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NEWSLETTER OF THE SAN DIEGO CACTUS & SUCCULENT SOCIETY
AN AFFILIATE OF THE CACTUS AND SUCCULENT SOCIETY OF AMERICA

APPRECIATING *DORSTENIA FOETIDA* // UPCOMING EVENTS //
SEPTEMBER BRAG TABLE RESULTS // ...and more

ON THE COVER

Dorstenia foetida infloresence

Photo by **Jared Petker**

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UPCOMING SDCSS SCHEDULE

THIS MONTH'S MEETING
October 12th

OUR NEXT UPCOMING MEETING
November 14th

PRESIDENT'S MESSAGE

Greetings friends! Hope you are all enjoying the beautiful Fall weather this week—my plants and I certainly are. I want to give a big thanks to all who visited my garden on 9/21. It has been a couple years and it is always gratifying to have friends, new and old, come and see it, either for the first time or to see all the changes. I view gardens as works of art that are never finished and always changing—an exciting and beautiful process. I want to express my gratitude to **Jodi Visosky** for showing up with some nice treats and a cool plant! Thanks also to **Sandy Wetzel Smith** for treats and **Rita Lunceford** for a fantastic job cleaning and organizing the disaster that was my patio—I never could have gotten done what she accomplished in a few hours! **Melanie Howe** showed up and stepped in as cashier—I am very grateful, as this allowed me to socialize and talk about the garden. Thanks again Mel, you are a jewel.

Our next Coffee in the Garden will be the garden of **Chris Miller**—an amazing garden in residential Santee. If you haven't been in a while, or ever, mark your calendars! It is not to be missed.

Thanks to **Jen Greene** and **Kal Kaminer** for their presentations at the September meeting—both very different, informational, and entertaining. Though I was saddened by the extensive poaching of plants that Kal documented, it is good to know more people are leaning about this important subject and are motivated to make changes.

Our October meeting looks to hold more interesting talks. Our main speaker is new to the club! **Allyssa Richards** will talk about Ferocactus, and our own **Der-shing Helmer**, newsletter editor, will be doing a Plant of the Month—always fun and interesting! Of course, all the other fun stuff will be going on too—Benefit Drawing, Plant Exchange, Library, Plant Sales, and socializing. Be sure to look over your collection and bring a plant (or 3) for the Brag Table. Show off your babies and win some Plant Bucks!

In **November** we will see—back by popular demand—the **Faux Brag Plants**! If you have not seen this before, or participated, I am giving you a "heads up" here and now. The challenge is to **MAKE** a plant out of anything *except* plant material. So get your creativity churning and wow us with your imagination. Be sure to come up with a name for your plant, both genus and species—there will be prizes!

CSSA Convention planning meeting will be held at noon. Lots has been going on, and we need your ideas and skills, so please join us as this exciting event takes shape.

See you in the Park on October 12!

Pam Badger

September 27, 2024

UPCOMING GUEST SPEAKER

OCTOBER 12th SPEAKER
ALLYSSA RICHARDS
"EXTRAFLORAL NECTARIES OF FEROCACTUS"

ABOUT OUR SPEAKER

Allyssa Richards is a Plant Biology PhD Candidate at UC Riverside in the Ecology Lab of Dr. Exequiel Ezcurra. She earned her Bachelor of Science in Biology from Cal Poly Pomona, where she focused on post-fire restoration ecology. Her current research explores extrafloral nectaries found in Ferocactus, a genus of barrel cacti.

Outside of academia, Allyssa is an avid collector of succulents and cacti and advocates for the conservation and ethical collection of these unique plants.

ABOUT OUR TALK

In this talk, you'll learn about the fascinating world of EFNs and the crucial role they play in desert ecosystems as Allyssa dives into her cutting-edge research on extrafloral nectaries (EFNs)—nectar-secreting glands found outside of flowers—found in Ferocactus.

Her work explores how EFNs contribute to plant defense, interactions with desert wildlife, and the survival strategies of desert plants.

Don't forget to join us before the talk for our POM presentation by Der-shing Helmer!

SEE YOU ON OCTOBER 12, 2024!

Join us before the meeting at noon!

The SDCSS will be hosting the Biannual CSSA International Convention of Succulent Plant enthusiasts in the Spring of 2025. This is a fun and exciting event, and we will definitely need volunteers to help out in many areas. We will be holding CSSA organizational meetings every monthly meeting at noon before the general meeting. If you have special skills and/or experience related to event organizing, or if you just want to find out more about ways to help out, please join us for this meeting and for more information!

UPCOMING EVENTS

OCTOBER COFFEE IN THE GARDEN!

Who: Chris Miller **When**: October 19th, 10am - 2pm

Where: 10042 Waynecrest Lane in Santee **For more info, call:** 619-990-2051

Come visit a mature garden on an average sized lot for ideas on what to plant where and what not to plant there. Many of the plants have been in the ground for ten to twenty years.

BJ will brew the coffee and we will have munchies. Plants and pots for sale and other garden stuff. Plus I have a lot of small terracotta pots for free

Root Down Pots will also be there with pots for sale.

APPRECIATING *DORSTENIA FOETIDA*

ARTICLE BY DER-SHING HELMER

Dorstenia sp. 'Lav 10341'
DER-SHING HELMER

Dorstenia foetida: if you haven't previously made its acquaintance, this is a small, succulent-stemmed Dorstenia with a pungent white sap and happily waving hand-like inflorescences. And if you do own one, you probably own a dozen. One of the easiest plants to propagate from seed, *Dorstenia foetida* is known for donating a copious number of volunteers to any pots that might be in the vicinity via its dehiscent "popping" seed dispersal mechanism.

Given its propensity to show up uninvited, some may find this plant to be an annoyance. So why is this plant worth appreciating? Personally, I think this humble member of the Dorstenia family brings a lot to the table due to its high variability and its ability to look incredible after just a few years of care. It's a fun and rewarding plant to grow, and I hope this article will help you develop an appreciation for the many beautiful forms this plant has to offer.

FIRST, A BIT OF HISTORY

Dorstenia foetida was first noted by a European in 1762 by the young explorer and philosopher Pehr Forsskål of what is now Finland who joined an expedition to "Arabia Felix", now known as Yemen. During this trip, he collected an inflorescence from the locally-named *kosar* plant, which he named "*Kosaria foetida*". This student of Linnaeus died of malaria during the trip, in 1763, but his notes remained. In 1776, Jean-Baptiste Lamark re-identified the plant Forsskål had described as "*Dorstenia radiata*", and in 1896, Georg August Schweinfurth described the plant formally as "*Dorstenia obovata*". In the next few decades, *Dorstenia foetida* was renamed, divided, and revised by several players, but in modern times, botanist Frank Horwood re-examined plants from different areas such as Yemen, Somalia, and Kenya, and determined that these plants actually showed one large polymorphic population with a massive range, and botanist Ib Friis further proposed that *Dorstenia foetida* be split into several subspecies based on stem branching and leaf shape, but not environmentally variable characteristics like stipule presence or leaf margins.

*partly to avoid persecution due to a dissertation espousing views about the expansion of freedom of speech and advocating for transparency about the government, which I thought was kinda neat.

APPRECIATING *DORSTENIA FOETIDA*

IN THE WILD

Dorstenia foetida's native range extends from the Middle Eastern countries of Saudi Arabia, Oman, and Yemen down through east Africa, reaching as far south as Tanzania. They can be found in a range of environments, from limestone to sand to clay-heavy black cotton soil. A superficially similar species, *Euphorbia hadramautica*, has a similar range of Oman, Yemen, and down through Ethiopia. Comparing the two, one can't help but wonder if *D. foetida* has evolved to utilize Batesian mimicry so that it might be confused with the far more toxic *E. hadramautica*.

Appreciators such as ourselves are able to see through the mimicry and identify *D. foetida* based on its most common characteristics: it is a succulent plant with a swollen base and stem, with pronounced markings of leaf and stipule scars. Leaves are usually located at the top of the stem and are lance-like to rounded oval in shape. Stipules are usually only 1-2mm long, and tend to wither and dry and fall off. *Dorstenia foetida* infloresences hang from peduncles of variable length, with numerous male and female flowers present on each flower. Seeds are pale brown and tuberculate, about 1mm long. More variable characteristics include the presence of stipules, the presence of leaf margin crisping, and the shape of leaf scars. M. Strlič supposes that asexual apomixis combined with sexual reproduction could be a factor in the wide diversity of features in *Dorstenia foetida*.

GROWING D. FOETIDA

There may not be an easier succulent to grow than *Dorstenia foetida*. You'll find that they can thrive anywhere and everywhere! My tried-and-true Dorstenia soil mix is generally a 60/40 split of inorganic to organic with a diversity of grain sizes to aid root growth, prevent rot, and keep the soil from clumping, but that sort of effort is rarely needed for plants in the D. foetida group. You can grow them in a succulent-appropriate soil, or simply toss plants or seeds into any soil or space you have available. In the wild these plants can grow slowly and with a compact shape in arid conditions, but they're happy to be pampered as well…I have friends in tropical environments like Indonesia who grow them outdoors where they get rained on constantly, and grow huge with lush foliage.

Dorstenia foetida seed (above) **JARED PETKER**
Dorstenia foetida showing tightly-spaced, spiral-arranged leaf scars — aka, those white circles (below) **DER-SHING HELMER**

APPRECIATING *DORSTENIA FOETIDA*

Clearly long, thin, and lanceolate leaves of a specimen sold as "*Dorstenia lancifolia*" DER-SHING HELMER

D. foetida appreciates warm temperatures, but like most Dorstenia, will not thrive in extended temps above 90F, and you will risk rot when you reach frost temps as well. They can grow in a variety of light conditions, but will do best in bright indirect light or gentle sun. The scorching direct light of summer (or even winter) can burn plants that aren't acclimated for it, but too little light can cause etiolation and huge stretched out leaves. Indirect light will lead to plants with well-spaced leaf scars and tight leaves.

Water-wise, *D. foetida* enjoy as much as you can give them in the active growing season. I have rarely lost a plant to rot unless it was already ill, but I also have that well-draining 60/40 mix I mentioned; you will not want to keep your plants sodden or soggy, or you increase the risk of caudex rot. In winter, you can reduce the amount of water you give them, but generally Dorstenia do not like their roots to fully dry out. I give mine a little bit of wetness every few days to remind them to stay alive. If you live in an area where it gets cold enough to induce true dormancy, you'd probably want to play it safer and underwater, but in our area of SD County, temps aren't conducive to making *D. foetida* go fully asleep.

D. foetida is also resistant to many pests, but there are a few that can make a home if you're not careful. Mealies can at times attack the growth point of plants. Your tell will be leaf loss at the apical meristem; check for signs of insect activity if you see this, and treat accordingly with an application of isopropyl alcohol. If being kept in a humid environment, spider mites can also become a problem. In that case, you'll note the typical chlorotic yellow-spotted leaves. I find that a spritz of insecticidal soap takes care of those problems easily. Last, I have rarely encountered scale on *D. foetida*, but it can happen. It is very difficult to spot on older plants that develop a white stem, as they can really blend in. If you notice any unexplained flaking of the epidermis, give your plants a check; the above-mentioned treatments both work on scale, though you'll have to go through and pick them off later as well.

FORMAL D. FOETIDAS

In 1983, Ib Friis proposed the following subspecies and varieties of *Dorstenia foetida*.

- ***Dorstenia foetida sp. lancifolia*** stands out for its lanceolate shaped leaves, and a leaf stem that is shorter than the length of the leaf itself.

- ***D. foetida sp. foetida var. foetida*** stands out for its stems which branch from a tuberous basal part.

- ***D. foetida sp. foetida var. obovata*** can be differentiated from *var foetida* due to unbranched stems and an only slightly swollen base.

APPRECIATING *DORSTENIA FOETIDA*

SO, WHAT DO *I* HAVE?

In reality, *Dorstenia foetida* isn't always easily identifiable down to the subspecies or variety level mentioned in the previous section. Over the years, different forms of *D. foetida* have intermingled genetically with other *D. foetida* (or other Dorstenia species) to form beautiful, but confusing, hybrids. Additionally, *D. foetida* can express different qualities temporarily due to environmental factors. For example, growing a plant in high light can result in smaller, darker leaves and shorter peduncles and petioles.

Due to hybriziding, the natural variability of *D. foetida*, and general confusion about which characteristics actually define a subspecies or variety, most *D. foetida* on the market can't be reliably identified as a "true" species, unless it was propagated by a reliable breeder from materials with provenance info attached. Some designators like "crispa" are based on characteristics that are considered unreliable in the official descriptions, and are basically meaningless! After many years of growing, I consider most *D. foetida* offered by sellers to be hybrids unless additional information is provided.

However, staunch identification of our plants isn't necessary for most of us. Growers who enjoy a plant that thrives in a variety of soils and water conditions and is fairly resistant to pests will have a great time cultivating *Dorstenia foetida*, and will be rewarded with its cheerful inflorescences nearly year-round. That said, the next section will review some of the plants in this group that you can readily find in cultivation.

IN CULTIVATION

In addition to the generic "*Dorstenia foetida*", this section will review a few of the foetida group that you might find while browsing local nurseries or online.

- ***Dorstenia foetida "var. crispa"***: this name is used to describe any foetida-group Dorstenia with crisped leaves, though I've also seen it used to describe plants with crenate or dentate leaves as well. I've also seen plants with this quality humbly named "Dorstenia hybrid".

- ***Dorstenia* 'Lav 10341'**: Botanist John Jacob Lavranos collected and added to his field notes a large number of plants, including many specimens that for years have remained formally unidentified. Whenever you see a 'Lav [number]' designation, this refers to the collector (Lavranos) and the corresponding number from his notes. In the case of 'Lav 10341', it is also sold under the name of *Dorstenia foetida* 'Superclone'. 10341 is easily distinguished by its smooth green epidermis and chunky stem, it's reluctance to branch appreciably, and its stout inflorescences with blunt appendages.

The chunky, blunt appendages of Dorstenia 'Lav 10341'.

DER-SHING HELMER

APPRECIATING *DORSTENIA FOETIDA*

Dorstenia 'Lav 23877' showing its long, thread-like stipule hairs and metallic leaves (above).
Dorstenia 'Thamaka' with unusually folded, deeply crisped and crenated leaves (below). **DER-SHING HELMER**

- ***Dorstenia* 'Lav 23877'**: Another Lavranos plant, this is a popular clone in Japan known for its "long hairs," ie the attractive threadlike stipules that may be retained on the body of the plant for some time. This plant seems, to me, to have some *Dorstenia horwoodii* in it as well, due to the bicrenate margins and the shimmery metallic quality of the leaves.

- ***Dorstenia* 'Lav 30542':** A Lavranos plant that appears to have some characteristics of *Dorstenia lavrani* in the deeply crisped leaves. In fact, the plant picture was mistakenly sold as *Dorstenia lavrani*, and clearly is not. However, I'm growing a batch of these plants from seed and am seeing some different qualities in the stipules, so there's a high chance that this description I am writing is inaccurate; it is difficult to find more information about many of these plants, as Lavranos's field notes are not publicly accessible.

- ***Dorstenia* 'Thamaka'**. A cultivar which appeared on the market in just the past few years, this was named for where it was developed by the breeder Mr. Boonchai in the city of Thamaka, Thailand. It has deep green, crenate leaves that are folded up like a taco shell. An unusual and attractive cultivar from Thai breeders, who remain at the forefront of Dorstenia hybridizing.

- ***Dorstenia foetida* variagated**: Any number of variegated *Dorstenia foetida* seedlings available on the market. These often hail from breeders in Thailand as well, who are highly adept at creating plants with exceptional bright white variegation. Breeders have also managed to create variegates of *Dorstenia horwoodii*, which makes any variegated *D. foetida* on the market suspect, as hybrids are also actively being created and sold from the same vendors.

- ***Dorstenia foetida* crested**: A crested form of *Dorstenia foetida*. These will often have a large club-like head filled with leaves. Jared was kind enough to procure the one shown above for me; they are again being affordably produced en masse in Thailand, and are a fun addition to any crest-enthusiast's collection.

APPRECIATING *DORSTENIA FOETIDA*

- ***Dorstenia horwoodii***: Despite being a different species, I include this one in the list because it is commercially available in the United States and is also highly likely to be an un-true species due to hybridizing (at least, based on formal identifiers). Since it can easily hybridize and has many superficial similarities to *Dorstenia foetida*, I'm including it in this list of foetida-adjacent plants in cultivation.

- ***Dorstenia sp.***: I felt like including this one here because I have one single seedling of this plant, named "*Dorstenia sp.*" by the seller, and I have been extremely taken with its hairiness! This plant has more hairs than the hairiest Dorstenia I own, and is markedly different from any *Dorstenia foetida* plants I have in my collection (which include at least one of each of the above listed plants). It amazes me how variable *Dorstenia foetida* can be, and how many enjoyable cultivars still exist for us to appreciate.

I hope you enjoyed this overview of *Dorstenia foetida*, and if you haven't already, consider making some room in your own collection for this great plant!

DER-SHING HELMER

Sources cited

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- Peter Forsskål. (n.d.). In Wikipedia. https://en.wikipedia.org/wiki/Peter_Forssk
- Strli, M. 2004. The Malodorous or the Curly? Unveiling the Identity of Dorstenia foetida, Cactus and Succulent Journal (US), 76:150-155.

Dorstenia sp. with unusually bristly hairs on the petioles (above). *Dorstenia sp.*, a specimen I acquired that only produces female flowers. Dorstenia can sure offer a lot of variety! (below).

DER-SHING HELMER

MEMBER SECTION

The old adage is we end up looking like our dog … my *Bowiea volubilis* plant has hair like me! **PAT BRYAN**

Astrophytum blooming just after Coffee in the Garden : } **PAM BADGER**

Red-form of flowers from the uncommon euphorbia, *Euphorbia schizacantha*. Hopefully soon: seed! **JARED PETKER**

Be a Plant of the Month participant!

Have you ever read the *Espinas Y Flores* Newsletter 'Plant of the Month' article and thought - "I could do that!" Why not participate by writing a piece for our **Plant of the Month** feature?

Pick a genus or species that interests you, do a little research, find or take a few pictures and create an article to share with the club!

Contact Pam Badger: pambad1@mac.com

AUGUST BRAG TABLE

TYLECODON BUCHHOLZIANUS
JARED PETKER

SDCSS members shared a full table of plants at the August Meeting's Brag Table!

Thank you for bringing in your incredible plants, and thanks to judge **Tom DeMerritt** for reviewing this table from our members. The brag table will be back in August, so step right up and bring your best late-summer plants to the meeting!

BRAG TABLE // NOVICE SUCCULENT

1ST: *STAPELIA GIGANTEA* **RALPH MORAN**

2ND: *GRAPTOVERIA* **'OPALINA'** **NAOMI OROSZ**

BRAG TABLE // INTERMEDIATE SUCCULENT

1ST: *TYLECODON BUCHHOLZIANUS* **JARED PETKER**

BRAG TABLE // INTERMEDIATE SUCCULENT

2ND: *MATELEA CYCLOPHYLLA* **CHUCK RAMEY**

3RD: *ADENIUM OBESUM* **LUIS GONZALEZ**

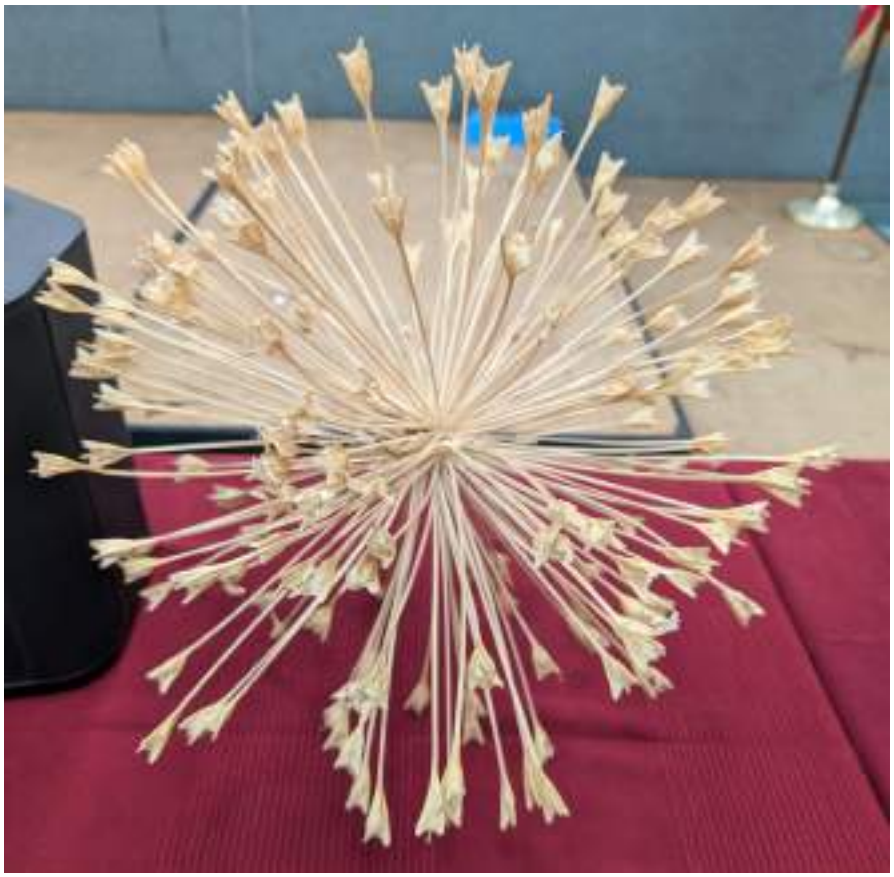
BRAG TABLE // INTERMEDIATE SUCCULENT

EUPHORBIA HYBRID 'TWINKLE TWIRL' **JARED PETKER**

HAWORTHIA HYBRID **WENDY GOLDMAN**

EUPHORBIA MEDUSA HYBRID **LUIS GONZALEZ**

BRAG TABLE // INTERMEDIATE SUCCULENT



BOOPHONE DISTICHA INFRUCTESCENCE — **KEN BLACKFORD**

ALOE 'NESSIE' — **CHUCK RAMEY**

EUPHORBIA OBESA — **LUIS GONZALEZ**

BRAG TABLE // ADVANCED SUCCULENT

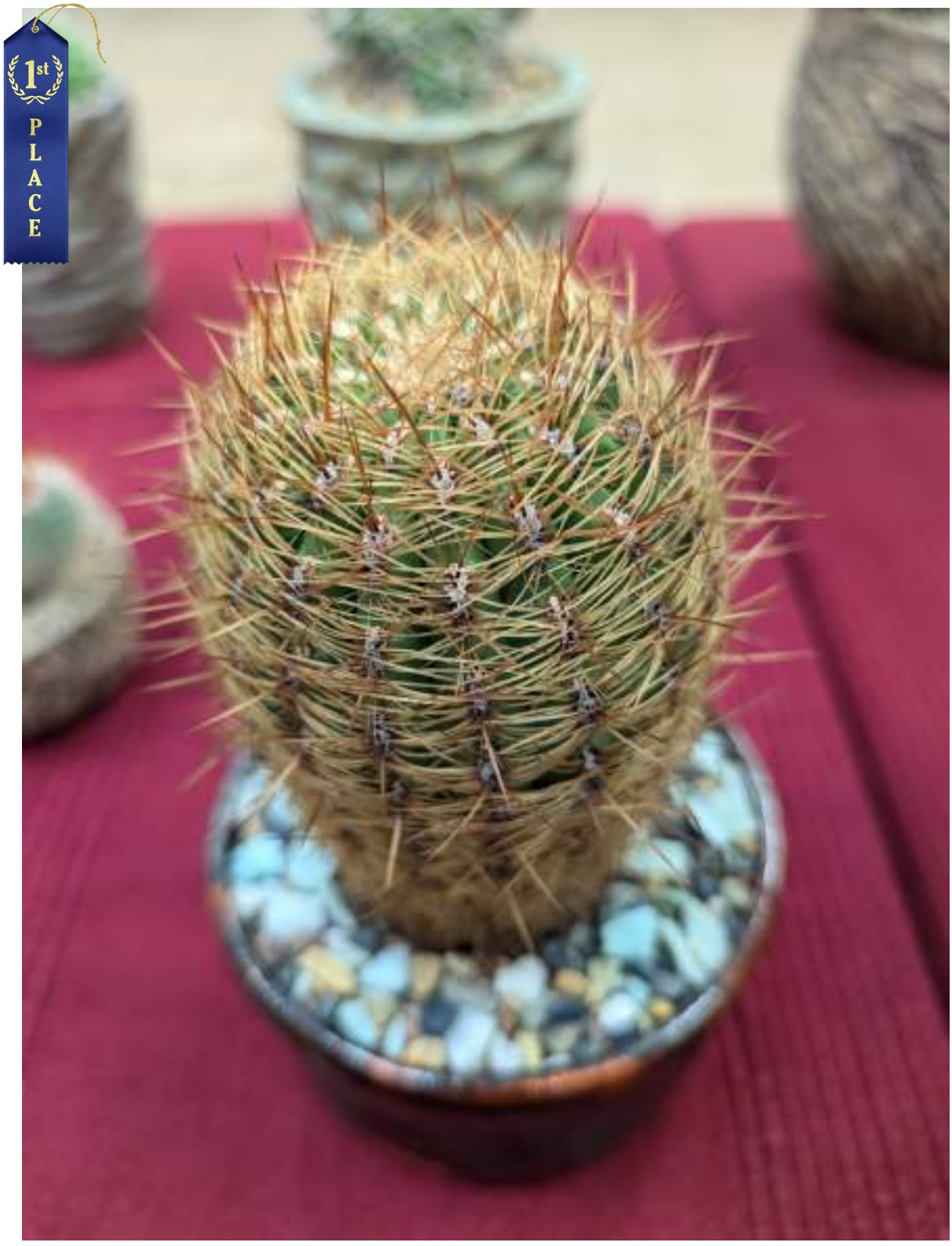
1ST: *SESAMOTHAMNUS GUERICHII* **PETER WAKOWIAK**

BRAG TABLE // ADVANCED SUCCULENT

2ND: *EUPHORBIA CAPSAINTEMARIENSIS X CYLINDRIFOLIA* **PAM BAGER**

3RD: *EUPHORBIA SUZANNAE-MARNIERAE* **PETER WAKOWIAK**

BRAG TABLE // INTERMEDIATE CACTUS



1ST: *OROYA PERUVIANA* **CHUCK RAMEY**

BRAG TABLE // INTERMEDIATE CACTUS

2ND: *GYMNOCALYCIUM RITTERIANUM* **PETER HAGOPIAN**

3RD: *MAMMILLARIA SPINOSISSIMA* **PETER HAGOPIAN**

BRAG TABLE // INTERMEDIATE CACTUS

MAMMILLARIA SP. PETER HAGOPIAN

GYMNOCALYCIUM EURYPLEURUM CHUCK RAMEY

MAMMILLARIA SP. PETER HAGOPIAN

BRAG TABLE // ADVANCED CACTUS

1ST: *COPIAPOA SP.* **PETER WALKOWIAK**

BRAG TABLE // ADVANCED CACTUS

2ND: *ECHINOCEREUS MARTIMUS* **BRIAN SHEPHERD**

3RD: *ECHINOPSIS* HYBRID VARIEGATED **PETER WALKOWIAK**