

CACTUS CORNER NEWS

Fresno Cactus & Succulent Society

fresnocss.com

Affiliated with the Cactus & Succulent Society of America

Vol. 39, No.4

April 2021

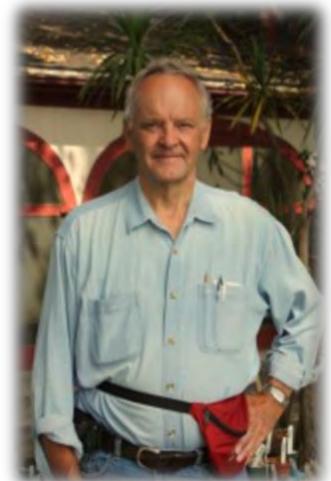
NEXT ZOOM MEETING: THURSDAY, APRIL 1st, 6:30 p.m.

Meeting ID: 813 5655 4543 Passcode: 004485

Dudleyas and Tylecodons: Mediterranean Climate Plants

By Gary Duke

Gary describes their culture, a few historical facts and describes the differences between Dudleyas and Echevarias as well as between Tylecodons and Cotyledons. He shows a dozen or more each of Dudleyas and Tylecodons that he is able to grow in southern California.



Gary Duke is an incumbent on the Board of Directors to the Cactus and Succulent Society of America. He currently assists with auditing the CSSA finances each year and also is a member of the Honors Committee. He has been collecting cacti and succulents for over 50 years. He's an avid collector of cacti and also collects Tylecodons and Dudleyas. He is a retired Air Force officer with a doctoral degree in physics. During his military career, he moved his original and ever-expanding collection of less than about 30 plants from Illinois, where he grew up, to Omaha, NE, Dayton, OH (where he started their first C&S Society, which is now defunct), San Pedro, CA, Montgomery, AL and Albuquerque, NM where he had been show chairman. He has also been President of the South Coast Cactus and Succulent Society and the Long Beach Cactus Society. Following his military career, he worked as a program manager for Boeing for 16 years. He has over 1000 different species in his private collection and enjoys propagating them. One can view some plants in his collection on his Instagram site: garyduke53. He frequently gives slide presentations throughout southern California, including being invited to speak at the Huntington Botanical Gardens and at the Denver Cactus and Succulent Society. He has traveled to Aruba, Peru, Baja Mexico, Bolivia twice and just returned from Argentina and Chile to see cacti and succulents in habitat.



From the Prez...

Hello Members,

Well, what a year it's been. It's crazy that a year has already gone by since we had an in-person meeting. I miss being able to come together, see everyone, and talk in person. I'm sure everyone feels the same. This past year has been hard on everyone and affected each of us in a unique way, with the most unfortunate cases resulting in the loss of family and friends. My heart goes out to every one of you that has lost a loved one during this extremely difficult time.

I hope the club and the friendships it's brought to you have been a source of joy during our time quarantining and social distancing. I personally believe there is strength to be found in staying in touch with people, especially with others with whom you share common interests. As such, I have tried my hardest to keep the social aspect of the club going. I appreciated everyone that participates in our Zoom meetings and hope more of you can attend in the future. Having digital meetings can be a little awkward, I will admit, but having the ability to safely meet and see familiar faces is more than worth it. Our Zoom meetings will continue for the foreseeable future, and we have prepared a lineup of wonderful presenters for the rest of the year. I hope everyone can join us for future Zoom meetings. Remember, it's never too late and I'm sure you will find them enjoyable and informative.

Even with no in-person events in sight, the Board and I still wanted to do something exciting for our members. Starting May 5th, we will be having our Spring Silent Auction. It will run similarly to our Winter Silent Auction. Dozens of items will be posted for you to bid on. We will have an assortment of items such as plants, cuttings, pots, décor, books and many more plant and garden related items! The club will be purchasing some larger items, but the rest comes from our members. We could use donations of any items like those listed above. With Spring here, it's a great time to go through your collection and donate extra plants. Or, if you are feeling the spring-cleaning bug, cut back overgrown plants to make cuttings. The possibilities are endless on what items can be donated.

There are two ways to have items donated. Take a photo of the item, sending the photo to me, and then bring the item to the auction pickup date. The other option is to contact me so we can work out a way to get the item to me. Photos or items will need to be in to me by April 30th. We will make this a safe event, so please don't be discouraged in donating.

The Spring Silent Auction will start on May 5th at 7pm and go till May 12th at 7pm. This time we will have a new system to run the auction, so bids show up automatically. Item pick up will be May 14th, at the Lowe's in RiverPark. Let's make this Spring Silent Auction even bigger than the last, and with even more wonderful items to bid on!

Thank you,
Robert

Club Access: **President**, Robert Scott, (559) 960-3665, rob_scott85@yahoo.com, **Vice President**, Rosanna Rojas, (559) 999-0017, rfrojas96@gmail.com; **Treasurer**, Michele Roberts, (559) 645-5257, robertshowse@comcast.net; **Editor**, Sue Haffner, (559) 292-5624, sueh@mail.fresnostate.edu; **Publisher**, Mary Ann Villegas; **Refreshments**, Nancy Jobin; **Webmaster**, Vickie Veen, vickieveen@gmail.com; **Sunshine**, Carole Grosch, (559) 323-8602, cgg266@comcast.net; **Librarian**, Marilyn Carter, 977-6611, mkc3253@gmail.com.



APRIL BIRTHDAYS:

Pat Schreyer (4th); Robert Scott (11th);
Viv Shinkawa, Ann Bierbower (13th)
Bruce Hargreaves, Jan Donovan,
Annie Wolf, Bob Levinson (18th)

New member, Gloria Conlin, Merced.

Welcome

Returning member, Bob Levinson. Clovis

Jon Rebman, of the San Diego Natural History Museum, presented the CSSA March 20th webinar on his 25 years of botanical explorations in Baja, California. He has compiled a thorough website which includes 45,000 digital photos: www.bajaflora.org.

The next webinar will be Saturday, April 3rd, 10:00 a.m., with Steven Brack presenting "Floral Gems of South Africa." To register, go to:

www.cactusandsucculentsociety.org.

The Washington Post on March 10th featured an article about efforts to protect the Saguaro from the effects of climate change (the *Fresno Bee* carried the article in the March 14th issue): <https://www.washingtonpost.com/climate-solutions/interactive/2021/saguaro-cactus-climate-change/>

PRICKLY PEAR MUFFINS



1 egg, ¼ cup oil

1 cup prickly pear juice

1 3/4 cups self-rising flour

1/3 cup sugar, 1 cup diced prickly pear fruit, optional
½ cup chopped walnuts, optional

Mix together egg, oil and prickly pear juice; stir flour and sugar together; add liquid ingredients and stir just to moisten batter. Fold in fruit and nuts. Fill greased or lined tins 2/3 full; bake at 425° for 20 minutes. (Desert Botanical Garden)

For juice, puree washed and sliced fruit in a blender; strain through cheesecloth and allow it to settle. For self-rising flour, to a cup of all-purpose flour add 1 ½ tsp baking powder and 1/3 tsp salt; whisk to combine.

PASTEURIZING SOIL

The simplest way to insure clean, healthy soil for your plants is to pasteurize it (often mistakenly called *sterilizing* the soil.)

You do not want to kill off *all* the life in the soil, only the harmful organisms. Fortunately, the important and beneficial nitrate-producing bacteria can survive the heat of pasteurization, but almost all weed seeds, disease organisms and insects are killed off by it.

Pasteurization is particularly important when starting seeds and cuttings because they are at a vulnerable stage.

Heating the soil to 180°F for thirty minutes is the best and most common form of pasteurization.

To pasteurize a small amount, place three or four inches of moist soil in a baking pan. *Cover it with foil and heat slowly in the oven until a thermometer inserted through the foil reads 180°F. Then turn off the oven and leave for thirty minutes before removing the pan and taking off the cover.*

The problem is making sure that the soil is evenly heated, since even a small number of harmful organisms can quickly infest the soil. Be careful not to overheat it in your oven. If you do, at least two things will happen—one, you kill off all life in the soil, and two, the kitchen will stink to high heaven.

If you heat the soil over 180° and/or heat it longer than 30 minutes, you are sterilizing the soil and you do not want to do that.

When I first started this hobby, someone told me to sterilize the soil and, not knowing any better, I heated it to 350°. After about 20 minutes it stunk up the house so bad, I had to take the pan outside.

I learned the hard way.

(Chuck Staples, Mid-Iowa newsletter, 2001)

Newsletter articles submissions are due by the 20th of each month.

MARCH WORKSHOP: We observed that this month marked one year that we had been under pandemic restrictions. Several members said they had, at least, taken the opportunity to pay more attention to their plants. We discussed fertilizing and when to bring your plants back outside, among other issues.

The following brought plants for show-and-tell:

Karen Willoughby (sempervivums in a nice pot she made herself; Sempervivum 'Chick Charms'; a huge crypthanthus; Euphorbia bongolavensis in growth); Rosanna Rojas (Aloe ramosissima for diagnosis--needed water, possibly overpotted; a nice blooming pelargonium; Bowiea volubilis; a Poinsettia); Norma Forbes wanted advice about her "durable cactus", an echinopsis; Peter Beiersdorfer (a blooming crassula; Crassula susannae showing moth damage; showed small mesh gift bags suitable for catching euphorbia seeds); Jaan Lepson (Pelargonium appendiculatum; a gorgeous Pelargonium incrassatum in bloom in a Kathy Hendig pot; a dormant Euphorbia bongolavensis; a 15-year old Tylecodon paniculatus with othonnas coming up in the pot); Carol Sierra brought several new plants for identification (an argyroderma, a ruschia and Haworthia cymbiformis in winter colors); Dominic Ortiz showed a nice succulent dish garden made by his daughter; Rob Scott showed pics of a number of plants (aloes, echeverias, haworthias, some cacti and a gorgeous blooming Sinningia leucotricha).

The next workshop will be April 21st. Make plans to join us.



Dudleya brittonii



Melocactus



Leuchtenbergia principis

"NATURAL" PEST CONTROL SPRAY

1 gallon of water
 2 Tbs light oil (cooking oil or baby oil)
 2 Tbs liquid soap (read the label; do not use a product called "degreaser"; use Safer's, Castile, or soak a few slivers of plain, unscented bar soap in a jar until dissolved.

Mix well and use as a spray
 (I'm not sure where I found this and haven't used it, so *caveat emptor.*)

Puya raimondii, Queen of the Andes, is the largest species of bromeliad reaching up to 15 m (50 ft.) in height and carry 20,000 flowers. It is native to the high Andes of Bolivia and Peru. It has been considered a Protocarnivorous plant (ensnaring birds). Its reproductive cycle last approximately 80 years. **Robert**



Photo: Waldemar Niclewicz

PELARGONIUM INCRASSATUM

This beautiful plant is one of the numerous species of tuberous pelargoniums found in southern Africa. They are native to the winter rainfall regions of the eastern, western and northern Cape and also in the southwest winter rainfall area of Namibia.

Species in this group (Section *Hoarea* of *Pelargonium*) are characterized by underground storage organs (tubers) with peeling bark, seldom bearing flowers and leaves at the same time.

Pelargonium incrassatum blooms at its best when there has been regular rainfall from late May or early June until the flowering season, usually lasting from mid-August to mid-September. When rainfall has been sparse or erratic, the leaves either shrivel before the plants form buds, or only a few plants flower, producing very short stems.

The species is well known for its divided leaves that are covered with silky hairs and flowers that range in color from mauve, cerise, red or pink to almost white. The color shown here is the best known form.

Cultivation: keep dry during dormancy. Start watering when the plant starts sprouting leaves. This species will produce flowers before the leaves wither. **Sue**



(Illus: Walt, J.J.A. van der & Vorster, P.J. (1981) "Pelargoniums of southern Africa", v.2; illustration by Ellaphie Ward-Hilhorst)



TURBINICARPUS LOPHOPHOROIDES

This tiny plant is named for its supposed resemblance to *Lophophora*, though it has otherwise been placed with *Strombocactus*, *Thelocactus*, *Toumeyia* or *Pediocactus*. It is native to the state of San Luis Potosi, Mexico, growing in very hot, sun-baked dried-out lake beds that have a high salt content. During the driest part of the year the plants retreat into the ground but after heavy summer rains they can be temporarily immersed in water.

In form they are round, flattened or globular, about 1.4" high and 1.9" in diameter, with a large tuberous root. At maturity the apex is hidden by dense, white to silvery-gray wool or hair through which grow the slightly curved spines. The flowers open to about an inch in diameter, white to a pale pink tinge. Propagation is by seed, as the plants seldom offset.

Elton Roberts writes, "I give the plants my regular soil mix and have not had any problems with them growing in it. They like a lot of light and can take a good amount of heat. When dry the plants have never shown any adverse effects to winter temperatures down to 14°F. The only time I lost any plants was when the plastic blew off the hothouse and the plants stayed wet for four weeks." **Sue**



Photos: Elton Roberts

BUILDING AN ETHICAL CACTUS AND SUCCULENT COLLECTION

Cactus and succulent species are at risk



One third of all cactus species (Cactaceae) are at risk of extinction¹, and so are many succulents, including *Dudleya*, *Dioscorea*, and *Pachypodium*². Half of threatened cacti are at-risk at least in part by the horticultural trade³. Social media platforms like Facebook and Instagram influence desire for old and rare cacti and succulents from habitat⁴.

Cacti and succulents are central in dry ecosystems



Cacti and succulents store water in their tissues, provide nesting areas and food for wildlife, photosynthesize, store carbon, and even provide a place for some insects to lay eggs where they can be protected until they develop into adults. These plants play an essential role in dryland ecosystems and must be protected.

Building your collection

1 Check the source before you buy

- Use caution when buying online.
- Was it nursery grown, or habitat collected?
- Is it a species at risk?

2 Buy from reputable plant sellers

- Search for an approved grower.
- Ask your cactus and succulent community.
- Ask previous customers.

3 Grow your own cacti and succulents

- Plant from seed.
- Propagate from a cutting or leaf.
- Buy and nurture young plants from collectors.

4 Educate yourself and spread the word

- Learn more about poaching.
- Join a cactus club or online community.
- Volunteer with a conservation group.

Plants to be cautious of when purchasing

Slow-growing rare plants sold online are more likely to be field-collected because their habitat characteristics are hard to replicate in a nursery and the time it takes to grow reduces practical and economic feasibility. If you're looking for rare plants for your collection, ask experts in your cactus and succulent community for help finding ethical sources, or check the website for the Convention on International Trade in Endangered Species (CITES). Examples include:



Aztekium



Pachypodium



Dudleya

Identifying field-collected vs. greenhouse-grown

Wild plants tend to face harsher growing conditions than greenhouse-grown plants leading to features which can help you identify the source. These characteristics are not always diagnostic, so when in doubt ask a community expert.



Poaching impacts on wild populations



Wild populations can be significantly reduced by poaching. For example, in 2015, 3500 *Ariocarpus fissuratus* were stolen, likely from Big Bend National Park⁵. Large-scale harvest of slow-growing wild cacti can decimate habitat populations by removing the mature, reproductive plants. This demonstrates how wild and illegal field collection for the horticultural trade is a significant threat to the survival of cacti and succulents in habitat.

This map highlights regions with high levels of cacti and succulents at-risk including Mexico, Chile, and southern Africa which face poaching impacts⁶.



Capiapoa cinerea which are ~45 cm/18 in. tall and take ~100 years to reach this size in habitat. When they are removed from the wild, all that is left are holes in the ground.

Find out more at:
www.ethicalcactus.com

¹ Griebler, S., Hohen-Taylor, C., Cruz-Piñón, S. et al. High proportion of cactus species threatened with extinction. *Nature Plants*, 2013.
² https://www.iucn.org/species/groups/plants_fungi/cactus_and_succulent_plants_specialist_group/threatened_species (Accessed Jan 31 2021).
³ Wangler, J. D. (2020). In *Frontiers in Ecology and Evolution*, 11(6), 367. <https://www.frontiersin.org/article/10.3389/fecol.2020.00402>
⁴ Wessing, A., Lee, T. E., Harrison, L.K., & Roberts, D. L. (2016). *Conservation Biology*, 30(2), 193–194. <https://doi.org/10.1111/cobi.12721>
⁵ Annette McGrawey "Stolen from the ground? Cactus theft is ravaging the American desert". *The Guardian*, (2015). Published Feb. 29 2015.

Photos © Stefan Burger and Ana Gonzalez 2021
Illustrations and design © Sarah C. Bird Illustration 2021
Produced by Stefan Burger, Alex Gonzalez, and Sarah C. Bird 2021