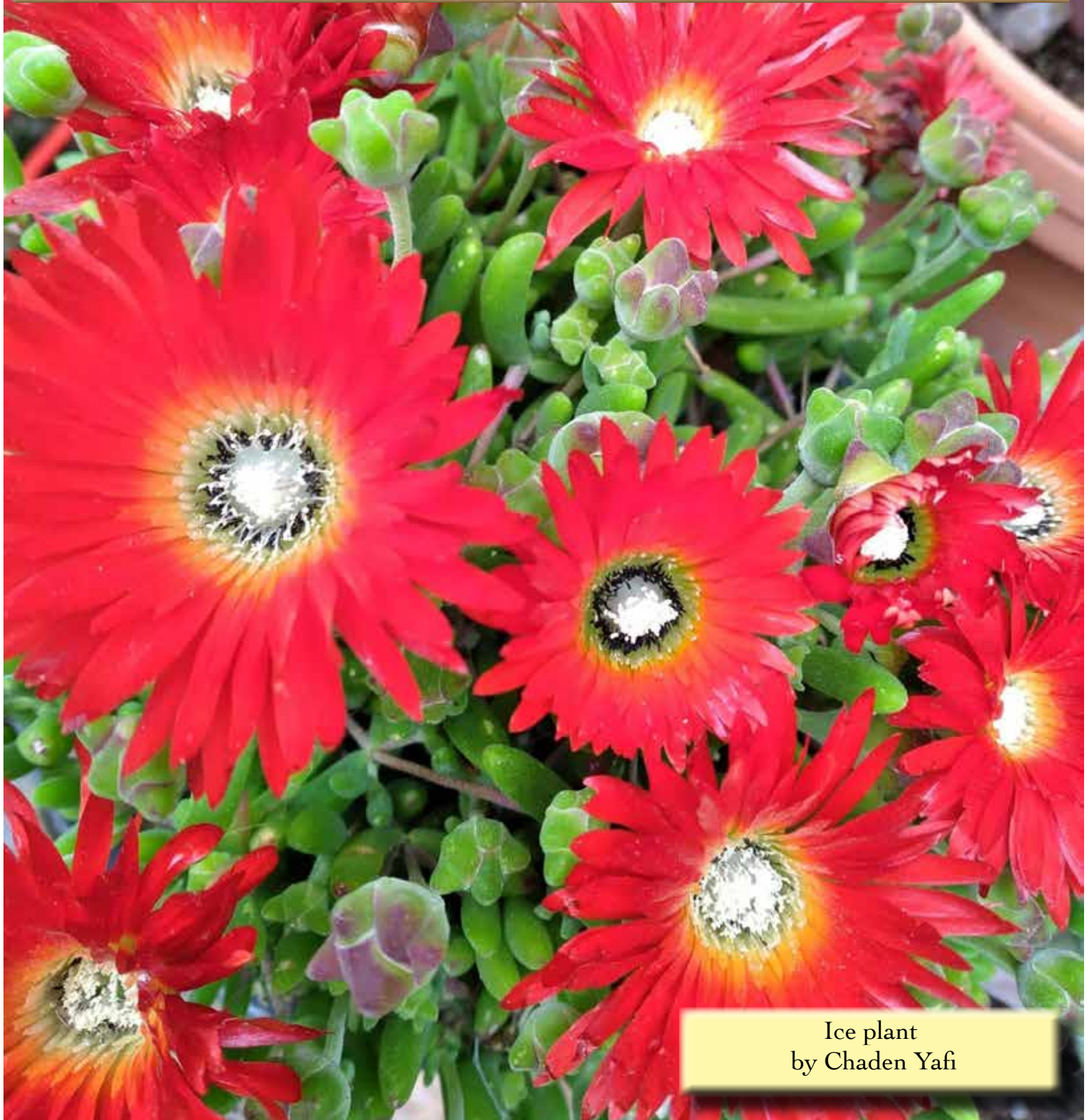


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Kaktos Komments

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



Ice plant
by Chaden Yafi



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

From the editor**Karla Halpaap-Wood**

I want to thank all contributors to this edition of the KK.

I delayed my article about which plants survived the freeze, because I had not received all the data yet. So there is your chance to submit your observations if you have not done so yet.

Membership**Kathy Fewox**

On March 24, HCSS met via Zoom. Eleven people attended. There was a lot of discussion about what plants survived the Big Freeze and what bit the dust.

Our Zoom meeting of April 28 was attended by twenty-three people. Peter Beiersdorfer's fascinating program on Lithops made a lot of us a little less fearful about attempting to grow those interesting plants.

Josie Watts reports that the Metropolitan Multi-Service Center is still closed until further notice, so HCSS will continue to meet via Zoom. I hope everyone has gotten vaccinated, or will be vaccinated soon, for that day when we finally do get to meet in person.

Please email any news of HCSS members and their families to July Olson at saint.juniper@gmail.com or Kathy Fewox at kathyfewox@gmail.com.

Calendar:

| | |
|----------------------|--|
| May 12, 2021 | 7:30 pm Board Meeting via Zoom |
| May 26, 2021 | 7:30 pm Membership Meeting via Zoom Program: "Cacti of the Atacama Desert" by Stefan Burger |
| June 23, 2021 | 7:30 pm Membership Meeting via Zoom Program "Haworthia cultivation by seed and leaf cuttings" by Wallace Ward |
| July 1, 2021 | Deadline for submitting articles for next KK. |

May Succulent of the Month**Sarai Ramirez****Echeveria River Blue****Name:** Echeveria River Blue**Common Name:** Echeveria Blue Frills**Genus:** Echeveria**Family:** Crassulaceae**Hardiness:** Zone 10 (30F)

Description: This river blue echeveria's rosette can grow up to 12 inches (30 cm) in diameter with deep blue leaves with crinkly margins. Its wavy leaves will get curvier as it ages. The flowers are bell shaped and yellow orange in color. Most echeverias need bright sunlight to maintain their colors and compact rosette form. Blue echeverias are from semi-desert areas of Mexico, South America, and Central America.



Cultivation/Growth: Like most echeverias River Blue needs great drainage and infrequent water to prevent rot. Pick a container with drainage holes and use well-draining cactus and succulent soil with 50% to 70% mineral grit such as coarse sand, pumice, or perlite. Water deeply enough for water to run out the drainage hole, wait for the soil to fully dry before watering again.

The main growth time for echeverias is the spring, and that is when they flower, some flower all year long. Make sure to water during this growing season. Echeverias can produce new offsets or "chicks" on stolons around the base of the mother plant. These chicks can be left to form a tidy cluster or removed and transplanted. Additionally, Echeveria can be propagated from stem cuttings or mature leaves. Remove dead leaves from the bottom of the plant as it grows.

Repot as needed, preferably during the warm season. To re-pot a succulent, make sure the soil is dry before repotting, then gently remove the pot. Knock away the old soil from the roots, making sure to remove any rotted or dead roots in the process. Leave the plant dry for a week or so, then begin to water lightly to reduce the risk of root rot. They will not survive a hard frost, but if there is a risk of freezing temperatures they should be brought indoors. They can grow inside by a sunny window. Some pests to watch out for include: mealybugs, and aphids.

My Experience: I love this echeveria. It is the biggest one I own. I purchased this plant last year at a big garden center. I took a picture of it the day I bought it just in case I lost its tag after I planted it. That is a lazy gardener tip, for people like me, who think labeling your succulents is so much work. So lucky for me I have a picture of the name of the plant, but unfortunately, I had so much trouble finding its information online. Apparently, there are many types of echeverias and many hybrids, but I did not find information on this exact one. Overall, this is such an easy plant to grow. I have it facing the east side so it gets morning sun. I have had it for over 2 years and have had no pest problems at all. I had this echeveria and many others in the ground last year. The River Blue echeveria is the only one that made it thought the frost in the garage. I thought I was protecting them from the weather by putting them in the garage, but it was too cold in there as well. I am grateful it is super forgiving.

Credit:

<https://mountaincrestgardens.com/echeveria-blue-ruffles-exclusive/>

<https://davesgarden.com/guides/articles/view/996>

May Cactus of the Month

Aditi Nabar

Parodia chrysacanthion

NAME: *Parodia chrysacanthion* syn. *Echinocactus chrysacanthion* syn. *Parodia saint-pieana*

COMMON NAME(S): Golden Powder Puff, Chrysacanthion cactus

Family: Cactaceae

Genus: *Parodia*

Description: The *Parodia* genus of cacti is comprised of about 35-50 species with various shapes and sizes. They are observed in nature as singular organisms as well as in clusters. *Parodia chrysacanthion* is a globular, some would say cylindrical, solitary cactus. The cactus is characterized by the ribs spiraling up the green stem,



with thin, wispy, yellow spines protruding from whitish yellow tufts along the ribs. *Parodia chrysacanthion* blooms in the spring season with large, yellow, tubular flowers that open upwards, with pale yellow wool at the base. The cactus gets 3-6 inches tall, and about 4-5 inches in diameter.

The *Parodia chrysacanthion* cactus is native to north-western Argentina, particularly the Jujuy region towards the country's border with Chile and Bolivia. The region experiences arid to normal climate with the occasional drought, hence the



cactus' preference for dry roots.

It should be watered moderately in the summer, with the occasional misting (no watering) during the winter.

Wikipedia

Argentina photo

By TUBS - Own work This W3C-unspecified vector image was created with Adobe Illustrator. This file was uploaded with Commonist. This vector image includes elements that have been taken or adapted from this file: Argentina location map.svg (by NordNordWest)., CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=17027831>

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Photo: <https://planetdesert.com/products/parodia-chrysacanthion>

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cactusinhabitat

Photo: <https://www.cactusinhabitat.org/index.php?p=specie&id=100&l=en>**June Succulent of the Month****Liliana Cracraft****EUPHORBIA KNUTHII PAX****INTRODUCTION:**

I usually write about cactus but this time I decided to prepare this article, and at the same time, learn more about this interesting plant we have had for many years. Unlike other succulents, *E. knuthii* has only been presented as Succulent of the Month in our club only once. That was in August 1969; 52 years ago!!

This is a rare *Euphorbia* originally discovered by Frederick R. Schlechter in Mozambique, south-eastern Africa in 1897. Ferdinand Pax (1858-1942) described and named the plant in honor of German botanist, Dr. Paul Knuth (1855-1899).

HABITAT/DISTRIBUTION:

Although it was originally believed *E. knuthii* was native only to Mozambique, it has now been established that this plant has a wider distribution. Populations have been found in the eastern Transvaal, and on down through Swaziland, and the northern regions of Natal, a coastal South African province. In their natural habitat, this plant grows in black turf areas, which are hot and swampy in the summer, and completely dry during the winter.

DESCRIPTION:

E. knuthii is a dwarf, succulent with a tuberous main root that is contracted at its apex into a slender neck-like main stem. From this body, multiple basal branches 3-4 angled stems emerge. These branches are 6-12 mm thick and 5-15 cm long, and are light green with light grey-green stripes. They are sinuate-tuberculate, with each tubercle bearing 2 light brown thorns measuring 4-5 mm long. A secondary set of small thorns may or may not be present right above the base of the main pair.

A distinctive feature of this species is that occasionally the branches re-branch to form a system of secondary branches. This feature has also been observed in *E. schinzii* and *E. aeruginosa*.

There are two known subspecies; *knuthii* and *johnsonii*. *E. knuthii* ssp. *knuthii* spreads by rhizomes, and it is



primarily this characteristic, as well as the angle count of the branches, which distinguishes it from *E. knuthii* ssp. *johnsonii*.

The inflorescence consists of a solitary cyathium (consisting of a cuplike structure with the flowers arising from its base (as in the poinsettia) from each flowering eye, or more commonly in cymes (an inflorescence in which each floral axis terminates in a single flower). The flowers are pale green.

On occasion, our plant grows what appears to be roots from the branches, and some globose structures that I have not been able to identify. I brought the plant a few years ago to one of the Club's meetings. It was presented during the Show & Tell section, but no one could identify those structures.



flowers



Unknown structure and aerial roots?

CULTIVATION/GROWTH:

This is a relatively easy plant to grow. It needs a well-draining soil, and it is not particular about the soil pH. Add some organic matter or fertilizer at ½ strength once a month during the growing season. Provide good light and partial shade, moderate watering in the summer and keep it dry in winter. They usually grow problem free, but do not handle long periods of drought very well. It can be propagated by cuttings or can be grown from seeds.

AVAILABILITY (OPTIONAL):

I do not recall where we purchased this plant. We may have gotten it at one of HCSS's sales. Cactus King is selling cuttings in a 6" pot for \$15.00.

REMARKS:

The literature available about this plant is scarce.

E. johnsonii, a species found on the Zimbabwe border with Mozambique, was merged with *E. knuthii* by L.C. Leach as the subspecies *johnsonii*. However, the South Africa Herbarium did not give recognition to this merger in their official checklists of flowering plants.

The branches on this plant can get very long and we usually trim it once a year. If desired, it could be displayed in a hanging basket. Sometimes brown scarring appears on some of the branches without an apparent reason.

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June Cactus of the Month

Joseph Rodd

Gymnocalycium saglionis

I'd like to start with some images of the cactus because there's value in seeing what we're talking about before learning more. I know that I've included more pictures than usual, but what I love most about *Gymnocalycium saglionis* is its appearance and I'd like try to share that.

PS. The four images of outstanding specimens in their natural environment are published under a creative commons license by Giovanna Anceschi & Alberto Magli at www.cactusinhabitat.org. I recommend their site as a resource for pictures of South American cacti.



Anceschi & Magli, 2007 (Salta Province, Argentina)



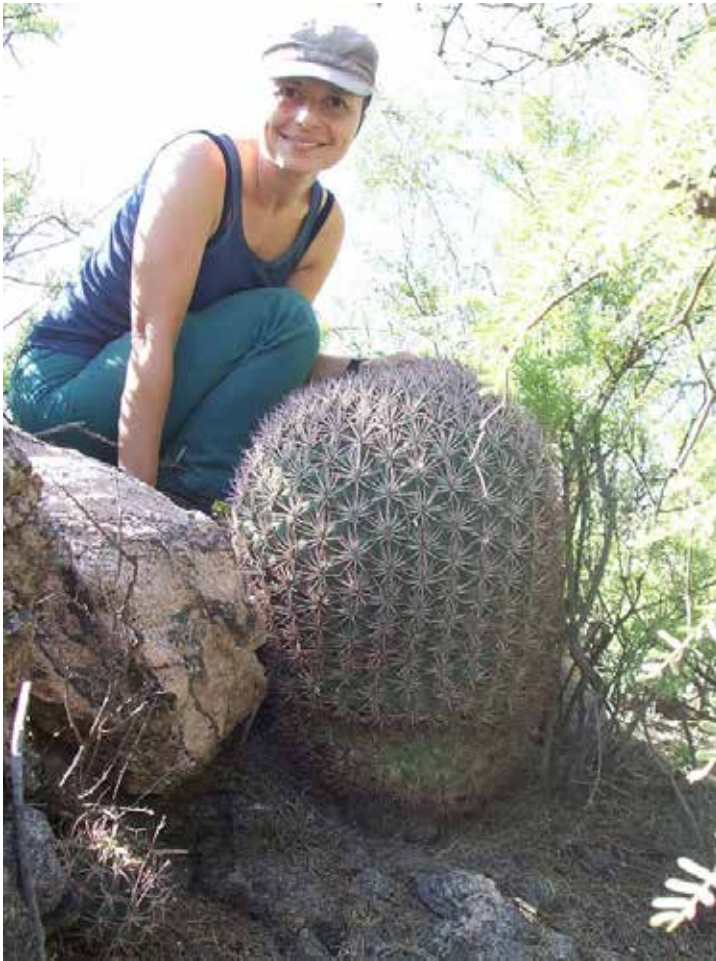
Anceschi & Magli, 2007 (Jujuy Province, Argentina)



Mature specimen in flower at Kew Gardens, London
Credit: Kew Gardens and Alberto Trinco, horticulturalist employed there (Alberto asked that I also credit Kew)



G. saglionis in Hong Kong Park
Credit: Wikipedia user Earth100, Creative Commons



Aneschi & Magli, 2007 (Catamarca Province, Argentina)



Very impressive potted saglionis grown by Pablo Law in California (used with Pablo's explicit permission)



Aneschi & Magli, 2007 (Catamarca Province, Argentina)



A large specimen with a particularly pink crownCredit: Valentino Vallicelli (LLIFLE/Creative Commons)



Variegated saglionis are uncommon, as are crested forms Credit: Agócs György (LLIFLE/Creative Commons)



Image Credit: Michael Wolf, 2006, Creative Commons

I think that's enough with the pictures. I hope you enjoyed getting a good look!



NAME: *Gymnocalycium saglionis*. “*Gymnocalycium*” comes from the Greek *gymnos* (=naked) + *calyx* (=bud) since the flower buds of this genus lack hairs and spines. “*Saglionis*” is for the Frenchman Joseph Saglio, the first European collector to grow it on that continent.

SYNONYMS: “*Gymnocalycium saglione*.” In some exceedingly old texts you might see “*Echinocactus saglionis*,” “*Echinocactus hybogonus*,” or even the old trade/catalog name “*G. espostea*.” Apparently some collectors label variations based on spine color (“*var. albispinum*,” “*var. flavispinum*,” etc.), but these are not recognized as separate subspecies. Some use the common name “giant chin cactus.”

PHYLOGENY AND SUBSPECIES: Recent genetic analysis suggests that *saglionis* was the first taxon of *Gymnocalycium* to diverge, around 5 million years ago. The ancestors of all *Gymnocalycium* probably looked a lot like *saglionis*, but over time the other species reduced their stem, spine, and fruit size as they radiated into cooler and drier climates. Researchers currently propose that a new subgenus, “*Microsimeneum*,” be created just for *saglionis*.

In the past no subspecies were officially recognized, and as far as I can tell this is still the case. However, a lot of collectors (and some leading scholars) refer to one: *Gymnocalycium saglionis* subsp. *Tilcarensis*. Sometimes called “*jujuyense*,” it has shorter floral tubes than a typical *saglionis*. *Tilcarensis*

grows in a striking and unique mountain valley in Jujuy called the Quebrada de Humahuaca. A UNESCO world heritage site, the valley was populated over 10,000 years ago by some of the earliest human inhabitants of South America and has been an important trade and migration route through the Andes ever since. It's also got cool exposed geology if you're into that.

HABITAT/DISTRIBUTION: *G. saglionis* has a relatively wide distribution. It primarily occurs in a North-South strip of land that runs through five provinces of northwestern Argentina: Jujuy, Salta, Tucumán, Catamarca, and La Rioja. It is sometimes reported to grow farther south (in the provinces of San Juan and Córdoba) and farther north (in southern Bolivia) as well. This is a rugged and highly varied landscape that extends downwards from the Andes' eastern slope, and it contains hills, forests, fertile valleys, arid plains, and obviously mountains. This variety of terrain, precipitation, and temperature (as you move higher in altitude) has created numerous microclimates and promoted speciation. The largest diversity within *Gymnocalycium* occurs in these states.

The region is nowhere near as arid as you might think. In fact, the climate is technically subtropical, just like Houston. The Andes form a barrier that blocks warm wet air coming from the east, and the upward movement

of this humid air against the mountain range causes some pockets along the eastern slope to receive as much as 98 inches (2.5m) of rainfall each year. The areas where *G. saglionis* grows get between 10 and 40 inches (25-100cm) annually, with most receiving 15-30 (38-75cm). However, almost all of this precipitation is concentrated in the summer months, and many members of the genus have evolved to expect almost no water during winter. *G. saglionis* is no exception.

Temperatures across this region vary quite a bit based on altitude. Lower areas get as hot as Houston during the summer and rarely freeze in the winter; mountainous areas have milder summers and colder winters. *G. saglionis* inhabits a middle band whose climate is similar to Houston: winter temperatures are almost identical and summers are only 10°F cooler than we get here. The one major difference is their dry winters.

DESCRIPTION: See the pictures! *Saglionis* reaches the largest size of any *Gymnocalycium* species, and it also has some of the largest and most bulbous tubercles, which I particularly love. They're usually but not always solitary. The stem shape is highly variable: sometimes short and squat (like in the example from Hong Kong park) but often taller than it is wide, they contain anywhere from 10 to 30 ribs. Areoles are felted and spineless when they first emerge, soon growing 1-3 central spines surrounded by 8-10 radial spines, which increases to 15+ in mature specimens. As you can see in the photos, flowers range from white to pale pink and form a crown around the top of the stem. Broadly speaking they look like typical cactus flowers: regular, bisexual, funnellform, with numerous petals, sepals, and stamens. They can be over 1.5 inches (4cm) long and over an inch (2.5cm) wide, and they develop into pinkish-red globular fruit with green flesh and plentiful tiny (.6mm) dark seeds.

CULTIVATION EXPERIENCE:

DISCLAIMER: I have only had mine for one year and I have never grown them from seed, so my experience is very limited. I have studied as much as I can and had success so far, so I'll try to share what has worked for me.

- **SUBSTRATE:** They're not too picky. I initially had mine in a heavier mix that wasn't draining as well as I wanted, but it seemed to be doing just fine. Out of caution I repotted it into a lighter and more open mix, and it is still doing just fine.
- **LIGHT:** It's imperative that young *saglionis* not be exposed to direct midday or afternoon sun. Like many *Gymnocalycium*, they are very sensitive to burning and will scar in an hour or less. Mature plants in habitat can handle full sun but suffer for it, and it seems like the best-looking specimens grow underneath trees. I grow mine under 40% shade fabric, sometimes with a double layer (so 64% shade) directly overhead.
- **WATER:** *Saglionis* don't grow in the desert, so I wouldn't suggest treating them like they do. During the summer their natural range receives regular rainfall, so in cultivation they like plenty of water as long as nighttime temperatures are above 50°F. I expose mine to Houston rainfall from March through October. But when winter comes, non-seedlings should be kept nearly or totally dry. Mine received no water from November through February, and unlike many of my other *Gymnocalyciums* it hardly shrank at all.
- **FERTILIZER:** Same as most cacti: definitely go light and find something low in nitrogen or at least balanced.
- **PESTS/PATHOGENS:** I have not had any on mine, but of course they're susceptible to your classic mealybugs, fungal rots, etc. Regular careful inspection with some kind of magnifier is always a good idea so you can take action promptly if a problem should appear.

AVAILABILITY:

- FROM SEED: Mesa Garden has multiple options available: https://mesagarden.com/?s=saglionis&-search_id=product&post_type=product
- PLANTS:
 1. Arid Lands Nursery had them as recently as last year...maybe they will again at some point?
 2. I've never purchased from this vendor, but Planet Desert has them for \$7.50
 3. <https://planetdesert.com/products/gymnocalycium-saglionis-trio-cactus-cacti-real-live-plant>
 4. They're common in cultivation so you'll likely see them at shows and sales
 5. Unlike some other member of the genus, crested and/or variegated saglionis are not widely available. Their prices often reflect that.

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The Multiple Uses of *Myrtillocactus geometrizans* (Garambullo) in México

by Liliana Cracraft

M. geometrizans is an arborescent or bushy cactus that grows across 12 different states in Central México. It was first described by Italian botanist Michelangelo Console (1812-1897). He named it after the similarity of the fruits with those of the blueberry (*Vaccinium myrtillus*). It is also called Blue Candle, Bilberry Cactus, or Padre Nuestro (in Spanish). Its common name is “Garambullo”. This cactus is found high above sea level, and can grow up to 16.5 feet tall. It grows in the states of Hidalgo, Querétaro, Oaxaca, San Luis Potosí, Guanajuato, Puebla and Tamaulipas. It helps in controlling soil erosion and filtering rainwater; has a high degree of adaptation to weather changes, and provides food and shelter to wild fauna.



M. geometrizans flowers and fruit are also called garambullo. The flowers, which measure 0.7-1.0 in. long and are olive green with purplish or dark bright green tinges are used to decorate dishes or to be consumed in tamales, moles, tostadas, or cooked with beans, (especially in the state of Querétaro). In the state of Hidalgo, the flowers are boiled with a stick of cinnamon then blended with toasted pumpkin seeds, unrefined brown sugar, and a little bit of corn masa to make “atole.”

The fruit appears in June and July, and is sweet and small (0.3-0.7 in.), red or purple in color and can be eaten or used for medicinal purposes. They are known as the Mexican cranberries, which are filled with tiny black seeds. Although *M. geometrizans* grows in some towns and villages in several states, it seems that the consumption of its fruits as seasonal fruit occurs mostly in Guanajuato and Hidalgo, perhaps a tradition of the Otomí tribe native to this area since prehispanic times. In the Otomí communities, the Garambullo is often used in different typical ancestral dishes. The fruit is usually collected during the seasonal harvest for personal consumption and it is only rarely traded in traditional markets such as in the Cruz market or Escobedo market in the state of Querétaro. Street vendors at these markets trade no more than one or two kilograms of this fruit among their other day-to-day products.



The fruits are now used to make flavored water, liquor, jams, marmalade and ice cream. When the fruit is dried it is also processed to obtain pigments. A study published in the *Journal of Agriculture and Food Chemistry* in 1997 demonstrated that the fruits contain large amounts of antioxidants, and that the pigments, identified as betalains, have stability greater than that of red beet pigments, especially at low temperatures. It was concluded that the Garambullo pigment had the potential for use in food processing at low temperatures such as in the dairy industry for the production of ice cream and dairy drinks. Once it's harvested the fruit has a very short life span because it begins to ferment. It is not recommended to eat the fruits fresh because they can ferment in the stomach and cause a painful indigestion. The fruits can be left on the plant to dry naturally, or collected and dried using solar or electric dryers to preserve its nutrients.

The Otomi people also harvest the seeds to be used in some of their dishes. The fruit needs to be ripened until it opens by itself and the seeds can then be extracted by shaking. When kept at room temperature the seeds have a storage life of ten months.

When dried, *M. geometrizans* are a source of firewood in rural communities and used as fodder for all types of livestock. Dried cactus logs are hollow and can also be used for making electric lamps or flashlights.

This beautiful cactus is a great plant indeed, and similarly to Agaves, it provides many benefits for Mexican people and wildlife.

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POTS WHY DO YOU USE THE ONES YOU USE?**Sue Haffner****Reprinted with permission from Fresno Cactus and Succulent Society's newsletter**

Have you ever thought about why you use the pots you do for your plants? Here are some factors to consider:

- Standard pot this type is as tall as the diameter of the pot (4 inches across and 4 inches tall);
- Azalea or 3/4 pot this is three quarters the height of the diameter (4 inches across and 3 inches high, for instance);
- Bulb pan this is one half the height of the diameter (4 inches across and only 2 inches high).

Many succulent growers prefer the azalea pot size, chiefly for aesthetic reasons many specimen plants display better in such pots. The standard pot, especially for smaller plants, may taper too much and prove to be unstable. You run the risk of knocking over and damaging a prized plant. Watering is also affected by the type of pot used. When you pour water onto the surface of your pot, the taller the column of water and gravity will act longer and pull more water out of the pot. This is needed for aeration and for pulling excess salts and fertilizer out of the pot, rather than collecting on the soil surface.

To restate the watering situation: if you have two pots that hold the same volume of soil and one is tall and skinny and the other is short and wide, more water will remain in the soil of the shorter pot. You won't have to water as often, as the short pots don't dry out as fast.

The pot should be large enough to provide a comfortable finger width between the edge of the pot and the plant (spines included), for globular plants. Tall, columnar plants should have a pot whose diameter is about one half their heights. A cluster or clump of plants generally has a shallower root system than a single plant of the same diameter. It is also growing more laterally than vertically, so you should allow more space between the pot and plant.

Clay, plastic, or other materials? Well, clay pots, of course, allow water to evaporate out from all sides. Clay will also allow water in from all sides (such as by overhead spraying or from capillary matting). This exchange works to keep the roots cool, as well. Plastic keeps the soil wetter longer by allowing evaporation to occur only from the soil surface. Also, plastic pots stay free of salt build-up and algae growth longer than clay pots do.

Pots made of Styrofoam, glass, or glazed ceramics tend to act much like the plastic pots.

Pot colors? Dark colors absorb most of the light that hits them, while white or light colors reflect a lot of light. Algae may grow on the insides of white pots if they sit where they are hit by direct sunlight. If your plastic pots are subject to the vagaries of temperature throughout the year, they will deteriorate grow brittle and crumble at your touch. Green pots seem to last longer than white pots.

Round or square? We have more aesthetic considerations here. If your plant is more-or-less round, put it in a round pot. Still, many succulents defy classification as to shape, which no doubt has led to the many free-form artist's pots you see used for specimen plants.

How about the drainage? We all know that it is possible to grow succulents in containers without drainage holes because we've seen this in the collection of one of our members! Still, most of us use pots with holes. Most commercial plastic pots have large drainage holes, so large, in fact that your soil mix escapes through them. Some of us use pieces of paper towel, used clothes dryer sheets, squares of hosiery material, squares of

window screening, etc., in the bottom of the pot to hold in the soil. The paper will eventually deteriorate, but, by then, the plant's root ball may have grown enough to hold the soil.

Top dressing: most succulent growers use gravel of various sizes and colors to top dress the soil in the pots. This can also keep a tippy plant supported; can keep the base of the plant drier, thus reducing the possibility of rot. Also, the gravel is decorative. Bear in mind that the top dressing also can make it difficult to judge whether the plant needs watering. Figure out a means whereby you can check the soil under the gravel.

Should you water newly repotted plants? The standard advice you read in all the books and articles is that you need to let your plant sit for several days to a week while any root damage that may have occurred will heal. Generally, the authors of these books are writing from climates unlike ours, where plants may be subject to extended periods of dark, cold, damp weather when they are in danger of attack by fungi. Some growers in our area water-in their newly repotted plants just a bit, to settle the soil and have never noticed any ill effects. You can decide for yourself which is the better course to take. Also, don't put a newly repotted plant directly out in the sun. Let it rest for awhile in bright shade.

Remember that there is no perfect system that works for everyone. Experiment a bit and develop your own best technique. Good luck!



Turtle pot
©Karla Halpaap-Wood

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