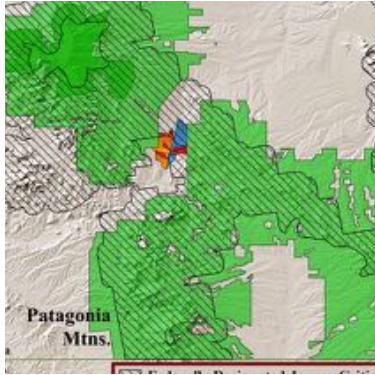


## PROTECTING WILDLIFE CORRIDORS MOVES TO THE NEXT LEVEL

By Kurt Vaughn, BRN Executive Director



In 2006 the Arizona Game and Fish Department identified an important corridor for jaguar, mountain lions, black bear and other wildlife moving between northern Mexico and among the Arizona Sky Islands. This critical linkage spans across a two-mile by two-mile area of private land located between protected wilderness areas in the Santa Ritas and Huachuca mountains. Unfortunately at the time, half of this critical area was platted for the construction of hundreds of new houses. While the development boasted some open space, it provided no corridor for animal movement through the landscape, and would essentially shut down this single remaining wildlife corridor connecting these Sky Island mountain ranges.



Thanks to the vision and determination of Dr. Ron Pulliam, Wildlife Corridors LLC, Borderlands Restoration Network, and generous supporters have been working together to permanently protect this vital corridor that includes nearly pristine grassland, oak juniper woodland, remnant cienega, and riparian systems that are home to thousands of plants and animals.



To date at the Borderlands Wildlife Preserve, hiking trails have been constructed, drip stations installed, as well as a system of wildlife cameras to monitor and track animal activity. BRN has also begun conducting bi-weekly bird surveys to better understand the local and migratory bird communities, and has installed nest boxes for Lucy's Warblers. Thanks to a generous donation, soon new trail signage including interpretive information will also be installed, as well as new trail linkage to connect to the Arizona Trail system.

Borderlands Restoration Network's Watershed Restoration Program and Borderlands Earth Care Youth (BECY) has constructed over 500 erosion control structures throughout the corridor, completed comprehensive Montezuma Quail habitat restoration, and rehabilitated Dragonfly Pond attracting and supporting a host of animal and plant life.



This year, BRN is honored to receive over \$600,000 in funding from the United States Forest Service's Forest Legacy Program in support of this ongoing effort to protect this critical wildlife corridor. These funds will help pay down the remaining debt from the original land purchase, and will open up the possibility of protecting more land within this corridor allowing us to take this effort to the next level.

We invite you to quietly hike the trails at the Borderlands Wildlife Preserve, and enjoy this vital and important corridor that will now remain protected.



# Wild NEIGHBORS

## Monitoring Wildlife in Wild Times

By: Cholla Nicholl, BRN Wildlife Intern

It seems that the only thing on everyone's mind these days is a pesky little virus. Current events are not just overwhelming they are humbling in a tragic manner. With humility comes wisdom. Wisdom tells us to slow down, stop moving and remember what's most important. It's important to recognize we are a part of the animal community. Our shared biology means we are subject to the same struggles they face. In these times of climate change and disease the facade that humans are more powerful, or somehow separate from nature is rapidly dissipating.

The use of wildlife trail cameras allows us to glimpse into a world that few of us modern humans ever see. Our perception of who and what lives on a landscape can be dramatically off base as wildlife has adapted to avoid our presence. The Borderlands Wildlife Preserve provides a wonderful opportunity to view wildlife in a non-invasive manner using trail cameras. Trail cameras have been placed throughout the preserve and are now being used to collect data on what species frequent the area. In the near future many of these images will be utilized to educate the public on the importance of our animal neighbors.



In this time of social distancing it is more apparent than ever that we need to have meaningful relationships with the natural world, which we are very much a part of. For many of us a walk in nature or the companionship of a pet is what has gotten us through a very trying time. For me checking the wildlife cameras has been a much needed break from the onslaught of painful news and isolation.

Since school is out, on one of these such days I allowed my 9 year-old daughter to join me. We climbed trees and talked to flowers and learned that sometimes the best days are not the days we see something extraordinary, but the days we have time to just be free. This freedom is the gift we give to our wildlife community each time we employ technologies enabling our choice to be unseen.

Visit our blog for more insights and blogs like this one! [www.borderlandsrestoration.org/blog](http://www.borderlandsrestoration.org/blog)

# RESTORING + MONITORING AGAVES FOR BATS

By: Francesca Claverie, BRN Native Plant Program Manager

There are so many types of bats in the world that it's overwhelming. In fact, out of the entire diversity of mammals on the planet a quarter of them are bat species. There are almost 30 species of bats in Arizona and all of them eat insects except for two nectar feeders, *Choeronycteris mexicana* (Mexican long-tongued bat) and *Leptonycteris yerbabuenae*, (lesser longnosed bat). This means nectar feeding bats are little nighttime plant pollinators that follow the blooming cycles of mostly succulent blooms like agave and cacti from Mexico in the winter, to the very southern tips of the U.S. in the summer.



The Madrean Sky Islands, here in southern Arizona, are considered important areas in need of conservation to support pollinator populations, specifically the lesser long nosed bat. This bat was recently taken off the Endangered Species list even though its nectar source is stressed. Agave is an important bat food source in this grassland region that faces continued threats such as climate change, land development, and wild harvest of agaves for bacanora production (the regional mescal produced from agaves in Sonora).



Borderlands Restoration Network (BRN) is working on many aspects of the agave threats through partnerships with multiple organizations and volunteers. BRN's first endeavor is with the National Phenology Network and their "Flowers for Bats" campaign. This campaign tackles the climate change stressor to agaves by recruiting volunteers to track the flowering cycle of the native agaves in our region. Here in SE Arizona the important agave species for bat nectar are *Agave parryi* and *Agave palmeri*. You can help this initiative by joining the monitoring effort as a volunteer throughout the summer tracking agave flowering times, and by keeping your hummingbird feeders out at night to feed the bats as well as the birds.



BRN's biggest agave collaboration is with Bat Conservation International (BCI) and the #agavesforbats campaign which is supporting on the ground restoration of regionally sourced agaves from seeds and pups in northern Mexico. These restoration efforts are meant to balance out the destruction of agaves for industrial and residential land use in the U.S. and the wild harvest of agaves for mezcal and other agave products.



The BRN Native Plant Materials Program (NPM) has educational programs partnering with universities and distributors in Arizona, researchers in Nuevo Leon and other parts of northeastern Mexico, Sonora, and Oaxaca. One of the NPM's most important programs in Mexico is working with Colectivo Sonora Silvestre, a group of biologists and graduates from the University of Sonora in Hermosillo who organize workshops and growout agave seedlings for restoration. The CSS is also working with bacanora producers and agave growers in Sonora to promote agave and bat conservation and develop a sustainability certification for a bat friendly bacanora.



Through Borderlands Restoration Network's partnerships we are making a difference in the long-term availability of agaves on the landscape to support bats as well as all agave's other important ecological functions. There are currently thousands of agave seedlings in the native plant nursery that will be planted in the next year and a half, and millions of *Agave palmeri* seed at the seed lab to be used for restoration.

Read more about our bats and agave work on our website! Visit [www.borderlandsrestoration.org/bats--agave.html](http://www.borderlandsrestoration.org/bats--agave.html)

# QUAIL, FOREVER!

By: Audrey Rader, Restoration Program Manager



It's easy to love Montezuma quail (*Cyrtonyx montezumae*). Their round bodies, large eyes, striking plumage, and slicked-back crests make them one of the more charming birds of the Madrean Sky Islands. Some know them as the “harlequin quail” for the male’s bold, swirling facial patterns and others as the “fool quail” for their occasionally perplexing behavior. They are secretive birds, often difficult to spot as they sit motionless until almost trodden upon then bursting forth from their grassy, woodland hiding spots in a flurry of energy. Their call, wavering and nearly metallic to the ear, is one of the more well-known calls for hunters and bird enthusiasts, alike. As I mentioned, these birds are easy to love, many do, which makes work restoring their habitat thoroughly collaborative and enjoyable.

Because of their abundance in one of the few remaining locations in the U.S., many flock to southeastern Arizona annually to enjoy Montezuma quail. Although, in our neck of the Madrean Oak-Woodlands, quail habitat has been degraded by historic over-grazing, and at our Coronado National Forest restoration site, wildfire ravaged the land nine years ago. Without key interventions, quail may no longer be abundant here. Not only are these birds projected to be highly susceptible to climate change, they also face dwindling population numbers due to threats in the form of habitat and forage loss. In 2020, Borderlands Restoration Network teamed up with Sonoran Joint Ventures (U.S. Fish and Wildlife Service) and Quail Forever in an effort to address this issue with the goal to return these landscapes to a trajectory of recovery.

Earlier this year, Quail Forever volunteers, project partners, local Patagonians, and Borderlands Restoration Network staff began restoration activities in two locations identified as degraded quail habitat: Coronado National Forest and the Borderlands Wildlife Preserve. Our restoration activities included installing upwards of 400 erosion control structures and seeding with native forbs at the Borderlands Wildlife Preserve.

Erosion control structures constructed from rock and native dead-and-down woody material improve water infiltration, retain organic-rich sediment upstream, and decrease the erosive force of rain events to temporarily detain water for wildlife utilization. Seeding with native species aids the erosion control structures in stabilizing the soil and increasing soil organic matter while also providing eventual forage for the quail. Combined, these restoration activities will slow the erosion of quail habitat, and encourage revegetation of quail forage. These habitat restoration activities will also enhance habitat of many other winged and non-winged wildlife across this important region of the US.



The Montezuma quail has stolen the hearts of conservationists, birders, and hunters in southeastern Arizona. The first few months of 2020 found all of us working together for the sake of restoring their habitat. In the end, over 100 acres of habitat were restored through erosion control and seeding efforts. In combination with some good rains, we hope this means sharing this landscape for many years to come with the Montezuma quail, a bird deserving of every ounce of love it receives.

Interested in learning more about this program? Visit [www.borderlandsrestoration.org/quail](http://www.borderlandsrestoration.org/quail)

# Su:dagī o wud doakag

## WATER IS LIFE

By: Caleb Weaver, Youth Education Program Manager

The Indigenous Tohono O’odham (TO), or desert people, tended the Sonoran Desert for millennia before the first European settlers reached the continent. Since the arrival of Spanish missionaries, the TO have witnessed unfathomable changes to their ancestral homelands.

Around 96% of the surface water – the historic creeks, rivers, and streams – have disappeared outright. Nations drew political lines between ancient villages and saguaro cacti, dividing families initially through language and later with walls. Arizona’s two largest cities – Phoenix and Tucson – were built on O’odham homelands. Despite these challenges, the O’odham are still here.



In 2017, high school youth from the Tohono O’odham Nation - equal in land area to the state of Connecticut and receiving less than 10” of rain per year - gathered for the first-ever TO Nation Youth Climate Change Forum. Students voiced a desire to focus on resource conservation and environmental protections, notably rainwater harvesting and ecosystem restoration. As a result, staff from Baboquivari High School (BHS) asked BRN to develop meaningful programming to preserve rainwater and groundwater.



The resulting pilot program, a collaboration between BHS, BRN, Tohono O’odham Community College and Flowers & Bullets was born. this pilot program was called Su:dagī o wud doakag, or *water is life* in the O’odham language. This weekly afterschool program was designed for TO youth to earn valuable skills, training, income, work experience, and connect more deeply with their himdag or *way of life*. BHS students connected with restoration and conservation professionals to redesign their schoolyard, harvest thousands of gallons of rainwater in the ground and in cisterns (perhaps the first cisterns on the TO Nation), plant heritage fruit trees and native pollinator-attracting plants, design an informational sign, and sow seeds of hope for future generations. Building upon the work of previous youth, this on-campus site – named Ju:ki Oidag, or Rain Garden, has become a laboratory for inspiration and a source of nourishment for the students and staff.



Su:dagī o wud doakag participants were presented the Stewardship Award at the 2019 TO Earth Day Festival hosted by the TO Environmental Protection Office. This program is supported through generous grant funding and private donations. BRN is working to expand upon this successful pilot program to further empower O’odham water protectors while creating further ecologically and culturally appropriate demonstration sites on the BHS campus.

Interested in supporting this program? Visit [www.borderlandsrestoration.org/waterislife](http://www.borderlandsrestoration.org/waterislife)



# Lynn Davison

*BRN Board Chair & Donor*

When people ask me why I am so invested in our work at Borderlands Restoration Network, the answers come easily. It all starts with the land, the Madrean Sky Islands of the southwest US and northern Mexico. E. O. Wilson includes our region in the top 10 for preservation in the Americas due to its remarkable biodiversity. The land and the multitude of plants and animals that live here are currently at risk due to the combination of climate change, overgrazing, and impacts of extractive industries. It is so important now to actively restore land, water, and habitat, and to protect critical lands from future degradation.

For me, however, the real hook is the combination of restoring the land AND fostering a restorative economy which supports livelihoods of people living in the borderlands. At BRN, this is not either or, it's both. We are an ecologically based organization that also directly contributes to the restorative economy and partners with others in the region to collectively advance an equitable and inclusive economy that protects our precious natural resources and builds on the history, cultures, and skills of our people.

I am proud to be part of the Borderlands team. The current coronavirus pandemic has given us a real incentive to expand our work. The world economy, based on growth at any cost, devours the earth and creates greater and greater inequities between a small concentration of the very rich and the growing number of the very poor, a perfect condition for a pandemic. We can and must do better.

Borderlands Restoration Network's ability to carry out this critical work is only possible through the support of foundations, corporations, public and private support of individuals like you. If you haven't already, we invite you to join us through any of our pathways to giving listed here on the next page to support our mission and these precious borderlands.

# Jake Paun

*Borderlands Earth Care Youth (BECY) Intern*

It is hard to argue that after being involved with the Borderlands Earth Care Youth (BECY) Institute since 2015 that I do not have a place in my heart for this program. I return repeatedly because of the support from those who run the program and their support of the environment and small-town youth, like myself. I am currently pursuing a degree in General Agriculture focusing on Animal and Range Science at New Mexico State University. A passion for agriculture was found in me after my involvement with the BECY Institute.



What I hope to gain from my internship is the understanding of coordinating projects that form the great adventures I am proud to have been a part of for 5 years. Also, I look forward to coordinating projects internationally and creating some new and unseen adventures.

My ultimate goal is to share my success story with fellow BECY graduates. I would absolutely not be who or where I am today without entering BECY. Our program's goal is to protect the environment, and how better to achieve that than to plant a seed (pun intended) within youth to be passionate about our mission, receive degrees or perform academic research around topics covered throughout the program, and become conservationists? By the end of the program, I hope that we instill passions for the land in each of the participants and their passion is spread amongst their community.

Read the full versions of these blogs and others at [www.borderlandsrestoration.org/blog](http://www.borderlandsrestoration.org/blog)

# NEW PATHWAYS to GIVING.

By supporting Borderlands Restoration Network you help rebuild watersheds, restore critical habitats and help reconnect people and land. Our work is only possible with the support of those that care about the health and well-being of these wonderful and spectacular borderlands. We offer many ways to support our work including monthly and one-time gifts, to joining our special giving society, through making a major or planned gift. See below and visit our website for full details, [www.borderlandsrestoration.org/donate](http://www.borderlandsrestoration.org/donate).

## Restoration MONTHLY GIVING SOCIETY Partners

Making a recurring monthly contribution is a wonderful way to provide sustaining and on-going support to Borderlands Restoration Network. Monthly gifts help provide a reliable stream of income and is an easy way to give.



The Founders Circle is comprised of leadership donors who annually contribute \$1,000 or more to Borderlands Restoration Network. Members enjoy access to special opportunities including day trips and tours in the borderlands region, invitation to a special spring recognition gathering of members, and more!

## GIFTS OF STOCK



We accept gifts of securities through broker transfer. Please contact us for transfer information, and to provide your information for appropriate gift acknowledgement based on IRS regulation.

## LEGACY GIVING & MAJOR GIFTS

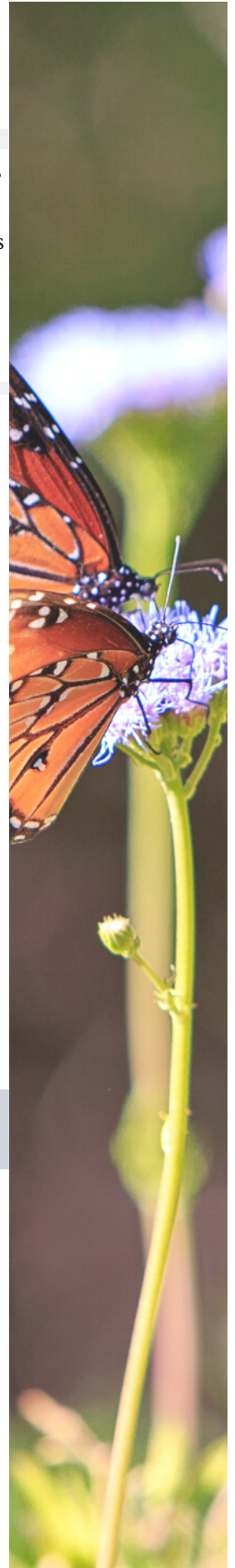


A simple way to support our mission is a gift in your will or living trust, known as a charitable bequest. By including a bequest to Borderlands Restoration Network in your will, or living trust you are ensuring that we can continue our mission for years to come. As recognition of your gift, you will be recognized as a member of our Legacy Society.

Making a major contribution to Borderlands Restoration Network is transformative to our mission and leaves a long lasting impact and legacy. If you are interested in learning more about opportunities to match your philanthropic goals to the work of Borderlands Restoration Network, please contact us!

Visit our website for further details and to download a bequest information sheet. [www.borderlandsrestoration.org/donate](http://www.borderlandsrestoration.org/donate)

Contact Sarah Taylor, CFRE Development and Communications Director at [taylor@borderlandsrestoration.org](mailto:taylor@borderlandsrestoration.org), or (520) 216-4148.



# UPDATES



Native plants from our Native Plant Program can be purchased through no-contact pick-up orders, or free delivery within Patagonia, AZ.

Visit our website for full details:  
[www.borderlandsrestoration.org](http://www.borderlandsrestoration.org)



Tune into BRN on our social channels during Pollinator Week, June 22 -28th for some fun and informative activities.

Thank you to Waste Management for your sponsorship toward a seed cleaner for our Native Plant Material program!



REBUILD. RESTORE. RECONNECT.  
PO Box 121 Patagonia, AZ 85624

# SUPPORT THE BORDERLANDS

**YES, I WANT TO SUPPORT THE ECOLOGICAL WELL-BEING OF THE BORDERLANDS!**

Visit our website, [www.borderlandsrestoration.org/donate](http://www.borderlandsrestoration.org/donate) to make your tax-deductible gift, or mail this form and your check made out to Borderlands Restoration Network to: Borderlands Restoration Network PO Box 121 Patagonia, AZ 85624

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\_\_\_\_Please send my acknowledgment via email to save paper and postage costs.

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[www.borderlandsrestoration.org/restorationpartners](http://www.borderlandsrestoration.org/restorationpartners)

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QUESTIONS?

Sarah Taylor, CFRE Development & Communications Director

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