10 NO. 11

Kaktos Komments

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





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 and have all articles submitted by the deadline.

Membership Kathy Fewox

HCSS is still being forced to hold its meetings via Zoom, but hopefully in-person meetings will resume soon.

Seventeen people attended the May 26th Zoom meeting. Australian naturalist Stefan Burger presented a fascinating program, "Cacti of the Atacama Desert." Mr. Burger currently lives in Chile, researching cacti. Some of the meeting attendees, unfortunately, lost their connection and missed part of the program, but most people were unaffected.

Fourteen people attended the HCSS Zoom meeting on June 23rd. Among them was Zdenek Pedrouzek, a guest from Poland. Wallace Ward presented a very informative and enjoyable program, "Haworthia Cultivation by Stem and Leaf Cuttings."

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

ľ	Calendar:	
•	July 14, 2021	7:30 pm Board Meeting via Zoom
	July 28, 2021	7:30 pm Membership Meeting at Metropolitan Multi-Service Center. Program: Josie Watts and Bruce Moffett about the New Orleans Botanic Garden.
	August 25, 2021	7:30 pm Membership Meeting at Metropolitan Multi-Service Center. Program: Joseph Rodd about Soil Darainage.
	September 1, 2021	Deadline for submitting articles for the KK.
	September 11-12	Show and Sale at Metropolitan Multi-Service Center.

From the HCSS president Josie Watts

Dear HCSS members,

I have confirmed with the Multipurpose Center that our next meeting in July will take place in person. It will take place on July 28th. We will need to bring masks in case we need them and we will spread the chairs out as much as possible. I am very happy about the prospect of seeing everyone in person. Traditionally we have our anniversary dinner in July, but they asked that we just have a simple meeting. I have asked our members to bring plenty of cuttings for the plant exchange, so hopefully cheap plants will abound.

They also indicated that we can go ahead with the show and sale, with set-up on September 10, and the S&S on September 11 and 12. I will start putting this together and keep everyone posted. For new members who are looking for plants, you will find them from reputable dealers at reasonable prices for what you get. You will also be inspired by and learn from the beautiful plants in the show. You will see some wonderful plants that aren't sold at the big box and grocery stores. Mark your calendar, and plan to volunteer.

Lastly, I'd like to let you know that the TACSS (Texas Association of Cactus and Succulent Societies) will hold it's annual meeting in Austin at the Lady Bird Johnson Wildlife Center on September 25th. This is an amazing event with speakers who are experts, a wonderful opportunity to socialize with other plant lovers from across the state, see the winners of competitions across the state, participate in a plant auction, and maybe most importantly for some, have access to a roomful of vendors who have an amazing array of plants to chose from. Again, these are not big box store plants. Most of my show plants have been purchased here throughout the years. Mark your calendar and plan for a little trip to Austin. They will be providing names of hotels, times for the event, etc. We are all members by virtue of belonging to our club, and you can also purchase an individual membership if so desired.

I can't tell everyone how excited I am that we are finally getting back together in person. We hope to incorporate Zoom in our meetings, but have to figure out how to do this. We would appreciate help from anyone who is more technologically advanced than we are. Please take care of yourself and others, and we hope to see you later this month.

As always,

Josie

July Cactus of the Month

Sarai Ramirez

Tephrocactus Articulatus var. papycanthus

Name: Tephrocactus Articulatus var. papycanthus

Synonyms: Tephrocactus papyracanthus, Opuntia

papyracantha

Common Name: Paper Spine Cactus, Paper

Spined Cholla

Genus: Tephrocactus Subfamily: Opuntioideae

Family: Cactaceae

Description: Outdoors this unique Tephrocactus articulatus 'Paper Spine Cactus' features segmented, deep purplish green stems covered in globular tubercles. While the plant is still young, small spines will grow in the tubercle. However, when it matures the tip of the tubercle will grow a flattened ivory spine. These spines bend and wave in an irregular pattern. Indoor the plant will usually stay green. It is slow to mature, but over time this



variety can grow beyond 12 inches tall, with an irregularly stacked appearance thanks to the knobby nature of its stem segments.

Cultivation/Growth:

This cactus is native to the bases of the Andes Mountains in Western Argentina. This variety of cactus is hardy only to Zone 10, and will not survive a frost. If there is a risk of freezing temperatures it can be brought indoors to grow on a sunny window sill or under a grow light. Cactus need bright sunlight, great drainage, and infrequent water to prevent rot. Pick containers with drainage holes and use well-draining cactus and succulent soil with 70% to 80% mineral grit such as coarse sand, pumice, or perlite. Water deeply and wait for the soil to completely dry out before watering again. It can be a challenge to get this cactus to bloom indoors, however when 'Paper Spine Cactus' does flower it will send up large white blossom.

My Experience: I love this little weird cactus, I purchased it at a local neighborhood nursery here in Houston, I've had it about 3 years. It has been indoor most of its life. It's important to note that this plant is very fragile, some of its parts have been accidently knocked off, but I just put then back in the planter and it slowly grows roots. I found out through conducting this research that this cactus is an opuntia, which is a lovely surprise. Opuntias come in so many shapes and sizes. The other plant that looks similar to this is a Tephrocactus articulates var diadematus, it is also known as the pine cone cactus. The big difference is that the cactus is spineless. There are several varieties of this Tephrocactus articulates opuntia. I hope to grow my collection slowly.

Reference

https://worldofsucculents.com/tephrocactus-articulatus-papyracanthus-paper-spine-cactus/ https://mountaincrestgardens.com/tephrocactus-articulatus-var-papyracanthus-paper-spine-cactus/

July Succulent of the Month

Wallace Ward

Kalanchoe hildebrandtii Baillon

Synonyms: Kalanchoe gomphophylla, K. hirta, K. nadya

Common Names: Silver Teaspoons.

Habitat/Distribution: This species is endemic to Madagascar and specifically to Toliara Province (south and southwest Madagascar). Kalanchoe species in Madagascar are abundant on inselbergs, which are isolated mountains rising above the surrounding plains and composed of granite and gneiss. Inselbergs are centers of diversity for Malagasy succulents.



Description: K. hildebrandtii is a shrubby succulent plant with a woody stem and with smooth, silver-gray leaves. It can grow three feet high. It produces whitle, bell-shaped flowers in the spring. Leaves are opposite and measure around 1 1/4 by 1 1/2 inches. It is often mistaken for K. bracteata, but bractea has red flowers, not white.

Cultivation/Growth: there are numerous sources of information online about this topic, some of which are somewhat contradictory. Some sources state the plant's cold hardiness is USDA Zones 10a to 11b, suggesting that the species can tolerate 30 degrees F, but other sources suggest it would be advisable to protect the plant when temperatures fall into the 40s. A well-draining potting soil with 40-50% inert material is recommended plus use of clay pots. The plant prefers bright, sunny locations in partial shade, but one should avoid southern exposures with harsh sunlight, which can burn the leaf tips. In winter a plant can be allowed more sun

through a window, but one should keep watch for any leaf damage. Leaf and stem cuttings can be used to propagate this plant. Summer and winter are times of dormancy for K. hildebrandtii, and main growth is in the spring and fall. Propagation by cuttings is recommended for spring or fall but not outdoor summer heat or during winter dormancy. Some sources suggest this plant can be installed in an outdoor setting, but gumbo soil in the Houston area would not be a good candidate for outdoor installation.

This species can be replanted to a slightly larger pot every two years or so. One should take care in repotting since the leaves are somewhat brittle and can snap off easily.



Uses: I could not find any practical advice for uses for K. hildebrandtii specifically. Kalanchoes generally have

been used for medical treatment in traditional medicine.

Availability: There are numerous sources for K. hildebrandtii online. I purchased my plant at Lowes on the North Loop, but at the time there were just a few of these plants available.

Conservation Status: I found an IUCN report from 1997 stating that K. hildebrandtii is assigned to "nt* " status. which is CITES designation for "near threatened" and "in commerce." During my research on Google I found a 1997 book titled Cactus and Succulent Plants--Status Survey and Conservation Action Plan compiled by Sara Olney. The book is free to download, and I have provided the citation and a link below. One should avoid doing the search on Google Scholar since only the abstract of Olney's book was available on that service. Regular Google will suffice. There are multiple annexes in the book listing all succulents known for various areas of the world and their conservation status as of the date of publication.

References:

- 1. Oldfield, Sara (comp.). Cactus and Succulent Plants--Status Survey and Conservation Action Plan. IUCN/SSC Cactus and Succulent Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK. https://www.iucn.org/es/content/cactus-and-succulent-plants-status-survey-and-conservation-action-plan
- 2. Babarlmanarivo, Marina N., et al. The extraordinary botanical diversity of inselbergs in Madagascar; Candollea, vol. 74, no. 1 (June 2019) (abstract available for free, or full article can be purchased)
- 3. San Marcos Growers, https://www.smgrowers.com (plant source and care)
- 4. Succulentopedia, https://worldofsucculents.com
- 5. Kalanchoe Succulent, https://kalanchoe-succulent.com/kalanchoe-hildebrandtii-silver-teaspoons-care-guide/

August Succulent of the Month

David Van Langen

Echeveria lilacina

Echeveria lilacina is a beautiful rosette forming succulent and with its tight rosette of silvery gray leaves with a hint of pink, it is easy to pick out on the C & S racks. The leaves are spoon shaped and come to a nice point on the end! The plant is long lived and slow growing -so be patient!! It can grow to about 6 inches tall and 6 inches across. Some will also produce offsets to form small clusters. The small orange flowers are formed on reddish stalks that arch.

The habitat for this great plant is fairly high elevations in the semi arid mountians of Nuevo Leon in northern Mexico. They are found on sheer cliff ledges that dry out easily. There is probably a mixture of grasses and scrub that gives some shade also. The annual rainfall seems to be around 20-30 inches with most rain occurring during the summer. As with most mid to high elvations in desert areas, days can be warm to hot and nights cool off greatly. The humidity is also low.

Cultivation for this Echeveria is fairly easy (in many parts of the country)-- loose gritty soil mix and water when dry. Avoid full afternoon sun. Make sure the plant is not waterlogged. Houstons humidity and at times--- days upon days of rainy weather-- brings issues with most succulents from dry high elevation localesFor me-- this means water a little more sparingly during times of heavy rainfall! Remember these Echeveria survive on those rocky cliff walls just fine without our help and can do better when under watered than over watered!! In my mind, our 80 degree mornings are another reason many succulents have a hard time here!!

Now for the interesting part !!! I only bought one of these plants -- maybe 6 years ago or more. It had been in a pot its whole life. It has also looked terrible at times. I started new plants from dropped leaves years back and one survived my mistreatment. The mother plant finally gave up on me. A couple years ago I planted my survivor in a fairly large pot that had some young Texas Mountain Laurels growing in it. A dry gritty mix and the shrubs gave plenty of sun and shade mix. And out in the elements year round. Since the Mountain Laurel plants were pretty settled in and like dry weather, I seldom watered it. Ech. lilacina seemed to do well-- grew slow but



steady. Along comes Feb 2021. It got cold-- and colder--- and then colderer (a new word). Everything was covered with a good layer of snow and it finally settled in to 13 F. here in Humble. As it turned out, Echeveria lilacina survived -- But it does show some serious blemishing!! Since then I took a couple leaves to keep this cold hardy strain going! I have no idea if this is normal for it to handle these low temps -- and our heavy down-pours- but I just bought a couple more of these plants in case they do! I suggest everyone of you go find this species and see what happens!! CHEERS!!!





August Cactus of the Month

Chaden Yafi

Thelocactus bicolor: Texas pride and glory!

Native of Texas, the Theolocactus bicolor grows mostly in Brewster and Starr counties. Thus, the nicknames: Glory of Texas and Texas Pride. It also grows in northern-central Mexico. Previous synonymous include: Echinocactus bicolor, Ferocactus bicolor, Echinocactus schottii, Echinocactus wagnerianus, and Thelocactus flavidispinus (1).

The name Thelo comes from the Greek word "thelé", meaning nipple, in reference to the way the tubercles look on the rib of this cactus. One could also search for other layers of meaning when considering the word "Thelo" as a verb, meaning to desire, or to love. The popularity of Thelocactus has been growing globally. It is considered one of the most loved and desired cactus. A website was created specifically for this genus that comprises about 20 types. (2)

The part of its name "bicolor", refers to the two-color spines that grow on the stem: red and light yellow, adding charisma and attractiveness to this little solitary cactus. The stem grows up to 6 inches in height and 5 inches in diameter. It has 8-12 ribs.



Thelocactus bicolor

While the Thelocactus bicolor grows as a single globular cactus, it is oftentimes found in habitat in proximity to the Echinocerus cactus. It frequently "chose to bed itself into clumps of Echinocereus stramineus or clumps of E. enneacanthus" (3). One can speculate the reasons for this "friendship." It might be that the Thelocactus uses the Echinocerus as a nurse plant, or to seek more support and stability due to old age, as it was observed that older T. bicolor could fall under their own



Thelocactus bicolor, Echinocereus , and Neolloydia Thelocactus bicolor in habitat, photo by, Amante Darmanin

weight (4).

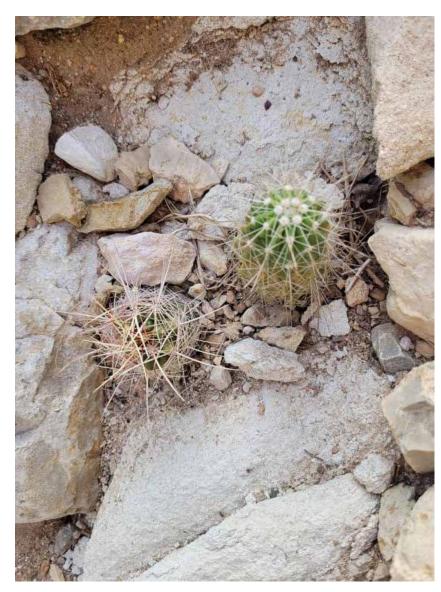
Botanists consider the flower of T. bicolor the key to recognize this species. It is a dazzling magenta flower with a red throat and satin-like petals. T. bicolor reproduces by seeds only. It rarely ramifies or produces pups. Perhaps this might be the reason that it creates such stunning flowers which easily stand out and attract various pollinators! "Where no movement, no action, no choice are possible, meeting someone or something is possible exclusively through a metamorphosis of the self" (5), explained the Italian-French philosopher and botanist, Emanuele Coccia in his Theory of the Flower: He further espoused: "The flower is a cosmic attractor, an ephemeral, unstable, body that allows one to perceive, that is, to absorb the world and to filter its more

precious forms in order to be modified by it, to prolong one's being there, in the place where its form would not know how to lead it" (6).

In addition to producing such exquisite flowers, the Thelocactus bicolor cacti are easy to grow, and need the same requirements as most cacti: well draining soil, little watering, and full sun. They can tolerate temperatures of 20 F. However, it is better to keep them above freezing temperature.

In 2003 this species won the Royal Horticultural Society's Award of Garden Merit for appearance and vigor (7).

- 1. https://www.cactiguide.com/cactus/?ge-nus=Thelocactus&species=bicolor
- 2. http://www.thelocactus.cactus-mall.com/
- 3. Berresford, Peter, and Alice Vanden Bon. "Some Encounters with Thelocacti in Habitat." CactusWorld 28, no. 2 (2010): 65-76.
- 4. Ibid.
- 5. Coccia, Emanuele. The Life of Plants. Trans. Dylan j. Montanari Cambridge: Polity Press, 2019. P.99.
- 6. Ibid, 100.
- 7. https://www.rhs.org.uk/Plants/106272/i-Thelocactus-bicolor-i/Details



David Van Langen, member of HCSS, emulates cacti natural habitat in his artificially created desert environment.

The Many Contributions Of Charles Glass To Mexican Cactology by Juan Pablo Ortiz Brunel

The majority of foreigners that visit México fall in love with its culture, the landscapes, and the vegetation. Some people, especially those who love nature, become fascinated about the great diversity of life in this country. Charles Edward Glass was one of them, although he was not satisfied with just admiring it.

Charles Glass was born on May 24, 1934 in New York City and after spending many years in the arts and educations fields, he decided to enter into the world of horticulture and botany. He started a nursery specialized in cactus and succulents in California, and became very involved with the Cactus and Succulents Society of America. He later became the editor of the Cactus & Succulent Journal.

Between 1964-1980 Charles, along with his friend Robert Foster, conducted 18 expeditions in México. If there is something we could assume, is that both man were passionate about going into the fields to observe, study, and collect cacti. The final product of these expeditions was the description of 28 new species, and the re-classification of many others.

In 1991, Charles moved to San Miguel de Allende in the State of Guanajuato, México to begin working as the curator of the plants collection and the herbarium at the Botanical Garden entitled "El Charco del Ingenio." During the years that he lived in México, his contributions towards the knowledge about the great diversity of cacti in his adopted country continued. Between 1991-1998, he conducted 160 field collecting trips practically all over the country (Figure 1). The notebooks he used during these trips reflect the maximum representation of a passionate naturalist. In these notebooks, he exactly describes each one of the places he visited during his trips. His narratives have the expert characteristics of an excellent writer. He was able to put into words the feelings of happiness, anguish, fun, worry, tiredness, emotion, despair, surprise, and deception that all good explorers have felt at some point while working in the field. Charles used to go out to collect specimens practically every weekend, and whenever possible, during the week. His field trips had the typical format of any enthusiastic explorer: leave really early in the morning and arrive to a place to sleep really late at night. He was an expert at finding really inexpensive places. I have to mention that Glass was accompanied by many people during his trips, and it would be impossible to mention all of them in this article. His companions included cactus experts, botanists, as well as friends and family members who had something in common with him: a passion for Mexican succulents.



All of the states where Charles Glass registered collected plants are shown in color. The largest numbers were found on those states with the darkest colors. These include Nuevo León, San Luis Potosí, Guanajuato and Querétaro.

As a result of his many explorations, Charles discovered, named, and described 30 taxons corresponding to species, subspecies and some varieties of cacti. He was also able to collect some of the rarest and most appreciated species in México.

Among his most important contributions, I should mention the description of some iconic cacti from México, such as Aztekium bintonii, Geobintonia Mexicana, Mammillaria bernandezii, Mammillaria saboae, Strombocactus disciformis subsp. esperanzae, Mammillaria fittkaui, Echinocereus nivosus, and Turbinicactus alonsoi (Figure 2). He also published books; The Family Album Yearbook of CSSA (1966), Cactus and Succulents for the Amateur (1975, with Bob Foster), a cactus and succulent chapter in Wise Garden Encyclopedia (1990), Cacti (1991, with Clive Innes), and the Guide to the Identification of Endangered Cacti in México (1998). This last book was Charles Glass most important publication because included decades of work and studies about Mexican cacti. Unfortunately, Charles died suddenly on February 23, 1998 in San Miguel de Allende, his home. But while he was still living, he received the greatest honor a botanist can receive; his long-time friend, business partner and field trips companion, Robert Foster, named a new cactus species in Charles' honor: Mammillaria glassii. In addition to that, Glass name will forever live as part of the Mexican botany because several native succulents have his name, such as Calibanus glassianus, Coryphanta glassii, Graptopetalum glassii, and Sedum glassii.



Some of the Mexican cacti described by Charles Glass. A) Mammillaria fittkaui (Jalisco), B) Turbinicarpus alonsoi (Guanajuato), C) Echinocereus nivosus (Coahuila), and D) Aztekium hintonii (Nuevo León). Photos from Juan Pablo Ortíz, Daniel Sánchez and Zoltén Vega.

His legacy will forever be present in the Mexican cactology and botany, and his work and dedication is an example for those who want to study Mexican cacti.

Note: This article was originally published in the June 2020 newsletter of El Charco del Ingenio, the Botanical Garden of San Miguel de Allende, México. The author is pursuing a doctoral degree in Biosystems, Ecology, and the Management of Agricultural and Natural Resources at the University of Guadalajara. It was translated to English by Liliana Cracraft, and is included here with permission from the author and the Botanical Garden.

Additional information about the life and work of Charles Glass can be found in the CSSA archives at: http://cactusandsucculentsociety.org/cssaarchives/CHARLES%20GLASS%20BIOGRAPHY.pdf and the May-June 2013 Kaktus Komments http://hcsstex.org/newsletters.html

Cactus & Succulent Tails

by Thomas Cardinal

People enjoy naming plants after common and familiar animal pets. This article summarizes some of the cactus & succulent plants from my collection that have tails. These tailing plants are (1) golden rat's tail cactus, (2) monkey's tail cactus, (3) dog's tail cactus, (4) rat's tail cactus, (5) mouse's tail succulent and (6) burro's tail succulent. Long tailing plants are ideal for hanging baskets displayed around the home. The plants discussed here are both epilithic and epiphytic in nature having areal roots and long tails that make them droop downward. Photos shown are from my personal collection at our home cactus garden and sunroom in Humble, Texas.

The Golden rat tail cactus (Cleistocactus winteri)

Golden rat tail cacti are native to South America (Peru, Uruguay, Bolivia and Argentina). The cacti grow at elevations of 1,400 meters above sea level. The species grows on cliffs within forests, in seasonally dry Andean valleys. The population of golden rat tails is declining because of local collectors, who use them as ornamental plants. This cactus has golden spines with numerous arching stems that hang out over the pot giving it a spider like appearance. Some people call it the tarantula cactus. Stems have a rigid backbone and do not bend easily. Spines are plentiful and dangerous.

Golden rat tail cacti produce red flowers with rayed petals. The blooms are 2.5 inches across and brilliant against the golden stems. Cleisto is from the Greek kleistos meaning closed because the flowers hardly open.





The monkey's tail cactus (Cleistocactus winteri subspecies colademono)

Cola de mono literally translates as "monkey tail" in Spanish. Monkey tail cacti originate in the Bolivian countryside of Santa Cruz. The plant is commonly found in natural habitat growing on or between steep rocks hanging above a jungle below. Stems poses arial roots that attach to nearby surfaces. Monkey tails are covered in soft white hairs facing downward and cover the entire stem. The stems are extremely flexible and floppy. A single plant can have three to five stems, which branch at the bottom. The plant grows upright then the stems become pendant and droop. They produce bright, red flowers which remain open for several days. Monkey Tail cacti grow best in hanging pots due to its unique heavy drooping stems. The tails of my plants are 12 to 24 inches long and about one inch in diameter. Monkey tail cacti are very showy and eye catching. Highly desirable among collectors.





The Rat's tail cactus (Aporocactus flagelliformis)

The word flagelliformis means shaped like a whip. Rat's tail cacti originate in Hidalgo Mexico. There it grows on trees for support. The Rat's tail has stems up to a few feet long, that hang and display brownish colored spines, which can be a bit sharp. These stems are approximately 0.5 inch thick. The flowers are a pink tubular type that bloom for several days.





The Dog's tail cactus (Selenicereus testudo)

Testudo means armor like spines of a hedgehog. A polymorphic species, once the dog tail is mature, their stems broaden and change shape making in look considerably different from the younger plants. They grow on the ground or on top of other plants. In their native jungle they can grow large and are often found winding around trees. Because of their long trailing stems, cultivated dog tail cacti make popular hanging baskets. Rarely produce any flowers. Flowers are fragrant white that open at night.

First discovered around 1837 in these locations Mexico, Guatemala, Belize, Honduras, Costa Rica and Nicaragua. Stems are 3 to 5 ribbed type growth, ribs evenly spaced but stem usually flattened on one side when rooting along a tree-trunk or other support surface.





The mouse's tail succulent (Rhipsalis baccifera subsp. horrida)

Horrida means shaggy or prickly. Mouse tail cacti have long tiny stems with fine needles that make it pleasantly fuzzy to the touch. A native of Madagascar. It freely branches from the base and later also from towards the apex. The stems are pale green, with reddish-brown bristly spines, up to 20 inches long and up to 0.2 inches in diameter. The mouse tail has small white flowers followed by round semitransparent berries with seeds.





Burro's tail succulent (Sedum morganium burrito)

Burrito is Spanish for a small donkey. This tailing succulent produces stems up to two feet long covered with densely packed green leaves. It is a natural hybrid of Sedum morganium brought back from Mexico by Reid Morgan in 1977. In it's natural habitat it grows down ravines and rocky cliffs. The succulent thrives indoors in a hanging container where bright sunlight bathes the plant. A popular houseplant that needs its own personal space. Repeated touching of the leaves or dryness causes them to fall off. Pink flowers grow in multiples at the end of stems.



References:

https://cactiguide.com https://www.cactus-art.biz



Sedum morganium burrito

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