

# desert museum Discovery

**Why should we care about native bees?** The honey bee has dominated the pollinator spotlight for a long time, but now native bees are getting their fair share of the buzz.

## What's the Buzz at the Desert Museum?

by Cheryl Blake PhD., Bee Team Volunteer

**...Here's why** - they are often better pollinators than honey bees, they pollinate a much larger percentage of our food crops than we previously thought, and they work for free! And the Tucson area has one of the most diverse populations of native bees in the world, with more than 700 species!

The Arizona-Sonora Desert Museum's Conservation Science Manager, Dr. Kim Franklin, and a team of dedicated volunteers have been studying native bees for several years. We hope to better understand the abundance, diversity, and seasonal activity of bees in addition to helping our community appreciate the remarkable biodiversity of the Sonoran Desert. To further this work, we have partnered with Dr. Wendy Moore, Associate Professor, Department of Entomology, University of Arizona and Jennifer Katcher, Biology Instructor, Pima Community College to create the **Tucson Bee Collaborative** ([tucsonbeecollaborative.org](http://tucsonbeecollaborative.org)).

Through this Collaborative we are documenting the exceptional bee diversity of the Sonoran Desert. We want to understand who these bees are and how best to conserve them. The Museum has a group of expert volunteers who collect and curate the bees. We collect bees from several locations around Tucson, including the Museum itself. Other sites include Las Milpitas de Cottonwood Community Farm

(Community Food Bank of Southern Arizona), a location near Agua Caliente Park, and a location near Saguaro National Park West.

To promote wonder and appreciation of the natural world, the Tucson Bee Collaborative is involving high school, college, and university students in this research. All bees are identified to genus by Museum volunteers, and many are further identified to species by DNA barcoding. Students from the University of Arizona and Pima Community College are extracting DNA from bees and comparing the DNA sequences of a specific gene in the bees to a world-wide database of that gene to determine their identity. With support from the Agnese Nelms Haury Program in Environment and Social Justice, soon students from Sunnyside and Flowing Wells High Schools will also be barcoding bees! These students are involved in authentic and important research and are learning to use the tools of molecular biology that can advance their education and careers.

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**How can you help our native bees?** You can help native bees by planting native plants or by providing habitat. Many bees nest underground, so provide them with an area free of gravel so they can access the soil. Build or buy a bee home — there are many places to purchase a bee hotel and free plans for building your own on the internet. Avoid using pesticides that can harm bees. Start a community bee-friendly garden in your local park or school. *The bees will love you for it!*



ARIZONA-SONORA  
**DESERT MUSEUM**



# Change is constant...

*...how our education department quickly adapted!*

by Michelle Constanza Miner, M.S., Education Specialist

## METAMORPHOSIS

For decades the Museum has been delivering expert in-person programming to thousands of youth and adults annually. However, the rapid escalation of world events gave the Museum a new challenge that so many can relate to: virtual teaching!

In March, staff quickly morphed their living spaces from work-free sanctuary to office and production studio. With critical support from departments such as marketing, graphics, and IT, our team of teachers (myself included) was able to transfer programming to a virtual platform in just two action-packed weeks!

## LIKE A PADDLING DUCK

Our education team is like a duck paddling vigorously below water to appear as though it is easily floating atop. Tireless work off-camera resulted in a stream of seemingly effortless programs. Paddling through March, April, and May, we developed and delivered more than 50 free online programs, reaching thousands of households around the world through Zoom and thousands more through Facebook Live. With themes like Backyard Biodiversity and Dibujando la Vida del Desierto, we served schoolkids, families, and adults. Zookeepers and guest educators were featured not only from the Desert Museum, but also our local Reid Park Zoo and Akron Zoo in Ohio. We then launched paid youth programs, and even held adult programs and workshops such as Cholla Bud Harvesting, How to Cook Nopalitos, and Sips with Scientists.

## CHANGE IS CONSTANT AND SO IS TEAMWORK!

By mid May, our education team grew accustomed to that #workfromhome life. So, naturally, cue more change! In anticipation of our first ever virtual summer camp, Backyard Explorer's, we gradually, and safely, resumed working on

grounds with our beloved animal ambassadors and introduced them to our 2020-style of teaching. With live animals like skunks and owls back in the mix, all future e-programs are sure to be a hoot!



Our Museum education family, like families everywhere, faced abrupt unexpected challenges and had to work together to meet them. Having a team so dedicated to conveying the Museum's mission of harmony and love — no matter the circumstance — is a testament to the inspiration we draw from the extraordinary Sonoran Desert community to which we belong.

**SIGN UP FOR FREE VIRTUAL PROGRAMS, BOOK EXCLUSIVE PROGRAMS FOR YOUR GROUP, OR EVEN INVITE AN ANIMAL TO YOUR NEXT ZOOM!**  
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