

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday January 5, 2012 at 7 pm

"The Survival of Salvaged Saguaros"

Presented by Judy Mielke



The thousands of saguaros that ADOT (Arizona Department of Transportation) has salvaged and replanted in the course of highway construction provide a unique opportunity to study how well these giants of the Sonoran Desert survive the transplant process. Judy Mielke, Senior Landscape Architect with Logan Simpson Design, who was contracted by ADOT to conduct a research project on saguaro transplanting, will describe the project's methodology, results, conclusions, and recommendations. Judy also will discuss another research project conducted for ADOT, to evaluate a technique for improving survival rates of ironwood trees salvaged under "winter dig" conditions.

Judy Mielke is a senior landscape architect with [Logan Simpson Design](#) in Tempe. She is also a Certified Arborist and horticulturist, with a Bachelor of Science degree in horticulture from Washington State University and a Master of Environmental Planning degree from Arizona State University. Judy's interest in plants was apparent at a young age, as she helped tend the family's vegetable and flower gardens on their wheat farm and cattle ranch in eastern Washington State, and soon asked for her own garden plot. Judy's Dad supported her interest in plants by building a greenhouse, and before long it was filled with foliage plants, cacti and succulents. As a 4-H club member Judy gave demonstrations at the county and state fair; one of her favorites was titled "Get Stuck On Cacti And Succulents."

A summer internship at Longwood Gardens in Pennsylvania between Judy's junior and senior year of college introduced her to the field of public horticulture, and after graduation from WSU Judy combined her interest in cacti and succulents with the desire to work in a botanical garden by interning at the [Desert Botanical Garden in Phoenix](#). Fortunately for Judy, a horticulture position became available after the internship ended and she stayed on at the DBG for nine years.

Judy's current position at Logan Simpson Design, where she has worked for 14 years, enables her to straddle the fields of landscape architecture and botany. She has prepared landscape plans for a variety of projects ranging from schools to parks to freeways and her specialty is native plant salvage and restoration. Judy also has conducted numerous native plant inventories, rare plant surveys, and vegetation community mapping throughout Arizona, Nevada, and

Utah. She is author of the award-winning book *Native Plants For Southwestern Landscapes* and has served as Associate Professor in ASU's College of Architecture and Environmental Design teaching Arizona Native Plants and Landscape Plant Materials.

This evening she will tell us about the research on saguaro salvage and transplant survivability that she and Logan Simpson Design conducted for ADOT.



Free Plant Giveaway

TBD

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday February 2, 2012 at 7 pm

"Beyond Ouch!: Integrating Cactus into Residential Garden Designs"

Presented by Scott Calhoun

Five years ago, while working on his book, Designer Plant Combinations, Tucson-based designer and author Scott Calhoun was shocked to learn that in most gardens in the United States, cactus were anything but standard issue. In fact, the bulk of home gardens he visited contained exactly zero species of cactus.

It occurred to Calhoun that perversely, being thus overlooked made cactus one of the most enticing plant families for those hoping to veer from the mundane toward the sharp side of gardening. In his own design practice, he tantalized clients with visions of "cactus flowers heavily scented of honey and chocolate; hedgehog species with fruit that tastes like strawberries; and lime-green columns whose skin feels like melted wax."

Calhoun's passion for including cactus in home landscapes resulted in his latest book, The Gardener's Guide to Cactus: The 100 Best Paddles, Barrels, Columns, and Globes, which he will be officially launching at the TCCS February meeting. Scott Calhoun is the author of six gardening books that address the unique aspects of gardening in the arid Southwest. His first book, Yard Full of Sun, was awarded the 2006 American Horticultural Society Book Award; his second title, Chasing Wildflowers, won the Garden Writers Association 2008 Silver Book Award. Scott writes a monthly garden column for Sunset magazine and has written for nearly every national gardening magazine. He runs Zona Gardens, a design studio, writes, lectures across the United States. When he is at home, he can be found working in his garden, hiking, and reading a good book. Find out more about Scott at www.zonagardens.com.

Scott's new book will be available and you can have your copy signed just after he completes his program presentation. Make sure you join us for a fun night with an excellent program, great food, books, free plants and much more!



Free Plant Giveaway

A surprise!

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday March 1, 2012 at 7 pm

"The Beautiful, Prickly History of The University of Arizona"

Presented by Tanya Quist



Dr. Tanya M. Quist, Assistant Professor in the School of Plant Sciences and Director of the UA Campus Arboretum

The [University of Arizona](#) is the oldest, continually-maintained, public green space in the state. It is home to almost 8000 trees and many shrubs, cacti and succulents from arid regions throughout the world. The collection has evolved through the combined efforts of researchers, instructors, staff and public contributions and advocacy over the UA's more than 125 year history. The landscape features a spectacular array of mature desert-adapted plants but also highlights the diversity of life possible in the desert through the many microclimates a campus provides. To preserve and enhance cultural and historical preservation, and to ensure continued ongoing sustainability research and education, the [Campus Arboretum](#) was established. In 2002, the campus was officially dedicated and accepted as a member of the American Association of Botanical Gardens and Arboreta. Although few cactus are yet to be included in the inventory, the Campus Arboretum owes its beginnings to these prickly friends. These include the original cactus interpretive garden west of old main (ca 1900) and the centerpiece of the once expansive cactus garden east of Old Main, now known as the [Joseph Wood Krutch garden](#). The UA Campus Arboretum continues to preserve historical and culturally significant specimens and is committed to research and educational programs promoting conservation and environmental sustainability.

Dr. Tanya M. Quist earned a PhD from Purdue University Dept. of Horticulture and Landscape Architecture in the Center for Environmental Stress Physiology and two additional degrees in Horticulture Science and Landscape Management. She teaches courses in Sustainable Landscape Management and Plant Propagation at the UA in the School of Plant Sciences and serves as the Director of the UA Campus Arboretum through Cooperative Extension in the College of Agriculture and Life Sciences.

This will be an excellent program to attend so please join us for a historical and prickly view of the Joseph Wood Krutch Garden at the University of Arizona. Ask questions, visit with friends, enjoy some great food have a excellent evening and always stay to get a free plant.



The Joseph Wood Krutch Garden at the University of Arizona, Tucson.

Free Plant Giveaway

TBD

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday April 5, 2012 at 7 pm

"Travels through Ecuador and Northern Peru, the Natal Area of the Family Cactaceae"

Presented by Chuck Hanson



Chuck Hanson

This program will focus on the cactus and succulents of Ecuador and Northern Peru. It is surmised that the family Cactaceae arose in northern Peru and one species shown is presumed to be the most ancestrally basal member of the subfamily cactoideae. The cacti of Ecuador are poorly known and some of the taxonomic problems will be shown.

Chuck lived in Tucson for thirty years and founded [Arid Lands Greenhouses](#) in 1978. He moved to Iowa in 1995 and soon after, founded Orchid Renaissance, specializing in lithophytic and terrestrial orchids. He moved to the upper Amazon valley of southern Ecuador in 2008 with his wife Karen and 11 dachshunds, and has been studying and photographing the cactus and succulents of the area.



Espostoa frutescens, a native species found in Ecuador

Free Plant Giveaway

Hedgehog Heaven

This month's free plants, door prizes and raffle plants include several Echinocereus species, including *E. engelmannii*, *E. viridiflorus*, *E. dasyacanthus*, and *E. viereckii* ssp. *morricalii*. Known for showy flowers, these species are cold hardy and their blossoms are an indicator that winter is over!

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday May 3, 2012 at 7 pm

"Natural History Observations of *Coryphantha robustispina*, a jackrabbit cactus"

Presented by Bob Schmalzel

(Photo Credit John Durham)



Bob will cover pollination by the cactus bees, fruit dispersal by jackrabbits and cottontails, seed burial by termites, and several other interactions with insects and mammals in southern Arizona.

Robert spent the early part of his career studying the seasonality and harvest of pollen by honey bee colonies in southern Arizona (USDA Honey Bee Research Center, Tucson) and western Panamá (Smithsonian Tropical Research Institute, Balboa). Upon returning to Arizona in 1993, he soon discovered that for most species of cacti, even those listed by the state and federal governments, very little - or nothing - was known about their natural history, including pollination, seed dispersal, seedling growth, causes of mortality, life span, and fecundity. Even today, the population sizes of most rare cacti have not been estimated. With small grants from Fish and Wildlife Service in the late 1990s, he set up a number of permanent plots to monitor growth and survival of Turks Head Cactus in the Waterman Mountains and on the Tohono O'odham Reservation. Since 1997 and as opportunity permitted, he has set up a number of plots to monitor Pima pineapple cactus in the Santa Cruz and Altar valleys. With the assistance of AmeriCorps, he set up about 15 80-acre Pima pineapple cactus plots in the Altar Valley in 2001-2003. He is wrapping up a study in the summer of 2012 on how the seeds of Pima pineapple cactus are dispersed. He continues to be interested in the spatial distribution of this plant, its pollinators, and herbivores.

Be sure to mark your calendar and come enjoy a fun evening with an excellent program, good food, free plants and more!



Free Plant Giveaway

Thelocactus bicolor

Suitable for full sun or lightly filtered light, this species is noted for stunning showy flowers all summer long with regular watering.

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday June 7, 2012 at 7 pm

"Searching for New Populations of Nichol's Turks' Head Cactus, *Echinocactus horizontalonius* in Sonora, Mexico"

Presented by Thomas R. Van Devender and Ana Lilia Reina-Guerrero

In June 2011, we found two *Echinocactus horizontalonius* in a planter in Mazatán, Sonora. Mazatán is in central Sonora, 80 km east of Hermosillo, and 258 km south of the Arizona border. The Tucson Cactus and Succulent Society provided funds to learn the provenance of these cultivated plants and discover populations in nature.

The nominate subspecies of the Turk's Head Cactus *Echinocactus horizontalonius* is widespread in limestone areas in the Chihuahuan Desert from southern New Mexico and western Texas south on the Mexican Plateau to San Luis Potosí. In his 1969 book *The Cacti of Arizona*, Lyman Benson described the western populations as *Echinocactus horizontalonius* var. *nicholii*. In 1976, the variety was listed as an Endangered Species (USDI, Fish and Wildlife Service, 1976). Populations are known in Arizona from the limestone Koht Kohl Hills and Waterman and Vekol Mountains in the Arizona Upland subdivision of the Sonoran Desert. Another population is in Sonora in the Sierra del Viejo about 45 km SSE of Caborca, and 150 km S of the Arizona border in the Lower Colorado River Valley subdivision (Yatskievych and Fischer 1983, Paredes-A et al. 2000). It is not protected in Mexico primarily because the NOM-059-SEMARNAT-2010 legislation does not consider varieties or subspecies. The Mazatán area is distant from the known populations of *Echinocactus horizontalonius* var. *nicholii*. The program will focus on the journey to investigate, follow information, and try to find the species in a new location.



Thomas R. Van Devender is the Manager of the Madrean Archipelago Biodiversity Assessment program at Sky Island Alliance. He was the Senior Research Scientist at the Arizona-Sonora Desert Museum from 1983 to 2009 where he conducted research on a broad range of natural history activities. He has published well over a hundred research publications including journal articles, book chapters, and books on the cacti of Sonora, desert grassland, packrat middens and the paleoecology of the southwestern deserts, and the Sonoran desert tortoise. He is coeditor with Francisco Molina on a book entitled *Diversidad Biológica del Estado de Sonora* published by the Universidad Nacional Autónoma de México in Hermosillo, Sonora in 2010. He has a long-term interest in the flora of the Sonoran Desert Region, and has collected over 25,000 herbarium specimens, which are deposited into the herbaria at the University of Arizona (Tucson), Universidad de Sonora (Hermosillo), and many others. In recent years, he has provided photovouchers of cacti to ten herbaria in the United States, Mexico, and Europe. He has surveyed plants in many vegetation types in Sonora. He and his wife Ana Lilia Reina-Guerrero have a special interest in the plants of La Frontera, the 100 kilometer zone in northern Sonora just south of the Arizona border, and in the Yécora area in the Sierra Madre Occidental in eastern Sonora. They have studied the ecology of the Chihuahuan Desert night-blooming cereus *Peniocereus greggii* var. *greggii*, the Cochise foxtail cactus *Coryphantha robbinsorum*, the false rainbow cactus *Echinocereus pseudopectinatus*, the El Trigo hedgehog *Echinocereus lauii*, and the choyita *Mammillaria saboae* var. *haudeana*.

Please make sure you have marked your calendar for this special program. Also, bring a friend or relative who would like to learn more about cacti.



Sign and church in Mazatán. Foothills thornscrub and view of Sierra de Mazatán from west of town.

Free Plant Giveaway

Assorted agave and yucca from [Plants for the Southwest](#).

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday July 5, 2012 at 7 pm

"Travels in Africa and Arabia 8: The Hunt for Sansevieria in East Africa"

Presented by Bob Webb



Sansevieria bhitatae

Traveling in East Africa is an interesting experience, to say the least. Most Americans seem to believe it is too dangerous to go there, but in our travels, we find it mostly to be filled with inconveniences, bribes, friendship, treachery, wild animals, and non-stop entertainment. Our recent trip, dedicated to hunting down species of *Sansevieria*, is representative of our travels in Africa and Arabia. We met three dedicated *Sansevieria* hunters with vastly different agendas, but all three are fascinated -- even consumed -- by this outstanding genus, which is far more than that Mother-in-Law's Tongue you see everywhere.

Taxonomically, the genus *Sansevieria* is a mess. This morphologically diverse genus spans the region from South Africa to southeast Asia, but the biodiversity hotspot is Kenya and Tanzania. We are working with Professor Len Newton of Kenyatta University in Nairobi to try and unravel the Gorgonian knot. We also are working with a molecular chemist to see if DNA can help solve some of the riddles this genus offers, but molecular data, while compelling, offers few answers and many more questions. Exciting new species are part of the norm with this genus as we travel into some of the most interesting parts of East Africa.

Bob has worked on land-use issues, landscape ecology and conservation concerns of the southwestern United States and Baja California for more than 35 years. For the past 17 years, he has worked with Mexican government scientists on plant conservation issues in Baja California centering on cirio, cardon, and other charismatic species that are iconic to the peninsula. He has a Ph.D from the University of Arizona in Geosciences (1985) and has worked for the National Research Program of the U.S. Geological Survey for nearly 25 years.

Bob Webb has collected succulent plants for over 29 years. For his day job, he is a hydrologist with the U.S. Geological Survey in Tucson; however, he has worked as a plant ecologist in the southwestern United States and Baja, California for nearly 35 years. He's been traveling to the Arabian Peninsula and Africa since the mid-1990s and has visited Oman, Kenya, Socotra, Yemen and South Africa in search of succulent plants.

Bob has produced around 200 publications, including 12 books, with many more on the way. Several of these books are benchmark volumes on environmental change in the Mojave and Sonoran Deserts. Bob Webb and Toni Yocum are owners of [Arid Lands Greenhouses](#) at 3560 W. Bilby Road Tucson AZ 85746 Phone: (520) 883-9404.

Bob's programs are always a must see for everyone. Please bring your friends and anyone interested in an inside look at these amazing plants that are seldom given the attention they deserve.

Free Plant Giveaway

A selection of *Ferocactus pilosus* and *Ferocactus latispinus*.

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday August 2, 2012 at 7 pm

"Survey of the Genus Mammillaria"

Presented by Scott McMahon, Cactaceae Collections Manager
Desert Botanical Garden, Phoenix, AZ



Mammillaria ernestii

Scott will present a survey the Genus Mammillaria that will include a brief history of the genus, descriptions of various plants and also add some of the details about classification. Scott will show lots of pictures and offer questions after his program presentation.

Scott received his Masters degree in Plant Protection from the U of A in 1977 and worked for 5 years in the agricultural industry in Arizona and Southern California. Scott's father was a commercial landscaper, and Scott gained valuable experience in landscape design, installation, and maintenance working for him on and off over the years. Scott has also worked in the electronics industry as a technician and has held a K-8 elementary teaching certificate. Scott is a member of the Cactus and Succulent Society of America and also of the local affiliate, the Central Arizona Cactus and Succulent Society, where he served two terms as President. Scott started with the Desert Botanical Garden as their arborist and became a Certified Arborist a year later. Scott's current duties include caring for the Garden's extensive cactus collection, including numerous succulents from other families. Scott is an instructor in the Desert Landscaper School, teaching classes in both English and Spanish on desert trees, the Cactus Family, and on other succulents. Scott's ability to speak Spanish has also enabled him to participate in workshops on desert landscaping in Mexico.

Please join us in welcoming Scott back to the Tucson. He has always presented us with excellent programs and information so please bring a friend and enjoy an excellent program, great food, free plants and much more!

Scott would like anyone that may have special Mammillaria questions to bring in a plant or supply a photograph.



Mammillaria pilensis



Mammillaria fraileana

Free Plant Giveaway

Various species of Mammillaria.

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday September 6, 2012 at 7 pm

"Agaves"

Presented by Greg Starr

Author of: "Agaves: Living sculptures for landscapes and containers"



Agave bovicornuta near KM 254 east of Hermosillo

Greg will discuss the history, interesting tidbits and show some of his favorite plants from his new book which is titled *Agaves: Living Sculptures for Landscapes and Containers*.

Greg was born and raised in Tucson, Arizona, has grown to love the desert and its flora and fauna. He graduated from the University of Arizona in 1979 with a Bachelor of Science in Horticulture, and after working in the landscape industry he went back to the University to study Botany and further his education in horticulture. Greg worked for Warren Jones (co-author of *Plants for Dry Climates and Landscape Plants for Dry Regions*) and Dr. Charles Mason at the University of Arizona herbarium. Greg made his first foray into the world of collecting in 1979 when he traveled with Warren and Bill Kinneson to Texas where he saw firsthand, in habitat, the many plants he had only experienced in the nursery or landscapes. He emerged from the University in 1985 with a Master of Science in Horticulture with a special emphasis on botany.

He opened [Starr Nursery](#) in the summer of 1985, and has specialized in low water use plants for landscaping in southern Arizona. Greg has traveled extensively in Mexico and the southwestern United States to study the plants for their potential landscape use in desert regions of the world. He has also traveled to South Africa in search of potential landscape plants for southern Arizona.

Greg has written several horticultural articles for the journal *Desert Plants*. Topics have covered various groups of plants as well as botanizing in South Africa. He has also described a new species of Agave, two new species and a subspecies of *Hesperaloe*, and revised the genus *Hesperaloe* in a monograph published in the journal *Madroño*. Greg worked with Dr. Jose Angel Villarreal in describing *Agave ovatifolia* which has been dubbed Whale's Tongue Agave, a reflection of the incredibly wide leaves that sometimes double as water harvesting vessels. Greg's book, *Cool Plants for Hot Gardens*, was released at the end of April 2009. His second book, titled *Agaves: Living Sculptures for Landscapes and Containers*, was released in early May of 2012. He has taught Plant Biology and Plant Materials classes at The Art Center Design College in Tucson for their program on Landscape Architecture.

Greg spends most of his days tapping at the computer hoping another book will take shape, preparing PowerPoint presentations and tending to Starr Nursery, specializing in Agaves and related plants as well as other succulents and new introductions of perennials, flowering shrubs, and small trees from arid and semi-arid regions around the world. He and his four legged pal Nikki spend many hours in the nursery potting up Agaves and other cool plants, chasing rabbits, and napping on the soil pile.

Please join us and invite your friends to this excellent program. Enjoy some great food, free plants, and the multitude of others who love to talk about cactus and succulents.



Agave ovatifolia



Agave shawii 8 miles north of Colonet

Free Plant Giveaway

TBD

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday October 4, 2012 at 7 pm

"Peru - Land of the Inca, Land of Cacti"

Presented by Mark Muradian



This program, titled "Peru, Land of the Inca, Land of cacti" was taken in September of 2010. Starting in Chiclayo, and ending in Cuzco, we travelled by bus to many habitats, sometimes on roads no bus should ever attempt to drive! This program is a video presentation, with all the sounds and motion to help the viewer feel as if they are there. With the optional fly over of the Nazca lines and the mandatory visit to Machu Picchu, this was an exciting trip to be on. I have been in the cactus hobby close to 30 years and have been making pottery for some 17 years, and am a third-generation family farmer in the central valley, farming some acreage since 1915.

Mark will be bringing his special pottery and will have it presented for sale. This will be a video program presentation and should be a really special event that is quite different from all others. Be sure to come and view this special program, enjoy excellent food, win some choice plants and also stay and get your FREE plant at the ending bell.



Free Plant Giveaway

A variety of cacti native to Peru and South America will be offered this month.

Tucson Cactus and Succulent Society

Monthly Meeting

Thursday November 1, 2012 at 7 pm

"Cacti & Succulents the Rocky Mountain Way"

Presented by Marcia Tatroe



Sphaeralcea coccinea and cacti

Coloradoans grow many of the same cacti and succulents familiar to Tucson gardeners. But frost eight months of the year, hot summers and dry winters have fostered an entirely new garden paradigm. In Denver a trunked yucca grows alongside a fernleaf peony, or in another garden across town, next to a dwarf peach and a tall garden phlox. The Colorado gardener's willingness to incorporate new ideas without discarding the old has created a synergism between traditional garden design and the amazing diversity of plants that thrive in a high plains environment. The resulting gardens do not resemble anything heretofore - a style found only in the Mountain West.

Author of best-selling *Perennials for Dummies*, Marcia Tatroe writes the monthly "Mountain Garden Checklist" for *Sunset Magazine*, a weekly gardening column in *The Denver Post*, and is a frequent contributor to *Colorado Gardener* and other gardening publications. She has been gardening in Centennial CO for 25 years. Her garden has been featured in numerous books, magazines and nationally televised gardening shows. She lectures throughout the West focusing on garden design, perennials, xeriscape, and incorporating native plants into gardens and landscapes. In her most recent book, *Cutting Edge Gardening in the Intermountain West*, she advocates using drought-tolerant and native plants and indigenous materials to create a gardening aesthetic unique to this region.

This is our final speaker program for 2012 so please join in and welcome Marcia Tatroe as our guest on November 1. We will surely enjoy an excellent program, great foods, FREE plants and much more.



Yucca rostrata, fernleaf peony and catmint



Sedum 'Purple Emperor' and *Opuntia*

Free Plant Giveaway

An exciting assortment of winter-flowering mesembs from South Africa will be available for free plants, raffle and door prizes.