For Members of the Tucson Botanical Gardens

Autumn 2018 Volume 18 Issue 3







Photo by Tom Spitz

IF YOU HAVE AN IDEA, LET'S TALK.

I have always challenged our staff to "Think big," "Let's not be afraid to fail," "If you have an idea, let's talk," "Don't think about the roadblocks; first think about the possibilities." This sounds like a TED Talk, doesn't it? One difference between us and TED is that we get the pleasure of not just talking, but doing.

Adam, our Horticultural Manager, is full of ideas. This season, he'll demonstrate his love of gardening as the staff, along with a team of volunteers, plant a few thousand marigold plugs. Once blooming, the variety of color will help celebrate the Gardens annual event, Feast with the Dearly Departed.

What's a fall event without pumpkins? Watch for some exceptionally large cultivars planted in a few select areas of the Gardens, then get out your favorite pumpkin pie recipe and let's see how your pie stacks up with some local home chefs. Then, once the frost hits the ground, the next planting will go in. You'll hear more about what that will be in the next newsletter, but here are a couple of hints: 10th century Persia, and spring-blooming perennial herbaceous bulbiferous geophytes.

The Grove Gift Shop may undergo a remodel this season while we work with the Tucson Bonsai Society in creating a permanent Bonsai Exhibit in that space. And finally, the Cox Butterfly & Orchid Exhibit will be taking "orchids" one step further. The greenhouse terrariums will become home to a few female orchid praying mantis. This lovely insect from Southeast Asia masquerades as a flower to attract prey.

Another idea creator, Tucson paper artist Mykl Wells, approached me with a concept to create oversized nature-inspired paper lanterns. After commissioning a prototype, and feeling confident that they are in fact waterproof, Mykl and our team will be installing 12-13 paper animals and plants throughout the Gardens. Beautiful in the daylight, and magical in the evening, this exhibition will have special event evening hours four nights a week, beginning October 4th through January 6, 2019.

Throughout the galleries, nature-inspired art will be on display. The artists of the Drawing Studio (see opposite page) will grace Porter Hall Gallery; Etherton Gallery will feature famed photographer, Kate Breakey and her series on Trees in the Legacy Gallery; and, the Friend's House North Gallery will feature, Ancient Climates, an exhibit on loan from Biosphere 2 (see opposite page).

There is nothing more creatively fulfilling than looking at the Gardens through the eyes of our mission to Connect People with Plants and Nature through Art, Science, History, and Culture. We're thinking big, taking some risks and developing programs and exhibitions to make the Gardens come alive. Welcome to a new season of nature creatively expressed at the Tucson Botanical Gardens. Wichelle

Michelle Conklin **Executive Director**

AUTUMN

Mission Statement: The Tucson Botanical Gardens connects people with plants and nature through art, science, history and culture.

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> Cover Photo: African Marigold Tagetes erecta

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Duplicate Mailings? If so, please contact Membership at (520) 326-9686, ext. *13.



Ancient Climates: On Ioan from Biosphere 2

September 15 - January 13, 2019

When water evaporates. Taken near Tuba City. Photo: Stanley Graham









Painting by Maurice Sevigny; courtesy The Drawing Studio

The Drawing Studio October 1 - January 19, 2019

Kate Breakey: The Year of the Tree September 27 - January 13, 2019

Internationally known photographer Kate Breakey has been a tree aficionado for as long as she can remember.

From her roots (literally!) in rural Southern Australia to the Sonoran Desert that she has called home for 17 years,

Kate Breakey has photographed trees on every continent she has ever planted herself on. Known for her luscious hand-colored work, the artist extends her limbs in her recent series, Golden Stardust, using glass and 24k gold leaf. A variety of her hand-colored work will also be on display.



Fall Rose Care

for the Backyard Gardener

by Robin Lansing, TBG Gardener

lthough it's still really hot outside right now, it's time to give a little attention to your roses to help them look and bloom their best this November and probably December (weather permitting). Even though roses are sun-loving creatures, wanting about 6 hours of sun a day, they can still get pretty heat stressed by the time September rolls around. Start by giving them a good deep watering and some fertilizer. There are many kinds of fertilizer out there, but I highly recommend an organic liquid because it's more gentle on the plant, and with the temperatures still very high, it's less likely to burn the foliage.

Fall pruning, or maybe a more accurate term would be trimming, in mid to late September is another thing you can do that will really help your roses produce a nice flush of blooms in the fall. This is not the same aggressive procedure we do in January to help force the plant to rest. This is a light trimming, removing not more than 1/3 of the plant.

If you have a rose bush that had a particularly hard time last summer and is now showing a lot of dead stems and leaves, be careful to not trim too much. In this case, your goal is to just revive it. Just remove the dead flowers and branches and leave as many leaves as possible to help shade the main branches against sun burn. It would even be a good idea to put some shade cloth over it until the temperatures are consistently below 90 degrees.

However, for the healthy robust roses, start at the top of the plant, always pruning to 1/4 inch above a bud eye (where the leaf meets the stem). Remove stems that are "twiggy", or less than about the thickness of a pencil. Remove dead flowers and branches, and branches that cross over into other branches which could cause damage to each other in a strong wind. Leave as many leaves as possible to avoid sun burn. You may have 2 or 3 bare branches, this is not a problem as long as there are enough leaves left on the plant to protect the plant from sun burn.

There really isn't much to it, yet I know that sometimes articles like this only raise more questions in your mind than they answer. If you would like more information or have questions about techniques or fertilizers, you can come to the Rose Society of Tucson meetings. There is no charge to come and we meet right here at The Tucson Botanical Gardens, at 6:30 pm, the first Tuesday of every month. The meetings will start again in September after their summer hiatus. They always review what we rose growers should be doing for that particular month, so undoubtedly, they will discuss fall trimming, and usually they have a demonstration to boot!

Happy Gardening!

FALL CHORES

by Adam Farrell-Wortman, TBG Horticulture Manager

How do you get a fantastic bloom in the spring? How do you get tons of fresh summer vegetables? You plan and work hard in the fall.

We associate the autumn with the harvest, a time to reap what was sown. But, fall is also the time to work on the bones of your garden; a time to focus on the structural aspects of your landscape. It's the time to plant new trees, dig new beds, shape hardy shrubbery, mulch and encourage root growth.

Trees

- As the days get a little cooler and shorter, we need to finish our summer tree pruning. Taking dead out, lightening the canopy and removing water sprouts and suckers, but our major pruning is done until dormancy has fully settled in. September is the last feeding for the trees, though soil supplements can be added as needed. Now is also a good time to mulch, but then, if there is bare soil, it's always a good time to mulch.
- The main tree job in the fall is planting them. Take the time in early September to plan at least one tree planting (it doesn't have to be on your property). Trees are investments and it is important to plan them well. Think about function as well as aesthetics. Where do you want the shade (at what times of day) and how dense do you want it? You need to make sure the mature size will fit in the space (unless you don't plan on allowing it to reach full size).





Cacti and succulents

• Early fall is the last time to feed and prune the succulents. A good rule of thumb for feeding these stoic plants is to use low nitrogen, all-purpose fertilizer at half the label's strength. This is also a good time to rein in the prickly pear and cholla. Don't be afraid to remove a lot, especially the damaged segments. The more you remove, the more robust next year's growth will be.

Vegetables and Herbs

- The fall vegetable garden in Tucson can be a little chaotic. Some beds were planted with the monsoon and their plants are maturing. There tends to be main summer crop beds filled with scorched plants that the gardener hopes will bounce back for a second round of fruiting. And, hopefully, there is an unplanted bed ready to go. Take that sad summer bed out, the plants might produce a little more, but they most likely will not bounce back. Fix the bed up by tilling in compost. If you want to expand your garden, now is the time to make your new beds
- Once the temperatures are regularly under a hundred degrees, it's time to start planting all those lovely root vegetables and leafy greens. After the monsoon planted harvest comes in, mulch the bed heavily and let it rest until spring planting. It's also time to divide perennial herb plants, prune back the cool season growers, and put in root transplants like asparagus, potatoes and garlic.

Shrubs

- You should be pruning hardy woody shrubs and spring flowering perennials (double check the prune time with plant type). You should also research pruning methods in regards to plant type. Chances are you can cut many of your perennials back a lot harder than you think and they'll repay you with better form and more robust blooming. Finish
- Like trees, this is the best time to plant shrubs and perennials. It's also a good time to dig up and move existing plants. These are your anchor plants and they do take planning. However, they can be moved around for a few years so if you don't get it in the perfect spot this year, you can move it next year.

Butterfly

by Michael Madsen, TBG Butterfly Exhibit Manager

utterfly Magic returns October 1st for its fifteenth consecutive season of bringing tropical butterflies to the heart of Tucson! Whether you're trying to escape the late summer heat or warm up on a chilly winter morning, the Cox Butterfly and Orchid Pavilion is the place to be for tropical relaxation. With exciting new insect and plant displays, there has never been a better time to stop by and experience the magical beauty of our many butterflies and orchids!

As with past years, Butterfly Magic is set to receive almost 9,000 live chrysalises and cocoons from October 2018 through May of 2019. With hundreds of butterflies emerging every week in our Chrysalis Exhibit and thirty to sixty different species flying in our greenhouse at any given time, you're sure to see something new on each and every visit! This year, we will be experimenting with butterfly releases within our exhibit occurring at 9:30 am on certain days of the week. By having regularly scheduled releases, we hope to allow more guests to witness our newly emerged butterflies majestically taking their first flights. Be sure to bring a camera, as these events will provide great opportunities to photograph both the butterflies and the joy on the faces of your friends and family members.

As if the return of our exotic butterflies wasn't exciting enough, our large dart frog enclosure has been transformed into an educational insect display that will also debut with the return of Butterfly Magic. We will initially be displaying several species of praying mantids, some of which mimic

orchid flowers in their native habitats, and may expand to include other large, colorful insects as the season progresses. Certain species of both butterflies and mantids employ mimicry and camouflage, yet these insects serve very different functions in their native environments. We are extremely proud to showcase this incredible diversity by expanding our insect collection for your viewing pleasure.

Last but certainly not least, our hundreds of winter-blooming orchids will begin producing flowers as the months get cooler. Starting in November and continuing on through March, winter is undoubtedly the best time to experience our breathtaking orchid blooms. We will be bringing back our popular hanging orchid chandeliers in November and possibly even a festive succulent display to provide the perfect backdrop for holiday memories. Many of our orchids only bloom once a year, so be sure not to miss out!

You may also notice a huge increase in the total number of orchids we have on display this season. Back in July, the Tucson Botanical Gardens received a generous donation of nearly three hundred additional, unique orchids after the passing of beloved Tucson Orchid Society member, Michael Barretti. Dr. Barretti's many orchids now adorn almost every section of our greenhouse, including a very large selection of slipper orchids (*Paphiopedilum spp.*) that are sure to be a main attraction once blooming. We are so very grateful to Dr. Barretti, his family, and the Tucson Orchid Society for allowing us to display these spectacular orchids, as they will surely bring joy to our guests for many years to come.



Education at the Gardens

Tours

Enhance your visit with docent-led tours which are offered on a rotating schedule and are free for Garden members or included with paid admission. Please see our current tour schedule at www.tucsonbotanical.org/tours/



BACKYARD BIRD TOUR

Second Tuesday, monthly Sept. 11, 8 a.m.; Oct. 9 and Nov. 13, 9 a.m. Included with admission.

This tour, led by a Tucson Audubon Society volunteer, will help you learn introductory birdwatching techniques and get an idea of how and why gardens, including yours at home, attract and support birds.

EDIBLE TREE TOUR

Thursdays, 10 to 11 a.m. Sept. 13, Oct. 11, Nov. 8, Dec. 13 Included with admission.

More than 100 species of trees flourish at the Tucson Botanical Gardens. Learn more about some of our favorite edible trees that grow well in our desert environment during this docent-led tour.

Community Classes & Programs



WELLNESS

MINDFUL YOGA

Tuesdays or Thursdays 8 a.m. to 9 a.m. Monthly rates 4 Classes: \$40, \$32 Members 5 classes: \$50, \$40 Members

Led by certified yoga instructor and massage therapist, Vivianne Uyeda, this series explores moderate hatha yoga, with an emphasis on movement, breath and meditation. All levels welcome. (There will be no yoga on Thanksgiving Day: Thursday, Nov. 22.)

TAI CHI

Fridays 10:30 to 11:30 a.m. Monthly rates:

4 Classes: \$40, \$32 Members 5 classes: \$50, \$40 Members

Discover your chi as you become inspired by better balance, renewed strength, confidence, improved flexibility and reduced stress. Certified instructor, Harold Crim, will lead you through the ancient Chinese traditional movements of Tai Chi, a practice that promotes an overall sense of well-being through breathing and gentle motion. All levels welcome. This class is held outdoors, so please dress appropriately for the weather.

GARDEN MEDITATION

Mondays

Sept.: 8 to 8:45 a.m. Oct. – Nov. 9 a.m. to 9:45 a.m.

Monthly rates:

4 Classes: \$40, \$32 Members 5 classes: \$50, \$40 Members

Reconnect and tap into your source of infinite energy! Learn how to relax and balance mind and body, gaining more energy and vitality for greater health, happiness and spiritual growth! This 4-part series, offered by the Yoga Connection, is open to everyone. No experience necessary, beginners welcome!

ESSENTIAL OILS FOR COLDS & FLU

Saturday, Sept. 22 10 a.m. to noon \$35, \$28 Members

Many essential oils can help with cold and flu symptoms. Learn which essential oils are most effective and make your own natural remedy for when you are feeling under the weather. Presented by Certified Aromatherapist, Kerry Blank.

ESSENTIAL OILS FOR THE FALL SEASON

Saturday, Oct. 20 10 a.m. to noon \$35, \$28 Members

Nature teaches that Fall is a time of transition and letting go of the old to make way for the new. Learn which essential oils offer support and balance during this season with Certified Aromatherapist, Kerry Blank. Make a Fall blend of your own to take home.

CUPPING: TASTE TEAS LIKE A PROFESSIONAL

Saturday, Oct. 27 10:30 a.m. to noon \$55, \$44 Members Taste teas on a whole new level with Tea Specialist, Tamara Read, from Chantilly Tea. Tea cupping is a process of tasting and evaluating the quality, taste, aroma, briskness, body and color of tea; a practice that is both an art and science. Using professional tea tasting sets, you will explore a variety of loose leaf teas and learn the characteristics that make the perfect cup. Participants will take home samples of teas tasted during the class.

ESSENTIAL OILS FOR GREEN CLEANING

Saturday, Nov. 10 10 a.m. to noon \$35, \$28 Members

Learn to make your own natural cleaning products with essential oils with Certified Aromatherapist, Kerry Blank. Find out which oils to use for counter sprays, grout cleaners, cutting board blends and more. Each participant will make their own Clean Countertop Spray or Sparkling Glass Cleaner to take with them.

HARVEST TEA Saturday, Nov. 17 2 to 3:30 p.m. \$65, \$52 Members

Celebrate autumn with adornments of pumpkins and gourds and a menu infused with flavors of the season. Tamara Read, proprietor of Chantilly Tea, will host this 3-course afternoon tea. Enjoy scrumptious delights such as ham, cheddar & apple tea sandwiches, butterscotchvanilla bark, nutmeg-pear tea cake, pumpkin risotto bites and more.

GINGERBREAD HOUSE DECORATING

Saturday, Dec. 15 2 to 3:30 p.m. \$70, \$56 Members per pair

Join Tamara Read from Chantilly Tea for the Garden's first gingerbread decorating class. We'll supply the houses and gobs of candy; you supply the creativity for this whimsical afternoon of hands-on fun. Enjoy cocoa and cookies while decorating. Price is for a child and parent/guardian and includes one gingerbread house to share. To add a third guest, or a third guest and second gingerbread house, please call us at 520-326-9686 ext. *18.

HOLIDAY STORIES WITH MRS. CLAUS

Saturday, Dec. 22 2 to 4 p.m. \$65, \$52 Members per pair \$25, \$20 for third guest

Mrs. Claus is coming from the North Pole to visit the Gardens to read her favorite children's holiday stories! Enjoy cocoa and cookies with Tamara Read, proprietor of Chantilly Tea, who is hosting this magical event. To add a third guest please call us at 520-326-9686 ext. *18.



ART

MOSAIC HUMMINGBIRD GARDEN STAKE Wednesday, Sept. 12 10 a.m. to 4 p.m. \$160, \$128 Members

Our mosaic humming bird will look right at home in your garden or planter, hovering above your favorite perennials on our custom 36" garden stake. Join Mosaic Guys to learn about porcelain mosaics techniques and create your own 12" x 16" hummingbird silhouette. Please research images of humming birds to inspire you. All materials included.

COLOR PENCIL FLOWERS Class TBD 9a.m. to noon or 1 to 4 p.m. \$60, \$48 Members

Learn fundamental techniques from illustrator and artist Devon Meyer that will help you more accurately draw what you see. With colored pencils, we will capture the delicacies and magnificence of flowers. Beginner to intermediate level. All materials provided.

SUCCULENT DISH

Wednesday, Sept. 26 10 a.m. to noon \$75,\$60 Members

Join us for a hands-on class to design and create your own succulent arrangement. Succulents are easy to care for and adapt well to container life for your home or patio. All materials provided.

IKEBANA FOR EVERYONE 4-part series: Oct. 4, Oct. 18, Nov. 1, Nov. 15 9:30 to 11:30 a.m. \$125, \$100 Members

Create beauty and reduce stress through Ikebana, the ancient | apanese art of arranging flowers. Learn from the Ohara School of Ikebana whose instruction is the result of 600 years of evolving artistic development in Japan. Develop your practice incrementally over four sessions. Price includes a container and kenzan to take home and flowers for each session. Please bring a bucket, towel, and shears.

FRIDA KAHLO INSPIRED PORTRAITS

Friday, Oct. 5 9 a.m. to noon or 1 to 4 p.m. \$65, \$52 Members

Using acrylic paint and mixed media, illustrator and artist, Devon Meyer, will help you explore collage in the style of Friday Kahlo's portraits and the symbolism she incorporated in her work. Students will create their own portrait with symbolic meaning. Acrylic, mixed media, beginner to intermediate level. All materials provided.

CACTUS PORTRAITS

Saturday, Oct. 6 9 a.m. to noon \$65, \$52 Members

Prickly pear, barrel cactus, organ pipe, and more! In this class presented by The Drawing Studio. Participants will draw 1 or 2 cactus species from life. After drawing outside in the garden, we'll gather inside to add our own whimsical touches from memory. Graphite, charcoal, or water-soluble ink pen. All materials provided.

GLASS CANDLE HOLDER Tuesday, Oct. 16 10 to 11:30 a.m. \$75, \$60 Members

The light coming from a candle holder you make yourself is always better than one you would buy in a store! Join Sonoran Glass School to create a personalized 6-inch square project that we'll slump (our word for lightly melt until it droops) into the shape of a candle holder. Please wear closed toe shoes.

MOSAIC SUNFLOWER PANEL

Wednesday, Oct. 31 10 a.m. to 4 p.m. \$140, \$112 Members

In this introductory workshop offered by Mosaic Guys, learn how to work with porcelain and glass tiles and their corresponding hand tools. We will create our sunflower from a variety of colorful porcelain tiles and then design a background from glass tiles. All materials included.

SKETCHING SUCCULENTS

Saturday, Nov. 3 9 a.m. to noon \$65, \$52 Members

Succulents are a diverse group of plants with the ability to store water in their leaves! In this class presented by The Drawing Studio, participants will roam the succulent garden with pencil and paper, observing shapes and textures. A series of sketching exercises will inspire us to look closer at the non-cactus succulents. Graphite, charcoal, or water-soluble ink pen. All materials provided.

SUN CATCHER

Tuesday, Nov. 6 10 to 11:30 a.m. \$75, \$60 Members

There is nothing like the magic of glass to capture our beautiful desert sunshine and scatter it inside your home! Create your own 6-inch square glass sun catcher with Sonoran Glass School, Please wear closed toe shoes.

DRAWING AS MEDITATION Saturday, Nov. 10 9 a.m. to noon \$65, \$52 Members

Drawing increases our powers of observation, opening our eyes to the nuances of our visual world. In this class presented by The Drawing Studio, we'll notice lines, shadows, and textures that our eyes might otherwise gloss over. Drawing will become a tool for clearing the mind and bringing our fullest attention to the present moment. Graphite, charcoal, or water-soluble ink pen. All materials included.

MOSAIC PERENNIAL PANEL Wednesday, Nov. 14 10 a.m. to 4 p.m. \$140, \$112 Members

Combining materials has never been more fun! Create a colorful bouquet of fanciful flowers using porcelain and glass tiles. Join Mosaic Guys to learn shaping and fitting to create graphic images and learn how to echo with glass tiles to create layers and depth to your mosaic panel. This completed 12" x 16" panel will be a wonderful addition to your patio or garden. All materials included.

MOSAIC ORNAMENTS

Wednesday, Dec. 12 10 a.m. to 4 p.m. \$90, \$72 Members

Create a set of three colorful glass mosaic holiday ornaments to complement your holiday decorating or as hostess gifts. Join Mosaic Guys to craft a chili pepper, cowboy boot and cactus. Learn how to make a copper armature for your mosaic ornaments and explore

nipping and fitting techniques related to glass mosaics. All materials included.



GARDENING

RAISED BED GARDENING Monday, Sept. 17 10 a.m. to noon \$15, \$12 Members

Get a jump on the fall planting season by learning the ins and outs of vegetable gardening in raised beds. Michael Ismail, owner of Thrive and Grow Gardens, will share tips and tricks for making your raised garden bed project a success. You will learn about designing a raised bed, which materials to use, construction tips, plant protection methods, soil building, and more!

TIPS & TOOLS FOR SEASONAL TREE PRUNING

Wednesdays: Sept. 19, Oct. 10 and Nov. 7 10 a.m. to noon \$15, \$12 Members

Tailored to the season and interests of attendees, Certified Arborist Jason Isenberg will begin this program with a crash course on pruning dos and don'ts to extend the health and longevity of your trees. Jason will then take you outside to observe and discuss the individualized needs of specific species.

PREPARING YOUR ROSES FOR THE FALL BLOOM

Thursday, Sept. 20 10 to 11 a.m. \$15, \$12 Members

Join Terry Swartz, President of

the Rose Society of Tucson and Consulting Rosarian, to learn how to prepare you roses to bloom this November. This hands-on demonstration will illustrate how to prune, feed, and keep pests at bay.

TREE CARE PARTS 1 AND 2 Saturdays, Sept. 29 and Oct. 6 1to3p.m. \$30, \$24 Members

Join Tom Ellis, Executive Director of Tucson Clean & Beautiful dig deep into tree care best practices. These classes will guide you through species and site selection, site preparation, watering, and ongoing care and maintenance for optimal plant health and longevity.

DIY DESERT DESIGN Fridays, 9 a.m. to noon Oct. 5, Oct. 12, Oct. 19, Oct. 26, Nov. 2, Nov. 9 \$125, \$100 Members

Taught by the Garden's knowledgeable Docents, this 6-class series will provide you with the information and inspiration you need to plan a personal, beautiful and successful garden in our unique desert environment. The program will lead you step-bystep through each design consideration including the unique growing conditions of the Sonoran Desert, water conservation and selecting successful plants.

BONSAI BASICS

Saturdays, Oct. 13, Nov. 17 and Jan. 19 9 a.m. to noon \$120, \$96 Members

Learn the art and science of bonsai with the Tucson Bonsai Society during this three-part workshop designed for beginners. You will learn the techniques for long-term cultivation and shaping of plants in containers adapted to the horticulture of our Sonoran

Desert. Students will select and purchase their own nursery plant and work on it with assistance of Tucson Bonsai Society teachers.

BUILDING HEALTHY SOIL Monday, Oct. 15 10 a.m. to noon \$15, \$12 Members

Understanding what goes into building healthy soil gives you control of your gardening outcomes and creates conditions that help your plants withstand drought, heat, pests, and disease. Michael Ismail, owner of Thrive and Grow Gardens, will explain the soil food web and how to feed it, building new soil for raised beds and basins. improving existing soil, proper fertilizing techniques and much more.

GROWING YOUR OWN FOOD IN SMALL SPACES Wednesday, Oct. 24

10 a.m. to noon \$15, \$12 Members

Growing food in containers and raised beds is a great option if you've downsized and have limited space or if you're dealing with knee or back pain or other mobility issues. This class will show you how to get the most of a limited space and enjoy fresh seasonal produce year-round.

HOW TO BE AN ALL STAR DESERT GARDENER Monday, Nov. 5

10 a.m. to noon \$15, \$12 Members

Do you dream of having a beautiful lush vegetable garden in your backyard, but have felt discouraged by previous attempts with lackluster results or you don't just know how to get started? Michael Ismail, owner of Thrive and Grow Gardens, is on a mission to demystify vegetable gardening for as many people

as possible and share best practices for anticipating and dealing with challenges of gardening in the desert.



NATURE & ECOLOGY

WOODPECKERS, **ROADRUNNERS, AND QUAIL**

Friday, Sept. 21 10 a.m. to noon \$20, \$16 Members

Ever wondered why woodpeckers don't get headaches, or which species of dove is crucial to healthy saguaro populations? Focusing on roadrunners, quail, doves and woodpeckers, Jeff Babson, of Sky Island Tours, will answer these questions and more.

ALL ABOUT BATS Friday, Oct. 19 10 a.m. to noon \$20, \$16 Members

Bats are much maligned, misunderstood creatures, but in actuality they're fascinating and beneficial animals to our ecosystem. Led by Jeff Babson, of Sky Island Tours, this class will explore the diversity and ecology of bats and dispelling any misconceptions associated them.

PIONEERS OF AMERICAN BOTANY

Friday, Nov. 9 10 a.m. to noon \$20, \$16 Members

Douglas-fir. Torrey Pine. Parry Agave. Did you ever wonder who these people were? Why did they have plants named after them? Jeff Babson, of Sky Island Tours, will look

at the botanists who are remembered in the names of American plants. Take a look back into an exciting time of discovery in American botany and the adventures of these intrepid explorers.



YOUTH ACTIVITIES

FAMILY FUN DAY

Monday, Nov. 12 9 a.m to noon Included with Admission

Join us for a morning of nature-themed games, crafts, and learning presented by our dedicated team of docents and volunteers. This event. designed especially for families, will help you dig deeper and look closer at some of the amazing ecological, ethnobotanical, cultural, and artistic features of our garden.



SCIENCE CAFÉ @ **THE GARDEN**

First Thursday of the Month, 6 to 7 p.m.

Free

THE RISE OF BIODIVERSITY: **PERILS AND PROTECTION**

Have you ever marveled at the beauty and bizarreness of life on Earth and pondered how it all came to be? What is an ecosystem and why is biodiversity important? How do we respond to ever-increasing threats to the diversity of life? Join experts from the University of Arizona

Department of Ecology and Evolutionary Biology in a series of talks that explore the origin of life, biodiversity health, impacts of invasive species and dramatic efforts to restore some of the most endangered plants on the planet.

Sept. 6: Rob Robichaux, **University Distinguished** Professor of Ecology and **Evolutionary Biology**

Oct. 4: Mike Barker, University Distinguished Professor of **Ecology and Evolutionary Biology**

Nov. 1: Katrina Dlugosch, Associate Professor of Ecology and Evolutionary Biology

Dec. 6: Brian Enquist, Professor of Ecology and Evolutionary **Biology**

Sponsored by the College of Science, this series of public talks, given by University of Arizona professors and graduate students bring the community together in a casual setting to learn about the latest research being conducted. Come join the conversation!

DOCENT TRAINING

Fridays, 9 a.m. to 3 p.m. Jan. 4, Jan. 11, Jan. 18, Feb. 1, Feb. 8, Feb. 15, Feb. 22, Mar. 1 \$70 (must be a garden member)

Join our team of interpreters serving the Tucson community and visitors from all over the world! Tucson Botanical Gardens Docents are a committed, vibrant group of interpreters that support guest learning and exploration at the Gardens. After completing an in-depth training, Docents lead tours, interpret our plant collections and exhibits, and help visitors make lasting memories at the Gardens. Interested in learning more? Contact Ashley Pedersen at education1@ tucsonbotanical.org.

REGISTRATION AND CANCELLATION

Member Discounts

Tucson Botanical Gardens members receive a 20% discount on most education programs (some restrictions may apply).

Preregistration

Preregistration is required for all classes unless otherwise noted. Registration is available online at www.tucsonbotanical. org or by phone (520) 326-9686, ext. *18.

Class Cancellations

Tucson Botanical Gardens reserves the right to cancel classes due to insufficient registration, Garden closure, or inclement weather. Participants will be notified by email or phone and receive a full refund.

Refunds

No refunds will be issued for missed classes or cancellations less than seven business days before the date of the class.

Special needs

People with disabilities should request accommodations as early as possible to allow time to make appropriate arrangements.

Questions?

For additional questions about classes and programs, please email education1@tucsonbotanical.org or call (520) 326-9686, ext. *39.

Mank Jour Land Donors and Supporters

The Board and Staff are very grateful for the support of the following Annual Fund donors, whose gifts have enabled the Gardens to flourish. It is our privilege to recognize these families, individuals, organizations and businesses for the contributions that were received between April 1 and June 30, 2018.

\$1000 AND ABOVE

Shelly Abbott
Paul & Alice Baker
Diane Curtis
JoAnn L. Grant
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