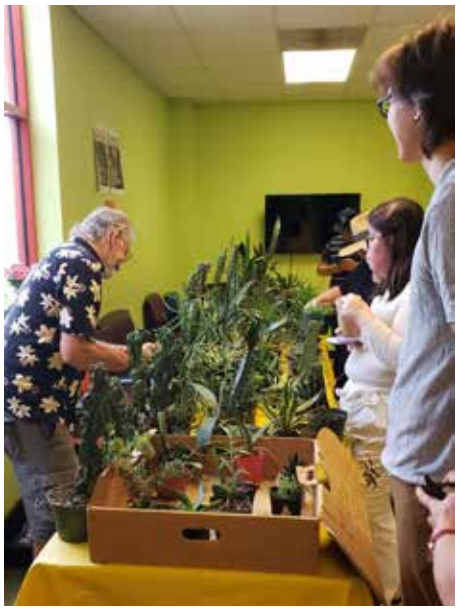
M. albicoma (Left) and *M. bocasana* (Right), Comparison, June 2022

A side by side comparison of a *M. albicoma* (Left) and *M. bocasana* (Right). I had both cacti in my possession at about the same size and age, currently estimated to be around 3-4 years old. The *M. albicoma* was not "hot-nailed" and has only produced one offset near the base so far.

1 Jiayang Li, C. L. (2017). Apical Meristem. Retrieved from www.sciencedirect.com: https://www.sciencedirect.com/topics/medicine- and-dentistry/apical-meristem
2 Daniel Sánchez, D. G.-V. (2014). How and why does the areole meristem move in Echinocereus (Cactaceae)? Retrieved from National Library of Medicine: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4284107/
3 Rob Roy, Ana (Cactus Caffeine) (2019). Plant Propagation Methods. Retrieved from Youtube: https://www.youtube.com/watch?v=oneTY0XotZ4&t=21

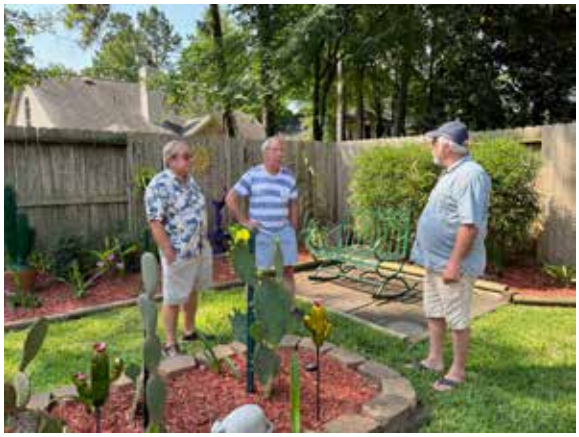
Spring Sale

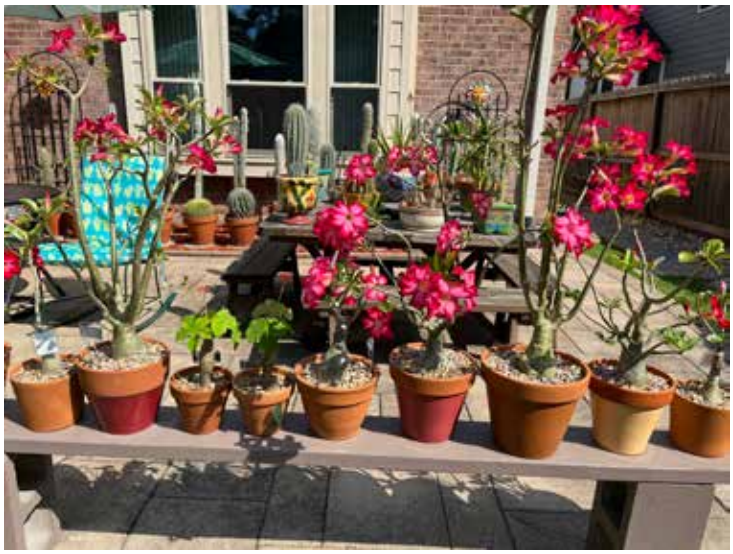
May 6 and 7, 2022



Field trip to Tom Cardinal's garden

May 21, 2022





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