

Mountain Lines

Summer 2015



Enjoy a Summer Desert Hike

Four important tips

Spectacular Sonoran Summer Storms

Nourishing and renewing our desert life

A Song for Every Season

Listen to the songs of our Preserve birds



McDowell Sonoran
CONSERVANCY.



Mike Nolan, Executive Director

Many of us are enjoying summer in Scottsdale, while some reading this have already decamped to more northerly latitudes where the weather (read temperature) is at least somewhat more moderate. Those staying learn to rise early and enjoy the Preserve before the heat of day is upon us.

Some scientists consider the Sonoran desert to have five seasons, splitting the traditional summer season into two: fore-summer in May and June, with high temperatures, low humidity, and no rain most years; and the monsoon season from early-July to mid-September, when the humidity rises and thunderstorms can occur.

Either way, one season or two, summer in the desert is long, more than a third of the year. We use words like harsh, brutal, and scorching to describe our summer weather, but native plants and animals have adapted to summer conditions to survive and often thrive.

In many ways the desert comes alive in the summer, but much of it at night, when the air and ground turns cooler. As a result we don't see and appreciate all that's happening. Tools such as automated wildlife cameras, and researchers permitted to work at night, are adding to our understanding of the Preserve in summer.

This issue is about thriving and surviving in the Sonoran desert summer. Summer helps define the Sonoran desert. Because of its heat and because of the potential of monsoon rains, a critical second rainy season in some years is essential to the long-term success of some plants.

You'll read about safety, a critical consideration for anyone going outside in this season. You'll also learn more about the summer weather, and how plants and animals have adapted to it, and in many instances learned to thrive in it.

Celebrate summer in the desert! 🦋

About Us

The McDowell Sonoran Conservancy champions the sustainability of the McDowell Sonoran Preserve for the benefit of this and future generations. As stewards, we connect the community to the Preserve through education, research, advocacy, partnerships and safe, respectful access.

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SNOOZE joins Conservancy Community Partners

Founded by brothers Jon and Adam Schlegel, Snooze was born on April 2, 2006 in Denver, Colorado. It seeks to evolve the A.M. dining experience through culinary innovation, an eclectic and energetic atmosphere and comfortable and friendly service.

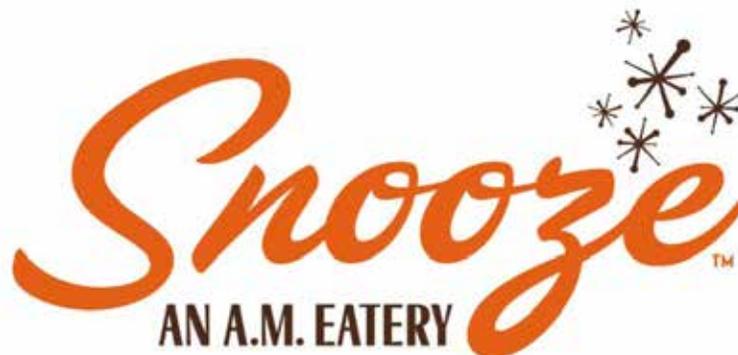
“At Snooze, we’re connected by a common desire to be part of something bigger than ourselves. We believe we’re all one, big family – Snoozers, partners, guests, neighbors, planet – and we strive to be a part of the communities where we live,” say the brothers.

But more than just an A.M. dining experience, Snooze donates one percent of its sales from each Snooze location back into the local community. The latest Snooze location is scheduled to open in August at the Kierland Commons in Scottsdale and has selected the McDowell Sonoran Conservancy as their local community partner.

Snooze is focused on supporting local causes, like the Conservancy, and issues related to the neighborhoods where they locate with organizations focused on education and sustainability. Snooze believes that it only takes a moment to make a difference.

One of those moments will come for the Conservancy when Snooze will host a complimentary breakfast, at a date to be determined, for a Conservancy guest. Donations will be accepted at the breakfast to support the work of the Conservancy to protect and preserve the largest urban city preserve in the nation, Scottsdale’s McDowell Sonoran Preserve.

Snooze believes in doing the responsible thing for people and the planet. From composting and recycling about 90% of their waste to focusing on resource conservation and using responsible materials, Snooze works in concert with the Conservancy to help create a better world for future generations. 





A nocturnal thunderstorm strikes north Phoenix. (Pinnacle Peak is on the left hand side). Photo by: Earl Fosdick

Sonoran Storms

By Earl Fosdick
Consulting Meteorologist

Monsoon season in Phoenix brings us spectacular storms with dust haboobs rolling across the Valley followed by dark brooding clouds harboring lightning strikes that make the heart pound. Welcome rain to quench the dry Sonoran Desert follows the lightning aerial display, nourishing our desert fauna and bringing rebirth to long dormant plants. This cyclical Monsoon pattern could be called the circle of life for arid desert dwellers.

On many hot and humid monsoon days, thunderstorms are first spotted to the north along the southern edge of the Colorado Plateau, particularly along the Mogollon Rim north of Payson. Around noon, the frigid tops of isolated thunderstorms may come into view, some as far as 120 miles away. Later, thunderstorms may begin

moving southward or eastward across the Central Highlands, looming larger as they creep closer to the Valley. As evening approaches, majestic storms may tower above the desert along the foothills north and east of Phoenix. As they move onto the desert floor, many vanish, exhaling one final gust of wind. But on a few summer nights each year they move over the Valley, providing Phoenixians a respite from the harsh realities of desert life.

Most of the thunderstorms in the Valley strike at night, usually between 8 and 10 PM, producing spectacular displays of nocturnal lightning, including spider lightning which seems to crawl along the base of thunderstorms. Large storm systems, such as squall lines, can produce cloud-to-ground lightning at a rate of almost one per second, posing a significant hazard to life and property.

Typically, thunderstorms begin in the morning over the solar-heated slopes of the highest mountains along the southern margin of the Colorado Plateau in Arizona. After these storms decay in the late morning, thunderstorms often grow over the surrounding foothills in the afternoon. Later, thunderstorm and lightning activity may advance onto the desert lowlands and plains around dusk. As they begin moving into the desert basins along the northern and eastern limits of the Phoenix Metropolitan Area, many of the storms collapse, propelling dust storms, or haboobs, across the Valley floor, particularly at the beginning of the monsoon season when the soil is barren after months of little or no rainfall. On some evenings, however, the mountain storms remain intact

after reaching the desert and move across the metro area producing prodigious amounts of rainfall, urban flooding, and frequent cloud-to-ground lightning over large parts of the Valley.

The thunderstorms that move into the desert basins in the evening or early nighttime enter a hostile environment, since both solar radiation and topographic relief, so essential in the early development of thunderstorms in the mountains, are either low or non-existent. Indeed, isolated thunderstorms are sometimes seen to die almost immediately after moving off the mountain foothills and onto the desert floor in far northeastern Phoenix. On the other hand, storm complexes composed of several individual thunderstorms are more resilient and propagate more readily across the harsh desert environment.

One type of storm complex that can survive for hours over the Sonoran desert is a squall line, which is a storm system composed of several interacting thunderstorms arranged in a line. Squall lines typically strike along the foothills at the outskirts of Phoenix around dusk. As the leading edge of a squall moves past, there is a brief downpour, a sharp drop in temperature, and wind gusts sometimes in excess of 60 miles an hour. This is also the time when tornadoes may develop. Following the passage of the leading edge of a squall, light rain may linger for four to six hours, often supplying the majority of the rainfall of the storm.

At their peak, squall lines can cover more than 10,000 square miles

and produce over 1000 cloud-to-ground lightning flashes each hour for several hours, with up to 40 ground strikes per minute, almost one ground flash every second. In Arizona they are relatively uncommon - only about two to three strike each summer over the Sonoran desert.

In Arizona, the death rate by lightning is less than one in a million per year. However, lightning injures far more than it kills. It is estimated that only one in ten lightning victims are killed. The rest experience injuries ranging from mild to severe depending on the intensity and pathway of the lightning current through the body. In mild cases, the victim is stunned and often suffers memory loss and muscle pain. Severe cases include cardiac and respiratory arrest that can lead to death or brain damage if sustained for too long.

If you are outdoors during a thunderstorm, get inside a substantial building immediately. If one is not available, get inside a hard-top metal vehicle. Avoid open areas and stay away from isolated tall objects, such as trees and saguaros.

The summer thunderstorm season in Arizona is a manifestation of the Mexican Monsoon. It typically begins in June, peaks in July, and ends in September. As with all monsoon climates, the rainy season is preceded by a long dry period, which typically lasts from November through most of June.

The word "monsoon" has been used by forecasters and the media to describe the summer rainy season in Arizona since at least the 1950s. Nevertheless, its use (or misuse) continues to stir debate among meteorologists. This is because the climate of Arizona is not, strictly speaking, monsoonal. There are a number of reasons for this. First, there



The rain veils Tom's Thumb during a storm over Gateway. Photo by: Marianne S. Jensen

are two wet seasons in Arizona: a summer rainy season and a winter wet season. Pure monsoon climates have only one rainy season during the year in the summer. Second, monsoons are tropical phenomena found between latitudes 30 degrees north and south. Arizona lies north of the 30th parallel and comes under the influence of mid-latitude (centered on 45 degrees latitude) weather systems - mainly the Pacific storm track in the winter. Accordingly, the climate of Arizona is best described as a hybrid climate shaped by a tropical monsoon cen-

tered in northwestern Mexico in the summer and mid-latitude storms riding the polar jet stream in the winter.

During the peak of the monsoon in July and August, there is an average of 15 "thunderstorm days" in Phoenix, or about one "thunderstorm day" every four days. (A "thunderstorm day" is a day when thunder is heard by a weather observer.) Of course, thunderstorms are not evenly distributed throughout the summer, but are sporadic, with active thunderstorm periods

lasting several days to a week followed by inactive periods with no thunderstorms. Active periods are referred to as "monsoon bursts" and inactive periods as "monsoon breaks." Predicting the "bursts" and "breaks" of the monsoon is one of the challenges facing forecasters in the Arizona.

The monsoon typically ends in Arizona in September as the Pacific storm track begins pushing southward. Soon after that, the Mexican Monsoon dissipates and a long dry spell commences that lasts until the winter rainy season arrives. 🐦

A storm cluster strikes at sunset near Apache Junction. Photo by: Earl Fosdick



Four Components of a Successful Desert Hike

By Barb Pringle

McDowell Sonoran Conservancy master steward

McDowell Sonoran Conservancy Field Institute citizen scientist



Conservancy stewards carry water and wear hats while they enjoy a safe desert hike. Photo by: Lynne Russell

Preserve visitors often overestimate their ability to safely hike in the Sonoran desert. This is especially true in the summer, when daytime temperatures can reach 115°F or higher at trail surfaces. MSC stewards play an important role in educating and role-modeling proper hiking methods to Preserve users.

Let's examine the four main factors of a successful hike: you, your food and water, your equipment, and your technique.

You

You can acclimatize yourself in preparation for a desert hike by going out in hot weather for five consecutive days and doing activities that make you perspire. But if this doesn't seem like a viable option, then take some easy hikes, and gradually extend them as you adjust to the heat. While running/walking inside on a treadmill is a good aerobic workout, it's not a substitute for walking on a rocky trail in the heat.

Your food and water

Your performance, and even safety, depends on adequate food and water. On

the trail, never base your food and water consumption on when you feel hungry or thirsty, as this is an inaccurate indicator. Instead, consume 100 to 200 calories of food/hour and one-half to one-liter of water/hour. In hot summer weather, drink one liter/hour.

Before you leave on a morning hike, hydrate with at least one liter of water, and eat a few hundred calories.

On the trail, eat a little and drink a lot every 30 minutes. Trail food such as energy bars or trail mixes provide not only fuel, but also critical electrolytes such as sodium and potassium that are lost as we perspire. Loss of these electrolytes is a common reason for many hiking health emergencies.

Your equipment

The single most important item in preparing for a hike is to let someone know where you're going and when you're planning to return. In addition to the [10 standard hiking](#)

[essentials](#), include these items:

- fully-charged cell phone
- extra food and water
- comb and small tweezers
- duct tape
- hiking poles
- backpack with built-in hydration bladder and drinking tube.

Your technique

Good hiking technique requires finding your comfortable hike speed. Speed is your pace (steps/minute) multiplied by your stride (length of each step). A successful hike is one in which you can maintain a reasonably steady pace while adjusting your stride length to fit trail conditions. In level or downhill terrain, lengthen your stride while maintaining a steady pace; for uphill terrain, shorten your stride, again keeping pace steady.

Don't set an unsustainable speed. A clue that this is happening is stopping often to catch your breath. In this case, adjust your pace or stride length. 🐦

Wear hiking boots or sturdy shoes and keep covered to fight dehydration. Photo by: Lynne Russell







A Song for Every Season

By Peggy McNamara
McDowell Sonoran Conservancy steward
and McDowell Sonoran Field Institute Citizen Scientist

Many wonderful songbirds live in the McDowell Sonoran Preserve. Follow this link to listen to one that sings a very compelling song. But remember to come back here. I'm going to tell you about other beautiful singers too. http://www.allaboutbirds.org/guide/hermit_thrush/sounds

That piccolo-like song belongs to the hermit thrush, a small bird with a magical song that lives in the forests and woodlands of the far north. Luckily, it occasionally winters in our Preserve.

While all birds have calls for alarms, interacting, or begging, only songbirds have vocal organs that enable them to make complex vocalizations known as songs. Some of them can even learn to mimic the songs of other birds. Listen to the Northern mockingbird, so-called for its ability to learn and sing the songs of other birds. It has a large repertoire of songs and lives in the Preserve year-round. http://www.allaboutbirds.org/guide/Northern_Mockingbird/sounds

Another bird found in the Preserve and one that also mobs our birdfeeders is the house finch. It's a year-round resident and is so ubiquitous that we may dismiss its presence. But it's a songbird with a lovely song. http://www.allaboutbirds.org/guide/house_finch/sounds

The curve-billed thrasher stays in the Sonoran Desert all year. It pokes and forages for insects in plant litter on the ground. Its song is very musical and it doesn't often repeat itself. http://www.allaboutbirds.org/guide/curve-billed_thrasher/sounds

Most of us think of sparrows as backyard birds and hardly give them a second glance - or listen. But





A male Northern Cardinal. Photo by: Marianne S. Jensen



A Black-crowned Sparrow. Photo by: Marianne S. Jensen

Abert's towhee, although it doesn't look much like a sparrow, is a member of the sparrow family. It lives only in the Sonoran Desert. It's another insect hunting, ground scratching bird that has a complex song. http://www.allaboutbirds.org/guide/aberts_towhee/sounds

Looking just like we expect a sparrow to look, the black-throated sparrow lives in our desert and serenades us year-round with its melodic song. http://www.allaboutbirds.org/guide/black-throated_sparrow/sounds

The white-crowned sparrow brings its song along when it visits us each winter. It also is a ground forager. When it sings, it whistles then buzzes. http://www.allaboutbirds.org/guide/white-crowned_sparrow/sounds

The black-headed grosbeak is a spring and fall migrant to the Preserve. It forages along thickets by desert streams. The varied notes in its song go well with the varied colors in its black, orange and white plumage. http://www.allaboutbirds.org/guide/Black-headed_Grosbeak/sounds

A group of birds that you would expect to be songbirds are the warblers. We have several that travel here. One, Lucy's warbler, is with us from March through September and loves to congregate in our mesquite and riparian habitats. So you may hear quite a few at any one time. http://www.allaboutbirds.org/guide/lucys_warbler/sounds

Another family of singers is the flycatcher family. A flycatcher likes to fly off a perch to catch an insect in midair, or pluck up insects by hovering over the leaves of a tree. It

arrives here in late spring and spends the summer in our desert. http://www.allaboutbirds.org/guide/Ash-throated_Flycatcher/sounds

Only a few species of songbirds have females that sing and the Northern cardinal is one. It is a permanent resident wherever it lives and luckily for us, some of these bright red birds like to live in our desert. http://www.allaboutbirds.org/guide/northern_cardinal/sounds

The rock wren inhabits arid and rocky locations. It is similar in appearance to the ubiquitous cactus wren, but unlike the cactus wren, it has a trilling song. http://www.allaboutbirds.org/guide/rock_wren/sounds

While we have many wonderful songbirds, we also have an iconic bird associated with the desert. That's the roadrunner, but it's certainly NOT a songbird. It actually sounds more like an owl or a coyote. Nevertheless, it's the one bird that everyone wants to see - and hear. http://www.allaboutbirds.org/guide/Greater_Roadrunner/sounds

So, the next time you go to the Preserve, go early in the morning and leave your earbuds at home. Sit and listen to our songbirds - the concert is free!

References:

The Cornell Lab of Ornithology All About Birds, <http://www.allaboutbirds.org/guide/search.aspx>, accessed February 10, 2015.

National Audubon Society, <http://www.audubon.org/field-guide>, accessed Feb. 10, 2015.



Jane Rau stops for a moment at the bridge on the Jane Rau Trail. Photo by: Scott Hamilton, City of Scottsdale

Building a Bridge to Beauty

By Peggy McNamara
McDowell Sonoran Conservancy steward
and McDowell Sonoran Field Institute Citizen Scientist

Building a bridge is complicated work. It requires funding, and bids, and planning, and studies, and trail route investigations, and water flow calculations, and more planning, and construction, and trucking, and assembly, and inspections, and a bit of inspiration too.

The Process

When the time came to choose the route for the Jane Rau Trail, Scott Hamilton, Senior Planner for the City of Scottsdale, and his team began investigating the area near the Brown's Ranch Trailhead. The route needed to be scenic, enjoyable, feasible for building, and have grades suitable for a stabilized, accessible trail. "We identified an area east of the trailhead as a fabulous scenic opportunity for the route," notes Hamilton. "The area is bisected by a wash that enhanced the scene, but the wash created an obstacle we needed to bridge, so we began looking at its banks. We identified the location for the bridge based on the narrowness of a spot at the top of the trail, and the ability to place bridge supports on both sides of the wash while minimizing the impact on the wash habitat."

After that, Hamilton directed drainage engineers to conduct storm water flow calculations at the watershed upstream from the bridge to determine how much water would pass under the bridge during

multiple storm conditions. Then, using the water flow studies, structural and civil engineers got involved with the planning and engineering of the bridge. The bridge fabricator and the City's trail contractor, Okanogan Trail Construction (OTC), prepared the initial plans that were reviewed by City engineers.

The Implementation

OTC, a professional trail construction company that also specializes in bridge construction, built the trail bridge. First, they installed steel enforced concrete abutments on both sides of the wash. Meanwhile, the bridge fabricator built the trusses and the bridge deck in Salt Lake City. Trucks brought the steel bridge parts to the trailhead. Those pieces were carried by hand up the rough graded trail onto the site and then assembled.

The City's construction inspections staff, that have expertise in all relevant fields of structural engineering, welding, concrete and earthwork, performed the final inspection. After a structural analysis and the inspection by the City's engineers, the City declared the bridge

ready for public use and the opening day ceremony.

Maintenance

The bridge has no painted surfaces and no moving parts, so it is virtually maintenance free. Due to our dry climate, the steel in the bridge has a very long lifespan estimated at 50 to 100 years. But periodic inspections will be conducted per engineering standards.

General

The bridge project involved many people from the City, including staff from the Capital Projects Management Division, Preserve staff, Storm Water Management, and Construction Inspections. It involved outside engineers, a truss and bridge deck manufacturer, and construction contractors. The various stages of the design and construction involved as many as 15 to 20 people.

Since the bridge was completed, several significant storms have occurred which the bridge weathered unfazed. This is due to the geology and topography at its location - it is high enough above the wash below, and the watershed upstream

is limited in size collecting only a small amount of water. However, the bridge span length and its height across the wash require structural support from trusses below its deck. Additionally, the bridge requires railings due to its height above the wash.

The entire project took approximately one year from the planning stage to the grand opening of the Jane Rau Trail. The funding for the design and construction of the bridge (and the trail, the benches, and the interpretive signs along the trail) came from the City's Preserve Sales Tax.

The dedication of the Jane Rau Trail took place on October 19, 2013. After the crowd left that day, Hamilton walked up the trail to the bridge with Jane Rau. He noticed the exuberance of a few stragglers still walking the trail and he remembers thinking this. "It struck me at that moment, in that place, we had all come together with our familiarity of the world, and at the same time a sense of newness and adventure, triggered by and focused around the trail and the bridge."

For more pictures of the bridge construction, view this video: https://www.youtube.com/watch?feature=player_detailpage&v=ohjqojJplGO. 

A photograph documents the progress of the bridge construction at the Jane Rau Trail. Photo by: Scott Hamilton, City of Scottsdale





Couch's spadefoot (*Scaphiopus couchi*). Photo by: Juan Loza, Center for Native and Urban Wildlife, Scottsdale Community College

Watchable Wildlife: Toadally Awesome!

By Sue Handke
McDowell Sonoran Conservancy master steward
McDowell Sonoran Conservancy Field Institute
citizen scientist

It's summertime in the Sonoran Desert. The scorching sun disappears into the western horizon and darkness settles on the desert. As the air gently cools, various animals peek from their burrows and begin their nighttime activities. Then...right from the darkness and the peaceful quiet comes the rising sounds of high-pitched musical trills, ferryboat whistles, and bleating sheep. Can you guess what these three distinctive, but odd, sounds have in common? That would be the croaky calls of three species of desert toads found in the McDowell Sonoran Preserve!

All around our Preserve, mostly along long dried up washes, there are little burrows or holes that other animals have dug. Toads make these little burrows their homes, where they hibernate, for the fall through spring months. Summer comes, and along with the summer comes the monsoon rains. The rumbling vibration of thunder along with the rain is a wake-up call for our toads to emerge and seek out a mate. Throughout our Preserve, the rain causes puddles and wets long dried-up washes, and this is when the mating frenzy and the cacophony of bleating sheep, ferryboat whistles, and musical trills commence. Eggs are laid in the water and the quick pace of

the metamorphosis ensures that when the puddles and washes dry up, there will be a new generation of toads. However, generally only five percent actually make it through this process.

The lovely high-pitched musical trill comes out of a tiny three-inch toad called the Red-spotted toad. This common, cute little toad is gray to brownish color dappled with red spots along its sides. It is extremely agile and can climb and walk, instead of the doing the "toad hop." The Red-spotted toad can be found near running water sources, like streams and creeks, where during breeding season it can lay as many as 3,000 eggs. These eggs are laid singly, instead of in long strings like the other toads. The eggs hatch in about three days and the tadpoles transform into toads in four to eight weeks. Listen to the Red-spotted toad. <http://www.reptilesfaz.org/Audio/BUFPUN.mp3>

The sounds of what is described as an old ferryboat whistle bellows from one of the largest toads in North America, the 7-inch Sonoran desert toad. This massive olive-colored toad has cream-colored underparts. It has large white warts around the corners of its mouth and golden eyes. Its paratoid glands, which are situated behind its eyes and on its hind legs, secretes a potent toxin. The unfortunate coyote, raccoon, or even your pet dog, that comes in contact with this toad will experience seizures, go into shock, or even die without rapid treatment. In the water, its eggs are laid in strings of up to 8,000 eggs. The complete metamorphosis from tadpole to toad takes about a month. Hear the sound of the Sonoran desert toad. <http://www.reptilesfaz.org/Audio/BUFALV.mp3>

The soft sounds of bleating sheep doesn't come from a fuzzy mammal, but



Sonoran desert toad (*Bufo alvarius*). Photo by Dave Weber, MSFI Herpetology principal investigator

from an adorable 3.5-inch toad called the Couch's spadefoot. The spadefoot is in a different family of toads in that they do not secrete a toxin and they have vertical pupils. They also have a tiny dark, spade shaped spur on their hind foot to help them dig in sandy soil. These little fellas are in a big hurry to complete their metamorphosis. At the first sign of rain, and the vibrating rumble of thunder,

they emerge from the ground, mate, and lay their eggs in strings of 3,000. The eggs hatch in only 15 hours and the complete metamorphosis from tadpole to toad takes place in nine days to two weeks! This toad really does sound like a bleating sheep. <http://www.reptilesfaz.org/Audio/SCACOU.mp3>

I think you'll agree with me these croaky creatures are "Toadally Awesome"!! 🐸

Red-spotted toad (*Bufo punctatus*). Photo by Dave Weber, MSFI Herpetology principal investigator





Christine Kovach and Scottsdale Mayor Jim Lane cut the ribbon at the opening of the Kovach Family Nature Trail. Photo by: Michael Brace

Kovach Family Nature Trail Grand Opening a Great Success!

The McDowell Sonoran Conservancy (MSC) in partnership with Scottsdale Leadership hosted the grand opening of the Kovach Family nature Trail on March 28th at the Lost Dog Wash Trailhead, 12601 N. 124th Street (124th Street north of Via Linda).

The event was historic, fun-filled and educational for all ages attending! The day kicked off with a presentation by Mike Nolan, McDowell Sonoran Conservancy Executive Director and Scottsdale Mayor, W.J. "Jim" Lane thanking Christine Kovach and her family for their generous donation making it possible for the City of Scottsdale to construct the Kovach Family Nature Trail.

Following the ceremony, the celebration continued with free activities for all ages and abilities including demonstrations by Liberty Wildlife, self-guided tours of the new trail, a scavenger hunt for children, an appearance by the "Singing Cowboy," a raffle, free snow cones, food and other activities.

It was an unprecedented attendance unlike any other trail opening at the McDowell Sonoran Preserve with over 700 people attending the event. Many folks signed up to become volunteer stewards for the MSC, and many others donated to support the work of the Conservancy.

The Kovach Family Nature Trail provides a unique educational experience with emphasis on family and family relationships in nature. Along with presenting information on the natural history of the Lost Dog Wash, the nature trail's signage features special tips on how to promote health in ways that are modeled on the behaviors of the natural phenomena you will see along the trail. 🦅



Visitors take the self-guided tour on the newly opened trail. Photo by: Michael Brace



A volunteer from Liberty Wildlife shows a Harris hawk. Photo by: Michael Brace

Preservation Partner Arizona Public Service



Thanks to APS recent Preservation Partner gift of \$27,500 cash and in-kind support, \$15,000 was designated to work with the City of Scottsdale to begin implementing the results of the Ecological Resource Plan (ERP). The focus of the plan is new studies that provide information critical to sustain and protect Scottsdale's McDowell Sonoran Preserve for generations to come.

Thanks to Arizona Public Service (APS) funding last year the McDowell Sonoran Field Institute moved forward to complete the ERP which combines previous baseline data collected in the

Preserve to guide research and decision making about the Preserve's natural resources. The plan, based on quantitative data and best practices, helps guide decisions responding to ecological challenges and maintain a sustainable Preserve.

Arizona Public Service (APS) has long been a Preservation Partner of the McDowell Sonoran Conservancy (MSC). APS power lines run along eight miles of the northernmost section of the McDowell Sonoran Preserve and MSC has worked with APS to appropriately manage the desert vegetation along the power-line corridor. A true preservation partner, thank you APS. 🐦

Join Our Circle of Friends

Through your support as a member of our Circle of Friends, the McDowell Sonoran Conservancy can continue to protect and preserve everything you enjoy about Scottsdale's McDowell Sonoran Preserve. Your contribution is vital to keeping the Preserve beautiful and a place to be enjoyed by this and future generations. This shared appreciation of our Sonoran desert is why we invite you to become a Friend of the Preserve by returning the membership form below. You may also make your gift online at www.mcdowellsonoran.org just click Support.

- | | |
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TOUR DE SCOTTSDALE

SUNDAY
OCT. 11, 2015

REGISTER NOW!
TOURdeSCOTTSDALE.net

It's Time to Ride for Conservation!

The 12th Annual Tour de Scottsdale will be held on Sunday, October 11, 2015 benefiting the McDowell Sonoran Conservancy, a Scottsdale non-profit conservation organization that protects and promotes the McDowell Sonoran Preserve.

Last year participants got to experience an amazing ride and along with sponsors, raised more than \$37,000 for the Conservancy. This year the event kicks off at Market Street in DC Ranch and features a 70-mile and 30-mile citizen's ride.

The Tour de Scottsdale is produced and hosted by the DC Ranch Community Council. DC Ranch is proud to partner with the McDowell Sonoran Conservancy in providing a charity athletic event that circumnavigates the beautiful Preserve. Those interested in sponsoring this year's event can contact Edward Phillips at 480.998.7971 ext. 101, or ed@mcdowellsonoran.org. The 2015 event is capped at 2,000 cyclists, so register now! 🐦