



Desert Museum

Discovery

 Summer
2022

Pop the champagne! It's time for RAIN!

By Courtney Christie, Reptile Keeper II

An Arizona summer is dry. It's hot. There's not a drop of moisture in the air. Life is seemingly absent at first glance as humans are indoors while the wildlife is underground or minimally active in cool shady hideouts. The desert is one of the harshest climates to live in, yet even in the driest of years there is ample life in the desert.

However, with the arrival of monsoon, everything comes out to play! When it finally rains people celebrate, plants become green and lush, and wildlife comes out to quench their thirst.

The herpetofauna (reptiles and amphibians) of the Sonoran Desert are masters of this climate and have adapted to a life without the luxury of readily available water. Snakes, lizards, and amphibians have impressive adaptations that allow them to survive, and the resources that come with the monsoon season allow them to truly thrive.

Reptiles can go weeks and sometimes months without water, getting by with just the natural moisture from the food they eat. For example, snakes often eat just a couple times a month so the moisture they consume is pretty low. When the first rain of the season comes through, rattlesnakes will come out of hiding and coil up into a nice tight cinnamon bun, then carefully drink water droplets off their own skin. The arrival of

monsoon season also prompts snakes, and many other desert animals, to find mates and reproduce. A rainy year means more plants and seeds, invertebrates, and mammals, which are overlapping resources for one another and food sources for snakes. A robust monsoon season usually translates to higher reproduction rates for reptiles, either that same season or the following year.

Gila monsters, an icon of the southwest, are found in abundance in the desert as they too enjoy the welcomed monsoon moisture. Gila monsters spend up to 90% of their entire lives underground because they have very porous skin. If they are in the heat too long, any natural moisture can evaporate through those pores making them susceptible to dehydration and desiccation. On the flip side, an advantage of this porous skin is that it's easy to absorb moisture when it's available. In fact, water droplets can sink directly into Gila monster skin!

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Toads and frogs also thrive in the desert, despite dry conditions. They do this by spending much of their lives burrowed underground to prevent desiccation. Some species, like the Sonoran Desert toad spend as many as 11 months or more below the surface. During a robust rainy season, amphibians come to the surface and saturate hiking trails and rural roads to take advantage of the buffet of insects that arrives with the rains. Several different species of toad can be found sharing the same trail!

The Monsoons not only brings the desert to life with vibrant plants and beautiful wildflowers everywhere, but they awaken wildlife by providing relief from the oppressive heat of summer.

To see some of this wonderful wildlife, find a hiking trail (less foot traffic usually yields better results) and plan around the temperature. During the summer rainy season dawn and dusk are great times to spot reptiles, as they tend to avoid the hottest parts of the day.

Remember to keep an eye out as most reptiles use their camouflage to avoid detection. Amphibians also enjoy the evenings but can be seen in cool areas throughout the day if you have a keen eye. Despite the impressive adaptations to survive in harsh desert conditions, the herpetofauna of the Sonoran Desert truly awakens, and thrives with the arrival of monsoon season. ☁️



MONSOON IMAGIC

With the desert buzzing with activity and dripping with rainwater, monsoon season is one of the best times to get outside and go exploring. Take the time to look at the plants, recognize them in their supple forms, and relish the joy of seeing life thrive in a time where all its needs are met.

By Grace Stoner, Horticulturist



When it rains, it floras!

Take a class! Take a trip!

Adult Classes & Trips with the Desert Museum!

For more details and to register for classes and trips: 520-883-3025 or desertmuseum.org/adultclasses.



PRICKLY PEAR HARVEST AUGUST 14 OR 20

August is the season that the beautiful red fruit of the prickly pear cactus ripens. This edible plant is ubiquitous in the Sonoran Desert! Learn how to collect and process the fruit, how to use it in different dishes, and learn to prepare the tender green pads for nopalitos. You'll also learn the significance of prickly pear for people and animals. Includes lunch. \$60

NATURAL HISTORY OF THE SONORAN DESERT OCTOBER 29 & 30

Dive into the desert! This two-day experience covers desert ecology, climate, mammals, birds, reptiles, botany, and geology. We will take a plant hike, go behind-the-scenes at the Museum, and have the opportunity to meet live animals! \$150



MESA VERDE & CHACO CANYON OCTOBER 9 - 14

Explore some of the most impressive archeology in the United States. Tour highlights include time at the seldom visited sites of Hovenweep and Lowry House ruins, a full day exploring Mesa Verde, the largest archaeological preserve in the U.S., and full day exploring Chaco Canyon, the center of Ancestral Puebloan culture and UNESCO World Heritage site. \$2675



THANKSGIVING IN SANTA FE NOVEMBER 22 - 28

Santa Fe embodies history and ancient traditions melding Hispanic, Anglo, and Native American cultures whose influences are apparent in the architecture, museums, and cuisine. The tour includes a Native American cooking class, a chef-hosted culinary tour of the city's best restaurants, a day trip to Taos and Chimayo, visits to art galleries and museums, and five nights at La Fonda on the Plaza. We'll enjoy behind-the-scenes experiences around every corner. \$3500

Of the four North American deserts, the Sonoran has the greatest diversity of life forms due specifically to its biannual rainfall. The Mojave receives primarily winter rainfall, the Chihuahuan summer, and the Great Basin precipitation primarily as snow, whereas the Sonoran receives two rainy seasons. This results in Sonoran Desert plants enduring shorter periods of drought, relatively shorter periods of freezing temperatures in the winter, and hosting many subtropical species.

With the onset of the summer rains, many plants that lay dormant for most of the year finally get their party clothes out, so to speak. Individual plants will look unfamiliar, having tripled their leaf size, looking plump and happy. Plants will be bursting in bright green foliage, soaking up sunlight and using that energy to put out new growth. Saguaro cacti will swell and grow taller with the rains. Vines will crawl through, up and over the surrounding plants, reaching for sunlight from under the new, dense canopy.

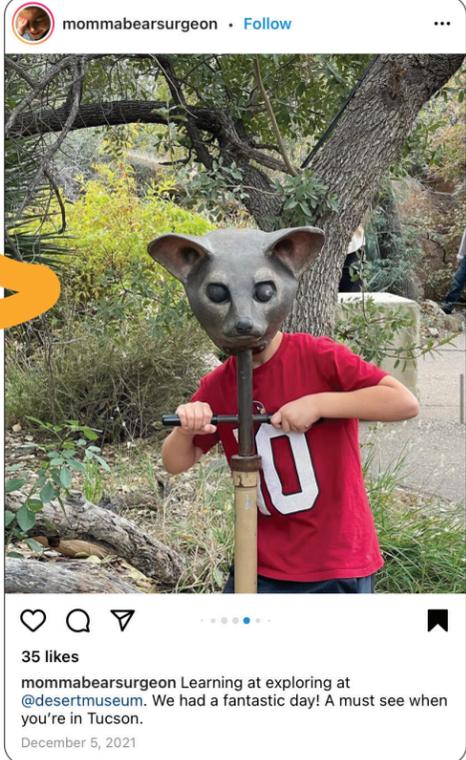
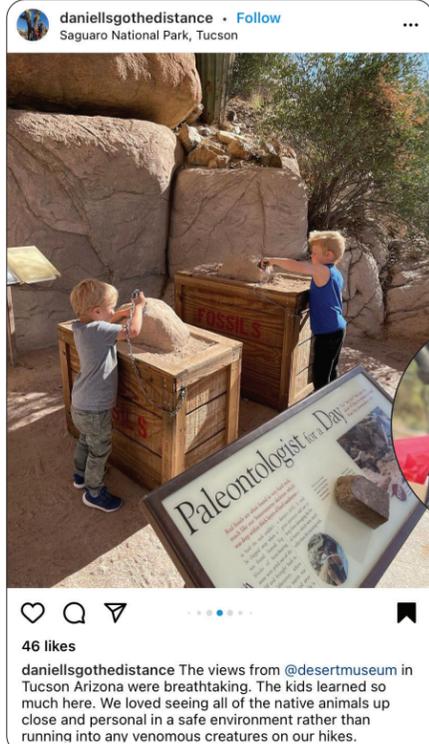
Many Sonoran Desert plants flower in the dry, early summer months in order to have viable seed ready to germinate during the July and August monsoon rainfall. A series of rainy days is critical to the establishment of seedlings and their ability to put on enough growth to survive the drought periods of the coming fall and next early summer. Some

plants that rely on this are saguaros, creosote bush, and other long-lived species that can survive even if successful recruitment only happens once a century or so. Perennial shrubs can be both opportunistic and conservative. Desert globe mallow will use the rain to put out growth and flower at the end of the monsoon season, whereas shrubs like brittlebush will go into flower anytime they have ample water, even though their usual flowering time is late winter. Annual plants rely on a slightly different approach. The seeds of summer annuals, such as summer caltrop, will often feature a thick seed coat that prevents germination until enough rain events have saturated the soil. These plants must complete their entire life cycle in one season, so they focus not only on growth but also on flowering and setting seed. ☁️



“With the onset of the summer rains, many plants that lay dormant for most of the year finally get their party clothes out, so to speak.”

SOCIAL MEDIA SPOTLIGHT



WE LOVE SEEING THE MUSEUM THROUGH YOUR EYES!
Tag @desertmuseum and use #desertmuseum for a chance to be featured!

Monsoon Season Song

By Michelle Miner



Monsoon rains make us sing and shout!
Grab your favorite instrument or sing along to celebrate life in the desert.

Listen to the "Monsoon Season Song" and sing along with Michelle!

www.desertmuseum.org/kids/music/



VERSE 1

A
Winter seems so far away
E
Been so long since it has rained
A
So hot and dry I just want to cry
E A
Hooray! Look, there's some water

CHORUS

A
'Cause it's monsoon season in the desert
D
It's monsoon season in the desert
A
Feels like it hasn't rained in forever
E A
But now it's monsoon season in the desert

VERSE 2

A
Animals hiding underground
E
Come to the surface to look around
A
It finally rained, time to celebrate
E A
The desert comes to life again!

CHORUS

VERSE 3

A
Toads and frogs dig out of the ground
E
To lay some eggs and find some food
A
Centipedes, millipedes, & beetles, too
E A
All come up - it's a critter zoo!

CHORUS

VERSE 4

A
Thirsty cactus is in luck
E
When there's water to drink up
A
To save for later when they need it most
E
So the sun doesn't burn them - like
A
saguaro toast!

CHORUS

BRIDGE

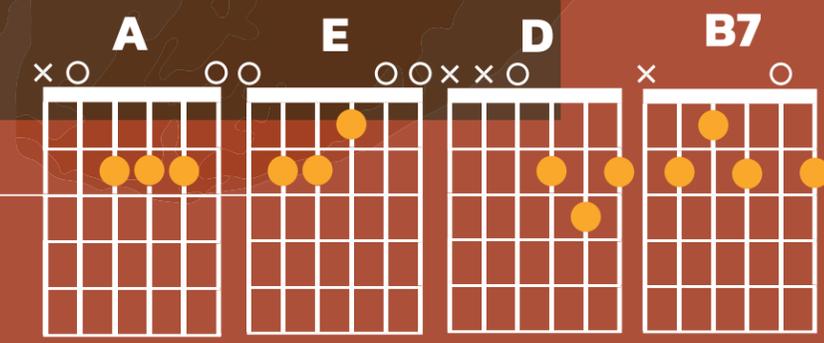
D
Termites and ants come out for
A
mating flights - oh, yeah!
E
Hoping they don't get eaten by velvet
A
mites - yum, yum!
D
Gila monsters emerge, what a special
A
sight - wow!
B7
Vinegaroons love a good shower too
E
These storms are a delight! Oh...

CHORUS

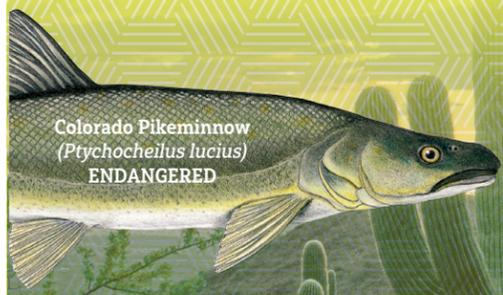
OUTRO repeat 2x:

E A
Monsoon season in the desert

CHORDS IN SONG: A, E, D, & B7. GUITAR:



HAVE YOU HEARD? Science and conservation is the word!



Colorado Pikeminnow
(*Ptychocheilus lucius*)
ENDANGERED



Desert Pupfish
(*Cyprinodon macularis*)
ENDANGERED

It is with extreme pleasure that we announce an anonymous foundation dedicated to the advancement of science gifted a \$1.6 million grant to the Arizona-Sonora Desert Museum this spring, to support our work in Conservation Education and Science of the Sonoran Desert region!

HERE IS WHERE YOU CAN HELP:



This fund will allow the Museum to expand research, collaboration, and community engagement in our region. It will support: the Museum's work to mitigate the spread of invasive species (like buffelgrass!), save threatened and endangered aquatic species (like the Sonoyta mud turtle!), understand and conserve native pollinators, and expand work to develop resilient food systems in the face of climate change. Learn all about the Desert Museum's work on our website, found under "conserve" and in the recent blog post under "learn"!

The same foundation has also presented the Museum with a \$1 million challenge, in which they have pledged to match all gifts in support of Conservation Education and Science from other donors like YOU, up to the total amount of \$1 million! Imagine what this kind of commitment will do to advance the research and education initiatives of this institution!

We hope you join in supporting this cause, and thank you for rising to the occasion to help us to meet this \$1m challenge. We appreciate your support so very much. Donate online today at desertmuseum.org/match or send your gift with a note "for \$1m match"!



MUSEUM EVENTS & UPDATES



COOL SUMMER NIGHTS ARE BACK!
Experience the desert at night with themed events *every Saturday through August 27*.
Open until 9:00 p.m.

The Desert Museum is lovely during the day, but it's even cooler after dark. This is a fun way to beat the Tucson summer heat, while also learning something neat! *Upcoming themes include Mad About Monsoons (7/16), Insect Insanity (7/23) and Plant Party (7/30).*

Check out the full schedule at www.desertmuseum.org/csn.



Reminder!

NEW SUMMER HOURS:
JUNE 1ST - SEPT. 30TH:
7:30 A.M. - 2:00 P.M.

DESERT MUSEUM SET TO CELEBRATE 70 YEARS!

Mark your calendars for Labor Day Weekend (September 3 & 4) as we kick off a year-long celebration of 7 decades of serving the Sonoran Desert. We'd love to hear your special stories! *If you're interested in sharing, please contact education@desertmuseum.org.*



DONOR RECOGNITION

1/31/2021-4/30/2021

MAJOR DONORS +\$10,000

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IN HONOR OF

In honor of Joy Biedermann
Penny and Joe Cramer

In honor of Mom's 90th Birthday
Kathleen A. Tolzman

In honor of Jessica Borton
Margaret Reinbolt

In honor of Jeanne Broome
Kim Gregory
Gayle and Bill Hartmann

In honor of Reynaldo Carranza
Cara Wescott

In honor of Layla Castillo
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In honor of Arizona Gives Day
Susanna and Robert S. Henry

In honor of Larry Effken
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In honor of Friday Docents
Laura Dore

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In honor of Debbi Hrometz
Ms. Viki Hrometz-Tappan and
Mr. Fred Tappan

In honor of Debby & Allan Kover
Steven J. Kover

In honor of Doris Manning
Mr. and Ms. Michael Rosen
Peggy Wild

**In honor of Ms. Laura Barry
and Ms. Amy Barry**
Monday Docents

In honor of Gregory McArthur
Krystyn Mast

In honor of Sheila Polk
Penny and Joe Cramer

In honor of Lisa Roberts
Rich Hamerla

In honor of Strawberry the Bear
Marleigh Fletcher

In honor of Swede Warneke
Michael Dohm

In honor of Anne Warner
Clary Family Charitable Fund I

IN MEMORY OF
In memory of Connie Anzalone
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Barbara Bickel
Geraldine Urbanski

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In memory of Michael Nelson
Rebecca Nelson

In memory of Deborah Anne Nigh
Mr. Robert Nigh

In memory of Earl Pishioneri
Sylvia Pishioneri

In memory of Elizabeth Potter
Ralph Potter

**In memory of Inge Karla
Pudell-Spatscheck**
Oliver Spatscheck and family

In memory of Janet Reue
Glenn C. Hummel
Barbara Bickel
Cynthia Wicker
Anna M. Domitrovic
Lorel Picciurro

In memory of Judy Lee Shore Cope
Gayle Prillaman

In memory of Valerie Jean Smart
Heather Flores

In memory of Lucas Smith
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In memory of Marilyn Stuart
Donna B. Kopec

In memory of Mitch Treese
Esther M. DelRosso
Fiona and Edgar Yacob

In memory of Swede Warneke
Carolyn C. May
Mr. Paul Dumke & Mr. Jim Pearson
Christine G. Van Dyke

In memory of Bill and Beth Woodin
Ann and Hugh Woodin

ARIZONA-SONORA
**DESERT
MUSEUM**

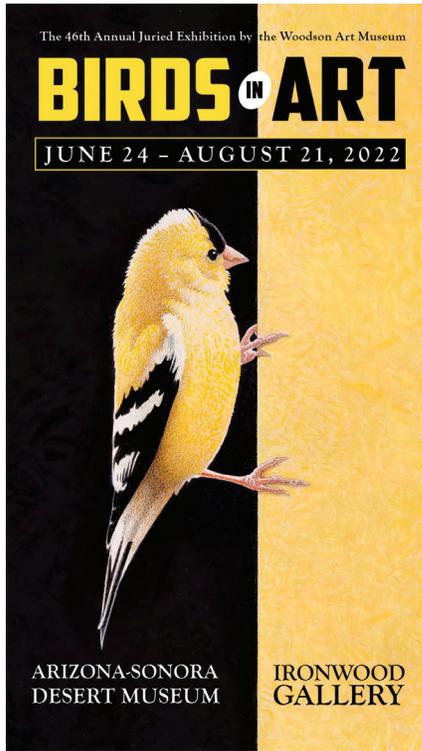
DESERT MUSEUM ARTS UPDATE

www.desertmuseumarts.com

ARIZONA-SONORA
DESERT MUSEUM

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ARIZONA-SONORA DESERT MUSEUM

The mission of the Arizona-Sonora Desert Museum is to inspire people to live in harmony with the natural world by fostering love, appreciation, and understanding of the Sonoran Desert.



BIRDS IN ART

June 24, 2022 - August 21, 2022.

From their lyrical birdsong to their migratory patterns, birds connect us to the rhythms of life. Since 1976, the Leigh Yawkey Woodson Art Museum has organized the Birds in Art exhibition annually, seeking to present the best contemporary artistic interpretations of avian themes.

IRONWOOD GALLERY HOURS

Sunday - Friday: 9:00 a.m. - 2:00 p.m.

Saturday: 10:00 a.m. - 4:00 p.m. & 5:00 p.m. - 9:00 p.m.



Arizona-Sonora Desert Museum

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www.desertmuseum.org

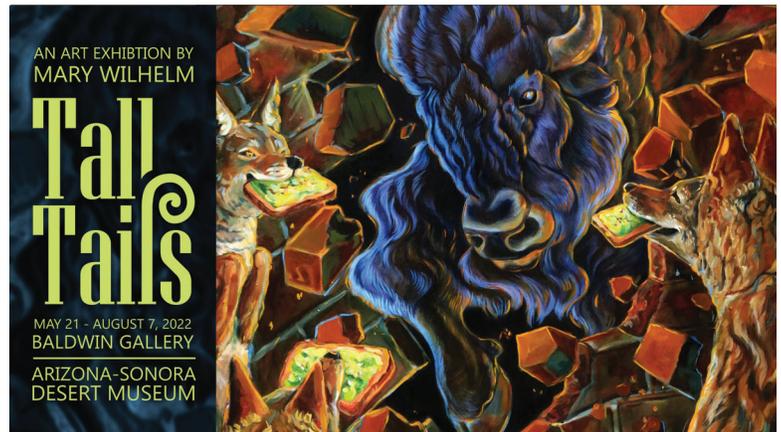
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The Arizona-Sonora Desert Museum is located on the ancestral lands of the Tohono O'odham (Desert People).



SUMMER ART CLASSES

Discover your talent...

Join us this summer for an art class! While the Museum will again have shortened summer hours into September, our class schedule will remain the same. Look for more morning classes offering plenty of chances to beat the heat.

TALL TAILS

May 21- August 7, 2022

Tall Tails, by Mary Wilhelm

This exhibit features selections from the Fable Series, along with newer works of allegorical drawings and paintings based on the relationship between the Artist and the Animals. Throughout the work, there are subtle details and non-linear chronologies that take place in worlds resembling our own but in exaggerated ways.

BALDWIN GALLERY HOURS

Sunday - Friday: 9:00 a.m. - 2:00 p.m.

Saturday: 9:00 a.m. - 9:00 p.m.

