

Tucson Cactus and Succulent Society

Thursday January 8, 2015 from 7 - 9 pm

"Why are there any plants in Africa?"
"A biologist's thoughts from a first visit to South Africa"

Presented by Mark Dimmitt

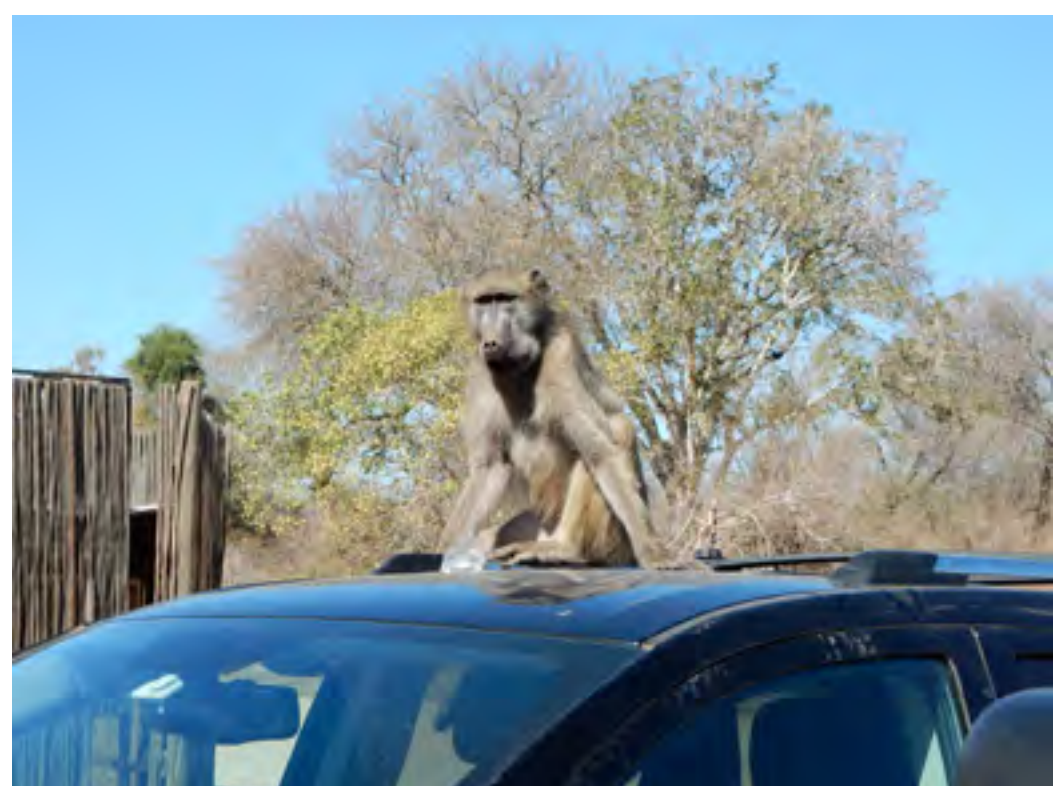


Mark begins with a summary of the diversity and abundance of big animals in Africa, then speculates on why they haven't destroyed the vegetation. Next he presents a tour of the plants (mostly succulents) that were found, with some information on how they're adapted to survive among abundant, giant herbivores.

Mark Dimmitt, Ph.D. formally majored in zoology throughout his college career, but also studied botany and ecology extensively. After earning his Ph.D. in Biology from the University of California at Riverside, he spent four years as a vertebrate ecologist in the California Desert District of the Bureau of Land Management. He moved to Tucson in 1979 to become Curator of Botany at the [Arizona-Sonora Desert Museum](#) and in 1997 he became the Director of Natural History. This position allowed him to conduct field research and share oversight of the scientific aspects of the museum's operations. Mark has published numerous popular articles on horticulture and several articles on desert ecology (he is an avid plant hybridizer). He is also the creator of the 'Desert Museum' hybrid palo verde. He is well known for his hybrids, especially his study of the adenium and various

cacti. In 1999, he received the Friend Award from The Cactus and Succulent Society of America for his outstanding accomplishments with cacti and succulents. He has also co-authored a special Adenium book, "Adenium: Sculptural Elegance, Floral Extravagance".

This first 2015 program presentation should be excellent! Please be sure to come and enjoy this great program and also meet and talk with others, have some excellent refreshments, win a beautiful cactus or other succulent and be sure to take home a free plant!

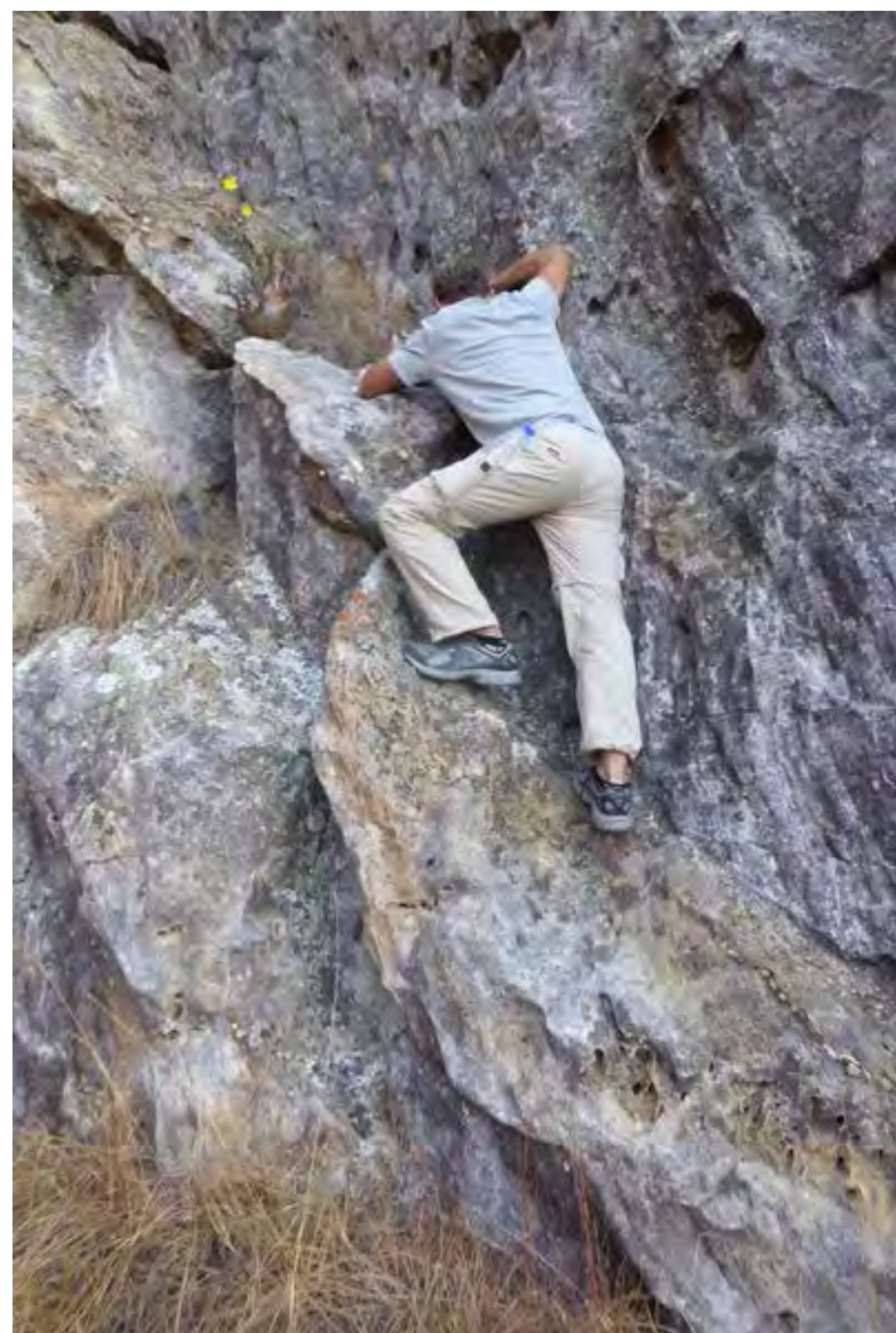


Tucson Cactus and Succulent Society

Thursday February 5, 2015 from 7 - 9 pm

"Madagascar - A World-Renowned Island of Megadiversity"

Presented by Greg Starr



Greg traveled to Madagascar with his best friend Carol, who he happens to be married to, Jean Lewis and Jerry Daharsh for an exciting excursion full of plants, birds, lemurs, chameleons, food and local flavor. Greg will discuss the process of setting up an organized tour and show a multitude of pictures of the unique flora and fauna native to the Ranomafana, Isalo N.P., the spiny desert around Ifaty, the tsingy near Bekopaka and the incredible baobabs near Morondava. This visual feast is guaranteed to make even the most sedentary couch potato crave an adventure to the fourth largest island in the world before all the really good stuff is lost to slash and burn agriculture.

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 and recently to Madagascar in search of juicy succulents.

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 of Landscape Architecture. Since 2010, Greg has focused intensively on the Agaves of Baja California and he and Bob Webb have described *Agave azurea*, a new species from the Picachos de Santa Clara, and submitted a revision for the genus to the journal *Haseltonia* which should be published early in 2015. He is also a co-author for the upcoming Field Guide to the Cactus and Other Succulents of Arizona which is scheduled for publication in February 2015.

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.

Please be sure to come and enjoy the evening with an excellent program, have some nice conversations, get some wonderful refreshments, win some great plants and receive a free plant.



Tucson Cactus and Succulent Society

Thursday March 5, 2015 from 7 - 9 pm

"Field Guide to Cacti & Other Succulents of Arizona"

Presented by Thomas Staudt



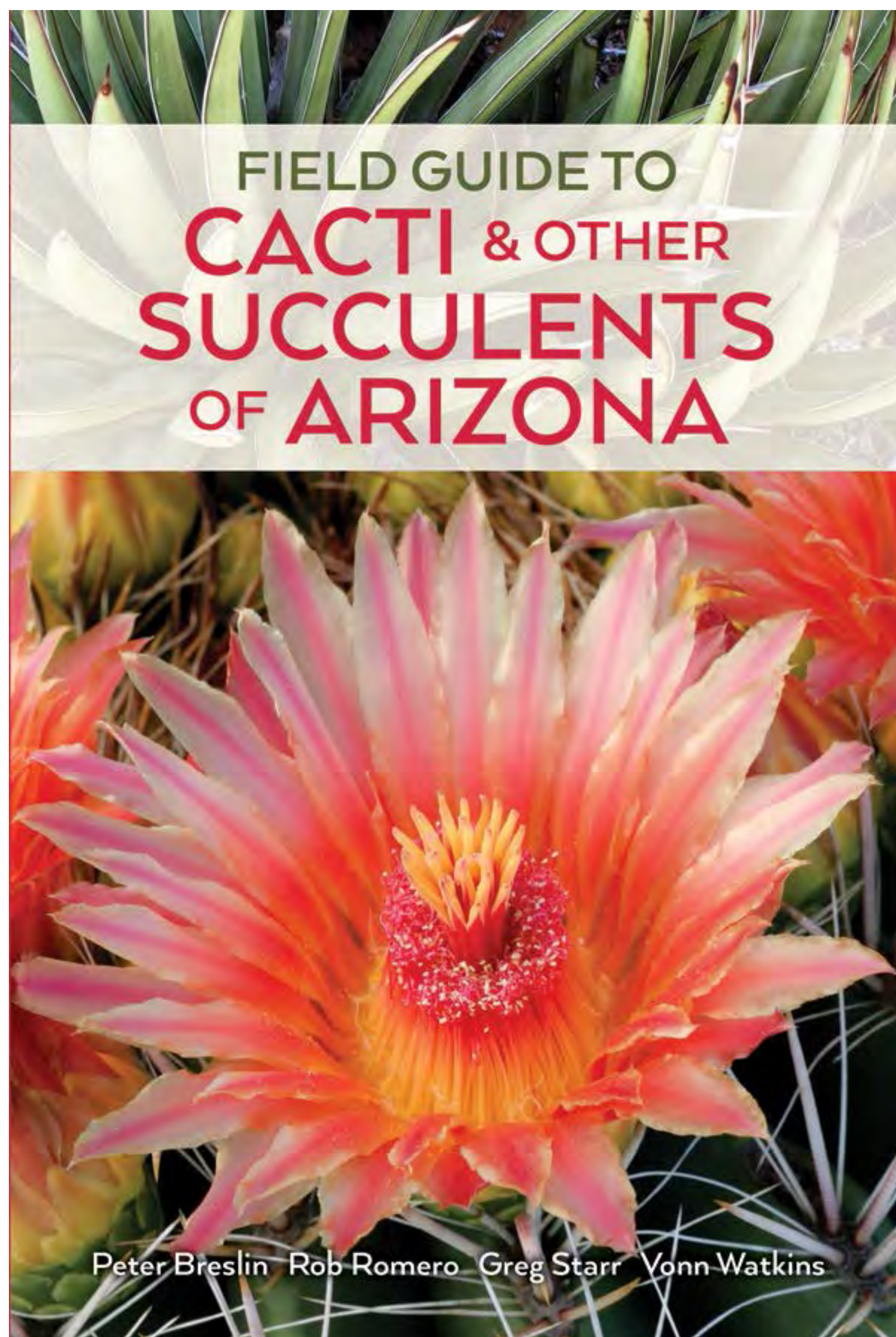
This March presentation will center on approaching the TCSS board with the idea for a field guide and convincing them of its need. It will take you step by step through the process of getting the Field Guide to Cacti and Other Succulents of Arizona completed and to the printers. This will include details on how the pages were formatted, photo selection and the use of the species distribution maps. Signed copies of the book will be available and authors will be on hand for questions.

Thomas grew up on a farm in Iowa where as the saying goes "the corn (not cacti) is as high as an elephant's eye." He attended the University of Iowa and graduated in 1973 with a BS in General Science, emphases on biology and local botany.

In 1990 Thomas moved to Portland, OR. and started dual careers as a wildlife biologist and a bicycle tour leader. As a cyclist he led a cross country ride in 1993. As a biologist Thomas covered 1000's of miles on the Pacific Ocean in search of whales, dolphins and seabirds—a long bout of seasickness cured him of any further pursuits in that direction. Other biological related works have taken him from above the Arctic Circle in Alaska to eight Summer season working in Antarctica, including a two week stint at the South Pole. While there, Thomas pulled a bike out of storage and did three trips around the world in one day. The off seasons between biking and Antarctica provided Thomas an opportunity to pursue his bird watching interest and during those eight Antarctic years he traveled extensively on all seven continents identifying more than 3000 bird species. In 2005, when the cold environments lost there appeal, Thomas settled in Tucson on a more permanent bases. He had lived there off and on since 1992.

In Tucson Thomas has worked for a number of environmental consultant companies, which provided opportunities to refine his interest in local cacti and other flora. Having used numerous field guides to identify birds around the world Thomas soon realized that an up-to-date, comprehensive cacti field guide would be an invaluable tool for his field work. Since none was available and no one was working to put one together Thomas formulated a plan for such a book.

The end of the presentation will be an introduction of everyone responsible for the publication. From the list, Rob Romero, Dean Stock, David Yetman, Chris Ginkel and Mary Irish will not be present.



Authors:
Peter Breslin
Rob Romero
Greg Starr
Vonn Watkins<

Supporting authors:
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David Yetman

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John Durham

Production manager:
Thomas Staudt

NOW AVAILABLE!
for only \$25⁹⁵ Discounts are offered for multiple copy purchases.

Get your copy at the next TCSS monthly meeting on Thursday, March 5, 2015.
Come see us at the Tucson Festival of Books, Booth 245 - March 14th & 15th

Peter Breslin Rob Romero Greg Starr Vonn Watkins

Tucson Cactus and Succulent Society

Thursday April 2, 2015 from 7 - 9 pm

"The Renewal of the Cactus and Agave Gardens at the Arizona-Sonora Desert Museum"

Presented by Jason Wiley



Jason Wiley

For the past year, two gardens at the [Desert Museum](#) - the Agave Garden and the Haag Cactus Garden - have been undergoing transformations. The Haag Cactus Garden might be of particular interest to current members of the Tucson Cactus and Succulent Society as it was named in honor of the founder of the Tucson Cactus Club, "Cactus" John Haag. John worked at the Desert Museum in its early days as a curator of plants and he endeavored to educate people about cacti and other succulent plants of the region. Shortly after his death in 1962, The Tucson Cactus Club dedicated a garden at the Desert Museum in his name, "The Haag Cactus Garden." And the Tucson Cactus Club, that John founded, evolved to become the Tucson Cactus and Succulent Society. This presentation will describe not only the current and ongoing improvements to these two gardens but will also cover plans for their future.

Jason joined the Arizona-Sonora Desert Museum in May of 2014 as horticulturist. He was raised in eastern Colorado and grew up on a sod farm so his interest in plants started early in life. He received his B.S. in Urban Horticulture from Arizona State University in 2007. His career includes positions at the Phoenix Zoo caring for the "Harmony Farm", as the Lead Horticulturist and Landscape Designer for the Budweiser Tour Center and employment for a high-end horticulture services company, both in Fort Collins, Colorado. Jason relocated to Tucson in 2014 to join the staff at the Arizona-Sonora Desert Museum.

Be sure to place this date on your calendar, come and enjoy an excellent program by Jason, have some excellent refreshments, win some great plants and also take a free plant with you at the evening conclusion.



Tucson Cactus and Succulent Society

Thursday, May 7, 2015 at 7:00 PM

“20 Years Under the Saguaros” or “What Your Momma Never Told You about the Saguaros!”

Presented by William Peachey



William Peachey

Years ago as a paleontologist Bill had worked on a project that collected evidence of the presence of saguaros from fossil pack middens he had discovered in the San Pedro River Valley east of Tucson, Arizona. At the time he never dreamed that one day he would have a wide spectrum of research projects that concern this icon of the Sonoran Desert!

In the late 1990s, following a study of the nectar-feeding Mexican Long-nosed Bat (*Choeronycteris Mexicana*), he had ended up with a fine saguaro study plot on which to investigate in detail the blooming of the saguaro cactus.

Today, 20 years later, he has found that every other morning during the months of May and June each year he has been standing under the same saguaros on this plot to count their blooms, one-by-one, using binoculars and then recording their numbers. However, beyond the endless numbers on piles of dry data sheets that he has generated, he promises to uncover many other interesting aspects of saguaro reproduction, associated animal life, mortality, and anatomy that have come to light.

And, in his presentation, for the first time publicly, four features of saguaro anatomy that have not been previously described will be shown. These are 1) the manner of growth at the stem tips, 2) the “plumbing” for the nutrients supplied to buds, flowers, and fruits, 3) a division of the cortex into two types of tissue, and 4) the manner of growth of new arm buds.

Bill was born with the “Desert Rat” gene fully operational and then was blessed to have been able to grow up in the post-WWII Phoenix area when the Sonoran Desert could still be experienced there close at hand and in every direction. He was doubly fortunate to have been mentored in science and the practical aspects of its activities from grade school through high school by participation in a local Chapter of the “Grinnell Natural History Society” - then world leaders in field science education who developed the standard in field science note taking that is followed internationally today. From total immersion in their programs he developed a love for “field science” that he still and, will always, have.

College found him at the U of A in the mid-1960s where he fell quite willingly into the “black hole” of cave science. That path has led over the years to caving expeditions in the Grand Canyon, cave trips all over the lower 48 states, cave rescue training & cave rescues, membership on the committee that developed the “Arizona Cave Law”, work on cave management plans (National Park Service, Forest Service, etc.), bat research, cave minerals & decorations, cave paleontology, speleogenesis, and much much more. The above work and interests have led to his becoming a “consultant”(NOT for pay!) to several indigenous groups in the U.S. & Mexico for the protection of their religious sites that are found in caves.....

During the 1970s he took up geology in the form of exploration in the western hemisphere for metals, uranium, oil, geothermal steam, and geological engineering. From a crew member he eventually became (with a return to the U of A in Geology) a “Consulting Geologist”. Engineering projects in teams from local geology contractors have included: Interstate Highway stability for the Ariz. Dept. of Trans., foundation stability for the MMT(the first telescope on Mt.Hopkins in the Santa Rita Mtns.), conditions underneath the Palo Verde Nuclear Power Plant. And, during that time period he was overjoyed to be able to help to design and build the cave exhibits at the Arizona-Sonora Desert Museum as Bill and his family had been very early and regular visitors to the Museum. He provided their plant list of the prominent limestone loving plant species of Sonoran Desert biomes as well as the plan for their incorporation in the landscaping of the cave exhibit site where they can be seen flourishing today - in addition to his involvement in several other projects inside of the “cave”(for instance, he is the one that INSISTED that they install the “kids crawly” In the high passage that adults are “horrified” to find their kids have disappeared into!..)

By the 1990s he had become involved in studies of Arizona two nectar-feeding bats – both of whom feed upon Saguaro flowers. During that time he became the “science guy” for Colossal Cave Mtn. Park. Also, his long term work on the natural resources of the Cienega Creek basin resulted in a request by the U.S. Congress for his information on the area for its deliberations concerning its designation of the then pending Empire Cienega Nat. Conservation Area. Along with pack rat midden-researchers, the Van Devenders, we reported, from the analysis of the very first fossil middens found in the San Pedro River Valley that he had discovered, to the BLM about the last 2,000 years of plant history there in “The Late Holocene Vegetation of the San Pedro River Valley, southeastern Arizona”. This report contains the eastern most paleorecord of the Saguaro in Arizona and the only fossil record of the “Needle spine Cactus”(*Echinomastus erectocentrus*).

Starting in the late 1990s as part of an Arizona Game & Fish Dept. grant on the Mexican Long-tongued Bat(*Choeronycteris Mexicana*), he began his ongoing research concerning the Saguaro Cactus, one of this bat’s major food sources.

Currently, he is engaged in a multitude of Saguaro projects. With co-researchers they are tendering for publication a major paper on the paleofauna of Pyeatt Cave in Cochise County, AZ and are circulating for publication a research paper on the Pallid Bat and its arthropod prey species. The very tip of the Saguaro information “iceberg” of his findings concerning this cactus has just been published by TCSS as a “factoid” in a picture caption in the new “Field Guide to Cacti & other Succulents of Arizona”.

Come and enjoy Bill’s program and enjoy some great refreshments, win a great cactus or succulent and receive an excellent free plant as you depart.



February 2015 - a Fallen saguaro at the Rowsell’s home was partially dissected and cored for oxygen isotopes



Photo contributed by C.T.Bethard ©2010

Tucson Cactus and Succulent Society

Thursday June 4, 2015 from 7 - 9 pm

"The Horticultural aspects of Adeniums, Emphasizing Propagation, Repotting, Pruning, Pests, and New Varieties"

Presented by Dave Palzkill



Dave was raised on a mixed beef/hog/chicken farm in the hill country of southwest Wisconsin near the former mining town of Mineral Point. He majored in Horticulture and Plant Pathology at the University of Wisconsin – Madison. During his graduate studies he also spent 8 months at the University of California – Davis, a time which awakened his interest in the dry west. His dissertation research at Madison focused on the influence of environment on Ca-transport and Ca-related disorders of vegetable crops. Dave taught Horticulture and Agronomy courses at the University of Arizona for 14 years and conducted research on new/alternative crops for dry regions; primarily jojoba, but also low water-requiring landscape/ornamental plants and mesquite for energy production. Since 1990, he has worked as a consultant on new crops projects (jojoba, chia, lesquerella, mesquite, moringa) in several countries. For the past fifteen years, he has also managed a nursery in northwest Tucson specializing in Adenium, but also including lots of Pedilanthus (Lady's Slipper) and misc. cacti., especially small-padded/jointed Opuntoids which he first developed an interest in on travels in various S. American countries.

His talk will focus on several horticultural aspects of Adeniums, with emphasis on propagation, repotting and pruning, pests, and discussion of several new varieties.

Please make sure you come to this important program on a Tucson cultivation favorite. Enjoy great refreshments, win a plant and get a free plant before your evening departure.



Tucson Cactus and Succulent Society

Thursday July 2, 2015 from 7 - 9 pm

"*Jatropha* in Mexico - Resolving the Evolutionary Relationships of the Mexican sub-genus *Curcas*."

Presented by Nathan Michael LeClear



Nathan's program will be about his field work collecting material of *Jatropha* in Mexico, primarily in Oaxaca, Puebla, Michoacan, Durango, and Sonora during the last two summers (including the current). His work is molecular, aimed at resolving the evolutionary relationships of the Mexican sub-genus *Curcas*.

His graduate program at UT and the plant biology program is a joint PhD program of Integrative Biology and Molecular Biosciences Departments at the University of Texas at Austin. Research themes span the range of evolution, biogeography, physiology, anatomy, ecology, molecular/cellular biology, and genetics.

Originally from Emporia, Kansas he studied botany as an undergraduate at Emporia State University under the advisement of Dr. Marsh Sundberg, and graduated in 2006. After working for the city of Eugene, Oregon as a seed collector for wetland conservation for a season he began his Masters at the University of Texas - Pan American in Edinburg, Texas under the advisement of Dr. Andrew McDonald. His thesis research was the ethnobotanical history of the economically important species *Jatropha curcas*, and a study of the seed oil chemistry of the same species, which was completed in 2010. After working as an arborist in Texas for a year he spent several seasons botanizing the western US with a consulting firm for the US Forest Service in California, Utah, Nevada, and Idaho.

Returning to academia in the Autumn of 2012 he began his doctoral research on the systematics, biogeography, and evolution of breeding systems in the neo-tropical species of *Jatropha* under the direction of Drs. Beryl Simpson and Randal Linder. His field work has taken him to Arizona and many states of Mexico, to which the majority of the nearly fifty species of sub-genus *Curcas* are native, many being narrow range endemics. This summer concludes the third year of his PhD, and after its completion he aims to continue to work in the field of botany with a focus on conservation and education.

This will be an exceptional time for all to gain added knowledge of these plants. Be sure to join us, hear a great program, enjoy some refreshments and get some marvelous plants.



Thursday August 6, 2015 from 7 - 9 pm

"The Biology of Cacti"

Presented by Dr. James D. Mauseth



Backebergia militaris

Various changes have occurred as an ancestral group of plants (that resembled pereskias) evolved to be cacti. Any group is homogeneous only while it is new and consists of just one or two species; as it continues to evolve, new forms come into being and it becomes more difficult to make generalizations. At present some cacti are adapted to deserts but others are adapted to cold regions in the Andes, others are adapted to rainforests or grasslands. Some have evolved to be giant columnar cacti, whereas fraileas and blossfeldias have evolved to be tiny dwarf cacti. We are all too familiar with many cactus spines, but in some cacti, spines are soft and protect the plant by shading it or by causing dew to form on the spines rather than on the cactus surface where dew drops would block the stomatal pores and cause the plants to suffocate. Spines in many cacti are now glandular, secreting nectar on other substances. Many cacti have an adult form we know as the cephalia in *Melocactus* and *Espostoa*, and many other "cephalium-like" structures also occur.

James David Mauseth is from Richland, Washington.

Ph.D.: University of Washington; Seattle, Washington; 1975
Professor, University of Texas at Austin, 1995-Present.
Associate Professor, University of Texas at Austin, 1981-1995.
Assistant Professor, University of Texas at Austin, 1975-1981.

AWARDS

2009 Natural Sciences Foundation Advisory Council Teaching Award (UT)
1993 Teaching Excellence Award, College of Natural Sciences Foundation Advisory Council (UT)
1990 Teaching Excellence Award, College of Natural Sciences Foundation Advisory Council (UT)
1987 Andrew W. Mellon Faculty Fellowship in Latin American Studies. Institute of Latin American Studies (UT).
1983 Outstanding Teacher Award: Awarded by the Natural Sciences Council of the University of Texas.

COURSES TAUGHT

Botany 320 and 120C: General Botany (and Lab): Structure, Physiology and Reproduction of Seed Plants.
Botany 374 and 388K: Plant Anatomy. (this is now Biology 374 and 174L)
Botany 344 and 480N: Plant Morphogenesis.
Ultraestructura de la Celula Vegetal (Universidad Catolica de Chile)
Anatomia Vegetal (Universidad Catolica de Chile)
El segundo curso de actualización en cactáceas y suculentas (UNALM)
Curso Internacional de Anatomia de Plantas y el Medio Ambiente (UNALM)

FIELD WORK: Argentina, Bolivia, Brazil, Costa Rica, Chile, Dominican Republic, Ecuador, Mexico, Panama, Peru and Venezuela

PUBLICATIONS - BOOKS PUBLISHED

Mauseth, J. D. 1988. Plant Anatomy. (This is a large textbook, 560 pages). Benjamin/Cummings. Menlo Park, California.
Mauseth, J. D. 1991. Botany: An Introduction to Plant Biology. Jones and Bartlett, Massachusetts.
Mauseth, J. D. 2002. Botany: An Introduction to Plant Biology. Third edition.
Mauseth, J. D., R. Kiesling, and C. N. Ostolaza. (2002). A Cactus Odyssey: Journeys in the Wilds of Bolivia, Peru, and Argentina. Timber Press.
Bowes, B. G., and J. D. Mauseth. 2008. A Color Atlas of Plant Structure. Second edition. Manson Publishing.
Mauseth, J. D. 2009. Botany: An Introduction to Plant Biology. Fourth edition.
Mauseth, J. D. 2012. Botany: An Introduction to Plant Biology. Fifth edition.

EDUCATIONAL WEB SITES

[Plant Anatomy Laboratory](#): Micrographs of plant cells and tissues, with explanatory text.
[Cactus Research website](#): Descriptions of my research on cacti and travel in South America.

ARTICLES IN REVIEWED JOURNALS: 78 Articles.

ARTICLES IN SEMI-TECHNICAL JOURNALS AND NEWSLETTERS: 27 Articles.

PRESENTED PAPERS, SCIENTIFIC MEETINGS AND ACADEMIC DEPARTMENTS: 83 Presentations.

PRESENTED PAPERS, EDUCATIONAL OR SEMI-TECHNICAL: 22 Presentations.

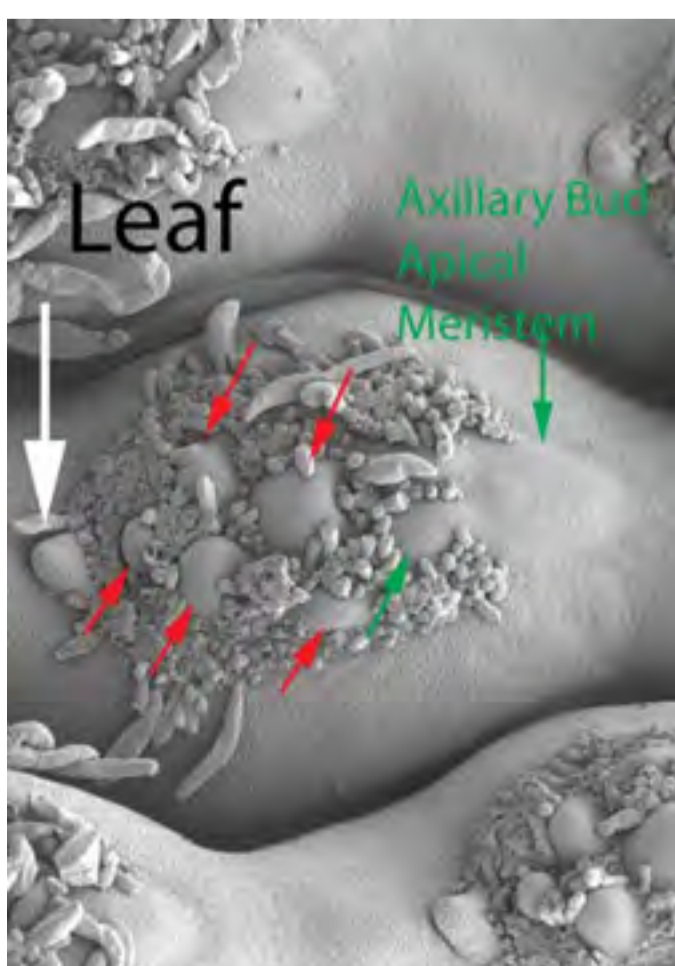
Please make sure you are present for this program. It will be an excellent presentation of the various special anatomical structures of cacti and the relationships found in numerous locations. Dr. Mauseth will truly amaze you! Come and enjoy this very special program, have some great refreshments during the break, talk with all the wonderful cacti and other succulent friends, win some great plants, and be sure to get your free plant when you leave.



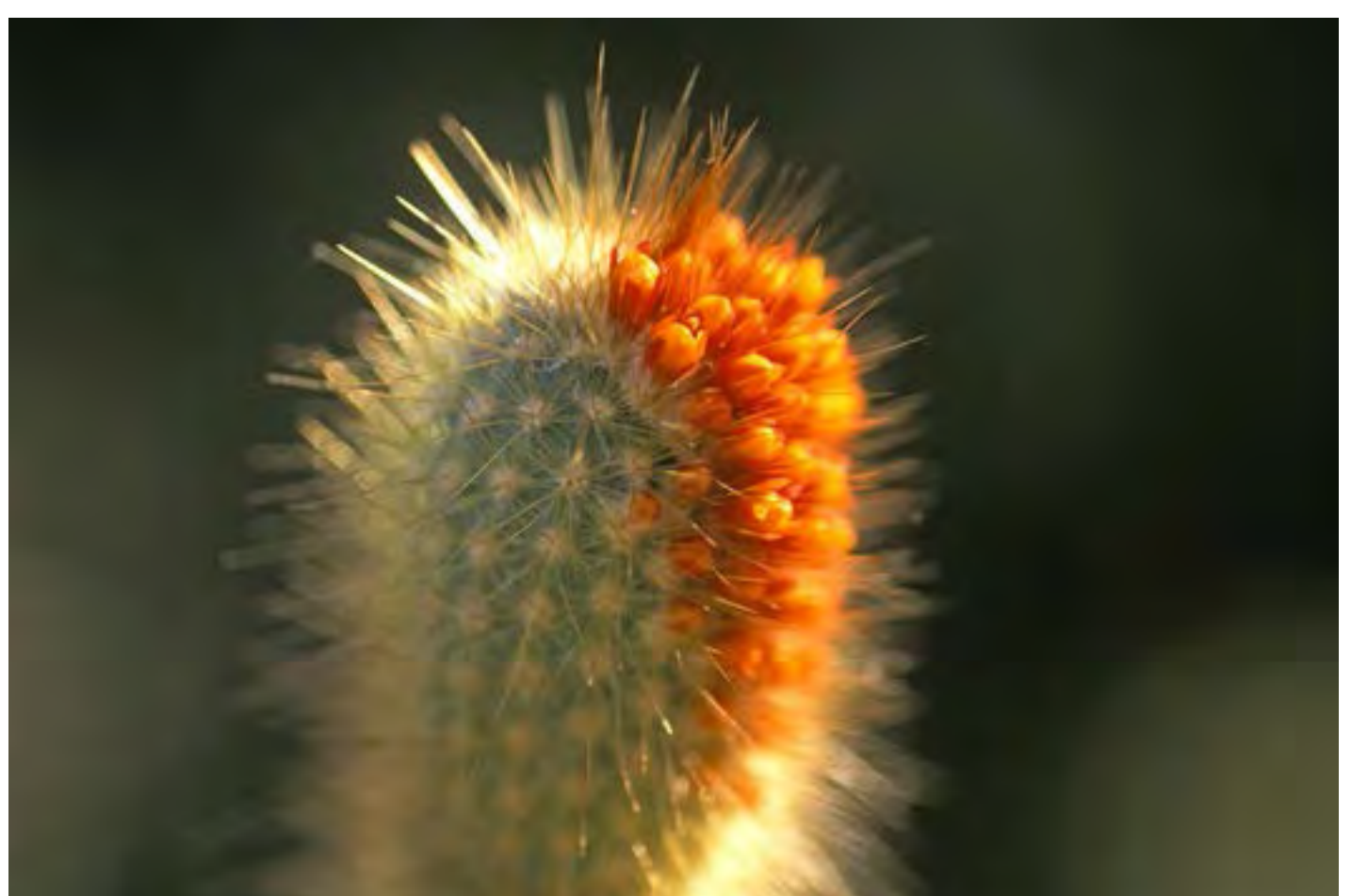
Ferocactus areole



Lemaireocereus marginatus apex ribs



Echinocactus grusonia (young areole 144x)



Micranthocereus densiflorus

Tucson Cactus and Succulent Society

Thursday September 3, 2015 from 7 - 9 pm

"A Baja Adventure"

Presented by Greg Starr



Agave shawii ssp. *goldmaniana* north of Highway 1 road to Rancho Los Martires

Come out for an evening tour of Baja California with Greg Starr. He will present a visual feast of some way cool cacti and succulents, and who knows, maybe even a "leafy" plant or two to complete the Baja California experience. The peninsula of Baja California consists of two states, the northern one is simply Baja California (confusing, right?) and the southern one is Baja California Sur (BCS). The focus will be on the northern state, but we just might cross the line and even hop on over to an island or two, so be prepared for anything. Since it is monsoon season, we might run into a hurricane if we go into BCS. Undoubtedly we will visit some of the most iconic figures of the peninsula, including the Mexican Candle, the non-Saguaro, bloomin' barrels, and maybe even an agave or two.

Greg's first two forays to the land that time forgot were in the early 1980's. He then took a 27 year hiatus, finally returning in 2010, along with Scott Calhoun, to research agaves to include in his book. The next year Bob Webb asked Greg to accompany him on a plant distribution expedition which then led to the two of them making 5 additional trips to Baja California to study the agaves on the peninsula. With his propensity to take multiple photos of nearly all the plants at each stop, it's no wonder that Greg is a huge fan of the digital format and very large external hard drives. So sit back and enjoy the photos of fantastic plants found on this incredibly wonderful peninsula.

Be sure to be entertained with some excellent information about cacti and other succulents in Baja California. Enjoy some great food, win a few plants and also get a free plant as you leave.



Ferocactus chrysacanthus along hike from Punta Norte to
Dudleya pachyphytum on north end of Isla Cedros



Ferocactus gracilis at Laguna Chapala

Tucson Cactus and Succulent Society

Thursday October 1, 2015 from 7 - 9 pm

"*Cylindropuntia chuckwallensis*: a new cholla species from southern California"

Presented by Michelle Cloud-Hughes



Chucky Flowers



Cylindropuntia chuckwallensis is a newly-described cactus found in San Bernardino, Riverside, and northern Imperial Counties, California. Michelle's presentation will describe how this historically-misidentified cholla was determined to be a distinct new species and the characteristics that distinguish it from similar cholla species. This presentation will provide detailed information on where to see *Cylindropuntia chuckwallensis* and the many other intriguing cacti found with it.

Michelle Cloud-Hughes is a botanist and restoration ecologist specializing in desert flora and ecosystems. She worked for the Soil Ecology and Restoration Group at San Diego State University from 1997 to 2013 and spent most of those years doing restoration work in the central Mojave Desert at Fort Irwin National Training Center. In 2010 she started her company, [Desert Solitaire Botany and Ecological Restoration](#), and since then has been involved in many rare plant surveys and other botanical projects throughout the southwestern U.S. Her main love is *Cylindropuntia*, but she is also fascinated by other cactus, particularly *Echinocereus*, *Grusonia*, *Pediocactus*, and occasionally even *Opuntia*.

October is an excellent time to come and enjoy a great program on a new species! During our break there will be lots of great food and many knowledgeable friends to talk with. Plants you can win and also as a great TCSS tradition, take one home with you.



Chucky Cholla First Flower

Tucson Cactus and Succulent Society

October Meeting

October 5, 2006 at 7 pm

Jon Weeks

"*Salicornia*, The Sonoran Desert Succulent That Could"



Jon will open the eyes of succulent lovers and introduce a plant that manages to withstand almost anything. You must attend to get the real picture.

Nearly one third of the arable land on earth has a significant salinity problem. Not only does this reduce crop yields for a hungry planet, but the situation is most critical in the poorest countries which often experience poor harvests. The consequences of this are not only hunger but also include profound social and political consequences as hungry people migrate to other regions. From 1980 to 1992, Jon worked on the Halophyte Project at the Environmental Research Laboratory of the University of Arizona. There are approximately 400,000 species of plants in the world of which about 10,000 are believed to have some degree of salt tolerance. The objective of this research was to investigate as many as possible of the estimated 10,000 species of halophytes which occur mostly in coastal habitats worldwide to determine if any of the species possessed the features required to be a successful crop plant that could be irrigated with low quality brackish water or seawater. After reviewing several hundred species of halophytes, the Lab settled on a widespread western hemisphere halophyte, *Salicornia bigelovii*. This species occurs intermittently along the coastlines of the United States and Mexico as isolated ecotypes. These ecotypes have features which make them attractive candidates for a halophytic crop as well as numerous features which are barriers to becoming a crop plant. This research focused on condensing the required characteristics of a crop plant into a bred selection while simultaneously breeding out the characteristics which would prevent the type from being successful as a seawater irrigated crop. The research also included developing the farming techniques for a species which had never before been farmed. As is often the case in research, Jon started out with some ideas that appeared to make sense at the beginning but during the course of the work got an education from the plants which he claims are a lot smarter than he will ever be. The research also included traveling extensively throughout Mexico

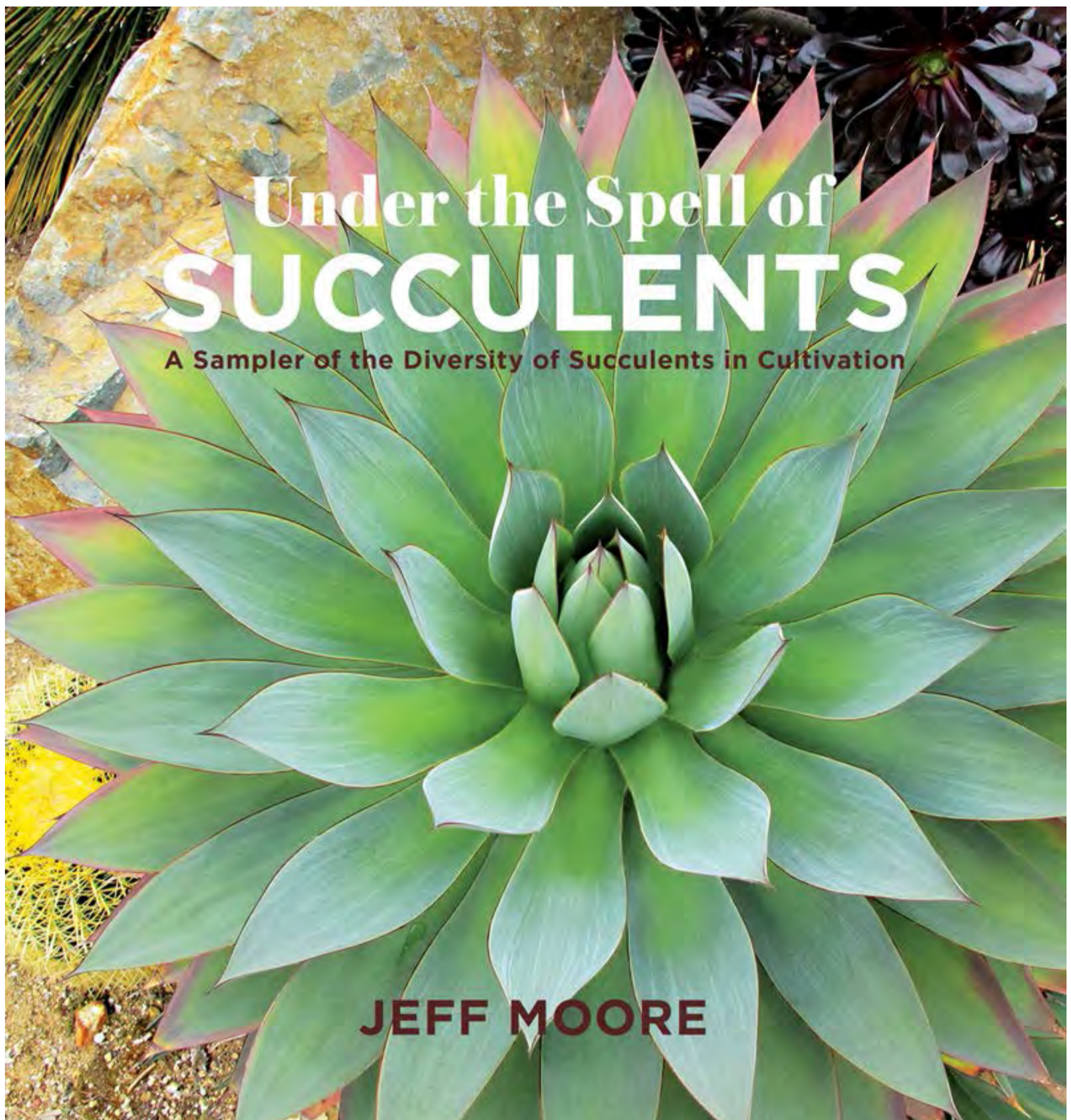
Jon was born and raised in Stratford, Connecticut. He received a B.A. from Gettysburg College in 1971 and in 1975 started Landscape Cacti, a desert nursery devoted to growing cacti and agaves from seed for landscape use. In 1986 he received a Ph.D. from the University of Arizona and worked as a research Scientist for the University from 1986 to 1992 while living along the coast of Sonora, Mexico. Jon collected halophytes and was farming them in Kino Bay at Puerto Penasco, Sonora. Since 1992 to the present Jon has operated Landscape Cacti where he grows landscape cacti and agaves. Be sure to join us for Jon's experience in growing landscape cacti and his talk on the *Salicornia*.

Tucson Cactus and Succulent Society

Thursday November 5, 2015 from 7 - 9 pm

"An Overview of Succulents in Cultivation"

Presented by Jeff Moore, owner of Solana Succulents
Solana Beach, California



Jeff's basic program parallels the flow of his book, which is an overview of succulents in cultivation. He will talk about how we engage with succulents - growers, collectors, landscaping, container gardening, bonsai, specialties like crests, variegates, etc., and he will also show representative images of the major genera - aloes, agaves, cacti, euphorbias, etc. He will also devote a bit of extra time to aloes and agaves, and show some samples from his next book. He hopes to have the new publication out by January/February. He's always happy to take questions during and after the program, and may bring a nice raffle plant.

Jeff has been a collector/enthusiast for over 30 years, opened [his nursery in Solana Beach](#), California 23 years ago, and has gained a bit of minor fame amongst plant geeks for his "undersea" succulent gardens (highlighted in the book and slide show). He is adding author to his resume, with one book done, another in the works, and more on the back burner. Jeff is married with two sons, 17 and 20, and also tries to surf in his rare spare time, unfortunately with declining skills as entering the "it's now look out for the old out-of-control kook" phase of his abilities.

This will be our last meeting with a program presentation for 2015. Please come and enjoy a spectacular evening with Jeff Moore. There will be lots of friends, great conversation, delicious foods, raffle plants to win, excellent free succulents and Jeff will also bring plants and books to sell (credit cards accepted).

