



# Desert Breeze

Newsletter of the Tucson Cactus and Succulent Society November 2024

Tucson Cactus and Succulent Society • In Person and Zoom Program Presentation • November 7, 2024 at 7:00pm  
**Sky Islands Public High School, 6000 East 14th Street, Tucson, Arizona 85711**  
***Adventures in Two New Gardens and in a Botanical Paradise.***

Presented by Rod Haenni  
President of the Cactus and Succulent Society of America



I will be speaking about the two new crevice gardens I've built and planted in the past 1 1/2 years, one in the Oro Valley and one at my home in Littleton, Colorado. I will also illustrate the talk with photos from the gardens and from habitats visited in South Africa in September, 2023, emphasizing mesembs.

Rod Haenni

My fascination and passion for succulent plants started in 1978 when I worked in southern Arizona as a minerals geologist exploring for uranium deposits. I've travelled the world in the subsequent decades, looking for cold hardy succulent plants to add to my gardens in Colorado and recently for a wider palette of succulents to populate my garden in the Oro Valley.

I have been privileged to serve on the board of the CSSA for the past five years and as President for the past two years, helping to encourage good conservation practices, and urging

more growing from seed amongst the membership. I have seen increased awareness regarding the poaching of succulent plants and the desirability of growing from seeds and cuttings.

We are always thinking of your safety and if you are not feeling well we ask that you join us on the internet Zoom presentation. If you're doing well and would like to attend, you are welcome to come and join us for this special in person presentation (masks will be encouraged but not required). This meeting will also be a Zoom program and will be an important educational and informational event you must see. Also, if using Zoom, be sure to log in to win a \$25.00 gift certificate from TCSS or choose a copy of the new 3rd edition of the Field Guide to Cacti & Other Succulents of Arizona. Excellent plant give aways will take place at the in person meeting but that portion of the program, because of the recording, will not appear on Zoom. When leaving the live in person meeting, please enjoy great refreshments provided by our member volunteers and also, everyone can get a special free plant offered to you by the TCSS.



*Opuntia macrohiza* from Ohio



*Echinocereus triglochidiatus*  
'White Sands' crossed with *E. mojavensis* fma. *inermis*



*Cephalophyllum* 'Flash' with  
*Cheiridopsis denticulata*



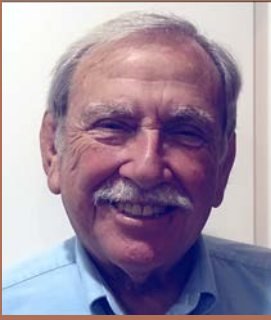
*Aloinopsis* 'Morning Sky'



*Cyphostemma curorii*

## TCSS Meeting Refreshments

Please share and socialize with your fellow members at our monthly meetings by bringing some type of finger food for the refreshment table. For the **October MEETING** we are asking members whose last names begin with "**O**" through "**Z**" to bring something that would serve 10-12 people.



## President's Message

Important Updates for November

The Board has voted to discontinue mailing newsletters effective January 1, 2025. I will be discussing this change with members who are effected during November.

The 4th edition of the "Field Guide to Cactus & Other Succulents of Arizona" is going to press. This will be the final update of this outstanding guide. The new price is \$30.00.

The 64th Birthday of TCSS will be celebrated at Pima Prickly Park on November 10th. See the details in this newsletter.

The Building Committee is actively looking for space for our library, classroom meeting activities, propagation and seed storage plus outdoor grow space, for example, Saguaro reforestation.

At the November 7th Membership Meeting, the nominations committee will announce the nominees for each office and for the Board of Directors. You will have the opportunity to nominate members from the floor for officers or Board members. You must have approval of the nominee and a completed nominations form (see Website) to do so.

A mailing will be sent out on November 14 to all current members. It will contain ballot(s) for officers and board members, Holiday Party Information and RSVP and your membership renewal/information update including an opportunity to donate to support our activities. Ballots and Holiday RSVP are due no later than December 2, 2024.

Happy Thanksgiving

Thank you for your support.

Dick Wiedhopf, President

## Instructions To Join The TCSS Zoom Meeting on November 7, 2024

If you have a laptop or other device where you can enter a web site address enter <https://bit.ly/tcssmm>

Copy this into your browser address line or just click on it. If this does not work and for all other types of devices see our Zoom Meeting Instructions page on our web site. It is [https://tcss.wildapricot.org/resources/pdf\\_files/ZoomInstructions.pdf](https://tcss.wildapricot.org/resources/pdf_files/ZoomInstructions.pdf)

You can also find a link to it by going to our Meeting notice information on the web.

## 64th Birthday Celebration

You're invited to the 64th Birthday Celebration of Tucson Cactus and Succulent Society

**When: Sunday, November 10, 2024**

**Where: Pima Prickly Park**

**Times: 1-4 2:30 pm Short Program, Plant Raffle and Refreshments**

Get a free Plant raffle ticket at every venue you visit. The Labyrinth, Ferocactus Garden, Cholla Maze, Baja Garden, Agave Garden and more.

Check in at the Visitor Hub for more information.  
See you there!

## Books for Sale

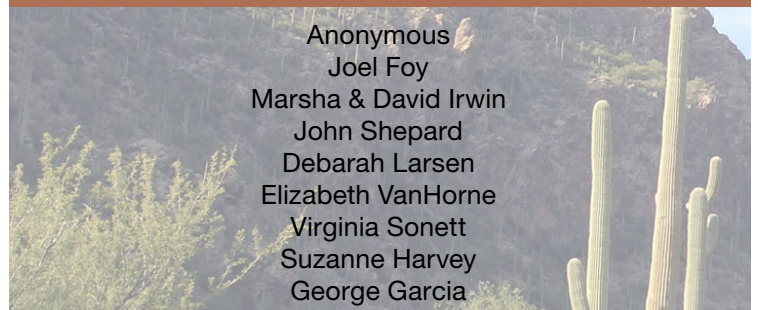
From the library of the late David Hyatt, supporter of the TCSS. A variety of books on succulents, other desert flora, and natural history will be offered at the TCSS member meetings.

In-person cash, or cash app sales are preferred. Shipping will be considered for purchases greater than \$70, plus shipping. For specific wants, and inquiries, please email [cascabel1985@gmail.com](mailto:cascabel1985@gmail.com).

## Acknowledgement Of Contributions

The Names Below Represent The Tucson Cactus and Succulent Society Members And Friends Whose Donations Helped Make This Year A Success. We Extend Our Sincere Thanks For Your Support.

Anonymous  
Joel Foy  
Marsha & David Irwin  
John Shepard  
Debarah Larsen  
Elizabeth VanHorne  
Virginia Sonett  
Suzanne Harvey  
George Garcia



# The Cactus and Succulent Society of America: a treasure trove of resources and opportunities for TCSS members

By Michiel Pillet ([mdpillet@gmail.com](mailto:mdpillet@gmail.com))  
TCSS Affiliate Representative to CSSA  
TCSS Conservation Chair  
CSSA Conservation Committee

The November meeting of the Tucson Cactus and Succulent Society (TCSS) will feature a presentation by Rod Haenni, who spends his time between Colorado and Tucson. Beyond finding out about the opportunities and challenges of tending two gardens in very different climatic zones, this will be an excellent chance for TCSS members to learn more about the Cactus and Succulent Society of America (CSSA), of which Rod is the current President. The organization was founded in 1929 and has been dedicated to the study, cultivation and propagation of cacti and succulent plants. While CSSA does not have a physical location, it maintains relationships with dozens of affiliates around the country. TCSS, with its almost 2,000 members, is certainly its biggest affiliate. TCSS Vice President Vonn Watkins also serves on the Board of Directors of CSSA. Here I discuss some of the many initiatives, resources and opportunities accessible to members of CSSA.

CSSA runs a variety of educational programs. Members get to enjoy the quarterly Cactus and Succulent Journal, filled to the brim with interesting articles about our favorite plants. You may even recognize some of the authors, such as our very own Greg Starr. The current editor of the Journal is Peter Breslin, another familiar name. The Journal also includes new plant offerings by The Huntington Botanical Gardens through their International Succulent Introductions program. The TCSS Library contains issues of the Journal, available for your perusal. A more scientific journal by CSSA is *Haseltonia*, published annually with 100 to 150 pages of scientific research about succulents. A more informal publication is the electronic *To The Point*, which includes short articles on various topics as well as news about succulent-related events. An article about the TCSS Rescue Program was included in the most recent issue. Not in the mood for reading? Monthly webinars by speakers around the world are hosted by CSSA. These topics vary from conservation and field reports to cultivation methods, and are recorded for future accessibility.

An important aspect of growing cacti and succulents is being part of the community involved with these plants. Every two years, CSSA organizes a Convention somewhere in the United States, hosted by one of its affiliates. The 2025 Convention will be hosted by the San Diego Cactus and Succulent Society, and will take place April 23rd through 27th. Over a dozen speakers from all around the world will give lectures. Local tours to nurseries, parks, and even the San Diego Zoo will be available, and a tour to Baja before the convention is being offered as well. Looking for more plants (don't pretend you're not!)? The Convention will include a sales area with top vendors offering plants and pottery. More exclusive items will be offered at the live and silent auctions. TCSS often supports the CSSA Convention through donations. The last time we hosted the Convention was in 2009. Time for another one soon? Talking about adding more succulents to your collection, CSSA also puts on their Annual Show & Sale at The Huntington in San

Marino, CA. This event usually takes place in June. If you don't want to wait that long, the online CSSA Seed Depot allows you to choose among dozens of species to add to your collection.

Beyond its initiatives for the horticultural community, CSSA funds both conservation- and research-focused projects around the world. As a member of their Conservation Committee, I've had the pleasure to learn more about the exciting, yet sometimes depressing, work being done to help to combat poaching and restore habitats in the Americas and Africa.

Few TCSS members know about CSSA, and even fewer are members. If you're interested in learning more about CSSA, you can check out their website (<https://cactusandsucculentsociety.org/>) or read some of the copies of their Journal in the TCSS Library. CSSA memberships start at \$20 per year. As the TCSS Representative to CSSA, I'm always open to ideas on how to strengthen ties between both organizations, to the benefit of our members as well as the plants we all love. Please do reach out, or talk to Rod in November!

## 4th Edition of TCSS's Field Guide to Cacti and Other Succulents of Arizona Coming Soon!

The fourth edition to the popular TCSS Field Guide to Cacti and Other Succulents of Arizona is on schedule to be at the printers by November 20.

The expected delivery of the fourth edition is in mid December.

The new edition will incorporate the nomenclature changes to the *Mammillaria* genus, (six Arizona species are now classified as *Cochemiea*) and the *Echinocactus* where the polycephalus are now recognized as part of the *Homalocephala* genus.

Additional changes include mapping updates for expanded ranges for three cacti species and clarification maps to delineate distribution of subspecies in the complex claret cup (*Echinocereus*) group. Elevational ranges have been included for species that lacked that information in earlier editions. The TCSS History page has been updated as well. And if you look closely, you may notice some photo updates.

Thomas Staudt  
Field Guide editor

# Succulents of the Rio Grande Region of South Texas – a Horticultural Perspective

Matthew B. Johnson  
Photos by Matthew B. Johnson

This is the third in a six-part series on the succulent plants of the Rio Grande Region of southern Texas. The first part provides an introduction to the region. Subsequent parts feature the succulents that are of horticultural interest.

## Part 3: Peyote and the pincushion cacti – *Coryphantha*, *Escobaria*, *Lophophora*, and *Mammillaria*

***Coryphantha macromeris* var. *runyonii*** – dumpling cactus, *Runyon's coryphantha* (*Pelycephora macromeris* subsp. *runyonii*)

Forming mats or mounds to 1 m (3.3 ft) across with dozens to hundreds of stems; individual stems growing from a thick taproot, to 10 cm (4 in) high and 5 cm (2 in) across, with prominent tubercles. Spines gray, sometimes with brown tips, with 5–11 radial spines to 2.5 cm (1 in) long and 1–4 central spines to 5 cm (2 in) long. Flowers purplish or dark pink, to 2 in across. Fruits oval, green at maturity.

Flowering May–September. Gravelly slopes and alluvial plains in Tamaulipan thornscrub; 60–122 m (200–400 ft) elevation. Localized in Texas in Starr and Jim Hogg counties; Mexico in adjacent Tamaulipas and Nuevo León. Variety *macromeris* is widely distributed in the Chihuahuan Desert.

*Coryphantha macromeris* has recently been transferred to *Pelycephora* as *P. macromeris* (Sánchez et al, 2022). It is retained in *Coryphantha* in this paper pending additional research to clarify relationships among this group of plants. Many authors consider the South Texas populations of *C. macromeris* to be a distinct variety, *var. runyonii*, distinguished by densely and irregularly branching clumps of small stems, and tubercles that are shorter than is typical for *C. macromeris*. Not all plants in South Texas conform to these characters and it appears that much of the difference may be environmental. Plants observed at a site in Starr County that were growing in sunny locations had a growth habit that is more typical of *var. macromeris* while plants growing in shady sites were typical of *var. runyonii*. In contrast to most authors, Benson (1982) indicated that both *var. macromeris* and *var. runyonii* are present in South Texas. Material originating in Starr County that conformed to *var. runyonii* has assumed a growth habit typical of *var. macromeris*, with regular branching and longer tubercles and spines when planted out in a sunny location in Tucson. Plants from the same source growing in shaded situations retain characteristics typical of *var. runyonii*. Several rescued plants of *C. macromeris* originating in El Paso County, Texas, that are cultivated in Tucson are not distinguishable from the Starr County material that has been growing in sunny locations under the same environmental conditions. And several plants of *C. macromeris* observed in habitat in El Paso County have short tubercles and an unusual growth habit with small, closely space stems compared to other nearby plants. There is considerable morphological variation within what is considered to be *var. macromeris*. While South Texas populations of *C. macromeris* are geographically isolated from the widespread

populations of this species in the Chihuahuan Desert to the west, it seems plausible that the characteristics attributed to *var. runyonii* are a result of morphological plasticity in response to environmental conditions in the more densely vegetated and humid Tamaulipan thornscrub. Research is needed to determine whether this is indeed the case and whether varietal designation is warranted.

*Coryphantha macromeris* var. *runyonii* occurs in a limited area of Texas. In some locations the plants are scattered but in favorable habitats they occur at high density. The plants commonly grow in the shade of mesquite and other woody plants and also occur in sunny sites. Some plants form low mats while others form domes. Shaded plants are often composed of many small, irregularly branching stems and can appear noticeably different from plants growing in sunny locations. The plants flower in response to rain during the summer months with several flowering events possible. Plants sometimes produce a few flowers at a time while several dozen flower may open simultaneously at other times. This species is relatively slow growing and the plants are long-lived with large clumps perhaps 100 years old. The ripe fruits have a flavor similar to that of kiwi fruit.

Dumpling cactus is well-adapted to cultivation in southern Arizona. Due to the eventual size of the plants, growing in the ground is ideal, however, growing in containers is also easy. A deeper container to accommodate the taproots is desirable. Standard cactus care will ensure success. Newly planted dumpling cacti should be gradually acclimated to full sun. Larger, established plants in the ground will survive on rainfall in the Tucson area, though growth and appearance are enhanced by periodic irrigation during the growing season. As with many cacti, reducing irrigation to an occasional light spray during periods of extreme heat will reduce the chances of rotting. In the ground, sandy soils are preferable to rocky or heavy clay soils, or caliche. This variety is reliably hardy to -12° C (10° F) and will likely tolerate lower temperatures. At the northern limits of its range, *var. macromeris* will rarely experience overnight temperatures to at least -23° C (-10° F). Seed grown plants often begin to flower by their fourth or fifth season. Propagation is by seeds and division of larger clumps. Individual stems of mat-forming plants typically have their own roots while those of mounded plants develop from a central root system. Stems from mounded plants readily root when separated. One plant of *C. macromeris* var. *runyonii* has been observed to volunteer from seeds in an area of the yard that receives periodic irrigation. Few disease problems have been noted on this species. Phyllosticta lesions have been an occasional problem on containerized plants growing in a shade house. Overwintering outdoors in full sun seems to eliminate this problem. Mealy bugs can feed on the stems and roots. Cactus beetles have rarely been observed to parasitize individual stems. Javelina will readily destroy plants if they can gain access to them. Packrats would likely be a problem if the plants were located near a nest. Rabbits and ground-squirrels

*continued on the next page*

will eat the flowers and ripe fruits but avoid the stems.

***Escobaria runyonii*** – junior Tom Thumb cactus, Runyon's escobaria (*Coryphantha emskoetteriana*, *Coryphantha pottsiana*, *Coryphantha roberti*, *Pelycephora emskoetteriana*)

Plants forming low, irregular mats to at least 30 cm (12 in) across and reportedly to 1 m across with dozens or hundreds of stems; the stems to 7.5 cm (3 in) high and 4 cm (ca. 1.5 in) across with short tubercles. Spines white with brown tips or sometimes mostly brown, obscuring the stems, with 20–30 radials spines to 3 mm (3/16 in) long and 5–10 darker colored central spines to 15 mm (5/8 in) long. Flowers greenish or brownish, 2 cm (3/4 in) across. Fruits oval to nearly spherical and dark red when ripe.

Flowering March–May(–June). Gravelly slopes, plains with sandy loam soils, and (northward) in crevices among limestone in Tamaulipan thornscrub; 15–305 m (50–1000 ft) elevation. Texas mostly near the Rio Grande from Hidalgo County north to Val Verde County; Mexico in Coahuila, Nuevo León, and Tamaulipas where some populations have a significantly different morphology.

*Escobaria runyonii* has recently been transferred to *Pelycephora* as *P. emskoetteriana* (Sánchez et al, 2022). It is retained in *Escobaria* in this paper pending additional research to clarify relationships among this group of plants.

In the Texas portion of its range, *Escobaria runyonii* is found in areas near the Rio Grande, often on rocky or gravelly soils and also on sandy loam soils. It can be relatively abundant in favorable habitats. The plants branch rapidly to form irregular clumps or mats. Spines on some plants are whitish overall with dark tips while others are yellow and brown. In portions of its range in Mexico, the plants have much larger, sparingly branched stems and differences in the spines. The typical eastern form is difficult to locate due to its small stature and the fact that the plants usually grow beneath thickets of spiny shrubs or among *Hechtia* or other plants. The flowers are inconspicuous. Only the red fruits advertise the plant's location. The fruits have a mildly sweet-tart flavor.

Junior Tom Thumb cactus is not as easily cultivated as are most of the cacti native to South Texas. Several plants that have been growing in the ground for over 20 years have survived, grown slowly, and flower most years. Other plants that were planted out died within a year for undetermined reasons. Plants should receive afternoon shade during hot weather and do best with filtered light all day. Well-drained soil is important. Growing in containers has proven more successful with regular flowering and more rapid growth than on plants in the ground. However, individual stems occasionally die for no apparent reason. Maximizing winter sunlight may reduce this problem. This species is hardy to at least -12° C (10 F) in southern Arizona. Seed grown plants can begin to flower in their third year. The flowering period extends over several months with multiple flowers produced on mature stems. The small flowers are inconspicuous but are interesting for their unusual colors. The bright red fruits are attractive and remain on the plants for several months if not removed by birds or rodents. Propagation is by seeds and division of clumps. Individual stems usually root within two months. Mealy bugs can be a significant problem

on this species and are difficult to detect beneath the dense spine covering. Regular applications of rubbing alcohol are an effective control measure if a systemic insecticide is not used. Rabbits will occasionally eat stems of this species during dry periods and packrats will feed on the plant. Javelina are likely a threat.

***Lophophora williamsii*** – dry whiskey, mescal button, peyote

Stems arising from a thick taproot, solitary or forming clumps of dozens of stems up to 60 cm (2 ft) across; individual stems flattened with a blue green or gray green epidermis, to 7.5 cm (3 in) high and 10(15) cm (4(6) in) across, with 8 low ribs. Spines are absent. The areoles have short tufts of whitish hairs at least on older plants. Flowers pink or pale pink, to 2.5 cm (1 in) across. Fruits cylindrical and whitish to dark pink.

Flowering March–September. Typically found on gravelly hills and slopes beneath trees or shrubs in Tamaulipan thornscrub and in varied habitats from plains to rocky slopes, often on limestone, in Chihuahuan Desertscrub; 45–1,850 m (150–6,500 ft) elevation. Texas from Jim Hogg, Starr, Webb, and Zapata counties, north to Val Verde County and in Brewster and Presidio counties; Mexico widely distributed in parts of Chihuahua, Coahuila, Nuevo León, San Luis Potosí, Tamaulipas, and Zacatecas.

*Lophophora williamsii* has a long history of religious use by indigenous peoples. Anderson (1980, 1996) provides an extensive discussion on this topic and on other uses of peyote. In South Texas, populations of this species are scattered but the plants can be locally abundant. They are usually found in gravelly soil on slopes in the shade of trees or shrubs. During periods of drought, the taproot contracts and smaller plants can be pulled below the soil surface. Some plants may remain unbranched but older plants usually produce multiple stems, at least in South Texas populations. Plants that are harvested for peyote buttons usually branch if the correct technique is used (Anderson, 1980, 1996). Wild populations in South Texas are reported to be declining due to overharvesting of the stem tops by licensed peyoteros for use by the Native American Church. Wild plants in parts of South Texas have also been damaged or destroyed by feral hogs.

Possession of peyote, even for horticultural purposes, is illegal under both U.S. and Arizona law. An exception is made for religious use by members of the Native American Church (Anderson, 1980, 1996). The plants are reportedly easy to grow as long as soil drainage is adequate. Some afternoon shade during hot weather would likely be beneficial. This species should tolerate winter temperatures in Tucson. The plants are propagated from seeds and reportedly also from cuttings. Peyote reportedly reseeds in containers as well as in the ground in suitable irrigated sites outside of its natural range. This species is likely susceptible to predation by rabbits and javelina.

***Mammillaria heyderi* var. *heyderi*** – Heyder's pincushion cactus, little chilis, pancake cactus, pancake pincushion; biznaga de chilitos (*Mammillaria applanata*, *Mammillaria hemispherica*, *Mammillaria heyderi* var. *applanata*, *Mammillaria heyderi* var. *hemispherica*)

Plants usually with solitary stems or rarely with two to several stems, to 5 cm (2 in) high and 12.5(–15) cm (5(–6) in) across; composed of spirally arranged tubercles. The plants have a milky sap. Spines whitish to reddish brown with red-brown tips, with 9–26 radial spines to 13 mm (1/2 in) long and 1 central spine to 10 mm (3/8 in) long. Flowers white with a green, pink, or brownish mid-stripe on each tepal, to 12.5 mm (1.5 in) across, often forming a ring below the center of the stem. Fruits club-shaped and turning bright red when ripe.

Flowering (January–)February–April(–May). Growing in a wide range of soils in Tamaulipan thornscrub, coastal prairie, and woodlands and beyond South Texas in grasslands, oak-juniper woodlands, and Chihuahuan desertscrub; near sea level–1402 m (–4,600 ft) elevation. Throughout South Texas and much of central and western Texas, north to southwestern Oklahoma and southeastern New Mexico. Mexico in Coahuila, Nuevo León, and Tamaulipas. The very weakly distinguished var. *bullingtoniana* is found in far western Texas, southwestern New Mexico, southeastern Arizona, and adjacent areas of Chihuahua and Sonora.

Some recent accounts recognize two varieties of *Mammillaria heyderi*. Variety *bullingtoniana* is the western form distinguished by having 10–14 radial spines that are 11–15 mm long and central spines that are incrementally thicker while the widespread eastern var. *heyderi* has 13 or more radial spines that are 6–11 mm long. However, plants of var. *heyderi* in southern Texas and in southwestern Oklahoma (Weniger, 1970) that were formerly recognized as *M. heyderi* var. *hemispherica* have 9–13 radial spines. Other plants of var. *heyderi* can have up to 26 radial spines and individual plants in a single population can vary considerably in radial spine count. Additionally, Weniger (1970) indicates a spine length for what is now considered to be var. *heyderi* of up to 1/2 inch (@ = 13 mm). Given the degree of variation present within *M. heyderi* across its range, a difference of only 2 or 3 mm in maximum spine length and a tenth of a millimeter in spine thickness seem to be dubious distinguishing characters at best.

*Mammillaria heyderi* is among the most commonly encountered small cactus species in South Texas. It occurs in a wide range of soils and vegetation types. *Mammillaria heyderi* occurs in coastal scrub just inland from the Gulf of Mexico and in low, halophytic scrub adjacent to tidal flats where the plants are likely subject to inundation by storm tides during strong hurricanes. In areas beyond South Texas, this species occurs in a variety of grassland and woodland habitats, and in the Chihuahuan Desert. Across its extensive range, *M. heyderi* grows in areas with annual rainfall averaging 250–875 mm (10–35 in). At some locations, the plants are widely scattered. In favorable sites, over 100 individual plants can be found beneath a single mesquite. The plants are almost always found in the shade of trees, shrubs, or grasses as they are intolerant of full sun. Plants that are exposed to excessive sunlight will shrivel, turn yellow and red, and may die. Well-hydrated plants are dome-shaped. During drought, the stems contract until they are level with the soil. Most plants remain solitary though occasional plants with two to several stems are present in some locations. The fruits have a pleasant, tart flavor.

Heyder's pincushion cactus is easily grown in containers and in the ground in the Tucson area. The plants should receive filtered

light and will usually not survive in full sun. Plants do well even with considerable shade. They tolerate a wide range of soils so long as drainage is adequate. Heyder's pincushion cactus is fully cold hardy in southern Arizona. Plants at the northern limits of its range can experience freezing temperatures to -23° C (-10° F) though material originating in South Texas may not be quite as hardy. Seed grown plants begin flowering a three or four years of age. Flowering extends over several weeks with larger plants often producing a ring of flowers below the stem apex. Often, there is a ring of scarlet fruits from the previous years' flowering below flowers of the current season, making the plants especially attractive. Birds and rodents readily eat the fruits. This cactus is easily grown from seeds. It regularly reseeds in areas of the yard that receive supplemental irrigation. A plant was found to have volunteered in a relatively shady location in a neighbor's garden from a seed likely deposited by a bird. In humid climates, an epidermal fungus identified as *Pyronema*, is a problem on this and other milky-sap *Mammillaria* during cool months. This disease has not been observed to affect plants in Arizona. Mealy bugs can be a problem on plants in a greenhouse or shade house. Cactus beetles have not been observed to feed on or oviposit on this plant in Tucson. On one occasion, a round-tailed ground-squirrel was observed to feed on the stems of Heyder's pincushion cactus. Removal of the offending animal eliminated the problem and no further predation by ground-squirrels has been noted. Javelina will eat this plant and have been documented to feed on wild-growing plants of var. *bullingtoniana* in Arizona (J. Rorabaugh, pers. com.).

***Mammillaria prolifera* var. *texana*** – grape cactus, hair-covered cactus (*Mammillaria multiceps*)

Plants forming low mats of dozens of stems to at least 30 cm (12 in) across; stems grow to 5 cm (2 in) high and wide with short tubercles. There are 30–60 white or pale yellow radial spines and additional slender, white, hair-like radial spines, and 8–11 central spines which are brownish towards the tips, to 3 mm (1/4 in) long. The spines mostly obscure the stems. Flowers dull yellow or tan-colored, to 1.5 cm (5/8 in) across. Fruits ovoid, red at maturity.

Flowering February–May. Various soils of valleys, plains, slopes, and (northward) rocky crevices on limestone hills beneath trees or shrubs in Tamaulipan thornscrub, coastal prairie, and (northward) in oak-juniper woodland and rarely at the edge of the Chihuahuan Desert; near sea level–ca. 760 m (–2,500 ft) elevation. Texas from Cameron County north near the coast to Aransas County, and north along the Rio Grande to Val Verde County, north along the Pecos River to Pecos County, and eastward along the southern edge of the Edwards Plateau to Bexar County; Mexico in Coahuila, Nuevo León and Tamaulipas. A second variety, var. *prolifera*, occurs in the West Indies.

*Mammillaria prolifera* var. *texana* has an unusual distribution in Texas. It occupies a narrow band of coastal habitat along the Gulf of Mexico, extends northward along the Rio Grande and the lower Pecos River, and is found on rocky limestone hills and ledges of the Edwards Plateau. The plants grow among grasses or beneath trees or shrubs which provide shade and help to conceal the plants, as well as in crevices beneath

limestone ledges. Weniger (1970) reports that this cactus is severely damaged by freezing in cold winters at locations on the Edwards Plateau near its northern range limit. The plants are inconspicuous in habitat with only the red fruits providing color to reveal their location. Plants begin branching at an early age and form low, irregular clumps with stems of various sizes. The fruits are tasty with a tart flavor.

Hair-covered cactus is virtually problem-free and is easily grown in containers in southern Arizona. It can also be successfully grown in the ground. A wide container will accommodate the spreading growth habit. Weniger (1970) recommends growing this cactus on rock walls and in rock gardens. The plants tolerate considerable moisture so long as drainage is adequate and should receive regular irrigation during warm weather for best appearance and growth. The plants are intolerant of full summer sun in southern Arizona. Plants grown from seeds from Iraan, Pecos County, Texas, (from Mesa Garden) are reliably hardy to  $-12^{\circ}\text{C}$  ( $10^{\circ}\text{F}$ ) in Tucson. This is the northernmost reported location for this cactus. The plants grow in rock crevices which likely affords some protection during extreme cold events. Material from South Texas may not be as hardy. This cactus flowers over several months in the winter and spring. The flowers are inconspicuous but are interesting due to their unusual coloration. Showy red fruits are often present and can remain on the plants for months to provide color if not removed by wildlife. This cactus is easily propagated from seeds and by division of clumps. No disease problems have been observed and mealy bugs have been only a minor issue. Wildlife problems have not been observed though only two plants have been planted out and these are in relatively protected locations.

***Mammillaria sphaerica*** – pale mammillaria, yellow-flowered pincushion cactus (*Dolichothele sphaerica*)

Plants forming low mounds to 30 cm (12 in) or more across with several to dozens of stems; individual stems to 5 cm high and 6 cm across with a thick taproot and prominent tubercles. Spines white, slender, with 11–15 radial spines to 1.6 cm (5/8 in) long and 1 central spine to 1.3 cm (1/2 in) long. Flowers bright yellow, fragrant, to 6.5 cm (2.5 in) across. Fruits ovoid, green when ripe and eventually developing a reddish or purplish blush, fragrant.

Flowering primarily June–September. Clay, loam, and sandy soils of plains and slopes beneath trees or shrubs in Tamaulipan thornscrub and coastal prairie; near sea level—ca.183 m (–600 ft) elevation. Texas from Cameron County, north to Dimmit County and east to Nueces County; Mexico in Nuevo León and Tamaulipas.

*Mammillaria sphaerica* is found over much of South Texas though populations are scattered and the plants are seldom abundant. The species is found in a variety of soils.

*Mammillaria sphaerica* grows in thickets or beneath trees or shrubs which provide the shade that the plants require. Plants initially have a single stem but begin to produce additional stems after several years. Ripe fruits have an apple-like aroma and a pleasant flavor.

Pale mammillaria is well-adapted to cultivation in containers and can be grown in the ground in the Tucson area if provided

with sufficient shade and irrigation. The plants respond to regular irrigation during warm weather and are more moisture-tolerant than most non-opuntias. Plastic containers permit more uniform distribution of soil moisture than do porous containers which can dry quickly. Containers should provide sufficient room for the taproots. Protection from the summer sun is essential. Plants can be severely damaged or killed by excessive sun exposure with high temperatures. Healthy plants receiving adequate irrigation often have the appearance of an irregular mass of tubercles. Plants that are dry or dormant contract so that the stems are distinct. This species is hardy to  $-12^{\circ}\text{C}$  ( $10^{\circ}\text{F}$ ) in Tucson though I provide protection to containerized plants if temperatures are predicted to fall to ca.  $-9.5^{\circ}\text{C}$  ( $15^{\circ}\text{F}$ ) or lower. Seed-grown plants often flower in their fourth year. Plants may flower several times during the summer in response to irrigation or rainfall. The flowers are large, showy, and fragrant, and can nearly cover a healthy plant. This species is propagated from seeds or by division of clumps. During cool weather, individual tubercles on plants in containers in a shade house occasionally shrivel and die. The cause has not been determined but may be the result of *Phyllosticta* fungus. Moving the plants to a sunny location during the winter months seems to eliminate this problem. The problem has not been observed on plants growing in the ground. Mealy bugs are an infrequent issue. Pale mammillaria is likely vulnerable to packrats and javelina. Rabbits and ground squirrels have not shown an interest in this cactus though I have planted only a few plants in the ground.

#### Literature Cited

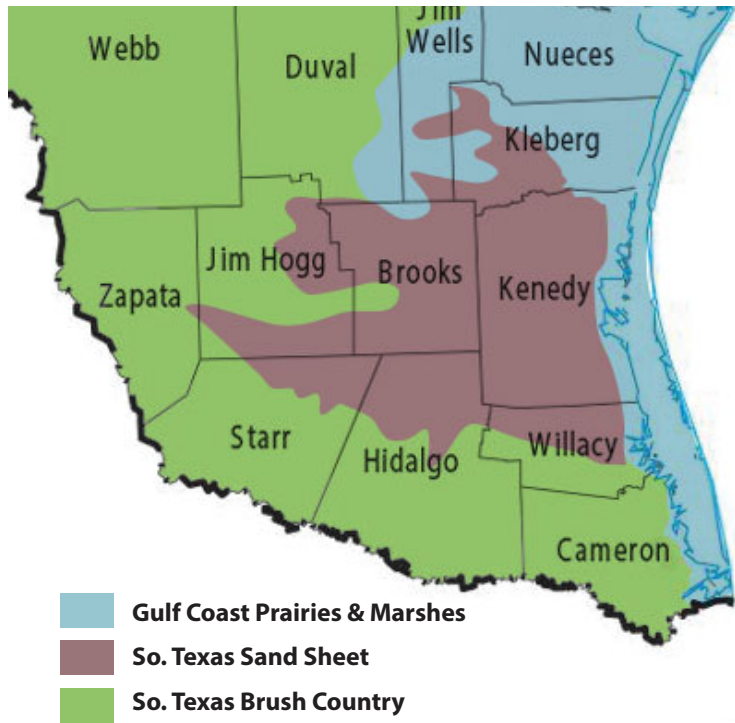
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*Lophophora williamsii*, Starr County, Texas.



*Mammillaria sphaerica* in coastal scrub near the Gulf of Mexico, Cameron County, Texas.



*Coryphantha macromeris* var. *runyonii* with mat-like growth habit, Starr County, Texas.



*Mammillaria heyderi* var. *heyderi* with ripe fruits and closed flowers, Zapata County, Texas.



Flowering *Escobaria runyonii* in a crevice among limestone, Val Verde County, Texas.





*Coryphantha macromeris var. runyonii*, Starr County, Texas.



A multiple-stemmed plant of *Mammillaria heyderi var. heyderi*, Hidalgo County, Texas.



Several plants of *Mammillaria heyderi var. heyderi* growing beneath a mesquite, Hidalgo County, Texas.



Individual, single-stemmed plants of *Mammillaria heyderi var. heyderi* growing in a dense group, Hidalgo County, Texas.

## TCSS Treasurer

Cathy Robson

The Treasurer is elected by the membership and serves for two years. Duties include maintaining records of receipts and disbursements and to conduct all financial business for the Corporation.

A knowledge of QuickBooks, Excel, and Word is necessary. Familiarity with PayPal/Zettle, Wild Apricot and membership reports is required or can be taught.

As needed, provide cashiers/cashiering for all sales and other events.

Monthly: (1) reconcile all accounts and reports; (2) prepare, attend, and present financial reports at the monthly Board of Directors meeting; (3) make deposits at Arizona Central Credit Union; (4) process expenses through on-line banking or check/mail; (5) maintain insurances, vehicle, and other contracts; (6) collect and distribute mail.

Annually: (1) prepare and deliver documents to CPA for annual tax return; (2) update Arizona Corporation Commission requirements; (3) update annual licenses, certificates, registrations and renewals.

If you are interested in applying for this position contact the Nominating Committee.

## Ariocarpus fissuratus Census



About 3 or 4 years ago, working with US and Texas authorities, Rob Romero was able to acquire about 97 specimens of *Ariocarpus fissuratus* from a large confiscated collection of illegally collected plants for TCSS members to grow them, rather than just being destroyed. Members were given care instruction for these slow growing plants. Rob was wondering, how many of these are still alive? Last month several members reported that their plants were in bloom. (See photo). If your plant is alive please give me a quick email at: [president@tucsoncactus.org](mailto:president@tucsoncactus.org).

## K-12 Education Outreach



Last week, we participated in a STEAM Camp at Esmond Station. Each camper attended two classes. They built dish gardens with octopus agave from the Hoop House (courtesy of Cathy Robson) and a huge octopus agave stalk (donated by Noe Mayotte), along with gravel (donated by Jason Rochester). The campers created unique designs with everything from jewels, spiders and snakes, a ninja figure and even a penguin.

During the second class, the kids in grades one through six, and camp counselors planted saguaro seeds in containers and were anxious for them to sprout. We told them we would be checking in next year when they're ready to be transplanted.

A teacher mentioned that one of the campers was very concerned that she wouldn't be back from her dental appointment in time to be with the "cactus people." She did return in time and had a great big smile as she carried her creations home.

Special thanks goes to our exceptional educators, Edie Campbell and Janine Malkin, as well as our STEAM Camp Counselors. Thank you

## Committee updates

### Conservation Committee

Michiel Pillet will be taking over the responsibilities as head of the Conservation Committee. He will be replacing Thomas Staudt who held that position for the past 6 years. He can be reached at: [conservation@tucsoncactus.org](mailto:conservation@tucsoncactus.org)

### Field trip/Tours

TCSS is looking for a member to step up to head this committee. The position has been open for approximately two years. This is a coordinating position, leading tours would not be required. Rob Romero was the previous lead. If interested contact Thomas Staudt at: [tstaudt2@gmail.com](mailto:tstaudt2@gmail.com)

## Saguaro Observations

Daphna Lederman

The saguaro pictured is in front of our house. Every spring, it is the first saguaro to produce areoles that we've noticed anywhere. Now here we are in October, and it has decided to break out in flower buds again. Maybe the triple digit temperatures we've had lately have tricked this cactus into thinking spring has arrived. Whatever the reason, it's amazing to see saguaro buds in the fall. While I had hoped the buds would blossom and be discovered by the Lesser long-nosed bats and Mexican long-tongued bats fueling up for their winter migration, the saguaro buds fell off without ever opening. There's no trace of the buds on the ground; perhaps they've been eaten.



# Good Times

photos by John Durham

Thank you to everyone who participated in the Good Time Silent Auction, aka ice cream social. We had a wonderful weather day to match the great variety of plants in the auction, sales, and on free tables. The ice cream and toppings were a special added treat to go with the general socializing of the event. Thanks to a great crew of volunteers who installed shade coverings, set up tents and plant tables, cashiered, served ice cream and all the rest. We couldn't do it without your support!

The event raised over \$9000.



Folks make a dash to the free area.



Event goes studying the auction plants.



Patsy and Jenna dish out ice cream.

## K-12 Education Outreach November Calendar

At our most recent event, we taught kiddos and their student counselors how to plant saguaro seeds. At a second class, they planted octopus agave dish gardens to which they added everything from rubber snakes to a Ninja figurine. The plan is to follow-up with the students in a year and work with them on the next steps for their saguaro projects.

Here's our schedule for November. Volunteers are always welcome. Contact [education@tucsoncactus.org](mailto:education@tucsoncactus.org) if you would like to join the fun.

**Tuesday, 12th at 10:00**  
**PLANT SCIENCE CLASS**  
Home School

**Thursday, 14th at 5:00**  
**STEM FAMILY NIGHT**  
Myers-Ganoung Elementary School

**Friday, 15th at 6:00**  
**STEAM NIGHT**  
Esmond Station K-8 School

**Tuesday, 19th at 5:00**  
**MATH AND SCIENCE NIGHT**  
Erickson Elementary School

**Wednesday, 20th at 5:00**  
**STEM+ NIGHT**  
Mansfeld Middle Magnet School

**Thursday, 21st at 4:00**  
**STEM Night**  
Morgan Maxwell K-8 School

**Friday, 22nd at 9:00**  
**STEMazing ADVENTURE**  
SARSEF at Pima College NW Campus

## TCSS BOARD

Officers (ending December 31, 2024)

**President:** Richard Wiedhopf • [president@Tucsoncactus.org](mailto:president@Tucsoncactus.org)

**Vice President:** Vonn Watkins • [vp@Tucsoncactus.org](mailto:vp@Tucsoncactus.org)

**Secretary:** Monica Wnuk  
[secretary@tucsoncactus.org](mailto:secretary@tucsoncactus.org)

**Treasurer:** Cathy Robson  
[treasurer@Tucsoncactus.org](mailto:treasurer@Tucsoncactus.org)

**Board of Directors:**  
(terms expire December 31 of year indicated)

Donna Ellis (2026)  
Kris Thompson (2026)  
Crystal Cannon (2024)  
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Steve Watts (2025)

**CSSA Affiliate Rep:**  
Michiel Pillet (2025)

**Cactus Rescue:** Donna Ellis, Steve Watts  
[Tucsoncactus.org](http://Tucsoncactus.org)

**Urban Rescues:** Julie Shulick  
[desertrat@shulick.com](mailto:desertrat@shulick.com)

**Education:** Kris Thompson • [education@Tucsoncactus.org](mailto:education@Tucsoncactus.org)

**Free Plants:** Donna Ellis • [plants@Tucsoncactus.org](mailto:plants@Tucsoncactus.org)

**Florilegium:** Joyce Peters • [art@Tucsoncactus.org](mailto:art@Tucsoncactus.org)

**Garden Tours:** Patsy Frannea • [tours@Tucsoncactus.org](mailto:tours@Tucsoncactus.org)

**Librarian:** Brad Haeckel • [librarian@Tucsoncactus.org](mailto:librarian@Tucsoncactus.org)

**Prickly Park:** • [park@Tucsoncactus.org](mailto:park@Tucsoncactus.org)

**Programs:** Vonn Watkins • [programs@Tucsoncactus.org](mailto:programs@Tucsoncactus.org)

**Refreshments:** Patsy Frannea • [refreshments@Tucsoncactus.org](mailto:refreshments@Tucsoncactus.org)

**Technology:** [technology@Tucsoncactus.org](mailto:technology@Tucsoncactus.org)

**Research:** Doug Rowsell • [research@Tucsoncactus.org](mailto:research@Tucsoncactus.org)

**Field Trips/tours:** Open

**Vendor Coordinator:** Dale Johnson • [vendors@tucsoncactus.org](mailto:vendors@tucsoncactus.org)

**Plant Sales:** Crystal Cannon • [sales@tucsoncactus.org](mailto:sales@tucsoncactus.org)

**Field Guide Sales:** Susan Durham & John Durham  
[books@tucsoncactus.org](mailto:books@tucsoncactus.org)

**Conservation:** Michiel Pillet  
[conservation@tucsoncactus.org](mailto:conservation@tucsoncactus.org)

**Newsletter Editor:** Karen Keller • [newsletter@tucsoncactus.org](mailto:newsletter@tucsoncactus.org)

**Deadline for newsletter text or photos:**  
**Thursday, November 21 by 4:00pm**

**TCSS Web Page:**

[www.tucsoncactus.org](http://www.tucsoncactus.org)

**Webmaster:** Barb Watts • [webmaster@Tucsoncactus.org](mailto:webmaster@Tucsoncactus.org)

For general information and questions related to  
TCSS, email [TCSS@TucsonCactus.org](mailto:TCSS@TucsonCactus.org)  
or call (520) 256-2447 during business hours.

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

# 137,599

## Cacti Rescued - Since 1999

706 Rescues - 52,271 Volunteer Hours (updated 01-09-24)

Please see our under Activities Website Calendar for the next rescued cactus sale. They are scheduled at various times during the year based on our inventory.

**TCSS Club Members receive a 10% discount**

We need your "Eyes and Ears" to help us find new Cactus Rescue sites. Please email us as much information as you can from new project signs or from other sources to [Site@TucsonCactus.org](mailto:Site@TucsonCactus.org). Attach a photo of the sign if you can. Note, we do not remove plants from residences.

## November 2024

**Thursday, November 7, 2024 at 7:00pm**

*Adventures in Two New Gardens and in a Botanical Paradise.*

Presented by Rod Haenni

President of the Cactus and Succulent Society of America

**Tuesday, November 12, 2024 at 7:00pm in Person**

Teleconference Board Meeting

**TCSS Holiday Party**  
**Sunday, December 8 2024**  
More information to follow  
in the December Newsletter



**Sky Islands Public High School • 6000 E. 14th St.**